



Environment and Natural Resources Trust Fund (ENRTF)

M.L. 2018 ENRTF Work Plan (Main Document)

Today's Date: February 16, 2018

Date of Next Status Update Report: January 31, 2019

Date of Work Plan Approval: 06/05/2018

Project Completion Date: June 30, 2020

Does this submission include an amendment request? NO

PROJECT TITLE: Enhancement Plan for Superior Hiking Trail

Project Manager: Denny Caneff

Organization: Superior Hiking Trail Association

College/Department/Division: n/a

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Location: The Superior Hiking Trail runs 312 miles, along the North Shore, from the MN-WI state line to the Canadian border. Project will encompass the entire SHT, with focus on those segments most deteriorated and in need of renewal.

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Total Project Budget: \$100,000

Amount Spent: \$0

Balance: \$100,000

Legal Citation: M.L. 2018, Chp. 214, Art. 4, Sec. 02, Subd. 09f

Appropriation Language: \$100,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the Superior Hiking Trail Association to evaluate improvements to the 310-mile-long Superior Hiking Trail including routing, safety, water management, maintenance, and other environmental, recreational, and design issues and to develop an interactive trail-management system to capture efficiencies and best management practices.



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I. PROJECT STATEMENT:

Background

The Superior Hiking Trail (SHT) runs 310 miles through Duluth and along the North Shore, from Minnesota's border with Wisconsin to the Canadian border at the Pigeon River. Launched in 1986, the SHT gives an estimated 50,000 visitors per year access to spectacular vistas for hiking, camping (94 campsites) and running along Minnesota's rugged Lake Superior shoreline and its significant flora, fauna and geology. It's a fine urban recreational amenity for thousands of Duluth residents and visitors as well. The SHT is not only well known and beloved by Minnesotans; it is recognized by several national running and backpacking magazines to be among the top 20 hiking and trail running destinations in the United States.

The SHT is managed and operated by the nonprofit, member-supported Superior Hiking Trail Association (SHTA), based in Two Harbors. While about 90% of the trail traverses public (city, county, state, federal) land, the Association is the entity that operates and oversees the Trail, and is almost entirely responsible for its development and upkeep.

The SHT is showing its age. Much of it was built 20 to 30 years ago, before modern hiking-trail standards were developed and implemented. There are a handful of sections of the SHT that see disproportionate use because they are popular and accessible; these segments are especially in need of TLC. Some portions of the trail are degraded to the extent they are a threat to water quality from erosion. While the trail is not dangerous, some deteriorated structures, like bridges, stairways and board walks, need upgrading to keep them safe for trail users.

Our LCCMR-funded project aims to thoroughly assess the condition of the Superior Hiking Trail, with particular focus on those segments that, due to concerns about soil erosion, water quality, user safety and user popularity, will get extra scrutiny. The assessment and evaluation process funded by LCCMR will not only provide the SHTA with specific trail renewal suggestions and remedies and their estimated costs; it will provide the organization with specific and well-established trail management processes and techniques that we can carry forward into the future.

The LCCMR grant will also allow the SHTA to develop a data base to store and organize the considerable amounts of data that comes with operating a 300-mile long hiking trail: detailed notes, photographs, GPS coordinates and other data for every segment of the SHT, along with data about underlying land ownership and the requirements of each landowner has for keeping the Trail on their property. (One 10-mile segment of the SHT could have as many as a dozen landowners, with varying leases, easements, agreements, and other details.)

Finally, the trail management techniques and processes the LCCMR grant enables us to adopt will be codified into documents that will also extend the expertise we gain well into the future: a trail-building and maintenance manual, and a volunteer handbook that will form the basis of our volunteer orientation and training for their work on the SHT.

Quantifiable Outcomes

1. A thorough conditions assessment of the entire 310-mile length of the Superior Hiking Trail, with particular focus on and detailed renewal plans (including cost estimates) for those trail segments (comprising up to 50 miles of trail) requiring early attention due to conservation, safety and public access concerns. We will use recognized trail experts, private and public sector, to conduct the detailed assessments.



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2. A route determined for a new two-mile “loop” -- a circular trail coming off the main SHT – in a less-used part of the SHT east of Duluth that will expand and enrich trail users’ experience.
3. A data base that captures all relevant information and documents that, once compiled and organized, will greatly assist the SHTA in planning for repairing, maintaining and renewing the Superior Hiking Trail; and maintaining positive relationships with the landowners on whose good graces we depend for access. Data include multi-layered maps, built structure inventory and condition reports, trail head and campsite details and condition reports, photographs, and landowner information (e.g. easements, leases and other agreements).
4. Three documents that result from SHTA’s new approach to trail conditions assessment and evaluation: a trail maintenance manual for use by volunteers, staff and contractors; a volunteer training manual derived from the maintenance manual; and an up-to-date trail conditions inventory that includes recommendations and timelines for projects.

Beneficiaries and Applications

The primary beneficiaries of this project are the people who now use, or will use, the Superior Hiking Trail: they are runners and hikers of all ages; vacationers to the North Shore who spend an afternoon on the Trail; “end-to-end” hikers who come from all over the country to hike the SHT from beginning to end; and casual dog-walkers and evening strollers in Duluth.

Secondary beneficiaries are the agencies, municipalities and private landowners through whose properties the SHT runs. All of them will be pleased to have SHTA develop and implement a more systematic, resource-conscious and data-based process for renewing the SHT.

Other beneficiaries include people closely associated with the SHTA: volunteers who donate thousands of hours a year in service to the Trail; and the staff and board members of the SHTA who, as primary “owners” of the SHT, will benefit by having new management systems in place that will lead to a more resilient, modern, safe and fun Superior Hiking Trail.

Techniques learned and systems developed by way of this project will be applied to the entire Superior Hiking Trail, ensuring its longevity and durability well into the 21st century.

II. OVERALL PROJECT STATUS UPDATES:

First Update January 31, 2019

Second Update June 30, 2019

Third Update January 31, 2020

Final Update June 30, 2020

III. PROJECT ACTIVITIES AND OUTCOMES:



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ACTIVITY 1: Assess and evaluate SHT renewal and reconstruction needs and develop detailed plans to accomplish them.

Description: Starting in the late summer of 2018 and with about 30 miles of trail already determined to be in serious need of rehabilitation for safety, water and land conservation, and public access concerns, we will engage the services of up to 8 public and private sector trail construction experts to evaluate each of these high-priority segments (2 assessors per segment). (They are the Bean and Bear Lakes loop; Split Rock River wayside loop; a re-routing of the original SHT north of Gooseberry Falls State Park; the Britton Peak to Oberg Mountain segment; and the segment from Oberg Mountain to Lutsen recreational area.)

Their evaluations will include detailed recommendations for all obvious and emerging problem areas. (For example: to control erosion on a slope, they could recommend a stairway, re-routing the trail to a less erosive area, placement of erosion control devices, etc.) Their recommendations will come with fairly precise cost estimates (e. g. labor and materials needed). Because so much of the SHT passes through wetlands, we look forward to these experts’ recommendations for getting the trail through these sensitive areas while doing minimal damage to the wetlands.

All these data will be captured in both the new data base to be developed with LCCMR funds (see Activity 2); the trail building techniques proposed by the experts will be incorporated into internal SHTA documents (see Activity 3).

This process will be repeated in the late summer and fall of 2019, with these experts returning to review and assess additional segments of the SHT in need of rehabilitation, using the same criteria as in 2018. (The segments will be initially identified and described by trained volunteer assessors.) The experts will again provide us with their evaluations and recommendations for rehabbing the Trail in these segments, with cost estimates and suggestions for incorporating new trail building techniques. SHTA will in turn incorporate these ideas into its trail building and planning to ensure the longevity and resiliency of the Superior Hiking Trail for the coming decades.

We also want to use the evaluation process, and a trail expert, to help us create one new segment of SHT – a loop (circular) trail in the Sucker River headwaters a few miles west of Duluth. This loop (with a new campsite) would add new richness to the trail experience in the less-traveled southern (or western) end of the SHT. The expert would not build the trail, but rather will “flag” a route that’s optimal for low environmental impact and high user enjoyment, and recommend where built structures would be needed.

ENRTF BUDGET: \$54,700

Contracted trail expert evaluators	\$43,900
Trail operations director (new SHTA staff)	\$ 3,700
Travel (for contractors and staff)	\$ 4,100
Trail counters (12 @ \$250 each)	\$ 3,000

Outcome	Completion Date
1. High priority 30 miles of SHT evaluated by expert evaluators and recommendations captured for SHTA use	November 2018
2. Next priority 20-25 miles evaluated by expert evaluators and recommendations captured for SHTA use	November 2019
3. Route for a new SHT loop near Duluth is flagged for development; it incorporates environmental protection and positive trail user experience	May 2019



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ACTIVITY 2: Develop a data base that will be the central repository for all essential information for every mile of the SHT.

Description. This data base will be searchable and analytical so that we can, for example, determine the conditions and replacement times for all bridges, or find all private properties that have easements, or determine how many campsite latrines need replacement in a given year. The data to be included in the data base include (but are not limited to) multi-layered maps (e.g. soil types, land forms, ownership and parcel boundaries); photographs; names of volunteers assigned to particular segments; notes and observations from volunteers and hikers; agreements with various landowners (easements, leases); and the condition and presence/absence of signs.

ENRTF BUDGET: \$35,000

Contracted data base developer	\$23,000
SHTA staff oversight (Jo Swanson)	\$ 7,000
Note: Jo’s time will be backfilled by SHTA’s trail information center coordinator, replacing Jo’s considerable time spent informing and advising hikers.	
SHTA Intern (hired for this project to input data)	\$ 5,000

Outcome	Completion Date
1. Data base developer is hired and proposes template for data base	November 2018
2. Data base is completed and tested by developer and SHTA staff	March 2019
3. Existing data is transferred to data base (input will be continue beyond this project)	July 2019

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- Second Update June 30, 2019**
- Third Update January 31, 2020**
- Final Update June 30, 2020**

ACTIVITY 3: Develop and distribute two documents critical to maintaining a high-quality Superior Hiking Trail.

Description: The organization will learn a great deal from the trail experts we bring in as trail evaluators. From their recommendations and prescriptions, we intend to learn the latest time-tested trail construction and renewal techniques. Those techniques will be documented and presented in two forms: an extensive, first-of-its-kind (for us) trail operations and maintenance manual that will form the basis of all trail development for the SHT, thereby ensuring sustainable trail work that is consistent from one end of the trail to the other. Part of that assurance is inculcating trail volunteers with new trail building standards (including safe tool use). This content will be encapsulated in a trail volunteer handbook.

Content for both documents will come not only from input provided by the expert trail evaluators, but also from sister trail organizations (e.g. North Country Trail Association, Ice Age Trail Alliance) and natural resource agencies in our region.



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Another documentary product of this LCCMR-funded project will be a trail conditions and renewal inventory – you might call it a strategic plan – that will be for internal use only and will guide SHTA’s management of the SHT for the next several years.

ENRTF BUDGET: \$10,300

SHTA Trail operations director	\$ 8,300
Design of trail manual and volunteer handbook	\$ 1,500
Printing and distribution of documents	\$ 500

Note: the trail operations director will be a new full time position for SHTA starting around April 1, 2018. S/he will be primarily responsible for creating these documents.

Outcomes	Completion Date
1. Specific trail-building techniques and strategies are documented (trail experts, other trail entities) and encapsulated for eventual publication	November 2019
2. Three documents will be produced: a trail operations and development manual and a trail volunteer handbook will be vetted, designed, printed and distributed. A trail assessment and renewal inventory will be produced.	March 2020

- First Update January 31, 2019**
- Second Update June 30, 2019**
- Third Update January 31, 2020**
- Final Update June 30, 2020**

IV. DISSEMINATION:

Though the processes and documents that will be produced as a result of this LCCMR grant are largely for internal purposes, our aim is to make them exemplary and possible models for other trail organizations to emulate. To the extent we apply them on the ground, anyone using the Superior Hiking Trail will know something new and good is happening.

The trail-building processes that emerge from this project will be well known to just about anyone who has a close encounter with the SHT: SHTA staff, trail volunteers, our agency and municipal partners, and discerning trail users. The trail maintenance manual and volunteer handbook will end up in the hands of anyone who does physical (construction, maintenance) work on the Trail.

Progress we make on this project and resulting changes in trail management will be regularly communicated to the nearly 10,000 individuals and households that comprise the SHTA membership and outreach list.

V. PROJECT BUDGET SUMMARY:

A. Preliminary ENRTF Budget Overview: See attached budget spreadsheet



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Explanation of Capital Expenditures Greater Than \$5,000:

Does not apply

Explanation of Use of Classified Staff:

Does not apply

Total Number of Full-time Equivalent (FTE) Directly Funded with this ENRTF Appropriation:

Portions of the time devoted to this project by two FTEs of the Superior Hiking Trail will be supported by LCCMR funds. Per a conversation with LCCMR staff on 11/27/17, the SHTA's trail operations director, as a new staff position (to be hired by April 2018), can be supported in part with LCCMR funds. Trail development director Jo Swanson's time devoted to this project (\$7,000) will be back-filled by another SHTA staffer, who will replace Jo's time in our trail information center in Two Harbors.

Enter Total Estimated Personnel Hours:	Divide by 2,080 = TOTAL FTE:
Trail operations director (over 2 years)	375 hours over two years
Trail development director (over 2 years)	260 hours over two years

Total Number of Full-time Equivalent (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation:

Does not apply

Enter Total Estimated Personnel Hours:	Divide by 2,080 = TOTAL FTE:
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B. Other Funds:

SOURCE OF AND USE OF OTHER FUNDS	Amount Proposed	Amount Spent	Status and Timeframe
Other Non-State \$ To Be Applied To Project During Project Period:			
Superior Hiking Trail Assn funds (member dues and donations)	\$ 50,000	\$	These fund are always available and will be applied where needed through the duration of the project (i.e. staff time, staff expense, non-mileage travel expense, and other contractors not paid by LCCMR funds)
Other State \$ To Be Applied To Project During Project Period:			
MN Lake Superior Coastal Program	\$ 20,000	\$	Grant is pending; could be awarded by March 2019
In-Kind Services to Be Applied to Project During Project Period			
SHTA volunteers (500 hours x \$20/hour x 2 years)	\$10,000		Volunteers form the backbone of physical work on and conditions assessment of the SHTA
Past and Current ENRTF Appropriation:			



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	\$	\$	NONE
Other Funding History:			
	\$	\$	N/A

VI. PROJECT PARTNERS:

A. Partners receiving ENRTF funding

Name	Title	Affiliation	Role
Does not apply			

Does not apply

B. Partners NOT receiving ENRTF funding

Name	Title	Affiliation	Role
Tim Malzahn	Ice Age Trail Alliance trail operations director	Sister trail organization	Pro bono advice and counsel
Matt Davis and Bill Menke	North Country Trail Association – trail managers	Sister trail organization	Pro bono advice and counsel
Derrick Passe	Project Coordinator	Lake County Soil and Water Conservation District	Wetland protection and mitigation
Park managers and staff		MN DNR Parks and Trails Division	Advice, counsel, collaboration
Jonathan Benson	Asst. Ranger for Recreation and Wilderness	U.S. Forest Service – Superior National Forest	Advice, counsel, collaboration

VII. LONG-TERM- IMPLEMENTATION AND FUNDING:

It's very clear that after these evaluations are conducted and recommendations made that we will have considerable work to do to implement changes. We expect those recommended "repairs" to cost upwards of \$250,000 for the most degraded sections of the SHT. With a clear plan for trail renewal in hand, we are confident donors, members and supporters of the SHT will step up to support the trail they love. We certainly plan to step up our outreach and communication to members and donors. (We are hiring a development and communications director in February 2018.)

We also expect to turn again to the LCCMR to support the trail building work that this project reveals.



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VIII. REPORTING REQUIREMENTS:

- The project is for 2 years, will begin on July 1, 2018, and end on June 30, 2020 (or sooner).
- Periodic project status update reports will be submitted June 30 and January 31 each year
- A final report and associated products will be submitted between June 30 and August 15, 2020.

IX. SEE ADDITIONAL WORK PLAN COMPONENTS:

- A. Budget Spreadsheet** attached
- B. Visual Component or Map** – attached

Attachment A:
Environment and Natural Resources Trust Fund
M.L. 2018 Budget Spreadsheet

Project Title: Enhancement Plan for Superior Hiking Trail
Legal Citation: M.L. 2018, Chp. 214, Art. 4, Sec. 02, Subd. 09f
Project Manager: Denny Caneff, Executive Director
Organization: Superior Hiking Trail Association
College/Department/Division: N/A
M.L. 2018 ENRTF Appropriation: \$100,000
Project Length and Completion Date: Two years: 7/1/2018 – 6/30/2020
Date of Report: February 16, 2018



ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET	Budget	Amount Spent	Balance
BUDGET ITEM			
Personnel (Wages and Benefits) - Overall	\$19,000	\$0	\$19,000
SHTA trail operations director – LCCMR funding covers approximately 9% of this position’s total cost over 2 years (\$134K salary and fringe). 375 FTE hours over 2 years. This is a new position as of 4/1/18 (Total estiamted amount \$12,000)			
Trail development director (Jo Swanson) – LCCMR funding covers about 6.2% of this position’s total cost over 2 years (\$112,560 salary&fringe). 260 FTE hours over 2 years. Time put to this project by this staff member will be back-filled by SHTA trail information center coordinator. (Total estiamted amount \$7,000)			
Professional/Technical/Service Contracts - Overall	\$73,400	\$0	\$73,400
Expert trail evaluators (competitive bid process) (Total estiamted amount \$43,900)			
Data base developer (competitive bid process) (Total estiamted amount \$23,000)			
Data input intern (Total estiamted amount \$5,000)			
Graphic designer (Total estiamted amount \$1500)			
Equipment/Tools/Supplies			
Mileage counters 12 @ \$250 each	\$3,000	\$0	\$3,000
Printing			
Trail maintenance manuals and volunteer handbooks	\$500	\$0	\$500
Travel expenses in Minnesota			
7,600 miles @ .54 per mile	\$4,100	\$0	\$4,100
COLUMN TOTAL	\$100,000	\$0	\$100,000