



Environment and Natural Resources Trust Fund

M.L. 2021 Draft Work Plan

General Information

ID Number: 2021-362

Staff Lead: Michael Varien

Date this document submitted to LCCMR: March 24, 2021

Project Title: Minnesota State Trails Development

Project Budget: \$4,266,000

Project Manager Information

Name: Kent Skaar

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Project Reporting

Date Work Plan Approved by LCCMR:

Reporting Schedule: December 1 / June 1 of each year.

Project Completion: December 31, 2023

Final Report Due Date: February 14, 2024

Legal Information

Legal Citation:

Appropriation Language:

Appropriation End Date: June 30, 2024

Narrative

Project Summary: This project proposes to expand recreational opportunities on Minnesota State Trails through the rehabilitation and enhancement of existing state trails and replacement or repair of existing state trail bridges.

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

Each of the state trail projects identified by the Minnesota Department of Natural Resources (MN DNR), Parks and Trails Division represent opportunities to upgrade existing facilities and improve user safety by completing the repair or replacement of 10 miles of existing trail and up to 6 existing trail bridges. Each project is a MNDNR priority given current condition as determined by formal inspections and user comments. The individual trail projects identified represent some of the oldest and most deteriorated paved trail surfaces in the state trail system. The individual state trail bridges identified have condition ratings of Fair to Serious, with one currently closed to all use. Two bridges are former railroad structures that have been subject to previous structural rehabilitation and the current proposal would replace the existing weathered timber deck/trail surface and safety railings. These improvements represent eight separate projects on seven different state trails. One of the projects will provide matching funds for a Federal Grant. In addition to the projects identified, the MN DNR has prioritized contingency projects should a referenced project be subject to delay or to address requirements to prioritize projects in southern Minnesota, including St. Cloud and the Metropolitan Area.

What is your proposed solution to the problem or opportunity discussed above? i.e. What are you seeking funding to do? You will be asked to expand on this in Activities and Milestones.

This proposal as presently outlined will result in the repair or replacement of 10 miles of existing state trail and up to six individual state trail bridges. The proposed state trail upgrading and improvement is to be completed as two separate projects, on two separate state trail corridors, the Paul Bunyan State Trail and the Cuyuna Lakes State Trail. Each trail improvement project is to consist generally of the resurfacing of the existing bituminous trail and widening the trail surface to the current 10' wide trail standard where necessary, including the reconstruction and improvement of the granular trail base, the installation of ADA compliant trail/roadway intersections and the replacement of a number of small culverts. Of the six separate bridges identified for replacement or repair, four are former railroad bridges and the remaining are small, timber structures developed by DNR staff and have now exceeded their design life. A total of four of the bridges identified are to be replaced with modern steel truss structures. The remaining two bridges will have new bridge deck/trail surfaces installed and new safety railings constructed. Should it be necessary to address specific program recommendations, a list of prioritized contingency projects will be utilized

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

The individual projects identified, once complete, will permit the continued, safe use of seven of the MN DNR administered state trails, including the David Dill-Arrowhead, Taconite, Luce Line, Root River, Cuyuna Lakes, and Paul Bunyan state trails and one MN DNR administered ATV Trail, the Alborn-Pengilly Railroad Trail. While only one of the state trail bridges, located on the David Dill-Arrowhead State Trail is currently closed to all users, recent inspections have approved each of the other structures for continued use. However, annual inspections of the open bridges have been implemented until replacements are complete or closed.

Project Location

What is the best scale for describing where your work will take place?

Statewide

What is the best scale to describe the area impacted by your work?

Statewide

When will the work impact occur?

During the Project and In the Future

Activities and Milestones

Activity 1: State Trail Bridge Renewal and Replacement

Activity Budget: \$1,826,000

Activity Description:

This project includes the renewal or replacement of up to six existing state trail bridges, located on the Arrowhead and Taconite State Trails, the Pengilly-Alborn Railroad Trail and the Luce Line and Root River State Trails. Of these bridges, four have a Conditional Index Rating of Fair to Serious as determined by formal inspection and are recommended for complete replacement. The current David Dill-Arrowhead State Trail Bridge over Flint Creek, near the Community of Orr, was closed to all traffic in 2019 due to condition and a temporary detour was established. Four of the bridges, located on the Pengilly-Alborn Railroad Trail and the Luce Line and Root River State Trails are all large, former railroad structures originally constructed in the early twentieth century. Two of these former railroad bridges are to be replaced with steel truss, recreational bridges. The remaining former railroad bridges, both located on the Root River State Trail, have been previously subject to structural rehabilitation. The current project proposes the replacement of the timber deck/trail surface and the safety railings. Each of the proposed replacement bridges will be a new steel truss trail bridge placed on concrete footings with a conservative useful life of 50 years.

Activity Milestones:

Description	Completion Date
Project Engineering Complete / (Represents milestone completion for all Bridges)	June 30, 2022
Construction Contract Awarded (Represents milestone completion for all Bridges)	December 31, 2022
Project Construction Complete / (Represents milestone completion for all Bridges)	November 30, 2023
Project Closeout and Final Reporting / (Represents milestone completion for all Bridges)	December 31, 2023

Activity 2: Paul Bunyan State Trail - Hackensack to Backus Segment Rehabilitation and Renewal

Activity Budget: \$1,600,000

Activity Description:

This project proposes the upgrading and rehabilitation of an approximately 7.5 mile long segment of the existing Paul Bunyan State Trail located between the communities of Backus and Hackensack, Cass County. The proposed trail upgrading is to consist principally of the resurfacing of the severely deteriorated 10' bituminous trail surface original installed in 1999, limited trail subgrade corrections, the installation of ADA compliant trail/roadway intersections, and the replacement of numerous small culverts. No modifications or revisions to current State trail alignment are currently anticipated.

Limited vegetation restoration will also be necessary in several areas following the conclusion of construction.

Activity Milestones:

Description	Completion Date
Completion of required project engineering - Paul Bunyan State Trail	April 30, 2022
Construction Contract Awarded - Paul Bunyan State Trail	June 30, 2022
Project Construction Complete - Paul Bunyan State Trail	November 30, 2022
Project Closeout and Final Reporting - Paul Bunyan State Trail	June 30, 2023

Activity 3: Cuyuna Lakes State Trail - Cuyuna State Recreation Area Segment Rehabilitation and Renewal

Activity Budget: \$840,000

Activity Description:

This project proposes the upgrading and rehabilitation of an approximately 2.5 mile segment of the existing Cuyuna Lakes State Trail that is located immediately west of the community of Crosby and traverses the Cuyuna Country State Recreation Area. The proposed trail renewal is necessary to address the poor condition of the existing bituminous trail surface originally constructed in 2005. The upgrading of this trail segment will consist principally of the resurfacing of the existing bituminous surfaced recreational trail and widening of the current 8' wide trail surface to the current 10' standard width, the installation bio-vegetation control along and under the trail surface, the installation of ADA compliant trail/roadway intersections, and the replacement of a number of small culverts. The proposed reconstruction is also to include additional accommodations, through formal intersections and parallel trail segments, with the expanding natural surface mountain bike trail system within the Cuyuna Country State Recreation Area.

Activity Milestones:

Description	Completion Date
Completion of Project Engineering - Cuyuna Lakes State Trail	April 30, 2022
Construction Contract Award - Cuyuna Lakes State Trail	June 30, 2022
Project Construction Complete - Cuyuna Lakes State Trail	November 30, 2022
Project Closeout and Final Reporting - Cuyuna Lakes State Trail	June 30, 2023

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.

For each of the individual proposed projects, all Minnesota Department of Natural Resources public notifications regarding the identified projects will reference the support of the LCCMR. All engineering plans and specifications include specific reference to the LCCMR through the inclusion of the Trust Fund Logo placed on the Title Sheet. Each Bridge when completed will also have a plaque affixed at each end that clearly displays the Trust Fund Logo.

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this be funded?

Each of the identified projects are all existing components of the Outdoor Recreation System and will be implemented through the MNDNR Parks and Trails Division staff. All project engineering, design, contract administration and construction inspection will be completed by or under the direct oversight of the MNDNR Operation Services Division. The MNDNR will operate, maintain and protect each of the facilities when complete. The implementation of these projects will also significantly reduce the Parks and Trails Division's annual operational costs for the defined trail segments and bridges from 10 to 25 years.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Minnesota State Trails Acquisition, Development and Enhancement	M.L. 2017, Chp. 96, Sec. 2, Subd. 09d	\$1,038,000
Minnesota State Trail Development	M.L. 2018, Chp. 214, Art. 4, Sec. 2, Subd. 09j	\$2,500,000
Minnesota State Trails Development	M.L. 2019, First Special Session, Chp. 4, Art. 2, Sec. 2, Subd. 09d	\$5,000,000

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
							Sub Total	-
Contracts and Services								
MNDNR Operation Services Division	Professional or Technical Service Contract	All proposed project engineering, design, contract administration and construction inspection will be completed by or under the direct oversight of the MNDNR Division of Operation Services / Construction and Design.				5		\$426,600
							Sub Total	\$426,600
Equipment, Tools, and Supplies								
							Sub Total	-
Capital Expenditures								
		Arrowhead State Trail - Flint Creek Bridge	Replacement of existing deficient Trail Bridge. The existing timber bridge is to be replaced with a approximately 60 foot long steel recreational trail bridge. A final hydraulic study will determine the final bridge length.					\$266,474
		Taconite State Trail - East Two River Bridge	Replacement of existing deficient state trail bridge. The existing bridge is a 41 foot long timber and steel structure originally constructed by MnDNR Trail staff in the late 1980's. The proposed replacement bridge is to be a steel, recreational truss bridge with a 15 ton load rating capable of supporting all maintenance and emergency equipment.					\$200,667

		Pengilly-Alborn Railroad Trail - West Swan River Bridge	Replacement of existing deficient state trail bridge. The existing bridge is a severely degraded, concrete, former railroad structure that is to be replaced with a 60 foot long steel truss bridge with a 15 ton load rating and capable of supporting all maintenance and emergency equipment.					\$222,011
		Luce Line State Trail - Watertown / So. Fork Crow River Bridge	Replacement of existing deficient State Trail Bridge. The existing bridge is a 220 ft long, three span bridge, consisting of a former railroad, steel girder main span over the River, and 2 steel truss trail bridge approach spans. The two approach spans were installed in the 1980's when the bridge was converted to trail use. Inspections in 2019 determined that the approach spans, rated for 5 ton load rating when originally constructed are not capable of supporting the current maintenance equipment. The proposed replacement structure is to be a 60 foot long steel truss bridge with a 15 ton load rating					\$488,794
		Root River State Trail - Root River / Bridge 7 Deck Replacement	Replacement of deteriorated trail bridge deck and safety railings on Root River State Trail Bridge #7 located approximately 2.5 miles west of the community of Lanesboro, Fillmore County. This existing structure is a 151 foot long, two span, steel through-girder bridge, originally constructed by the railroad in 1904 over the South Branch of the Root River. This bridge was subject to complete structural rehabilitation in 2013, including significant reconstruction of the limestone and concrete abutments. This project proposes the replacement of the timber bridge deck / trail surface originally installed in 1980's, with a					\$222,011

			laminated timber deck with a bituminous trail surface and new safety railings.					
		Root River State Trail - Root River / Bridge 6 Deck Replacement	Replacement of deteriorated trail bridge deck and safety railing on Root river State Trail Bridge #6 located approximately 2.9 miles west of the community of Lanesboro, Fillmore County. This existing bridge is a former railroad steel through-truss, originally constructed in 1905 over the South Branch of the Root River. This bridge was subject to complete structural rehabilitation in 2013, including significant reconstruction of the limestone and concrete abutments. This project proposes the replacement of the timber bridge deck / trail surface originally installed in 1980's, with a laminated timber deck with a bituminous trail surface and new safety railings.					\$222,011
		Paul Bunyan State Trail - Rehabilitation and Renewal (Cass County)	Proposed upgrading and rehabilitation of approximately 7.5 mile trail segment of the existing Paul Bunyan State Trail located between the communities of Backus and Hackensack. The proposed trail upgrading is to consist principally of the resurfacing of the severely deteriorated 10' bituminous trail surface original installed in 1999, the installation of ADA compliant trail/roadway intersections, and the replacement of numerous small culverts					\$1,422,533
		Cuyuna Lakes State Trail - Trail Rehabilitation and Renewal (Crow Wing County)	Proposed upgrading and rehabilitation of approximately 2.5 mile segment of the existing Cuyuna Lakes State Trail that is located immediately west of the community of Crosby and traverses the Cuyuna Country State Recreation Area. The proposed trail renewal is necessary					\$746,686

			to address the poor condition of the existing bituminous trail surface originally constructed in 2005. The upgrading of this trail segment will consist principally of the resurfacing of the 8' bituminous trail and widening to the current 10' standard, bio-vegetation control, the installation of ADA compliant trail/roadway intersections, and the replacement of a number of small culverts.					
							Sub Total	\$3,791,187
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
							Sub Total	-
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
							Sub Total	-
Other Expenses								
		MNDNR Direct and Necessary Costs	Pay for activities that are directly related to and necessary for accomplishing appropriated programs/projects. Direct and necessary costs cover HR Support (~\$0), Safety Support (~\$0), Financial Support (~\$45,740), Communication Support (~\$1,324), IT Support (~\$0), and					\$48,213

			Planning Support (~\$1,149) that are necessary to accomplishing funded programs/projects.					
							Sub Total	\$48,213
							Grand Total	\$4,266,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	-
Non-State				
Cash	Federal Recreation Trail Grant	Grant award for the replacement of the existing Arrowhead State Trail Bridge over the Flint Creek near Orr, St. Louis County.	Secured	\$150,000
			Non State Sub Total	\$150,000
			Funds Total	\$150,000

Attachments

Required Attachments

Visual Component

File: [ec62f867-d93.pdf](#)

Alternate Text for Visual Component

Map of the State of Minnesota with the specific State Trail rehabilitation and State Trail bridge project locations identified. Insets are included that identify each State Trail Bridge Project by description and reduced scale maps of the Paul Bunyan and Cuyuna Lakes State Trail rehabilitation projects....

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage

The 2021 Work Plan as submitted has been revised to conform to the recommendations of the Legislative-Citizen Commission on Minnesota Resources for funding from the Environment and Natural Resources Trust Fund. The principal revisions are a reduction to the total number of projects proposed. A total of two bridge projects and two trail rehabilitation projects were removed from current consideration and are not reflected in the work plan. These projects currently represent contingency projects should the identified projects be subject to delay or to reflect specific proposal recommendations. Limited adjustments to individual project budgets are also reflected.

Additional Acknowledgements and Conditions:

The following are acknowledgements and conditions beyond those already included in the above workplan:

Do you understand and acknowledge the ENRTF repayment requirements if the use of capital equipment changes?

Yes

Do you agree travel expenses must follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

N/A

Does your project have potential for royalties, copyrights, patents, or sale of products and assets?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

N/A

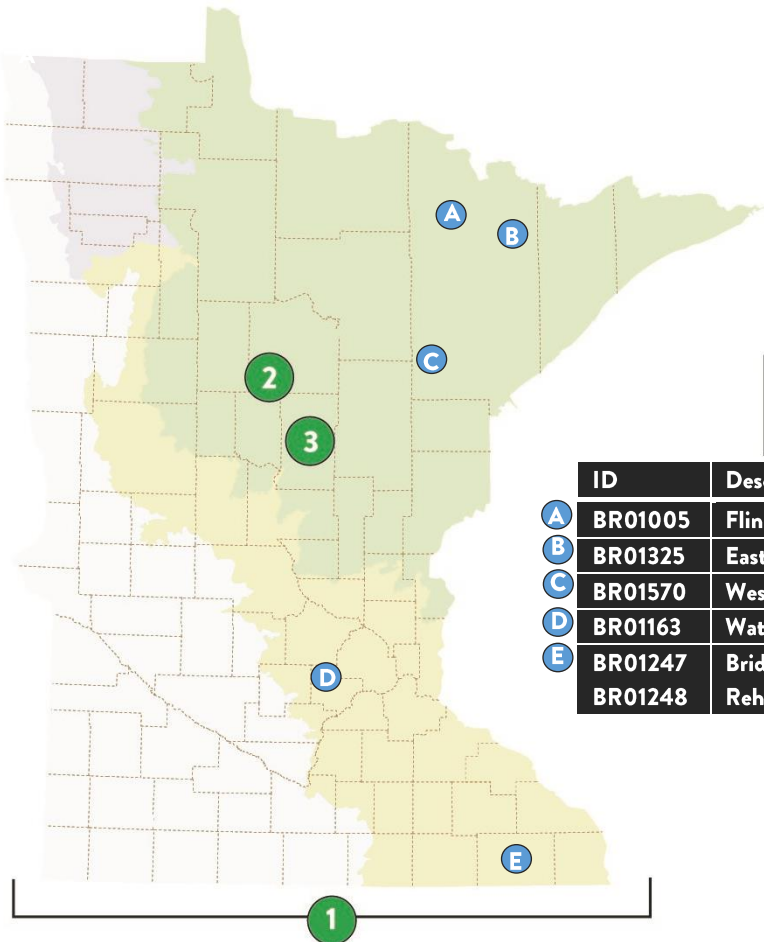
Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

No

Minnesota State Trail Development and Enhancement



1 Statewide Bridge Renewal and/or Replacement

ID	Description	Unit	County
A	BR01005 Flint Creek Bridge Replacement	Arrowhead State Trail	St. Louis
B	BR01325 East Two River Bridge	Taconite State Trail	St. Louis
C	BR01570 West Swan River Bridge	Alborn-Pengilly RR Trail	St. Louis
D	BR01163 Watertown Bridge	Luce Line State Trail	Carver
E	BR01247 Bridge RR006 and RR007 Rehabilitation	Root River State Trail	Fillmore

