

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

Project Title:

Water Journey Camps

ENRTF ID: 074-C

Category: C. Environmental Education

Total Project Budget: \$ 25,138

Proposed Project Time Period for the Funding Requested: 2 years, September 2015 - August 201

Summary:

“Water Journey Camps” get children outdoors exploring the natural environment, doing service plantings, and teaching the public how to conserve water and improve water quality to help protect natural areas.

Name: Beth Mercer-Taylor

Sponsoring Organization: U of MN

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Location

Region: Metro

County Name: Ramsey

City / Township:

Alternate Text for Visual:

Title: “Visual for: Water Journey Camps” with subtitle: “Children discovering how everything is connected as they touch the river, help the wetland, and tell their story.” Images include a map of the metro area showing the paths of the journeys and photographs of the environments they will visit and of children interacting with those environments. Image captions include: “From the river”, “Back to the river”, “Where does the water come from?/Where does the water go?/Visual nature journals”, “How can I help?/ Service Planting”, “What happens to the water?/wetland ecology exploration.”

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



PROJECT TITLE: Water Journey Camps

I. PROJECT STATEMENT

“Water Journey Camps” get children outdoors exploring the natural environment, doing service plantings, and teaching the public how to conserve water and improve water quality to help protect natural areas. Two different one-week camps: “Water Journey: Drink” and “Water Journey: Rain,” will be held twice each at St. Paul campus at the U of MN Recreation & Wellness Summer Youth Program for youth ages 6-8, and ages 9-11.

WHY: The Camps respond to four areas that research indicates enhance stewardship behavior. (1) Children need more opportunities for outdoor experiential environmental education to form bonds with nature. (2) People must see the connection between their actions in the human-built environment and the associated impacts in the natural environment. (3) Children need opportunities to contribute through service activities and using their learning to help others in order to enhance their stewardship competence and identity. (4) Children and the public they will help educate, need to have local, place-based examples of how their actions affect the natural areas in their community to increase the immediacy and relevance of stewardship.

GOALS AND OUTCOMES: 1) Participants will gain first-hand knowledge of how they depend on and impact freshwater, the way that infrastructure carries water into and away from their homes and schools, the benefits of healthy wetlands, lakes and rivers, and will develop inspiration and skills for stewardship. 2) Water Journeys will serve as a demonstration to formal and informal educators for how integrating STEM skills, arts, storytelling and experiential learning develops in children an awareness of water and of how to live more sustainably by conserving and keeping water clean. 3) Through the work of Institute on the Environment’s communications team—who will make use of participants’ artwork, stories and service projects—the public, and particularly the St. Paul campus and its immediate neighborhood will become a more water-aware, sustainable community through the Water Journeys programs taking place in indoor recreational spaces, outdoor classroom spaces, field trip locations and at the campus Sarita wetland location for service learning.

HOW: There are three main activities to implement the project detailed in the next section: (1) Plan and Prepare Water Journey Camps Toolkit and Documentation, (2) Conduct Four Water Journey Camps for Environmental Education, and (3) Conduct Community Outreach and Education.

II. PROJECT ACTIVITIES AND OUTCOMES (*budgets show ENRTF requested funds only, not in-kind support)

Activity 1: Plan and Prepare Water Journey Camps Toolkit and Documentation ***Budget: \$19,737**

Adapt existing Earth Systems Journey place-based curriculum framework to the camp location, documenting water flows from the camp, through infrastructure, wetlands, and to the Mississippi River. Identify tour stops and associated, guides, learning opportunities and content. Plan service plantings and set up digital mapping system and online communication channels. Assemble nature photography toolkit. Conduct project evaluation.

Outcome	Completion Date
1. Camp Toolkit including physical maps, camp outline, information resources, contacts, camera equipment, digital mapping system, website, and service planting guide	May 31, 2016
2. Project reporting including project evaluation	August 30, 2016

Activity 2: Conduct Four Water Journey Camps for Environmental Education ***Budget: \$1,400**

Camp 1: “Water Journey: Drink,” held twice for two age groups, consists of: 6-11 year old children exploring and documenting potable water uses at camp, learning about visual nature journals and photography, going on a journey from a camp water fountain upstream to the Mississippi River to visit a stormwater demonstration park across the river from where St. Paul collects water for treatment, then following water infrastructure to the treatment plant, the water tower on campus, and the water meter, all leading to the drinking fountain. Campers then travel downstream, peering into manholes, visiting the wastewater treatment plant, and traveling on a riverboat downriver to where the treatment plant returns water to the Mississippi River.



Camp 2: "Water Journey: Rain," held twice for two different age groups, consists of: 6-11 year old children exploring and documenting the flow of rain water at camp, learning about visual nature journals and photography, going on a journey from where rain collects at camp downstream following the storm sewer system on campus, visiting Sarita Wetland on campus to learn about its plants, animals and how it helps manage stormwater flows. Campers follow the stormwater system to the Mississippi River and visit the outfall near the Lake Street bridge and Mississippi River Gorge Park where they explore a prairie and learn about its ecology and how stormwater is handled in that environment.

Both Camps: Students conduct a service planting at Sarita Wetland, learning about its connection to clean water, the river and habitat and create public educational materials to foster appreciation of natural areas and encourage stewardship activities.

Outcome	Completion Date
1. 32-56 kids, ages 6-11, complete outdoor water journey experience and create water journey books to document that experience	July 31, 2016
2. Four Service plantings sessions completed at Sarita Wetland	July 31, 2016
3. Students give presentations of their water journey to parents and public for each camp	July 31, 2016

Activity 3: Conduct Community Outreach and Education

***Budget: \$ 4,000**

Create educational materials in which children’s explorations are featured, and share their learning through a website about the project featuring student photography and observations tied to an interactive digital map showing where photos were taken. A 3-5 minute video will be created to document the student experience at the camps and make use of student photography and interviews.

Outcome	Completion Date
1. Public website with interactive maps documenting the water flows through the camp location on St. Paul Campus and Sarita Wetland to the landscapes beyond the campus.	August 15, 2016
2. 3-5 minute educational video about water journey camps, featuring kids and their work	August 15, 2016

III. PROJECT STRATEGY

A. Project Team/Partners

Project Team Members Receiving Grant Funds: Beth Mercer-Taylor of University of Minnesota’s (UMN) Institute on the Environment (IonE) will manage the project; Jonee Kulman Brigham of the UMN Center for Sustainable Building Research will join IonE to lead the implementation of the project with the pilot participants; Len Kne of UMN U-Spatial will lead the use of digital mapping resources for learning and public educational outreach; Video Producer, : Audrey Favorito, will create the educational video for the project.

Project Team Members Not Receiving Grant Funds: U of MN Recreation & Wellness Department will coordinate camp recruitment, logistics, and general camp support activities. Other Key Partners are: Capitol Regional Watershed District who will provide educational support and co-coordinate service plantings at Sarita Wetland, St. Paul Regional Water Services who will provide tours of their facilities, and Brian Goodspeed, Park Ranger, National Park Service who will be a guide to the natural features of the Mississippi in a riverboat ride. An advisory group of experts will also inform the project and assist with outreach.

B. Project Impact and Long-Term Strategy

The project will be used as a foundation for extending the camps and associated community water stewardship education and outreach four (4) or more years. The ongoing camps will be funded through the cost structure of the youth programs, supplemented by additional support from Institute on the Environment. The camp model will be shared with the wider community through a website and presentations to inspire and assist others to create similar programs. Future funding requests to ENRTF are not anticipated for Water Journey Camps.

C. Timeline Requirements – Water Journey Camps will be completed in 12 months crossing 2 fiscal years.

2015 Detailed Project Budget

Project Title: Water Journey Camps

IV. TOTAL ENRTF REQUEST BUDGET 2 years (12 month project crossing 2 fiscal years)

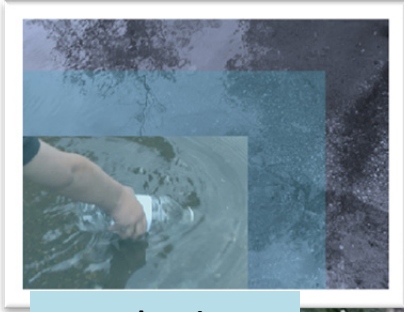
<u>BUDGET ITEM</u>	<u>AMOUNT</u>
Personnel: Beth Mercer-Taylor, Institute on the Environment, UMN Role: Project Management (Principal Investigator) Percent FTE on project: 3.8%; at salary of \$72,263, Time period: 1 year Of total: 75% dollars is salary and 25% dollars is benefits	\$ 3,669
Personnel: Jonee Kulman Brigham, to be hired as part time I on E staff for project Role: Project Designer/Leader (Co-Principal Investigator) Percent FTE on project: 10.1%; at salary of of \$74,225, Time period: 1 year Of total: 75% dollars is salary and 25% dollars is benefits	\$ 10,012
Personnel: Len Kne, U Spatial, UMN Role: Coordinate Digital Mapping Percent FTE on project: 1%; at salary of of \$54,636, Time period: 1 year Of total: 75% dollars is salary and 25% dollars is benefits	\$ 730
Personnel: Student TBD, U Spatial, UMN Role: Set up Digital Mapping Percent FTE on project: 50%; at \$18.84 per hour. Time period: 8 weeks (summer) Of total: 81% dollars is salary and 19% dollars is benefits	\$ 3,711
Contracts: Video Producer: Audrey Favorito to create a 3-5 minute educational outreach video documenting the camp and featuring the children teaching the public about environmental issues.	\$ 4,000
Equipment/Tools/Supplies: Nature photography tool kit suitable for young children: Fifteen (15) digital kid-friendly cameras, associated USB cords for downloading photos, and rechargeable batteries and rechargers for cameras. Camera toolkit becomes part of the camp toolkit for repeats of camp in future years.	\$ 1,415
Acquisition (Fee Title or Permanent Easements):	\$ -
Travel: Field Trip site planning visits (one visit each location) and travel to field trip sites during camp for adults not included in covered bus travel. Total of 252 miles @ \$0.55 per mile. Based on distance from St. Paul Campus of University of Minnesota, location of camps as well as managing department.	\$ 139
Additional Budget Items: Printing costs for reports and for camp activities, based on 62\$ of general project printing needs and \$1400 for children's water journey books	\$ 1,462
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 25,138

V. OTHER FUNDS

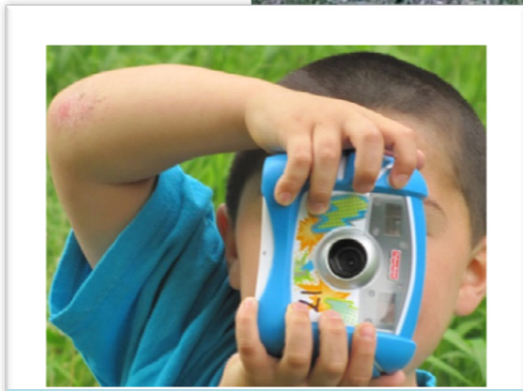
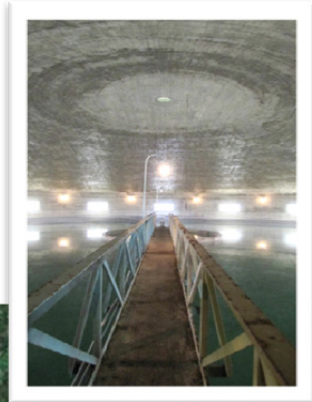
<u>SOURCE OF FUNDS</u>	<u>AMOUNT</u>	<u>Status</u>
Other Non-State \$ To Be Applied To Project During Project Period: Institute on the Environment committed summer student to do public communications on the project. (Undergrad student in summer for 12 weeks x 20/hrs wk x \$10/hr = \$2400)	\$ 2,400	<i>Secured</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>	NA	NA
In-kind Services To Be Applied To Project During Project Period: U of MN Recreation and Wellness Youth Camp contributed costs via camp fees for camp class instructor, bus trips, admission for riverboat, and miscellaneous supplies	\$ 3,120	<i>Secured</i>
In-kind Services To Be Applied To Project During Project Period: The University of Minnesota's Facilities and Administrative rate is 33% of modified total direct costs. The amount, if F&A expenses would have been allowed on the project, would be \$10,117. The University will provide office space, IT services, and administrative / financial services in support of the project.	\$ 10,117	<i>Secured</i>
Funding History:	NA	NA
Remaining \$ From Current ENRTF Appropriation:	NA	NA

Visual for: Water Journey Camps

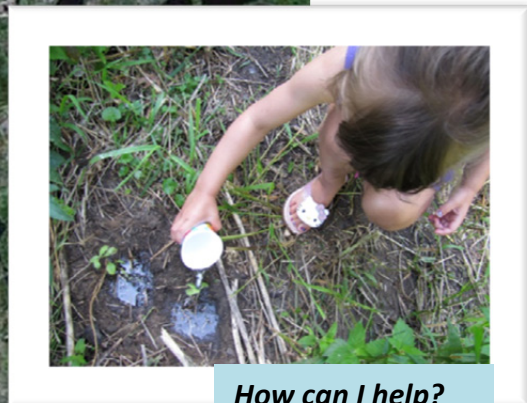
Children discovering how everything is connected as they touch the river, help the wetland, and tell their story.



From the River....



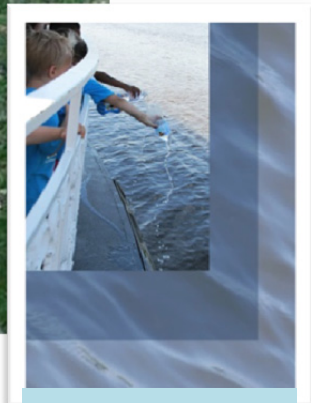
Where does the water come from?
Where does the water go?
[visual nature journals]



How can I help?
[service planting]



What happens to the water?
[wetland ecology exploration]



Back to the River.

Proposal Title: Water Journey Camps

PROJECT MANAGER QUALIFICATIONS AND ORGANIZATION DESCRIPTION

Project Manager Qualifications. Beth Mercer-Taylor, JD, is sustainability education coordinator for the Institute on the Environment, and will provide administrative oversight for the project, including managing the budget and personnel drawing on her experience in program planning, management of multi-institutional projects, sustainability education, and digital communication. Mercer-Taylor administers the Sustainability Studies Minor, an interdisciplinary, free-standing program with nearly 200 undergraduates enrolled. Her work involves recruiting and advising students, creating community-building activities, coordinating the efforts of the curriculum committee that oversees the minor's academic program, and leading new initiatives related to sustainability on campus.

Organizational Description. The University of Minnesota's Institute on the Environment (IonE) discovers solutions to Earth's most pressing environmental problems by conducting transformative research, developing the next generation of global leaders and building world-changing partnerships. IonE creates a synergistic environment for addressing issues that transcend any single discipline, program or institution by bringing together thought leaders from private and public sectors and the University. IonE catalyzes innovative activities aimed at creating technically, socially and economically sound solutions. IonE will coordinate community engagement, manage staff and contracts and prepare materials for the engagement processes.

Qualifications of partners.

Jonee Kulman Brigham, AIA, LEED AP, is an Institute on the Environment (IonE) Resident Fellow and Research Fellow at the Center for Sustainable Building Research. She will join IonE to coordinate program design drawing on her experience as developer of the Earth Systems Journey curricular model, and its prior applications, as well as her experience with sustainable architecture analysis, education, and communication. Brigham is faculty for the Master of Science - Sustainable Design Track at the College of Design. She leads CSBR's work in the area of Green Schools and Environmental Education and serves on the Steering Committee for the Minnesota Green Schools Coalition program of the US Green Building Council – Minnesota Chapter. Brigham's technical knowledge and experience with green building includes prior environmental consulting and research and role as co-editor of the B3 State of Minnesota Sustainable Building Guidelines.

Len Kne, GISP, brings extensive experience with GIS, data collection, and database design to the project. He is the Associate Director of U-Spatial, a center at the University of Minnesota providing support for spatial research, as well as on the faculty of the Master of Geographic Information Science program. He has been a GIS and Information Technology project manager for government organizations and in private industry. He has the skills necessary to develop map based data collection, help train data collectors, and provide spatial analysis from primary and secondary data sources.

Venessa Fiedler, Youth Programs & Lifetime Sports Coordinator, will coordinate the integration of the project with the youth summer program structure.

Audrey Robinson Favorito is a digital media producer specializing in animation and custom short videos. She is an experienced producer in all forms of commercial animation. Parallel to her commercial animation work, Audrey focuses on video memoirs and environmental education. Her video production projects include: "Stories from the University of Minnesota Solar Decathlon" and "What is Citizen Science?" for the U of MN Conservation Biology Department. She has also received U of MN training as a youth citizen science leader.