



Environment and Natural Resources Trust Fund

M.L. 2020 Approved Work Plan

General Information

ID Number: 2020-041

Staff Lead: Rory Anderson

Date this document submitted to LCCMR: August 13, 2021

Project Title: Minnesota Freshwater Quest: Environmental Education On State Waterways

Project Budget: \$500,000

Project Manager Information

Name: Julie Edmiston

Organization: Wilderness Inquiry

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Project Reporting

Date Work Plan Approved by LCCMR: August 13, 2021

Reporting Schedule: April 1 / October 1 of each year.

Project Completion: June 30, 2024

Final Report Due Date: August 14, 2024

Legal Information

Legal Citation: M.L. 2021, First Special Session, Chp. 6, Art. 5, Sec. 2, Subd. 05b

Appropriation Language: \$500,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Wilderness Inquiry for approximately 10,000 underserved Minnesota youth to explore and improve local waterways using the place-based and hands-on Minnesota Freshwater Quest environmental education program.

Appropriation End Date: June 30, 2024

Narrative

Project Summary: 10,000 diverse and underserved Minnesota youth (grades 6-12) participate in place-based, STEM environmental education to explore and preserve local ecosystems and waterways through the Minnesota Freshwater Quest online program.

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

Research shows that direct experiences in nature as a child are the primary determinant in developing a stewardship ethic as an adult (White, 2006). Unfortunately many youth of color, youth with disabilities, and youth living in urban and rural areas are prevented from accessing these experiences due to financial, geographic, and experience-based barriers. As a result, there is an opportunity gap for youth to experience the outdoors and develop an ethic to protect, preserve, and enhance Minnesota's natural resources.

Wilderness Inquiry seeks to address this challenge through the Minnesota Freshwater Quest, a project linking hands-on field experiences to classroom learning to provide environmental education and stewardship opportunities. This project increases the ability of 10,000 Minnesota students to access and participate in engaged learning in and outside the classroom.

The ENRTF was created to invest in programs that maintain and enhance Minnesota's natural resources by promoting and protecting water resources, exploring and limiting the impact of invasive species, preserving our public lands and natural habitats, and more.

Investing in the future champions of our state's wild spaces bridges the opportunity gap and connects youth to the actions and practices that promote the values of the ENRTF.

What is your proposed solution to the problem or opportunity discussed above? i.e. What are you seeking funding to do? You will be asked to expand on this in Activities and Milestones.

Minnesota Freshwater Quest is a project-based learning tool that connects youth to information about threatened species and ecosystems that impact their local community. Whole classrooms explore diverse habitats close to home, experience place-based environmental education while paddling in 24' Voyageur canoes, collect water quality data, and complete youth-led projects to improve their local ecosystem. This project is well suited for distanced learning during COVID-19 as students can participate remotely while still benefiting from outdoor engagement tied to in-school learning.

This proposal is for a project in the 2020 funding cycle and will connect 10,000 Minnesota youth to environmental education using the Freshwater Quest. Support from the ENRTF will engage youth from diverse backgrounds statewide in outdoor experiences that build a conservation ethic.

Through place-based environmental education and hands-on learning in the outdoors, this project will serve communities in every region of Minnesota, develop a statewide network of broad-based partnerships, and implement the Freshwater Quest for 10,000 youth to develop as future stewards of Minnesota's natural resources. Investing in the next generation of nature lovers is key to preserving our state's outdoor economy and the vibrancy and health of our environment and residents.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

This project will:

* Connect 10,000 diverse and underserved students to educational outdoor experiences, investing in youth to cultivate a sustainable lifestyle and maintain a healthy natural environment.

8/19/2021

- * Improve water quality in local waterways through education, data collection, and real-world projects implemented by youth.
- * Integrate hands-on science and environmental education activities into classroom learning. The Freshwater Quest is an existing framework that aligns with school science curriculum.
- * Develop a network of partners including schools, educators, parents, state and local governments, environmental learning programs, and local outdoor clubs, all invested in the development of Minnesota's next generation of environmental stewards.

Project Location

What is the best scale for describing where your work will take place?

Statewide

What is the best scale to describe the area impacted by your work?

Statewide

When will the work impact occur?

During the Project and In the Future

Activities and Milestones

Activity 1: 10,000 Minnesota Youth Experience Place-based Environmental Education on Minnesota Waterways

Activity Budget: \$500,000

Activity Description:

The Minnesota Freshwater Quest delivers environmental education through classroom-based instruction and hands-on learning in the outdoors. The Freshwater Quest enhances the learning experience, supporting teachers and students through guided exploration of local ecosystems while pairing environmental education with in-school learning. The proposed project will deliver the Freshwater Quest to educators and learners across the state. Classroom learning and use of the tool is enhanced by Wilderness Inquiry's place-based environmental education programs, engaging youth in activities that include paddling in 24' Voyageur canoes on local waterways, water quality testing, macroinvertebrate collection, and more. Wilderness Inquiry provides environmental education in the outdoors as part of the Freshwater Quest, reaching schools in all regions of the state, including Alexandria, Brainerd, Grand Lake, Grand Rapids, Mankato, Saint Cloud, Thief River Falls, and the Twin Cities region.

Through the Minnesota Freshwater Quest:

- * Teachers register their classroom at <https://herofortheplanet.org/mnquest/>.
- * Students learn about species that are endangered in their local ecosystem and "adopt" a species.
- * Students participate in an outdoor, day-long environmental education experience on a local waterway, learning about their watershed and the health of the ecosystem.
- * Classrooms develop a project that improves the local watershed and positively impacts their chosen species.

Activity Milestones:

| Description | Completion Date |
|---|--------------------|
| Minnesota Freshwater Quest disseminated as an environmental learning tool to 40 Minnesota school districts. | September 30, 2022 |
| 25 educators participate in a training workshop on the Freshwater Quest and STEM curriculum integration. | October 31, 2022 |
| 25 classrooms/educators register for the Freshwater Quest. | October 31, 2022 |
| 10,000 diverse youth participate in environmental education programming on a local waterway. | December 31, 2022 |
| Water quality data is entered through the Freshwater Quest and disseminated through GLOBE. | December 31, 2022 |

Project Partners and Collaborators

| Name | Organization | Role | Receiving Funds |
|------------------------------------|---|--|-----------------|
| John Anfinson | National Park Service (NPS) | NPS provides in-kind support of staff time and materials for program implementation along the Mississippi National River and Recreation Area. | No |
| Erika Rivers | Minnesota Department of Natural Resources (DNR) | The Minnesota DNR is a key partner in program implementation as Wilderness Inquiry programs utilize public lands such as state parks, waterways, and trails. | No |
| Educators, teachers and principals | Minnesota School Districts | In addition to sharing the online Minnesota Freshwater Quest with all school districts throughout the state, this project directly engages schools and districts in hands-on outdoor learning. | No |
| Leesa Carter-Jones | Captain Planet Foundation | With Wilderness Inquiry, Captain Planet Foundation tailored the Freshwater Quest to Minnesota waterways and is now committed to launching across the state. Captain Planet Foundation has pledged \$25,000 to fund watershed improvement projects in Minnesota through the Freshwater Quest. | No |

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.

Project updates will be shared with diverse stakeholders through print and web based updates such as annual reports, Wilderness Inquiry blogs, Freshwater Quest website highlights, and more. In addition, Wilderness Inquiry will work with partners such as the Minnesota Department of Education and present at various conferences to disseminate resources and opportunities for engagement and training.

The Minnesota Environment and Natural Resources Trust Fund (ENRTF) will be acknowledged through use of the trust fund logo or attribution language on project print and electronic media, publications, signage, and other communications per the ENRTF Acknowledgement Guidelines.

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this be funded?

The Minnesota Freshwater Quest is implemented in partnership with educators and parents as a place-based environmental education platform. ENRTF funds will provide for implementation to launch the Freshwater Quest statewide. With support from ENRTF, this project builds the network of partnerships for the Freshwater Quest to reach every Minnesota school district and provides environmental education and hands-on learning experiences for 10,000 Minnesota youth. Wilderness Inquiry is committed to enhancing and expanding the Freshwater Quest over time with public and private long-term funding sources, such as the Environmental Protection Agency, USDA Forest Service, Department of Education, foundations, corporations, and individuals.

Other ENRTF Appropriations Awarded in the Last Six Years

| Name | Appropriation | Amount Awarded |
|--|--|----------------|
| Urban Environmental Education Engaging Students in Local Resources | M.L. 2014, Chp. 226, Sec. 2, Subd. 09c | \$1,093,000 |

| | | |
|--|---------------------------------------|-------------|
| Connecting Youth to Minnesota Waterways through Outdoor Classrooms | M.L. 2017, Chp. 96, Sec. 2, Subd. 05a | \$1,200,000 |
|--|---------------------------------------|-------------|

Budget Summary

| Category / Name | Subcategory or Type | Description | Purpose | Gen. Ineligible | % Benefits | # FTE | Classified Staff? | \$ Amount |
|--|--|--|---------|-----------------|------------|-------|-------------------|------------------|
| Personnel | | | | | | | | |
| Operations Director | | Oversees operational elements of the project, including logistics, gear, equipment, staffing, etc. | | | 0% | 0.98 | | \$78,000 |
| Program Coordinator | | Oversees teacher training, curriculum support and program coordination. | | | 0% | 1.13 | | \$45,000 |
| Marketing Manager | | Leads outreach to schools/districts for student recruitment; communicates program impact to partners/funders. | | | 0% | 1.13 | | \$45,000 |
| Part-time warehouse staff (multiple personnel) | | Warehouse and logistical support, canoe and inventory maintenance and repairs. | | | 0% | 1.8 | | \$62,100 |
| Finance and Administration Coordinator | | Coordinates project administration including payroll, finances and staff reimbursements. | | | 0% | 0.75 | | \$26,250 |
| Outdoor Leaders (multiple personnel) | | Trail Staff and leaders of on-the-ground programming and work with youth. | | | 0% | 9 | | \$121,550 |
| Program Manager | | Manages implementation of the Freshwater Quest, program development and design, and outreach to educators. | | | 0% | 1.13 | | \$56,250 |
| | | | | | | | Sub Total | \$434,150 |
| Contracts and Services | | | | | | | | |
| Teachers (multiple) | Sub award | Sub-award stipends to teachers to support training, supplies, and materials for youth-led environmental education projects. 25 teacher grants x \$200/grant = \$5,000. | | | | 0 | | \$5,000 |
| TBD | Professional or Technical Service Contract | Contract for project evaluation to demonstrate success of implementation of the Freshwater Quest throughout the state. Contracts selected through a competitive bidding process. | | | | 0.15 | | \$5,000 |
| | | | | | | | Sub Total | \$10,000 |

| | | | | | | | | |
|---------------------------------------|-----------------------|--|--|--|--|--|------------------|-----------------|
| Equipment, Tools, and Supplies | | | | | | | | |
| | Tools and Supplies | EcoSTEM water quality testing kits and species identification materials (6 kits x \$700 = \$4,200). | Environmental education supplies needed to conduct direct programming with youth. | | | | | \$4,200 |
| | Tools and Supplies | Teacher training materials | Materials and supplies to conduct teacher training on project implementation and the Minnesota Freshwater Quest. | | | | | \$1,150 |
| | Equipment | Environmental education program equipment for hands-on experiences (includes PFDs, paddles, first aid supplies, and other outdoor gear). | Equipment needed for direct environmental education programming with youth. | | | | | \$11,000 |
| | Equipment | Equipment maintenance and repair - this program primarily utilizes existing equipment such as 24' foot Voyageur canoes, however these require annual maintenance and repair to use safely across the state (\$10,000). | Maintenance needed to keep equipment safe for direct environmental education programming with youth. | | | | | \$10,000 |
| | | | | | | | Sub Total | \$26,350 |
| Capital Expenditures | | | | | | | | |
| | | | | | | | Sub Total | - |
| Acquisitions and Stewardship | | | | | | | | |
| | | | | | | | Sub Total | - |
| Travel In Minnesota | | | | | | | | |
| | Other | Student transportation and busing | When needed, and in order to make programming accessible to youth from low-income backgrounds, Wilderness Inquiry assists with student buses to program locations near the school. (\$300/day x 50 events = \$15,000). | | | | | \$15,000 |
| | Miles/ Meals/ Lodging | Transportation for Wilderness Inquiry staff to deliver environmental education events across the state via van with trailer and boats (125 events x avg. 200 miles round trip x .58 = \$14,500). | In order to deliver environmental education programming, Wilderness Inquiry staff must travel across the state (with boats and equipment) in | | | | | \$14,500 |

| | | | | | | | | |
|---------------------------------|--|--|---|--|--|--|--------------------|------------------|
| | | | order to reach students in the communities where they live. | | | | | |
| | | | | | | | Sub Total | \$29,500 |
| Travel Outside Minnesota | | | | | | | | |
| | | | | | | | Sub Total | - |
| Printing and Publication | | | | | | | | |
| | | | | | | | Sub Total | - |
| Other Expenses | | | | | | | | |
| | | | | | | | Sub Total | - |
| | | | | | | | Grand Total | \$500,000 |

Classified Staff or Generally Ineligible Expenses

| Category/Name | Subcategory or Type | Description | Justification Ineligible Expense or Classified Staff Request |
|---------------|---------------------|-------------|--|
|---------------|---------------------|-------------|--|

Non ENRTF Funds

| Category | Specific Source | Use | Status | Amount |
|------------------|---|--|----------------------------|------------------|
| State | | | | |
| | | | State Sub Total | - |
| Non-State | | | | |
| Cash | Minneapolis Foundation | Funds for curriculum/resource development that supports this project. | Secured | \$16,000 |
| Cash | REI Foundation | Funds for curriculum/resource development that supports this project. | Secured | \$13,500 |
| Cash | Captain Planet Foundation | Mini-grants for Minnesota schools to participate - these funds go directly to teachers/students for use in implementing youth-led projects developed through the Freshwater Quest. | Secured | \$25,000 |
| Cash | Minnesota Public School Districts | When able, school districts and schools contribute a small amount of fee for service funding to support Canoemobile programs in their community. Additionally, school districts and teachers contribute valuable time and resources to this project through staffing field trips/place-based programming, providing substitute teachers, recruiting and contacting students, guiding students through the Freshwater Quest, and planning and prep time. | Pending | \$70,000 |
| In-Kind | National Park Service (NPS) | NPS provides program staff and Rangers in-kind to support programs, deliver educational materials, and guide students through place-based environmental education lessons. | Secured | \$40,000 |
| In-Kind | Minnesota Department of Natural Resources (DNR) | The Minnesota DNR provides program staff and in-kind to support programs, deliver educational materials, and guide students through place-based environmental education lessons. | Secured | \$16,000 |
| In-Kind | Wilderness Inquiry | Wilderness Inquiry will contribute the following in-kind support to this project: staff benefits; additional staff support including from the Executive Director and Program Director; equipment and facilities; staff food and lodging; insurance; additional teacher stipends. | Secured | \$93,000 |
| | | | Non State Sub Total | \$273,500 |
| | | | Funds Total | \$273,500 |

Attachments

Required Attachments

Visual Component

File: [b302c1cc-ced.pdf](#)

Alternate Text for Visual Component

A visual representation of Canoemobile in action and a quick overview of the Minnesota Freshwater Quest...

Financial Capacity

File: [8db19ab5-5a5.pdf](#)

Board Resolution or Letter

| Title | File |
|--------------------------------------|----------------------------------|
| WI Board Resolution for LCCMR - 2020 | 7074936e-d56.pdf |

Optional Attachments

Support Letter or Other

| Title | File |
|--|----------------------------------|
| WI LCCMR Letter of Support - National Park Service | d0a0bf5b-5db.pdf |
| Background Check Certification Form - Wilderness Inquiry | d3dcfaf0-a93.pdf |

Media Links

| Title | Link |
|-------------------------------------|---|
| Minnesota Freshwater Quest homepage | https://herofortheplanet.org/quests/minnesota-freshwater-quest/ |

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage

The original workplan was submitted for a 3-year project and a \$1.432 million budget. Updates to the budget are to match the appropriation amount of \$500,000 for this project. Updates to the workplan account for that reduced budget, as well as the timing/delay in beginning the project due to legislative delays. Specific changes include reducing the goal number of youth served from 30,000 to 10,000 (this change was made throughout the workplan and matches the budget reduction).

Under 'activities and milestones', we adjusted the youth served, as well as the number of educators trained and classrooms registered to 25 each. As we have implemented the Freshwater Quest as a distanced learning tool through COVID-19, we have already had a number of teachers/classrooms register that will subsequently participate in Quest programming through this project. Additionally, we have seen other positive avenues to implementation, including working directly with families and other groups to implement the Quest with students.

Under the budget, we changed one staff position from a Program Coordinator role to a Marketing Manager role. The Marketing Manager will assist in outreach to districts, educators, and families to recruit participants, as well as help share the impact of the program with partners, funders and the community.

Additional Acknowledgements and Conditions:

The following are acknowledgements and conditions beyond those already included in the above workplan:

Do you understand and acknowledge the ENRTF repayment requirements if the use of capital equipment changes?

N/A

Do you agree travel expenses must follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

Yes, I agree to the Commissioner's Plan.

Does your project have potential for royalties, copyrights, patents, or sale of products and assets?

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

N/A

Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

No



Wilderness Inquiry

Minnesota Freshwater Quest



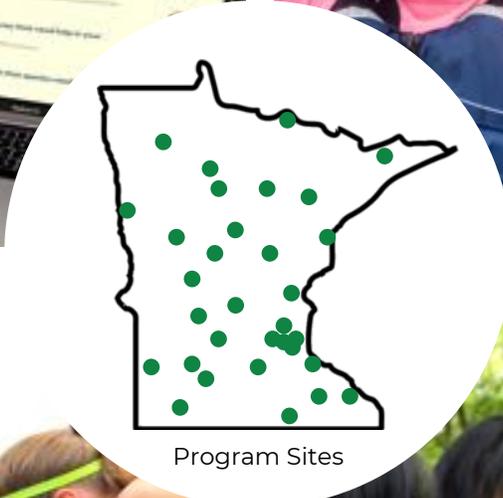
Connect 30,000 diverse MN students to outdoor experiences that increase environmental stewardship.



Improve water quality through education, data collection, and student-led projects.



Integrate hands-on science and environmental education into classroom learning.



Program Sites



