

**Environment and Natural Resources Trust Fund
2015 Request for Proposals (RFP)**

Project Title:

ENRTF ID: 066-C

Connecting Students with Watersheds through Hands-On Learning

Category: C. Environmental Education

Total Project Budget: \$ 437,195

Proposed Project Time Period for the Funding Requested: 3 years, July 2015 - June 2018

Summary:

Students will get outdoors for hands-on learning focused on water quality, groundwater, aquatic life, watershed health and their role as watershed stewards. Opportunities for angling and conservation will be offered.

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Sponsoring Organization: Minnesota Trout Unlimited

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Location

Region: Statewide

County Name: Statewide

City / Township:

Alternate Text for Visual:

None attached

_____ Funding Priorities	_____ Multiple Benefits	_____ Outcomes	_____ Knowledge Base
_____ Extent of Impact	_____ Innovation	_____ Scientific/Tech Basis	_____ Urgency
_____ Capacity Readiness	_____ Leverage	_____ TOTAL	



Environment and Natural Resources Trust Fund (ENRTF)

2015 Main Proposal

Project Title: Connecting Students with Watersheds through Hands-on Learning

PROJECT TITLE: Connecting Students with Watersheds through Hands-on Learning

I. PROJECT STATEMENT

We will get students outdoors and provide hands-on learning experiences which connect students with water, aquatic life, groundwater systems, and watersheds. Students will learn their role in healthy, sustainable, freshwater habitats and develop a sense of stewardship which they can carry forward into adulthood. Students will also be exposed to outdoor recreation to encourage lifelong, tangible connections to aquatic ecosystems.

Youth are increasingly becoming disconnected from the natural environment we live in. This lack of connection follows students into adulthood and impacts their ability to make well informed decisions about their environment. In addition, most schools have some environmental education programming and one-time outings, but fail to adequately reinforce ongoing lessons through real life applications outdoors. We will use tangible education tools and take students outdoors for hands-on learning activities to connect them to aquatic ecosystems. We will utilize the Trout in the Classroom (“TIC”) curriculum, which includes placing aquariums in classrooms so students can follow the development of trout from egg to juvenile. This will be used as a spring board for fieldtrips to streams and as a focal point for reinforcing learning about water, watersheds and ecology. Lessons on groundwater and its importance will be central. No new curriculum is being developed. The TIC curriculum is a proven national curriculum and only minor Minnesota specific adaptations will be made to meet state standards and STEM initiatives.

We will improve students’ science skills and knowledge concerning water quality, groundwater issues, watersheds, native aquatic life and healthy, sustainable, freshwater habitats. Students will engage in interactive science-based natural resource education through the use of technology and applied sciences as they gather first-hand knowledge of healthy ecosystems. Students’ knowledge of a subject is greater when they use critical thinking skills first hand. The TIC curriculum and complimentary lessons will encourage students to use critical thinking skills and foster deeper knowledge in multiple areas, including science, math, language arts and art.

This year-long program combines habitat site visits, field studies and classroom visits, allowing students to apply the principles learned outdoors with real world applications. Learning will come full circle as students are given opportunities to explore outdoor recreation, conservation work and careers relating to fresh water habitats.

II. PROJECT ACTIVITIES AND OUTCOMES – Dates listed for year 1 only, but will be repeated in years 2 & 3

Activity 1: Select participating schools and set up TIC equipment **Budget: \$437,195**

MNTU will hire a FT Project Coordinator to get TIC program set up in Minnesota schools (grades 5 to 12). Year one dates are listed, but outcomes will be repeated in years two and three

Outcome	Completion Date
1. Create application process, select schools and sign agreements. Year one – 10 schools; year two – 15 schools; year three – 20 schools	July to August
2. Organize equipment and resources, meet with partners, train participating educators, assemble TIC guide book for educators adapting to meet state learning standards and STEM initiatives, assist TIC equipment set up in schools.	July to October
3. Hire and supervise consultant(s) in outstate area as needed in year 2 & 3	years 2 & 3

Activity 2: Field Experiences-Habitat Tours/Release Days **Budget: \$**

Organize field activities at streams, habitat areas, groundwater sites, etc. Coordinate activities and speakers.

Outcome	Completion Date
1. Fall trip: macroinvertebrate and stream surveys using technology; groundwater site visit	Sept - Nov
2. Spring release of trout, outdoor recreation and hands-on activities	May

Activity 3: Classroom visits/programming. **Budget: \$**



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Classroom visits will include follow-up from fall field trips and programming focused on ground water and fresh water ecosystems using existing curriculum materials.

Outcome	Completion Date
1. Trout eggs brought to class for rearing.	TBD: Nov to Dec
2. Winter programming covering groundwater, watersheds, invasive species, water contaminants and habitat activities.	Jan to Mar

Activity 4: Annual TIC Summit

Budget: \$

Classes will travel to central location(s) to showcase their projects, meet other students, participate in outdoor skills, and learn about water resources careers from professionals (approximately 500 youth annually).

Outcome	Completion Date
1. Project coordinator lines up speakers, recreation professionals, media coverage and partners/volunteers	Jan to Mar
2. Student share/showcase their experiences (approximately 500 youth annually).	April

Activity 5: After school & summer education/outreach and conservation opportunities

Budget: \$

Coordinator, MNTU volunteers and other partners will offer a series of fishing clinics, camps, rod building classes, geo-caching, nature photography and opportunities to volunteer on conservation projects. Goal is to get youth and their families engaged outdoors.

Outcome	Completion Date
1. Create calendar of events/opportunities with MNTU volunteers; engage other classes/schools using social media and YouTube	May to June
2. Conduct summer education/outreach activities; assist with summer TUNE camp	June to August

III. PROJECT STRATEGY

A. Project Team/Partners.

Minnesota Trout Unlimited and its chapters – will receive funding and contribute cash and in-kind assistance; Schools and school districts – will provide extensive in-kind assistance and required cost sharing to invest schools in activities, and stretch budget to more schools; MNDNR (Non-game Education, Fisheries, Parks & Trails) - extensive in-kind support; Minnesota Groundwater Association – in-kind support.

B. Project Impact and Long-Term Strategy.

We will enhance achievement in grades 5-12 by combining outdoor “classrooms” with technology through STEM activities so students may master state standards across a spectrum of subjects, develop skills necessary for making informed decisions about the water resources, create connections to the natural world, and think critically about their personal roles in the environment. It is hard to protect something which citizens do not know and care about. This program will teach the next generation to appreciate the watersheds in which they live, become active in the outdoors and stewards of land and water. Recreational activities are included to encourage connections to the outdoors beyond the classroom. Afterschool and summer programs for youth and families will cement lifelong involvement in outdoor recreation and conservation. YouTube and other media will extend the reach and impact of the programs. Instilling a sense of stewardship in tomorrow’s leaders, which is the program’s ultimate goal, is vital to the long term health and protection of Minnesota’s natural resources. This program should reach approximately 7,000 students and their communities.

C. Timeline Requirements.

This is a three year program. Each year progresses through fall field activities, winter classroom programming, spring educational summit, spring release day and summer outreach activities involving students, families and their communities. By demonstrating success we plan to continue and expand the program through partnerships with schools and outside funding sources.

2015 Detailed Project Budget

Project Title: *Connecting Students with Watersheds Through Hands-on Learning*

IV. TOTAL ENRTF REQUEST BUDGET - 3 years

BUDGET ITEM (See "Guidance on Allowable Expenses", p. 13)	AMOUNT
Personnel: Project coordinator -100% fte; 70.4 % salary/29.6% fringe; 36 months; (\$70,290 annually) Program manager* – 5% fte; 70.4 % salary/29.6% fringe; 36 months; (\$4,400 annually)	\$ 224,070
Contracts: Outstate educator/consultants (if needed) to assist in classroom and fieldtrips (yrs. 2 & 3); \$12,000 Graphic designer (3 years); (\$5,000)	\$ 17,000
Equipment/Tools/Supplies: Comprehensive TIC Equipment (3+ years) 20 x 2,000 each \$40,000	\$ 68,125
Acquisition (Fee Title or Permanent Easements): <i>In this column, indicate proposed number of acres and name of organization or entity who will hold title.</i>	\$ -
Travel: Travel expenses of project coordinator	\$ 20,000
Additional Budget Items: Fish eggs and disease testing \$300/class/year (x 10,15,20) \$13,500 Bus transportation \$2,100 school x 10,15,20 \$94,500	\$ 108,000
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 437,195

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: <i>Indicate any additional non-state cash dollars secured or applied for to be spent on the project during the funding period. For each individual sum, list out the source of the funds, the amount, and indicate whether the funds are secured or pending approval.</i>	\$ -	<i>Indicate: Secured or Pending</i>
Other State \$ To Be Applied To Project During Project Period: <i>Indicate any additional state cash dollars (e.g., bonding, other grants) secured or applied for to be spent on the project during the funding period. For each individual sum, list out the source of the funds, the amount, and indicate whether the funds are secured or pending approval.</i>	\$ -	<i>Indicate: Secured or Pending</i>
In-kind Services To Be Applied To Project During Project Period: <i>Indicate any additional in-kind service(s) secured or applied for to be spent on the project during the project period. For each type of service, list type of service(s), estimated value, and indicate whether it is secured or pending. In-kind services listed must be specific to the project.</i>	to be determined	<i>Indicate: Secured or Pending</i>
Funding History: <i>Indicate funding secured but to be expended prior to July 1, 2015, for activities directly relevant to this specific funding request, including past and current ENRTF funds. State specific source(s) of fund and dollar amount.</i>	\$ -	
Remaining \$ From Current ENRTF Appropriation: <i>Specify dollar amount and year of appropriation from any current ENRTF appropriation for any directly related project of the project manager or organization that remains unspent or not yet legally obligated at the time of proposal submission. Be as specific as possible. Indicate the status of the funds.</i>	\$ -	<i>Indicate: Unspent? Legally Obligated? Other?</i>



Project Manager Qualifications & Organization Description:

Project manager:

John Lenczewski is the Executive Director of Minnesota Trout Unlimited. He currently manages several state and federal grants.

Organization Description:

Minnesota Trout Unlimited is a non-profit, 501(c)(3) organization made up of several thousand members organized into seven chapters across the state. Our volunteers work hard to advance our mission to conserve, protect, and restore Minnesota's coldwater fisheries and their watersheds.