



WMRRT users cross under TH 169 adjacent to the Mississippi River | Champlin, MN  
Image Credit: Three Rivers Park District

# 4

## DESIGN GUIDANCE DEVELOPMENT CONCEPT

The 20 mile WMRRT is planned through the Hennepin County cities of Dayton, Champlin, Brooklyn Park and Brooklyn Center. The regional trail will fill a critical gap in the regional trail system while providing a highly desirable recreation amenity to adjacent communities as well as the greater region. The regional trail will also incorporate safe crossings of significant pedestrian and bicycle barriers including county/state highways, and connections to adjacent trails that cross the Mississippi River.

The incorporation and routing of the regional trail through Mississippi Gateway and North Mississippi River Regional Parks will preserve the opportunity for regional trail users to enjoy and experience some of the region’s scenic landscapes and areas of high quality natural resources in perpetuity. Recent Twin Cities-wide reinvestment in the Mississippi River includes re-envisioning the river as a community place-making asset that provides a physical and metaphorical backbone. This plan call for further enhancing and connecting to this asset with improved and additional river touchpoints where opportunities present themselves.

The primary intended use of the regional trail is recreation. However, the regional trail also will serve a non-motorized transportation function to those using the trail corridor to access one or more of the places of interest including, local residential neighborhoods, and several existing national and state recreational amenities. Those complementary recreational amenities include; National Park Service’s Mississippi NRR, Great River Road National Scenic Byway and MnDOT’s U.S. Bicycle Route 45. Existing regional trail connections include Rush Creek and Twin Lakes Regional Trails, and the planned extension to Elm Creek Park Reserve and Crow River Regional Trail at the confluence of the Crow and Mississippi Rivers.

### ROUTE EVALUATION

Early in the planning process, the Agency Stakeholder and Advisory Committees were tasked with developing WMRRT route evaluation guiding principles. These guiding principles were the foundation to publicly review proposed routes against.

The seven guiding principles, as defined by the master plan stakeholders and advisors, stated that the WMRRT route must:

- Engage with the Mississippi River.
- Connect to local destinations (i.e. parks and trails, schools, employment and entertainment).
- Be politically supported.
- Be fiscally responsible.
- Be direct and not duplicative of similar efforts led by other agencies (local and regional).
- Be environmentally sustainable (avoid traveling through wetlands, sensitive areas, etc.).
- Promote trail user safety.

A full summary of public feedback regarding route evaluation can be found in **Appendix A**. The WMRRT route was subsequently divided into four planning segments - each representing its respective city boundaries (**Map 4 & Table 3, following page**).

### the **BL** THE BOTTOM LINE key message

The WMRRT is planned as a destination regional trail - offering opportunities to **view, touch and feel the Mississippi River**.



Regional Trail users enjoy a quick break at Coon Rapids Dam.  
Source: Three Rivers Park District

### Map 4: West Mississippi River Regional Trail | Segments

Source: Three Rivers Park District



The WMRRT is intended to safely accommodate 240,000 annual visits, an array of non-motorized uses, a variety of skill levels and persons with special needs. In addition, the regional trail is intended to support both recreation and commuting uses and incorporate trail amenities that enhance trail users' experiences.

Similar to many regional trail corridors, the WMRRT corridor includes several challenges associated with constructing a regional trail where trail right-of-way doesn't exist, providing access to and across natural resources areas and balancing safety, public expectations, natural resource protection and potential private property impacts. In areas where physical challenges exist and in accordance with the route evaluation criteria, willing-seller property acquisition will be considered.

One of the key elements to constructing the WMRRT is to design and construct it in a manner that meets users expectations and needs, meets industry standards and best management practices and is financially responsible. As such, the Park District utilizes a series of regional trail practices and guidelines in respect to trail design and support amenities. These practices and guidelines are summarized in this chapter and will serve as the basis for design and construction of the WMRRT.

#### PERMITTED USES

The regional trail will be open to the general public, free of charge. Its intended uses include walking, jogging, in-line skating, bicycling and other uses mandated by state law including, but not limited to, non-motorized electric personal assisted devices. Motorized vehicles will be prohibited, except for motorized vehicles used by the Park District and partner cities for maintenance or law enforcement activities or otherwise permitted for ADA access.

#### ACCESS TO ALL

The Park District is committed to providing access and recreational opportunities to all people, including persons with disabilities, people of color and other special-population

### Table 3: West Mississippi River Regional Trail | Segment Descriptions

Source: Three Rivers Park District

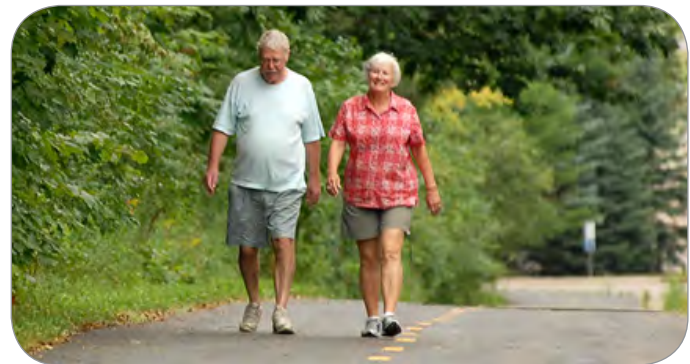
SEGMENT A   Dayton			
Municipality	Trail Status	Length	Acquisition & Construction Costs
Dayton	Mix of existing & planned	6.1 miles	\$6,645,000
SEGMENT B   Champlin			
Municipality	Trail Status	Length	Acquisition & Construction Costs
Champlin	Mix of existing & planned	5.8 miles	\$6,684,000
SEGMENT C   Brooklyn Park			
Municipality	Trail Status	Length	Acquisition & Construction Costs
Brooklyn Park	Predominately existing	5.6 miles	\$638,000
SEGMENT D   Brooklyn Center			
Municipality	Trail Status	Length	Acquisition & Construction Costs
Brooklyn Center	Predominately existing	2.7 miles	\$1,296,000
<b>Total WMRRT</b>		<b>20.2 miles</b>	<b>\$15,263,000</b>

groups. The Park District meets this commitment through appropriate facility design, programming considerations and by actively addressing potential barriers to participation.

All regional trail facilities, including associated trailheads and trail amenities, will be designed to accommodate individuals with disabilities and developed in accordance with Americans with Disabilities Act (ADA) standards and guidelines. Specific design guidelines are discussed on the following pages of this section.

The Park District pursues promotional outreach activities and works with special-interest organizations such as the Courage Kenny Rehabilitation Institute and Wilderness Inquiry to further encourage participation in activities and use of park facilities by persons with special needs. If arrangements are made in advance, interpreters and alternative forms of printed material are available at programmed events.

In addition to accommodating individuals with disabilities, the trail corridor passes through several Hennepin County cities, providing access to people with different social and cultural backgrounds and connecting those persons with important local community destinations such as parks, commercial areas, community facilities, cultural destinations and transit facilities.



Regional trails are designed and developed to meet ADA standards and guidelines.

Source: Three Rivers Park District

On a broader scale, communities adjacent to the trail will not only have access to the WMRRT but also gain direct and indirect access to several existing park reserves, regional parks and regional and state trails. To improve local access, neighborhood trail connections are anticipated at regular intervals.

The Park District does not charge entrance fees for its regional trails; therefore, the regional trail is available for all users to enjoy regardless of financial status.

### DESIGN GUIDELINES

In accordance with its regional designation and associated anticipated use, the WMRRT will be designed as an off-road 10-foot-wide, non-motorized paved multi-use trail. A bituminous trail surface is preferred because it is cost-effective, less prone to erosion than aggregate surfaces, provides a desirable trail user experience and is more appropriate given the anticipated visitation and connections to other paved facilities. Curb ramps will be used at all roadway crossings. The preferred maximum trail grade is 5 percent with a 2 percent cross slope for drainage.

Much of the WMRRT is anticipated to be an independent trail corridor separate from roadways, including urban, curbed rural, rural and park sections (**Figures 1 & 2**). Descriptions and associated costs for those regional trail typicals are included in **Table 4**.

**Table 4: Regional Trail Typical Descriptions**

Source: Three Rivers Park District

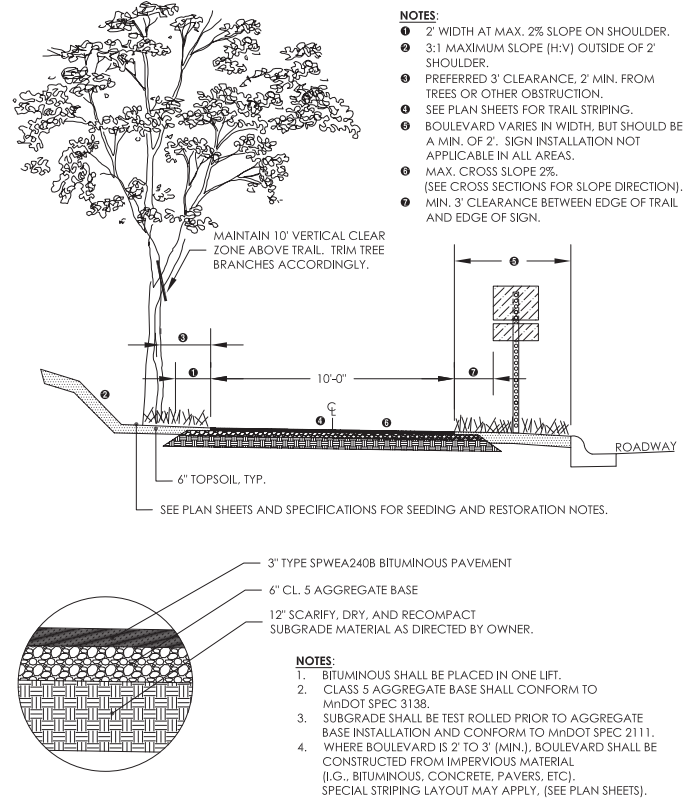
New Construction		
Trail Type	Unit Cost (2018 dollars)	Description
Urban	\$300 / LF	Trail construction replacing an existing curb/gutter, cut/remove existing pavement, relocating storm sewer and other utilities, working under traffic controls.
Curbed Rural	\$275 / LF	Trail construction in a rural/suburban environment that has no existing curb/gutter, converting it to a curb/gutter design with storm sewer as needed.
Rural	\$105 / LF	Trail construction through a rural road ditch area with enough separation with the road to not require a curb/gutter. No major extra fill or excavation.
Park	\$105 / LF	Trail construction through a park or open space where curb and gutter is not required and ample space is provided for signage and rest stops.

In areas where the trail will be located adjacent to a roadway, the following design considerations apply. Where right-of-way allows, final trail design will attempt to maximize the boulevard width to account for sign placement, snow storage and possibly trees or other complementary enhancements. In circumstances with limited right-of-way, the trail is still planned to be located off-road, but with less boulevard between the trail edge and back of the curb. In these locations, the trail will be separated from the road by a minimum paved two-foot-wide clear zone. This paved clear zone between the back of the curb and the trail edge provides a buffer between the trail users and motorists and will be striped to delineate the edge of the trail.

In the event there are instances where the trail will not initially meet the preferred design, trail designers will evaluate a wide variety of design tools to determine the best fit for the unique situation. Unless the alternative trail design is an acceptable long range solution, it is anticipated that noncompliant trail segments would be improved as funding, right-of-way or other opportunities present themselves.

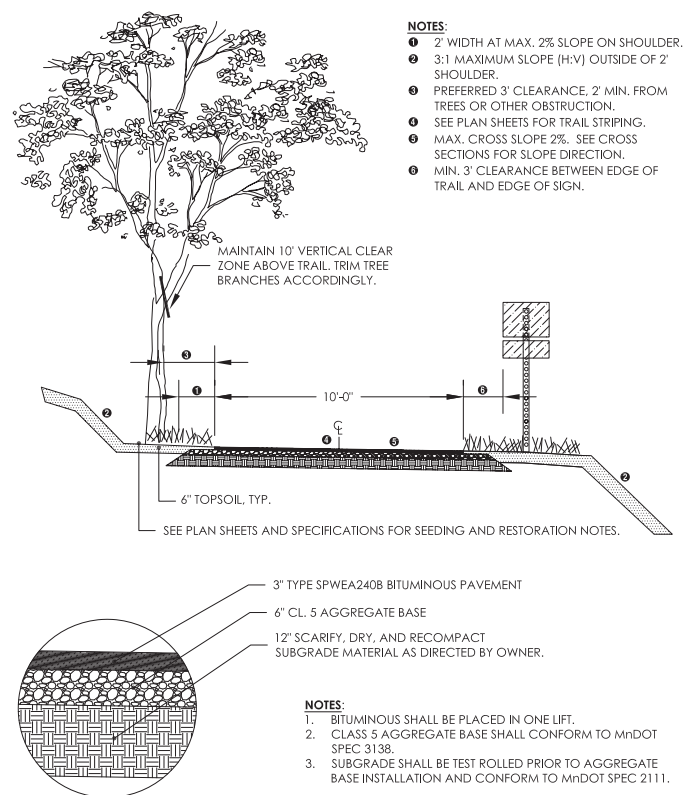
**Figure 1: Urban and/or Curbed Rural Trail Section**

Source: Three Rivers Park District



**Figure 2: Rural and/or Park Trail Section**

Source: Three Rivers Park District



A number of factors will be considered during the design phase, such as:

- Right-of-way width/acquisition needs
- Topography and drainage impacts
- Existing vegetation
- Driveway/road crossings
- Overhead and subsurface utilities
- Proximity to adjacent buildings, homes, businesses and industrial facilities
- Wetlands/floodplain locations, potential impacts and rules
- Wildlife (species, nesting/breeding areas and times and concentrations)
- Existing infrastructure
- Connectivity with other trail/sidewalk/bicycle facilities
- Safety
- Cost
- Obstructions
- Trail user preferences/desired trail user experience
- Opportunities to coordinate with other projects/agencies

In addition to the discussed design considerations, regional trail segments will be designed in accordance with all applicable federal, state and local codes. More specifically, the following sources will be referred and adhered to when preparing the design and construction plans as appropriate:

- Guide for the Development of Bicycle Facilities, prepared by the American Association of State Highway and Transportation Officials (AASHTO), 2012
- Selecting Roadway Design Treatments to Accommodate Bicycles, Federal Highway Administration, January 1994
- MnDOT Bikeway Facility Design Manual, Minnesota Department of Transportation (MnDOT), March 2007
- State Aid Rule 8820.9995 Minimum Bicycle Path Standards, State Aid for Local Transportation
- Trail Planning, Design, and Development Guidelines, Minnesota Department of Natural Resources (MnDNR)
- Manual on Uniform Traffic Control Devices (MUTCD), MnDOT, May 2015
- Public Right-of-way Access Guidelines (PROWAG)
- Best Practices for Traffic Control at Regional Trail Crossings, A collaborative effort of Twin Cities road and trail managing agencies, July 2011
- Bicycle and Pedestrian Wayfinding, Metropolitan Council, October 2011
- Designing Sidewalks and Trails for Access, Part I and II: Best Practices Design Guide (FHWA); ADA Accessibility Guidelines for Outdoor Developed Areas (United States Access Board); and ADA and ABA Accessibility Guidelines for Buildings and Facilities (U.S. Access Board)
- Guidance for Three Rivers Park District Trail Crossings, December 2013

Throughout the design process of WMRR, the Park District work closely with the local communities to route the trail in a manner that has the greatest public benefit and least amount of private property impacts.

### Trail/Road Crossings

There are several locations where the regional trail crosses roadways and in which careful attention to detail is required to provide a safe and user friendly crossing. The types of trail crossing treatments will be designed in accordance with industry best standards to ensure conflicts between trail users and roadway traffic are minimal.

In all cases, existing roadway configuration, infrastructure elements, vegetation and other potential visual obstructions will be evaluated so sight lines can be maintained. Special provisions, such as mirrors, may be added to improve trail visibility from driveways if deemed appropriate. As vehicular traffic fluctuates, there may be a need for additional traffic signals or modifications to existing signalized intersections. These type of design considerations and trail enhancements will be addressed during the trail design phase.



Application of a rapid response flash beacon (RRFB) along WMRR corridor, Champlin. Source: Three Rivers Park District (photo), City of Champlin project

### Wetland and Floodplain Crossings

There may be portions of the regional trail that traverse wetlands and floodplains. In these instances, the regional trail design may incorporate bridges, boardwalks and other creative solutions to minimize potential natural resources impacts while maintaining a contiguous and continuous trail corridor. Design and implementation of bridges and boardwalks will be coordinated with the appropriate regulatory agencies to ensure all requirements are met and any potential impacts are minimized.

### Drainage

In locations where the regional trail is adjacent to a roadway, the drainage of the regional trail is similar to that of a typical sidewalk. Stormwater sheet flows over the trail pavement and onto adjacent urban roadways, where it is collected and conveyed by the roadway stormwater drainage system. In areas where the regional trail is on an independent route, such as through parks or other green spaces, or adjacent to rural road segments, alternative stormwater best management practices, such as rain gardens and infiltration swales, may be explored during the design phase of the regional trail. Stormwater must shed rapidly from the surface of the trail and not pool on the trail surface to prevent hazardous situations for the users. Design

of stormwater management practices will be coordinated with regulatory and other affected parties to ensure all requirements are met and any potential impacts are minimized.

### Traffic Signage & Devices

In addition to wayfinding signage, the regional trail will incorporate traffic control signs and devices, such as trail stop signs and center line pavement markings. These signs and devices will reflect the physical characteristics and usability of individual trail segments and the system as a whole. The cost to add traffic control signs and devices, including striping, to a regional trail is approximately \$1 per linear foot (2018 dollars).

### Physical Challenges

There are several instances where the WMRRT route presents physical challenges which require design modifications or upgrades to existing infrastructure. To date, these existing barriers have been only reviewed at the planning level. A map outlining where these areas exist along the corridor is included in **Appendix D**. More details will be required as these improvements move from planning to programmed projects.

- Various areas of steep embankment adjacent to WMRRT route (may require additional grading/engineering, pedestrian bridge(s), retaining walls, and/or boardwalks)
- Various areas adjacent to WMRRT route where road right-of-way is limited (may require property acquisition through fee title, easement or other)
- 169/West River Road Underpass | Champlin (existing)
- 610/West River Road Overpass | Brooklyn Park (existing)
- 694 Underpass | Brooklyn Center (existing)

### Trailheads & Mississippi River Touchpoints

As established by the planning team and public, identifying WMRRT trailhead locations and establishing dedicated Mississippi River touchpoints was critical to the master plan's success. These trailheads and river touchpoints reinforce the WMRRT's recreation and transportation function by providing ancillary user support functions. Mississippi River touchpoints further emphasize the importance of the river to the WMRRT corridor, as these specific locations were selected to either offer river vistas and/or access points to touch and feel the water (**Table 5**).

Large regional and community parks, as well as public facilities along the regional trail corridor that are easy to locate, were identified as trailheads simply by the nature of their existence and their offerings (i.e. water, parking, restrooms, benches, rest facilities and picnic areas). Additional trailhead improvements may be necessary to adequately support the regional trail while not negatively affecting the existing function of facilities. The Park District will collaborate with local communities where trailhead improvements are necessary. Further trailhead and river touchpoint details are included in the planning budget analysis (**Appendix E**).

Additional Mississippi River touchpoints which help achieve the trail's seven guiding principles will be considered on a case-by-case basis depending on the touchpoint's type and frequency along the whole WMRRT corridor. The Park District wishes to acquire and improve river touchpoints as described in **Appendix D**.



The master plan capitalizes on publicly owned and operated property to enhance the WMRRT corridor with designated trailheads and Mississippi River touchpoints.

Source: Photos of Mississippi Point Park in Champlin, taken by Three Rivers Park District

### Table 5: Trailhead & Mississippi River Touchpoint Descriptions

Source: Three Rivers Park District

Trailhead/Mississippi River Touchpoint		
Municipality	Location	Ownership
Dayton	Stephens Farm Park / Cloquet Overlook Park	City of Dayton
Champlin	Mississippi Point Park / Chandler Park	City of Champlin
Brooklyn Park	Mississippi Gateway Regional Park (formerly known as Coon Rapids Dam Regional Park)	Three Rivers Park District

Trailhead		
Municipality	Location	Ownership
Dayton	Dayton Activity Center	City of Dayton
Brooklyn Park	TBA - near the 83rd/81st Avenue N entry points to River Park	
Brooklyn Center	North Mississippi Regional Park (57th Avenue Intersection)	Three Rivers Park District

Mississippi River Touchpoint		
Municipality	Location	Ownership
Dayton	Goodin Park	City of Dayton
Champlin	Donnie Galloway Park	City of Champlin
Champlin	TH 169 / West River Parkway	City of Champlin
Brooklyn Center	North Mississippi Regional Park (near fishing pier)	Three Rivers Park District

Miscellaneous Touchpoints Not Directly Adjacent to WMRRT*		
Municipality	Location	Ownership
Dayton	Sarah McClean Park	City of Dayton
Dayton	Wildwood Springs Park	City of Dayton
Brooklyn Park	River Park	City of Brooklyn Park

\*via local trail connection

## ADDITIONAL TRAIL ELEMENTS

Unifying elements such as trail identity, crossings, wayfinding, traffic signage and devices, rest stops, drainage and trailheads are important elements of regional trails. Their proper design and placement add both aesthetic and functional value to the trail. As a destination regional trail, a primary design goal is to create a sense of place along the regional trail and an enjoyable trail user experience. Designing the trail with unifying elements and incorporating local parks and adjacent natural resources will help achieve a cohesive WMRRT corridor. Where it is not possible to utilize parkland or acquire a wider corridor width, it is desirable to incorporate other enhancements that help evoke a sense of place such as wide tree-lined boulevards and buffers from adjacent land uses.

### Wayfinding

Regional trail wayfinding signage provides trail users with orientation and location information for amenities and services. Wayfinding signage typically provides:

- An overview map of the agency partner’s regional trail system and the specific regional trail.
- Directions and distances to major destinations and points of interest along the regional trail.
- Directions for long-term detours or interim routes when there are gaps within the regional trail.
- Location information for nearby amenities such as local parks and local trails.
- Location information for nearby services, such as drinking water, public restrooms and public parking.
- Visual identification of the regional trail network through physical kiosk/signage structures.

The Park District employs three types of wayfinding signage structures: system kiosks, regional trail kiosks, and directional signage (**Table 6**).

Placement of wayfinding signage structures along regional trails typically follows one of three configurations listed as Level A, B or C (**Table 7**). The wayfinding is intended to complement and work in collaboration with local and regional wayfinding efforts as well as adjacent land uses and development initiatives. There may be conditions along the regional trail corridor where the wayfinding signage is altered or otherwise enhanced to better serve the trail user and appropriately fit the surrounding environment.

The wayfinding plan for the WMRRT includes signage at strategic delineated points (**Table 5, following page**). The exact location and content of wayfinding signage will be determined in conjunction with local community input and is often dictated by available public right-of-way. Further wayfinding details are included in the planning budget analysis (**Appendix E**).

### Rest Stops

Rest stops are generally located every mile and provide places for trail users to stop and rest and an area for amenities such as trash receptacles, benches and bicycle racks. These simple but important amenities can serve to reinforce the identity of the regional trail route and better support trail users with mobility challenges. General locations will be further

**Table 6: Wayfinding Signage Components**

Source: Three Rivers Park District

<b>System Kiosk</b>	Free-standing, roofed structure	Displays map of regional trail systems and the regional trail rules.
<b>Regional Trail Kiosk</b>	Free-standing, roofed structure	Displays aerial map, description of trail highlights, and a map of the entire regional trail that depicts local trails, amenities and services nearby.
<b>Directional Sign</b>	Post structure with description blades attached	Displays the direction, name and distance to major destinations and points of interest on the trail. Each post structure has the capability of holding up to 12 description blades.

**Table 7: Wayfinding Signage Configurations\***

Source: Three Rivers Park District

LEVEL A		
Location	Components	Estimated Cost
Beginning/end of regional trail and at halfway point if regional trail is greater than 10 - 15 miles.**	<ul style="list-style-type: none"> <li>• System kiosk</li> <li>• Regional trail kiosk</li> <li>• Directional sign</li> </ul>	\$46,500  Includes signage panels, bicycle repair station, bench(es), trash can and concrete pad



LEVEL B		
Location	Components	Estimated Cost
Approximately every 2 miles along regional trail. For new Level B locations, consider establishing on trails north side**	<ul style="list-style-type: none"> <li>• Regional trail kiosk</li> <li>• Directional sign</li> </ul>	\$28,500  (Includes signage panels and concrete pad)



LEVEL C		
Location	Components	Estimated Cost
Approximately every 1 mile along regional trail. For new Level C locations, consider establishing at intersections with other regional trails or comprehensive trail systems (not trail spurs).**	<ul style="list-style-type: none"> <li>• Directional sign</li> </ul>	\$9,000  (Includes signage panels and concrete pad)



\* 2018 dollars

\*\* Exact location & content determined in conjunction with local community input.

evaluated during the design phase. The rest stop design may be modified to best meet the available right-of-way, adjacent land use and complimentary facilities such as a bus stop. Further rest stop details are included in the planning budget analysis (**Appendix E**).

### Bicycle Repair Stations

Recently, the Park District has been installing bicycle repair stations, which provide tools necessary to perform basic bike repairs and maintenance - from changing a flat to adjusting brakes and derailleurs. The tools and air pump are securely attached to the stand with stainless steel cables and tamper-proof fasteners. Hanging the bike from the hanger arms allows the pedals and wheels to spin freely while making adjustments. Bicycle repair stations are recommended at Level A wayfinding configurations and as-needed throughout the regional trail corridor.

## SEGMENT DESCRIPTIONS

The WMRRT route was divided into four planning segments: A, B, C and D - each representing its respective city boundaries. The following segment description summaries provide an overview of the segments including their general location, context, Mississippi River touchpoints and trailheads, condition of existing trail, and proposed design, construction and general acquisition requirements.

**Map 5: Segment A | Dayton Context**

Source: Three Rivers Park District



## SEGMENT A | DAYTON

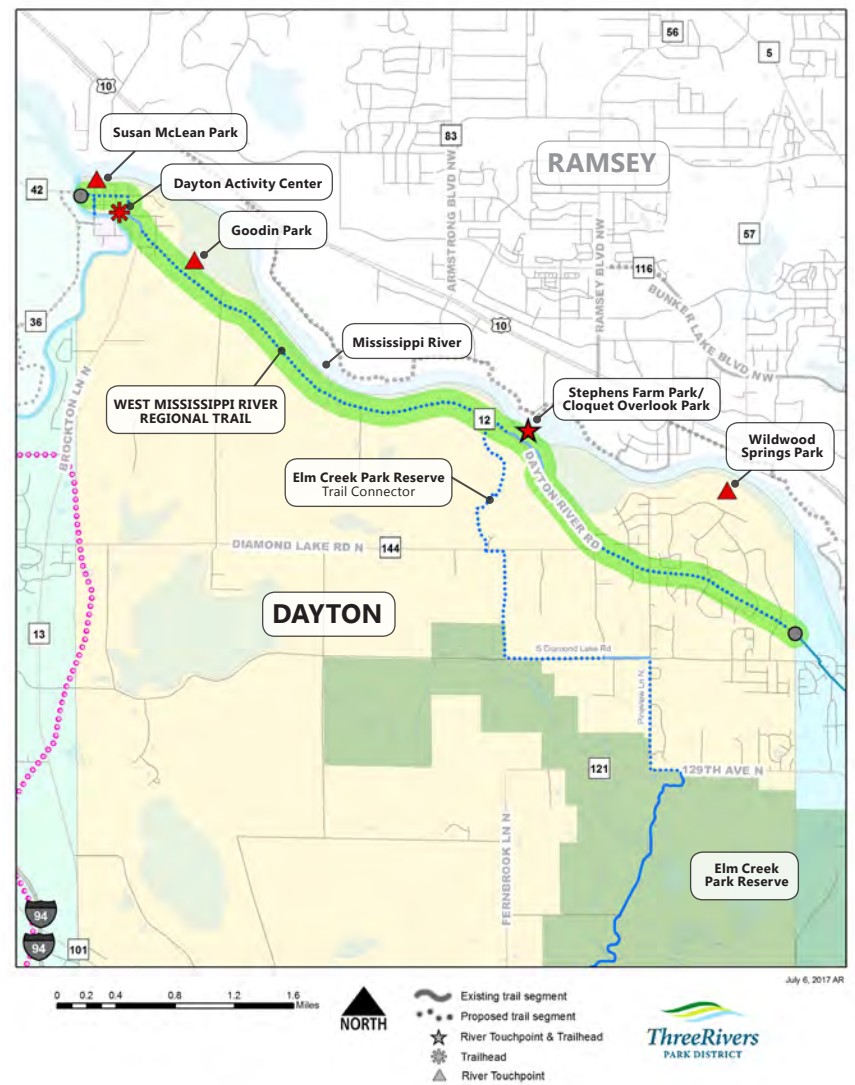
This 6.1 mile WMRRT segment signifies the beginning/end of the regional trail at the confluence of the Crow and Mississippi Rivers in the small, historic Dayton hamlet.

Located entirely within the City of Dayton, Segment A connects with the proposed Elm Creek Park Reserve trail connector (future Medicine Lake Regional Trail extension) and various local parks and river touchpoints. As the route traverses east, the corridor is characterized by its scenic vistas adjacent to large lot residential and agriculture land (**Maps 5 & 6 and Table 8**).

The casual observer might not even realize that the Mississippi River is directly adjacent to the WMRRT route due to the private residential properties adjacent to the river with dense vegetation. Through implementation of Segment A and its associated trailheads and river touchpoints, WMRRT users will be able to physically connect to the Mississippi River corridor. This area presents the greatest opportunity to acquire additional land and create an impactful river touchpoint on the most scenic and wild stretch of the Mississippi River north of Minneapolis, within Miss NRRA.

**Map 6: Segment A | Dayton Overview**

Source: Three Rivers Park District



**Table 8: Segment A | Dayton Subsegments**

Source: Three Rivers Park District

SEGMENT A					
#	Municipality	Status	Length	Notes	Acquisition & Construction
A1	Dayton	Future construction	0.34	Through historic village area	\$596,000
A2		Existing	0.22	Connect to Dayton Activity Center	\$272,000
A3		Future construction	2.69	Adjacent to Dayton River Road	\$3,229,000
A4		Future construction	0.18	Integrated into Stephen's Farm Park	\$361,000
A5		Future construction	0.18	Connect to Elm Creek PR connector	\$405,000
A6		Existing	0.41	Through Cloquet Overlook Park	\$152,000
A7		Future construction	2.14	Adjacent to Dayton River Road	\$1,630,000
<b>Subtotal</b>			<b>6.1 miles</b>		<b>\$6,645,000</b>

### Subsegment A1

Subsegment A1 (0.34 miles) follows Robinson Street (CSAH 12) from the Crow River Regional Trail connection point - near the MnDNR boat launch - to Dayton Street through Dayton's historic village area (**Map 7**). The WMRRT's presence within the historic village area is consistent and complementary of the City of Dayton's 2030 Comprehensive Plan, which establishes an illustrative framework to create a pedestrian and bike friendly trail system within the village area. Robinson Street, according to City documents, is planned as the core retail, business and cultural heart of the village.

Currently, the historic village area is a combination of small lot, single family residential homes, civic uses (post office) and several local businesses. A touchpoint to the Mississippi River is gained via access from the Susan McLean Park - City owned property along Levee Street, one block north of Robinson Street. While not included in the WMRRT official route, this river touchpoint should be recognized with wayfinding signage from Robinson Street - denoting the overlook to WMRRT users. Should the long-term Crow River Regional Trail bridge crossing of the Crow River be realized between Hennepin and Wright County - a WMRRT connection to Robinson Street would require planning along Richardson Avenue (currently not included in Subsegment A1).

Subsegment A1 could be considered for construction as a stand-alone project or more likely, in conjunction with a county road reconstruction project or a City streetscape upgrade project, as outlined in the 2030 Comprehensive Plan vision. In all of the construction scenarios, the Park District's financial responsibility would be limited to the WMRRT portion only.

Due to the fully constructed 'urban' nature of Dayton's historic village area, limited right-of-way exists. High-level planning assumes easements along Robinson Street will be required if the WMRRT is constructed as a stand-alone project. However, if combined with a larger road/streetscape project - required easements may be reduced.

### Subsegment A2

The existing Subsegment A2 (0.22 miles) follows Division Street (CSAH 12) from Dayton Street to Brockton Lane North (**Map 8**). Connection is established to the Dayton Activity Center, located southwest of the Dayton/Division Street intersection. The Dayton Activity Center operates senior services and special events at this location.

Initial planning recommends a limited trailhead near the Dayton Street/Division Street intersection that would provide synergy to the Dayton Activity Center complex. The limited trailhead would include regional trail wayfinding signage - and shared/ designated WMRRT vehicle parking for trail users within the existing parking lot. The existing trail continues along the west side of Division Street and currently ends at the Brockton Lane North intersection. Local trail connections to the WMRRT from/ to adjacent destinations such as St. John-Baptist Church and McNeil Park should be coordinated through local City plans.

The Park District will accept Subsegment A2 as-is, under terms of the future Trailway Cooperative Agreement between the Park

Map 7: Segment A1

Source: Three Rivers Park District



Map 8: Segment A2

Source: Three Rivers Park District



The existing Segment A2 pavement requires maintenance including short-term patching and sealing with mid to long term plans to replace.



District and City. Upgrades will be required - as opportunities arise - including but not limited to; signage/trailhead amenities, embankment work, patching, sealcoat, stripping, utility pole relocation, improved driveway aprons and tactile paving.

### Subsegment A3

Subsegment A3 (2.69 miles) is an ambitious part of the WMRRT corridor. This proposed subsegment is located adjacent to Dayton River Road (CSAH 12), from Brockton Lane North to newly acquired City parkland - currently referred to as the Stephens Farm Park (**Map 9**).

Subsegment A3 crosses to the north side of Dayton River Road at the Brockton Lane North intersection. Intersection improvements will be required at this crossing to accommodate the WMRRT, as current conditions have poor sightlines, long pedestrian clearance times and potential for vehicle/pedestrian/bicycle conflicts. Long-range plans call for substantial Brockton Lane North road reconstruction, which is assumed to increase traffic volumes along the corridor. Subsequent Brockton Lane North construction plans should incorporate WMRRT accommodations at the Dayton River Road intersection.

As the WMRRT continues southeast along Dayton River Road, connection is made to Goodin Park, a 5.4-acre, minimally-developed City park with access to the Mississippi River. WMRRT plans include provisions for wayfinding signage, benches and a bike rack so that users are able to pause at this river touchpoint. Additional park improvements should be included in local City plans. From this point, residential lots adjacent to Dayton River Road increase in size and possess rural characteristics - with farmsteads often directly adjacent to the road right-of-way. Dense vegetation places the Mississippi River out of viewshed for WMRRT users.

Dayton River Road currently exists as a rural county highway with narrow shoulders, winding curves and gently rolling topography - all challenging physical barriers for trail construction. Embankment work, pedestrian bridges over drainage ways, utility pole relocation and improved driveway aprons/road crossings are anticipated. As significant engineering is anticipated for this stretch of Dayton River Road, easements may be required to fully realize the complexity of a separate, off-road WMRRT facility. As opportunities present themselves, property acquisition (willing-seller basis) should be considered along Dayton River Road in areas where construction complications could be alleviated or lessened and/or opportunities to create and improve river touchpoints exist. A wider, more scenic regional trail corridor through this area greatly improves the trail user experience and offers the following benefits:

- Preservation of rural Dayton character
- Connection to the Mississippi River
- Habitat preservation within the Mississippi River flyway
- Water quality protection

Subsegment A3 could be considered for construction as a stand-alone project or in conjunction with road reconstruction. The WMRRT cost estimate assumes implementation as a stand-alone project, however combining trail construction with road reconstruction could significantly reduce this segment's financial investment.

**Map 9: Segment A3**

Source: Three Rivers Park District



An ambitious part of the WMRRT corridor, Segment A3 is proposed adjacent to Dayton River Road's right-of-way (seen here at left). Narrow shoulders, winding curves and gently rolling topography provide challenges for trail construction.



Goodin Park, a Mississippi River touchpoint, offers rare glimpses of the forested floodplain drainageways that flow to the river.

## Subsegments A4 & A5

A concept master plan for Stephens Farm Park includes the WMRRT alignment woven into the park's pedestrian and bicycle circulation pattern. The Stephens Farm Park master plan also includes proposed plans for an event center, outdoor performance space, fishing pier, picnic area and trails. If developed to its full potential, the Stephens Farm Park could become a major destination point along the WMRRT corridor. Subsegments A4 and A5 are included within the Stephens Farm Park development (**Map 10**).

Subsegment A4 (0.18 miles) is a short segment that begins at the Stephens Farm Park western property boundary and weaves along the park's periphery. Subsegment A5 (0.18 miles) connects the proposed grade-separated Dayton River Road underpass (box culvert) with the Stephens Farm Park property and adjacent Cloquet Overlook Park. The underpass, proposed for construction as part of an adjacent development project, connects directly to their 200 unit, residential development south of Dayton River Road. The intent of this trail connection is to extend a trail network southward to Elm Creek Park Reserve - connecting to 4,900 acres of preserved open space.

The final Subsegment A4 route alignment will be coordinated with the Park District when formal Stephens Farm Park construction plans are developed (**Figure 3**). As this park design moves to from concept to fruition, future recommendations include further integration of Segment A4 into the heart of the site plan, making strong and clear connections to the Mississippi River.

Dayton has received partial funds from a Hennepin County Bikeway Grant and dedicated Park District funds to construct Subsegment A5 (**Figure 4**). At time of master plan, final engineering plans for Subsegment A5 were being developed and construction is anticipated in 2018/19.

Easements from private property owners are not anticipated for either subsegment, as the entire lengths of A4 and A5 are within public property. The Park District will assume operations and maintenance of these segments when larger, contiguous WMRRT sections are completed as part of the future Trailway Cooperative agreement.

## Subsegment A6

Subsegment A6 (0.41 miles) currently exists through Cloquet Overlook Park (**Map 11, following page**). Developed approximately 20 years ago through a partnership between the MnDNR, National Park Service and Dayton - Cloquet Overlook Park consists of 16 acres adjacent to the Mississippi River. The park contains picnic facilities, playground, internal trails, stair access to the Mississippi River, seasonal restrooms and parking lot.



Segments A4 and A5 proposed to be incorporated into the Stephens Farm Park [re]development (seen here at left).

Map 10: Segment A4 & A5

Source: Three Rivers Park District



Figure 3: Stephens Farm Park Concept

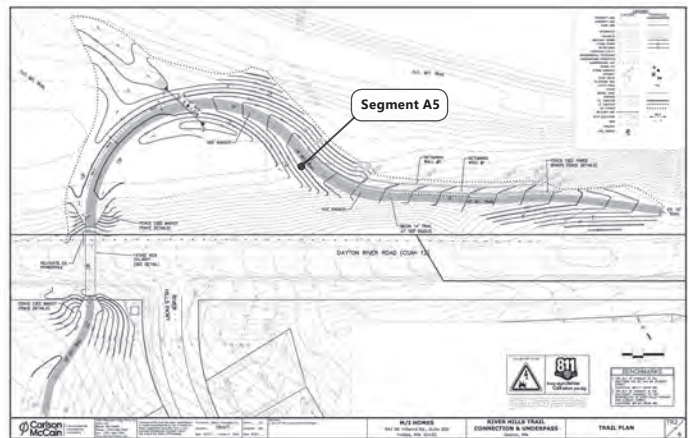
Source: City of Dayton



The 2016 Stephens Farm Park concept plan incorporates Segment A4 and portions of A5 within the site plan. Final A4 alignment will be coordinated when the park is developed.

Figure 4: Segment A5 Conceptual Layout

Source: M & I Homes



Segment A5, which is funded by Hennepin County and the Park District, is slated for construction in 2018/19. (The underpass and southern trail approach will be constructed and funded separately through a developer's agreement between Dayton and a private developer - slated for 2018 completion).



Segment A5 construction will eliminate this trail stub that currently terminates directly onto Dayton River Road, a county road with 50 mph posted speed.

Cloquet Island, just east of Cloquet Overlook Park, is owned by Anoka County (within Hennepin County). The island is part of the larger Mississippi West Regional Park (including Foster Island) - operated by Anoka County Parks. Largely undeveloped, the Mississippi West Regional Park recently received a newly constructed paved boat launch and proposes an extensive interior trail network, playground, interpretive center and picnic facilities. In addition, primitive canoe campsites have been proposed on Foster and Cloquet Islands, accessible via water. This adjacent regional park development increases the Mississippi River's park and recreation synergy, which encourages renewed focus for stakeholder interest and potential partnerships.

As Dayton continues to develop (including the 200 unit development to the south and additional anticipated development proposals nearby), visitor numbers seeking access to the Mississippi River and Cloquet Overlook Park are anticipated to increase. With the anticipated construction of Subsegment A5 and the Dayton River Road underpass, connections are made to larger bicycle and pedestrian networks - connecting WMRRT users to local parks, residential neighborhoods and ultimately to Elm Creek Park Reserve. Currently, the Cloquet Overlook Park viewsheds to the Mississippi River have become overgrown and are seasonally impaired. The existing pavement is in fair condition, however deferred maintenance has been noted.

The Park District will accept Subsegment A6 as-is (for the trail corridor only), under terms of the future Trailway Cooperative Agreement between the Park District and Dayton. As a dedicated trailhead and river touchpoint, upgrades will be required - as opportunities arise - including but not limited to; signage/trailhead amenities, sealcoat, stripping and dedicated trail parking for vehicles.

### Subsegment A7

The proposed Subsegment A7 (2.14 miles) is another ambitious part of the WMRRT corridor that shares similar characteristics with Subsegment A3. Subsegment A7 connects Cloquet Overlook Park to the City of Champlin border (**Map 12**).

Dayton River Road continues through Subsegment A7 as a rural county highway with narrow shoulders, winding curves and gently rolling topography - all challenging physical barriers for trail construction. A touchpoint to the Mississippi River is gained via access from the Wildwood Springs Park - Dayton owned property along Stoneridge Road. While not included in the WMRRT official route, this river touchpoint should be recognized with wayfinding signage from Dayton River Road - denoting the overlook to WMRRT users.

Embankment work, pedestrian bridges over drainage ways, utility pole relocation and improved driveway aprons are anticipated. Similar to previous segments, Subsegment A7 could be considered for construction as a stand-alone project or in conjunction with road reconstruction. As opportunities present themselves, property acquisition (willing-seller basis) should be considered along Dayton River Road in areas where construction complications could be alleviated or lessened and/or opportunities to create or improve river touchpoints exist. Similar to Subsegment A3, acquisition of additional river frontage along the most northwestern end of this segment has significant trail user and natural resource benefits.

**Map 11: Segment A6**

Source: Three Rivers Park District



Cloquet Overlook Park offers a trailhead location with access to the Mississippi River.  
Source: Twin Cities Property Finder

**Map 12: Segment A7**

Source: Three Rivers Park District



## MLCCS

MnDNR's Minnesota Land Cover Classification System (MLCCS) defines the area immediately adjacent to Segment A as: artificial/impervious surfaces (Dayton's historic village area and near WMRRT terminus with Champlin), planted or cultivated vegetation throughout the segment (predominantly in the upper portions), with pockets of forests, woodlands, shrublands and herbaceous land cover (**Map 13**). The Mississippi River is the predominate water land cover with smaller pockets of small lakes in the mid to upper portions of Segment A. The river corridor also captures forested islands and forested land immediately adjacent to the river.

## NHIS

MnDNR's Natural Heritage Information System (NHIS) includes the following rare plants and animals, native plant communities, geologic features and/or animal aggregations within one-mile of Segment A:

*Haliaeetus leucocephalus* (bald eagle), *Emydoidea blandingii* (blanding's turtle), *Ligumia recta* (black shandshell mussel), *Lampsilis cardium* (plain pocketbook mussel), *Lampsilis siliquoidea* (fatmucket clam), *Panax quinquefolius* (American ginseng), colonial waterbird nesting area and silver maple floodplain.

## Elm Creek Park Reserve Trail Connector

The Elm Creek Park Reserve trail connector (3.9 miles) connects the Stephens Farm Park underpass to Elm Creek Park Reserve (**Map 14 and Table 9, following page**) via a combination of existing and proposed trail segments. This trail connection was requested for study as part of the WMRRT Master Plan process. Justification for this analysis was provided via the City's 2030 Comprehensive Plan, physical proximity to the regional park reserve amenity with no north/south connection and support from a private residential development to determine whether their internal trail system could be considered for inclusion. The trail connector corridor depicted is the publicly and politically accepted route.

### Segment M1

Segment M1 (0.99 miles) is currently being constructed with the development of River Hills subdivision. The general specifications for Segment M1 are compliant with regional trail design standards and are being constructed as the development continues to become realized.

The Park District will accept existing portions of Segment M1 when logical and continuous segments are completed in compliance with a future Elm Creek Park Reserve Trail Connector Trailway Cooperative Agreement with Dayton. Costs associated with this segment include future seal coat and patching.

### Segment M2

Segment M2 (1.58 miles) is another ambitious portion of the Elm Creek Trail Connector. As the trail exits the River Hills subdivision, it must cross to the south side of North Diamond Lake Road as it passes east. Navigating a north/south trail route between North and South Diamond Lake Roads is dependent on long-range plans for residential subdivision and/or private property acquisition via willing-seller approach.

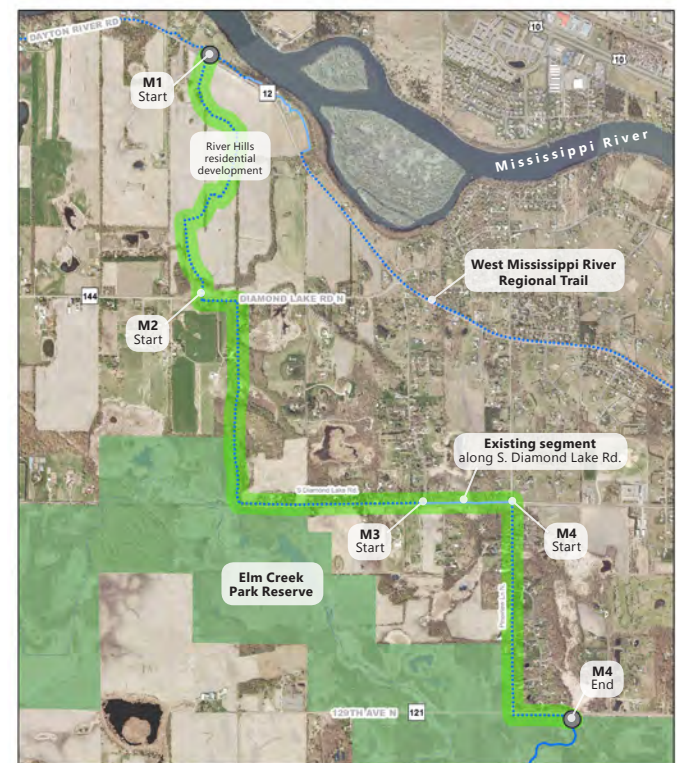
## Map 13: MLCCS | Segment A

Source: Three Rivers Park District



## Map 14: Elm Creek Park Reserve Trail Connector

Source: Three Rivers Park District



While connection to Elm Creek Park Reserve appears straightforward, the park reserve's northwest corner is a sensitive natural resource area following the Diamond Creek waterway. This area of the park reserve also includes several high-quality wetland complexes and intact native forest communities. Introduction of a paved trail within this area of the park reserve was limited to the park's upland periphery. The trail connector continues east along the north side of South Diamond Lake Road.

An upgraded bicycle/pedestrian crossing treatment is anticipated between the River Hills subdivision entrance and North Diamond Lake Road. Portions of Segment M2 which require private property acquisition may be best realized through residential subdivision rather than a stand-alone project, however for the purposes of this master plan a stand-alone project is assumed due to the highly speculative nature of an unknown subdivision proposal.

**Segment M3**

This small segment (0.31 miles) exists within road right-of-way along the north side of South Diamond Lake Road beginning at Vinewood Lane North. The trail passes four residential driveways and, for the purposes of the Elm Creek Park Reserve Trail Connector, ends at Pineview Lane North.

The Park District will accept Subsegment M3 as-is, under terms of the future Trailway Cooperative Agreement between the Park District and City. Upgrades will be required - as opportunities arise - including seal coat/patch and new pedestrian ramps.

**Segment M4**

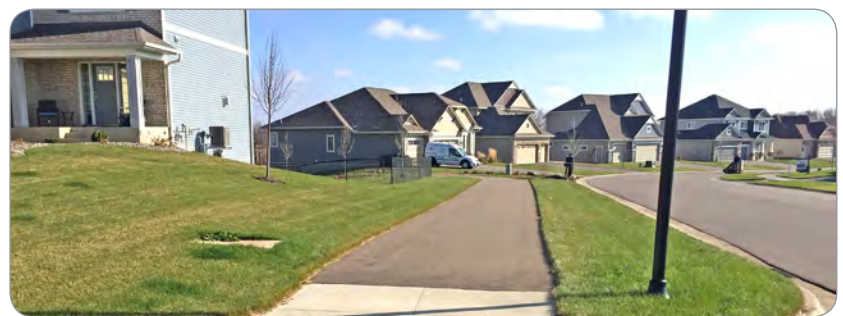
While local concern has been expressed regarding the rolling topography of Segment M4 (0.98 miles), early planning suggests that the trail could be realized either as a stand-alone project that would construct the trail adjacent to the existing road grade or part of a larger road reconstruction project that could reduce extreme road grades. Segment M4 is assumed along the west side of Pineview Lane North. At the terminus of Pineview Lane North, the trail connector can be accommodated through Elm Creek Park Reserve to meet the existing Medicine Lake Regional Trail. Segment M4 may require upgraded crossings at the South Diamond Lake Road (County Road 144) and 129th Avenue North (County Road 121) intersections.

If the trail is included in a larger city road reconstruction project (anticipated in 2020), the Park District's financial responsibility would be limited to the Elm Creek Park Reserve Trail Connector portion only. The at-grade crossings of South Diamond Lake Road and 129th Avenue will be studied at time of construction to determine preferred engineered intersection treatments. Coordination with Hennepin County will be required in both instances.

**Table 9: Trail Connector Segments**

Source: Three Rivers Park District

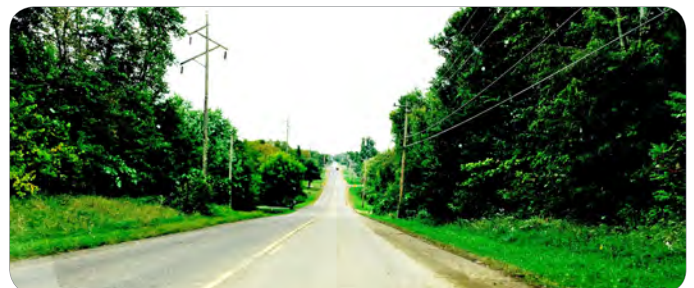
<b>SEGMENT M</b>					
<b>From Stephens Farm Park/Cloquet Overlook Park &gt;&gt; Elm Creek Park Reserve</b>					
#	Municipality	Status	Length	Notes	Acquisition & Construction
M1	Dayton	Existing	0.99	Constructed with River Hills, minor updates & maintenance	\$37,000
M2		Future construction	1.58	Construct trail, special crossing feature at South Diamond Lake Road and extra embankment work	\$1,950,000
M3		Existing	0.31	Minor updates & maintenance	\$11,000
M4		Future construction	0.98	Construct trail, extra embankment work and potential for special crossing feature at 129th Avenue N	\$622,000
<b>Subtotal</b>			<b>3.85 miles</b>		<b>\$2,619,000</b>



Segment M1 is currently being realized through residential subdivision build-out of River Hills.



Segment M2 requires an off-street trail constructed adjacent to North Diamond Lake Road (shown) and South Diamond Lake Road.



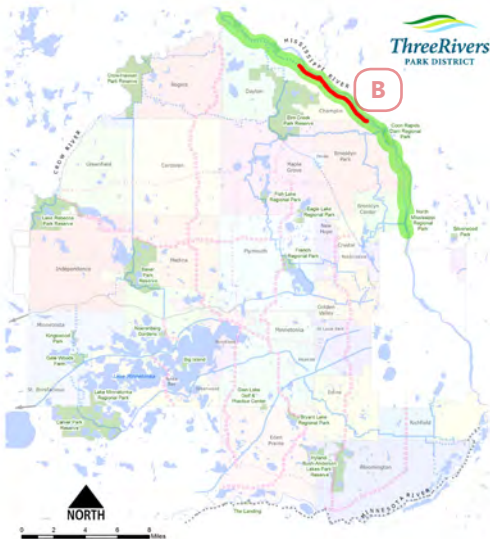
Segment M4 along Pineview Lane North could be realized either as a stand-alone project that would construct the trail adjacent to the existing road grade or part of a larger road reconstruction project that could reduce extreme road grades.

**SEGMENT B | CHAMPLIN**

This 5.8 mile segment of the WMRRT provides the critical link between proposed WMRRT segments through Dayton and completed segments through Brooklyn Park and Brooklyn Center (Maps 15 & 16 and Table 10). Several connection points are made to the Mississippi River via local Champlin parks - however, the view of the river is often obstructed by homes and dense vegetation. Additional touchpoints and viewsheds to the river are desired as opportunities arise, specifically within Subsegment B6. The greatest potential for an enhanced river touchpoint is near TH 169 and/or Mississippi Point/Chandler Parks. Champlin has plans to create an additional local connection to Elm Creek Park Reserve from the TH 169 and West River Road intersection. Greater regional connections are also offered to Anoka's historic downtown via the TH 169 bridge.

**Map 15: Segment B | Champlin Context**

Source: Three Rivers Park District



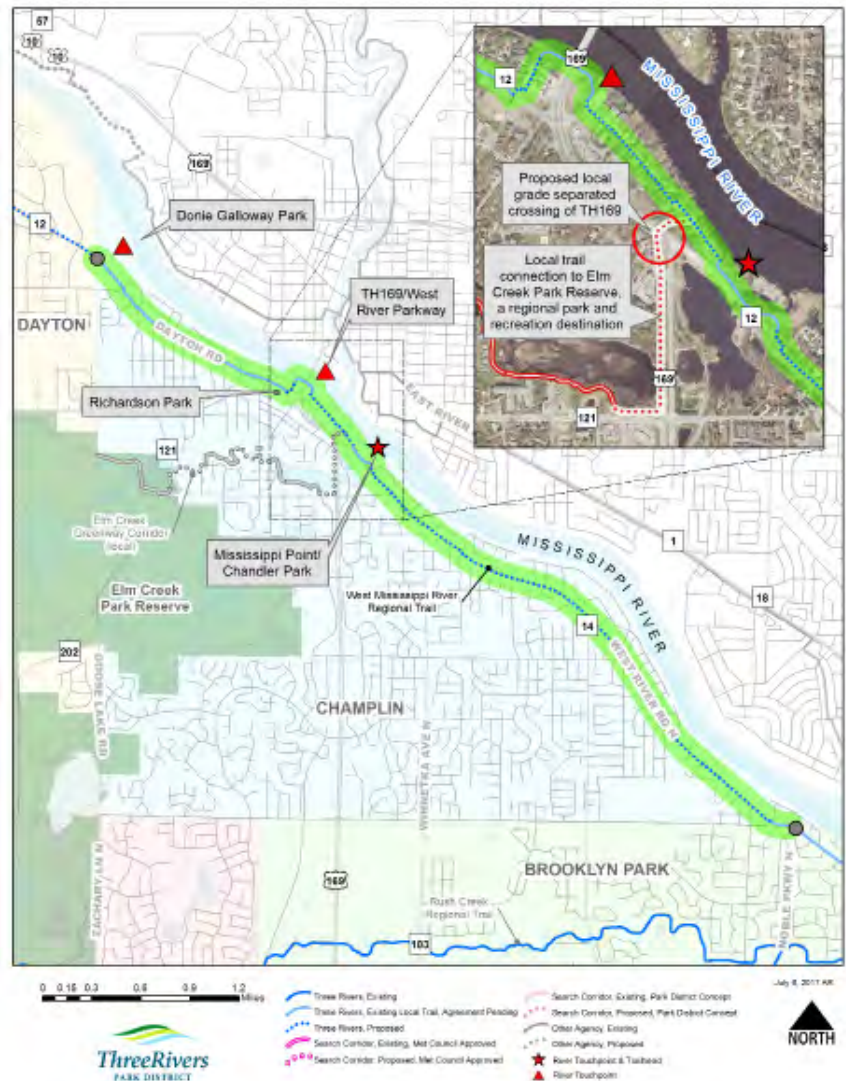
**Subsegment B1**

The 1.46 miles of Subsegment B1 currently exist as a city-owned and operated, bituminous, off-street trail adjacent to Dayton River Road (Map 17, following page). Separated from vehicular traffic, Subsegment B1 generally follows the grade of the road, connecting to Donie Galloway Park, small-scale, single family residential neighborhoods and high density complexes adjacent to the Mississippi River.

Donie Galloway Park, a 63 acre community riverside park, offers open playing fields and internal trails adjacent to the Mississippi River. As an identified WMRRT river touchpoint, trail users should be encouraged to divert from the regional trail corridor and

**Map 16: Segment B | Champlin Overview**

Source: Three Rivers Park District



**Table 10: Segment B | Champlin Subsegments**

Source: Three Rivers Park District

SEGMENT B					
#	Municipality	Status	Length	Notes	Acquisition & Construction
B1	Champlin	Existing	1.46	Reconstruct trail & crossing	\$1,205,000
B2		Future construction	0.11	Construct trail & crossing	\$222,000
B3		Existing	0.16	Minor updates & maintenance	\$63,000
B4		Future construction	0.43	Construct trail with redevelopment	\$236,000
B5		Existing	0.19	Minor updates & maintenance	\$266,000
B6		Future construction	3.37	Construct trail	\$4,689,000
B7		Existing	0.12	Minor updates & maintenance	\$5,000
<b>Subtotal</b>			<b>5.8 miles</b>		<b>\$6,684,000</b>

explore the park. To further connect WMRRT users to the river, creative open viewsheds and vistas to the water should be encouraged.

At Diamond Lake Road, the WMRRT moves from the north/east side of Dayton River Road to the south/west side. At the end of Subsegment B1, connection is further made to Richardson Park and a Metro Transit Park and Ride.

The Park District will accept Subsegment B1 'as-is,' and incorporate pavement improvements into long-range planning initiatives. The pavement, while existing, is in need of total reconstruction, as it is past its useful life.

**Subsegment B2**

A small, 0.11 mile Subsegment B2 is required to connect existing WMRRT subsegments B1 and B3 (Map 18). The crossing of Dayton River Road at Colburn Street was selected for the WMRRT as there is an existing dedicated road crossing in this location. In addition, further WMRRT connections are made to Richardson Park and the Metro Transit Park & Ride when the WMRRT is extended east to the Colburn Street crossing. From the at-grade Dayton River Road crossing, approximately 1.5 blocks of off-street trail is required to make connection to the existing Subsegment B3.

An upgraded, at-grade Dayton River Road crossing is necessary to cross from the south/west side of Dayton River Road to the north/east. A signed and designated shared lane marking ('sharrow') along Colburn Street could be installed as a interim design solution to a long-term, off-street, bituminous segment.

**Subsegment B3**

The 0.16 mile existing Subsegment B3 begins at the northern end of Colburn Street (Map 19) and serves as a river touchpoint. It is here that the city maintains a utility substation within the WMRRT route - adjacent to the Champlin River Shores Townhome Association. From this point, the WMRRT traverses northeast along the Mississippi River, offering long viewsheds across the river towards the City of Anoka. The WMRRT crosses underneath TH 169 via an existing grade-separated crossing/tunnel and terminates at Champlin owned property.

This segment will require coordination between the Park District, Champlin and MnDOT to secure permitting to operate and maintain the existing trail under TH 169. Upgrades to the existing trail surface include sealcoat, stripping, potential trail 'straightening,' tunnel lighting and pedestrian ramps.

**Map 17: Segment B1**

Source: Three Rivers Park District



**Map 18: Segment B2**

Source: Three Rivers Park District



**Map 19: Segment B3**

Source: Three Rivers Park District



Existing Subsegment B1 - adjacent to Dayton River Road, Champlin.  
Source: Three Rivers Park District



Subsegment B2 intersection of Dayton River Road and Colburn Street - looking northwest, Champlin  
Source: Google



Subsegment B3 begins at the end of Colburn Street -note Mississippi River.  
Source: Google



Subsegment B3's river touchpoint and an existing, grade-separated TH 169 crossing.  
Source: Three Rivers Park District

### Segment B4

Segment B4 (0.43 miles) begins at the western end of East River Parkway, within city-owned property that is proposed for redevelopment (**Map 20**). Open viewsheds of the Mississippi River and historic TH 169 bridge are captured here.

For the purposes of the master plan, Segment B4 has been considered as a stand-alone project. However, should properties be redeveloped within the context of a larger project, this master plan directs that the WMRRT be accommodated for in the site plans, at the cost of the developer. The master plan directs that Champlin include the Park District in future site plans for redevelopment.

### Segment B5

Newly constructed in 2016/2017, Segment B5 (0.19 miles) traverses adjacent to the Mississippi River through Champlin owned parkland including Mississippi Point and Chandler Parks (**Map 21**). This location has been determined as a key location for the WMRRT in Champlin and as such, will be treated as a trailhead and river touchpoint. Many trailhead elements currently exist. Elm Creek daylights to the Mississippi River between these two parks and recently received a new dam structure and associated site upgrades including new pedestrian plaza space and adjacent landscaping. A rectangle rapid flash beacon (RRFB) connects WMRRT users overlooking the Elm Creek dam with the west side of West River Road - to shoreline fish.

The Park District will accept Segment B5 as-is, under terms of the future Trailway Cooperative Agreement between the Park District and City. Future plans include upgrades to the Chandler Park parking lot to accommodate the WMRRT corridor to regional trail standards.

Map 20: Segment B4

Source: Three Rivers Park District



Map 21: Segment B5

Source: Three Rivers Park District



The WMRRT corridor adjacent to the recently reconstructed Elm Creek dam, with the RRFB connection across West River Road.

Source: Three Rivers Park District



### Segment B6

The 3.37 miles of subsegment B6 represents a robust trail planning effort along West River Road in Champlin. This portion of the WMRRT corridor reflects the fully developed character of small, residential lots adjacent to the Mississippi River with limited opportunity to engage with the river (**Map 22**).

The current posted speed limit along most of this West River Road WMRRT stretch is 45 mph. The roadway characteristic is described as a two-lane, rural section with dedicated turn lanes for subdivision entrances or road intersections. Many residential lots that have direct Mississippi River frontage also have driveway access onto West River Road.

As previous segments, Segment B6 has been considered as a stand-alone project. However, this segment would be best realized in conjunction with a road reconstruction project (or similar) to reduce costs. There are several areas where road right-of-way is limited, but easements may be avoided should construction be combined with another project. Several adjacent property owners expressed concern about the road speeds and driveway crossings. The need for further study to address these concerns may be warranted at time of funding. In addition, the master plan acknowledges that this WMRRT stretch exists without any identified Mississippi River touchpoints. WMRRT partner stakeholders should consider property acquisition via willing-seller should opportunities for additional river touchpoints arise. While all potential acquisition opportunities should be evaluated within this segment, opportunities to acquire large lots directly on the river with West River Road frontage should be prioritized.

### Segment B7

This small segment of 0.12 miles exists and is the terminus of the Champlin segment. Its current condition is acceptable, and will require seal coat and striping per a future Trailway Cooperative Agreement with Champlin (**Map 23**).

### MLCCS

MnDNR's Minnesota Land Cover Classification System (MLCCS) defines the area immediately adjacent to Segment B as predominantly artificial/impervious surfaces throughout the mid to lower portion (including residential development areas). Planted or cultivated vegetation areas can be found in the upper portions, north of Elm Creek Park Reserve (**Map 24**). The Mississippi River is the predominate water land cover, with various smaller streams and lakes appearing in the mid (Mill Pond/Elm Creek) to lower portions. Forested, woodland, shrubland and herbaceous areas appear in Elm Creek Park Reserve, the greenway connection through Champlin to the Mill Pond area and again near the Rush Creek Regional Trail in the lower portions).

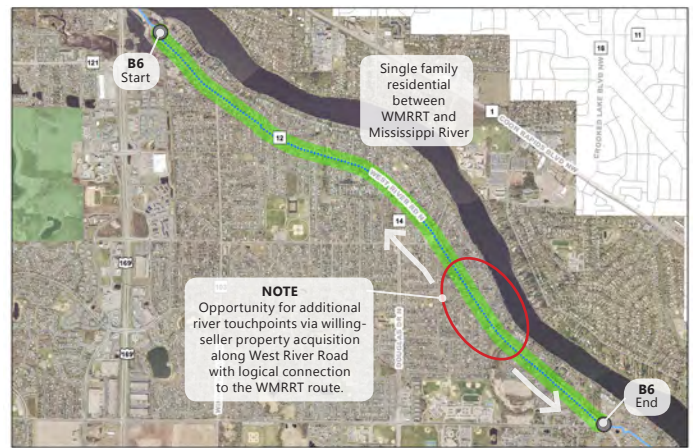
### NHIS

MnDNR's Natural Heritage Information System (NHIS) includes the following rare plants and animals, native plant communities, geologic features and/or animal aggregations within one-mile of Segment B:

*Emydoidea blandingii* (Blanding's turtle), *Ligumia recta* (black sandshell mussel), *Lasmigona compressa* (creek hellsplitter mussel) and *Hieracium longipilum* (long-bearded hawkweed).

Map 22: Segment B6

Source: Three Rivers Park District



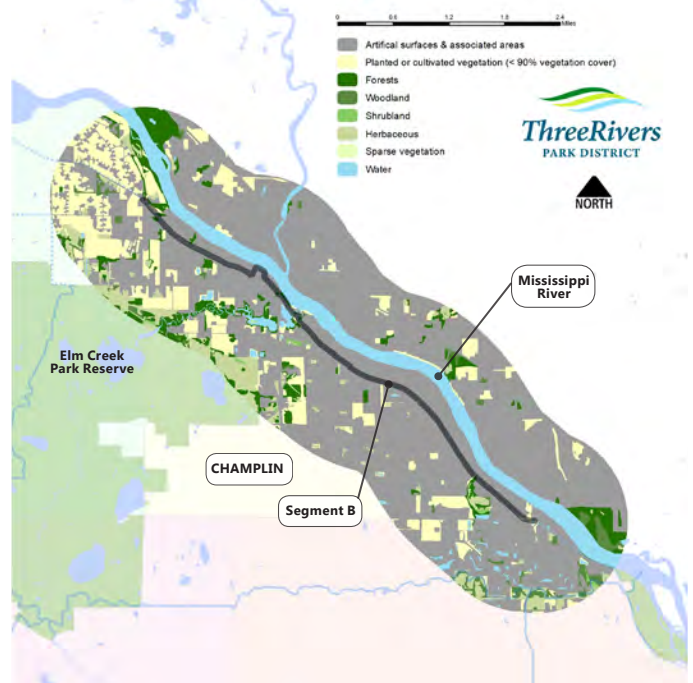
Map 23: Segment B7

Source: Three Rivers Park District



Map 24: MLCCS | Segment B

Source: Three Rivers Park District



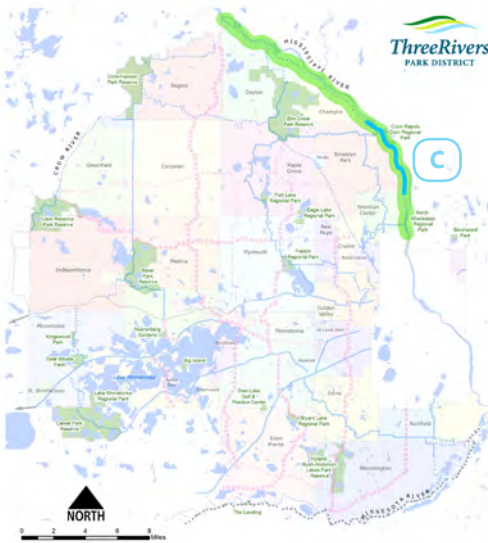
**SEGMENT C | BROOKLYN PARK**

This 5.6 mile segment is essentially complete through Brooklyn Park (**Maps 25 & 26 and Table 11**). Connecting Champlin and Brooklyn Center, Segment C provides many areas where the WMRRT takes on a 'destination' quality (i.e. large sweeping residential lots that have river access, pedestrian scale street lighting and mature tree canopy). These areas can be found from the Mississippi Gateway Regional Park (formerly Coon Rapids Dam Regional Park) to Brookdale Drive - a distance of nearly 4 miles.

Physical access to the river is obtained via the Mississippi Gateway Regional Park, which is slated for major site and building renovations to improve connection to the Mississippi River. Bicycle and pedestrian access is also obtained to Anoka County (Coon Rapids) via two locations: 1) the Rush Creek Regional Trail dam walkway, and 2) the 610 bicycle/pedestrian walkway.

**Map 25: Segment C | Brooklyn Park Context**

Source: Three Rivers Park District

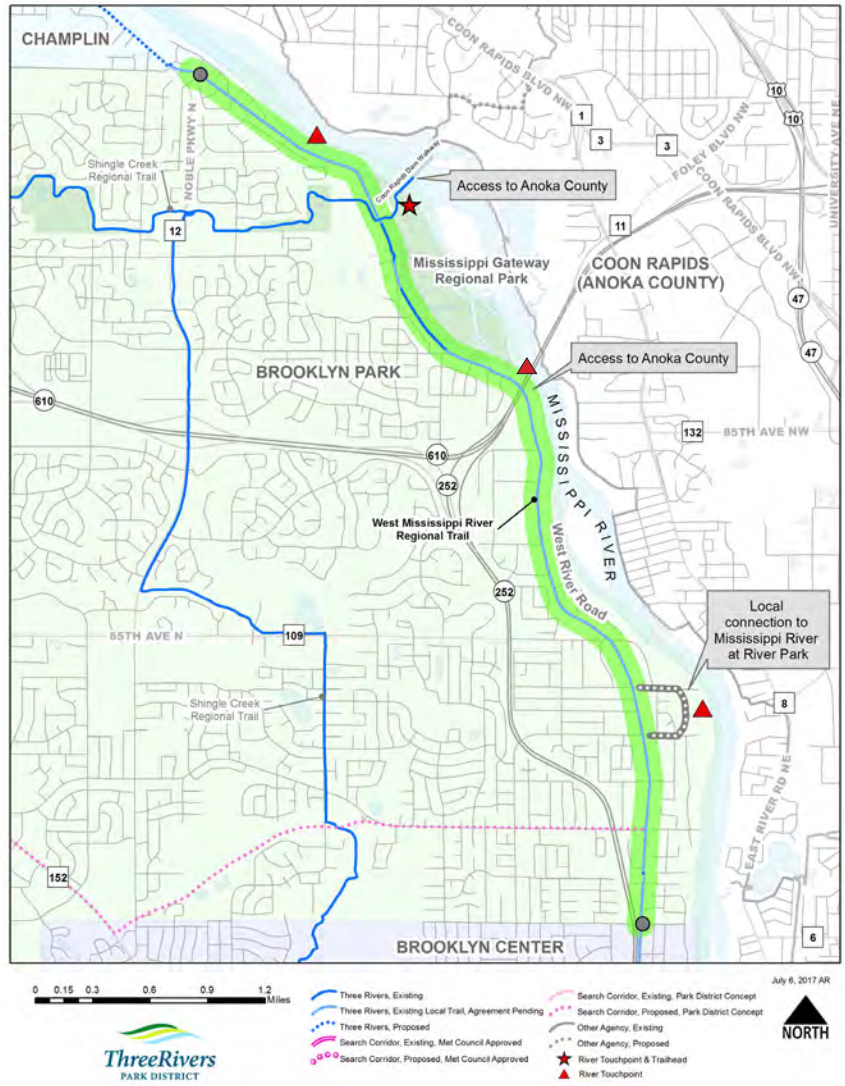


**Subsegment C1**

Beginning at the border of Champlin, subsegment C1 measures 1.32 miles (**Map 27, following page**). This existing WMRRT stretch connects the Brooklyn Park border with the regional park synergy surrounding Coon Rapids Dam. The existing trail exposes users to sweeping vistas of the Mississippi River, as the road right-of-way narrows close to the river, north of the Mississippi Gateway Regional Park. Planned park enhancements call for the creation of an interior trail loop that will bring users to the river's edge for over half of the park. Subsegment C1 continues south until it reaches the entrance

**Map 26: Segment C | Brooklyn Park Overview**

Source: Three Rivers Park District



**Table 11: Segment C | Brooklyn Park Subsegments**

Source: Three Rivers Park District

SEGMENT B					
#	Municipality	Status	Length	Notes	Acquisition & Construction
C1		Existing	1.32	Minor updates & maintenance	\$63,000
C2		Existing	0.23	Minor updates & maintenance	\$171,000
C3		Existing	0.13	Minor updates & maintenance	\$5,000
C4	Brooklyn Park	Existing	0.41	Minor updates & maintenance	\$40,000
C5		Existing	3.2	Minor updates & maintenance	\$211,000
C6		Future construction	0.02	Construct trail around cul-de-sac	\$55,000
C7		Existing	0.25	Reconstruct trail in place.	\$92,000
<b>Subtotal</b>			<b>5.6 miles</b>		<b>\$638,000</b>

to the regional park. It is here that larger connections are made to the regional park, Mississippi River and Coon Rapids Dam Regional Park (Anoka County) via a dam walkway. The Mississippi Gateway Regional Park recently went through an extensive master planning process that has reset the vision for the park as an inclusive facility with a focus on the Mississippi River. Regional trail connections can be made here via the Rush Creek Regional Trail, which provides users with direct access to Elm Creek Park Reserve, 8 miles westward. Further regional trail

connections can also be made to the Shingle Creek Regional Trail (via the Rush Creek Regional Trail) which allows users an additional north/south connection to Minneapolis through Brooklyn Park and Brooklyn Center.

The existing condition of Subsegment C1 is good as it was recently sealcoated. Minor updates and maintenance are required including new pedestrian ramps and striping. A small portion of this WMRRT stretch may be reconstructed and realigned as part of the larger Mississippi Gateway Regional Park redevelopment. Through a proposed Trailway Cooperative Agreement with Brooklyn Park, the Park District will accept Subsegment C1 'as-is,' and incorporate pavement improvements into long-range planning initiatives.

### Subsegment C2, C3 & C4

Currently Subsegments C2, C3 and C4 exist adjacent to West River Road and Mississippi Gateway Regional Park (Map 28). The subsegment breaks are due to the WMRRT route weaving in and out of Park District property into West River Road right-of-way. As part of the Mississippi Gateway Regional Park Master Plan, there is a larger vision to weave the WMRRT further into the park to provide a better recreational user experience. The existing WMRRT route adjacent to West River Road will be kept for commuters.

The existing conditions of Subsegments C2, C3 and C4 are good - however sealcoat, striping and new pedestrian ramps are required and will be incorporated into the pavement management plan. These portions will also be included in the proposed Trailway Cooperative Agreement with Brooklyn Park.

Map 27 Segment C1

Source: Three Rivers Park District



Map 28: Segment C2, C3 & C4

Source: Three Rivers Park District



Subsegment C1 runs adjacent to West River Road, north of Mississippi Gateway Regional Park. This has been identified as a WMRRT river touchpoint due to its sweeping vistas across the Mississippi River.

Source: Three Rivers Park District



Coon Rapids Dam was built in 1913 and connects Hennepin and Anoka County regional parkland via a 12' dam walkway for bicyclists and pedestrians.

Source: Three Rivers Park District



Bicyclists and pedestrians utilize the Coon Rapids dam walkway year-round.

Source: Three Rivers Park District

**Subsegment C5**

Utilizing existing Brooklyn Park trail, Subsegment C5 measures 3.2 miles from the Mississippi Gateway Regional Park to 75th Avenue North (**Map 29**). This WMRRT stretch captures 'destination' qualities including large sweeping residential lots that have river access, pedestrian scale street lighting and mature tree canopy.

Subsegment C5 crosses over Highway 610, an eight lane roadway, with a trail separated from vehicular traffic by a jersey barrier. A brief viewshed and touchpoint to the Mississippi River is provided from this overpass, however the respite is interrupted by traffic noise from the busy highway below. Bicycle and pedestrian connection across the Mississippi River to Coon Rapids is gain by an on-ramp across from Leopold's Mississippi Gardens event center.

The WMRRT route continues adjacent to West River Road, along the west side of the road. Further connection is made to the Izaak Walton League of America's property (including Banfill Island). As the WMRRT becomes formalized, opportunity to partner with the Izaak Walton League is noted. While all potential acquisition opportunities should be evaluated within this segment, opportunities to acquire large lots directly on the river with West River Road frontage should be prioritized.

Connection to River Park is proposed as a local trail loop from West River Road along 83rd and 81st Avenues. This river touchpoint becomes essential as it provides critical mileage spacing from Mississippi Gateway and North Mississippi Regional Parks. River Park offers a boat launch, active play fields and picnic facilities. Future opportunity to partner with river stakeholders and expand recreation opportunities with WMRRT integration exist.

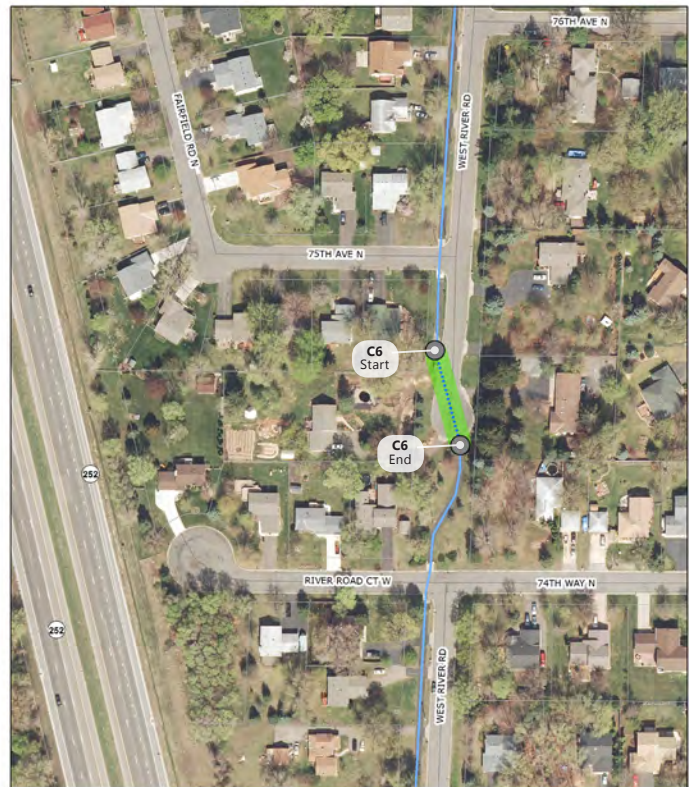
**Map 29: Segment C5**

Source: Three Rivers Park District



**Map 30: Segment C6**

Source: Three Rivers Park District



Connection across Highway 610 exists with further access across the Mississippi River gained by an on-ramp to the bicycle/pedestrian walkway adjacent to 610 (seen in photo above, beyond the bus stop - at right).



The Mississippi River viewed from Highway 610 overpass. Bicycle/pedestrian walkway can be seen adjacent to east-bound traffic.



Subsegment C5 through Brooklyn Park possesses many 'destination' qualities such as mature vegetation, pedestrian-scale lighting and established residential subdivisions.

The existing condition of Subsegment C5 is good as it was recently sealcoated. Minor updates and maintenance are required including new pedestrian ramps and striping.

### Subsegment C6

A small, 0.03 mile section is needed to complete the Brooklyn Park portion of the WMRRT (Map 30, previous page). This small project would construct bituminous trail around the west side of the West River Road cul-de-sac. Due to site conditions, additional grading and/or retaining wall may be required. As current vehicular traffic volumes at this cul-de-sac are relatively low, the current on-road connection from C5 to C7 is acceptable until an off-road segment is found to be fiscally feasible.

### Subsegment C7

Another short existing WMRRT section, Subsegment C7 measures 0.25 miles adjacent to West River Road from 74th Way North to the Brooklyn Park/Brooklyn Center border at 73rd Avenue North (Map 32). A Metro Transit park and ride lot exists along Highway 252 which services bus routes 765, 766 and 768 to/from Minneapolis. Currently this park and ride is closed, however should this lot reopen, WMRRT access to mass transit is obtained.

The current condition of this segment's pavement is substandard and requires reconstruction as opportunities arise per the future Trailway Cooperative Agreement.

### MLCCS

MnDNR's Minnesota Land Cover Classification System (MLCCS) defines the area immediately adjacent to Segment C as predominantly artificial/impervious surfaces (includes residential land cover) (Map 32). Regional parkland and open space appears throughout the upper to mid portions of Segment A which includes the Mississippi Gateway Regional Park, Coon Rapids Dam Regional Park (Anoka County), Rush Creek Regional Trail and various forested islands in the Mississippi River.

### NHIS

MnDNR's Natural Heritage Information System (NHIS) includes the following rare plants and animals, native plant communities, geologic features and/or animal aggregations within one-mile of Segment C:

*Haliaeetus leucocephalus* (Bald eagle), *Falco peregrinus*, peregrine falcon, *Ligumia recta* (black sandshell mussel), *Lampsilis cardium* (plain pocketbook mussel), *Lampsilis siliquoidea* (fatmucket clam), *Leptodea fragilis* (fragile papershell mussel), *Potamilus alatus* (pink heelsplitter mussel), *Amblema plicata* (three-ridge mussel), *Fusconaia flava* (wabasha pigtoe mussel), *Obliquaria reflexa* (threehorn wartyback mussel), *Quadrula quadrula* (mapleleaf mussel), *Truncilla truncata* (deertoe mussel), *Strophitus undulatus* (creeper mussel), *Lasmigona complanata* (white heelsplitter mussel), *Truncilla donaciformis* (fawnsfoot mussel), *Pyganodon grandis* (giant floater mussel), *Pleurobema sintoxia* (round pigtoe mussel), *Mydoidea blandingii* (Blanding's turtle), *Hieracium longipilum* (long-bearded hawkweed), colonial waterbird nesting site, silver maple floodplain forest and native plant community (undetermined class).

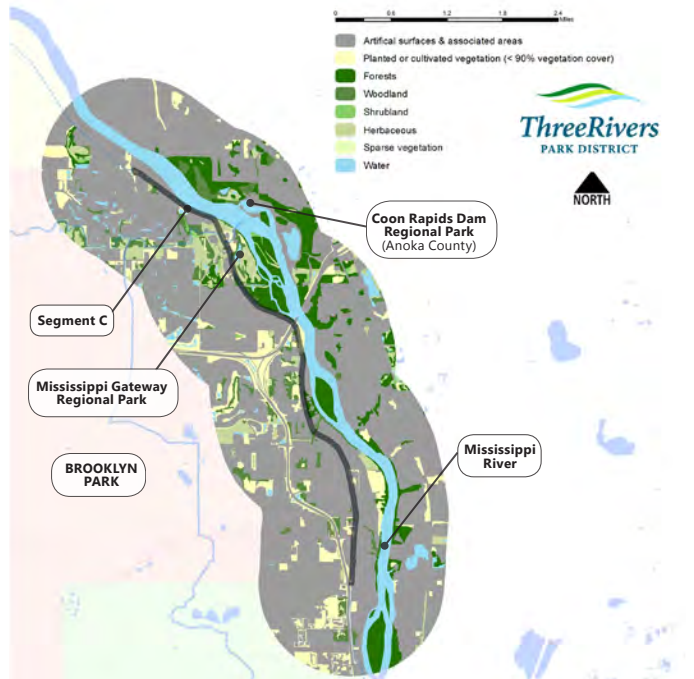
Map 31: Segment C7

Source: Three Rivers Park District



Map 32: MLCCS | Segment C

Source: Three Rivers Park District



**SEGMENT D | BROOKLYN CENTER**

This 2.7 mile WMRRT segment consists of existing and planned subsegments (Maps 33 & 34 and Table 12). The WMRRT makes its final terminus point at North Mississippi Regional Park, south of I-694.

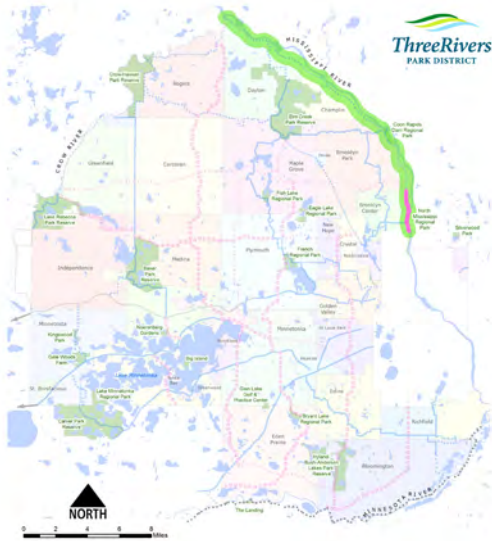
Opportunity for river touchpoints north of I-694 are minimal, with sweeping river vistas available as the WMRRT reaches North Mississippi Regional Park, a narrow regional park located between I-94 and the river. Further regional trail connections are made to the Twin Lakes Regional Trail and Minneapolis Grand Rounds park and trail network.

The character of the trail is generally defined by its physical location - a narrow strip between Highway 252 and I-94, and the Mississippi River.

Highway 252 is undergoing a MnDOT study to improve safety and mobility between 610 and I-694. Additional highway corridor goals include providing connectivity, pedestrian accommodations, access to transit services and maintaining existing infrastructure investments. As a recommendation of the WMRRT Master Plan, off-street trail to replace or improve the existing trail must be accommodated for in future plans.

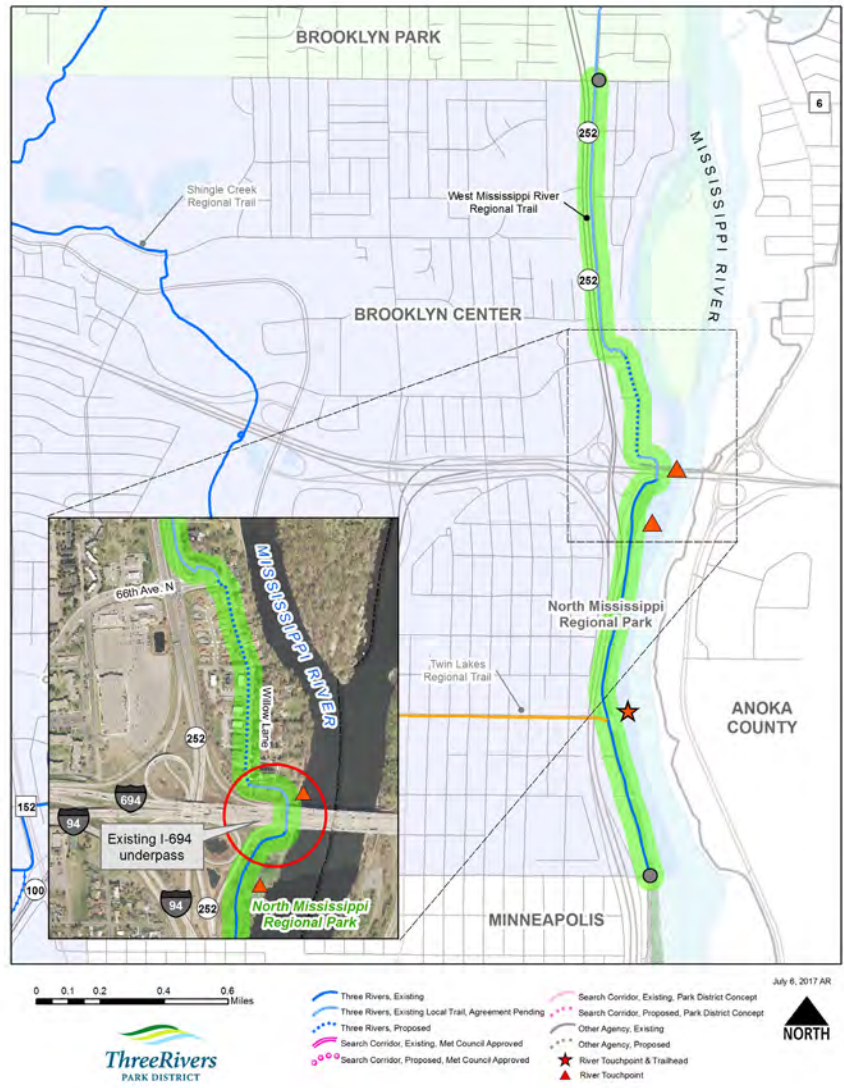
**Map 33: Segment D | Brooklyn Center Context**

Source: Three Rivers Park District



**Map 34: Segment D | Brooklyn Center Overview**

Source: Three Rivers Park District



**Table 12: Segment D | Brooklyn Center Subsegments**

Source: Three Rivers Park District

SEGMENT D					
#	Municipality	Status	Length	Notes	Acquisition & Construction
D1	Brooklyn Center	Existing	0.91	Minor updates & maintenance	\$48,000
D2		Future construction	0.35	Minor updates & maintenance	\$676,000
D3		Existing	0.11	Minor updates & maintenance	\$86,000
D4		Existing	1.31	Minor updates & maintenance	\$486,000
Subtotal			2.7 miles		\$1,296,000

### Subsegment D1

Nestled behind a combination of Highway 252 sound wall and bermed vegetated retaining wall, the existing Subsegment D1 measures 0.91 miles and connects the Brooklyn Park border to 66th Avenue North along West River Road (**Map 35**). While the Highway 252 traffic is visually obstructed from WMRRT, the sound of vehicles traveling at highway speeds is audible. Subsegment D1 does provide minimal road crossings as the WMRRT route is located within the Highway 252 road right-of-way, with restricted access points.

The existing pavement condition is acceptable. New pedestrian ramps and striping are required as funding opportunities allow, per the future Brooklyn Center Trailway Cooperative Agreement.



Source: Google Maps

Subsegment D1 travels along the west side of West River Road (seen at right), separated physically and visually from the Highway 252 corridor.

### Subsegment D2

WMRRT Subsegment D2 (0.35 miles) is proposed between 66th Avenue N and I-694, along the west side of Willow Lane (**Map 36**). This route travels through a pocket of residential which includes single and multi family. The subsegment terminates at the end of the Willow Lane cul-de-sac where access under I-694 begins.

Construction of this subsegment may require the street to be narrowed with a reconstructed curb to accommodate the WMRRT. In addition, utility pole relocation will be required.

This master plan recommends that Highway 252 corridor study partner stakeholders coordinate 66th Avenue N intersection improvements with the Park District to ensure connectivity to mass transit and redevelopment occurring west of Highway 252.



Source: Google Maps

Subsegment D2 is proposed along the west side of Willow Lane (seen at right), which will replace the sidewalk with bituminous WMRRT surfacing.



Source: Google Maps

Connection to multi family residential is made with WMRRT implementation along Subsegment D2 (seen at right).

### Map 35: Segment D1

Source: Three Rivers Park District



### Map 36: Segment D2

Source: Three Rivers Park District



### Subsegment D3

From the Willow Lane N cul-de-sac, an existing segment of the WMRRT exists that provides access to North Mississippi Regional Park under I-694, within MnDOT right-of-way (**Map 37**). The WMRRT route is provided a critical viewshed of the Mississippi River at this location, as the previous river touchpoint is nearly 2.5 miles north at River Park.

As opportunities arise, the master plan directs this portion of the WMRRT to be reconstructed in order to provide an improved user experience. Reconstruction plans include new bituminous with improved clear zone, additional tunnel lighting, new fencing, rest stop and wayfinding signage.



Connection under I-694 to North Mississippi Regional Park is made with Subsegment D3 at the end of the Willow Lane N cul-de-sac.



Subsegment D3's I-694 underpass requires attention to improve user experience. Reconstruction plans include new bituminous with improved clear zone, additional tunnel lighting, new fencing, rest stop and wayfinding signage. Source: Three Rivers Park District

### Subsegment D4

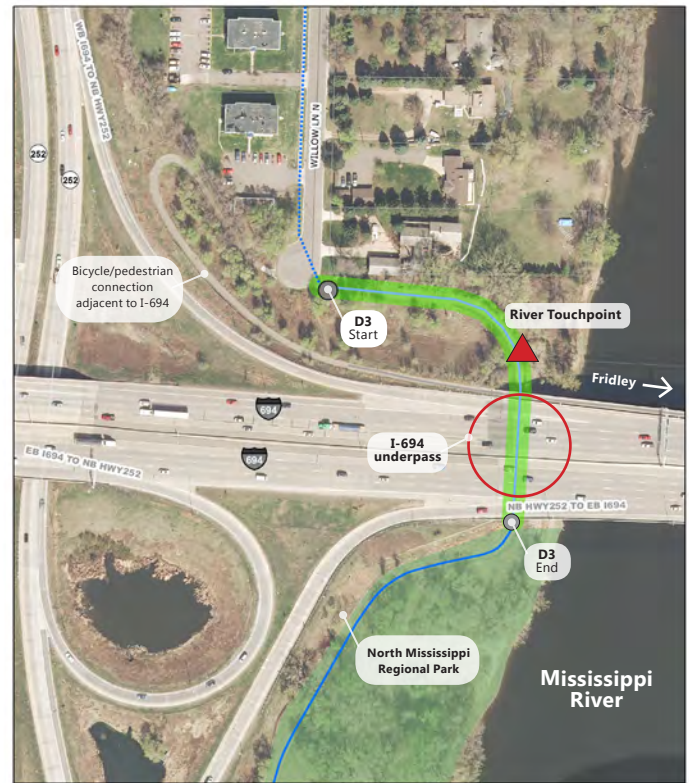
Connection to North Mississippi Regional Park is made within Subsegment D4 (**Map 38**). This existing section measures 1.31 miles and is entirely constructed within the regional park. As the trail emerges from the I-694 underpass, WMRRT users have access to this linear park directly adjacent to the Mississippi River.

North Mississippi Regional Park offers views of the Mississippi River, a fishing pier and picnic areas. The parkland and trail network extends south of 53rd Avenue N (Brooklyn Center municipal border) and is owned and operated by the Minneapolis Park and Recreation Board (MPRB). It is here that the MPRB operates the Carl Kroening Interpretive Center, playground, boat launch, and wading pool. Further trail connections are made via Webber Parkway and commuter routes to downtown Minneapolis.

At 57th Avenue N, connection is made to the Twin Lakes Regional Trail which travels approximately 5 miles west and south through Brooklyn Center to connect to the larger Crystal Lake Regional Trail.

### Map 37: Segment D3

Source: Three Rivers Park District



### Map 38: Segment D4

Source: Three Rivers Park District





As part of the construction of the Twin Lakes Regional Trail construction along 57th Avenue N, Level A wayfinding and rest stop facilities were installed to indicate the significance of the convergence of two regional trails.

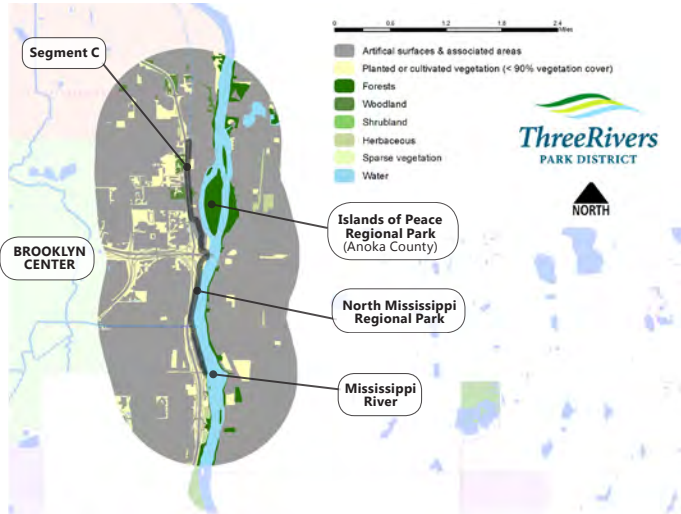
Subsegment D4 is slated for reconstruction by the Park District in 2022. At this time the bituminous will be upgraded, stripping added and the alignment adjusted as necessary to improve user experience.

**MLCCS**

MnDNR’s Minnesota Land Cover Classification System (MLCCS) defines the area immediately adjacent to Segment D as predominantly artificial/imperious surface (including residential development) (Map 39). The Mississippi River weaves through Segment D with regional parkland and or open space noted directly adjacent to the river. The Islands of Peace Regional Park (Anoka County) is identified and the narrow North Mississippi Regional Park appears briefly.

**Map 39: MLCCS | Segment D**

Source: Three Rivers Park District



**NHIS**

MnDNR’s Natural Heritage Information System (NHIS) includes the following rare plants and animals, native plant communities, geologic features and/or animal aggregations within one-mile of Segment D:

Haliaeetus leucocephalus (Bald eagle), Emydoidea blandingii (blanding’s turtle), Falco peregrinus, peregrine falcon, Cicindela lepida (ghost tiger beetle), Ligumia recta (black sandshell mussel), Lampsilis cardium (plain pocketbook mussel), Lampsilis siliquoidea (fatmucket clam), Leptodea fragilis (fragile papershell mussel), Potamilus alatus (pink heelsplitter mussel), Amblema plicata (three ridge mussel), Fusconaia flava (wabasha pigtoe mussel), Obliquaria reflexa (threehorn wartyback mussel), Quadrula quadrula (mapleleaf mussel), Truncilla truncata (deertoe mussel), Strophitus undulatus (creeper mussel), Truncilla donaciformis (fawnsfoot mussel), Pyganodon grandis (giant floater mussel), colonial waterbird nesting site and silver maple floodplain forest and dry sand gravel prairie type.



Subsegment D4 is scheduled for reconstruction in 2022. The I-694 underpass can be seen in the distance, which also requires upgrades (as noted in Subsegment D3). Source: Three Rivers Park District



A fishing pier with picnic facilities is located south of the I-694 underpass (I-694 bridge over Mississippi River is noted in background). The retaining wall was recently reconstructed due to ice damage/undermining. Source: Three Rivers Park District



Connection to the Twin Lakes Regional Trail is made here at 57th Avenue N. The WMRRT corridor is seen at right, with the Twin Lakes Regional Trail traversing east. A level A wayfinding kiosk configuration is located at the nexus point of these two regional trails. Source: Three Rivers Park District



WMRRT users visit North Mississippi Regional Park. Anoka County parkland can be seen on the other side of the Mississippi River. Source: Three Rivers Park District

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