Environment and Natural Resources Trust Fund
2019 Request for Proposals (RFP)

Project Title: **ENRTF ID: 136-CH**

A North Shore Community-Engaged Forest Landscape Laboratory

Category: H. Proposals seeking $200,000 or less in funding

Sub-Category: C. Environmental Education

Total Project Budget: $ 199,000

Proposed Project Time Period for the Funding Requested: June 30, 2022 (3 yrs)

Summary:

This project engages North Shore landowners, business owners, natural resource managers and visitors in identifying, designing, and testing forest management strategies within a public Landscape Laboratory at Tettegouche State Park.

Name: Karen Lutsky

Sponsoring Organization: U of MN

Title: Assistant Professor of Landscape Architecture

Department: College of Design / Department of Landscape Architecture

Address: 89 Church Street SE, 144 Rapson Hall

Minneapolis MN 55455

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Web Address http://landarch.design.umn.edu/

Location

Region: Northeast

County Name: Cook, Lake, St. Louis

City / Township:

Alternate Text for Visual:

Local community and visitors will work with experts to design, implement, and manage research plots to support more resilient community and forest management practices on the North Shore.

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ TOTAL	_____%
____ If under $200,000, waive presentation?			

PROJECT TITLE: A North Shore Community-Engaged Forest Landscape Laboratory

I. PROJECT STATEMENT

This project proposes to bring the public together with design, forestry, social science, and resilience experts to collectively develop, design, install, and manage an observation trail and a series of at least 10 forestry test plots in Tettegouche State Park, a popular park (~300,000 visitors/year) on Lake Superior's North Shore. This "Landscape Laboratory" will physically showcase *innovative forest management practices* such as new methods to support wildlife habitat, maintain biodiversity, and manage water. In addition, the Landscape Lab will also *showcase how public engagement* of visitors, local stakeholders, and residents through all parts of the process, from design to management, can *strengthen community and regional resilience*.

North Shore communities and visitors depend on forests for food, wood products, clean water, and flood control, wildlife habitat, recreation and tourism opportunities, and cultural identity. In a 2017 survey of North Shore residents, respondents (n=294) expressed serious concern about declining health of the forest ecosystem, spread of invasive plants, receding Northern forests, and the loss of native fish and wildlife; more than half of respondents reported being very to extremely concerned about the loss of paper birch. (Davenport, unpublished data). The response to such concern and uncertainty is commonly driven by scientists and natural resource professionals who *first* determine forest management solutions and *then* deliver those solutions to the public. Although such science and professional expertise are critical, this approach does not engage the public in asking questions, testing strategies, and designing solutions. Public engagement in questioning, testing, designing, and managing is empowering and promotes creative and critical thinking, problem solving, skill building, and adoption of practices within the community. This proposal seeks to extend education delivery models into these phases and transform concern into action. Specifically, this project will:

- Focus on the long-term social and ecological sustainability of forest ecosystems.
- Provide the space and guidance for the public, natural resource managers, and researchers to collaboratively identify, design, and test resilient forest management strategies in an easily accessible Landscape Laboratory and collectively benefit from the outcomes.
- Design and implement at least 10 public research plots and an observation trail
- Conduct baseline data collection with participants and monitor treatments of the research plots
- Evaluate the effects of collectively designing, testing, and managing the Landscape Laboratory on participants' knowledge, self-efficacy, and management behaviors.
- Establish print materials and website to support continued engagement in the sites and efforts

II. PROJECT ACTIVITIES AND OUTCOMES (total budget = $199,000)

Activity 1: *Site visits, partnership development, community engagement, baseline resource inventory*
ENRTF BUDGET: $60,000

We will collaborate to identify 10 priority areas/questions related to forestry, water, wildlife and address data gaps. We will engage participants in a minimum of 10 events and begin design and installation of at least 4 plots.

Outcome	Completion Date
1. Organize and convene a local landscape laboratory advisory team	*7/19*
1. Conduct baseline resource inventory	*8/19*
2. Conduct a series of charrette-style workshops to generate questions, designs, and tests	*9/19*
3. Install and collect data on the first 4 test plots and observation trail	*10/19*

Activity 2: *Evaluation, landscape laboratory installation, and management, public engagement*

ENRTF BUDGET: $80,000

We will evaluate previous events and outcomes and engage participants in a minimum of 10 events to address new questions, design, install, and manage an additional 6 plots. We will also develop online tools to publicize the development of the Landscape Lab. We will be able to track engagement on the website and use as a tool in Activity 3.

Outcome	Completion Date
1. Complete formative evaluation of community engagement process	*10/20*
2. Create multiple community-driven designs & install 6 selected designs with community engagement	*9/20*
3. Development of online resources including website	*9/21*

Activity 3: *Study test plots data collection and analysis, evaluation, integration, and community practice*

ENRTF BUDGET: $59,000

We will engage participants in a minimum of 10 events. We will pair pre -and post surveys to measure change in knowledge, self-efficacy, and reported management behaviors. We will interview key partners to gather narratives on their Landscape Lab experience and satisfaction. We will work with Tettegouche, Sea Grant, and other partners, and the online tools to ensure continued engagement in the plots.

Outcome	Completion Date
1. Apply study treatments, collect data and analyze	*6/21*
2. Make any adjustments to management techniques and data collection on the plots	*9/21*
3. Conduct a series of engagement workshops (n=20) and summative evaluation (results shared through multiple venues including peer reviewed publications, online website, and presentations)	*9/21*

III. PROJECT PARTNERS:

A. Partners receiving ENRTF funding

Name	Title	Affiliation	Role
Karen Lutsky	Asst. Professor	Landscape Architecture, UMN	Project Director, Landscape Architect
Mae Davenport	Professor	Forest Resources, CCL, UMN	Social Scientist
Marcella Campione	Asst. Professor	Forest Resources, UMN	Silviculturist
Salli Dymond	Asst. Professor	Earth & Env. Sciences, UMD	Forest Hydrologist
Tom Beery	Resilience Specialist	MN Sea Grant, UMD	Resilience + Community Engagement

B. Partners NOT receiving ENRTF funding

Name	Title	Affiliation	Role	Letter of Support
Nadine Meyer	Assistant Manager	Tettegouche State Park, DNR	Project advisor + Host	Yes
Kristin Raab	Prog. Supervisor	Minnesota Department of Health	Project advisor	Yes
Denny Caneff	Director	Superior Hiking Trail Association	Project advisor	Yes

IV. LONG-TERM- IMPLEMENTATION AND FUNDING:

This project is a stand-alone effort and not part of a longer-term funding request, though it builds on work led by Davenport, Campione, Dymond and Lutsky in Minnesota and the Great Lakes Basin. This project was developed in partnership with Tettegouche State Park and UM Sea Grant and will be continued with their support. We will continue to seek funding elsewhere to sustain community engagement and data from the plots.

V. TIMELINE REQUIREMENTS:

This proposed work will begin July 2019 and continue for 26 months.

2019 Proposal Budget Spreadsheet

Project Title: A North Shore Community-Engaged Forest Landscape Laboratory

IV. TOTAL ENRTF REQUEST BUDGET 2 years

BUDGET ITEM (See "Guidance on Allowable Expenses")	**AMOUNT**
Personnel: Salary and fringe (33.5%) for Karen Lutsky (PI; $40,000), Landscape Architecture-UMN; Marcella Windmuller-Campione (co-PI; $20,000), Forest Resources-UMN; & Mae Davenport (co-PI; $10,000), Center for Changing Landscapes-UMN; Salary and fringe for 2 students ($42,000) at 25% FTE for 2 Salary and Fringe for Thomas Beery, MN Sea Grant ($15,000); Salary and Fringe for Salli Dymond, Earth and Environmental Sciences-UMD ($9,000)	$ 136,000
Equipment/Tools/Supplies: Building materials for kiosks, signage, benches, and trails, hospitality for events, supplies for drawing materials. Supplies for forest test plots.	$ 38,000
Acquisition (Fee Title or Permanent Easements):	$ -
Travel: Travel within Minnesota. These funds will be used to pay mileage (75%) and per diem costs (25%) for PIs and students.	$ 25,000
Additional Budget Items:	$ -
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND $ REQUEST =	$ 199,000

V. OTHER FUNDS *(This entire section must be filled out. Do not delete rows. Indicate "N/A" if row is not applicable.)*

SOURCE OF FUNDS	**AMOUNT**	**Status**
Other Non-State $ To Be Applied To Project During Project Period: Davenport salary and fringe (33.5%) on Agricultural Experiment Station funds.	$ 10,000	
Other State $ To Be Applied To Project During Project Period:	$ -	
In-kind Services To Be Applied To Project During Project Period: The University of Minnesota's Facilities and Administrative rate is 54% of modified total direct costs, including cost-sharedpersonnel (total direct less graduate student fringe). The amount, if F&A expenses would have been allowed on the project, would be $104,723. The University will provide office space, IT services, and administrative / financial services in support of the project.	$ 104,723	
Past and Current ENRTF Appropriation: N/A	$ -	
Other Funding History:	$ -	

CURRENT ISSUE

Future of the North Shore Forest = ???

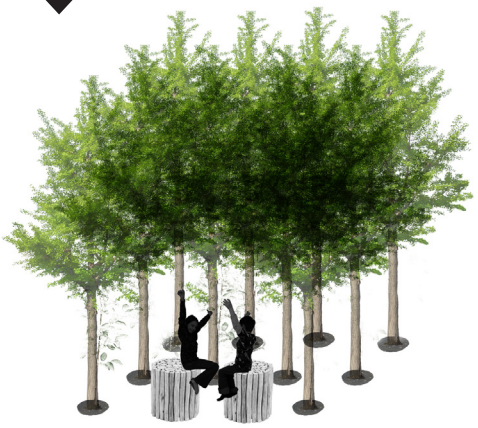
PROPSED PROJECT

Local Landowners, Businesses, Residents + **Forest Management Professionals, Researchers, and Designers** + **Visitors and Students**

COLLABORATE TOGETHER TO:

Identify research gaps / design the landscape lab research plots through workshops and charrettes.

Install and monitor at least 10 forest management research plots and trail in Tettegouche State Park



Collect data and observations/ develop and test alternative designs and management strategies.

COMMUNAL OUTCOMES:

More Resilient Community + Forest Management Practices on the North Shore

A North Shore Community-Engaged Forest Landscape Laboratory

Project Manager Information:

Karen Lutsky, Assistant Professor of Landscape Architecture, UMN-Twin Cities

Assistant Professor Lutsky has long been researching, practicing, and teaching resilient landscape strategies for highly dynamic landscapes and exploring methods of designing 'with' change. She is currently the director for the UMN Great Lakes Design Lab (see description below.) She has individually and collectively developed a number of resilient and adaptable landscape design proposals that have won national recognition including a design proposal 'Big, Old Tree: New, Big, Easy,' a project centered on establishing hydrologic, cultural, social, and economic resilience by siting new urban forest in a New Orleans neighborhood (https://www.asla.org/2011studentawards/569.html). She also worked with the nationally renowned landscape architecture firm, OLIN (formerly the Olin Studio), on their final submission for the ARC International Wildlife Crossing Infrastructure Design Competition (http://competition.arc-solutions.org/finalists.php) which notably developed a highly adaptable design that emphasized habitat and community engagement in the building process. Additionally, she has experience managing and bidding large-scale landscape projects in Chicago and has worked on installation and maintenance of iconic landscapes such as the Museum of Science and Industry and Millennium Park.

Professional Preparation

Brandeis University	Environment and Society	BA (2004)
University of Pennsylvania	Landscape Architecture and Regional Planning	MLA (2011)

Appointments

2012	Research and Design Associate, PENN Praxis, University of Pennsylvania
2012	Adjunct Professor, Department of Landscape Architecture, IIT
2013	Full-time Adjunct Professor, Department of Landscape Architecture, PSU
2014	Migg-Culkins Visiting Professor, Department of Landscape Architecture, OSU
2015	Visiting Assistant Professor, Department of Planning, SUNY at Buffalo
2016 – present	Assistant Professor, Department of Landscape Architecture, UMN

Institutional Information:

University of Minnesota's **Center for Changing Landscapes** and the **Great Lakes Design Lab**

The **UMN Center for Changing Landscapes** offers social science research services, conservation program evaluation, community assessment training, and research design assistance to natural resource agencies, nonprofit organizations, and communities in Minnesota and beyond. The Center's researchers specialize in the use of interdisciplinary community-based research methods, innovative multi-methods evaluation, and inclusive project planning. A primary goal of the center is to empower communities and natural resource managers in inclusive and visionary planning and problem-solving for sustainable, livable, and equitable futures. More information can be found at:
https://www.changinglandscapes.umn.edu/

The **UMN Great Lakes Design Lab** is a collaborative partner of the Center for Changing Landscapes and includes diverse faculty and researchers from around the Great Lakes. The GLDL develops research, professional, and civic-based engagement strategies to help smaller Great Lakes communities achieve "resilient equity" through study and practice in interconnected cultural and ecological systems. The GLDL works collaboratively with community-based organizations, nonprofits, and local city and state agencies.

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