Environment and Natural Resources Trust Fund
2014 Request for Proposals (RFP)

Project Title: **ENRTF ID:**   075-C

Engaging Youth With Nature Through Mobile Technology

Category: C. Environmental Education

Total Project Budget: $ 362,000

Proposed Project Time Period for the Funding Requested: 3 Years, July 2014 - June 2017

Summary:

Recruit and train 1,200 adults statewide to engage 30,000 youth in 4-H/ other non-formal learning programs, using mobile technology to explore nature, enhance youth's skills, and build a conservation ethic.

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Sponsoring Organization: U of MN

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Location

Region: Statewide

County Name: Statewide

City / Township:

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

PROJECT TITLE: Engaging Youth With Nature Through Mobile Technology

I. PROJECT STATEMENT
1. This project will engage youth in grades 3-12 in 4-H and other non-formal learning programs, using photography-based mobile technology to explore nature and wildlife. It will recruit and train 1200 adults across the state to engage 30,000 young people in learning experiences that build on use of digital technology such as smart phone/mobile apps, Web 2.0 tools, tablets, and more, enhancing youth technology skills and building a conservation ethic. It will also offer older teens the opportunity to deepen their skills and serve as teen leaders/teachers within their local programs. The statewide presence of 4-H will allow the outreach to thousands of young people who may not presently be involved in 4-H or other youth programs, as well as the opportunity to build new partnerships between youth organizations, schools, and communities. Research indicates that young people are less engaged in the natural world (and more engaged with technology and "screen time") than in decades past, creating the potential for our future leaders and citizens to be disengaged from the environment. Utilizing youth interest in technology, the statewide network of Minnesota 4-H programs, its strength at training and supporting volunteers, and its partnerships with other youth organizations such as after school programs, libraries, parks departments, etc. this project offers the opportunity to reach thousands of new young people with learning experiences that will: teach photo composition and utilize the vast array of capabilities of digital technology, support youth interaction with the natural environment and wildlife, and help youth determine personal responsibility in taking action to care for the environment. An emphasis will be placed on Increasing 4-H's engagement of underserved/underrepresented youth in our programs by targeted efforts/staffing in key urban areas of the our state (7-county metro, St. Cloud, Duluth) and with northern MN tribal communities. This project integrates the successful *Digital Photography Bridge to Nature* DNR implementation model with MN 4-H's model of experiential, inquiry-based science and technology learning. Learning experiences will meet national and state science standards. 4-H is equipped to reach these goals due to its statewide, volunteer-driven reach, with over 8600 youth engaged in the Photography project. This new initiative utilizes project activities as detailed below:

II. DESCRIPTION OF PROJECT ACTIVITIES
Activity 1: Train youth program staff, volunteer leaders and teachers**.   Budget for Act. 1 & 2:** $348,500
Description: Statewide training workshops for youth program staff/teen & adult volunteers/ on utilizing mobile technology (cameras, apps, etc.) to engage young people in nature and environmental stewardship.

Outcome	Completion Date
1. Conduct 140 training workshops throughout MN, reaching 1200 adults/teen leaders.	June 30, 2017
2. Recruit 64 new volunteers to lead 4-H Photography learning experiences.	June 30, 2017

Activity 2: Facilitate youth learning experiences.   **Budget for Act. 1 & 2: $348,500**
Description: Trained facilitators and 4-H volunteers will engage youth (grades 3-12th) in learning experiences for a minimum of 4 hours each. Utilize cameras, mobile media such as tablets, smart phone apps, and Web 2.0 tools to support learning activities: photo composition and utilizing vast array of capabilities of digital technology, interaction with natural environment and wildlife, determining personal responsibility and taking action in caring for the environment.

Outcome	Completion Date
1. Facilitators and 4-H volunteers will provide a minimum of 4 hours of learning experiences for each youth. 10,000 youth will be reached in Year 1 (2000 per region in each of 5 regions throughout MN). 10,000 additional youth reached in years 2 & 3 for total of 30,000.	June 30, 2017

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2. Twenty two (22) counties (4-5 per region throughout MN) will begin or enhance a 4-H Photography/digital media project clubs, offering yearlong, min. of 20 hours of hands-on learning with digital tools in nature. Each club will provide service to their local community that addresses an environmental topic/issue in the community. Additional 10 counties will establish project clubs in year 3.	May 30, 2017
3. Establish volunteer-driven program leadership teams for Photography/Digital Media project in 10 counties (2 in each region) across MN through 4-H networks in Year 1 & 2. Additional 5 counties will establish program leadership teams in Year 3.	May 30, 2017

Activity 3: Advanced Mobile Technology Workshop for youth leaders   **Budget**: $13,500
Description: Advanced workshop for 6th-12th gr. youth leaders to build and deepen knowledge of mobile technology and environmental stewardship, and leadership skills, to serve as volunteer teen teachers in their local counties.

Outcome	Completion Date
1. Engage 30 youth in 3 day Advanced Mobile Technology Workshops in years 2 & 3 (60 total), utilizing MN State Park facilities.	Dec. 2016
2. Youth participants will increase skills, knowledge and conservation attitudes as indicated by 4-H Youth Engagement, Attitudes and Knowledge Survey, or other evaluation strategies.	June 2017

Activity 4: Showcase youth learning and provide public recognition.   **Budget: ($0 from ENRTF)**
Description: Provide local and statewide opportunities to showcase learning and offer recognition through 4-H networks, at the Minnesota State Fair, and with partner organizations, such as the DNR.

Outcome	Completion Date
1. Project clubs/groups will showcase their work in the community during the year. (Yearly showcase each of 3 years).	June 2017
2. Offer opportunity for youth to showcase their work and receive recognition in the 4-H building and DNR building at the MN State Fair (Years 1, 2 & 3)	Sept. 2016
3. Showcase youth work on the MN 4-H website (www.mn4h.org).	June 2017

III. PROJECT STRATEGY
A. Project Team/Partners
The Center for Youth Development-4-H, DNR (Carroll Henderson), Carol Skelly, retired Extension staff (project manager); Steve Manuum, current State Coordinator of DPBTN, State Parks (workshop spaces) current DPBTN trainers (expertise/lesson materials, training), Nat. Camera Exchange (Mike LaMotte) - Tamron Lens (Jillian Bell)- technical expertise and resources. (Pending proposed partners- MN Nature Photo. Club, UM Depts. of Fish, Wildlife & Conserv. Biology. (Local Soil and Water conservation/Watershed districts, Parks staff).

B. Timeline Requirements
Hire two project managers/trainers (greater MN and metro) and seven regional trainers; recruit/train volunteers by Sept. 30, 2014. Project activities and evaluation ongoing thru June 30, 2017. 3 year timeline is needed to support 2 full 4-H program years (Oct 1-Sept 30).

C. Long-Term Strategy and Future Funding Needs
Project will continue beyond this grant cycle to fully utilize the photo equipment purchased and volunteer network created. Expanding learning experiences and ensuring volunteer-driven leadership will support long term growth of learning opportunities. Resource development to fund changing technology needs is a priority strategy. Research and evaluation findings and best practices will be shared throughout the national 4-H network and other interested organizations.

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2014 Detailed Project Budget

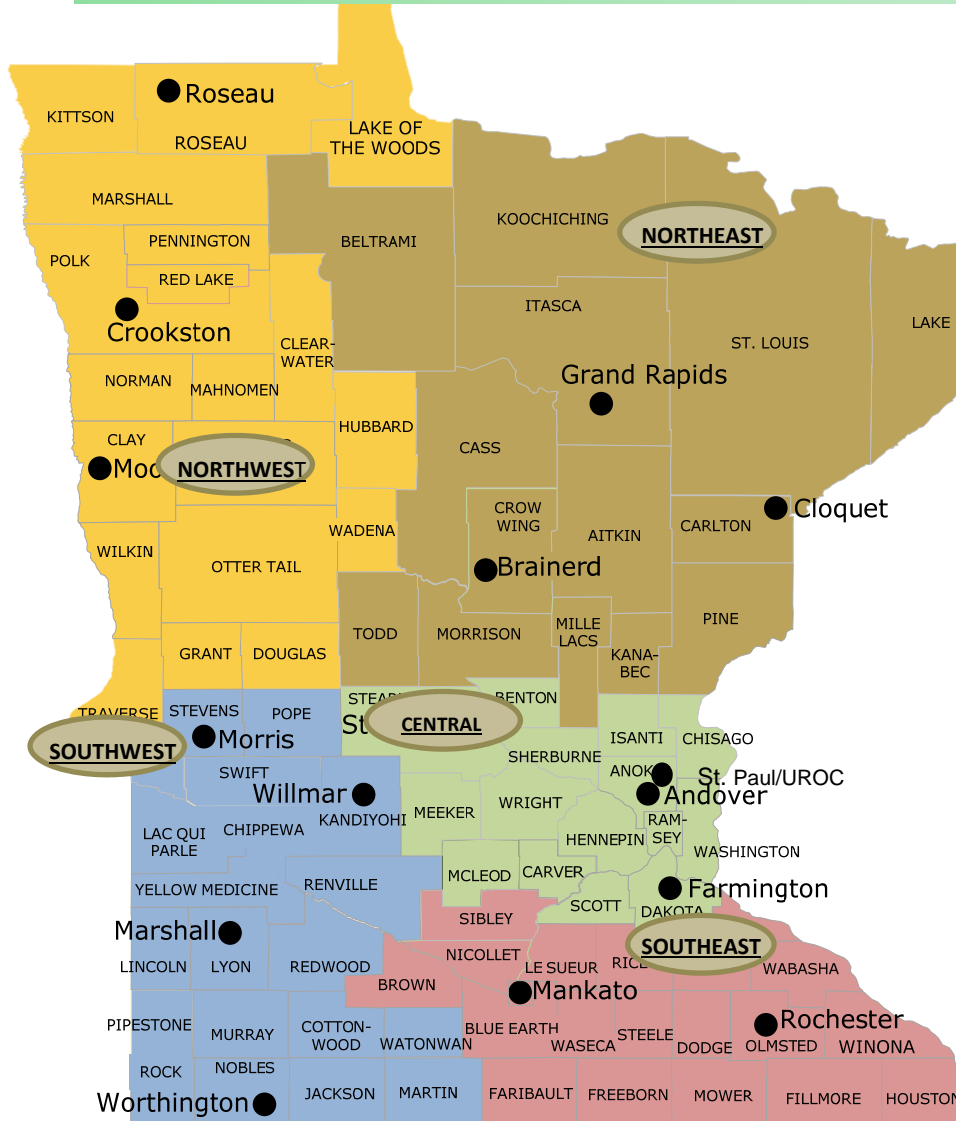**Project Title: Engaging Youth with Nature Through Mobile Technology**

IV. TOTAL ENRTF REQUEST BUDGET *3* years

BUDGET ITEM	AMOUNT	
Contracts: Professional-technical: Contracts for two project managers/workshop coordinators	$	140,000
Other contracts: 7 regional trainers to deliver 140 trainings/lead regional work/technical support for those who attend training workshops-TBD	$	121,500
Other contracts: 25 regional volunteer leaders to teach workshops with youth, build local program opportunities, establish local/county partnerships, develop opportunities for public showcasing/recognition of youth efforts.	$	75,000
Equipment/Tools/Supplies: Supplies for workshops/teaching materials, reference materials, 4-H photography project learning books, digital apps such as NatureTap, etc.	$	9,000
Travel: key volunteers to attend statewide training workshop year 3	$	3,000
Additional Budget Items: facility costs for Advanced Mobile Technology Workshop experience for youth leaders (est.60 youth @ $225) yr 2&3	$	13,500
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND $ REQUEST =	$	362,000

V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Other Non-State $ Being Applied to Project During Project Period: Advanced cameras: National Camera Exchange; iPads: MN 4-H Foundation donors	$ 11,000	*Pending*
Other State $ Being Applied to Project During Project Period: Participant paid--Camp Registration fees (yr. 2 & 3) Program Income	$ 12,000	*Pending*
In-kind Services During Project Period: Anne Stevenson PI-grant mgmt. .05 FTE cost share	$ 13,813	*Secured*
Extension Educator Evaluator- cost share	$ 9,039	*Secured*
Marketing/Promotion –staff services, printing, web resources	$ 10,000	*Pending*
DNR staff support: Carrol Henderson and Jan Welsh 5% each	$ 8,500	*Secured*
Digital Camera Kits, DNR. Utilizes previous Trust fund & other investment of cameras/learning trunks.	$ 40,000	*Secured*
Digital Camera Kits from 4-H Foundation.	$ 4,807	*Secured*
Funding History: ENRTF funds of $160,000 in 2010-12 for "Digital Photography Bridge to Nature". Donations of an additional $46,000 secured by DNR and 4-H for cameras and equipment . This proposal, "Engaging Youth with Nature Through Mobile Technology" expands on the previous project and will utilize all cameras and resources purchased for the project.	$ 210,000	

Engaging Youth With Nature Through Mobile Technology
offered in every region in the state
in University of Minnesota Extension regions

Engaging Youth with Nature Through Mobile Technology will utilize 1-2 regional trainers and 5 volunteer leaders in each of the U of MN Extension's 5 Regions.

Each trainer will work directly with the volunteer leaders, as well as other adults, to engage youth in every region of the state through the MN 4-H Program and other non-formal youth programs.

Project Manager Qualifications and Organizational Description- Univ. of MN Extension 4-H Youth Development Project: Engaging Youth in Conservation-Mobile Technology in Nature

Project Manager Qualifications:

Anne Stevenson is an Extension Educator and Extension Professor with the Univ. of MN Extension Center for Youth Development. Anne had worked as an Extension Educator in 4-H Youth Development for 22 years. Anne holds a Master of Science degree in Training and Information Media from St. Cloud State University.

Anne serves on the state 4-H Science Team, recently completing two years as co-chair. Her areas of focus include Volunteer Systems Development, educational design and development, inquiry-based learning, and experiential learning. She regularly teaches workshops and webinars for adults on inquiry-based science. She leads MN 4-H's program development for the Photography/Digital Media project area.

Areas of responsibility for grant proposal: Anne will serve as PI and lead the team including project coordinators and partner organizations in fulfilling the goals of the grant. She will collaborate with the Evaluation Specialist in creating the evaluation plan for the project. She will convene meetings with team and partners, ensuring essential communication is maintained. She will work with partners and the MN 4-H Foundation to secure additional funds, particularly for equipment for the project. She will give leadership to ensure all reporting requirements for the grant are met.

Organization Description:

MN 4-H is the youth-development program of the Univ. of MN Extension, an essential outreach "arm" of the land-grant Univ. of MN. 4-H is Minnesota's largest youth organization, reaching over 150,000 MN young people each year. Youth in kindergarten through one year post-HS can be involved in 4-H, through community, project or afterschool clubs, through short term learning experiences, camps and other opportunities. 4-H utilizes thousands of volunteers who work with the young people. Extension staff work in every county in MN as well as at 15 regional offices. 4-H is part of the nationwide Extension/land grant institution network, and utilizes the research base of these institutions to advance the field of youth development. Nationally, 4-H has 3 mission mandates: Science, Technology, Engineering and applied Math; Healthy Living, and Leadership/Citizenship. MN 4-H focuses its Science efforts on 4 areas: Robotics, Aquatic Robotics, Engineering Design, and Photography/Digital Media.