

M.L. 2016, Chp. 186, Sec.2, Subd. 9(e) **Project Abstract**
For the Period Ending June 30, 2019

PROJECT TITLE: Mesabi Trail Segment from Highway 135 to the Town of Embarrass
PROJECT MANAGER: Robert Manzoline
AFFILIATION: Saint Louis and Lake Counties Regional Railroad Authority
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WEBSITE: Mesabitrail.com
FUNDING SOURCE: Environment and Natural Resources Trust Fund
LEGAL CITATION: M.L. 2016, Chp. 186, Sec. 2, Subd. 09e

APPROPRIATION AMOUNT: \$1,200,000
AMOUNT SPENT: \$1,200,000
AMOUNT REMAINING: \$0

Sound bite of Project Outcomes and Results

The Mesabi Trail is a project to build a trail from Grand Rapids to Ely. At conclusion of this phase of the project, approximately 120 miles of the trail is complete. In this phase of the project, permitting, acquisition, engineering and construction was completed for a 3.5 mile segment of the trail, including a 0.9 mile floating bridge, From Hwy 135 to Palo Tia Road in Embarrass Township.

Overall Project Outcome and Results

The project as originally described in the ML 2016 Work Plan changed significantly. The wetlands encountered due to the fact that Lane 51 had settled into the Wildlife Management Area required construction of a 0.9 miles floating bridge. The Historic Embarrass River Bridge required rehabilitation. These improvements made it necessary to phase the project and apply for additional funding. The route from Soini Palo Tia intersection to Embarrass changed and the north terminus of this trail segment in Embarrass also changed. The total length of the revised Hwy 135 to Embarrass segment is 5.23 miles

Phase 1 of this trail segment starts at the intersection of Highway 135 and the trail from the Giants Ridge Ski and Golf area and runs 3.33 miles east and north to the intersection of the Soini and Palo Tia Roads. The 3.33 miles includes the 0.9 miles floating bridge.

Phase 2 of this segment starts at the terminus of Phase 1, intersection of Soini and Palo Tia Roads, follows Palo Tia Rd. north to CR 21, and then east along on CR 21 and terminates at Sauna Rd. (CR 627) for a length of 1.9 miles. This will be the beginning of the next proposed segment of the trial from Sauna Road to Wahlsten Road (CR 26) which will be 9 miles in length. The construction of Phase 2 and the Sauna Road to Wahlsten Road CR 26 segment will be completed by future grants.

Construction of the segment from Darwin Meyers WMA to County Road 21 (Phase 2) is now being considered for 2019 LCCMR funding as seen within the approved draft WP dated November 29, 2018. In addition, construction of the proposed Embarrass to Kugler, trail segment also being considered for 2019 LCCMR funding as seen within the approved draft WP dated November 29, 2018. The bituminous paving, aggregate shouldering, erosion control, seeding, signage, floating bridge ramps, pavement handicap truncated domes, culvert extension for floating bridge construction, silt fence removal and ditch check construction were completed in August and September. The project is complete and will start the one year warranty period when the final project documents have been filed.

This segment of the trail offers a variety of geography and trail construction features. As you travel the trail you experience glacial boulders and ledge rock, to the old Lane 51 alignment, to the massive Darwin Meyer's Wildlife Management area on the 0.9 miles long floating bridge, and back to Lane 51 over the historic Embarrass River bridge. The WMA also has evidence of turn of the century farmsteads that were grubbed out of the wilderness by the early settlers.

Project Results Use and Dissemination

There are 180,000 trail users per year and 700 riders registered for the yearly "Mesabi Trail Tour." A group from the University of MN Duluth will be visiting the bridge in August 2019. We have also received calls from the Gitchi Gammi State Trail and the Lake Vermillion Trail requesting information on the bridge for use on their projects.

Progress of this trail development has been posted on multiple websites (noted below) and has drawn attention particularly for the design/construction of the floating bridge including: Club Mesabi (10,000 maps & web site), Iron Range Tourism (30,000 brochures & web site), MN Office of Tourism, Ampers Radio, Parks & Trails, Home & Away, other private magazines, Named by the Star Tribune as "Best of Minnesota" in year 2013, Named by Bicycle Magazine as "top 10 in the country", and Mesabitrail.com.



Environment and Natural Resources Trust Fund (ENRTF) M.L. 2016 Work Plan Update

Date of Report: November 12, 2019 (Revised 1-27-20) **Revised 3-18-20**

Final Report

Date of Work Plan Approval:

Project Completion Date: June 30, 2019

PROJECT TITLE: Mesabi Trail Segment from Highway 135 to the Town of Embarrass

Project Manager: Robert Manzoline

Organization: St. Louis and Lake Counties Regional Railroad Authority

Mailing Address: 111 Station 44 Road

City/State/Zip Code: Eveleth, MN 55734

Telephone Number: (218) 744-2653

Email Address: bmanzoline@rrauth.com

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Location: Northern St. Louis County located between the Cities of Biwabik and Tower including the Town of White and the Town of Embarrass where seen on attached map.

Total ENRTF Project Budget:

ENRTF Appropriation: \$1,200,000

Amount Spent: \$1,200,000

Balance: \$0

Legal Citation: M.L. 2016, Chp. 186, Sec. 2, Subd. 9(e)

Appropriation Language: \$1,200,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the St. Louis and Lake Counties Regional Railroad Authority for engineering and construction of segments of the Mesabi Trail, totaling approximately six miles between Highway 135 and the town of Embarrass. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

I. PROJECT TITLE: Mesabi Trail – from Trunk Highway (TH) 135 to Embarrass Segment

II. PROJECT STATEMENT: The Mesabi Trail is a proposed 145 mile long, 10 feet wide paved trail that serves as an alternate transportation corridor and recreational facility for non-motorized use namely pedestrian, bike, ski, horses and in designated areas, winter snowmobile use. The planned will extend from the Mississippi River in Grand Rapids to the Boundary Waters Canoe Area in Ely. Approximately 118 miles of the trail has been constructed since its inception in 1996. The Mesabi Trail is owned and maintained by the St. Louis and Lake Counties Regional Railroad Authority (RRA).

The TH 135 to the Town of Embarrass Segment is 6 miles in length that connects to the existing Mesabi Trail at TH 135 and ends near the Town of Embarrass campgrounds and fairgrounds.

One Finnish interpretation of the word “Embarrass” means “where things slowdown” that we interpret to mean a difficult place to travel do to surrounding swamps, wetlands, creeks & rivers. Building the Mesabi Trail through Embarrass has, and will continue to be a challenge finding a suitable trail location including spanning wetlands, creeks and the Embarrass River.

III. OVERALL PROJECT STATUS UPDATES:

Project Status as of January 1, 2017

Environmental work on this project has been fairly extensive beginning in year 2014 identifying alternative routes for crossing the Embarrass River and surrounding wetlands. An alternatives route analysis was conducted in year 2015 and concluded in April 2016 prior to this LCCMR grant. Three potential routes were investigated for their environmental, social and economic impacts. Several public meetings have been held. An in-depth soils investigation took place including subsurface geotechnical evaluation that assisted with the determination of environmental impacts and capital costs. A preferred route was selected and endorsed by the Township of Embarrass and Township of White. An environmental review report was sent to regulatory agencies for review coordination. Agencies responding to the report have concurred with the initial findings.

Part of the preferred trail route (the “Project”) involves using the former State Highway 35 (AKA Lane 51 Road) that crosses the Darwin Meyers Wildlife Management Area (WMA) A meeting and ongoing discussions with the MN Department of Natural Resources (MN DNR) for crossing this WMA seem favorable, however; trail easement documentation and wetland permitting are problematic within a WMA. MN DNR is working to resolve these issues. Also within the WMA, is a bridge over the Embarrass Rivers planned to be used for the Project. The bridge is a Warren Pony Truss built in circa 1920 identified as MN Dot Bridge #6098. The bridge is one of two known remaining Warren Pony Truss bridges in the State of Minnesota. This bridge has undergone a Phase II Architectural/History Evaluation along with preliminary engineering and bridge design work to restore the bridge for Project use. Restoration of the Bridge #6098 exceeded the grant budget.

The Project intends to locate part of the trail on the abandon State Highway 35 for distance of approximately 2 miles. State Highway 35 was constructed in circa 1920 and abandon in year 1962. The Project encountered an unexpected wetland determination in consultation with Army Corp of Engineers. Approximately 4,000 LF of former State Highway 35 has subsided into adjacent wetlands and is now determined to be a wetland. A plan to minimize the wetland impact by constructing a 4,000 feet long floating bridge over the wetland has received favorable reviews by regulatory agencies. Costs for constructing the floating bridge exceeded the grant budget.

Additional Project costs for the bridge rehabilitation and the floating bridge were presented to the LCCMR Commission on June 22, 2016. The LCCMR Commission recommended additional Project funding in the amount

of \$1,231,500 known as Project #176-G. Project #176-G will be presented to the 2017 Legislature for approval consideration.

Amendment Request #1

Reduce the project length by approximately 4,000 feet (length of floating bridge) from 5.6 miles to 5.2 miles; and remove restoration of the State Highway 37 bridge over the Embarrass River Bridge that will occur as part of forthcoming Project #176-G.

Amendment Request #2

Initial environmental work for this project was planned to be conducted using funds from this LCCMR grant. The initial environmental work was done using other funding sources and request a budget decrease in the amount \$42,000 as shown under the Summary Budget for Activity 1. We further request an increase in the amount of \$42,000 under Activity 4, Trail Construction.

Amendment Request #3

Approximately 2 miles of this trail are planned to be constructed within the Palo Tia road right of way. Following the environmental evaluation, it is recommended that the trail be divided into two separate lanes for part of the Palo Tia road in order to minimize wetland impacts. The trail(s) will be placed along side of each road shoulder within the existing roadway embankment. The trail(s) width will be approximately 8 feet each side of the Palo Tia road. The trail(s) will be one-way traveling in the direction of road traffic. The trail(s) total width will increase from 10 feet to 16 feet resulting in additional construction costs. Even though the trail width(s) are increased, the wetland impacts are reduced as part of the trail will be constructed on the existing Palo Tia road embankments. Request a budget increase of \$42,000 for additional 6 feet trail width along Palo Tia Road.

Amendments 1, 2, and 3 approved 1/31/17

Project Status as of July 1, 2017 not required

Project Status as of January 1, 2018

Firstly, and as noted within the January 1, 2017 status update, additional funds have been received for this project through LCCMR appropriation ML 2017, Chapter 96, Sec. 2, Subd. 9(g) for additional costs related to the Embarrass River bridge restoration and a floating bridge that will be used to cross a wetland.

We are proposing to construct the project in 2 phases as shown on the attached map and further described within activities. The addition of 2017 LCCMR funds will allow us to construct phase 1 but not phase 2. We are completing the work necessary on Phase 2 preparing it for construction.

Amendment Request #3 Approved January 31, 2017

Project Status as of July 1, 2018 (Revised after meeting with LCCMR staff on 12/11/2018 and then further on 2/3/20)

CLARIFICATION OF PROJECT AND FUNDING

After discussing with LCCMR staff, we wish to revise and clarify previous amendment requests and reports related to work to be accomplished and funds to be expended on the acquisition, engineering and construction of trail between Hwy 135 and the town of Embarrass.

The project between these points was originally estimated to be 6 miles and cost an estimated \$1.2m. Several routes were considered for crossing this area, which includes large expanses of wetland. After funds were requested, the preferred route was selected. That route is from Hwy 135 through the Darwin Myers WMA and ending at Palo Tia Road for a total trail length of **approximately** 3.5 miles. This will now be considered **Phase I** of the project.

This route includes a bridge over the Embarrass River in the WMA that needs to be restored. Additionally, some of the route includes an abandoned highway that had subsumed into the wetland. Therefore, a floating bridge extending about 4,760 feet (0.9 mile) needed to be constructed. Together, the bridge restoration and the floating bridge construction costs exceeded the amount of the LCCMR 2016 award.

Additional funds from LCCMR were therefore requested for this and additional trail acquisition, engineering, and construction work. \$1,231,500 was awarded as part of ML 2017.

Work for the segment of trail from Hwy 135 to Palo Tia Road (**Phase I**) has continued to be paid for in part by M.L. 2016 and in part by M.L. 2017 and will be reported in both M.L. 2016 and M.L. 2017 work plans and budgets.

Phase 2, of this trail segment is from the terminus of Phase 1 at Palo Tia Rd., thence northerly 1.75 miles along CR. 558 (Palo Tia Rd.) to the intersection of Cty. Rd. 21, thence east along CR 21 for 0.25 miles to Cty. Rd. 627 (Sauna Rd.) in Embarrass. This shortens this portion of the trail along CR 21 by 0.75 miles. The original plan for this portion of the trail was planned to terminate at the bridge over the north branch of the Embarrass River on CR 21, but opposition by property owners and extensive environmental issues resulted in this portion of the trail to terminate at CR 627 (Sauna RD.). **Phase 2** is **approximately** 2 miles long. This shortens the original Hwy 135 to Embarrass segment by 0.75 miles. The total length from Hwy 135 to Embarrass segment, **Phase 1 and 2**, is now **approximately 5.5** miles.

The total project length of **Phases 1 and 2** is **approximately 5.5** miles. Principal project components are as follows: Trail right of way acquisition; design and engineering work; and construction of **approximately 3.5** miles of 10' wide bituminous trail; purchase and installation of 4,760 feet (0.9 miles) of floating bridge; and reconstruction of an existing bridge (former Lane 51 road bridge) over the Embarrass River. Principal project costs are seen as follows and further described under each grant activity.

• Engineering, environmental, r-o-w (budgeted)	\$ 206,000
• 22,640 LF (3.3 miles) of new trail at a cost of	\$ 622,950
• 4,760 LF (0.9 miles) of new floating bridge at a cost of	\$1,532,220
• Rehabilitate existing Embarrass River Bridge at a cost of	<u>\$ 158,100</u>
Total construction cost	\$2,519,270

Funding for this trail is from two LCCMR grant sources:

• ML 2016, Chp. 186, Sec. 2, Subd. 9(e) (this Work Plan)	\$1,200,000
• ML 2017, Chapter 96, Sec. 2, Subd. 9(g)	<u>\$1,319,270</u>
Total funding	\$2,519,270

Construction bids have been received for this project and a contract award is pending. Work is scheduled to begin in October 2018 and substantially complete June 30, 2019.

Project Status as of January 1, 2019 [submitted 11/18/19]

A contract was awarded for construction of the trail in October with work on the project also beginning in October. Earthwork continued into December ending do to freeze-up. Approximately 60% of the earthwork has been completed and staged for resuming work in spring 2019.

Manufacturing of the floating bridge began in December with completed 20 foot long dock sections stored on site.

Project Status as of July 1, 2019 [submitted 11/18/19]

Trail earthwork on the project has been completed along with topsoil established, gravel and base materials installed, culverts installed, rip-rap and storm water retention basins installed, the floating dock installed, bituminous paving, and restoration of the bridge over the Embarrass River. Work items remaining are installation of one culvert, gravel shouldering and seeding. The project is on schedule for final completion in August and will be open for public use on August 26, 2019.

This project overcame technical and constructability challenges related to crossing of the Embarrass River wetland complex. The wetland crossing floating bridge design, manufacture and installation is unique to the State of MN and made possible by agencies, engineers, contractors and individuals working together. Most importantly, minimizing impacts to the environment while creating a space that will be enjoyed and appreciated by people has been worth this effort.

Sound bite of Project Outcomes and Results

The Mesabi Trail is a project to build a trail from Grand Rapids to Ely. Approximately 120 miles of the trail is complete. The objective of the project was to build a 3.5 mile segment of the trail From Hwy 135 to Palo Tia Road in Embarrass Township.

Overall Project Outcomes and Results [submitted 11/18/19]:

The project as originally described in the ML 2016 Work Plan changed significantly. The wetlands encountered due to the fact that Lane 51 had settled into the Wildlife Management Area required construction of a 0.9 miles floating bridge. The Historic Embarrass River Bridge required rehabilitation. These improvements made it necessary to phase the project and apply for additional funding. The route from Soini Palo Tia intersection to Embarrass changed and the north terminus of this trail segment in Embarrass also changed. The total length of the revised Hwy 135 to Embarrass segment is 5.23 miles

Phase 1 of this trail segment starts at the intersection of Highway 135 and the trail from the Giants Ridge Ski and Golf area and runs 3.33 miles east and north to the intersection of the Soini and Palo Tia Roads. The 3.33 miles includes the 0.9 miles floating bridge. See attached map.

Phase 2 of this segment starts at the terminus of Phase 1, intersection of Soini and Palo Tia Roads, follows Palo Tia Rd. north to CR 21, and then east along on CR 21 and terminates at Sauna Rd. (CR 627) for a length of 1.9 miles. This will be the beginning of the next proposed segment of the trial from Sauna Road to Wahlsten Road (CR 26) which will be 9 miles in length. The construction of Phase 2 and the Sauna Road to Wahlsten Road CR 26 segment will be completed by future grants.

Construction of the segment from Darwin Meyers WMA to County Road 21 (Phase 2) is now being considered for 2019 LCCMR funding as seen within the approved draft WP dated November 29, 2018 .

In addition, construction of the proposed Embarrass to Kugler, trail segment also being considered for 2019 LCCMR funding as seen within the approved draft WP dated November 29, 2018 .

The bituminous paving, aggregate shouldering, erosion control, seeding, signage, floating bridge ramps, pavement handicap truncated domes, culvert extension for floating bridge construction, silt fence removal and ditch check construction were completed in August and September. The project is complete and will start the one year warranty period when the final project documents have been filed.

This segment of the trail offers a variety of geography and trail construction features. As you travel the trail you experience glacial boulders and ledge rock, to the old Lane 51 alignment, to the massive Darwin Meyer's Wildlife Management area on the 0.9 miles long floating bridge, and back to Lane 51 over the historic Embarrass River bridge. The WMA also has evidence of turn of the century farmsteads that were grubbed out of the wilderness by the early settlers.

IV. PROJECT ACTIVITIES AND OUTCOMES:

ACTIVITY 1: Environmental & Permitting: this includes environmental work needed to comply with the Federal National Environmental Policy Act (NEPA) and State of Minnesota Environmental Protection Act (MEPA) involving those compliance agencies namely the Federal Environmental Protection Agency, Federal Highway Administration, Federal Fish & Wildlife and MN Department of Natural Resources, MN Department of Transportation and MN State Historic Preservation Office.

Other oversight agencies that will become involved include the Federal Army Corps of Engineers, Minnesota Pollution Control Agency, Minnesota Board of Water and Soil Resources and the Local Board of Soil and Water Conservation.

The environmental work will be supported by engineering work to locate alternative trail routes, survey cultural resource locations, survey wetland boundary's, establish property lines and identify land ownership.

Geotechnical work will likely occur within this phase of the project to evaluate the minimization of impacts to wetlands ie: boardwalks, floating bridges.

Environmental costs are estimated to be 6% of the total project cost or \$72,000. Work will be performed by a person or firm accredited by the Minnesota Board of Water and Soil Resources (BWSR) hereafter known as "Consultant". Consultant will perform work needed to comply with NEPA and MEPA documenting trail route alternatives, cultural resource identification, wetland delineation & mitigation, fish & wildlife, endangered species, social impacts, economic impacts, state waters impacts, land use (4f) and other. Consultant will further evaluate and assure compliance with local ordinances, planning, zoning and codes.

In the event wetlands or designated waters cannot be avoided and a disturbance takes place, impacted wetlands will need to be replaced at a ratio of 1.5:1 (1.5 = new wetlands created; 1 = wetlands impacted) Wetland replacement is overseen by BWSR and typically performed by purchasing wetland credits from the MN State Wetland Bank. Cost for wetland credits do vary, however; Mesabi Trail has acquired wetland credits ranging in cost from \$32,670 to \$43,560 per one acre.

If this budget amount is not used for environmental work, a request will be made to shift remaining funds to Activity 4, Construction.

Summary Budget Information for Environmental & Permitting:

ENRTF Budget: \$13,571
Amended
Amount Spent: \$ 13,571
Balance: \$ 0

Outcome	Completion Date
1. Specific, measureable outcome #1 Agency approvals from US Army Corp of Engineers, US Fish & Wildlife, MN State Historic Preservation Office, MN Department of Natural Resources, Others on Phase 1.	October 2017

Activity 1 Status as of January 1, 2017

An alternatives route analysis was conducted for this project beginning in year 2015 and concluded in April 2016. An Alternatives Review Report, dated April 2016, was submitted to the Army Corp of Engineers (COE) requesting their concurrence with the delineation of aquatic resources. The COE concurred with the April 2016 report and their concurrence will remain in effect until May 2, 2021. Three potential routes were investigated for their environmental, social and economic impacts. An in-depth soils investigation took place including subsurface geotechnical evaluation. A preferred route has been selected.

Activity 1 Status as of July 1, 2017 not required

Activity 1 Status as of January 1, 2018

As previously noted, the Embarrass River 1920 Warren Truss Bridge, MN Dot Bridge #6098 is planned to be used for this project. The existing bridge and planned improvements underwent a rigorous historical and restoration review. We are happy to report the MN State Historic Preservation Office has approved our plan to use the bridge for the trail while preserving the historic integrity of the structure.

We have received approval from the US Army Corp of Engineers and the MN Board of Soil Resources and local agencies for wetland impacts and a mitigation plan. We have also received approvals from MN DNR to construct this project.

Environmental work is complete from Hwy 135 to Palo Tia Road excepting for oversight during construction.

Activity 1 Status as of July 1, 2018 (amended 2/3/20)

Environmental work for Hwy 135 to Palo Tia Road (**Phase 1**) is complete excepting for oversight during construction. The environmental permitting for the wetlands on **Phase 2** is complete, but will need to be revisited upon completion of the final plans when future funding has been approved.

Activity 1 Status as of January 1, 2019 [submitted 11/18/19]

No environmental work performed

Activity 1 Status as of July 1, 2019 [submitted 11/18/19]

Overall Outcomes and Results Activity 1

Phase 1 No environmental work occurred since agency permits were issued. All planned construction work has stayed within identified permit areas and in accordance with permit rules. Final environmental reports/sign-offs will be submitted once construction is complete.

The agencies involved with the environmental and cultural resource review and permitting for this project were very helpful and assisted with the unique features of the floating bridge and restoring the historic Embarrass River Bridge.

ACTIVITY 2: Right-of-Way Acquisition

Acquire right-of-way in sufficient width for trail construction by way of recreational trail easements and licenses. The minimum right-of-way width is forty feet. Land purchase is not anticipated but if needed, will follow requirements of Section VIII of this Work Plan. Right-of-way work includes land surveys, legal descriptions, title searches and recording of approximately 4 land parcels and securing permits within existing public right-of-ways. Estimated cost is \$2,000 per each easement/license. Work performed by a registered land surveyor and attorney.

Summary Budget Information for Right-of-Way Acquisition:

**ENRTF Budget: \$ 3,100 Amended
Amount Spent: \$ 3,100
Balance: \$ 0**

Outcome	Completion Date
<p>1. Acquired approximately 3.33 miles or 17,582 lineal feet by 40 feet wide of trail easements from private and government landowners estimated to contain 16.15 land acres for Phase 1; and securing permits from government agencies to construct the trail within existing road right-of-way estimated length is 1.9 miles or 10,032 lineal feet for Phase 2.</p>	<p>January 2018</p>

Activity 2 Status as of January 1, 2017

Right-of-way acquisition is ongoing. Two land parcels have been purchased equating to 0.5 miles of trail length. Seven permanent easements have been acquired equating to 1.75 miles of trail length. We are currently discussing a 0.75 mile long easement to cross State lands with MN DNR. State lands involved fall within the Darwin Meyers Wildlife Management Area (WMA). MN DNR has requested Mesabi Trail use a limestone trail surface through the WMA in keeping with MN DNR rules. A limestone trail surface is not desirable for maintenance reasons; however, limestone is acceptable in this area do a flat, level terrain and will accommodate those users with special needs.

We have received approval from the Embarrass Township Board to use 1.75 miles of Township road right-of-way and are in discussion with St. Louis County Highway Department to use 1.0 miles of county road right-of-way. Thus far, we see no significant issues with acquiring the right-of-way needed for this project. Costs to date have been paid for by other funding sources and the Regional Railroad Authority.

Activity 2 Status as of July 1, 2017 not required

Activity 2 Status as of January 1, 2018

Right-of-way for Phase 1 has been acquired. We are awaiting a formal easement agreement from MN DNR for land through the Darwin Meyers Wildlife Management Area.

Right-of-way for Phase 2 is ongoing. Embarrass Township has approved the use of Palo Tia road right-of-way, however: during the trail design, it was found that additional land is needed beyond the road right-of-way for construction. The landowners abutting Palo Tia road have given their approval for donating land to construct the trail and we are in the process of formalizing easement agreements.

Activity 2 Status as of July 1, 2018

Right-of-way for Hwy 135 to Palo Tia Road (Phase 1) has been acquired.

Activity 2 Status as of January 1, 2019 [submitted 11/18/19]

No right-of-way work performed

Activity 2 Status as of July 1, 2019 [Final submitted 11/18/19]

Overall Outcome and Results Activity 2

No right-of-way work has been performed on Phase 1, since the easement agreement with MN DNR was finalized. Right-of way acquisition for this project was typical excepting for the Darwin Meyers Wildlife Area easement. MN DNR was very helpful with a rather complex assortment of deeds, deed restrictions, wildlife management area rules and so forth. We are thankful for the DNR’s assistance with this project and providing another unique feature for people to see along the Mesabi Trail. **The required permits, approvals, easements, and leases were received for the 3.33 miles of trail right of ways shown in the outcome table above.**

ACTIVITY 3: Engineering design, survey, plans, specification and construction management.

Engineering will be done in accordance with the MN Dot Standards for Bicycle Trails. Engineering work begins with route(s) identification and support of environmental work and then to more specific survey work once a preferred trail route alternative is selected. The project engineer will also design the trail in accordance with MN Dot, Federal Highway Administration (FHWA) and ASHTO standards while taking into account on-site conditions such as waterways, wetlands, hills, valleys and other features to determine the final trail location and design.

Engineering work will include preparation of a MN DNR Environmental Review that documents project elements and agency approval including section 4(f) lands, cultural resources, endangered species, right-of-way, farmlands, section 404, floodplains, wetlands and other.

Engineer will provide a construction plan and specification, bidding documents, contracts, construction management, on-site inspections, testing oversight and other functions needed for a completed project

Engineering costs are estimated to be 14% of the total project cost or \$168,000 with a not to exceed 20% of the total project cost. Engineering work will be performed by a person or firm licensed by the State of Minnesota.

Summary Budget Information for Engineering:

ENRTF Budget: \$117,292
Amount Spent: \$117,292
Balance: \$ 0

Outcome	Completion Date
Prepare maps and support project/public meetings	October 2016
Conduct field surveys to support preparation of plans	June 2017

Prepare project plans and specifications	December 2017
Prepare bidding documents and contracts	March 2018
Inspect and manage construction	October 2018
Sampling and testing in accordance with MN Dot testing methods	October 2018
Final inspection and project documentation	September 2019

Activity 3 Status as of January 1, 2017

Engineering work has been performed to support the environmental documentation, predesign of alternative trail routes and work on the Embarrass River Bridge for structural and cultural resource review. Surveys have also been completed for easement documentation and estimated costs.

Activity 3 Status as of July 1, 2017 not required

Activity 3 Status as of January 1, 2018

Design work is complete and plans and specifications are complete for **Phase 1**. **Phase 1** is ready for construction bidding. **Phase 2** design is 80 % complete and will be scheduled for bidding with future funding. The majority of the environmental work is also complete for **Phase 2**.

Activity 3 Status as of July 1, 2018

Hwy 135 to Palo Tia Road (Phase I) was publicly advertised for construction bids, bids were received and the engineer made a recommendation for contract approval. Engineer is currently reviewing shop drawings and assisting with negotiating cost reductions with the contractor. The engineer will oversee construction management.

Activity 3 Status January 1, 2019 [submitted 11/18/19]

Phase 1 The project engineer performed construction staking including construction limits, structures and trail location. The engineer is on-site inspecting the contractors work, keeping track of quantities and materials, reporting on progress and preparing monthly payment request.

Activity 3 Status July 1, 2019 [submitted 11/18/19]

Phase 1 The project engineer is on-site inspecting the contractor’s work, keeping track of quantities and materials, reporting on progress and preparing monthly pay requests. The engineer will be on-site until work is complete and will be assembling the project documentation and close-out.

Overall Outcome and Results for Activity 3

Phase 1 The trail was designed according to the Min. D.O.T. trail design criteria and standards. The construction manager provided the construction staking and the project oversight throughout the construction to ensure the trail was built according to the plan and specifications and provide field decisions during construction.

ACTIVITY 4: Trail Construction

Construction of a 10’ wide bituminous surfaced trail in accordance with the MN Dot Standards for Bicycle Trails. Trail construction will include 2’ wide gravel shoulders, base preparation, grading, gravel base, ditch ways,

slopes, culverts, fencing, signing, landscaping, seeding and all else necessary for a complete trail. Construction will be performed by a licensed and bonded contractor selected according to the MN State public bidding laws.

Summary Budget Information for Trail Construction:

ENRTF Budget: \$1,066,037
Amount Spent: \$ 1,066,037
Balance: 0

Outcome	Completion Date
<p>Outcome #1 Phase 1: Construct 3.33 miles of trail from Highway 135 to Palo Tia Road. Work will consist of constructing a 10 feet wide bituminous surface trail with 2 feet wide gravel shoulders amounting to approximately 30,500 square yards of bituminous mat with a compacted thickness of 2.5 inches. The bituminous surface will be set upon a 4 inch thick compacted gravel base that extends 2 lineal feet beyond either side of the bituminous mat. The gravel base sets upon a prepared sub-base. Construction will include drainage courses both lateral too and crossing the trail made up of ditch ways and culverts to shed water in keeping with the natural drainage courses. Other project elements also include clearing, grubbing, slope grading, seeding, signs, fencing and erosion control.</p>	<p>August 2019</p>
<p>Outcome #2 Phase 1 work will include construction and placement of an 8 foot wide floating bridge 4,760 LF in length. The bridge will be constructed of aluminum with non-sink floats. The dock will have handrails and ramps and ADA compliant.</p>	<p>June 2019</p>
<p>Outcome #3 Phase 1 work will include reconstruction of the Embarrass River Bridge, MN Dot #6098 with a new wooden deck, handrails and ramps. The new construction will be ADA compliant.</p>	<p>June 2019</p>

Activity 4 Status as of January 1, 2017

Phase 1No construction activity has occurred. We will likely hire a logger to remove trees within the trail corridor during the winter of 2017. Tree removal during winter months (October 31 – April 1) is required by the US Department of Fish & Wildlife to protect potential roosting sites of endangered species Northern Long Eared Bat.

Activity 4 Status as of July 1, 2017 not required

Activity 4 Status as of January 1, 2018

Phase 1Trees were removed along the corridor during the winter of 2017 to protect potential roosting sites of the Northern Long Eared Bat. No other construction has occurred.

Activity 4 Status as of July 1, 2018

Phase 1A construction contract in the amount of \$2,391,702.40 is pending with the low, responsible bidder Mesabi Bituminous Inc. (MB) for Outcomes 1-3 listed above. We are currently negotiating with MB to reduce construction costs through value engineering, construction technique and material changes. MB is prepared to begin construction.

Activity 4 Status as of January 1, 2019 [submitted 11/18/19]

Phase 1 Construction of the trail began on the project in October with the trail corridor cleared of trees and brush and storm water run-off barriers installed followed by earthwork including subgrade preparation, excavating embankments, filling depressions and creating ditches. The earthwork was completed prior to freeze-up in early December. The wetland crossing area was cleared of brush, leveled and prepared for freeze-up.

Manufacturing of the floating dock began in December with completed 20 foot long dock sections stored on site.

Activity 4 Status as of July 1, 2019 [submitted 11/18/19]

Phase 1 The engineer is on-site inspecting the contractors work, keeping track of quantities and materials, reporting on progress and preparing monthly payment requests. The engineer will be on-site until work is complete and will be assembling the final project documentation and close-out.

The floating bridge installation began in January and was completed in March. All 4,760 LF of bridge was installed, secured except for the end ramps. The installation procedure developed by the contractor worked very well with no major difficulties encountered. The floating bridge minimally impedes water flow and wildlife from passing under or through the structure. Those regulatory agencies reviewing this project recognized the floating bridge for minimizing impacts to waters when compared to an earthen fill or rigid structure. Mesabi Trail has used this type of dock for crossing wetlands/waterways at three locations along the trail. All installations have performed well, maintenance is minimal and expected use is beyond 30 years.

Trail earthwork on the project has been completed along with topsoil established, gravel and base materials installed, culverts installed, rip-rap and storm water retention basins installed, the floating bridge installed and the bridge over the Embarrass River reconstructed. Work items remaining are installation of one culvert, bituminous pavement, gravel shouldering and seeding.

Overall Outcome and Results Activity 4

Final August 31, 2019 [submitted 11/18/19]

Phase 1 The bituminous paving, aggregate shouldering, erosion control, seeding, signage, ramps for the floating bridge, pavement handicap truncated domes, culvert extension for floating bridge construction, silt fence removal, and ditch check construction were completed in August. The project is complete and will start the one year warranty on the work completed when the final project documents have been submitted by the engineer. **The length of the Phase 1 construction is 3.33 miles. No construction has taken place on Phase 2.**

V. DISSEMINATION:

Description: Mesabi Trail news and updates are provided through a variety of media, marketing and publications. Web site is: Mesabitrail.com. The following are some of the groups & organizations that disseminate Mesabi Trail information and typically include updates of newly completed trail segments and activities:

- Club Mesabi (10,000 maps & web site)

- Iron Range Tourism (30,000 brochures & web site)
- MN Office of Tourism
- ampers radio
- Parks & Trails, Home & Away, other private magazines
- 180,000 trail users per year
- Yearly “Mesabi Trail Tour” 700 registered riders
- Named by the Star Tribune as “Best of Minnesota” in year 2013
- Named by Bicycle Magazine as” top 10 in the country”
- Mesabitrail.com

Activity Status as of January 1, 2017

Local notices have been posted for this project for public hearings and local news stories.

Activity Status as of July 1, 2017 not required

Activity Status as of January 1, 2018

No new activity

Activity Status as of July 1, 2018

No new activity

Activity Status as of January 1, 2019 [submitted 11/18/19]

No new activity

Overall Outcome and Results

Report Summary July 1, 2019 & Final [submitted 11/18/19]

Phase 1 Progress of this trail development has been posted on web sites noted under “Description” and has drawn attention particularly for the design/construction of the floating bridge. A group from the University of MN Duluth will be visiting the bridge in August 2019. We have also received calls from the Gitchi Gammi State Trail and the Lake Vermillion Trail requesting information on the bridge for use on their projects.

VI. PROJECT BUDGET SUMMARY:

A. ENRTF Budget Overview:

Budget Category	\$ Amount	Overview Explanation
Environmental	\$30,000 \$13,571	For environmental services described under Activity 1.
Professional services for land acquisition:	\$ 8,000 \$3,100	For trail right-of-way acquisition described under Activity 2
Professional services for engineering	\$ 168,000 \$117,292	For engineering services described under Activity 3.
Capital Expenditures over \$5,000:	\$ 994,000 1,066,037	For trail construction described under Activity 4
TOTAL ENRTF BUDGET:	\$ 1,200,000	

Explanation of Use of Classified Staff: The St. Louis and Lake Counties Regional Railroad Authority (RRA) provides classified staff for the Mesabi Trail project paid for by the RRA.

Explanation of Capital Expenditures Greater Than \$5,000: Cost for constructing a 10' wide bituminous surface trail exceeds \$100,000 per mile.

Number of Full-time Equivalents (FTE) Directly Funded with this ENRTF Appropriation: it is estimated that 9 FTE's are created for a period of 36 months.

Number of Full-time Equivalents (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation: it is estimated that 2 additional FTE's will be created for a period of 36 months.

B. Other Funds:

Source of Funds	\$ Amount Proposed	\$ Amount Spent	Use of Other Funds
State: 2014 Legacy Funds	\$150,000	\$ 150,000	Environmental & land acquisition
State: LCCMR ML 2017, Chapter 96, Sec. 2, Subd. 9(g)	1,319,270	\$1,290,764.15	Construction Phase 1
TOTAL OTHER FUNDS:	\$1,469,270	\$1,440,764.15	

VII. PROJECT STRATEGY:

A. Project Partners: Lead - St. Louis and Lake Counties Regional Railroad Authority with assistance from St. Louis County Public Works

Local Assistance – Embarrass Townships, St. Louis County Land Department, MN DNR Forestry, MN DNR Waters, MN DNR for Darwin Meyers WMA

Trail Development Contributors – COE, BWSR, MNDOT, St. Louis County Land Department

B. Project Impact and Long-term Strategy:

C. Funding History:

Funding Source and Use of Funds	Funding Timeframe	\$ Amount
1993: ML 93 Chap. 172, Sec. 14, Subd. 10(r)		700,000
1995: ML 95, Chap. 220, Sec. 19, Subd. 4(g)		150,000
1996: MS Chap. 463, Sec. 7, Subd. 14		500,000
1997: ML 1997, Chap. 216, Sec. 15, Subd. 18		600,000
1999: ML 1999, Chap. 231, Sec. 16, Subd. 4b		1,000,000
2001: ML 2001, 1 st Special Session, Chap. 2, Sec. 14, Subd. 05		190,000
2003: ML 2003, Chap. 128, Article 1, Sec. 9, Subd. 6h		380,000
2005: ML 2005, First Special Session, Art. 2, Sec.11, Subd. 6(m)		1,000,000
2006: ML 2006, Chapter 258, Sec. 7, Subd. 23		950,000
2011: ML 2011, 1 st Special Session, Chap. 6, Art. 3, Sec. 3,Sub.c(1)		512,000
2013: ML 2013, Chap. 137, Art. 3, Sec. 3, Subd. C4		1,250,000
2014: ML 2014, Chap. 226, Sec. 2, Subd. 07c		1,000,000
Federal HPP 2005 to present		2,900,000
Federal ARRA 2009		1,200,000
Federal Enh. 2005 to present		1,382,000

Federal Enh. 1995 to 2005		3,000,000	
Local, IRRRB, RRA, SLC 1994 to 2014		3,000,000	

VIII. FEE TITLE ACQUISITION/CONSERVATION EASEMENT/RESTORATION REQUIREMENTS: N/A

IX. VISUAL COMPONENT or MAP(S): attached

X. RESEARCH ADDENDUM: N/A

XI. REPORTING REQUIREMENTS:

Project Status as of January 1, 2017

No fee title or conservation easements will be acquired with this grant.

Project Status as of July 1, 2017

No fee title or conservation easements will be acquired with this grant.

Project Status as of January 1, 2018

No fee title or conservation easements will be acquired with this grant.

Project Status as of July 1, 2018

No fee title or conservation easements will be acquired with this grant.

Project Status as of January 1, 2019

Project Status as of July 1, 2019 & Final

Overall Project Outcomes and Results: a final report and associated products will be submitted by December 31, 2019.

Attachment A. Budget Spreadsheet

Section 2 - ENRTF Reimbursement Spreadsheet

See Instruction at bottom of page

Grantee: Regional Rail Authority
 Project Title: Mesabi Trail Segment from Highway 135 to the Town of Embarrass
 Legal Citation: M.L. 2016, Chp. 186, Sec. , Subs. 9e
 Period Covered by Request: October 2016 to June 2019
 PO Number: 3-99102
 Request #: 1

Budget Item	A. LCCMR Approved	B. Total Reimbursed as of Last Request	C. Beginning Balance (A-B)	D. Current Invoice	E. Ending Balance (C-D)	F. Total Reimbursed Including Current Request (B+D)
Personnel						
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
Subtotal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Professional/Tech./Service Contracts						
Environmental work	\$13,571.00	\$0.00	\$13,571.00	\$13,571.00	\$0.00	\$13,571.00
Engineer for trail	\$117,292.00	\$0.00	\$117,292.00	\$117,292.00	\$0.00	\$117,292.00
Trail Construction	\$1,066,037.00	\$0.00	\$1,066,037.00	\$1,066,036.74	\$0.26	\$1,066,036.74
ROW	\$3,100.00	\$0.00	\$3,100.00	\$3,100.00	\$0.00	\$3,100.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
Subtotal	\$1,200,000.00	\$0.00	\$1,200,000.00	\$1,199,999.74	\$0.26	\$1,199,999.74
Equipment/Tools/Supplies						
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
Subtotal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Capital Expenditures over \$5000						
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
Subtotal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Travel Expenses in Minnesota						
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
Subtotal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Printing						
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
Subtotal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other						
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
Subtotal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Fee Title Acquisition						
		\$0.00	\$0.00		\$0.00	\$0.00
		\$0.00	\$0.00		\$0.00	\$0.00
Subtotal	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00