



**Minnesota Great River Road
Bonding Project Summaries**

**For MN-MRPC Consideration on March 15, 2018
and Potential Letters of Support**

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Stone Arch Bridge Background and Funding January 2018



Stone Arch Bridge (Bridge Number 27004)

The Stone Arch Bridge over the Mississippi River is made of native granite and limestone, and measures 2100 feet long by 28 feet wide. The bridge consists of 23 arches and was built by railroad baron James J. Hill in 1883. It served as a working railroad bridge until 1965 and is still seen as a symbol of the railroad age.

The Minnesota Department of Transportation (MnDOT) acquired the Stone Arch Bridge as rail bank property in 1992. Under Minnesota Statute 222.63, MnDOT is given the opportunity to purchase abandoned railroad property for preservation in the state rail bank for future transportation use including trail use. State rail bank property may be used at a future time for either road/bridge access purposes or as recreational trails in partnership with the other state agencies or political subdivisions.

The bridge was placed on the National Register of Historic Places in 1971. While the Minnesota Department of Transportation owns the structure, MnDOT and the City of Minneapolis have an agreement that the City of Minneapolis will be responsible for bridge deck maintenance while MnDOT is responsible for the structural integrity of the bridge. More information about the Stone Arch Bridge can be found on MnDOT's Website at <http://www.dot.state.mn.us/historicbridges/27004.html>.

Trunk Highway Eligibility

The Stone Arch Bridge is not and never has been on the Trunk Highway System. As noted above, the bridge is abandoned rail bank property that was converted to a recreational bike and pedestrian bridge and carries no vehicular traffic. The bridge also is not connected on either end to any Trunk Highways. For these reasons, the bridge is not eligible for Trunk Highway funding. Similarly, the bridge is not eligible for County State Aid Highway or Municipal State

Aid Streets funding either. MnDOT is therefore seeking funding from eligible funding sources, including state general funds, state general obligation bonds, and/or funds from local partners.

Funding History

The only previous legislation known to date includes Laws of Minnesota 1996, Chapter 455, Article 1, Section 2(f) which appropriated \$110,000 from the General Fund to MnDOT for the repair of the Stone Arch Bridge in the late 1990's.

On behalf of MnDOT, the Governor has requested general fund or general obligation bond funding from the Minnesota legislature for the Stone Arch Bridge in the 2013 to 2016 legislative sessions. Unfortunately, this project has not received the funding requested.

Project Needs

Using Minnesota Rail Service Improvement (MRSI) funds, MnDOT conducted an above-water inspection in late Fall 2017 and an underwater inspection in Summer 2017. Preliminary results of the above-water inspection indicate the condition of the mortar on the entire bridge was found to be in poor condition and in need of repointing (the process of removing damaged mortar on the exterior to a certain depth and replacing with new mortar). This type of work is critical on masonry structures to prevent stones from cracking and breaking due to the deterioration of the mortar. Also, the inspection identified about 20% (on average) of the stone masonry was found to be in poor condition and in need of replacement. It is highly likely that more of the stone masonry will be in need of replacement once construction starts and the bridge is taken apart for repairs. The pavement is in good condition with some spalls in need of repair. The below water inspection found similar issues. The mortar at the waterline and below is in poor condition and needs to be repointed (especially at Piers 1-4 and 8-11). Masonry block replacement is needed in some locations as well given the deterioration of the masonry stone. The inspection report also recommended changing the inspection frequency from every two years to every year based on the advanced mortar loss and condition.

Given the above information, MnDOT Bridge staff estimate the cost of needed repairs at **approximately \$13 million**. This would provide for concrete repairs, pier settlement repair, masonry block repair/replacement, repointing of the mortar as well as the installation of a scour monitoring system and riprap to protect the monitoring system. In addition, this estimate includes costs for additional inspection, scoping, design and construction plan development, and engineering inspections during construction.

Risk of Inaction

The bridge will continue to deteriorate without continued maintenance and repairs. In stone masonry structures, the mortar between joints helps to uniformly distribute the load from the bridge. As the mortar deteriorates, it results in increased pressure on the masonry stones that is no longer uniform and results in deterioration of the stones. Damaged mortar joints can also let in water, salt, and other elements that will further deteriorate the joints and stones. If the mortar joints are not repaired in a timely manner, this could result in the loss of historic stone that may be difficult to replace or, worst case, could result in the closing of the bridge. Other deterioration, such as pier instability, could also result in the loss of historic stone as well as the

closing of the bridge. If the bridge would have to be closed due to continued deterioration, this will likely affect the City of Minneapolis as well as the State of Minnesota.

Potential Funding Options for Repairs

1. Use MnDOT formula federal funds from the Surface Transportation Block Grant (STBG) Program:
 - This is a source of funding currently available to the Department of Transportation to fund up to 80% of the needed repairs.
 - Use of these funds reduces the availability of these funds to support other programmed projects.
 - A 20% local match is needed to be eligible for use.
2. Partnership with the City of Minneapolis and/or Hennepin County to provide some (20% local match) or all of the project repairs.
3. Other Possible sources:
 - Minnesota Rail Safety Improvement/Rail Bank funds – this would need a significant appropriation from the legislature
 - Ask the Governor to consider including the Stone Arch bridge in his 2020-2021 biennial budget submission to the legislature
 - Apply for Transportation Economic Development Infrastructure (TEDI) funds – likely would not compete well at all, unlikely to be funded
 - Apply for a Legacy Fund grant – Project may compete well but funding amounts are small and application submission timeline is unknown. These funds can only be used for project development, and then would need a new application for the construction phase once plans, specs and estimates are developed.

Next Steps

- Meet with the City of Minneapolis to discuss collaboration on a funding solution.
- Meet with Hennepin County to discuss collaboration on a funding solution.
- Discuss opportunities for dedicated funding for annual inspections and maintenance.

Brainerd's 2018 Bonding Request

A **Cuyuna Lakes State Trail** (CLST) request is for \$ 1,175,000 million in state bond funding to design and construct 2.8 miles of the trail from S. 8th Street and Norwood Streets to the City of Brainerd east city limits. 1.7 miles of the trail has been constructed and the 2.8 miles will complete the trail through Brainerd. The trail corridor for this request will follow street rights of way, use an existing easement to go cross country, run parallel to Hwy 210 across Burlington Northern Santa Fe (BNSF) property, including the relocation of a traffic signal on Hwy 210 and a driveway entrance for BNSF.

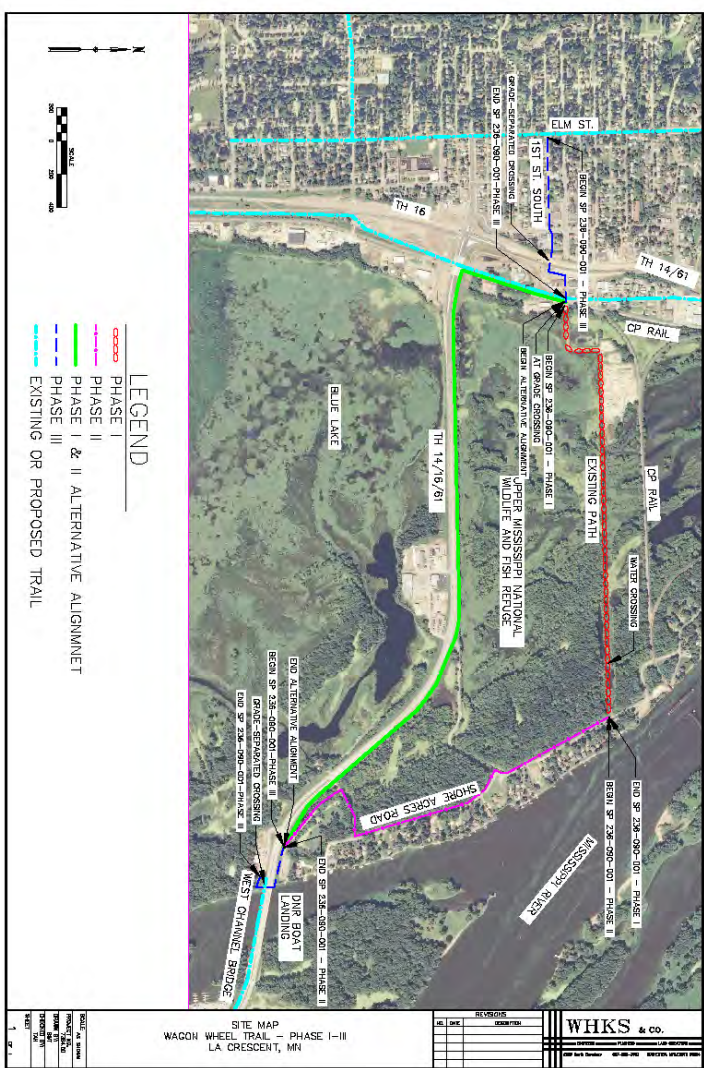
A **Mississippi Riverfront** request is \$1,500,000 for the design of a riverfront trail and riverfront plaza. They will serve as the link and the key to a network of trails from Cuyuna Country State Recreation Area to Crow Wing State Park. It's at this historic site, where the City of Brainerd can leverage the confluence of the Cuyuna Lakes State Trail, Buffalo Hills Trail, Paul Bunyan Trail, the Mississippi River Trail (MRT) and the Great River Road. The Mississippi Riverfront trail and riverfront plaza will provide direct, accessible waterfront access to trail users, canoe/kayak access, interpretive opportunities, entertainment and fishing access to residents and visitors.

Wagon Wheel Phase 3

City of La Crescent, Minnesota

What is the Wagon Wheel Trail?

- Connects to downtown La Crescent, Minnesota's Apple Capital
- Critical link in regional trail system and prioritized in the following documents:
 - 2035 Coulee Region Bike Plan
 - Mississippi River Trail
 - Upper Mississippi Wildlife Refuge Plan
 - Root River Extension Plan
- Three Phases of the Project:
 - Phase 1 – City to Shore Acres – completed 2015
 - Phase 2 – Phase 1 to the West Channel Bridge (construction in 2018)
 - Phase 3 – Phase 1 to 1st Street South
- EA on all phases has been completed



Objectives of the Wagon Wheel Trail Project

- Safe crossing of Highway 14/61
- Eliminates use of traffic signal
- Connects residential area to schools
- Connect Downtown La Crescent to Downtown La Crosse
- Provides public access to Grade A wetlands



What Do the People Think?

A significant public outreach and public input effort has been conducted for the Wagon Wheel project.

The Wagon Wheel trail is a very popular attraction to the residents and visitors to the La Crescent area!

Wagon Wheel Phase 3

City of La Crescent, Minnesota

Moving Forward....

- The Environmental Assessment previously completed resolved all issues
- No right-of-way is required

Project Financing

- Phase 1
 - ATP Grant
 - DNR Grant
 - MnDOT Grant
- Phase 2
 - ATP Grant
 - State Bonding Grant
- Phase 3
 - \$3,500,000 Project
 - ATP \$1,000,000
 - Grants / Bonding



What are the Possibilities?



City of Little Falls

Highway 27 Memorial Bridge Project

Requesting \$30 million

The first step in an effort to improvement the safety, traffic flow, and connection of our community has been completed with the feasibility study on the Highway 27 Memorial Bridge through the heart of Little Falls. We believe that the feasibility study shows us that this project is possible, and we want take the next steps including addressing our elected officials, and presenting the information to the public and stakeholders impacted by the project.

The important facts about this bridge and our community are that 46 trains per day (according to the WBAPS report from 2016), and 13,600 vehicles travel across that the crossing just west of the bridge. This combination of train, traffic and location create a recipe for serious threats to public safety. We have thousands of residents on the west side of the river that while a train is traveling through Little Falls, are cut off and delayed crucial minutes from access to an ambulance, hospital, police response and the full arsenal of fire suppression equipment based on the east side of the bridge. Trains can obstruct access anywhere from 5 minutes to 20 minutes, and the quickest alternate route takes at least 10 minutes to detour around to the Highway 10 bridge; however, for the longer delays, the detour would likely be even longer, because as traffic waits to cross the Highway 27 Memorial Bridge it backs up 6 blocks in either direction waiting to cross the bridge. When every second counts in a life and death response, 10 minutes is critical.

Furthermore, the rail crossing has multiple crude rail lines that cross daily, the potential for a catastrophic event with an at-grade crossing is definitely a possibility, and due to the crossings proximity to the Mississippi River, the event would not only gravely impact the people of Little Falls, but anyone downstream.

Finally, the prospect of changing the bridge alignment and the redevelopment opportunities that opens up in our downtown. Our downtown struggles with the movement of the thru-traffic, which include large trucks hauling goods, and the shoppers and clientele going there for business and services. The opportunity arises with the realignment of the bridge and changing the trunk highway to 1st Ave NE, to redevelop our downtown making it safer, more walkable, and more inviting for patrons to get around and across the streets.

Embrace the Riverfront

Red Wing's Riverfront Trail - Mississippi Blufflands State Trail

Bonding Request

The City of Red Wing requests \$9.5 million in bonding to match \$480,000 in federal funding and \$2.4 million from the city and other sources to complete the Riverfront Trail Extension. This is a unique city/state partnership in which Red Wing will construct, own and operate the northern section of the Mississippi Blufflands State Trail.

Complete a Premier Trail Destination

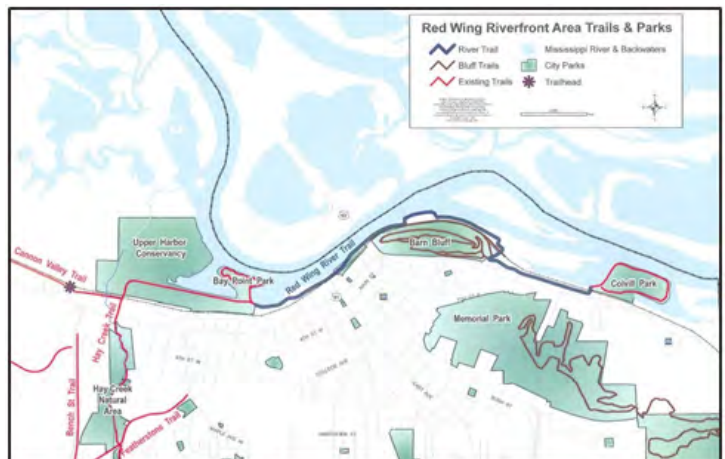
- The project completes a 2.5-mile state trail segment connecting Red Wing's major parks and historic downtown to regional and state trail systems that include Goodhue Pioneer State Trail and Cannon Valley Trail.
- Visitors will be able to park at Colvill Park, experience the trail along the Mississippi River and continue along to Hay Creek or Cannon Falls.
- This combination of trails, parks and other amenities will draw visitors to the area. The first segment connecting Cannon Valley Trail to downtown registered more than 50,000 unique visitors in summer 2017.

Unique Elevated Trail

As the trail proceeds downriver from Levee Park, it will be elevated using a unique floating trail design along a 900-foot segment that will allow visitors to be even closer to the Mississippi River.



Example of an elevated trail in Portland, Ore.



Explore the Barn Bluff Trailhead

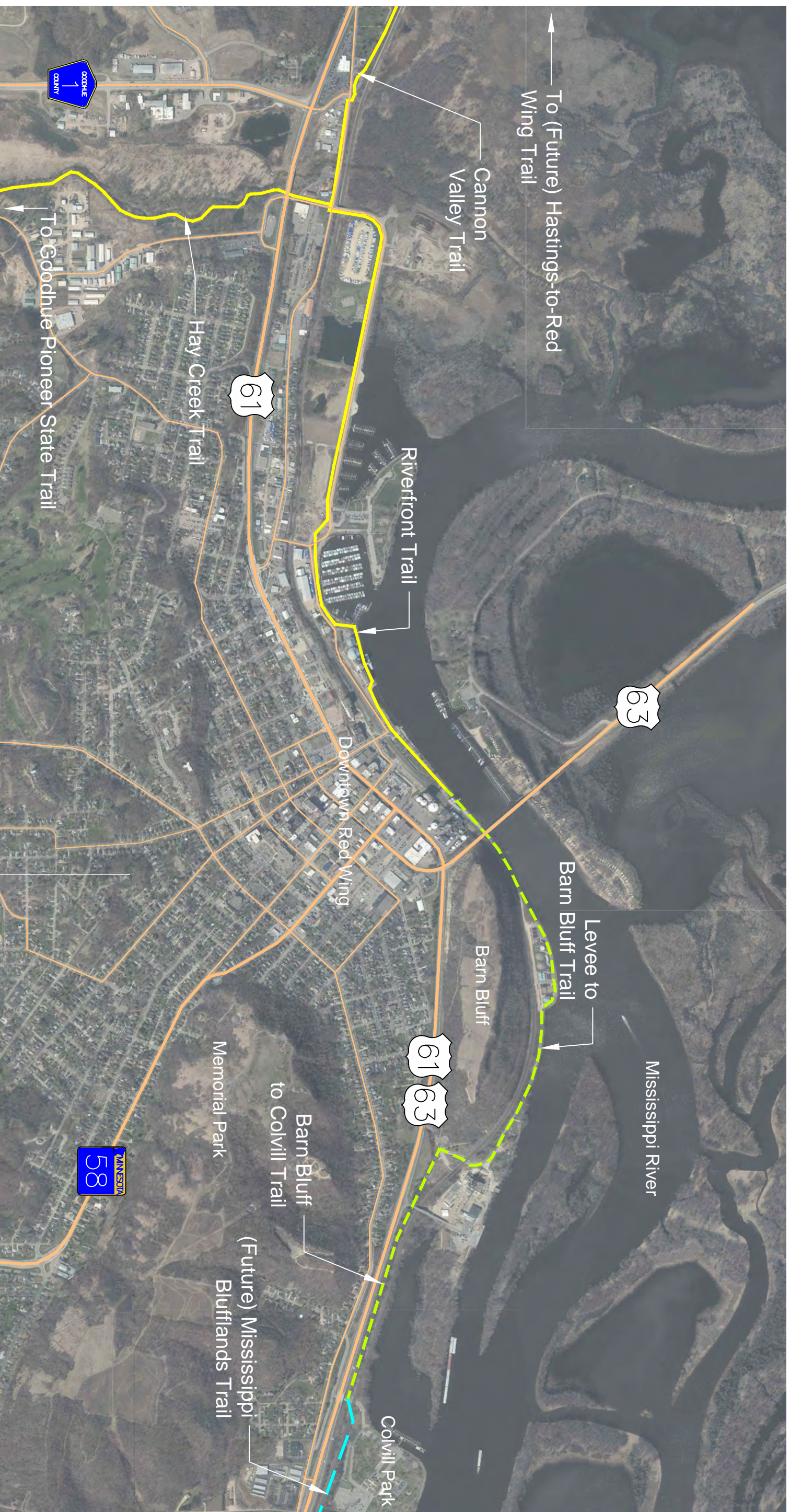
The trail will bring hikers and cyclists to the 340-foot Barn Bluff, a nationally recognized historic site and Legacy-designated regional park, which they can ascend via several different trails and then enjoy a picnic at the trailhead.

Connect to Colvill Park

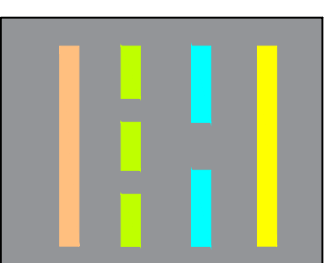
The final segment will connect the trail to Colvill Park, which features a discovery park and adventure playground, aquatic facility, picnic space and other recreational facilities along the river. Colvill Park serves as a great beginning or end to a day along the river.

Flood Mitigation

The project will control flooding and improve water quality by controlling storm water runoff.



**Mississippi Blufflands State Trail
Red Wing Riverfront**



- Existing Trail**
- Future Trail**
- 2018 Bonding Project Trail Segment**
- State Highway or State-Aid Street**



Wabasha Riverfront Revitalization

Bonding Request \$9,595,000

Private Philanthropy \$8,195,000

TOTAL PROJECT COST \$17,790,000

The bonding request is sponsored by the City of Wabasha and includes the expansion of the National Eagle Center and improvements to the adjacent Wabasha riverfront and Big Jo Alley.

Project Scope

- Facility expansion of an additional 19,000 sq. ft. to accommodate the acquisition of new live eagles, expanded museum gallery and exhibit space, and increased educational program capacity
- Develop riverfront as public open space with amphitheater, landscaping celebrating spirit of place, history, and heritage
- Renovation and adaptive re-use of four historic Main Street buildings
- Dockage and port improvements to accommodate large excursion boats and recreational watercraft
- Walkways from riverfront trail to historic downtown Wabasha
- Improved surface storm water management to Mississippi River
- B3 Benchmarking facility rating and bird safe glass

The National Eagle Center's vision of a world class cultural museum and expanded environmental center on the Mississippi River in Wabasha represents an unparalleled opportunity for Minnesota. Nowhere else in the world can people learn the meaning of the eagle in American values, nature, history and cultures.



Economic and Tourism Benefits

The National Eagle Center is an economic engine in the region.

It is in the **top 6%** of museums in Minnesota, drawing over **83,000 visitors** from **50 states** and **115 countries** each year, spending over **\$2.8 million** in Wabasha and Southeast Minnesota.



Wabasha Riverfront Revitalization



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