Environment and Natural Resources Trust Fund
2010 Request for Proposals (RFP)

LCCMR ID: 104-C

Project Title:

Duluth Healthy Loop Trails (DHLT) Universal Trail Project

LCCMR 2010 Funding Priority:

C. Habitat Restoration, Enhancement, and Acquisition

Total Project Budget: $ $153,400

Proposed Project Time Period for the Funding Requested: 1 year, 2010 - 2011

Other Non-State Funds: $ $40,000

Summary:

Rehabilitating two riverine trails to create universally accessible exercise loops. Outcomes to include enhanced riparian habitat, environment improvement, drainage/ erosion control, and reduced maintenance with increases in healthy trail use.

Name: Dwight Morrison

Sponsoring Organization: Wheels On Trails (ARC Northland fiscal sponsor)

Address: 424 W Superior St, Ste 201

Duluth MN 55802

Telephone Number: (218) 729-7126

Email: wheelsontrails@yahoo.com

Fax:

Web Address: www.wheelsontrails.org

Location:

Region: NW

County Name: St. Louis

City / Township: Duluth

_____ Knowledge Base	_____ Broad App.	_____ Innovation
_____ Leverage	_____ Outcomes	
_____ Partnerships	_____ Urgency	_____ TOTAL

PROJECT TITLE: **DULUTH HEALTHY LOOP TRAIL (DHLT) project**

I. PROJECT STATEMENT

1. Why this project needs to be done

The DULUTH HEALTHY LOOP TRAIL (DHLT) project grew out of the need for trail rehabilitation work beyond simple repairs, to deal with water, environment, and habitat issues found during a 2007 - 2008 Universal Trail Assessment Process (UTAP) evaluation completed on ten Duluth trails (See article at www.AmericanTrails.org/resources/accessible/DuluthAccess.html) by WOT (Wheels On Trails Org). The UTAP is a trail assessment tool that "objectively documents the actual conditions in outdoor, natural environments". UTAP Measures (i.e. width, cross slope, grade, surface. etc.) and the Features (i.e. wash outs, rocks, bridges, holes, culverts, views, etc.) gave a picture of two old trails with great potential.

Lester trail had some severe erosion problems from cross trails and severe cross slopes and grades, with a major run-off issue from the adjacent roadway that leaves a 10 foot wide ice-dam each spring. The Western Waterfront trail (WWFT) had a number of side trails because of birding and adjacent campground trips to the rivers edge, some severe grades that cause wash outs and erosion, and even a beaver trail to the bay causing erosion. Both of these trails are in need of water control to eliminate contamination of the river or bay, trail enhancements of the environment to deal with off trail traffic and habitat damage, and a general updating of the trails to increase sustainability while decreasing long term trail maintenance costs.

2. Overall Goal of the project

The DULUTH HEALTHY LOOP TRAIL project will rehabilitate two natural riverine trails in the City of Duluth, but will not extend the human footprint into Minnesota's wilderness further by building new trails. By rehabbing these two existing nature trails into universally accessible hiking loops, their appeal to a broader population and increased use for exercise and enjoyment is guaranteed. This proposal moves larger populations of trail users onto existing trails, in place of further wilderness trail expansion and added maintenance costs. Not only will this rehabilitation support increased use through re-topping with natural materials and improved water control, but will also decrease maintenance through sustainable trail design.

This goal of reducing the human footprint in the form of real footprints on real trails, supports the WOT desire to conserve our wild places and have a beautiful and diverse future environment for ourselves and our children. We feel that the rehabilitation of existing trails, in place of more expansion, is one of the ways to reduce the negative impacts of people on the Minnesota natural environment. "Restoration is the key" (Daniel Janzen, 98) to support wildland survival, and our rehabilitation of existing trails in Duluth will help to reduce the real human footprint in our own backyard - the wildlands of Minnesota.

3. HOW the project will achieve goal

The DULUTH HEALTHY LOOP TRAIL project design is based on the 'Medical Mile' trail that was built in Little Rock, Arkansas (www.AmericanTrails.org/resources/health/medmile06.html) that provides a exercise loop accessible to all people inside the city. The 'Medical Mile' project received strong support from the medical community because of hiking health benefits, but also was heralded for improving the environment along the meandering Arkansas River. We at Wheels on Trails Organization traveled the Medical Mile in November of 2008 at the National Trails Symposium, and found it a beautiful loop trail that was developed through city, business, and non-profit cooperation - with strong environmental impact.

The DHLT trail rehabilitation will give the opportunity to improve river water quality by reduce runoff from the extreme grades (Over 12%) and extreme cross slopes (over 5%), while updating trail design using rerouting, bridges, and gazebos to control human access to bird and animal habitat and the spectacular views. The opportunity exists for making these two old trails into models of accessible and improved design, while keeping the base focus on state-of-the-art environmental improvement that will decreased maintenance costs and increases trail sustainability.

II. DESCRIPTION OF PROJECT RESULTS

1. Rehabilitation of Lester Trail - $ 120,000.00 + / - Preliminary Estimate

The DULUTH HEALTHY LOOP TRAIL project will rehabilitate the **Lester Trail** along the rocky river gorge in the eastern end of the City of Duluth. Lester Trail is accessible along the eastern 1/2 of the trail, but needs major work along the rocky ledges of the Western 1/2 of the trail. This western trail segment crosses some 8 foot deep ravines, and travels over a surface that varies from bed rock to soft loam. Runoff is a major issue, as is the spring 10 foot wide ice dam across the route. The trail will be rerouted around the rock ledges, with 3 - 10 foot bridges used to span the rocky ravines. The ravines will be reworked where possible, to redirect water flow along less steep routes.

Project outcomes related to the rehabilitation of the Lester Trail:

1. Preserved Habitat - Abandonment of side and cross trails, to reduce main trail damage from cross grades and to redirect trail travel away from climbing down to the lower river habitat.
2. Environment Enhancement - Addition of gazebos and bridges for function, information, and beauty
3. Erosion Control - Reworking of drainage or rerouting of trails to reduce erosion and increase access
4. Reduced Maintenance - Re-topping of trail with natural permeable crushed rock in addition to water control measures like large rock for drainage, bridges, and swales rebuilding .
5. Increased Use - Exercise loops will increase trail use, and the natural ruggedness of the rocky overlooks will be an additional attractions for trail users to keep them on the trail.

2. Rehabilitation of Western Waterfront Trail (WWFT) - $ 80,000.00 + / -

The DULUTH HEALTHY LOOP TRAIL project will rehabilitate the **Western Waterfront Trail** along the St. Louis River bay in the western end of the City of Duluth. Project outcomes related to the WWFT:

1. Preserved Habitat - Abandonment of side trails, pulling invasive species, and replanting of natural grasses by the Conservation Corps will significantly improve habitat.
2. Environment Enhancement - Widening and resurfacing of the trail along with gazebo placement, will improve the physical environment and keep people on the main trail.
3. Erosion Control - New bridges to span areas where culverts / ditches are not adequate will improve erosion control and wash out of surface material.
4. Reduced Maintenance - Trail design improvements will reduce maintenance because of water control, improved routing, and better surfaces.
5. Increased Use - The increased appeal of the WWFT as a hiking exercise loop trail is supported by the medical community. The trail was originally built as a healthy hiking destination, and will again appeal to those seeking a nature experience and exercise. Birders will find a new focus for their activities from the new gazebos along the St. Louis River bay.

III. PROJECT STRATEGY

A. Project Team / Partners:

the major participants are the - 1) Wheels On Trails Organization, 2) Duluth City Park and Recreation, 3) National Park Service, and 4) the University of Minnesota Duluth - GIS Laboratory. The project is rooted in UTAP evaluation / repair that was completed in 2007 - 2008. In 2009 we will planned and develop the design further through ongoing meetings and consultation by the major participants. Technical assistance is provided by the National Park Service - landscape architect, with final maps developed by the UMD - GIS laboratory. Civil Engineering services and Surveying work will be by Salo Engineering of Hermantown, Mn. Landscape work will be by Mac's Landscaping of Hermantown, Minnesota, with additional non-skilled work completed by the Minnesota Conservation Corps supervised by a coordinator.

B. Timeline Requirements:

The DHLT project will be completed in one year (2010-2011), with rehabilitation work starting in July of 2010. Contracts can be awarded as soon as construction documents are completed. A first planning meeting held on 23rd of January, 2009 that involved all the major participants. The Landscape Architect from the National Park Service will be back for a June planning session, and will provide technical assistance in all phases of the DHLT project. UTAP trail evaluation and civil engineering / survey work to be completed by July, 2010 prior to the start of the LCCMR project. No schedule for the 2010 work has been established.

C. Long-Term Strategy:

The DHLT project can have both long term costs benefits and conservation results, if you consider existing trail 'rehabilitation' as part of an effort to minimize the human footprint. When maintenance cost is legitimately considered in costs, the investment in rehabilitation using sustainable design is worthwhile. It is time to rehabilitate existing high use trails, not build more! This project will result in a estimated cost per 100 feet of trail rehab work, to utilize for future estimates of this sort of trail conservation work.

PROJECT BUDGET – Duluth Healthy Trail Project

BUDGET ITEM (*See List of Eligible & Non-Elegible Costs, p. 13*)		**AMOUNT**
Personnel: Who/ what / Positions Type/No,etc.		
TRAIL CORPS SUPERVISOR – 220 hours / field work		$4,400.00
Contracts: (Proposed – who / what)		
LESTER Wheels On Trails - Manage/ Inspect - 5%		$6,000.00
ARC Northland (Fiscal Sponsor) – Accounting -7%		$8,400.00
Mn Cons. Corps – Buckthorn pull/ replanting/ Hand work		$3,200.00
UMD.GIS – Trail GPS / Map Development		$1,200.00
Barriers / fences - safety		$2,400.00
Civil Engineering – foundations /abutments/Const. Documents		$7,700.00
Landscape - (Crew/Matl) Recontour / widen / relocate		$38,000.00
WWFT Wheels On Trails (Co-chairs) - Manage/ Inspect - 5%		$4,000.00
ARC Northland (WOT Fiscal Sponsor) – Accounting / Monitor -7%		$5,600.00
Mn Cons. Corps – Buckthorn pull/ replanting/ Hand work		$1,200.00
UMD.GIS – Trail GPS / Map Development		$1,100.00
Barriers / fences - safety		$1,000.00
Civil Engineering – foundations /abutments/Const. Documents		$5,800.00
Landscape - (Crew/Matl) Recontour / widen / relocate		$20,000.00
Equipment/Tools/Supplies: (Items / Purpose)		
Bridges – six required @ ten feet each / assembled	Cash	$13,400.00
Gazebos – five required @ 12 foot diameter / assembled	Cash	$30,000.00
Acquisition (Fee Title or Permanent Easement) :		Existing
Travel : (In state / out state) - All local work / no travel allowance		None
TOTAL PROJECT BUDGET REQUEST TO LCCMR:		$153,400.00

V. OTHER FUNDS

SOURCE OF FUNDS	**STATUS**	**AMOUNT**
Other Non-State $ Applied During Project Period:		
Federal Recreational Trails Grant (Survey / Engineering)	Pending	$25,000.00
Grants / donations – local (Landscaping / Mat'l)	Pending	$15,000.00
In-Kind Services During Project Period		
Wheels On Trails (2 Co-chairs) - plan/Design/UTAP	Pending	$2,400.00
Duluth Park & Rec. Department – plan/design/monitor	Pending	$400.00
UMD. GIS Lab (Preliminary) - plan / design / monitor	Pending	$400.00
National Park Service – Technical Support – Architect	Pending	$2,400.00
OTHER – Naturalist/ birding /habitat/Other	Pending	$4,400.00
Funding History: *Indicate secured prior July 1*	Pending	$30,000.00


4 Lester-Amity Trail
WORK (proposed)
1 Reroute trail
2 Bridge
3 Gazebo
4 Reduce grade
5 Reroute trail
6 Bridge
7 Gazebo
8 Reduce grade
Lester Trail Loop
(1.2 Mi)
The Deeps
City of Duluth
Lake Superior
11 Waterfront Trail
WORK (proposed)
1 Access Route
2 Gazebo
3 Bridge
4 Reduce grade
5 Fishing dock
6 Reroute trail
7 Bridge
8 Reroute trail
9 Gazebo
10 Reduce grade
11 Bridge
12 Gazebo
Indian Point Park
Western Waterfront Trail Loop
Work Zone
(1.8 Mi)
N

RESUME **DWIGHT A MORRISON** 424 W. Superior St., S. 201 , Duluth, Mn 55811 218-729-7126

EXPERTISE: I have taught Mathematics and practiced Architecture for many years, prior to taking a an interest in how students think (Cognitive Psychology). I have designed and / or drawn over 30 buildings in Minnesota, with a focus on health care facilities. I have experience as a Federal building Inspector, inspected commercial construction, and evaluated bituminous road constriction. My latest work is on the 2007 - 2008 trail repair project (DATA - See American Trails Magazine / Fall 2008) of Duluth. Also 90% completed in 2008 was a 3,200 square foot office building for the RIDE non-profit, which was a good updating for me on the latest construction standards and practices.

After achieving a Psychology degree and a Specialist Certification (Learning Disabilities), I taught in Mathematics and Special Education at the High School and college levels for 10 years. After my 2002 retirement and heart transplant in 2004, I now provide volunteer services like Grant Writing, UTAP (Universal Trail Assessment Process) Trail Evaluation, and non-profit Project design and management. UTAP training in 2006 provided for Certification as a Trail Assessment Coordinator, with advanced UTAP Trail Training in ADA standards and construction in 2008.

EDUCATION

1965 BACHELOR OF SCIENCE - Stout University, Menomonie, Wisconsin - Highest Honors
Industrial Education and Technology, Architectural / Mechanical Design and Drafting
1975 MASTERS IN ART / EDUCATION - University of Minnesota Duluth - Highest Honors
Education with sculpture emphasis / Thesis on Educational Technology / Mathematics
1975 MATHEMATICS / SCIENCE EDUCATION CERTIFICATION - State of Minnesota
1988 PhD (ABD) in COGNITIVE PSYCHOLOGY - University of Minnesota - Highest Honors
Special Education - Vision / Hearing Impairment, Cognition, Learning Disabilities
1991 SPECIALIST CERTIFICATION - University of Minnesota Duluth - Highest Honors
Special Education Program - Learning Disabilities - University of Minnesota Duluth, Minnesota
1997 RETIRED FROM DULUTH PUBLIC SCHOOLS - Special Education - L.D. / E. B. D.
PhD. Lane plus 30 credits, 26 years teaching experience.
2007-08 UTAP CERTIFICATION - Beneficial Designs Inc., Minden, Nevada - Course & Field work,
Universal Trail Assessment Process 'Trail Assessment Coordinator' #BNAT10060124

WORK HISTORY

1965 TECHNOLOGY TEACHER - Architecture / Electronics, Osseo Sr. High School, Minnesota
1966-70 ASSOCIATE ARCHITECT - R.Y. Sandberg and Assoc. Architects, Hibbing, Minnesota
Survey - Design - Construction Documents - Field Supervision - Inspection
1971-75 ARCHITECTURAL DRAFTING / SURVEY TEACHER - Lake Superior College (DAVTI)
1972 ASSOCIATE ARCHITECT - 2 Summers - Shefchek Associates, - Design / Drafting
1974 ASSOCIATE ARCHITECT - 3 Summers - Thomas Veccci Associates - Design / Drafting
1975-78 ASSOCIATE ARCHITECT - 3 Summers - Blessner Dahlberg Associates - Design / Drafting
1975-78 MATHEMATICS / LOGIC TEACHER - Duluth Voc.- Tech Institute, Duluth, Mn.
1979 -86 MATHEMATICS COORDINATOR - Special Needs, University of Minnesota, Duluth
1987 -88 INDUSTRIAL TECHNOLOGY TEACHER - Duluth Public Schools
1988 -90 COMPUTER GRAPHICS CONSULTANT - Part time / Carlson School of Management
1988 -89 MATHEMATICS TEACHER - University of Minnesota, Minneapolis
1989- 91 PSYCHOLOGY RESEARCHER - Tactile Maps / Mac Programming, Univ. of Minn., Mpls.
1992- 95 SCIENCE / MATHEMATICS TEACHER - Special Education, Duluth Public Schools
1996-97 TECHNOLOGY COORDINATOR / TEACHER - Lincoln Park Technology School, Duluth.
1997 - RETIRED - Congestive Heart Failure due to Virus / Transplant in July, 2004
2004 -09 WHEELS ON TRAILS - Co-chair - Non-profit management / ADA Trail Eval. / Trail repair
2005-07 RIDE - Non-profit Board Member / Supervise Construction of Office Building

INTERESTS - Camping, Computers, Sailing, Classic cars