

MASTER PLAN

FOR

HARDWOOD CREEK REGIONAL TRAIL



WASHINGTON COUNTY PARKS

JULY 9, 2013



MASTER PLAN
FOR
HARDWOOD CREEK REGIONAL TRAIL

Introduction and Acknowledgments

INTRODUCTION

In October of 2012, the Washington County Board of Commissioners retained Schoenbauer Consulting, LLC to complete a comprehensive master plan for Hardwood Creek Regional Trail. This document represents the results of the planning process.

TECHNICAL ADVISORY COMMITTEE INVOLVEMENT

A thirteen member technical advisory committee (TAC) provided project oversight and technical input on planning issues. The group represented a cross-section of public officials and staff from agencies affected by the master plan. (A listing of committee members is provided under the acknowledgments.)

PUBLIC AND WASHINGTON COUNTY INVOLVEMENT

To ensure all pertinent planning issues were discovered and addressed by the plan, the general public, special interest groups, and nearby residents were invited to participate in the planning process on numerous occasions. Through formal and informal meetings, members of the community had direct access to the consultant team and County staff. Public input into the planning process was insightful and strengthened the findings of the final plan.

In addition to general public involvement, the Washington County Parks and Open Space Commission provided oversight of the planning process. Washington County Parks staff also played an instrumental role in the planning process.

ACKNOWLEDGMENTS

The consultant team appreciates the opportunity to work with Washington County in undertaking an open public process for the project. The consultant team especially acknowledges input from the Technical Advisory Committee, Washington County Parks and Open Space Commission, and Washington County Board of Commissioners. Their individual and collective insights were instrumental in drawing reasonable conclusions.

The consultant team also thanks the Washington staff, especially John Elholm, Parks Director, and Peter Mott, Parks Manager – Planning. Their commitment to an open public process ensured that all opinions were recorded and duly considered. Their understanding of the larger planning context and how this trail fits into the larger regional picture was also of high value.

Finally, the consultant team extends a thank you to the citizens who took the time to participate to ensure we understand the issues and find solutions that seemed reasonable.

Sincerely,

Jeff Schoenbauer, Schoenbauer Consulting, LLC
Principal-in-Charge / Project Manager

PROJECT PARTICIPANTS AND OVERSIGHT

WASHINGTON COUNTY BOARD OF COMMISSIONERS

District 1 - Fran Miron
District 2 - Ted Bearth
District 3 - Gary Kriesel
District 4 - Autumn Lehrke
District 5 - Lisa Welk

PARKS AND OPEN SPACE COMMISSION MEMBERS

District 1 - Ben Meyer / Melissa Lewis
District 2 - Stan Karwoski
District 3 - Bob Livingston / Jennifer Pelletier
District 4 - Pauline Schottmuller / Paul Poncin
District 5 - Steve Dornfeld / Andy Joyce
At-Large - Joe Moore / Mary Hauser

TECHNICAL ADVISORY TEAM

John Elholm, Parks Director, Washington County
Peter Mott, Parks Manager – Planning, Washington County
Shayla Syverson, Park Planner, City of Hugo
Doug Borglund, City of Forest Lake
Scott Yonke, Dir. of Park Planning/Develop., Ramsey County Parks
Laird Mork, Director, Chisago County Parks
Adam Josephson, Mn/DOT
Ann Terwedo, Washington County Regional Rail
Ben Meyer, Washington County Parks and Open Space Commission
Joel Stedman, Minnesota Department of Natural Resources
Doug Thomas, Admin., Comfort Lake/Forest Lake Watershed District
Kyle Axtell, Water Resource Specialist, Rice Creek Watershed District
Karen Blaska, Park Planner, Anoka County Parks and Recreation

CONSULTANT TEAM

Schoenbauer Consulting, LLC

5054 Drew Avenue South
Minneapolis, MN 55410

jaschoenbauer@gmail.com
612.578.1975

In collaboration with:

SRF Consulting Group, Inc.

One Carlson Parkway, Suite 150
Plymouth, MN 55447

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Much of the Hardwood Creek Regional Trail corridor is already in place and well used. Completing the last couple of miles of trails will make it a much more appealing recreational amenity in Washington County.

Section 1 Planning Context and General Background

PROJECT SCOPE / OVERVIEW / PLANNING CONTEXT



The Hardwood Creek Regional Trail links together numerous local and regional-level destinations, and is an integral part of a larger multi-county regional trail system.

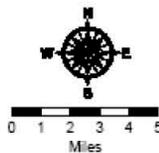
The project entailed preparing a comprehensive master plan for the Hardwood Creek Regional Trail in northern Washington County. The 12 mile corridor is primarily located along an abandoned railroad line stretching from the Ramsey County to the Chisago County lines, as highlighted on the map.

WASHINGTON COUNTY 2030 COMPREHENSIVE PLAN

Planned Trail System
Figure 5-2

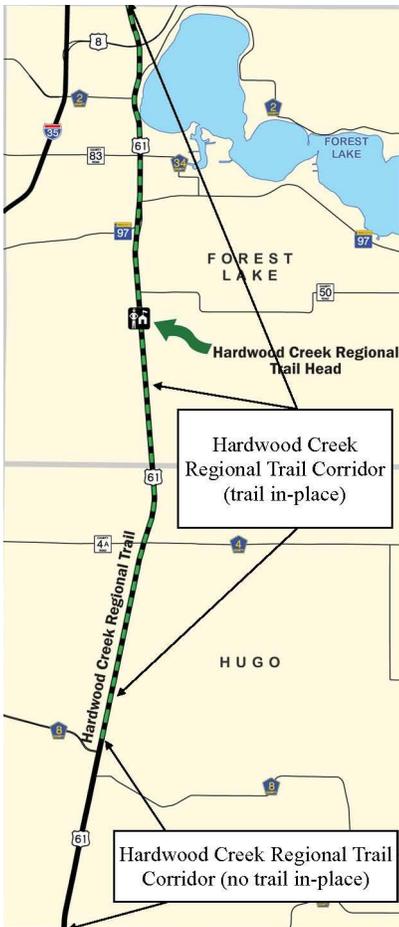
HARDWOOD CREEK TRAIL REGIONAL TRAIL CORRIDOR

- Existing County Trail
- Planned County Trail
- Existing State Trail
- Planned State Trail
- Trail Search Area
- County Park
- Future County Park
- State Park



Prepared By: Washington County GIS Support Unit, IT Department
Data Source: Metropolitan Council - 2007, Washington County GIS Support Unit - 2007





As illustrated on the map to the left, the trail goes through the cities of Hugo and Forest Lake, each offering a variety of destinations and interconnections with local and regional trail systems, including the Glacial Hills Regional Trail. Approximately 10 miles of the trail is built, with an additional 2 miles on the southern end to be completed.

WASHINGTON COUNTY REGIONAL RAILROAD AUTHORITY (WCRRA)– DEVELOPMENT HISTORY AND FUTURE DEVELOPMENT CONSIDERATIONS ASSOCIATED WITH THE TRAIL

The majority of the proposed Hardwood Creek Regional Trail follows an abandoned railroad corridor that is owned by Washington County Regional Railroad Authority (WCRRA). As of May 2013, the WCRRA owns the 9.5 mile corridor, and continues to negotiate purchase of additional sections on the southern end as the properties become available. The section between 140th and 145th is targeted for purchase in 2013/2014. Since the rail line south of 140th is still active, the prospect for any additional land purchases along this corridor down to the Ramsey County line are limited and perhaps unlikely over the next 10 or even 20+ years.

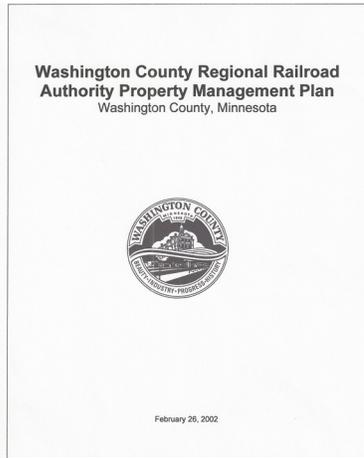
From a very long-range planning perspective, the regional rail property/Highway 61 corridor are part of the Rush Line Transitway Corridor, a multimodal transit network that extends from St. Paul to Hinkley. The regional trail is part of that vision, and the WCRRA has and will continue to lease the lands along the corridor that it owns to Washington County Parks for regional trail uses. This includes any additional lands it acquires in forthcoming years.

The initial development of a trail along this corridor began in 1996, with additional improvements and enhancements happening over time. In recent years, the primary focus has been on adding pedestrian bridges over roadways with high traffic volumes and improving crossings at at-grade intersections.

ASSOCIATED PLANS, AGREEMENTS, AND CONDITIONS AFFECTING REGIONAL TRAIL DEVELOPMENT

As part of its ownership of the corridor, WCRRA has a variety of plans, agreements, and conditions in place that guide use, development, and management of the corridor. All of these are part of the public record and available for review through WCRRA. The following provides a brief overview of those most pertinent to the development of the regional trails.

Memorandum - WCRRA Property along TH 61 in Hugo (May 15, 2009): Provides a complete overview of the corridor and WCRRA’s actions over time, as primarily pertaining to Hugo.



With respect to the regional trail, key provisions of these MOUs relate to managing (i.e., limiting) the extent to which private access drives directly impact the TH 61/regional trail corridor. This includes specific language stating that new direct private accesses to US 61 “should be discouraged.” By implication, this includes those that would cross the regional trail corridor.

WCRRA / Washington County Recreational Trail Use Agreement and Plan: Since 1994 WCRRA has granted temporary use of the corridor to Washington County for trail purposes. A stipulation in the use agreement states that any trail shall be designed, constructed and maintained and operated in such a fashion that it will not require removal or significant alteration of the existing road (rail) bed.

WCRRA Property Management Plan: In 2002, WCRRA prepared a Property Management Plan in order to effectively manage the corridor and other properties owned by WCRRA. Important elements to that plan included:

1. No portion of the linear corridor acquired by WCRRA lying within the approximate 100 foot right-of-way, or at potential future transit station location will be deemed surplus until such a time that future transit route requirements are determined.
2. A continuous trail system shall be maintained in the corridor where it exists prior to transit implementation. If the trail cannot be relocated within the WCRRA corridor at the time of transit implementation due to safety, geometric or other concerns, the trail will be relocated to an acceptable adjacent corridor while providing a continuous connection over its entire length.

Corridor Access Management Plan (Hugo): In 2008, the City of Hugo prepared a corridor plan for TH 61 within the city’s limits. This included Washington County, WCRRA and Mn/DOT in identifying and addressing the issues along the corridor. The plan included the ultimate development of a four-lane highway, examined potential redevelopment opportunities along TH 61, identified future street access locations and addressed potential right-of-way impacts. In June 2008, a Corridor Access Management Plan Memorandum of Understanding (MOU) was developed and approved by all parties.

Corridor Access Management Plan (Forest Lake): In 2010, Washington County, WCRRA, Mn/DOT and City of Forest Lake developed a Corridor Access Management Plan Memorandum of Understanding (MOU) with similar provisions that were approved by all parties.

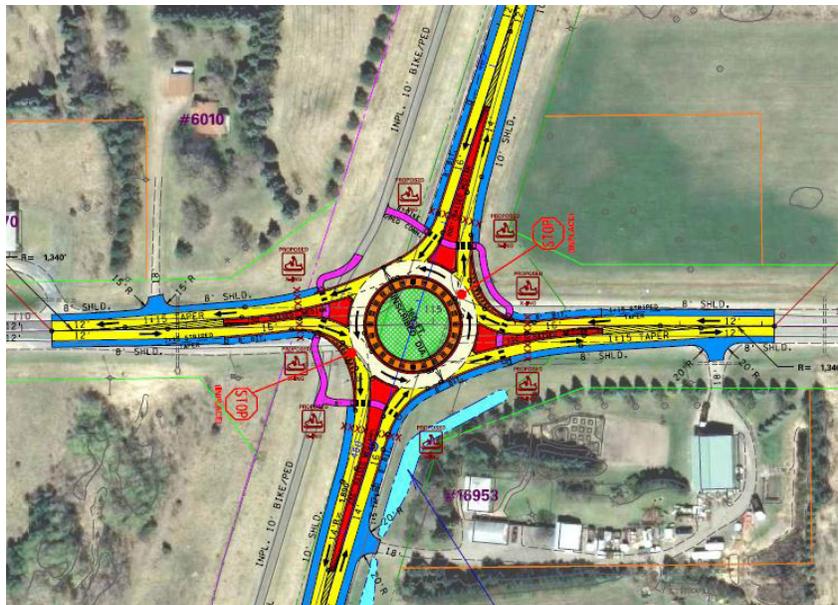
Washington County 2030 Comprehensive Plan: Identifies TH 61 through Hugo as a roadway that will need to be expanded in order to accommodate 2030 traffic volumes. The corridor access management plan layout (as available through the County) reflects this future need. The City of Hugo is planning for a four-lane divided highway through the community and has identified the downtown area of Hugo as a redevelopment area with policies that relate to Transit Oriented Development (TOD).

Notable Improvements to TH 61 Corridor Affecting the Regional Trail: Consistent with the various noted agreements and other plans defined in this section, a variety of physical improvements have been made or are underway along the TH 61 corridor. Following are examples of the type of improvements being made that add value to the regional trail corridor in terms of safety, aesthetic appeal, and convenience. As defined under the various plans, these types of improvements will continue to be made over time along the corridor.

Adding grade-separated crossings in key locations along the existing trail corridor have greatly improved user safety and recreational experience. The left photo highlights a new bridge over West Broadway Avenue in Forest Lake. The right photo highlights a new bridge over 11th Ave. SW/220th St. N.



At-grade trail crossings of streets and roadways along the Highway 61 corridor are already being improved, including this one at Headwaters Parkway.



The planned addition of a roundabout at the intersection of Highway 61 and County Road 4 using contemporary design standards is another example of roadway improvements that also improve the safety of trail crossings.

WILLING-SELLER PLANNING CONTEXT

Washington County and WCRRA each take a willing seller approach to land acquisition for parks, trails and greenways. With virtually all of the trail alignment following the railroad corridor, WCRRA will continue to take the lead on acquisition issues. Fortunately, much of the corridor is already owned by WCRRA. Washington County will continue to lease the corridor from WCRRA on a long-term basis.

INTERFACE WITH OTHER TRAILS, PARKS, AND LOCAL DESTINATIONS



Completing the undeveloped southern end of the Hardwood Creek Regional Trail greatly expands trail use opportunities for residents and visitors from both Washington and Ramsey Counties.

Specific examples of parks and trails that this trail interfaces with include the following.

CHISAGO COUNTY PARKS AND TRAILS

On the north end of the corridor, the Hardwood Creek Regional Trail connects with the Sunrise Prairie Trail in Chisago County following the same abandoned railroad corridor. With its northern terminus in North Branch, the Sunrise Creek Trail is approximately 14 miles long. Once the master plan is fully implemented there will be a total of 26 miles of uninterrupted trail through Washington and Chisago Counties.

The Sunrise Prairie Trail is 10 feet wide with a paved asphalt surface, and is about 15 years old. A parallel unpaved area is open to non-studded snowmobiles when there is sufficient snow, and to horseback riders at all other times. Snowmobiles and horses are not allowed on the paved portion of the trail at any time.

Parking areas and information kiosks are located adjacent to the trail at North Branch, Stacy and Wyoming.

RAMSEY COUNTY PARKS AND TRAILS

On the southern end of the corridor, the regional trail will eventually connect with the Bruce Vento Regional Trail in Ramsey County. Although a detailed master plan is not available, this trail alignment will follow the Highway 61 corridor.

In the nearer term, making the connection to Bald Eagle/Otter Lake Regional Park provides an appealing destination and terminus point for regional trail users. This regional park is 885 acres and includes over a mile of shoreline on Bald Eagle Lake. Existing development includes a 6-acre picnic area/boat launch facility on the east shore. The existing bituminous trail extending north from the developed area to Overlake Road provides the most likely point of interconnection with the Hardwood Creek Regional Trail. (Refer to page 53 for additional information on this connection.)

ANOKA COUNTY PARKS AND TRAILS

The Glacial Hills Regional Trail (along County Road 8, which links to the Hardwood Creek Regional Trail at Highway 61) connects to the Anoka County Central Regional Trail in Centerville. This regional trail traverses through Rice Creek Chain of Lakes Park Reserve and connects the park and Wargo Nature Center.



Glacial Hills Regional Trail links to Anoka County trail system along County Road 8

CITY OF HUGO PARKS AND TRAILS

The City of Hugo has an adopted trail and sidewalk plan, which was last updated in 2010. The Hardwood Creek Regional Trail is a central feature of the local system, and is the predominant north-south connector through the city. It is also the main conduit linking the local trail system with the larger regional park and trail systems in Washington, Ramsey, Anoka, and Chisago Counties.

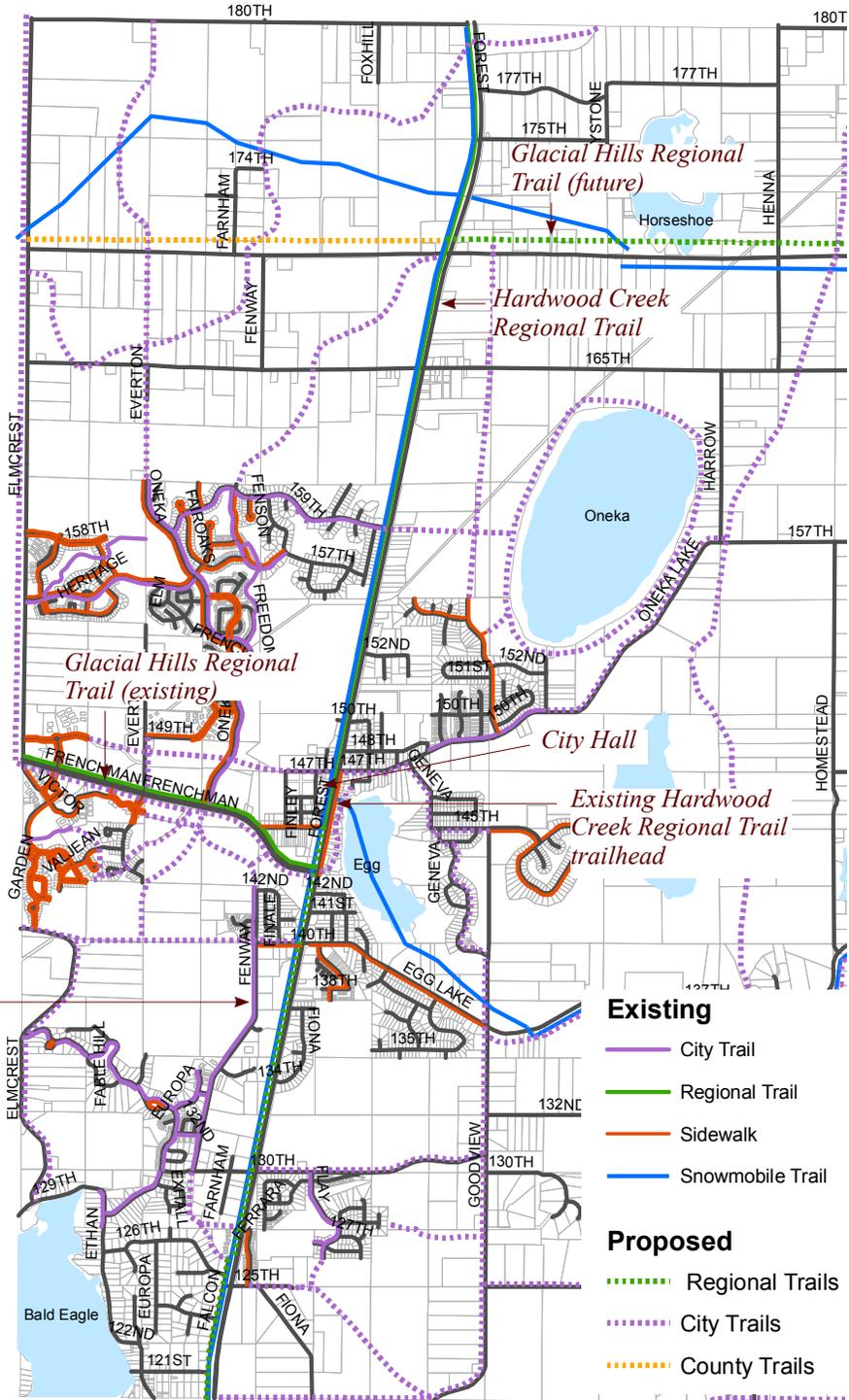
The Hardwood Creek Regional Trail is the predominant north-south connector through the city, and provides a connection to the Glacial Hills Regional Trail corridor.

(Map: Trail and Sidewalk Plan, Map 7-F, City of Hugo, March 15, 2010.)



An existing regional trail trailhead is provided in Hugo just south of 146th Street. Additional parking is also available at City Hall, just north of this trailhead.

Hardwood Creek Regional Trail proposed interim route (near-term) follows Fenway Blvd. (Refer to page 49 for additional information.)



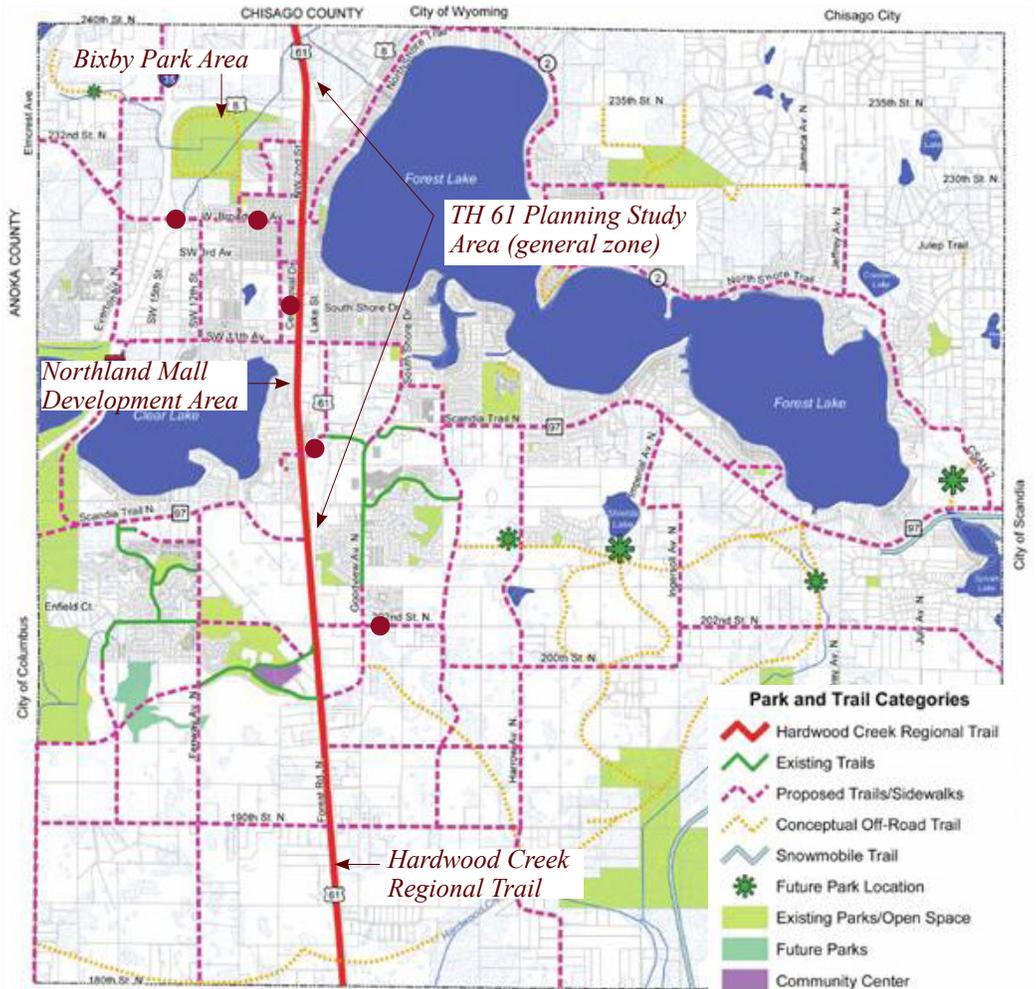
CITY OF FOREST LAKE PARKS AND TRAILS

The City of Forest Lake has an adopted trail and sidewalk plan, which was last updated in 2008. Here too, the Hardwood Creek Regional Trail is a central feature of the local system, and is the predominate north-south connector through the city. It is also the main conduit that links the local trail system with the larger regional park and trail systems in Washington and Chisago Counties. The following map highlights local trails, as well as a variety of other park and community development initiatives with some association or linkage to the Hardwood Creek Regional Trail corridor.

The Hardwood Creek Regional Trail bisects Forest Lake, and is the key north-south trail corridor between many community destinations.

Note: Red dot (●) indicates areas where the City has completed proposed trails, as of 2013.

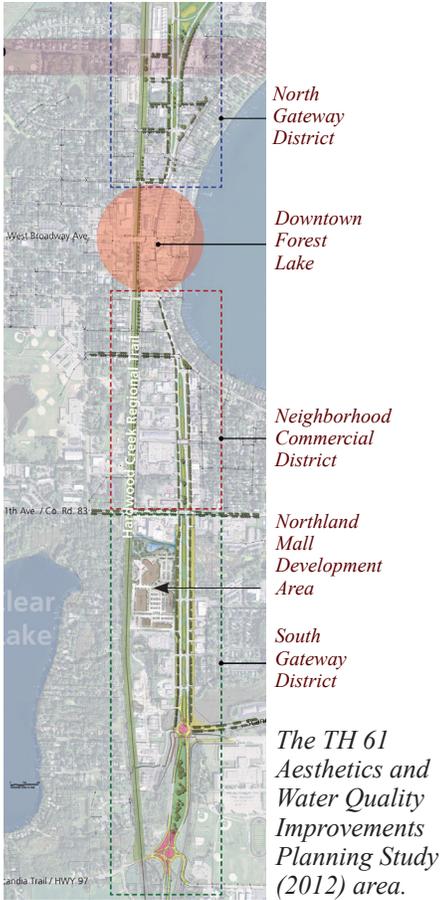
(Map: Parks and Trails Plan, Figure 5.1, City of Forest Lake Comprehensive Plan, June 10, 2008.)



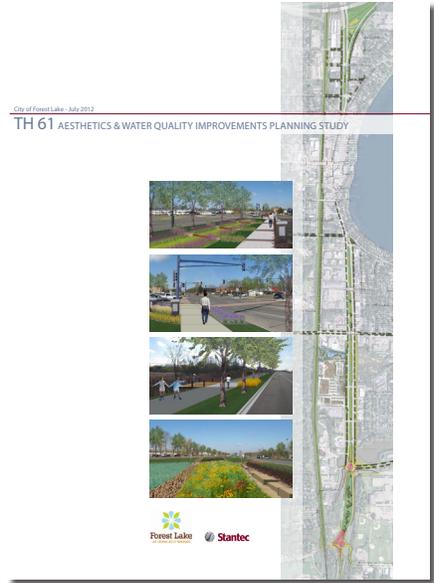
The following considers a number of other planning initiatives that have some impact on the trail master plan.

TH 61 PLANNING STUDY

The *TH 61 Aesthetics and Water Quality Improvements Planning Study* (2012) encompasses the area from Highway 97/Scandia Trail on the south up to US 8 on the north, as the image on the following page illustrates.



The planning study area is divided into four districts defined by geography, specific issues, natural features and development patterns. The key objectives of the plan are to create a design framework for the area, along with establishing the basis for future agreements between the City of Forest Lake, Mn/DOT, Comfort Lake-Forest Lake Watershed District and Rice Creek Watershed District.



The Hardwood Creek Regional Trail is a key feature of this corridor. For consistency, any

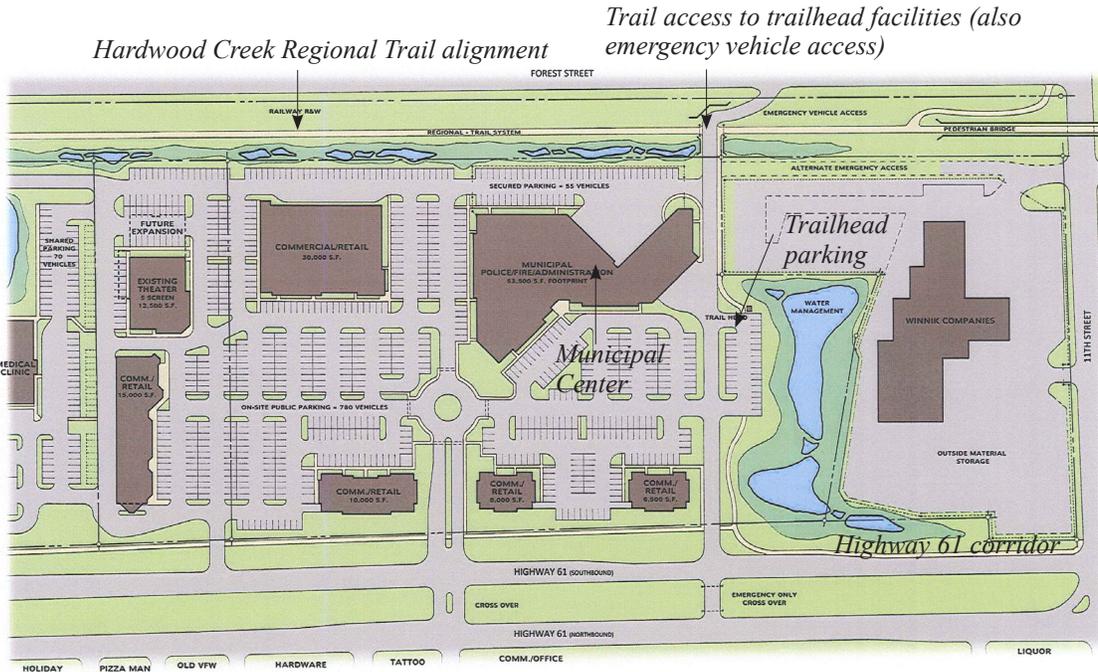
improvements made to the trail corridor within Forest Lake should take into consideration the findings of this master plan and those associated with the TH 61 planning study. This will ensure that the core (and complementary) objectives of each study are taken into consideration at the point of implementation.

NORTHLAND MALL DEVELOPMENT CONCEPT

The City of Forest Lake has an adopted concept plan for a key redevelopment area along the Highway 61 and Hardwood Creek Regional Trail corridor, as the following graphic illustrates.

NORTHLAND MALL CONCEPT

The concept for the Northland Mall includes trailhead facilities – i.e., parking, restrooms, and other amenities included in the planned Municipal Center.



The development of the Northland Mall will provide much needed trailhead facilities in the Forest Lake segment of the regional trail. (Note that once this new trailhead is developed, the existing one at the current City Hall site in Forest Lake would be eliminated.)

Bixby Park Master Plan

CITY OF FOREST LAKE, MINNESOTA



Bixby Park will provide a variety of outdoor recreation opportunities, including trails, a dog park, play areas, community garden, picnicking areas.

BIXBY PARK MASTER PLAN

As identified on the overall Forest Lake map on page 7, the City has an adopted master plan for Bixby Park, which is just west of the regional trail corridor. The park's outdoor recreational offerings make it a local destination for those living in Forest Lake and the surrounding area. In concert with the local trails being proposed on West Broadway Avenue and 7th Avenue, the regional trail will provide an important means of access to this emerging park unit.



LAND USE OR OTHER CONFLICTS

Given that the corridor has existed for decades, land ownership boundaries are well-defined and are unlikely to change much going forward. In general, land use conflicts associated with the corridor have been relatively minor and predictable – with the most pressing issues related to adjacent private property owners encroaching onto the public right-of-way, along with aesthetic issues associated with adjoining land uses. The other main issue is managing the extent to which private drives and roads are allowed to cross the corridor to service adjoining properties.

As the owner of much of the trail corridor property, WCRRA's established policies related to adjoining land use and encroachment issues will prevail should compliance issues arise. Washington County Parks will work in concert with WCRRA and local community to resolve any issues as expediently as possible.

With respect to lands currently owned and operated by the railroad authority (on the southern end of the trail), Washington County will continue to work in good faith to ensure that any encroaches onto its right-of-way along Falcon Avenue are minimized. Further, Washington County Parks will use accepted standards for any trail development that occurs within the railroad right-of-way to ensure that trail safety is maintained and there are no impacts to the operation of railroad facilities. At the point of development, Washington County will clarify all of these issues under a written agreement with the railroad authority.

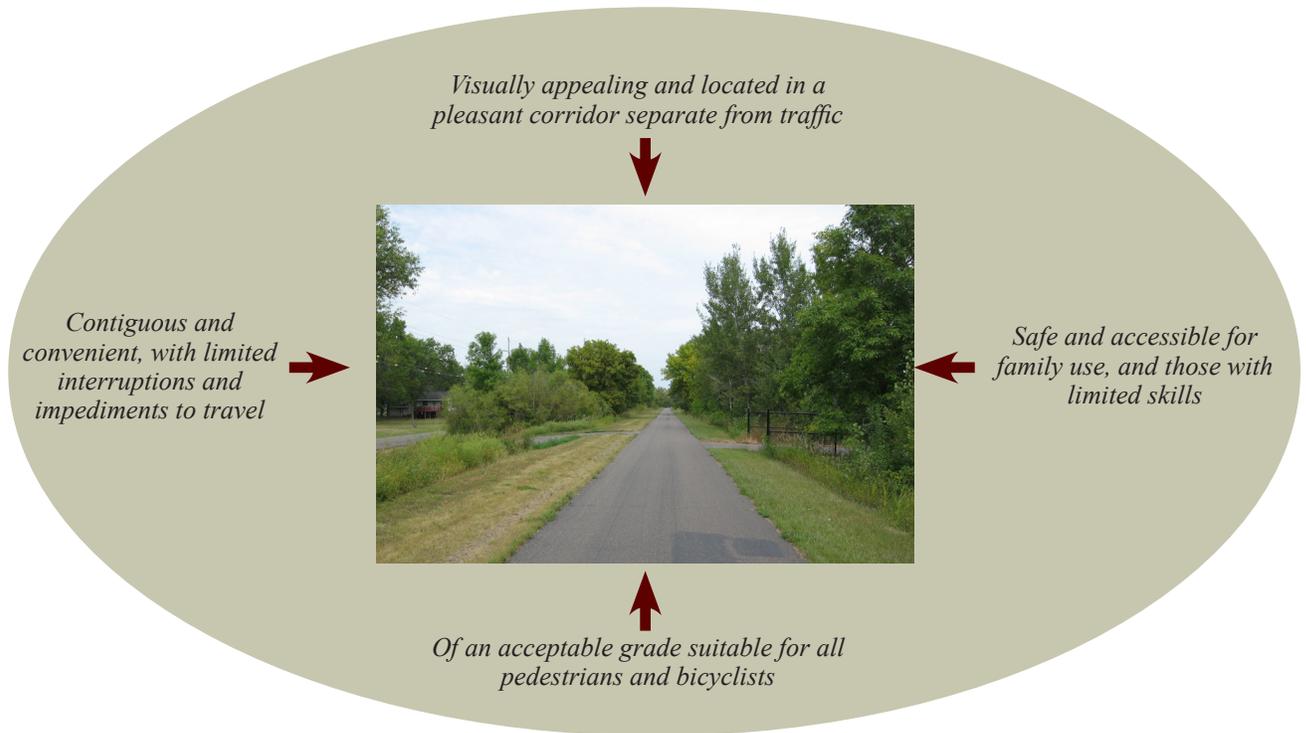
Section 2 Vision Statement and Public Values

OVERVIEW

Development of the master plan was based on the presumption that this trail will continue to be of high regional and local value. To verify this, Washington County completed an extensive research review and public process to discover issues affecting planning outcomes. This section defines the findings of that process and how that shaped the vision for the trail corridor.

VISION STATEMENT

The vision for the master plan is to provide a regional trail of high public value offering a quality recreational experience and a critical link between numerous local and regional parks, trails and destinations. The following image highlights the vision for the trail at the user level.



LOCAL VALUES (PUBLIC INPUT FOR HARDWOOD CREEK REGIONAL TRAIL)

The public process for this master plan began in December 2012, with the establishment of the Technical Advisory Committee (TAC). Public input into the planning process began with a public open house in January 2013. The public process was structured to allow all interested parties ample opportunity to participate, as the following schedule defines.

PUBLIC PROCESS SCHEDULE

December 6, 2012 – Technical Advisory Committee meeting – general review and discussion
 January 24, 2013 – Public Open House – general review of project, public input, and questions and answers
 January - April – Onsite field review of site-specific issues and concerns
 February 26 – Technical Advisory Committee meeting – draft plan review and discussion
 March 6 – Public Open House – detailed review of alignment and details, questions and answers
 March 21 – Washington County Parks and Open Space Commission – presentation and approval
 April 10 – City of Hugo Park Commission – presentation and approval
 April 16 – Forest Lake Park Commission – presentation and approval
 May 21 – Washington County Board of Commissioners – public hearing and approval

FINDINGS FROM THE PUBLIC PROCESS

Public comment at each of the public meetings was insightful and added value to the planning process. The following summarizes the key findings from the open houses.

OVERALL CONSENSUS

Overall, support for the existing trail and completion of the southern end was strong, with all in attendance seeing the trail as positive and adding value to the area. Participants at the open houses saw value in the trail as a means to connect together the many destinations within Forest Lake and Hugo, as well those that can be accessed in adjoining counties.

MORE SPECIFIC ISSUES, CONCERNS AND PERSPECTIVES

Those attending the open houses offered a variety of specific issues, concerns and perspectives about the trail, as the following summarizes (in no particular order of importance):

- **Manage snowmobiles and pedestrians interactions** – concern was expressed that snowmobiles and pedestrians share the bridges during the winter, and that snowmobilers sometimes ride on the trail, not beside it; thought was that more education, signage, and enforcement is needed, especially in Forest Lake; also change policy to include winter plowing of key sections of trail near prime use areas
- **Promote local businesses** – opportunity should be provided for local businesses – like bike and coffee shops – to promote themselves, similar to along major highways; this would improve experience of trail users and add to local economy
- **Highlight connection of Bixby Park to the regional trail** – as a means to exhibit another important local destination that the trail will connect with

- **Identify existing and proposed trailheads** – to make it easier for visitors to the area to find a place to park, and limit happenstance parking along neighborhood streets and local business parking lots; include Northland Mall development as a trailhead location
- **Improve signage and wayfinding information** – was thought to be important, with an emphasis on trail rules and identifying the location of access points/trailheads
- **Enhance consistency in roadway crossings** – improvements made in recent years are well-received, and continuing to improve visual cues at “lesser” road crossings is thought to be needed – in the form of consistent road markings and crossing signs
- **Add some trail amenities** – more benches, bike racks, restroom locations, parking areas, etc.
- **Improve connections to schools and local destinations** – plan should encourage and identify the key locations where enhanced connections are warranted for safety and convenience
- **Finish southern end** – in order to get to Bald Eagle Regional Park and other trails in Ramsey County; make it as pleasant as possible along existing (active) rail line
- **Improve aesthetics** – especially making sure that adjacent property owners do not encroach on the trail; also add some trees as buffer between busy roadways

SAFETY AND CRIME

Concerns and perceptions about crime (vandalism, trespassing, personal safety of family, etc.) were not extensively raised at the public meetings. (See also the forthcoming research findings on trail safety and security on page 18 for complementary information on this issue.)

TECHNICAL AND ENVIRONMENTAL CONCERNS

The main technical concern related primarily to maximizing safety at road crossings, as identified previously. With respect to environmental concerns, being consistent with the approaches defined in the *TH 61 Aesthetics and Water Quality Improvements Planning Study* (as highlighted on page 7) was brought up as being important.

ACTIVE LIVING BY DESIGN – A COMPLEMENTARY VISION

Note that Washington County, through the SHIP program, has developed the Living Healthy in Washington County initiative in order to implement policies and practices that create active communities by increasing opportunities for non-motorized transportation and access to community resources and recreation facilities.



The habit of active living is best established at a young age.

The “active living by design” movement gaining momentum across the country complements the vision for the regional trail. As stated by one of the initiators of the movement, active living by design “is a way of life that integrates physical activity into daily routines.” Key principles of this movement as it pertains to this plan include:

- Physical activity is a behavior that can favorably improve health and quality of life
- Everyone, regardless of age, gender, language, ethnicity, economic status or ability, should have safe, convenient and affordable choices for physical activity
- Transportation systems, should be more diverse and provide safe, convenient and affordable access to housing, worksites, schools, local businesses, and community services
- Parks and trails, should be safe, accessible and part of a transportation network that connects destinations of interest, such as housing, worksites, schools, community services and other places with high population density
- Municipalities and other governing bodies should plan for ongoing interdisciplinary collaboration, promotion of facilities, behavioral supports, policies that institutionalize the vision of active living, and routine maintenance that ensures continued safety, quality and attractiveness of the physical infrastructure

The following provides an overview of pertinent findings from research that supports the active living movement and development of this regional trail.

PHYSICAL ACTIVITY/PREVENTING OBESITY

Physical inactivity causes numerous physical and mental health problems, is responsible for an estimated 200,000 deaths per year in the United States, and contributes to the obesity epidemic. The design of communities and the presence or absence of parks, trails, and other quality public recreational facilities affects people’s ability to reach the recommended 30 minutes each day of moderately intense physical activity. A growing number of studies show that people in activity-friendly environments are more likely to be physically active in their leisure time.

For example, research findings clearly indicate that better access to facilities, pleasant surroundings, safe places, walkable neighborhoods, and activity-friendly environments all encourage higher levels of active recreation. Proximity, connectivity, and design quality of trails can be added to this list to encourage more active lifestyles.

This is especially the case with children, where better access to healthy choices is vital to reducing the rate of obesity. Since the 1970s the percentage of obese children 6 to 11 years old has tripled. Obesity has doubled among preschool children and adolescents. Turning these statistics around means increasing children’s physical activity and improving what they eat.



CONNECTIVITY AND ACCESSIBILITY

Being able to reach or access a variety of destinations (e.g., parks, retail areas, tourist site, workplaces, health services, grocery stores) via trails is critical to many dimensions of a healthy community and healthy personal lifestyle. Ensuring that trails meet ADA standards is important to accommodate the broadest cross-section of user groups.

MENTAL HEALTH

A number of studies have demonstrated how being outdoors and in direct contact with nature leads to improved mental health and psychological development. Recent data show that mental health disorders will account for some of the world’s largest health problems in upcoming decades. People do not have to actively use nature to benefit from it; rather, visual exposure is enough. The outdoor experience offered along the Hardwood Creek Regional Trail will, at some level, contribute positively to the collective well-being of the communities along the trail corridor.

DEMOGRAPHIC TRENDS INFLUENCING THE DEMAND FOR THE TRAIL

One of the trends affecting the region is that the population in the metropolitan area is expected to continue to grow substantially over the next 20 to 30 years. Although the downturn in housing and development that occurred starting in 2008 affected the pace of development on a year to year basis, over time the population in Washington County is still expected to grow significantly, as the following table highlights.

REGIONAL POPULATION GROWTH FORECAST

Population forecast by county. (Source: Metropolitan Council, July 2011.)

County	Population Numbers and Forecasts				% Increase 2010 to 2030
	2000	2010	2020	2030	
Anoka County	298,084	357,400	407,670	438,550	22.7%
Carver County	70,205	107,240	162,880	198,500	85.1%
Dakota County	355,904	423,060	484,375	525,475	24.2%
Hennepin County	1,116,206	1,210,680	1,308,415	1,394,660	15.1%
Ramsey County	511,035	546,950	568,280	587,380	7.3%
Scott County	89,498	140,570	182,620	220,870	57.1%
Washington Co.	201,130	254,552	318,053	362,740	42.5%
Metro Area	2,642,062	3,005,000	3,334,000	3,608,000	

This growth trend in Washington County is important in that the demand for high quality recreational facilities, especially trails, will grow substantially over the next 20 years. Situated along the Highway 61 corridor, both Hugo and Forest Lake are likely to see continued growth at a steady pace that adds to the long-term demand for this particular trail to be fully developed and interconnected with other local and regional trails.

RECREATIONAL TRENDS RELATED TO TRAIL



The use of trails for recreation and fitness is expected to remain at the top in terms of participation relative to other forms of recreation.

Recent findings by Metropolitan Council, MN DNR, and other agencies suggests that future growth in participation in many areas of outdoor recreation is not as assured as was the case a decade or two ago. In numerous activities, research indicates that participation rates are expected to actually decline as Minnesotans shift their activity patterns based on evolving interests, age, and access to newer forms of recreation. Key barriers to getting outdoors include time, family obligations, work responsibilities, lack of money, weather, bugs (uncontrollable environment), lack of outdoor skills and equipment, lack of information and knowledge, and concerns about personal safety.

From the research, it is clear that changing demographics are an issue and will affect participation in various recreational pursuits over time – with the more active (and aging) boomers giving way to currently less active generations that follow.

On the more optimistic side, a number of regional studies over the last decade have been conducted to determine recreational trends associated with the regional park and trail system. These studies looked at residents’ desires for a variety of recreational opportunities and their perspectives on current facilities and future needs. The main generalizations from these studies that have application to the Hardwood Creek Regional Trail include:

- Walking or biking around the neighborhood, in large natural parks, or along a close by trail corridor remain top activities, with over 85% of respondents being at least interested in this activity
- Individual sports and activities are becoming more and more preferred over organized ones, at least at the adult level
- People value parks and trails even if they do not regularly use them
- There is an especially strong desire to set aside land for nature areas/open space, bike paths, and general use trails

Although participation levels are not expected to show much real growth in the near future, walking and bicycling nonetheless remain by far the most popular recreational pursuits in terms of participation. Further, the projected growth in population in Washington County will still result in an increase in overall trail usage, perhaps substantially.

Another caveat to projecting participation is the uncertainty to which active living campaigns will affect participation trends in trail usage. If people do become more active, walking and bicycling would likely be one of the main forms of recreation that an individual would participate in.

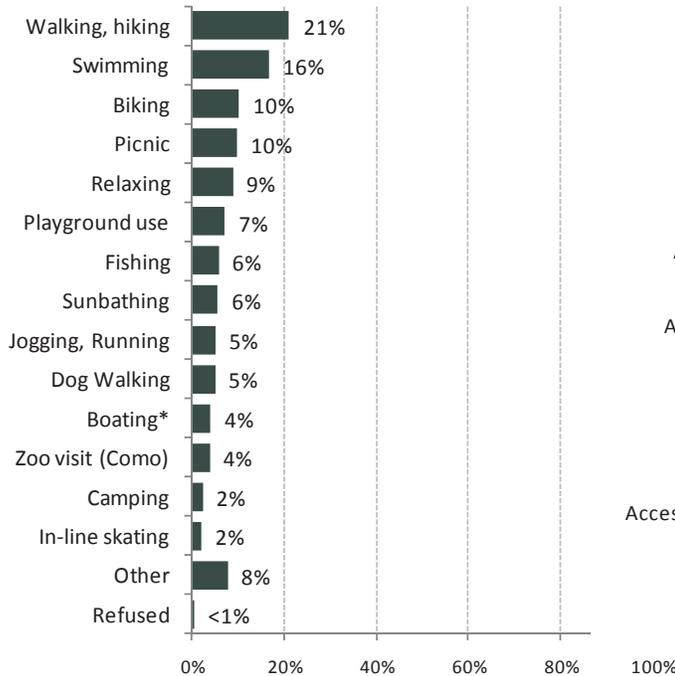
In terms of activities visitors currently engage in when visiting regional parks and trails, bicycling tends to be the predominant use, as Metropolitan Council’s *Regional Parks and Trails Survey 2008* findings suggest, as illustrated on the next page.

ACTIVITY PATTERNS, REGIONAL PARKS AND TRAILS

(Source: Metropolitan Council Regional Parks and Trail Survey 2008.)

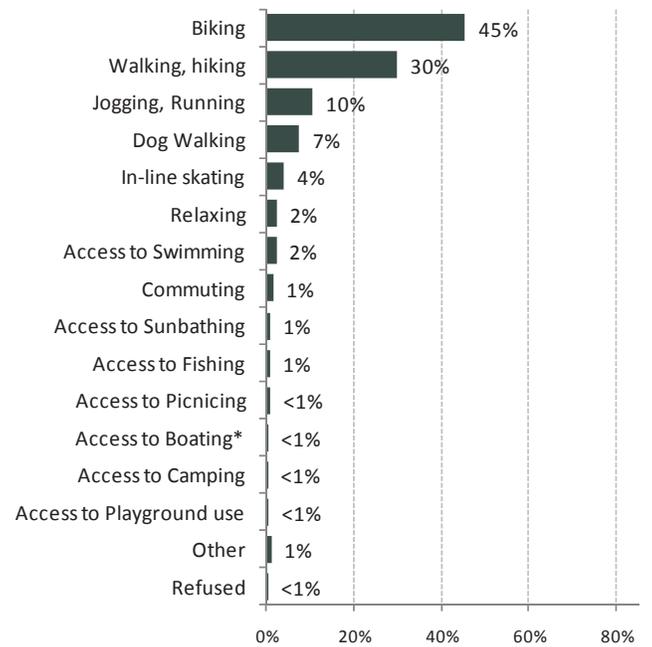
PARKS: PRIMARY ACTIVITIES

Highlights the primary activities park visitors engage in when visiting a regional park.



TRAILS: PRIMARY ACTIVITIES

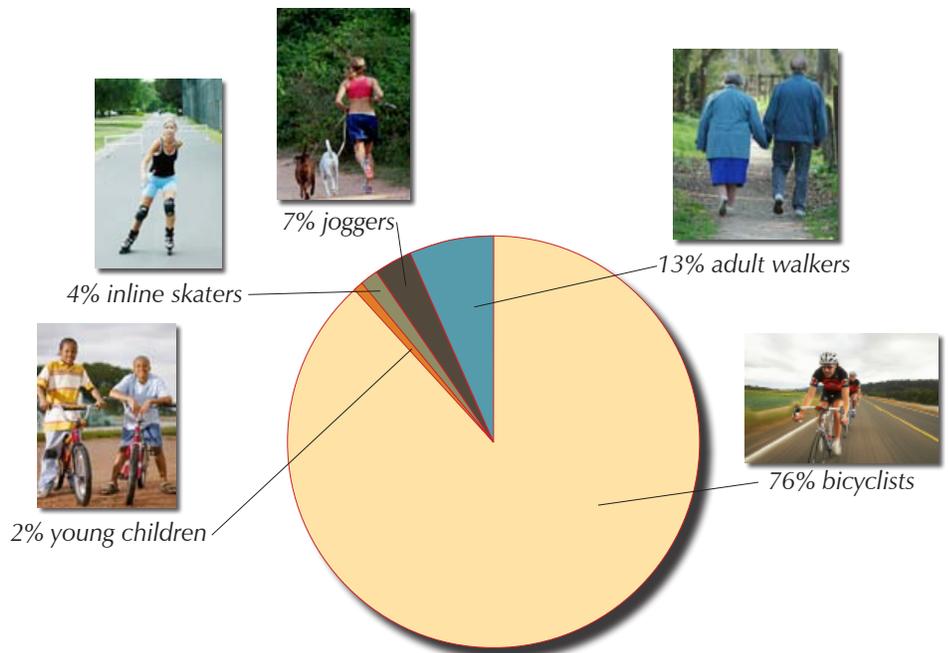
Highlights the primary activities park visitors engage in when visiting a regional trail.



A recent study by Three Rivers Park District finds that bicyclists account for a high percentage of users, as the following illustrates.

USE PATTERNS ON THREE RIVERS PARK DISTRICT TRAILS

(Source: Three Rivers Park District.)

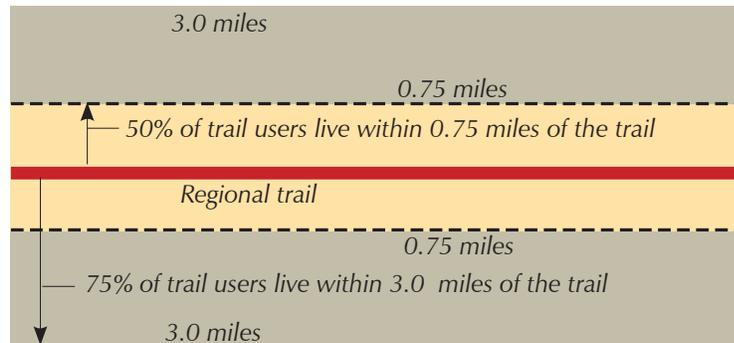


Given these findings, it is relatively clear that bicycling will be a predominate use of the trail, although proximity to Hugo and Forest Lake will inherently entice more walkers/joggers to use the trail.

With respect to where trail users will come from, recent research by the Metropolitan Council indicates that the majority of trail users live within three miles of the trail they are using, as the following illustrates.

TRAVEL DISTANCES FOR TRAILS

(Source: Metropolitan Council.)



RESEARCH ON TRAIL SAFETY AND SECURITY



Research confirms that safety and security concerns associated with well-designed trails are low.

According to Washington and Ramsey County Sheriffs Department, policing issues associated with trails yields the following:

- Incidents of crime associated with trails is so low that local police do not keep track of it separately
- The contention that trail users routinely commit crimes to adjacent properties is not supported by crime statistics and evidence
- Biggest concern is parking lots, where occasionally theft from the cars of trail users occurs; note: this is not unique to trails, but occurs wherever the opportunity for a quick getaway exists

Formal research conducted by Schoenbauer Consulting, LLC in 2010 reinforces these findings in a survey that was designed with input from law enforcement officers. Key results of the survey include:

- Law enforcement officers responding to the survey consider trails to be safe, with the vast majority (87%) reporting that trails account for less than 5% of all unlawful activity in their jurisdiction, and nearly 50% saying that it is actually less than 1%
- Any incidences and unlawful activity that does occur on trails tend to be issues among and between users
- Trail users failing to abide by traffic laws are the most frequent incidents, followed by depreciative behavior toward the trail (i.e., vandalism and graffiti) and trail user injury; these are followed by non-assault conflict between users (i.e., verbal altercation, off leash dogs, and vagrancy)
- Trespassing on adjacent property is considered low incidence, with issues of more serious crimes against persons or property being cited as being very infrequent
- 94% or respondents say that trails are as or more safe than other public recreation areas and public spaces

- Most common injuries are those involving a single person, such as an individual-only accident or a health-related injury

Suggestions for enhancing trail design include better markings, lighting, signage, and crossing design, along with increased maintenance and overall enhanced visibility of the trail.

In conclusion, whereas people’s concerns about trail development deserves due respect and consideration, this survey finds that in reality trails are actually quite safe and account for a relatively small percentage of unlawful activity and safety problems.

COMPLEMENTARY RESEARCH IN SUPPORT OF TRAILS



Convenient access to trails is important to encouraging higher levels of use.

An increasing body of independent research provides additional support for developing a robust network of local, regional, and state trails, as the following summarizes.

FINDING: “TRAILS: A SCIENTIFICALLY PROVEN ASSET”

Source: Centers for Disease Control and Prevention

Scientific evidence from the *Guide to Community Preventive Services* shows that providing access to places for physical activity, such as trails, increases the level of physical activity in a community.

FINDING: CHANGES IN HUMAN ENVIRONMENT AFFECTING LEVELS OF ACTIVITIES

An article in the Wall Street Journal asks a provocative question: “Everybody knows they should exercise. So why do so few people actually do it?” Surveys generally find that 60% or so of adult Americans get little or no exercise. Less than 10% of school children walk or ride their bicycles to school. But in the early 1970s, over 60% walked and biked.

One answer is that change in our human environment is a major cause. While people traditionally walked to school or shopping, many contemporary housing areas simply do not provide a system of trails and sidewalks. According to Gregory Heath of the Centers for Disease Control, “Many of these communities are isolated-living communities. They lack connectivity to commerce, education, and entertainment.”

Another reason people don’t exercise is lack of time. Here is where trails can benefit tremendously: safe and attractive routes to work, to school, to church, and to shopping are all ways that people can combine exercise with necessary trips.

FINDING: HEALTH OFFICIALS INCREASINGLY SPEAKING OUT IN FAVOR OF TRAILS

(Source: American Trails)

Many health officials believe that modest exercise programs involving trails will encourage more people to walk and ride their way to better health. A broad national program entitled “Healthy People 2010” is gaining momentum in the trails community as opportunities begin to bloom for new partnerships and funding sources with national, state, and local health services organizations.

The focus of the new health initiative is the emphasis on increasing the public’s physical activity to help address the US Surgeon General’s national concern about our public’s sedentary lifestyles and the escalating problems associated with overweight and obesity. America’s trails provide the ideal link between physical activity and improved national health.

FINDING: MAIN BARRIERS TO USING TRAILS

Source: Centers for Disease Control and Prevention

There are two sets of variables believed to negatively influence the decision to walk or bike: personal barriers and environmental barriers. In surveys of why people do not walk or bike more frequently, both sets of barriers show up in the results, as the following summarizes.

Personal Barriers:

- Lack of motivation
- Perceived lack of time
- Weather
- Family obligations
- Fatigue

Environmental Barriers:

- Lack of exercise facilities
- Lack of sidewalks, bike lanes on roads, nearby public parks, or hiking/biking trails.
- Topography
- Perceived low levels of safety of one’s neighborhood

Whereas removal of personal barriers will remain an ongoing challenge, public health literature has begun to more assertively focus on the creation of walking- and bicycling-supportive environments as a way of reducing or eliminating environmental barriers to physical activity. Which, in turn, will improve quality of life and reduce health care costs.

FINDING: PROPERTY VALUE-RELATED IMPACTS

(Source: American Trails)

Increasingly, studies are showing that trails add economic value to a region through increased property values, business activities, and the general attractiveness of an area to reside. For example, studies have shown that 70% of landowners felt that overall, an adjacent trail was a good “neighbor,” with positive impacts including 1) getting in touch with nature (64%), 2) recreational opportunity (53%), and 3) health benefits (24%).

Furthermore, 70% of real estate agents use trails as a selling feature when selling homes near trails. 80.5% of them feel the trail would make it easier to sell. In Minnesota, 87% of home owners believe trails either increased the value of their homes or had no impact. Additionally, the U.S. National Parks Service notes that increases in property values range from 5 to 32% when adjacent to trails and greenways.



Increasingly, developers have come to realize that integrating local and regional trails into new development plans adds to the value of properties.



As studies have shown, bicycling generates as much revenue in Minnesota as hunting and snowmobiling combined.



The Hardwood Creek Regional Trail accommodates a number of the most popular outdoor recreational activities!

FINDING: MACRO ECONOMIC-RELATED IMPACTS

(Source: U of MN Tourism Center)

Recent studies by the U of M Tourism Center considered the economic impact of road, trail, and mountain biking. At more than \$1 billion, these studies found that bicycling generates as much revenue in Minnesota as hunting and snowmobiling combined. Estimated economic values is estimated at \$686 million per year/4,148 jobs for road biking and \$318 million per year/1,116 jobs for mountain biking.

FINDING: OUTDOOR SPORTS PARTICIPATION NATIONALLY

(Source: National Sporting Goods Association)

A study by the National Sporting Goods Association finds the following levels of participation in an activity, as ranked by those over age 7 who participated more than once during 2009.

Sport	Total (in millions)
Exercise walking	93.4
Camping	50.9
Swimming	50.2
Bicycle riding	38.1
Hiking	34.0
Fishing	32.9
Running/Jogging	32.2
Golfing	22.3
Hunting	18.8
Yoga	15.7
Softball	11.8
Tennis	10.8
Mountain biking (off-road)	8.4
Skiing (alpine)	7.0

FINDING: IMPACT OF TRAILS ON ADJACENT PROPERTIES

(Source: Lake Wobegon Regional Trail, Stearns County)

The Eppley Institute for Parks conducted a survey for Stearns County to determine the actual impacts of a new regional-level trail (following an abandoned rail bed) on adjacent properties after the trail was built.

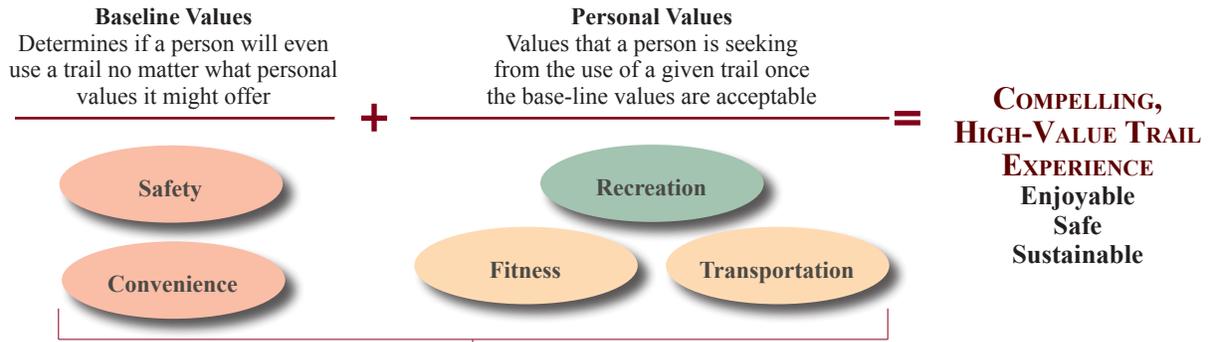
Key findings include:

- Usage – 75% of adjacent property owners use the trail (many of which were against the trail being developed).
- Problems – over 95% of the adjacent property owners reported no problems with the trail (such as loitering, litter, and trespassing).
- Economic impacts – vast majority reported that they believed that the trail would have no negative impact on their property values, with many believing that it could even increase values.
- Values – 75% say living near the trail offers distinct advantages, such as ease of access, convenience, exercise, and so forth.

FOCUSING ON QUALITY TO MAXIMIZE THE VALUE OF THE TRAIL

Washington County recognizes that a well-conceived, high quality trail can bring lots of enjoyment to trail users. To that end, Washington County is committed to paying attention to the design nuances that matter to ensure that the trail that is ultimately built is consistent with what trail users value, as the following illustrates.

PERSONAL VALUES ASCRIBED TO TRAILS MN DNR's Trail Planning, Design, and Development Guidelines



Attention to the principles of trail design when trails are being planned will help ensure that each of these values will be maximized, resulting in high-quality trails to which users will return time and again

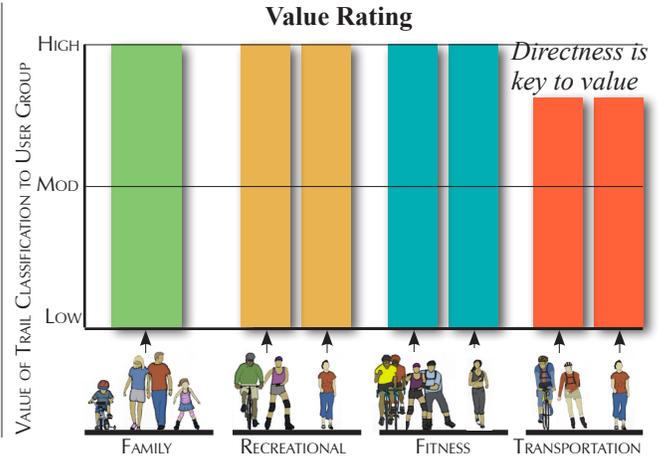
Given its setting and interconnectedness with local communities and other regional parks and trails, the Hardwood Creek Regional Trail is being positioned as a destination-level trail, and will appeal to the values and preferences of a variety of user groups, as the following table defines and graphic illustrates.

VALUES AND PREFERENCES OF TRAIL USER GROUPS

User Group	Values and Preferences	Symbols
Family Group – Various Modes	Safety and convenience are top priorities, followed by a pleasant recreational experience. Controlled, traffic-free access to sidewalks and trails is preferred. Length of trail is less important than quality of experience. Will typically only use low-volume residential streets when biking or skating, and rarely busy streets even with bike lanes or routes.	 FAMILY
Recreational Walker, Bicyclists, and Inline Skater	Same as family user group, with trail continuity and length also being important for repeated use. 20 miles of connected trails are needed for bicyclists, at a minimum. This user group is also more comfortable with street crossings. Bicyclists and in-line skaters will use roads that are not too busy. Loops are preferred over out-and-back routes for variety.	 RECREATIONAL
Fitness Walker/ Jogger, Bicyclists, and In-Line Skater	Length of trail and continuity are most important, although an appealing setting is also desired. Bikers are reasonably comfortable on busier roads, but prefer bike lanes/routes to provide separation from vehicles. Bikers will often use a combination of roads and trails to create a desirable loop, which is much preferred over out-and-back routes.	 FITNESS
Transportation Walker, Bicyclists, and Inline Skater	Directness of route is important. Will use a combination of sidewalks, trails, residential streets, and roads that are relatively safe, convenient, and direct. Bike lanes/routes are preferred on busy roads to improve safety. Bicyclists are not overly dependent on trails, but will use them if convenient and not too heavily used by families and recreational users, who tend to slow them down. Walkers need a trail or sidewalk.	 TRANSPORTATION

VALUE STATEMENT – TO ACHIEVE DESTINATION TRAIL QUALITY

Desirable and safe environment for family and recreational outings in appealing setting away from traffic and distractions. Given continuity, trail will also appeal to fitness users, and transportation users living and working in the area.



PROJECTED USE LEVEL OF HARDWOOD CREEK REGIONAL TRAIL

Metropolitan Council visitation estimates indicate that the Hardwood Creek Regional Trail had an estimated 365,000 visits in 2011. Once the southern end of the trail is completed, use levels are expected to increase due to increased length and connectivity. Over time, additional housing and business development along the corridor will also increase the number of trail visits.

CONCLUSIONS

The input gained from the public process greatly influenced planning outcomes and points of emphasis in the plan. The overarching principle of the plan is that providing a high quality, safe, and convenient trail is essential to enticing high levels of use. This will only occur if the facilities meet or exceed the expectations of targeted user groups as defined in this section.

This requires a steadfast commitment to the use of optimal design standards and maximizing the aesthetic qualities of the trail experience when the master plan is full implemented.



The Hardwood Creek Regional Trail corridor provides a diversity of riding experiences, from the rural countryside to main street.

Section 3 Regional Trail Master Plan

OVERVIEW

The Hardwood Creek Regional Trail Master Plan is the end result of the public process. After consideration of the public input, the Technical Advisory Committee (TAC), Washington County Parks and Open Space Commission, and Washington County Board of Commissioners approved and adopted the master plan alignment as presented in this section.

REGIONAL DESTINATION TRAIL CLASSIFICATION

The Metropolitan Council's 2030 Regional Parks Policy Plan has two classifications, or types, of regional trails: **Regional destination trail** serves as a destination unto itself by providing a high quality recreational experience, preferably within a natural setting (as long as the trail tread way has no adverse impact on the natural resource base).

In contrast, a **regional linking trail** primarily serves to link two or more regional park units.

Destination Trail Description

Source: Metropolitan Council

Use: Area developed for one or more varying modes of non-motorized recreational travel.

Size: Sufficient corridor width to protect natural resources and safely accommodate trail use. Sufficient length to be a destination itself, or to serve as a link between regional park system units.

Although not set in a natural greenway-type setting, Washington County refers to this regional trail as a destination trail due to its high use levels as standalone recreational amenity. That said, it also plays an important role in linking together numerous local and regional parks and trails and local destinations.

REGIONAL TRAIL MASTER PLAN – GENERAL AND DETAILED OVERVIEW



The regional trail almost exclusively follows the same railroad corridor from end to end – although an interim route is included for part of the southern end to get around an active rail corridor.

The Hardwood Creek Regional Trail will be approximately 12.0 miles long, beginning with its connection to the Sunrise Prairie Trail on the north end. On the south end, the trail will initially connect to Bald Eagle-Otter Lakes Regional Park, and ultimately to the larger Ramsey County regional trail system.

From the north to south, the trail almost exclusively follows the same railroad corridor from the Chisago to Ramsey County lines. Between 140th Street and Falcon Court, an interim trail route is also included under the master plan to provide a near-term means to get around a part of the rail corridor that will remain active for an undefined period of time.

The overall trail corridor is illustrated on pages 26 and 27, along with several images highlighting the overall character of the trail as it traverses from north to south. A detail description of each segment of the trail follow on pages 28 through 53 again in a north to south direction from the Chisago County line.

OVERVIEW OF TRAIL ROUTE – NORTH HALF

LEGEND:

- Developed Regional Trail
- - - - - Proposed Regional Trail
- Local Trail Connection (Interim Regional Route)
- - - - - Proposed Long-term Regional Trail Alignment
- Trailhead Facilities

NORTH HALF TRAIL OVERVIEW:

- Developed trail, 10 feet wide
- Connects with Sunrise Prairie Trail
- Exclusively follows abandoned rail corridor
- Three trailheads are proposed (north half)
- Pleasant overall setting -- rural and suburban
- Interconnects with local trail system and destinations

VISUAL IMAGES/CHARACTER:



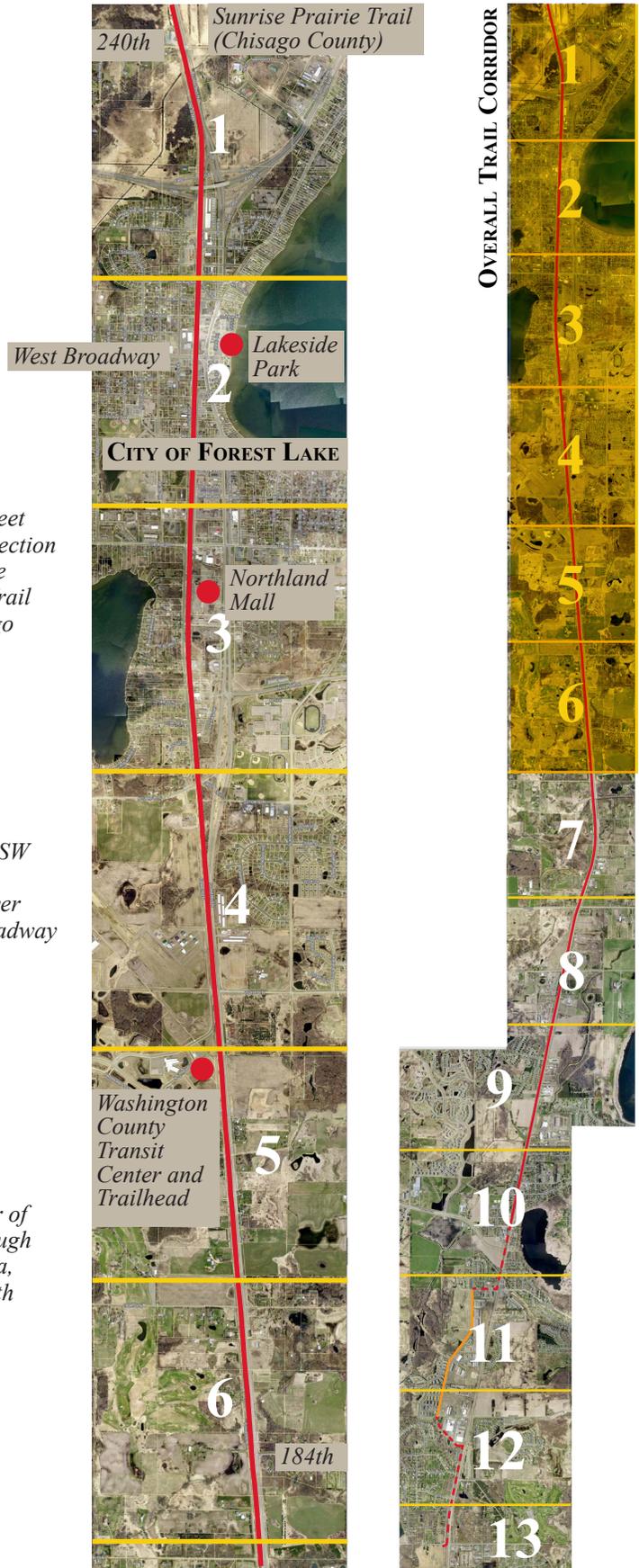
240th Street and connection to Sunrise Prairie Trail in Chisago County.



2nd Ave. SW and trail bridge over West Broadway Avenue.



General character of trail through rural area, near 184th Street.



OVERVIEW OF TRAIL ROUTE – SOUTH HALF

LEGEND:

-  Developed Regional Trail
-  Proposed Regional Trail
-  Local Trail Connection (Interim Regional Route)
-  Proposed Long-term Regional Trail Alignment
-  Trailhead Facilities

SOUTH HALF TRAIL OVERVIEW:

- Developed trail down to 145th Street trailhead. 10 feet wide
- Extending the regional trail from 145th Street down to 120th Street following railroad corridor
- Interim use of local trails between 140th Street south to Falcon Court will be required while active rail use continues
- Section along Falcon parallels active railroad tracks
- Interconnects with Glacial Hills Regional Trail

VISUAL IMAGES/CHARACTER:



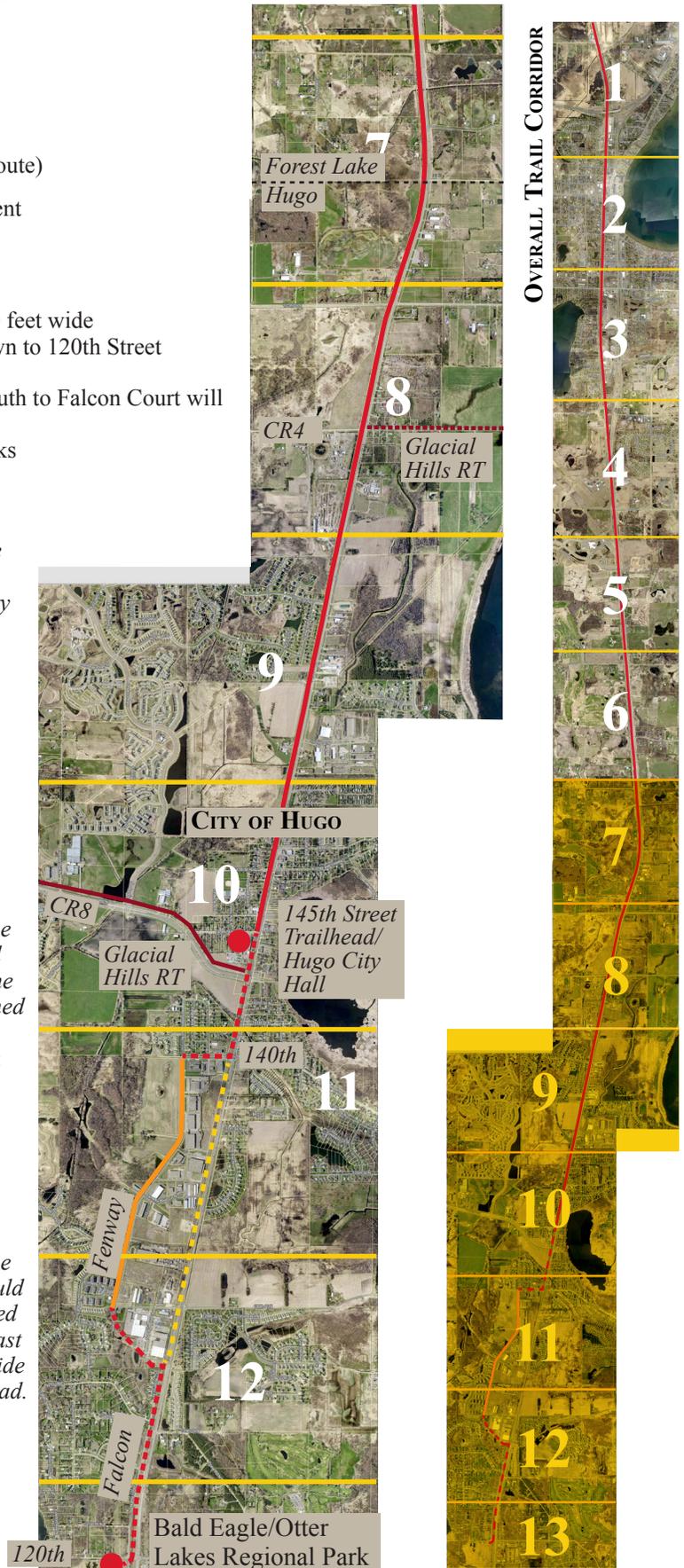
At-grade crossing at County Road 4.



140th Street, where the trail will follow the abandoned railroad corridor.



Falcon Avenue, where the trail would be located on the east (right) side of the road.



TRAIL SEGMENT #1 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

The Hardwood Creek Regional Trail begins with its connection to the Sunrise Prairie Trail at the Chisago County/Washington County line. The trail is located on an abandoned rail corridor under a lease arrangement with WCRRA. The trail is 10 feet wide and meets regional standards. The corridor, which is generally 100 feet wide, transitions from a rural to an urban/suburban character along this segment.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

The trail is well established along this segment, and there are no significant development issues that need to be addressed. A marked at-grade crossing is provided across the on-ramp to Highway 8, with a grade-separated crossing provided under the highway bridge. Both of these features function well and require no major upgrades. The City of Forest Lake’s trail system plan and the master plan for Bixby Park include a local trail connection from the park to the regional trail along 7th Avenue, which is appropriate and desirable. The City and County will coordinate signage at this location to ensure trail users are aware of the recreational opportunity. The City and County will also coordinate roadway markings and signage treatments at at-grade roadway crossings consistent with MN DNR and Mn/DOT standards. (Typical all segments, refer to page 58 for additional information on these standards.)

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

Since the trail already exists, there are no right-of-way issues of significance along this segment. There are also no apparent private property encroachment issues.



The regional trail corridor is well established along this segment. The grade-separated crossing of Hwy. 8 is particularly important for trail safety and convenience.



Looking north at 240th Street and connection to Sunrise Prairie Trail in Chisago County.



Looking north at 7th Ave. NW in Forest Lake, toward Hwy. 8 bridge.

(Left) The connection to the Sunrise Prairie Trail is seamless and adds about 15 miles to the length of the trail.

(Right) The local trail system plan calls for a trail along 7th Avenue that will connect to Bixby Park (which is a couple of blocks to the west (left) of the regional trail.

TRAIL SEGMENT #1 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



TRAIL SEGMENT #2 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

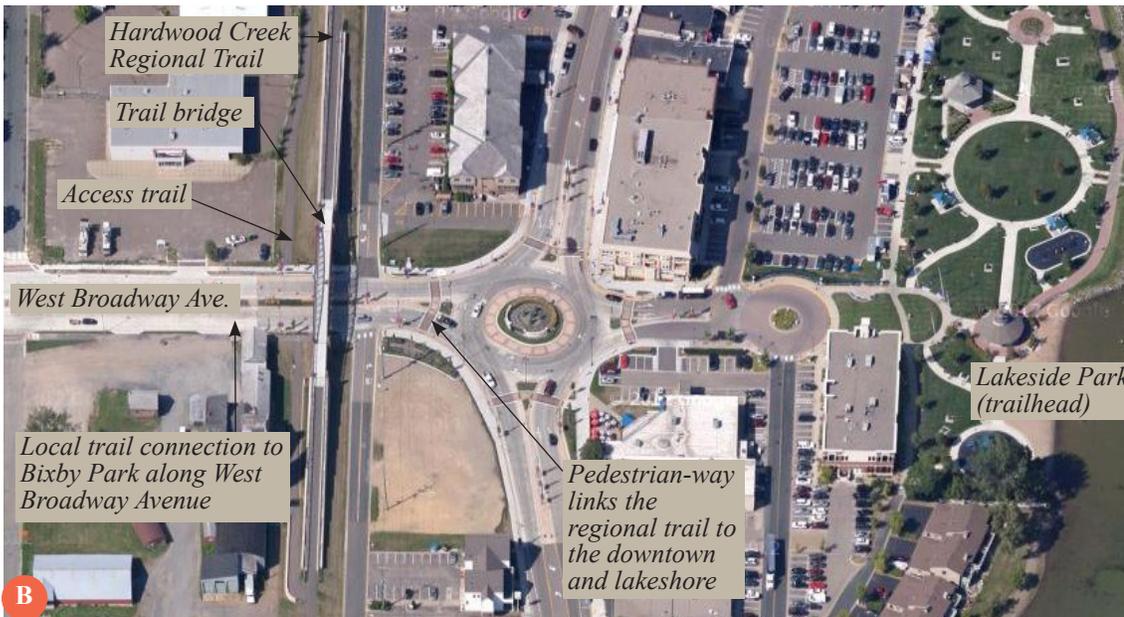
The regional trail continues south through Forest Lake following the abandoned rail corridor. From 6th Avenue south to West Broadway, all of the street crossings are at-grade. The new trail bridge over West Broadway greatly improves the safety, convenience and continuity of the trail through this area. South of the bridge, at-grade crossings are used at all local streets. The direct connection between the regional trail and downtown area/Lakeside Park is important and well-used. The regional trail remains 10 feet wide, with an overall urban/suburban character continuing along this segment.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

With the addition of the new pedestrian bridge, this segment of trail functions well and there are no significant development issues related to the trail itself. The City of Forest Lake’s trail system plan and master plan for Bixby Park include a local trail connection from the park to the regional trail along West Broadway Ave. The City and County will coordinate signage at this location to ensure trail users are aware of the recreational opportunity at both Bixby and the downtown/lakefront area. Note that Lakeside Park will be a locally-designated trailhead, and include parking, restrooms and other amenities.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

Since the trail already exists, there are no right-of-way issues of significance along this segment. There are no apparent private property encroachment issues either.



The bridge for the regional trail is key part of the improvements made to the public infrastructure in the downtown Forest Lake area.



Looking north at 2nd Ave. SW toward trail bridge over West Broadway Avenue. Adding landscaping enhancements consistent with the design principles set forth in the TH 61 Planning Study is the primary improvement proposed for this segment.

TRAIL SEGMENT #3 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

The regional trail continues south through Forest Lake following the abandoned rail corridor. The only street crossing along this entire segment is at 11th Avenue SW, where a trail bridge is provided. This new trail bridge greatly improves the safety and convenience of crossing this busy street. The local trail system plan includes an east-west trail along this street, which will connect directly to the regional trail once developed. The newer local trail connecting the regional trail to the high school is an important enhancement by making it much safer and convenient for students. The regional trail remains 10 feet wide, and exhibits a urban/suburban character along this segment.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

With the addition of the new pedestrian bridge, this segment of trail functions well and there are no significant development issues related to the trail itself. The City of Forest Lake’s trail system plan includes a number of local trail connections to the regional trail that are appropriate and desirable. Improvements to a number of Highway 61 intersections will also enhance the ease and safety of accessing the regional trail from the east. New trailhead facilities will be provided as part of the Northland Mall development.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

Since the trail already exists, there are no right-of-way issues of significance along this segment. There are also no apparent private property encroachment issues either.



Looking north at the 11th Avenue trail bridge.

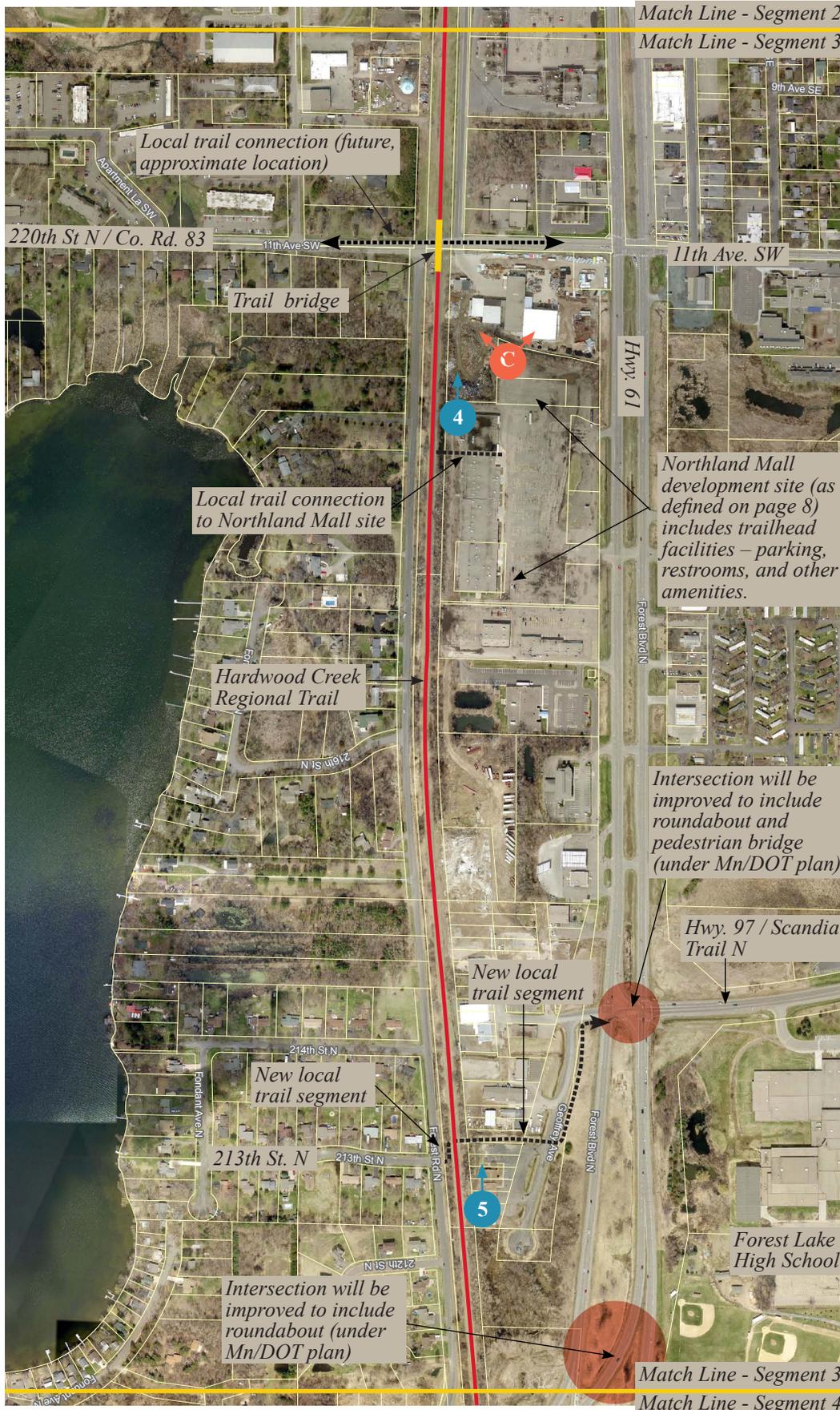


Looking north at local trail crossing and crossing at 213th Street.

(Left) The new bridge also improves the continuity of the trail, which encourages higher levels of day-to-day use.

(Right) Although located in a narrow urban corridor, the trail offers a pleasant user experience with ample points of access.

TRAIL SEGMENT #3 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



TRAIL SEGMENT #4 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

The regional trail continues south through Forest Lake following the abandoned rail corridor. An older but structurally-sound trail bridge is provided over Highway 97, a higher volume roadway. The only at-grade crossing along this entire segment is at 202nd Street/County Road 50. The regional trail remains 10 feet wide, and shifts to a more rural character along this segment.

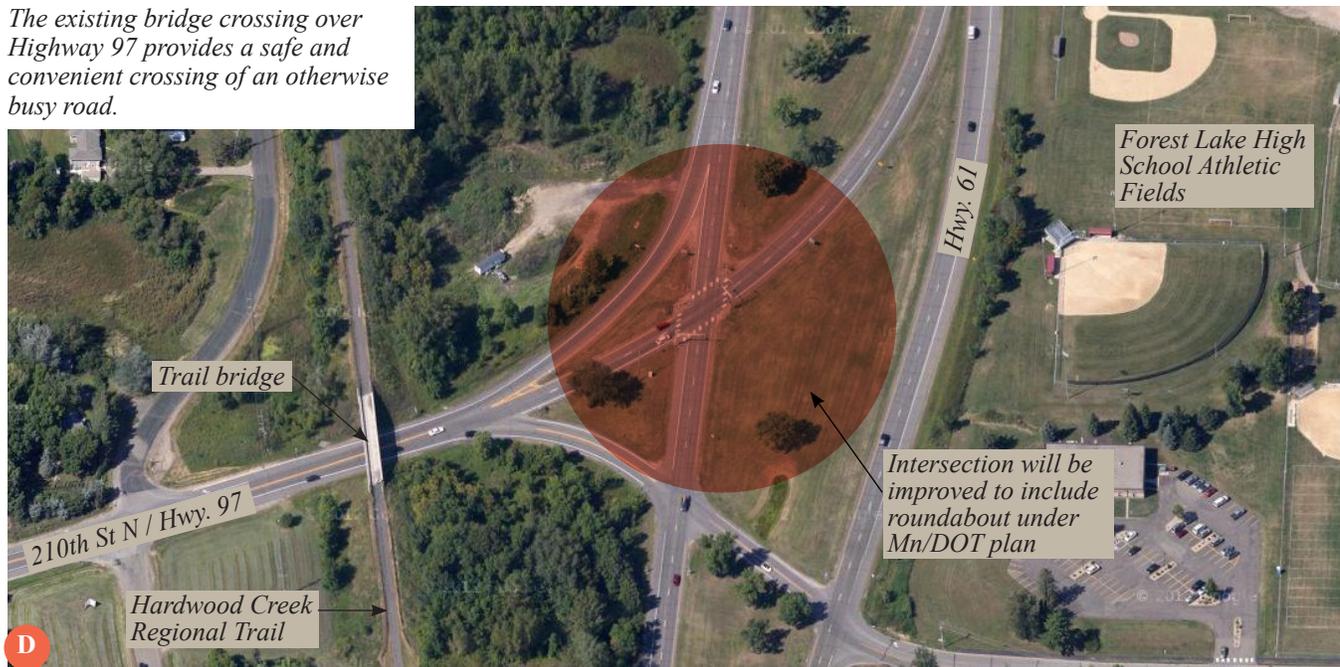
DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

Other than ensuring that road crossings meet defined standards, there are no significant development issues related to the trail itself. The City of Forest Lake’s trail system plan includes a number of local trail connections to the regional trail that are appropriate and desirable. Continued improvements to Highway 61 intersections will also enhance the ease and safety of accessing the regional trail from the east.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

Since the trail already exists, there are no right-of-way issues of significance along this segment. There are also no apparent private property encroachment issues.

The existing bridge crossing over Highway 97 provides a safe and convenient crossing of an otherwise busy road.



Looking north at 210th Street / Hwy. 97 trail bridge.

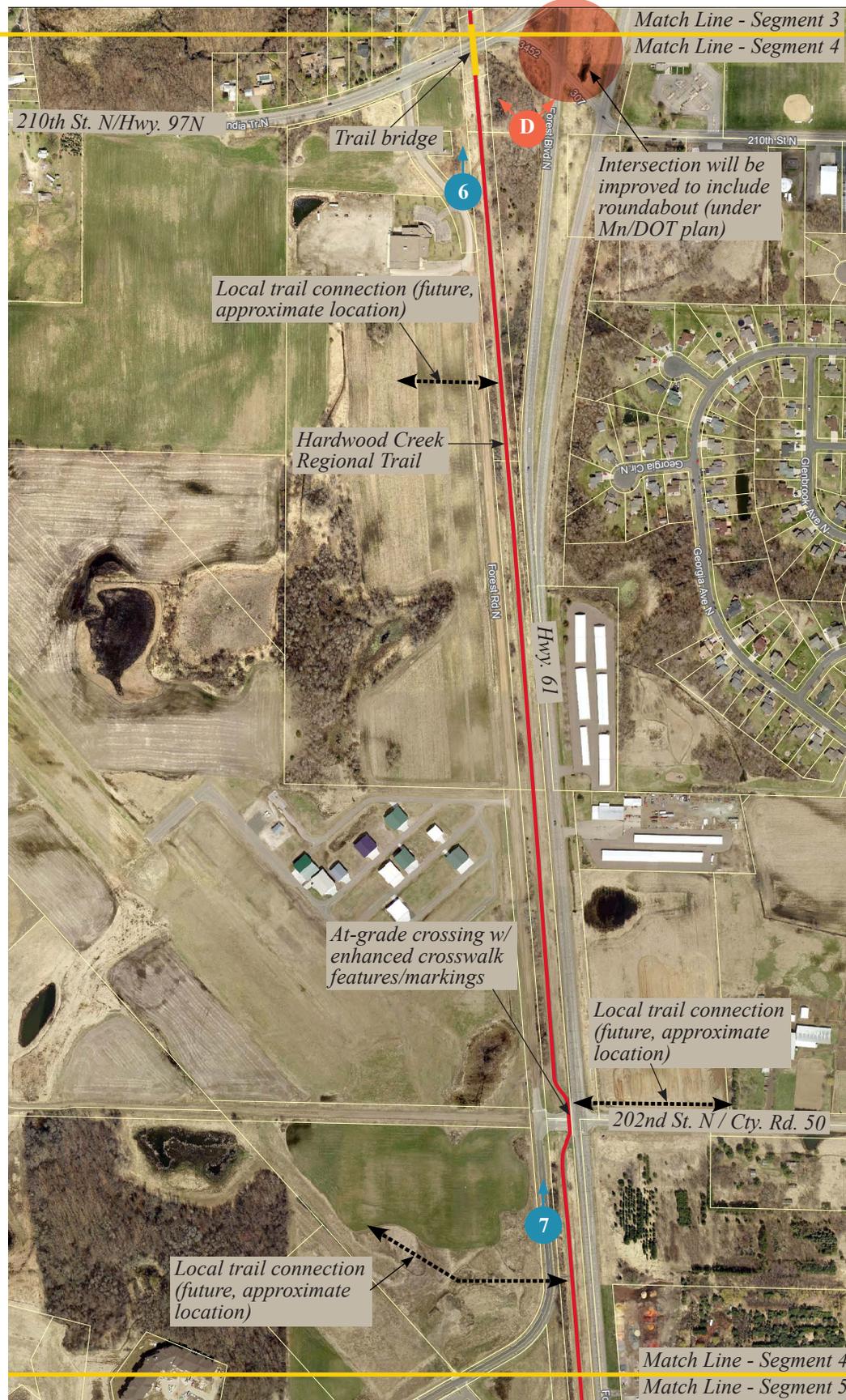


Looking north at 202nd Street/County Road 50.

(Left) Although functional in appearance, the existing trail bridge serves its purpose.

(Right) Example of a “marked” crossing of a low volume roadway.

TRAIL SEGMENT #4 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



TRAIL SEGMENT #5 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

The regional trail continues south through Forest Lake following the abandoned rail corridor. A major trailhead is provided as part of the Washington County Transit Center and Trailhead facility. Parking, restrooms, vending, and access to transit is available. Although development in the area is limited, the facility is well-positioned to meet future needs as more homes are built in the area. Reshaping land elevations/grades near the trail and adding wayfinding signage is recommended to improve the visibility of the trailhead facility from the trail. The only at-grade crossing along this entire segment is at Headwaters Parkway, and already provides enhanced crosswalk features and markings that improve the safety of this intersection. The regional trail remains 10 feet wide, and continues to exhibit a rural character.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

There are no significant development issues related to the trail itself along this segment. The City of Forest Lake’s trail system plan includes a local trail connection to the regional trail that is appropriate and desirable.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

Since the trail already exists, there are no right-of-way issues of significance along this segment. There are also no apparent private property encroachment issues either.

The Washington County Transit Center and Trailhead was designed to service trail users and includes parking, access to transit services, and restrooms.



Looking east at Washington County Transit Center and Trailhead Facility.



Looking north at Headwaters Parkway.

(Left) The Transit Center facility is an appealing resting place along the regional trail.

(Right) The crossing at Headwaters Boulevard is well-marked with crosswalk signals.

TRAIL SEGMENT #5 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



TRAIL SEGMENT #6 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

The regional trail continues south through Forest Lake following the abandoned rail corridor. This is a rural area and exhibits a “ride through the countryside” character and aesthetic appeal. The two at-grade crossings encountered relate to a rural road and side road that serves a small rural development area. The regional trail remains 10 feet wide.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

There are no significant development issues related to the trail itself along this segment. The City of Forest Lake’s trail system plan includes a local trail connection to the regional trail that is appropriate and desirable.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

Since the trail already exists, there are no right-of-way issues of significance along this segment. There are also no apparent private property encroachment issues either.

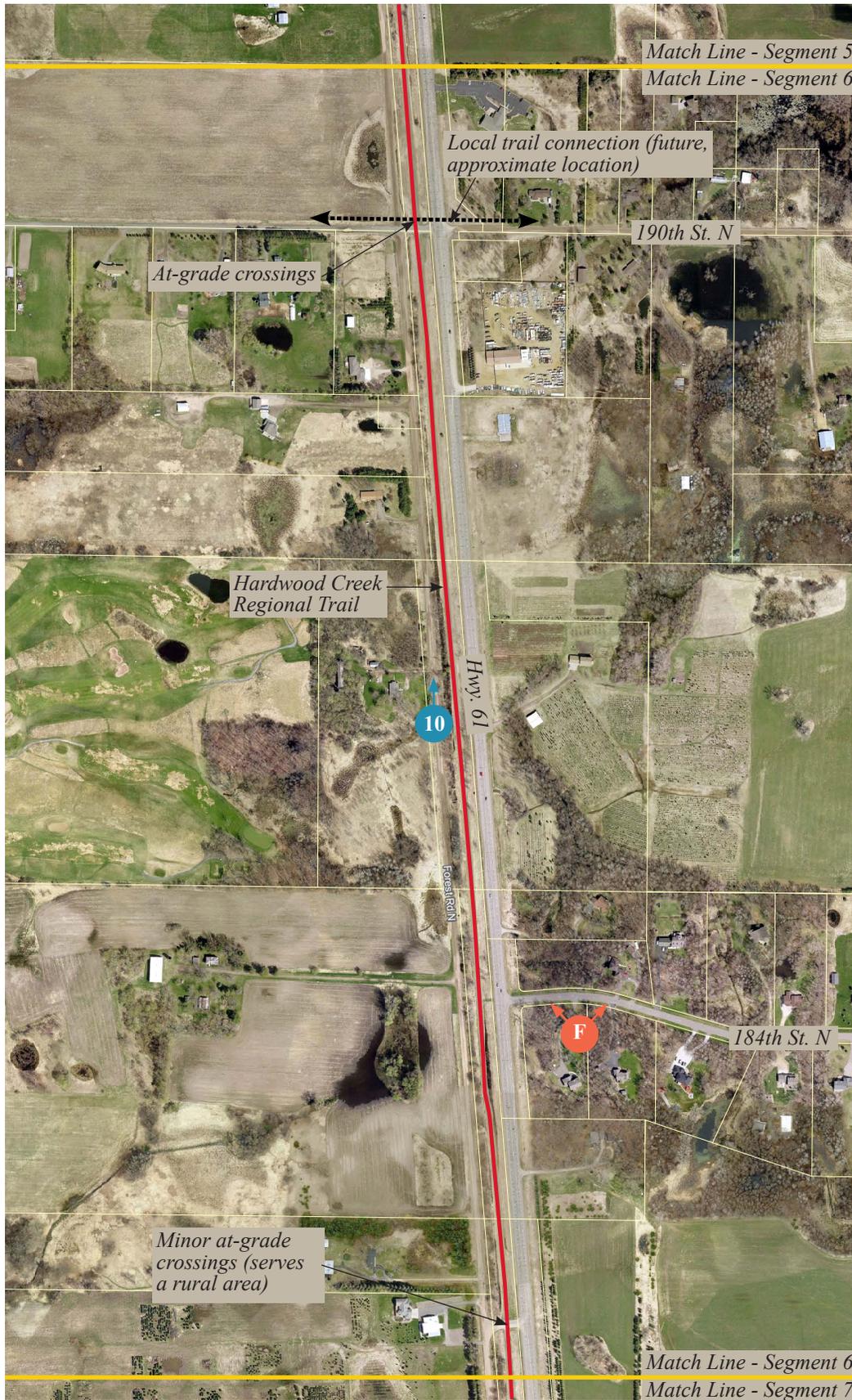


(Left) This section of trail offers a pleasant user experience.

(Above) The rural-like character of the trail corridor is appealing, with enough natural vegetation to add aesthetic interest and provide visual separation from Highway 61.

Looking north along trail. Photo illustrates general character of trail through this segment.

TRAIL SEGMENT #6 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



TRAIL SEGMENT #7 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

The regional trail continues south through Forest Lake until entering Hugo at 180th Street, still following the abandoned rail corridor. As the aerial illustrates, this continues to be a rural area with the same character and aesthetic appeal as segment 6. The at-grade crossing of Forest Road is the only one in this segment, and is not heavily traveled. An older but structurally-sound trail bridge is provided over Hardwood Creek. The regional trail remains 10 feet wide.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

There are no significant development issues related to the trail itself along this segment. The City of Hugo's trail system plan includes a local trail connection to the regional trail near 180th Street that is appropriate and desirable.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

Since the trail already exists, there are no right-of-way issues of significance along this segment. There are also no apparent private property encroachment issues either.

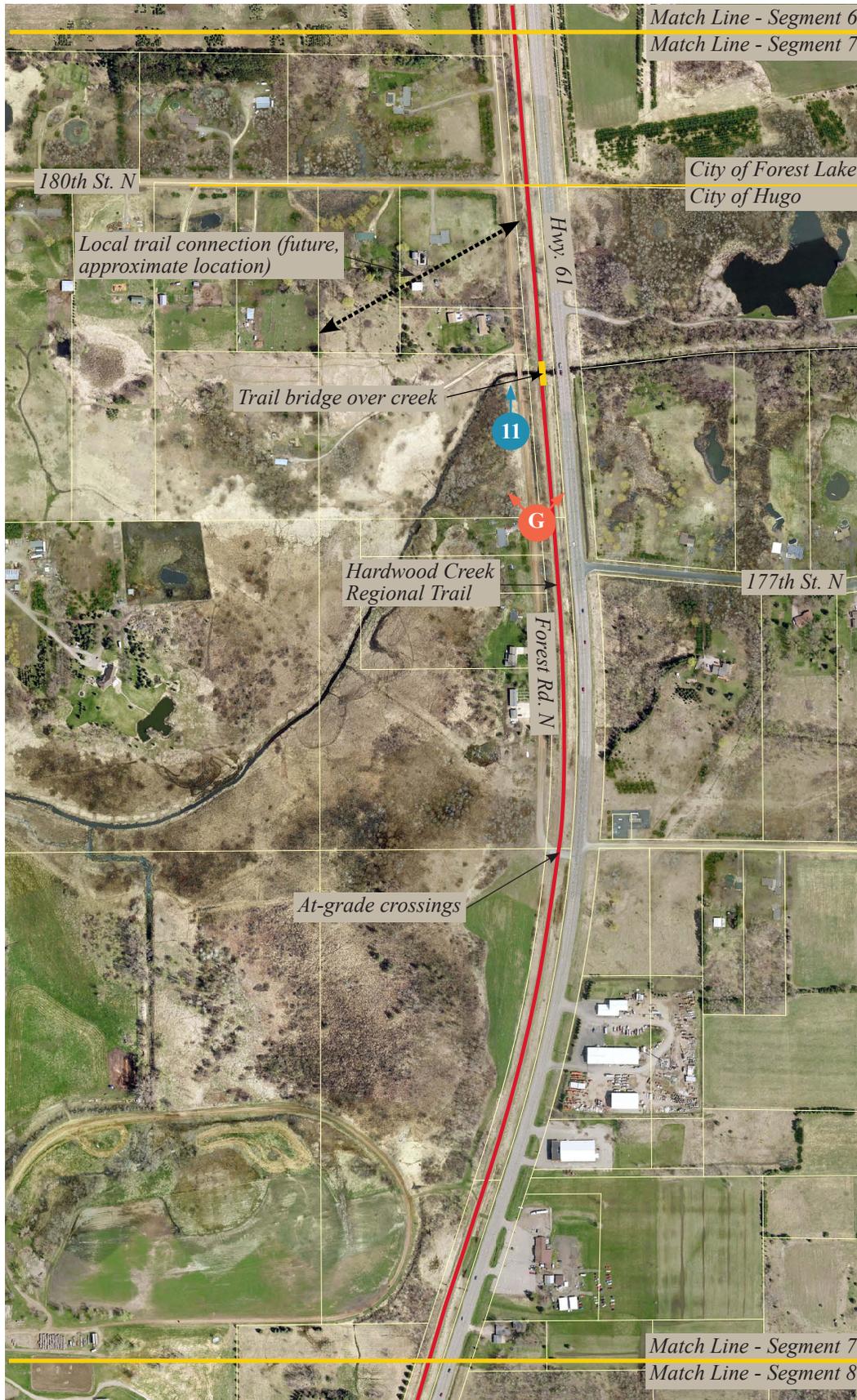


(Left) The existing bridge over Hardwood Creek is functional and structurally sound.

(Above) The rural setting along this segment is appealing and a nice contrast to the more developed areas in Forest Lake and Hugo.

Looking north

TRAIL SEGMENT #7 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



TRAIL SEGMENT #8 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

Heading south through Hugo, the regional trail continues along the abandoned rail corridor. The trail continues through a rural area with a pleasant aesthetic, especially on the northern end. On the southern end, some commercial land uses are found along the trail, with the majority of these being screened with fencing and vegetation. The at-grade crossing of County Road 4 will be improved as part the development of a roundabout associated with Highway 61 improvements, as previously referenced on page 4. An at-grade crossing is also encountered at 165th Street.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

There are no significant development issues related to the trail itself along this segment. The City of Hugo’s trail system plan includes a local trail connection to the regional trail near County Road 4, which is also where the Glacial Hills Regional Trail makes its connection coming from the west. Both the regional and local trail connections are appropriate and desirable.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

Since the trail already exists, there are no right-of-way issues of significance along this segment. There are also no apparent private property encroachment issues either.



Looking north at the at-grade crossing of County Road 4.



Looking north at the at-grade crossing of 165th Street, which is more lightly trafficked than County Road 4.

(Above) The intersection of Highway 61 and County Road 4 is slated for an upgrade, which will include a roundabout and enhanced trail crossing features/markings.

TRAIL SEGMENT #8 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



TRAIL SEGMENT #9 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

The regional trail continues south through Hugo along the abandoned rail corridor. Just north of 159th Street, the trail transitions from an open rural to rural/suburban residential character. At 159th Street, an at-grade crossing is encountered. There is also an at-grade crossing of a low use driveway around 156th Street.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

There are no significant development issues related to the trail itself along this segment. The City of Hugo's trail system plan includes a local trail connection at 159th Street, which is appropriate and desirable.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

Since the trail already exists, there are no right-of-way issues of significance along this segment. There are also no apparent private property encroachment issues either.



Looking north at an at-grade crossing of 159th Street, which is the main entrance off of Hwy. 61 that serves a large development.



Looking north at a simple at-grade crossing of an access drive to a rural property.

(Above) The trail enters the developing part of Hugo at around 159th Street. From here south, increasing levels of adjacent land development exists.

TRAIL SEGMENT #9 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



TRAIL SEGMENT #10 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

The regional trail enters the core of the developed area along Highway 61 around 150th Street as it continues south through Hugo along the abandoned rail corridor. A number of at-grade crossing are encountered, with the ones at 147th and County Road 8 providing enhanced crosswalk features and markings. There is an existing regional trailhead at 145th Street, where the existing trail ends. Hugo City Hall just north of this area also provides trailhead-type facilities and overflow parking with direct access to the regional trail.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

Starting at 147th Street, the proposed extension of the regional trail begins following the same abandoned rail corridor. This segment is expected to be purchased by WCRRA, and available for trail development thereafter. The City of Hugo's trail system plan includes a local trail connection at 147th Street, which is appropriate and desirable. An already developed segment of the Glacial Hills Regional Trail corridor connects to this regional trail at County Road 8, where it heads west to link up with the Anoka County regional trail system.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

With the acquisition of the abandoned rail corridor between 145th and 140th Streets, there are no right-of-way issues of significance along this segment. There are also no apparent private property encroachment issues either.



Looking north at the access trail from Hugo City Hall to the regional trail.



Looking north at the existing trailhead for the regional trail just north of 145th Street.

(Above) The existing regional trail ends at 145th Street. From here down to 140th Street the proposed trail will continue to follow the same rail corridor alignment.

TRAIL SEGMENT #10 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



TRAIL SEGMENT #11 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

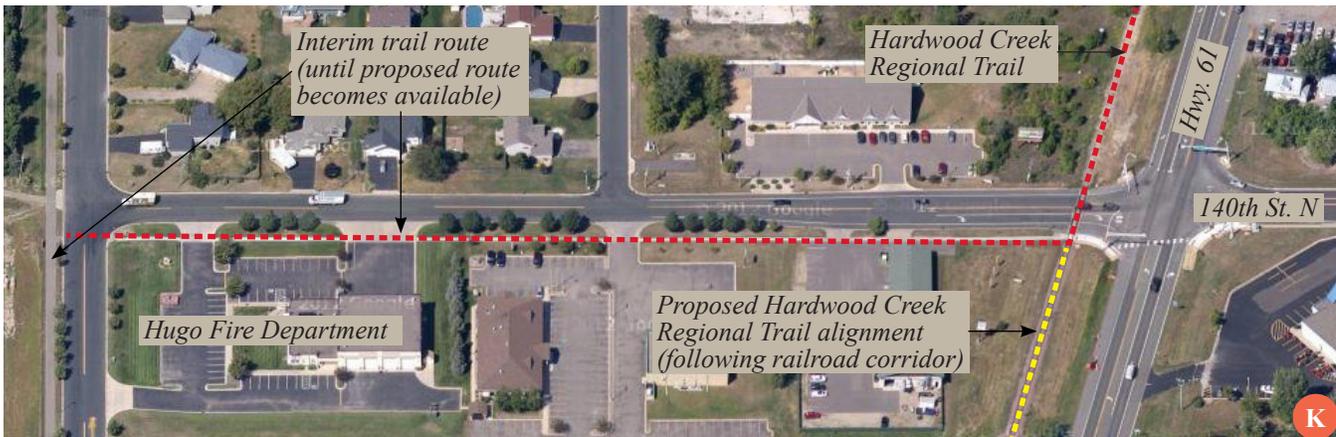
The proposed regional trail continues along the abandoned rail corridor down to 140th Street, which is expected to be purchased by WCRRA. South of 140th Street, the proposed long-term trail alignment follows the same *but currently active* railroad corridor. Given the limited space between the railroad tracks and edge of Highway 61, either acquiring the railroad right-of-way or shifting the highway to the east to open up more space between the two will be required for the trail to be developed following this alignment. (This is covered in more detail on pages 54/55.) Since both of these are long-term options with numerous uncertainties, the master plan includes a local interim route between 140th Street and Falcon Court using existing and planned local trails. This local route heads west along the south side of 140th Street until it connects with an existing city trail along Fenway Avenue. Once to Fenway Avenue, the local trail heads south to 130th Street (as illustrated on trail segment #12). The trail along Fenway Avenue is 10 feet wide and provides a pleasant, convenient and safe route.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

The limited rights-of-way associated with the railroad and Highway 61 corridors is the main issue associated with developing the regional trail south of 140th Street. With only 50 feet plus/minus available, inadequate space is currently available between the active rail and roadway edge to accommodate the trail. This means that one of the two previously defined options must be taken for this alignment to be feasible. The trail along Fenway Avenue does not pose any major constraints for use as an interim route for the regional trail. The sidewalk on the south side of 140th Street will, however, have to be upgraded to a 10-foot trail to fully meet regional standards, even if this route is used on an interim basis.

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS

With the acquisition of the abandoned rail corridor, there are no right-of-way issues of significance between 145th and 140th Street. Heading south from here, development of the proposed trail will require either acquiring the railroad corridor (by the WCRRA) or shifting the highway to the east as upgrades are made in the future.



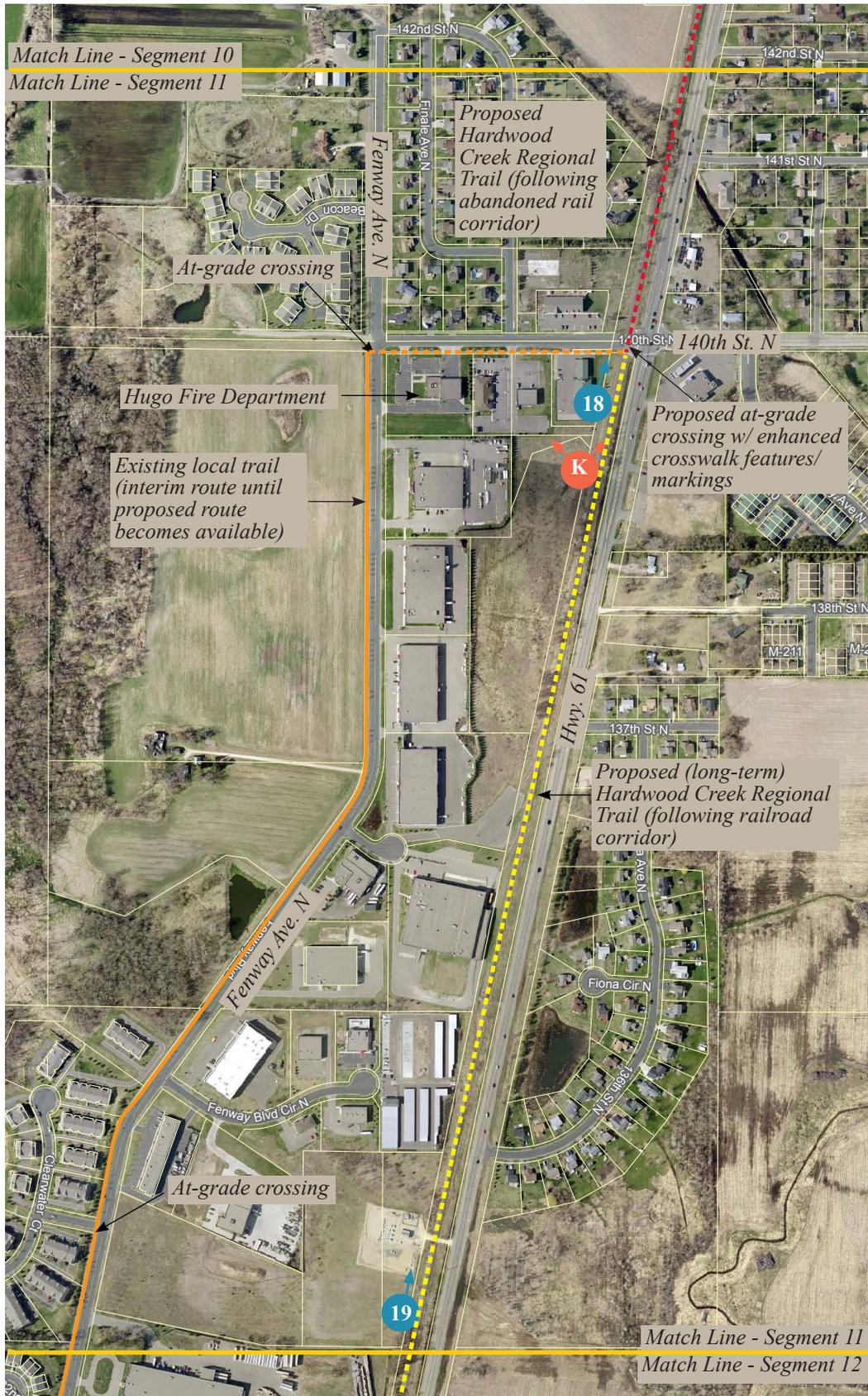
18 Looking north at 140th Street, where the trail will follow the abandoned railroad corridor.



19 Looking north along active rail line south of 140th Street. Given the limited space, developing the trail along this alignment will require acquiring the rail corridor or moving the highway to the east.

(Above) The proposed regional trail alignment continues south following the railroad corridor. The interim route is also shown along 140th Street to its connection with the existing trail along Fenway Avenue.

TRAIL SEGMENT #11 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



TRAIL SEGMENT #12 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

The proposed long-term trail alignment continues along the same active railroad corridor defined in the last segment down to Falcon Court, where it connects to the proposed local interim trail route. At this point, the proposed regional trail alignment shifts slightly to the west between the active railroad tracks and edge of Falcon Avenue. (This shift will allow the southern section of the proposed regional trail to be developed in the nearer-term to take advantage of the local trails on an interim basis until the remaining regional trail segments can be completed.) The interim local route continues south along Fenway Avenue down to its current termination point at 130th Street. From there, the interim planned local trail continues southeast through an open space area until it makes its way back to the railroad corridor, at which point it connects to the proposed regional trail as it heads south following the railroad/Falcon Avenue corridor.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

The segment of local trail running through the open space is undeveloped. The County and City will coordinate trail development to ensure that completion of the interim local trail segments is consistent with completion of the regional trail segment between Falcon Court and 120th Street. Although of adequate width to build the trail, the limited space between the street edge and the active railroad tracks along the Falcon Avenue trail segment will result in some impacts to ditch-type wetlands and areas of natural vegetation. These impacts will require some limited mitigation and revegetation as part of trail development. There will also be a host of issues related to the placement of the trail adjacent to an active rail line that will have to be addressed, most notably maintaining a minimum separation between the two. (Refer to *Proposed Regional Trail Alignment Following Active Railroad Corridor* on page 54 for additional information on this segment of trail.)

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS/ ALTERNATIVE ALIGNMENTS

The segment of trail that follows the railroad/Falcon Avenue corridor will require a right-of-way agreement with the railroad authority in areas where the trail encroaches within its right-of-way.



(Above) The long-term regional trail alignment will follow the existing railroad corridor.



Looking north along Fenway Avenue, where the existing city trail will serve as an interim regional trail.



Looking north along Falcon Avenue, where the trail would be located on the east (right) side of the road.

TRAIL SEGMENT #12 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



TRAIL SEGMENT #13 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (1 OF 2)

SEGMENT DESCRIPTION / OVERALL CHARACTER

The last segment of the proposed regional trail continues south following the railroad/Falcon Avenue corridor until it terminates in Bald Eagle/Otter Lake Regional Park. Once into the park, the trail will connect with the developed area further to the south. In the longer-term, the trail will connect to a Ramsey County regional trail that continues south following the Highway 61 corridor. (Note: Ramsey County has not completed a formal master plan for this regional trail, so the corridor alignment is conceptual). There is only one at-grade crossings encountered at 120th Street.

DEVELOPMENT ISSUES, CONSTRAINTS AND ENHANCEMENT OPPORTUNITIES

As with the last segment, limited space between the street and active railroad tracks along the segment of trail following the railroad/Falcon Avenue corridor will likely have some impacts on ditch-type wetlands and areas of natural vegetation, each of which requiring varying levels of mitigation as part of development of the trail. (Refer again to *Proposed Regional Trail Alignment Following Active Railroad Corridor* on page 54 for additional information on this segment of trail.)

RIGHT-OF-WAY AND PRIVATE PROPERTY FACTORS/ALTERNATIVE ALIGNMENTS

The segment of trail following the railroad/Falcon Avenue corridor will require a right-of-way agreement with BNSF railroad in areas where the trail encroaches within its right-of-way. Once into Bald Eagle/Otter Lake Regional Park, trail development will be the responsibility of Ramsey County.



Looking north along Falcon Avenue, where the trail would be located on the east (right) side of the road.



Looking north at 120th Street, where the trail crosses into the regional park.

(Above) The trail will be located adjacent to Falcon Avenue, with adequate separation between it and the active railroad tracks being maintained.

TRAIL SEGMENT #13 DETAIL DESCRIPTION AND ALIGNMENT INFORMATION (2 OF 2)



PROPOSED REGIONAL TRAIL ALIGNMENT FOLLOWING ACTIVE RAILROAD CORRIDOR (140TH DOWN TO 120TH STREETS)

As shown on trail segments 11, 12 and 13, the proposed regional trail alignment follows an *active* railroad corridor from 140th Street south to 120th Street, which is expected to remain in use for an undetermined length of time (10 or even 20 years). There are also no planned changes to the alignment of Highway 61 that might otherwise provide enough right-of-way space for the trail to built between the active tracks and the roadway. In spite of these limitations, following the railroad corridor along this segment remains the preferred long-term alignment to maintain the continuity and consistency of the regional trail for its entire length.

To address the near-term limitations and uncertainties, the master plan provides both an interim and long-term alignment for the regional trail from 140th Street down to 120th Street. In addition to the descriptions on trail segments 11, 12 and 13, the following provides more detail on both of these alignments.

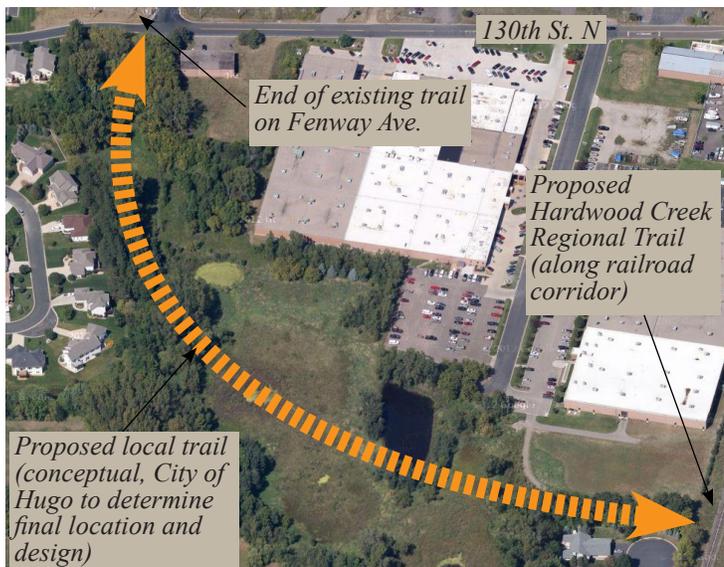


The existing local trail along Fenway Avenue meets regional trail standards and will work well on an interim basis.

LOCAL INTERIM TRAIL ROUTE OVERVIEW – 140TH STREET TO FALCON COURT

As the noted trail segment maps illustrate, the local interim trail route uses existing and proposed local trails to get from 140th Street down to Falcon Court. Once to Falcon Court, the local trail ties back into the proposed regional trail segment that runs south from Falcon Court down to 120th Street.

Completing the remaining undeveloped local trails is obviously important to making the interim regional trail route a viable near-term solution. Specifically, this includes: 1) upgrading the sidewalk along 140th Street to a 10-foot wide paved trail; and 2) developing the local trail between Fenway Avenue and Falcon Court, as the following aerial image illustrates.



Completing a local trail link from the end of the existing trail along Fenway Avenue back to the proposed regional trail corridor is an important part of the interim trail route plan.

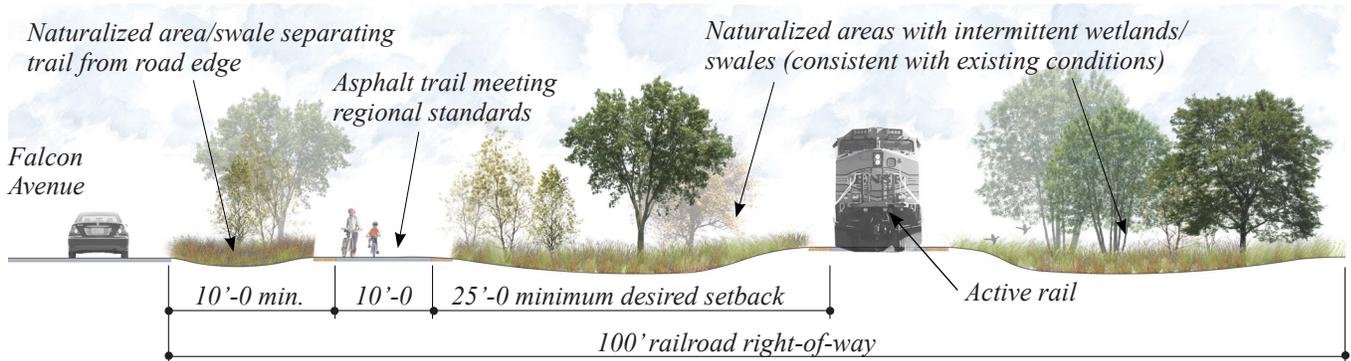
(Note that the alignment is conceptual, and the City of Hugo may consider a number of options to complete this trail connection.)

Washington County will closely coordinate with the City of Hugo the timing of completing the remaining local trail segments to ensure that the interim route is in place prior to developing the southern part of the regional trail.

**PROPOSED REGIONAL TRAIL ALIGNMENT OVERVIEW –
FALCON AVENUE SEGMENT (FALCON COURT DOWN TO 120TH
STREET)**

As previously described, the local interim trail connects back to the proposed regional trail near Falcon Court, where it heads south along Falcon Avenue down to 120th Street – a distance of approximately 4,100 feet. As the following cross-section illustrates, placement of the trail between the edge of the road and the active railroad tracks is achievable and allows for this segment to be developed at anytime, *which is important to making the local interim trail route a feasible option.*

CROSS-SECTION CHARACTER SKETCH – FALCON AVENUE SEGMENT



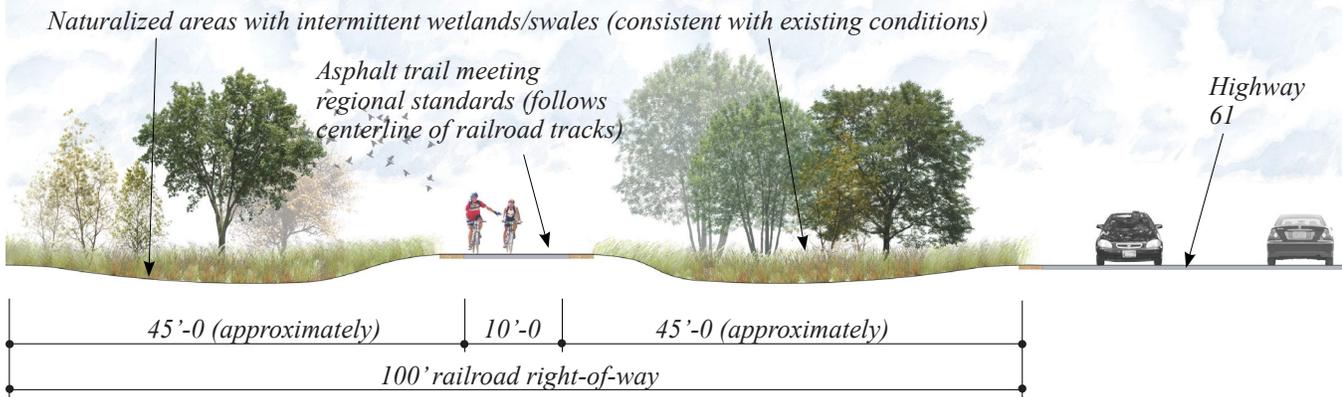
As shown, adequate space is available between the edge of the road and the railroad tracks to accommodate the trail while still maintaining the minimum desired setback from the active railroad tracks. Note, however, that the right-of-way space is still limited and some impacts to existing vegetation and ditch-type wetlands are unavoidable. (The cost estimate takes this into consideration.) Although unavoidable, minimizing disruption to wetlands and higher quality natural vegetation found within the right-of-way corridor remains a priority, consistent with the provisions in *Section 4 – Natural Resources Stewardship Plan.*

**PROPOSED REGIONAL TRAIL ALIGNMENT OVERVIEW – ACTIVE
RAIL LINE SEGMENT (140TH STREET DOWN TO FALCON
COURT)**

As previously defined, this segment of the proposed regional trail alignment follows what will likely remain an active rail line for an undetermined length of time. In spite of this uncertainty, this remains the preferred long-term alignment option, and the goal under this master plan is to set the stage for this to occur if or when the active rail line is abandoned and made available for acquisition by WCRRA.

Under this context, the following cross-section illustrates the placement of the trail on the rail-bed, which is consistent with all of the other segments north of 140th Street.

CROSS-SECTION CHARACTER SKETCH – 140TH STREET DOWN TO FALCON COURT SEGMENT



As shown, the trail will eventually follow the centerline of what is currently the active tracks, and maintains about a 50-foot separation with the road. Although it traverses through a more commercial/ industrial land use zone, the trail still offers a safe and convenient route for various types of users.

Note that an alternative trail alignment was considered for this trail segment that would have placed it between the active railroad tracks and the road edge. Unfortunately, the 50-foot average width of this right-of-way is inadequate to meet minimal separation standards between the trail and the active railroad tracks (25 feet) as well as the road edge (another 25+ feet). Changing the alignment of Highway 61 to create more space is another option, but there are no current plans to do so in the foreseeable future.

Locating the trail following the alignment of the active rail line is the most viable long-term option. The limited space (50-foot wide) between the railroad tracks and edge of road is inadequate for trail placement while still maintaining minimum setbacks.



TRAILHEAD LOCATIONS/ DESCRIPTIONS

As previously defined on the segment maps, there are a total of five local and regional-level trailheads that will directly serve the regional trail, as the following tables summarizes.

TRAILHEAD NAME	LOCATION	OVERVIEW	TRAILHEAD-RELATED AMENITIES
Lakeside Park Trailhead (locally-provided)	Forest Lake – end of West Broadway Avenue, within local park	Local city park that also serves as a trailhead. Easy access to public parking.	<ul style="list-style-type: none"> • Parking • Restrooms • Picnic shelters • Access to businesses
Northland Mall Trailhead* (locally provided)	Forest Lake – Northland Mall site, south of County Road 83	Northland Mall includes trailhead facilities associated with development of a new Municipal Center	<ul style="list-style-type: none"> • Parking • Restrooms • Other amenities common to a municipal center.
Washington County Transit Center and Trailhead (regionally provided)	Forest Lake – near Washington County Headwaters Service Center	Included as part of a larger Washington County transit and service center	<ul style="list-style-type: none"> • Parking • Restrooms • Vending • Access to mass transit • Other amenities common to service center
145th Street Trailhead (regionally provided) plus Hugo City Hall (locally provided)	Hugo – at 145th Street, plus nearby City Hall located to the north	Existing regional trailhead near City Hall, the latter of which provides overflow parking with direct access to the regional trail.	<ul style="list-style-type: none"> • Parking (15 spaces) • Restrooms and additional parking available at City Hall site
Bald Eagle/Otter Lakes Regional Park Trailhead	Ramsey County – south of 120th Street	Relates to connecting this trail to the existing developed area within regional park	<ul style="list-style-type: none"> • Parking • Restrooms • Other park-related features

* Note that the Northland Mall trailhead will replace the current one located at the Forest Lake City Hall.



The existing trailhead at 145th Street will remain unless otherwise agreed between Washington County and City of Hugo to formally relocate it.

Of the five listed, the Washington County Transit Center and Trailhead and the 145th Street Trailhead are regionally-provided facilities. All of the others are locally-provided and subject to local decisions on amenities and hours of operation. Irrespective of ownership, all of these trailheads are important trail features and illustrate the commitment of local communities to collaborate with Washington County on providing these services. This includes collaborating on developing a wayfinding program and branding of the regional trail.

The Washington County Transit Center and Trailhead facility is already developed and there are no additional upgrades envisioned, with perhaps the exception of improved trail signage along the trail and improving its visibility.

The 145th Street Trailhead is an older facility that will continue to provide parking and trail-related information. With the nearby Hugo City Hall (and city park) providing additional parking and other amenities, no significant upgrades to this trailhead are envisioned. In fact, the master plan leaves open the possibility for Washington County and City of Hugo to designate the City Hall site as the official regional trailhead and eliminate this one as part of larger-scale land use planning for this area. (Note that any further consideration of this approach would likely be initiated by the City of Hugo. In the mean time, the current trailhead will remain.)

GUIDELINES FOR LOCAL TRAIL CONNECTIONS

Reference: MN DNR's Trail Planning, Design, and Development Guidelines for additional information trail hierarchies.

The local trail interconnections with the regional trail as defined in this and other sections are adopted as part of this master plan. Any changes that occur due to periodic updating of local trails plans will be automatically incorporated into this plan after formal approval by Washington County.

DIRECT TRAIL CONNECTIONS FROM DEVELOPMENT AREAS TO THE REGIONAL TRAIL

To be consistent with regional standards, whenever feasible trails coming out of private developments will connect to the local trail system before connecting to the regional trail. In select cases, direct trail connections from public/private developments may be warranted where new developments occur between defined local trail connections. Examples of this already occurring along the corridor include:

- Northland Mall proposed development (Forest Lake) – includes a direct connection from the regional trail to the planned Municipal Center and local trailhead
- Millbrook development (Forest Lake) – development in Forest Lake where a direct trail connection to the regional trail was warranted to give access to this neighborhood; it is well-spaced relative to other local trail interconnections

Making a direct trail connection from retail/commercial land uses may also be warranted when part of an overall development proposal. However, direct connections from individual or small cluster businesses/residential areas will be discouraged to avoid fragmenting the trail and increasing the potential for user conflicts.

When requested by the local cities, Washington County will review proposed trail connections associated with new developments on a case-by-case basis as part of a standard development review process. General review will include determining the feasibility of having development-based trails interconnect with the local trail system first. If not feasible, interconnections between development-based trails and the regional trail will generally be limited to one or two locations to remain consistent with regional standards.

TRAIL DESIGN STANDARDS, FEATURES, AND AMENITIES

The trail will be designed in accordance with MN DNR's *Trail Planning, Design, and Development Guidelines* and Mn/DOT's *Bikeways Facility Design Manual*, as well as complementary Washington County and federal standards. The following provides an overview of the key design standards that will be applied to this trail.

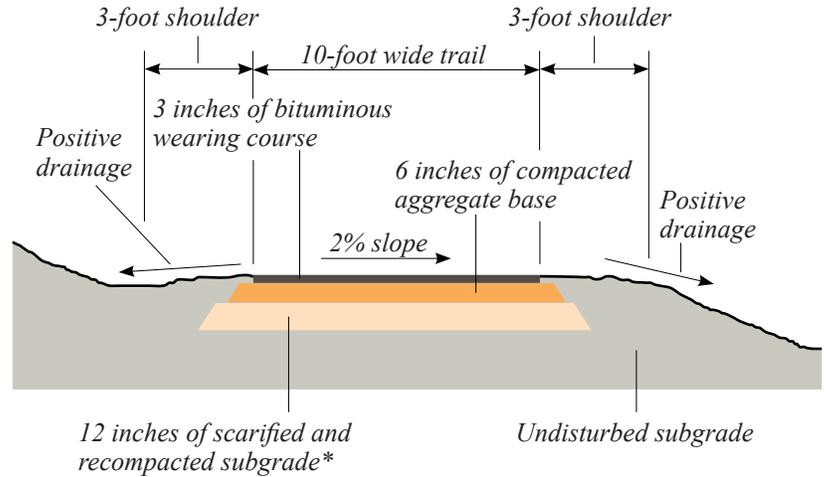
BASIC TRAIL DESIGN – NEW TRAIL SEGMENTS

As per the accepted trail guidelines, the trail will be 10 feet wide and asphalt surfaced, as the following image illustrates.



Consistent with the existing trail, all of the proposed segments of the regional trail will be less than a 5 percent gradient and will be fully accessible.

TYPICAL TRAIL CROSS-SECTION



* Old rail bed-related issue – the extent to which subgrade will need to be scarified and recompacted will be determined at time of construction and based on detailed evaluation of subsoil conditions.

TRAIL GRADIENTS AND ACCESSIBILITY

The entire trail grade will be at less than 5 percent and meet or exceed all accessibility requirements.

AT-GRADE CROSSING TYPES AND DESIGN GUIDELINES

Improvements to at-grade crossings will continue along the trail, most often occurring as roadway upgrades are made to intersecting local, county, and state roads. The types of treatments will vary depending on the type of road that is being crossed, as the photos illustrate.



With low volume local roads, at-grade crossing treatments will be minimal, such as this yield sign, to promote user compliance.



At major intersections, at-grade crossings may include enhanced features and markings, including stop signs, push-button activated signals, and accessible curb-cuts.

All future improvements to at-grade crossing treatments will be consistent with Washington County Public Works and Mn/DOT standards as trail improvements or upgrades to intersecting local, county, and state roads are made. (Since these treatments are inherently site-specific, no specific guidelines for individual crossings are provided in the master plan.)

UPGRADES TO EXISTING TRAIL SURFACES

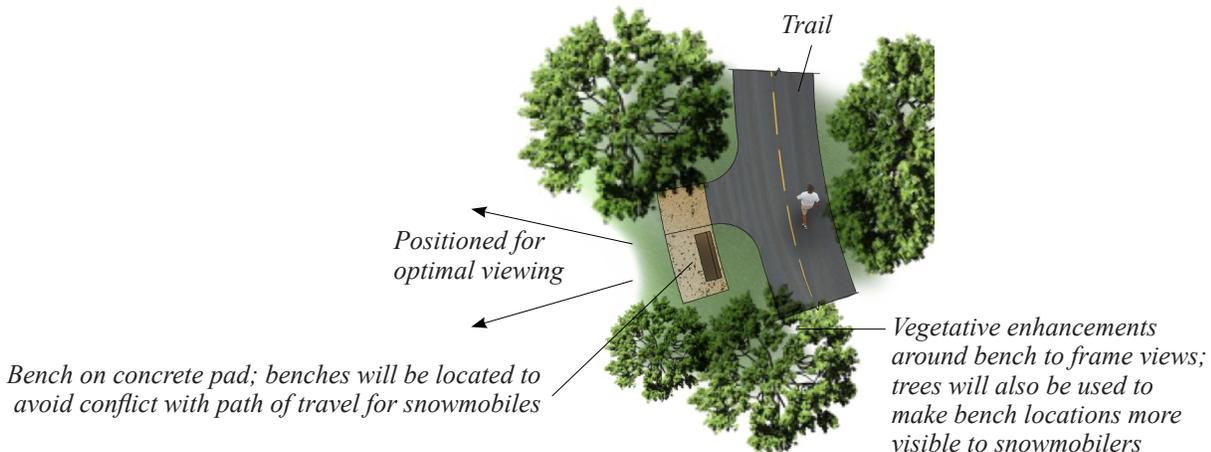
Overall, the existing trail surface is in good physical condition, although it does exhibit some cracking and surface blemishes common to a 15-year old trail. Washington County will continue its standard maintenance practices (as defined in Section 5) to extend the life of the trail as long as possible. At some point, however, additional trail repair work beyond routine maintenance may be warranted to further extend the life of the trail surface. The master plan cost estimate in Section 5 includes a budget for this type of work.

TRAILSIDE AMENITIES AND SIGNAGE

TRAILSIDE AMENITIES

Other than the trailheads, site amenities along the trail will be limited to select bench locations that take advantage of points of interest. As the following graphic illustrates, bench locations will be simply designed, with the focus being on positioning it for optimal viewing.

TYPICAL BENCH LOCATION DESIGN – PLAN VIEW



Note that trash receptacles will be provided at trailheads, but not at individual bench locations.

SIGNAGE AND WAYFINDING

The signage program will provide wayfinding information, safety alerts, define appropriate uses, and reinforce the relationship between various users groups. Signing and marking of the trail and bikeway will be uniform and consistent to command the attention of the trail user.

For uniformity, signage and wayfinding information along the trail and at trailheads will be consistent with Washington County’s signage program for parks and trails. It will also take into consideration guidelines defined in the *Minnesota Trail Planning, Design, and Development Guidelines* (MN DNR 2007), as appropriate. In general, trail signage will fall into the following categories:

- Regulatory, traffic control, and warning signs
- Trailhead and orientation signs
- Directional and routes guide signs
- Trail identification and warning signs for motorists

Note that within Mn/DOT right-of-way, trail signage will be compliant with the latest version of the MNMUTCD!

Signage along the regional trail to identify and promote local business districts or destinations will be limited to general wayfinding and directional signs. To avoid sign clutter and inconsistent information as businesses change, signs identifying specific businesses will not be allowed.



COMPLEMENTARY STREETSCAPE ENHANCEMENTS

In select locations, enhancing the character of the trail corridor by incorporating it into local streetscape improvement projects will be encouraged. Enhancements that would complement the trail include ornamental lighting, enhanced landscaping, and extra benches in locations where the trail runs through areas being improved. These opportunities are most likely to occur in the downtown areas of Hugo and Forest Lake, as well as near major intersections along the Highway 61 corridor.

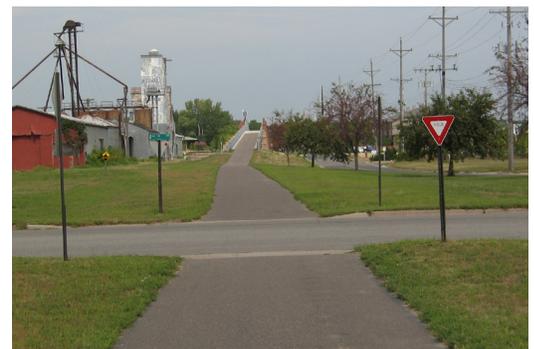
The streetscape enhancements along County Road 8 in Hugo exemplify how local roadway improvement projects can be used to enhance the trail experience.

LANDSCAPE ENHANCEMENTS ALONG TRAIL CORRIDOR

Overall, a natural landscape design approach will continue to be the main theme used along most sections of trails. The primary exception to this is in developed downtown areas, where a more ornamental streetscape design theme may be used. In Forest Lake, landscaping along the trail will also be consistent with the themes defined in the TH 61 planning study. Any provisions in the lease agreement with the WCRRA as related to landscape enhancements within the corridor will also be adhered to as landscape improvements are made over time.



In the rural and less developed areas, a natural landscape character will prevail.



Within developed areas, a more designed landscape approach may be used, consistent with the character of the immediate area.

Given realistic budget constraints, any landscaping enhancements along the existing trail will focus on the following:

- Key points of entrance – to help identify/define the location and establish a pleasant aesthetic character as a user enters the trail
- Screening of adjacent properties – especially where land uses are considered unappealing and inconsistent with the trail character
- Accenting amenities – such as adding a few trees around a bench location to provide shade and frame views

On the southern end of the trail, a naturalistic landscape theme will be used when new trails are developed. This will include using natural grasses in all areas disturbed during construction, along with select placement of durable trees and shrubs to add character and provide visual buffers along the trail.

The exact location and design for all of these landscape improvements will be determined at the point of implementation based on the available budget. (A budget figure is included in the cost estimate in Section 5 for this purpose.)

PROVISIONS FOR SNOWMOBILES AND HORSES

WCRRRA, Washington County, City of Forest Lake, and City of Hugo all have the same policy that allows snowmobiles and horses to use the regional trail corridor. Except for bridges, snowmobiles and horses are not allowed to use the paved trail surface. Given the popularity of these uses, it is expected that these policies will remain in place for the foreseeable future. Any changes that may occur would be at the policy level and would not directly affect the trail development provisions defined under this master plan.

Nonetheless, each of these trail partners appreciate the public’s concern related to the interaction of snowmobiles and pedestrians during the winter, especially with respect to shared use of bridges. These issues will continue to be monitored and addressed as needed to ensure that the trail remains a safe recreational environment throughout the year. Further actions may include more education, improved signage, and stricter enforcement if use conflicts become a greater issue.

LAND ACQUISITION ISSUES

For the proposed trail segment associated with the active rail line (140th Street Down to Falcon Court), the WCRRRA acquisition program will continue to be used by Washington County in acquiring this railroad corridor right-of-way as it becomes available. For the proposed trail segment along Falcon Avenue Segment (Falcon Court Down to 120th Street), acquisition of an easement from BNSF railroad will likely be required and is included in the cost estimate on page 67.

At the local level, the City of Hugo will be responsible for trail easements associated with the interim trail route.

Section 4 Natural Resources Stewardship Plan

OVERVIEW

Natural resources stewardship refers to the thoughtful care of ecological systems to preserve or enhance their natural qualities, which are intrinsic to the trail's value as a place of natural scenery and respite from the built form. Although much of the trail is already developed or follows established rail and roadway rights-of-way, there are still water resources and ecological issues that need to be considered. This section provides a framework for stewardship consistent with those of other parks and open spaces in Washington County.

NATURAL RESOURCE INVENTORY

The Hardwood Creek Regional Trail corridor was surveyed using the Minnesota Land Cover Classification System (MLCCS) in 2009. (The MLCCS is a tool that categorizes and describes the land cover of an area, rather than its land use.) Since the trail follows a railroad corridor, the land cover along the trail is significantly altered from its original native condition. Most of the corridor is characterized by non-native grasses and trees such as Smooth Brome and Siberian Elm. The hydrology is intensely managed and is reflected by naturally vegetated stormwater swales and an interconnected culvert system in certain locations.

NATURAL RESOURCES PROTECTION STRATEGY

There are two main aspects to the natural resource protection strategy as it relates to the development of the trail. The first is managing stormwater associated runoff from the trail in an ecologically sustainable manner. The second is aligning the trail to minimize disruption to natural systems. The following considers each of these issues.



With few signs of erosion or other problems, not much will change along existing parts of the trail in terms of stormwater management.

USING NATURAL INFILTRATION AND BEST MANAGEMENT PRACTICES FOR STORMWATER MANAGEMENT

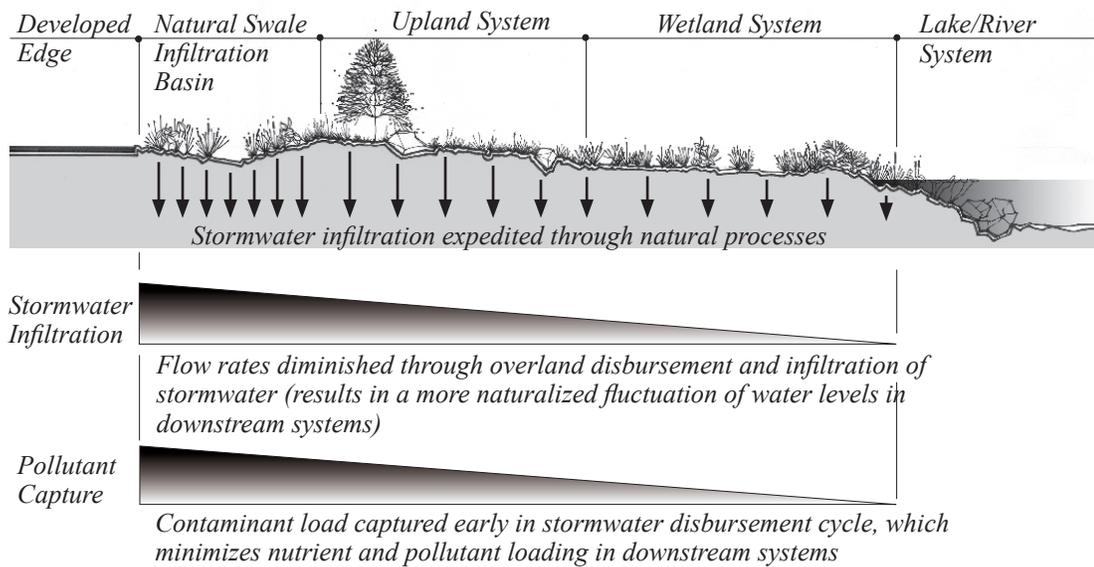
Managing runoff in an ecologically sensitive way is fundamental to creating sustainable trails where impacts to adjacent ecological systems are minimal. Using a natural infiltration approach to stormwater management that relies on passive, overland routing of runoff offers a couple of distinct advantages over conventional systems (i.e., storm sewers, engineered ponds, and other built structures), including:

- Introduced contaminants picked up by runoff are removed at the initial stages of water flowage rather than being transported to downstream locations and accumulating in wetland, lake, and river systems. This greatly reduces degradation to water quality and vegetative health in downstream systems.

- Stormwater flow rates and volumes more closely emulate natural conditions. This greatly reduces unnatural fluctuations in water levels in downstream systems (wetlands and lakes) and therefore reduces impacts to the natural condition of water systems and vegetation.

For these reasons, natural infiltration will be the primary approach used to manage stormwater associated with the development of the currently undeveloped segments of the regional trail. The following graphic illustrates the four primary components of a natural infiltration system.

NATURAL INFILTRATION SYSTEM



Where new segments of trail are proposed, best management practices will be adhered to.

The natural infiltration approach to managing stormwater will also be supported by *Best Management Practices* that address common development circumstances likely to be encountered as the trail is developed. These practices define specific techniques that can be applied to different development scenarios to achieve stated environmental protection objectives.

The Metropolitan Council’s *Urban Small Sites Best Management Practice Manual* provides the basic underpinning for many of the techniques that will be used wherever applicable as the trail is developed. Note that emerging ecologically-based techniques will also be applied to achieve desired ecological benefits. Specific techniques envisioned to have application for the trail include:

- Use of infiltration systems (e.g., biofiltration systems, rain gardens, filter strips, swales, and slotted/flat curbs) as part of trail designs
- Use of site grading techniques to achieve naturalized infiltration objectives

- Use of contemporary erosion control techniques to prevent migration of soils during the construction process

In addition to the above, the master plan is supported by the Minnesota Pollution Control Agency's *Stormwater Best Management Practices Manual* (2011). The provisions of this manual will be applied to the development of the trail as applicable.



Minimizing impacts to the occasional strip wetlands along the Falcon Avenue section of the trail will be an issue engineers will have to address at the point of development.

MINIMIZING DISRUPTION TO NATURAL ECOLOGICAL SYSTEMS

Since the vast majority of the trail follows the old rail bed or lies within a roadway/street right-of-way, aligning it to minimize disruption to natural systems is not expected to be a major developmental challenge. The only exception to this is on the southern end where the trail traverses through an open space with stormwater management ponds. The section along Falcon Avenue where the trail is situated between the street and railroad tracks also exhibits some strip wetlands and other limited natural features. In these situations, Washington County will work closely with project engineers at the time of development to minimize disruption to these systems, and appropriately mitigate where impacts cannot be avoided.

Meeting the Requirements of Various Agencies Associated with Natural Resources, Stormwater Management, and River-Related Development

In addition to meeting its own standards, Washington County will meet the requirements of other agencies that have various forms of direct and indirect natural resource and stormwater management related jurisdiction. This includes, but is not necessarily limited to, the following:

- **Local Watershed Districts** – issues related to stormwater management along the trail, including protection of identified wetlands and the rivers
- **Mn/DOT** – issues related to development within state-level public road rights-of-way
- **Cities of Hugo and Forest Lake** – issues related to development within local-level street and road rights-of-way, along with applicable local codes and ordinances

NATURAL RESOURCES STEWARDSHIP PLAN

Natural resource stewardship relates to restoring, managing, and maintaining ecological systems to enhance their intrinsic values, protect remnant landscapes, and provide ecological benefits. The following provides an overview of the stewardship goals pertinent to this regional trail corridor.

STEWARDSHIP STRATEGY

In general, the stewardship program will be consistent with the established standards that WCRRRA has in place for the parts of the trail corridor that fall within its jurisdiction. Washington County's 2030 Comprehensive Plan – Natural Resources will also be used as the baseline goals and policies for managing natural resources along the trail corridor. The program will also be coordinated with the stewardship activities associated with other natural open space areas and parks in the county to gain program efficiencies and effectiveness.

At the technical trail design level, stewardship will focus on four priorities:

- Minimizing potential for erosion during construction
- Buffering adjacent ecological systems
- Enhancing the quality of natural resources within the corridor to the extent possible consistent with ecological prototypes for healthy systems that are suitable to the conditions found along the corridor
- Enhancing the natural scenic qualities of the corridor through native planting in select locations as the trail is developed

TECHNICAL RESOURCES IN SUPPORT OF THE NATURAL RESOURCES STEWARDSHIP PLAN

In addition to Washington County's 2030 Comprehensive Plan – Natural Resources, the guidelines for natural resource stewardship defined in two publications from MN DNR are also referenced as part of this master plan. The first is *Guidelines for Managing and Restoring Natural Plant Communities Along Trails and Waterways* (2000) and the second is *Trail Planning, Design, and Development Guidelines* (2006). Both of these provide valuable technical information that support the strategies defined under this master plan.

Section 5 Implementation and Management Plan

OVERVIEW

Implementing the master plan for Hardwood Creek Regional Trail will require capital investment primarily for trail development. As is currently the case for the developed section, management of the trail will also incur ongoing costs for operations and maintenance. The following provides cost projections for developing the trail, along with an implementation strategy and overview of an operations and management plan.

ACQUISITION AND DEVELOPMENT COST PROJECTIONS

The forthcoming cost projections define the potential costs associated with implementing the master plan to an optimal level of development. The projections are based on a combination of site-specific development issues and professional judgments based on projects of similar characteristics. The projections are based on 2013 dollars, which will require inflation adjustments over time.

The intended use of the cost projections is to aid implementing agencies in developing an overall funding and implementation strategy, including:

- Defining the magnitude of the investment needed to develop the trail
- Comparing the relative cost of trail development items
- Prioritizing and budgeting for capital improvement program

Implementation costs may vary, perhaps significantly, depending on the actual conditions found out in the field, final design, and economic conditions at the time of bidding and implementation. To remain relevant, the cost projections should be updated on a periodic basis.

ACQUISITION OVERVIEW AND COST PROJECTION

As define on page 62, there are anticipated direct land acquisition costs associated with the proposed trail segment along the Falcon Avenue segment (Falcon Court Down to 120th Street). This includes acquiring an easement from BNSF based on the following assumptions:

- 15 feet of railroad right-of-way, on average, will be needed for trail development
- 4,100 linear feet of easement is needed
- Approximate amount of railroad property needed is 61,500 s.f.
- Average cost per square foot of adjacent property estimated to be \$3.00

Based on the above, **the estimated acquisition cost for the trail easement of this segment of trail is \$184,500.** Note that all final costs are subject to negotiation at the time of development, which could significantly affect actual costs.

DEVELOPMENT COST PROJECTIONS

Cost projections for developing the remaining segments on the regional trail are on a unit basis based on typical average costs for developing similar trails in Washington County and other counties. The following table defines the projected cost for developing the trail to an optimal level using appropriate design standards for regional trails. The cost projections take into consideration assumptions regarding the basic conditions along the corridor. Timing of development will also affect cost projections – which generally means costs will rise above what is shown the further out into the future development occurs. The cost estimate is broken down in a series of tables since the project will likely be developed in phases.

Optimal
Timing:
Phase 1

→ **COST PROJECTIONS – EXISTING TRAIL IMPROVEMENTS (NORTH OF 145TH STREET)**

ITEM	COST ESTIMATE
Misc. site amenities additions/improvements – benches, signage, kiosks, etc.	\$20,000
Planting/landscaping enhancements along trail	\$25,000
Subtotal	\$45,000
15% +- Design/Engineering Fees (testing, design, surveying, engineering, etc.)	\$7,000
10% +- Construction Contingency	\$5,000
Total Cost this Phase	\$57,000

Optimal
Timing:
Phase 1

→ **COST PROJECTIONS – FROM 145TH STREET DOWN TO 140TH STREET**

ITEM	COST ESTIMATE
Mobilization – for duration of project	\$7,000
Removals, clearing and grubbing	\$7,000
Grading and culverts	\$18,000
Erosion control	\$9,000
Asphalt pavement and trail elements (ped ramps, etc.)	\$65,000
Site restoration – topsoil, natural seed mix, etc.	\$8,000
Planting - screening of properties, etc.	\$10,000
Misc. site amenities/improvements – benches, signage, kiosks, etc.	\$6,000
Subtotal	\$130,000
15% +- Design/Engineering Fees (testing, design, surveying, engineering, etc.)	\$20,000
10% +- Construction Contingency	\$13,000
Total Cost this Phase	\$163,000

Optimal
Timing:
Phase 1
or 2

COST PROJECTIONS – FALCON AVENUE SEGMENT (FALCON COURT DOWN TO 120TH STREET)

ITEM	COST ESTIMATE
Mobilization – for duration of project	\$17,000
Removals, clearing and grubbing	\$10,000
Grading and culverts	\$25,000
Erosion control	\$14,000
Asphalt pavement and trail elements (ped ramps, etc.)	\$100,000
Site restoration – topsoil, natural seed mix, etc.	\$10,000
Planting - screening of properties, etc.	\$15,000
Misc. site amenities/improvements – benches, signage, kiosks, etc.	\$10,000
Subtotal	\$201,000
15% +- Design/Engineering Fees (testing, design, surveying, engineering, etc.)	\$30,000
10% +- Construction Contingency	\$21,000
Total Cost this Phase	\$252,000

Optimal
Timing:
Phase 2
or 3

COST PROJECTIONS – 140TH STREET DOWN TO FALCON COURT (LONG-TERM SEGMENT)

ITEM	COST ESTIMATE
Mobilization – for duration of project	\$30,000
Removal ballast, general site prep, and grading	\$35,000
Erosion control	\$25,000
Asphalt pavement and trail elements (ped ramps, etc.)	\$205,000
Site restoration – topsoil, natural seed mix, etc.	\$20,000
Planting - screening of properties, etc.	\$20,000
Misc. site amenities/improvements – benches, signage, kiosks, etc.	10,000
Subtotal	\$345,000
15% +- Design/Engineering Fees (testing, design, surveying, engineering, etc.)	\$52,000
10% +- Construction Contingency	\$35,000
Total Cost this Phase	\$432,000

COST PROJECTIONS SUMMARY – TOTALS ALL PHASES

\$904,000

**OPERATIONS AND
PAVEMENT PRESERVATION
COSTS**

Once the trail is developed, operations and maintenance of the trail will fall under general operations for the Parks Division. This includes:

- General operations and maintenance – pro-rated, consistent with other parks and trails in system
- Public safety patrols – consistent with other parks and trails in system

PAVEMENT PRESERVATION PROGRAM AND ONGOING COSTS

In an effort to maximize the public investment in the Hardwood Creek Regional Trail, Washington County has developed a pavement preservation program that will maintain a high quality trail experience for 25 years. To achieve the full life-span of the trail (pavement), a variety of maintenance/preservation activities will occur as needed over time, as described in the following table.

PAVEMENT PRESERVATION PROGRAM ACTIVITIES SCHEDULE

ACTIVITY	DESCRIPTION	FREQUENCY	ESTIMATED COSTS (2013)
Crack Sealing	Filling 1/8” to 1” vertical and horizontal cracks in the trail	Every 2-3 years (annual review)	Depending on condition; \$500-\$1,000 per mile
Seal Coating	Applying emulsification mixture to bind coarse materials and create smooth, black surface	Every 5-7 years	\$1,000 per mile
Re-Paving (3”)	Remove old bituminous surface and replace with 3” of new bituminous	Once in 25 years	\$150,000 per mile

As the table illustrates, investments to preserve the trail vary from year to year depending on its condition and the prescribed activity. On average, over the course of a 25-year lifecycle of the entire planned 12-mile trail corridor, **Washington County anticipates a \$50,000 - \$75,000 average annual investment to maintain a high quality trail experience along the corridor.** The *actual* annual costs will vary from year to year, and a large investment once every 25 years skews the average annual budget number upwards. For master planning purposes, this is what Washington County expects to invest in maintaining the Hardwood Creek Regional Trail.

**NATURAL RESOURCE
STEWARDSHIP COST
PROJECTIONS**

The Washington County Parks Division will manage natural resource stewardship for the corridor as part of a larger program associated with trails, parks, and natural areas throughout the county. **The annual costs associated with this corridor is anticipated to be up to \$,5000**, with the primary focus being on controlling invasive species. Volunteer efforts will also be promoted to add value to this program.

MANAGEMENT AND OPERATIONS

The Washington County Parks Division is charged with the management and operation of the County's park and trail system. This includes Hardwood Creek Regional Trail as defined under this master plan. The Washington County Board of Commissioners establishes policies and goals for the park and trail system and through an annual budgeting process provides capital and operating funds for parks.

ORDINANCES

Public use and enjoyment of the County park and trail system, including Hardwood Creek Regional Trail, is controlled by Ordinance No. 174, Park Ordinance, (the Ordinance) which was last amended on May 23, 2006. 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 Recreation Activity
- Regulation of Motorized Vehicles, Traffic and Parking

A copy of the ordinance is available through Washington County.

ENFORCEMENT

Trail users will be informed of trail rules and regulations in a variety of ways. Kiosks and signs will be strategically located to address specific information about allowable trail uses, permitted and prohibited activities, fees, and directions. The Washington County Sheriff's Department responds to emergencies and criminal complaints.

GENERAL OPERATIONS

The Parks Division has an annual operations and maintenance budget of approximately \$2,000,000 to operate and maintain the County's park and trail system with approximately 16 permanent employees. In addition, approximately 70 seasonal employees are hired each year as life guards, maintenance workers and gate attendants.

OUTREACH AND MARKETING

Washington County continues to expand its outreach activities, in an effort to improve public awareness of its park and trail facilities, programs, and services. This outreach effort has various components, including the following:

- **Printed Materials:** Washington County has developed and distributes on a regular basis brochures and maps, including trail and park maps and picnic, camping, and other brochures. Park and trail fliers are also distributed to County departments, libraries, community agencies, and other contacts throughout the community.
- **Electronic Communication:** Washington County has a web page to inform citizens about the County's functions and services (trails, park facilities, programs, etc.). In addition, the public can contact the Parks office through the County's email system.

- **Other Outreach:** Other forms of outreach and marketing include displays at the Washington County Fair, articles in the County Commissioners’ quarterly newspaper, the production of flyers and brochures and the display of information at County Service Centers and park kiosks. The County also publishes news releases and advertisements in local community and metropolitan area newspapers that highlight upcoming programs and facility openings. The County also promotes park and trail use through feature articles and presentations to other County departments and local agencies. The use of social media is expected to grow and become a more routine aspect of the County’s communications strategy.
- **Marketing Initiatives:** Washington County will be developing a comprehensive marketing plan to increase public awareness, understanding, and use of park facilities, services and programs. In addition, the marketing plan will identify the need to expand and diversify marketing and communication efforts to advance park use by minority populations and special needs groups. Here too, the use of social media is expected to grow and become a more routine aspect of the County’s marketing strategy.

PUBLIC INVOLVEMENT IN IMPLEMENTING THE MASTER PLAN

Public interest in the trail is expected to remain high in the years to come, especially as it relates to the impact the trail will have on individual properties. Public involvement and comment will continue to be sought during the design and construction phase to ensure that every precaution against avoidable impacts is taken in a good-faith manner. In addition, forums for broader public input (e.g., open houses and presentations) are also envisioned as needed to communicate and exchange ideas with interested citizens.

The objectives associated with involving citizens in the implementation process include:

- Determine who the stakeholders are and their interest in a particular segment of the trail
- Understand their needs and unique perspectives
- Identify and understand concerns and problems
- Develop alternatives and find appropriate solutions with input from stakeholders

In addition, Washington County has an appointed Parks and Open Space Commission that advises the County Board on development initiatives within the county. The public is welcome to attend its regularly scheduled meetings. Also, Washington County is continuing to develop numerous tools to provide a consistent level of communication with interested citizens, as previously defined.

MAINTENANCE

Maintenance of facilities and lands is essential to protect public investment, enhance natural resource qualities and achieve the County's goals of providing users clean, safe, enjoyable year round park experiences. Washington County Parks Division has a clearly defined maintenance program. Reporting to the Park Director are the Park Managers of Planning and Operations. Reporting to the Parks Manager for Operations are the Maintenance Supervisor, Parks Coordinator, and office staff. The Maintenance Supervisor oversees five maintenance workers, 12 seasonal maintenance workers, and six park attendants. In addition, the Washington County Public Works Department will provide assistance to maintaining the trail segment located in roadway rights-of-way.

As trails and other park land and facilities are further developed, new or expanded maintenance services will undoubtedly need to be provided by Washington County. Washington County remains committed to performing the maintenance functions necessary to maintain high quality parks and trails in the county. Traditional and non-traditional funding and staffing sources will continue to be pursued to meet the maintenance needs of the county. In this particular case, however, the additional cost for maintenance is expected to be modest and manageable since there is only about 2.5 miles of additional trail to maintain. Further, any trailhead-related enhancements to Hardwood Creek Park are not expected to result in any significant additional maintenance over what is already provided.

PROVISIONS FOR TRAIL MAINTENANCE

One of the issues that came up at several open houses is concern about operations and maintenance of the trail once it is built. To that end, the following provides general guidelines for monitoring and maintaining the trail to prolong its life and provide a safe surface to travel on. An important complementary value of a well-maintained trail is that it encourages higher levels of use, which in turn serves as its own deterrent to undesirable activities, such as trespassing.

The guidelines are based on common practices in Minnesota and take into consideration climate and other site conditions. Note that the guidelines will still have to be tailored to site specific conditions once the trail is developed.

Monitoring and Inspections Schedule

Monitoring and inspections of all facilities should occur throughout the year to detect maintenance issues before safety is compromised. The following table provides an overview of inspections that will be completed during each season.

INSPECTIONS SCHEDULE GUIDELINES

A routine inspection schedule is important for staying on top of maintenance issues and taking care of problems at an early stage. The following are guidelines for a seasonal schedule for inspections.

Season	Inspection Focus
Spring	Inspect for damage from winter use and freeze-thaw cycles. Check for erosion, plugged culverts, user and maintenance vehicle-caused damage, slumping, cracking, and other visible signs of surface imperfections. Record problems and schedule maintenance on a priority basis.
Summer	Inspect regularly. In addition to items listed for spring, inspect vegetation growth and encroachment and pay special attention to drainageways and ditches that may have eroded during the spring runoff. Record all problems and schedule maintenance on a priority basis.
Fall	Inspect regularly. Focus on maintenance that should be done before winter to avoid more damage during spring thaw. Pay special attention to culverts and drainageways that will be needed to handle spring runoff. Fill cracks.
Winter	This is a good time of year to check low areas and drainages that cannot be easily accessed during the summer. This includes culverts, ditches, and beaver ponds

General Maintenance Guidelines

Washington County has an established maintenance program for paved trails that includes the following:

- **Vegetation management** – to maintain an acceptable clearance zone and preserve the integrity of the trail surface
- **Asphalt repair** – to maintain quality of trail surface and prolong its lifespan
- **Seal coating** – surface treatments used to cover minor surface imperfections and asphalt deterioration from weathering and oxidation

Routine Maintenance Guidelines

In addition to seasonal monitoring and inspections, routine maintenance will also be undertaken consistent with Washington County’s policies. Most notably this includes sweeping to remove loose sand and debris on the surface of all trails (typically at least once a year, normally in the spring).

PUBLIC SERVICES

Other than what has already been described in this report, no additional public services – such as roads or sewers – are required to develop the trail.

Appendix A Board Resolution

BOARD OF COUNTY COMMISSIONERS
WASHINGTON COUNTY, MINNESOTA

RESOLUTION NO. 2013-060

DATE <u>May 21, 2013</u>	DEPARTMENT <u>Public Works/Parks Division</u>
MOTION BY COMMISSIONER <u>Miron</u>	SECONDED BY COMMISSIONER <u>Kriesel</u>

HARDWOOD CREEK REGIONAL TRAIL MASTER PLAN

WHEREAS, in 1994, Washington County received permission from the Washington County Railroad Authority to develop a 10-mile trail along an abandoned rail bed in the Cities of Hugo and Forest Lake; and

WHEREAS, a trail master plan is required to address the criteria set forth in the Metropolitan Council's 2030 Regional Park Policy Plan (update December 8, 2010) for regional destination trails and to become eligible for Metropolitan Council funding; and

WHEREAS, the master planning process has included two public meetings and two Technical Advisory Committee (TAC) meetings that included representatives from the Cities of Hugo and Forest Lake, the Minnesota Department of Transportation, the Comfort Lake Forest Lake Watershed District, the Rice Creek Watershed District, Ramsey County Parks, Anoka County Parks and Chisago County Parks; and

WHEREAS, the draft trail master plan was reviewed and recommended for approval by the Washington County Park and Open Space Commission (POSC) on March 21, 2013; and

WHEREAS, the Washington County Board of Commissioners conducted a public hearing on May 21, 2013, to review and receive comment on the Hardwood Creek Regional Trail Master Plan; and

WHEREAS, a master plan review has been completed through a public process that meets Metropolitan Council requirements for public input; and

NOW, THEREFORE, BE IT RESOLVED that the Washington County Board of Commissioners approves the Hardwood Creek Regional Trail Master Plan; and

BE IT FURTHER RESOLVED that the Hardwood Creek Regional Trail Master Plan be forwarded to the Metropolitan Council for review and approval without further action by the County Board.

ATTEST:


COUNTY ADMINISTRATOR

COUNTY BOARD CHAIR

	YES	NO
BEARTH	<input checked="" type="checkbox"/>	<input type="checkbox"/>
KRIESEL	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LEHRKE	<input checked="" type="checkbox"/>	<input type="checkbox"/>
MIRON	<input checked="" type="checkbox"/>	<input type="checkbox"/>
WEIK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Appendix B Public Comments

Email Comments Received about Hardwood Creek Regional Trail Master Plan

Sent January 17, 2013

I am a Forest Lake resident and a Planning Commission member. I am not sure if I will be able to make the January 24, 2013 meeting. I would like to give some input regarding the trail. I am assuming that it will continue as a trail.

I use the trail on a regular basis unless there is snow. I walk my dog, run, rollerblade, and bike on the trail. I do appreciate the bridges. I wish I could cross-country ski on the trail but that is impossible and frankly, not safe. The snowmobilers ruin any chance of using the trail when there is snow - well other than snowmobiling which I not do. I love snowmobiling but don't have one.

The snowmobilers completely disregard the trail signs, ride on the trail and not just the side and they go very very fast. I think it is a game to knock the signs over. I have tried walking on the trail and usually the snowmobilers do not even slow down or move over. I have to step far off to the side and let them pass. The snow on the trail is so cross packed leaving no way of being able to cross-country ski, run, and even walking, outside of the safety issues.

Chisago plows their part of the trail and usable for walking, running, and biking (yes I bike in the winter). The snowmobilers have no choice but to use the side once it is plowed. You can tell the quality of the trail improves a lot once you get to Chisago with less stud marks. It still precludes cross country skiing.

In addition, I would like to see a few garbage cans along the way. I do clean up after my dog and would like some place to throw it away. I usually use the dumpster at the city hall but often have to carry it until I get to a public garbage can.

Thanks for the opportunity.

Julie L. La Fleur

Sent February 1, 2013

Here are my thoughts about the trail (I currently live in Hugo, just west of the new Elementary School on Heritage Pkwy):

1. Connections.
 - a. I used to live on 130th St N, and was very interested in extending the HCT south to 140th so I could access the trail without having to ride on Highway 61. I'm sure my old neighbors would still like such an extension.
 - b. Anything we can do to connect to trails to the south (Vento) would be great. I've bicycled to downtown St. Paul from Hugo and trying to parallel Highway 61 to reach the Vento trail at Buerkle Road is scary.
 - c. For me, the trail going to No. Branch is far enough to the north and I'm not sure I'd use any extensions in that direction.
 - d. Connections to the east to either the Gateway or the new trail coming out of Stillwater would be great.

2. Condition.

- a. I will occasionally rollerblade, and as I'm sure you know those little wheels are vulnerable to small surface defects. Why is it that these trails seems to deteriorate so rapidly? Could they be constructed so as to last longer? And when we recondition the asphalt to try and extend the life, is there a way to do that so that rollerbladers can still skate?
- b. Despite efforts to prevent damage, it seems snowmobiles are tearing-up the trail. Is there a better way to prevent that damage?

3. Crossings.

- a. I appreciate all of your efforts to install bridges over major road crossings. Well done!
- b. For intersections without bridges, would it be possible to trim trees/shrubs to increase visibility on the approaches?

4. Future. If light rail is ever built in this rail corridor, will the paved paths survive?

That's why we landed yet again in Hugo/Washington County.

Thank you very much,

Kevin

Sent February 2, 2013

I wasn't able to attend the hearing about improvements to the Hardwood Creek Trail, but I have a suggestion:

I live about 1/2 mile away from the trail, and use it frequently for biking and running. To promote fitness, can mile markers be added in some way? It would be interesting to know how many miles I run or bike when I go to Hugo or Wyoming on my bike or runs.

Either trailside signs, (these can be seen even in winter when the trail is covered by snow)- or painted directly on the pavement?

I moved here from St. Cloud, which is near the Lake Wobegon trail. I don't know which government entity is involved in that project, but they have allowed Scout and 4H groups "adopt" stretches of the trail and they have added benches, signage, and trash removal as part of their citizenship or community service component for membership or achievement. Win-win!

Thanks for listening!

Sheila Allen
6325 207th St N
Forest Lake, MN 55025

Sent February 7, 2013

I am a Hugo resident who uses the trail during the spring/summer/fall. The Citizen newspaper requested those who use the trail to contact you about our usage and improvement ideas for the trail.

I use the trail for bicycling. I use the trail 2-3 times per week when the weather permits. I go northbound to Forest Lake.

The third point in the sidebar of the article asked what additional amenities or services would improve my trail experience. Sometimes, I think the trail is too narrow if there is a bike coming from the opposite direction or a family is on the trail. Maybe lane markers/painted line dividers would help keep traffic to the right so others don't have to go off the trail to pass. Also, I wish dog walkers would pick up their dogs' poop. It's worse when horseback riders ride on the pavement and their animals leave their piles all over the trail. It's just plain inconsiderate. Maybe if a few more benches were added to the side of the trail, more people might use it.

It would be great to extend the trail southbound past Hwy. 8 toward White Bear Twp.

Thanks for your time! Looking forward to hitting the trail again this spring.
Karen Knutson

Sent February 8, 2013

I just checked out the article in The Citizen about the trail so I want to respond. I am a resident of Hugo and my wife and I use the Hardwood Creek Trail probably 100 times during the year. Almost exclusively spring / summer / fall. Our primary uses are biking and running.

Amenities? Some kind of waste disposal receptacles would be nice, maybe with occasion covered benches for shade.

As far as expansion - my preferences would be to let it link with whatever trail systems would lead to expanded exploration of the existing trails in Ramsey Co and Bald Eagle.

Looking forward to progress in the years to come,

Mark Coughlin
5145 Farnham Drive N
Hugo, MN 55038

Sent February 10, 2013

I read with interest the article in The Citizen on February 7th on the Hardwood Creek Trail. As many of you know I am an horse back rider and was an avid and vocal supporter of the trail for horse use during it's development. But now is the time to rethink the use of the rail bed south of 147th Street North because from my home near Withrow I am within 1.5 hours of over 300 miles of horse trails but I am no where near any rail transit lines. Like most in the Washington demographic I am not a bus rider but I am a rail rider.

Now it the time to build the local coalition for the return of the rail line and passenger service to 147th Street North. The trail to the north Of 147th should be retained in dual tredway trail use. There are connections that can be made to the larger transit system. The City has obtained and cleared vacant land near where the rail line would run so there is currently ample room for development, that vacant land may not be there in 5 years or it may be configured poorly for taking advantage of transit development. When I wrote the draft EIS for the North Star Corridor it was pretty clear that the communities that had vacant land would do well and they have. Those that haven't had the vacant land have been struggling to integrate transit development. The two examples I would offer are Big Lake and Elk River.

There are plenty of reasons why (or as my former commander use to say puny excuses) why this can't be done: The County would prefer that the ultimate transit site be in Forest Lake, the Rush Line is not high priority. Met Council didn't think of it in their plan. Those decisions were made before the development options became available in Hugo. There is no reason to not implement a transit extension incrementally to provide economic development opportunities for the communities along the route. If the interim development only goes as far as County 8 at this time it would be a great opportunity for both the county and the community. Imagine the flow of traffic coming from White Bear and Lino Lakes to Hugo to commute by train. I would love to hop a train to go to my meetings in Minneapolis. Other than going to the feed mill and the bank I rarely shop in Hugo. A train would change that for me and I believe regular commuters also.

I think it is time to get out of the box and thing about this in the bigger context of county and city needs and opportunities rather than just recreation needs.

I have attached a map of the metro rail lines for your convenience. Based on my experience with transit feasibility studies there should be enough information in existing documents to do a preliminary feasibility study and cost estimate. I will warn you though that there are missing benefits from most of those studies and that is the savings in future infrastructure costs. Those costs can be significant and in fact were a key factor in having a positive benefit cost ratio for the Rochester Minnesota flood control project.

If you have any questions please call me.

Jody Rooney
12548 Keller Ave. No.
Hugo, MN 55038

Sent on February 21, 2013

In regards to the notice in the Hugo Citizen:

1. Yes

I use the trail mostly for bike riding. *See further comments as to why!!

2. I use the trail mostly in the late spring (after ice and snow is gone), summer and nice fall weather. It can be once or twice a week depending on weather and my other activities.

3. My biggest problem with using the trail concerns the inconsiderate and disrespectful behavior of other users.

Examples: a. the people who DO NOT announce themselves when coming up from behind

b. the amount of dog and horse leavings one needs to avoid.

I do not use head phones, etc., but when running or biking, the sudden appearance of another bike or one on roller blades along side, has a tendency to startle a person. A simple "**On your left**" or "**Behind you**" would be courteous and much appreciated.

Also, with the mowed grass area along the blacktop, I don't believe the horseback riders need to be on the blacktop. When they do ride there, I believe they should also do as dog owners are expected to do - CLEAN UP AFTER THEIR HORSE or dog.

*Due to the above reasons, I have mainly been running on 145th Street to Goodview to Co. Rd. 8 and back, using the streets through Diamond Point West and East. For the most part, drivers on Goodview are very courteous, moving over and/or reducing speed. I feel safe even though there is no real shoulder for running.

4. I have no thoughts on this item.

5. **Are there local trails that should connect??** My main "gripe" and one that I have expressed to the City Council is THAT THERE ARE NO REAL TRAILS EAST OF HIGHWAY 61. There are some sidewalks, none of which are continuous in any direction. That leaves only the street for walking, biking, and running for any distance. There are no shoulders to speak of on 147th/Oneka Lake and what is there has broken up blacktop and holes that create risks.

So, whatever is done to Hardwood Creek Trail, I believe that **there is a real need for a trail on the east side of Highway 61**. THEN, a safe and well marked crossing over HWY 61 to the H.C.T. can be designated.

Marie A. Peterson
14916 Francesca Ave. N
Hugo, MN 55038

Sent on February 22, 2013

This is in response to the article in The Citizen newspaper.

I live off 159th St. N. in Hugo and use the Hardwood Creek Regional Trail on a daily basis. I enjoy early morning runs and afternoon bike rides on the trail. I would love for the trail to be plowed in the winter so I could continue to use the trail all year round. I realize the trail runs parallel to the snowmobile trail but the snowmobiles are restricted from using the trail. The snow removed from the trail could be groomed into the snowmobile trail adding a thicker base.

As for connecting other trails, that would be a great addition.

Thank you for your time.

Happy Trails,

Curt Centers

Sent on February 25, 2013

This email is in response to the Hardwood Creek Trail article in the Citizen a week ago. I'll start my letter by mentioning that I was employed for the summer last year at the St. Croix Bluffs Park and happened to meet you one day when you were there checking out the prairie restoration project. You may remember I mentioned the piece of land the City of Hugo has purchased just north of County Rd. 8 on Irish Avenue. It's presently a passive park and is a large and beautiful piece of property. You explained to me how various levels of government develop parks for different purposes. Hugo has a myriad of townhome dwellers with little or no access to the outdoors, and my hope is still that those deciding the future of that plot of land will preserve a large part of it to be restored/preserved as a natural setting.

Almost 3 years ago I purchased a townhome at 140th and Hwy 61. When I heard the land had been purchased that would extend the Hardwood Creek Trail to 140th Street, I was really pleased. I walked that rough stretch a number of times after the rails were taken up last spring/summer. Since living here, I've been on a search for a place within walking or biking distance where I'd be able to enjoy nature. There is no such place near me. I drive over to enjoy Ramsey County's Tamarack Nature Center, but always wish it was nearer to my home. At present, when I walk locally, I cross 61 and go over to Fenway. Once the Hardwood Creek Trail comes this far, I'll be able to walk north to City Hall or to the post office which are not options at present due to the traffic on highway 61. I look forward to the extension of the trail!

I did quite a number of the Hardwood Creek Trail counts for Lori Meyers last summer. As I sat on the middle of the bridge over Broadway in Forest Lake for a count one day, I was particularly impressed with how much the residents there enjoyed the trail. I think it will be appreciated as much by Hugo residents once it extends south. A large group of walkers got on the trail one evening as I counted at the Transit Center south of Forest Lake. I was told by two bicyclists those folks were walking club members who use the trail regularly. Those bicyclists turned out to live in my own neighborhood in Hugo. The trail is a strong asset for all our communities.

You asked in The Citizen for thoughts on extending the bike trail to the Bald Eagle Lake Regional Park. From there back streets could be taken into the city of White Bear Lake which people would appreciate. Bald Eagle Regional Park is not much of a destination in itself. My children are grown now, but as I raised them in this area, that park was not on the list of parks we enjoyed. The area has a bad smell now due to whatever water/sewer treatment is done there. The main attraction is its boat launch. There is, however, a large, partially open, partially wooded area to the north of the park, owned by Ramsey County I believe. A walking path is kept mowed in the field. A person can actually get to the lakeshore through the wooded area. It takes some exploring to discover this, and some improvements/amenities in that area would make a wonderful destination!

Definitely, extend the trail south to White Bear Lake and to Ramsey County trails! For myself, I hope there will be connections to natural areas along the way, a distance off the path to get away from highway noise, pleasant and pretty enough to be destinations in themselves.

Thank you for your work with the parks - such an important contribution to the well being of our communities and people.

Sincerely,

Kathy Penn

Sent on March 7, 2013

My wife and I did not make it to the January meeting and will probably not make it to the March meeting, but I wanted to send you an email with answers to the questions I saw in The Citizen.

1. Do you use the Hardwood Creek Regional trail? If so, what is your primary mode of travel?

Yes, my wife and I use the trail for walking and biking, some in-line skating.

2. How often do you use the trail in the summer/fall/spring/winter?

Summer/fall/spring we use it weekly, weather permitting; in the winter we do not use it.

3. Are there additional amenities or services you would like to add or change to improve your experience on the trail?

We are very happy with the trail the way it stands. The only thing I could think of is maybe adding some old-style hand pump water fountains.

4. Do you have any thoughts on extending the trail to Ramsey County's trail system and Bald Eagle Lake Regional Park?

We love the idea of extending the trail! Currently, we just travel straight north on the trail, but we love the idea of being able to go south and connect to more trails and parks. Now, we load our bikes onto the car and drive to those longer trails since HCR is relatively short for biking.

5. Are there important local trails that should connect to the Hardwood Creek Regional Trail?

The one that has always baffled me is why it doesn't go that extra block south to Co Rd 8/14. That would make a nice loop with Oneka Pkwy and 159th St. Larger than that, connecting south to Bald Eagle Park, or perhaps connecting east on 170th all the way to Big Marine Park Reserve would be really nice.

Thank you for your work on the trail and thank you for reading my email!

Let me know if there is anything else you would like an opinion on.

Steve and Natasha Langness

5540 159th St N, Hugo MN

End of report.

WASHINGTON COUNTY PARKS

JULY 9, 2013



MASTER PLAN
FOR
HARDWOOD CREEK REGIONAL TRAIL