

# Final Abstract

Final Report Approved on December 5, 2025

## M.L. 2022 Project Abstract

For the Period Ending June 30, 2025

**Project Title:** Teacher Field School: Stewardship through Nature-Based Education

**Project Manager:** Patty Born

**Affiliation:** Hamline University

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**Website:** <https://www.hamline.edu/>

**Funding Source:**

**Fiscal Year:**

**Legal Citation:** M.L. 2022, Chp. 94, Sec. 2, Subd. 05a

**Appropriation Amount:** \$500,000

**Amount Spent:** \$395,806

**Amount Remaining:** \$104,194

### Sound bite of Project Outcomes and Results

The project reached 57 teachers across 6 districts who have collectively impacted over 6700 students. Our research suggested teachers feel more confident, comfortable and capable of using nature for multidisciplinary, standards-aligned lessons outdoors. They are connecting their students to nature and increasing classroom engagement as well as seeing behavioral improvements.

### Overall Project Outcome and Results

Most young people spend 1000+ hours annually in schools, a clear opportunity to develop students' stewardship orientation through preparation of teachers to engage in nature-based approaches that support conservation mindsets. We developed a retreat series that addresses most of the gaps in existing teacher professional development that meets this need.

Our goals included creating effective, standards-aligned supports for teachers to use nature as a context for helping their students reach academic goals, develop conservation ethics and stewardship and foster a sense of place. We conducted focus groups and learned that most of our participants feel connected to nature and feel confident in using nature as a context in which to teach their already-existing curriculum, leading to more engaged students overall.

Teachers were able to apply the activities and lessons practiced during retreats to their own settings, be they urban, suburban, or rural schools.

We worked with 57 teachers from 6 different school districts. 4 congressional districts. Schools served are in MN Senate districts 43, 03, 66, 56, 65; and House districts 43B, 03B, 66A, 56A, and 65B. Using the multiplier effect, where each teacher can be assumed to reach 25 students per year, it is safe to assume these teachers will reach approximately 6750 students over a 5 year period.

At least 8 of the teachers who participated in the retreats over the project's duration have gone on to have a greater impact such as through developing professional learning communities at their own schools, presenting at conferences, etc. Teachers continue to report improved social emotional outcomes for their students. The project continues to inform our next phase where we will begin training teacher-leaders who will have a more structured mentorship role, enabling the work to reach more students and increase MN students' conservation ethics and pro-environment behaviors.

### **Project Results Use and Dissemination**

The team delivered poster presentations and sessions at two conferences, a course was developed at Hamline University on nature-based education, and we have included several photos for your pleasure. We also received media coverage which has been shared widely. You will also see the webpage dedicated to Hamline's certificate on Nature-based education, which was launched as a result of this project and which has already served 30 additional teachers who have enrolled in the course or certificate. Demand remains high: we currently have a waitlist of over 230 teachers who wish to participate in retreats or workshops.



## Environment and Natural Resources Trust Fund

M.L. 2022 Approved Final Report

### General Information

**Date:** December 9, 2025

**ID Number:** 2022-026

**Staff Lead:** Tiffany Schaufler

**Project Title:** Teacher Field School: Stewardship through Nature-Based Education

**Project Budget:** \$500,000

### Project Manager Information

**Name:** Patty Born

**Organization:** Hamline University

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**Email:** pselly01@hamline.edu

**Web Address:** <https://www.hamline.edu/>

### Project Reporting

**Final Report Approved:** December 5, 2025

**Reporting Status:** Project Completed

**Date of Last Action:** December 5, 2025

**Project Completion:** June 30, 2025

### Legal Information

**Legal Citation:** M.L. 2022, Chp. 94, Sec. 2, Subd. 05a

**Appropriation Language:** \$500,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Hamline University to create an immersive, research-backed field school for teachers to use nature-based education to benefit student well-being and academic outcomes while increasing stewardship habits.

**Appropriation End Date:** June 30, 2025

## Narrative

**Project Summary:** We create an immersive, research-backed field school addressing a gap in teachers' preparedness and willingness to use nature-based education to benefit student well-being and academic outcomes while increasing stewardship habits.

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

Nature centers host short field trips that, while meaningful, seldom result in lasting educational outcomes. Most young people spend 1000+ hours annually in school, a clear opportunity to develop students' stewardship orientation by coupling academics with nature-based experiences. However, teachers identify lack of skills, knowledge, and confidence as barriers to teaching with nature. Existing training: 1) is too short to provide adequate content knowledge and confidence; 2) focuses on either content or pedagogy, missing teachers' need to practice nature-based approaches within their subjects; 3) ignores interdisciplinary learning opportunities, and 4) lacks explicit connections to standards, making it unlikely to be implemented. Students who are disconnected from nature become adults disinterested in supporting natural resource investments.

Immersive Nature-Based Education (NBE) supports positive educational outcomes by enhancing: intellectual, physical and mental health, conservation ethics, subject matter relevance, connection across disciplines, particularly for those most at risk.

NBE can be used across urban, rural, suburban, and wilderness settings once teachers are equipped with skills, knowledge, and confidence. It connects academic content with inquiry and meaningful stewardship.

Minnesota's future depends on residents who value our natural resources – values supported through access to, experience in, and understanding of our diverse landscapes.

**What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.**

Two diverse teacher cohorts will have an immersive experience in Nature-Based Education (NBE), building content knowledge, confidence, and skills to use nature as a platform across their already existing curriculum. Teachers will be guided in integrating NBE with new and existing Minnesota Standards across ALL disciplines, many of which clearly connect to environmental, social, and historical events that invite teachers to venture outdoors. In line with the standards and the Governor's Due North plan for educational equity, we prepare a new wave of teachers who use inquiry in nature and pilot a new professional development program.

Teachers will work with PIs individually and in school-based teams with sustained support prior to and following immersive events to make effective use of nature to both teach about and within Minnesota's diverse natural environments. This project has a multiplier effect. If each teacher has 25 students, together, they reach 650 students/year. If teachers share with colleagues, program expansion is even greater.

PIs have experience in the research and pedagogical implications for NBE (Born, Jordan), academic content connections (Born, Jennings, Pound), and teacher education (Born, Jennings, and Pound).

The project directly addresses LCCMR priority area C; indirectly: A,B,D,F.

**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?**

1. Students and teachers engaged in NBE will develop a connection to Minnesota's natural places, which grounds sustained participation in the outdoors and development of conservation values and behaviors and support for conservation and preservation efforts.

2. The two cohorts of teachers will be selected to foster relationships between urban and rural teachers, with the aim of constructively closing the gap between rural and urban perceptions of natural resource use and conservation ideals.

3. We will have piloted a professional development opportunity in NBE that can be shared and adapted to be offered across the state.

## 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: Year 1: Program Planning and Initial Cohort Selection

**Activity Budget:** \$83,217

**Activity Description:**

Objective: Plan for delivery, implementation, outcomes, and evaluation of Field School, with steps for mid-course corrections.

Tasks:

1. Establish goals for program outcomes and teacher confidence and efficacy.
2. Recruit initial cohorts of 9 teams (24-26 teachers; 3-4 per school), representing grades k-12 from urban, suburban, and rural schools. Selection criteria include:  
geographic and sociodemographic balance between urban and rural;  
support and participation from school or district leadership because this increases likelihood for system change, clear articulation of goals for integrating NBE into the existing curriculum.  
Intentional recruitment of schools with high populations of underrepresented/marginalized communities
3. PIs hold preparatory conversations with teams to create individualized support plans. Goals around culturally-sustaining practices that center students' lived experience and increase access to and enjoyment of natural resources will be translated into concrete steps to ensure smooth transition to NBE, and identification of NBE outcomes for individual teachers as well as teams and schools. This can help promote systems change as cohort members identify and articulate academic, social, and emotional outcomes for their students.

**Activity Milestones:**

Description	Approximate Completion Date
Establish program goals and measurable program outcomes including teacher confidence and efficacy for NBE	August 31, 2023
Recruitment through professional networks, social media, and Hamline's network of school partners	August 31, 2023
Application review and selection of teams	September 30, 2023
Consultations with teams to develop initial goals for participation prior to the first retreat	October 31, 2023

### Activity 2: (Year 1) Pilot Teacher Field School at Residential Environmental Learning Centers (RELC) with three immersive retreats with intervening support

**Activity Budget:** \$201,360

**Activity Description:**

Objective: Successfully launch cohort 1. Piloting the program involves hosting teachers for a working retreat at an RELC with a review of project purpose, their personal and team goals, and existing curricular goals and challenges. This will be followed by an immersive, field-based exploration in interdisciplinary teaching using the environment as a context. The second and third visits in different seasons will offer teachers the opportunity to hone their skills, troubleshoot and share successes, and learn from one another. Between retreats, teachers will develop and use NBE lessons, activities, projects and activities, and will practice NBE content and strategies including stewardship of Minnesota's resources. Ongoing support includes virtual or face-to-face individual meetings with PIs, small group gatherings hosted and organized by teachers, monthly check-in emails from PIs, and even physical visits to school sites by PIs. PIs will work closely with teachers to ensure that NBE content is grounded in antiracist, culturally relevant pedagogy so as to support and reflect all learners throughout the state and ultimately increase equitable access to and enjoyment of Minnesota's natural resources, and that it is inclusive of educational goals for equity as identified by Gov. Walz, as described in the Due North education plan.

**Activity Milestones:**

Description	Approximate Completion Date
First three-day retreat at the RELC	October 31, 2023
Second, three-day retreat at the RELC	March 31, 2024
Monthly check-ins with teacher teams during interim periods.	June 30, 2024
Third, three- day retreat at the RELC	May 31, 2025
Teachers will develop and "field-test" at least one lesson, activity or project following each retreat	May 31, 2025
Teachers produce and field-test NBE projects, lessons, etc with peer feedback and coaching	May 31, 2025

**Activity 3: (Year 2) Refinement of Program, Selection of Second Cohort and Field School Implementation****Activity Budget:** \$215,423**Activity Description:**

Objective: Refine program based on previous year, launch cohort 2. Second cohort recruitment and program content development and delivery will proceed generally as they did in year 1, with revisions made as necessary based on formative assessment. Any changes to the plan for cohort 2 will be informed by a debriefing retreat at the end of cohort 1. Formative evaluation data will provide insights into necessary enhancements or changes for continual improvement of the work. In addition, teachers from cohort 1 will be invited to help recruit the second cohort, visit cohort 2 to share their experiences, and provide support and mentorship to teachers in cohort 2. Throughout the project, the team will support teachers and administrators in implementing NbE. First, the team will offer individualized support after each retreat by hosting regular webinars, virtual meetings, and visiting school sites to provide coaching, support for in-classroom and school-adjacent outdoor activities. This individualized support will continue throughout the two-year period. Teachers are expected to continue to develop and field-test several nature-based approaches (be they units, activities, lesson plans, projects, etc)in the time between retreats. Teachers will use their stipends obtain necessary materials and supplies for implementing NbE at their sites.

**Activity Milestones:**

Description	Approximate Completion Date
Formative evaluation results in revised plan for year 2	July 31, 2024
First three-day retreat at the RELC	October 31, 2024
Second three-day retreat at the RELC	March 31, 2025
Third three-day retreat at the RELC	May 31, 2025
Monthly check-ins with teacher teams during the interim periods	June 30, 2025
Teacher support between retreats	June 30, 2025
Teachers develop and field-test NBE lessons, activities, and approaches	June 30, 2025

## Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Dr Cathy Jordan	University of Minnesota	Director of Leadership & Education at the Institute on the Environment and Professor of Pediatrics, University of Minnesota; Consulting Research Director, Children & Nature Network. Jordan will oversee the evaluation of this project, provide theoretical and evidence-based grounding for the NBE model, and serve as co-teacher during retreats.	Yes
Dr Carrie Jennings	Freshwater	Dr. Jennings will help teacher participants identify site-specific community science projects, develop landscape literacy, interpret the environmental history of the land, the connections between land use and water quality, the intersections of education and policy, and co-teach throughout the program in her role as director of Research and Policy.	Yes
Dr Kate Pound	Freshwater	Dr. Pound is a geology professor who works with pre- and in-service teachers to build earth science content knowledge and pedagogy in field settings. She will work with teachers at the Field School to build understanding of earth processes and help them integrate NBE, inquiry, and Minnesota standards into curriculum.	Yes

## 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.**

In every context, the project will acknowledge Environment and Natural Resources Trust Fund. This will be done through use of the trust fund logo or attribution language on project print and electronic media, publications, signage, and other communications per the ENRTF Acknowledgment Guidelines.

Project leaders will:

Present a report on the project at relevant state and local conferences (such as Education Minnesota);

Upon conclusion of the project, submit an article to appropriate academic journals for publication;

Save copies of all curriculum materials, field notes, participant evaluations, and other relevant materials for further refining the model;

Conduct outreach to local media (MPR, Pioneer Press, Star Tribune, etc.) to disseminate information throughout the duration of the project to build visibility;

Produce a website which can be accessed by the public and teachers who wish to learn more;

Create a brief for policymakers in the legislature as well as staff of the Minnesota Department of Education

## 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 work be funded?**

Teacher cohorts will be supported in implementing NBE, and in coaching and supporting colleagues at their schools.

Hamline University faculty will continue to support teachers in implementing NBE during the year after their cohort participation. Evaluation of program design and implementation will be published and shared with teachers across Minnesota.

After the grant period, project leads will use lessons learned to coordinate with Hamline in development of a more permanent Teacher Field School; financial barriers to participation in a permanent Field School due to tuition and travel costs will be offset by Freshwater's successful fundraising efforts.

## Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount	\$ Amount Spent	\$ Amount Remaining
<b>Personnel</b>										
Principal Investigator		One 4-credit course release or stipend in each academic year 22-23 and 23-24 and 1, 2-credit course release for summer of 2024			25%	0.2		\$31,032	-	-
							<b>Sub Total</b>	<b>\$31,032</b>	<b>\$27,220</b>	<b>\$3,812</b>
<b>Contracts and Services</b>										
University of Minnesota	Subaward	Program development, teach evidence base, evaluate project, supervise graduate student research				2.2		\$115,646	\$77,730	\$37,916
Freshwater	Subaward	Planning professional development content, developing materials, performing standards review, and on-site leadership, mentoring, and presentations.				0.5		\$125,008	\$125,008	-
							<b>Sub Total</b>	<b>\$240,654</b>	<b>\$202,738</b>	<b>\$37,916</b>
<b>Equipment, Tools, and Supplies</b>										
	Tools and Supplies	Daypacks with teaching gear: field journals, work gloves, writing utensils, measuring kits, safety equipment, water bottles, post-its, etc. Field guides or other resources.	Incidental needs that may arise during retreats					\$15,019	\$7,793	\$7,226
							<b>Sub Total</b>	<b>\$15,019</b>	<b>\$7,793</b>	<b>\$7,226</b>
<b>Capital Expenditures</b>										
							<b>Sub Total</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Acquisitions and Stewardship</b>										

							<b>Sub Total</b>	-	-	-
<b>Travel In Minnesota</b>										
	Miles/ Meals/ Lodging	Facility rental expense for one, three-day rental in year one. Friday PM-Sunday PM visit with teachers including use of facilities and guided hike/host visit.	Rental of classroom space, facility fee, for field school site					\$8,000	\$515	\$7,485
	Miles/ Meals/ Lodging	Mileage to program sites \$0.56/mile, assuming 1 PI and 14 teachers from the metro area (200 miles round-trip), 6 teachers with a 350 mi. RT expense, and 6 teachers with a 450 mi. RT expense. Assuming 9 administrators' mileage for 1 retreat, averaging 275 mi. RT. Mileage assumptions are based on averages from around the state to the retreat site.	Travel expense reimbursement					\$14,728	\$10,493	\$4,235
	Miles/ Meals/ Lodging	Mileage-Osprey Wilds ELC	Travel expense reimbursement					\$18,536	\$13,503	\$5,033
	Miles/ Meals/ Lodging	Facility rental expense Osprey Wilds ELC	Rental of Classroom space, facility fee for field school site					\$30,581	\$19,544	\$11,037
							<b>Sub Total</b>	<b>\$71,845</b>	<b>\$44,055</b>	<b>\$27,790</b>
<b>Travel Outside Minnesota</b>										
	Conference Registration Miles/ Meals/ Lodging	1	Travel to a national education conference to present about Teacher Field School	X				\$3,000	\$3,000	-
							<b>Sub Total</b>	<b>\$3,000</b>	<b>\$3,000</b>	<b>-</b>
<b>Printing and Publication</b>										
							<b>Sub Total</b>	<b>-</b>	<b>-</b>	<b>-</b>

Other Expenses											
		Stipend- 8 administrators	\$1000 stipend for one administrator per team of teachers to attend retreats (\$1000x4 administrators/2 years					\$8,000	-	\$8,000	
		Stipend- (55 teachers total) 29 teachers/year 1 + 25 teachers /year 2=55 x2000	Stipend for each of the 29 teachers in each cohort year to cover classroom supplies and materials, other expenses as deemed necessary by teacher teams. \$2000 *26 * 2.					\$110,000	\$106,000	\$4,000	
		Stipend, 10 guest instructors per year	Anticipating up to 10 guest instructors per year from state agencies and other natural resource organizations. \$250 * 10 guest instructors* 2 years					\$7,000	\$5,000	\$2,000	
		Stipend- 5 cohort 1 teachers	one-time \$250 stipends for five year-one cohort teachers to visit, provide coaching and feedback to year 2 cohort teachers. \$250 * 5 teachers					\$1,250	-	\$1,250	
		Substitute teachers	Expense covers the cost of substitute teachers, permitting each participating teachers \$200 for substitute teacher costs for three teaching days \$200 * 3 days * 26 teachers *2 years					\$12,200	-	\$12,200	
								<b>Sub Total</b>	<b>\$138,450</b>	<b>\$111,000</b>	<b>\$27,450</b>
								<b>Grand Total</b>	<b>\$500,000</b>	<b>\$395,806</b>	<b>\$104,194</b>

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
<b>Travel Outside Minnesota</b>	Conference Registration Miles/Meals/Lodging	1	This is to present the findings of the pilot year, share promising practices for program development, and promote the program at a National Education conference. PI, (one person) has been asked to present.

Non ENRTF Funds

Category	Specific Source	Use	Status	\$ Amount	\$ Amount Spent	\$ Amount Remaining
State						
			State Sub Total	-	-	-
Non-State						
			Non State Sub Total	-	-	-
			Funds Total	-	-	-

## Attachments

### Required Attachments

#### *Visual Component*

File: [17610faf-123.pdf](#)

#### *Alternate Text for Visual Component*

Pathways with headings "Nature engagement," "Equity," and "Academic Achievement," leading to the Teacher Field school. Outside the Teacher Field school, teachers and children learning and exploring together outdoors, under trees with headings "Conservation Ethic" and "Academic Learning" depicting the positive outcomes of the Teacher Field School....

#### *Financial Capacity*

File: [a0952305-05f.pdf](#)

### Supplemental Attachments

#### *Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other*

Title	File
Letter of Support-Children and Nature Network	<a href="#">e152ae69-5aa.pdf</a>
Letter of Support-Dr. L. Chawla	<a href="#">121927fc-f3d.pdf</a>
Partner support letter-Eagle Bluff	<a href="#">a9f2b120-afc.pdf</a>
Partner support letter-Osprey Wilds	<a href="#">a7d64c4e-51e.pdf</a>
Letter of Support-Hamline University	<a href="#">dab40f35-bf0.pdf</a>
Letter of Support-Freshwater	<a href="#">8b484755-8ca.pdf</a>
Letter of Support - Prairie Creek	<a href="#">84021247-65d.pdf</a>
Letter of Support-Prior Lake/Savage Area schools	<a href="#">03119735-40b.pdf</a>
Background check form	<a href="#">abdda186-b07.pdf</a>
Interest form for potential teams	<a href="#">f6b01158-e06.pdf</a>
commitment form	<a href="#">dcd5a98d-693.pdf</a>
Teacher field supplies	<a href="#">a73b956a-fcd.pdf</a>
Hamline News release	<a href="#">61155d73-c2d.pdf</a>
Map depicting 46 schools that expressed interest in applying to TFS	<a href="#">016c6672-57f.pdf</a>
Presentation about TFS from Children and Nature Network conference	<a href="#">a7563d0b-c40.pdf</a>
Poster presentation-Map creation as TFS activity	<a href="#">386675c7-d2a.jpe</a>
Photo of Teachers sharing a lesson on investigation of tree density	<a href="#">d57cd652-8ad.jpe</a>
Teachers demonstrate a contour mapping activity	<a href="#">937da5e4-6f7.jpe</a>
High level research summary-Findings	<a href="#">5f373dee-156.pdf</a>
Syllabus for Nature Based Education class at Hamline	<a href="#">70aa1341-e69.pdf</a>
impact	<a href="#">fa15d868-bae.pdf</a>

### Media Links

Title	Link
Hamline University Teacher Field School	<a href="https://www.hamline.edu/academics/college-schools/education/field-school">https://www.hamline.edu/academics/college-schools/education/field-school</a>
Minnesota Invests in New Teacher Field School to Scale up Nature-based Learning Across State	<a href="https://www.childrenandnature.org/resources/fnn-minnesota-invests-in-new-teacher-field-school-to-scale-up-nature-based-learning-across-the-state/">https://www.childrenandnature.org/resources/fnn-minnesota-invests-in-new-teacher-field-school-to-scale-up-nature-based-learning-across-the-state/</a>

MPR report: Minnesota Teachers Learn New Ways to Bring Nature Into the Classroom	<a href="https://www.mprnews.org/story/2023/11/15/minnesota-teachers-learn-new-ways-to-bring-nature-into-the-classroom">https://www.mprnews.org/story/2023/11/15/minnesota-teachers-learn-new-ways-to-bring-nature-into-the-classroom</a>
Nature-Based Education Certificate at Hamline University	<a href="https://www.hamline.edu/programs/nature-based-education-certificate">https://www.hamline.edu/programs/nature-based-education-certificate</a>

### Difference between Proposal and Work Plan

*Describe changes from Proposal to Work Plan Stage*

We are requesting a delay in starting the project to March 2023. This will enable us to maintain the timeline established in our original submission. It will allow our team the necessary time to recruit teacher teams, spend time goal-setting and planning with individuals, teams, and school administrators. All project tasks and milestones will still be completed by the appropriation end date.

## 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 understand that travel expenses are only approved if they 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 understand the Commissioner's Plan applies.

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

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

**Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements**

N/A

## Work Plan Amendments

Amendment ID	Request Type	Changes made on the following pages	Explanation & justification for Amendment Request (word limit 75)	Date Submitted	Approved	Date of LCCMR Action
1	Amendment Request	<ul style="list-style-type: none"> <li>Budget - Personnel</li> </ul>	This amendment allows for the option of a paid stipend to the Principal Investigator in the event that staffing shortages make a course release impossible for AY 22-23 or 22-24.	March 13, 2023	Yes	April 11, 2023
2	Amendment Request	<ul style="list-style-type: none"> <li>Budget - Personnel</li> <li>Budget - Capital, Equipment, Tools, and Supplies</li> <li>Budget - Travel and Conferences</li> <li>Budget - Other</li> <li>Attachments</li> </ul>	Interest in the program is greater than expected. Request to increase budget for an additional time buyout for PI, more equipment and supplies, and increase in number of stipends for teachers. We have increased the number of participants, hence an additional course release/buyout is needed due to increased workload. Pilot program found more appropriate equipment and supplies are needed. Cost savings from reduced administrator needs and reduced facility rental fees absorb these increases.	September 29, 2023	Yes	October 27, 2023
3	Amendment Request	<ul style="list-style-type: none"> <li>Budget</li> <li>Other</li> <li>Budget - Other</li> <li>Budget - Professional / Technical Contracts</li> <li>Budget - Capital, Equipment, Tools, and Supplies</li> <li>Budget - Travel and Conferences</li> </ul>	Change location of ELC retreat for 2nd cohort to address demand for a NW MN cohort, reduce several expense lines, increase supply budget for year 2 cohort as a result of programmatic changes and teacher needs. Add a line item for one project lead to travel to a conference in summer of 2024 to present findings of year 1.	August 30, 2024	Yes	September 25, 2024
4	Amendment Request	<ul style="list-style-type: none"> <li>Budget</li> <li>Budget - Personnel</li> <li>Budget - Professional / Technical Contracts</li> <li>Budget - Capital, Equipment, Tools, and Supplies</li> <li>Budget - Travel and Conferences</li> </ul>	Loss of staff at Hamline requires additional administrative duties to be managed by PI and will include another course release hence request for additional funds. Costs/expense of host site have increased. Request to reallocate funds from UMN budget to Freshwater to pay research	April 16, 2025	Yes	April 17, 2025

		<ul style="list-style-type: none"><li>• Budget - Other</li></ul>	assistant via Freshwater instead of UMN due to a contact there with expertise in educational research. Increase funds for guest instructors to pay a competitive and fair wage. Reduce total for			
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# Status Update Reporting

## Final Status Update August 14, 2025

**Date Submitted:** October 6, 2025

**Date Approved:** October 7, 2025

### Overall Update

The project has been a success, and it has shown us where we need to grow and how to support the demand of teachers. During this round of funding, our team provided direct service to 57 teachers across 8 school districts in Minnesota. Those teachers and specialists (providers of support such as specialized content or special education services) together serve an average of about 30 students per year (this number is significantly higher for the specialists, who frequently work with all students in a school building and may serve multiple dozens of students over the course of one year. Our conservative estimate is that the cohort teachers from this grant together serve about 1710 students per year. The schools where these teachers and specialists work represent the districts of Eagan/Apple Valley, Robbinsdale, St Paul, Duluth, Carlton, and Wrenshall. Our program team delivered over 160 hours of direct professional development, and 90 hours of additional classroom support through site visits, classroom coaching, and visits to staff meetings and training sessions. We are currently conducting follow up research on teachers' use skills they learned during the Teacher Field School, and we are developing a TFS alumni support network across the state.

### Activity 1

This activity was previously marked complete.

*(This activity marked as complete as of this status update)*

### Activity 2

Based on survey data and participant interviews, we learned that teachers wanted to build their skills in content areas (ELA, Math, etc.) and teaching in all seasons. We adapted our model to include 5 retreats per cohort rather than 3 so that we could address more content areas with more depth. Each weekend was focused on a different discipline to ensure enough time for teachers to dig into the relevant standards and curricular outcomes. We conducted the metro-area retreats (cohort 1) at a privately held nature area near Stillwater. Our second cohort was located in the Duluth area so we hosted the retreats at Osprey Wilds Learning Center. For each retreat, we hosted one overnight session in the month of February. During each weekend of the retreats, teachers developed at least two standards-aligned nature-based lessons based on their existing curriculum, that they could immediately use in their classrooms. Teachers field-tested lessons by demonstrating them for the other cohort members. Cohort members provided feedback in the moment. Following lesson demonstrations, teachers had group discussions to ideate adaptations and extensions for all teachers to transfer activities across grade levels and settings. See photos attached of example teacher lessons.

*(This activity marked as complete as of this status update)*

### Activity 3

As described in Activity 2 update, real-time adjustments were made to the retreat content and schedules to accommodate teacher needs and requests. The second retreat series (in year 2) was adjusted based on teacher feedback from retreat 1. For example, many teachers sought support in refining social studies lessons to better include Indigenous education, so our team invited a Native educator to visit the retreats to support teachers. Teachers also expressed a clear need for better support in addressing special education considerations when learning NBE approaches. In response, we included a professor of special education at two retreats and she provided targeted support for teachers looking to implement NBE as part of students' education interventions. We conducted follow up interviews and conversations with each cohort team after completion of the retreats and received positive feedback on these guest instructors. Between retreats, as with year 1, the PI visited each school at least one time (and in some cases, several

times) to provide support with site assessment, curricular planning, grant writing, and implementation of NBE.  
*(This activity marked as complete as of this status update)*

### **Dissemination**

We are currently in the process of reviewing our data collected over the course of the two retreat series. We are working on a manuscript to potentially publish in an education journal. We previously shared media coverage (in our year 1 update) of the program. This past year, three conference presentations were delivered by the TFS team to share our findings and our model. Please see the Attachments page for examples. We have been approached by several states looking to implement similar teacher professional development opportunities. Hamline University (HU) has now launched the nation's first Nature-Based Education certificate for educators, which is based on the Teacher Field School retreats. HU has created a stand-alone class in nature-based education that can be taken for academic credit, and which is the foundation of the certificate, designed specifically for classroom educators. We are also developing a course in NBE for special education teachers, based on the growing need for teachers to develop skills in this area.

# Status Update Reporting

## Status Update March 1, 2025

**Date Submitted:** March 27, 2025

**Date Approved:** April 17, 2025

### Overall Update

The project continues to be a great success! We are working with our second cohort of teachers from the Duluth/Carlton/Wrenshall area. This is a bigger cohort than last year, totalling 29 teachers and there are three schools represented. We are mid-way through the series and attendance has been perfect thus far. There are a total of 5 retreats scheduled and the upcoming retreats are at the end of February, mid-April, and mid-May. Teachers report enjoying the program and feeling equipped to try new approaches in the classroom. Many have remarked that they notice positive changes in their students when they use nature-based approaches. We are excited about the continued refinements of the curriculum and approaches. We are also glad to be partnering with a regional Environmental Learning Center to host the retreats. A few changes and updates: because of an increase in numbers, we've needed to purchase additional supplies and materials for teachers, and the mileage costs have increased as well. We have a selection of wonderful experts in subjects such as special education, Indigenous history and social studies standards, art, and school leadership. We hope to increase the stipend/honorarium we offer these folks.

### Activity 1

This activity was previously marked complete.

*(This activity marked as complete as of this status update)*

### Activity 2

Retreat #1 and #2 took place at Osprey Wilds Learning Center in Sandstone MN. The first retreat was at the end of September, and the second was at the end of October. We are gearing up for our 3rd retreat of 5. We have a very solid and committed group of teachers representing three schools in the Duluth/Carlton/Wrenshall area. The PI has made a couple of visits to the schools between retreats to support implementation. Retreats #4 and 5 will take place at Osprey Wilds again and are scheduled for April and May of 2025.

### Activity 3

Retreats all take place at Osprey Wilds Learning Center, since it's centrally located for the schools we serve in this cohort.

Retreat 1 was at the end of September, retreat 2 at the end of October. Our 3rd retreat happened the weekend of Feb 28-March 2. Retreat 4 will happen in mid-April and retreat 5 in mid-May. Hence, we are halfway through our retreat series for cohort #2. So far, attendance has been great. We have continued to receive words of enthusiasm and gratitude from teachers. We have grounded each retreat in standards-aligned content that is appropriate for elementary-aged learners. This year we have been especially pleased to refine our curriculum to ensure that each weekend is clearly grounded in the work teachers are already doing, and relevant to the regions where they teach as well as to the individual schools. We have enlisted the help of an Indigenous art and music instructor as well as a Special Education professor, a school administrator, and an expert in state graduation standards to ensure the students served receive the most appropriate and culturally relevant support as their teachers make shifts to more nature-based approaches.

### Dissemination

We will be presenting information about the Teacher Field School at an upcoming international conference about nature-based education. The conference takes place in St Paul, MN in May. The project PI will be on sabbatical beginning this fall and will begin work on a manuscript for schools and education professionals using content based on the TFS retreats.



# Status Update Reporting

## Status Update September 1, 2024

**Date Submitted:** August 30, 2024

**Date Approved:** September 25, 2024

### Overall Update

This project is going exceptionally well. We have served our first cohort of teachers (28 teachers in all) and at the conclusion of the retreat series, held interviews and focus groups with all teaching staff and the administrators for each school that we worked with. We are excited to have had lots of interest from outstate MN and are eager to kick off cohort 2 which will be held in Sandstone MN, a central location for our Duluth/Wrenshall area teachers. We have learned a great deal in the first year, and our process continues to get "tidied up" as we continue to learn!

### Activity 1

This activity was previously marked complete.

*(This activity marked as complete as of this status update)*

### Activity 2

Planning and implementation of activity 2 is well underway! At the time of this writing, we have another full cohort of teachers in the Duluth/Wrenshall area who are eager to start the retreat series. We will be using Osprey Wilds as our field site, as described in the application. I will continue to update as we progress. The first retreat is the weekend of Sept 28.

### Activity 3

We have been working with a graduate student evaluator who has compiled results of interviews with teachers. We anticipate using this information to write and submit an article to an educational journal. We are using feedback from teachers in cohort 1 to consider the structure and content of the activities, as well as the guest speakers we had invited. This feedback is informing the planning for cohort 2.

### Dissemination

One project presenter attended the annual "Natural Start" conference and presented a session detailing the Teacher Field School. We anticipate using the findings from our first year interviews with teachers to draft an article to submit to an education journal.

# Status Update Reporting

## Status Update March 1, 2024

**Date Submitted:** June 27, 2024

**Date Approved:** September 25, 2024

### Overall Update

We are thrilled with the success of the program. The response to our initial call for applications was overwhelming, with over 190 expressions of interest representing almost every school district in Minnesota. Our current cohort of 28 teachers represents 4 schools; two in the twin cities metro area, one from the southern suburbs and one from a northern suburb. We have had almost 100% attendance at each of the three retreats we've had so far. After some initial changes to the program structure and supplies provided to teachers, we have a model that is working well for our participants. They are successfully connecting their existing curriculum through nature-based education. Guest presenters provide teachers with a "deeper dive" into state academic standards, the role of nature in supporting children with special needs, Indigenous art, history and culture in Minnesota, and research on the equigenic effects of nature on children. The PI has been on a partial health leave. That, as well as staffing shortages in our accounting office (now remedied) have resulted in a delay of submission of our reimbursement request. Our current budget shows no funds spent, however there is a reimbursement request pending approval of our status update.

### Activity 1

This activity was previously marked complete.

*(This activity marked as complete as of this status update)*

### Activity 2

We have a strong cohort of 28 teachers and have completed three of five weekend retreats, each of which has been attended by 90-100% of participating teachers. The weekends occur in a wilderness area near the twin cities as well as an environmental learning center about an hour north of St. Paul. We have focused on supporting K-6 grade teachers and specialists in developing nature-based content to support disciplines of social studies, mathematics, language arts/literacy. Teachers develop the skills, knowledge and dispositions to successfully use nature as context for their lessons. Following each retreat, teachers receive examples of demonstrated lessons and activities. Between retreats, the PI visits schools, provides coaching and consultation on outdoor spaces, lesson planning, collaboration with colleagues and administrators. Teachers provide examples of workplans for implementation in their own settings including goals for bringing nature-based teaching strategies to their colleagues. Two remaining retreats are planned, for April and May. By the end of the retreat series, teachers will have extensive experience teaching outdoors in all kinds of weather, and will have connected their students with Minnesota-based resources. The program team has been asked to present about the project at a national conference later this summer.

### Activity 3

We have begun to review teacher feedback, leader notes and reflections on the first retreat series. In doing so, we are refining the model and making slight adjustments for the next retreat series. The overwhelming response to our first call for applicants indicated a clear need to reach more teachers across a wider swath of the state, so we will adjust our budget to accommodate lodging for program leads in order to lead retreats in northern MN in year 2. It's clear that one thing teachers really need is continuous support for their work in this area, as well as a community of practice where they can share resources, support and coach one another throughout the school year. We are considering how we might build a "train-the-trainer" model into our next LCCMR application. We have determined that we will be utilizing only one ELC site and have adjusted the expense accordingly in our budget update. Additionally, we will eliminate the funds for substitute teachers (\$31,200) since the teachers requested to meet on weekends to avoid reliance on substitute teachers. We will add \$3000 for backpacks and supplies for our second cohort.

**Dissemination**

In the past year, we have received significant media coverage for the Teacher Field School (TFS), earning coverage on Minnesota Public Radio (both print and audio coverage) and the Children and Nature Network digest. We will present our work at the North American Association for Environmental Education's annual conference this summer, and are beginning to think about publication of an article or toolkit for educators. Further, Hamline University has established a credit-bearing component of the TFS for teachers to continue their professional development and receive graduate credit. Hamline is currently in the process of establishing a nature-based education certificate for practicing teachers, built off the model of the TFS. Please see Attachments tab for further details.

# Status Update Reporting

## Status Update September 1, 2023

**Date Submitted:** September 29, 2023

**Date Approved:** October 27, 2023

### Overall Update

Things are going very well! We were overwhelmed with interest and have selected our first cohort of 28 teachers (increase from original plan of 26) representing 4 schools. Prior to being awarded the LCCMR support, a private funder provided financial support to fund a small "pre-pilot" version of the program. We learned a great deal from this experience and have made several improvements for our kickoff this fall. We have also been offered use of a privately-held parcel of land near Stillwater on which to conduct retreats, so have adjusted our budget accordingly: In the travel/lodging/mileage section, we show a reduced cost of retreats, due to the reduction in time we will need to be hosted at Environmental Learning Centers. We increased our supply budget to better accommodate our participating teachers' needs, based on lessons learned from the "pre-pilot". PI will begin scheduling meetings in early September to help teams develop a vision, workplan, and set goals for the coming year. With the increased size of the cohort, as well as changes to the program we are in need of additional time/course buyout for the PI.

### Activity 1

Activity 1 is program planning and initial cohort selection. Based on our experience with the "pre-pilot" including feedback from teacher participants, we determined that five immersive retreats that are shorter in duration would better serve teachers' needs. This

We solicited applications and within one week of announcing the program, received a total of 180 expressions of interest. For our first year, we have selected 28 participants, representing three school districts, a grade span of preK-grade 5, as well as specialists representing specific disciplines including emotional/behavioral support. While our original plan was to accept 26 teachers per cohort year, this year's existing team makeup for the 4 schools were well-structured, balanced across grade levels, represented a broad span of grade levels and special areas taught, and teams made reasonable requests to accommodate additional individuals, hence our final count of 28 teachers.

Initial planning meetings have been scheduled with each participant team to establish expectations, set initial goals and answer questions. Hamline University created a webpage to provide additional information.

We sent out acceptance letters to the teams selected, and confirmed commitments from each team member by requiring completion of a "commitment letter" clarifying expectations for the program.

*(This activity marked as complete as of this status update)*

### Activity 2

Activity 2 is to successfully launch the first cohort. Our first retreat weekend has been planned, supplies have been ordered, materials are prepared and we are ready! As noted, our retreat location has changed: instead of hosting each retreat at a residential environmental learning center, we've been offered access to a privately held parcel of land near Stillwater, closer to the Metro area. Four of the five retreats will be held here, with one visit to an RELC in winter. The first retreat is Sept 23-24. This represents the first of five, weekend-long retreats. All participant teams have re-committed to attending 4 of the 5 weekends, and PI has had meetings with each team prior to the first retreat. Our pre-survey has been shared with all participants. We are connecting with guest speakers and potential special visitors to our retreats. At this time, we have a visitor from Fond-du-Lac Tribal community coming to visit our group during the first weekend retreat. We have commitments for visitors to future weekends. Guests will include: Special education program Director from Hamline University, nature-based teachers, a guest from a previous cohort, and possibly a night sky photographer. Agenda for the first weekend is attached.

**Activity 3**

Activity 3 is refinement of program, selection of second cohort, and field school implementation. This activity will begin in earnest in spring of 2024. At this time we are just focused on the first cohort.

**Dissemination**

We (Program Team) sent out a brief blurb to schools affiliated with Hamline University's School of Education and Leadership. From there, other outlets picked it up and shared with their networks. The MN Science Teachers' Association, the MN association for Environmental Education and other special-interest groups shared the blurb, which helped to recruit participants.

As noted, Hamline University created a webpage to help promote the program. All partners have updated their websites and mention of the project is updated to reflect attribution language recommended by LCCMR.

# Status Update Reporting

## Status Update March 1, 2023

**Date Submitted:** March 8, 2023

**Date Approved:** April 11, 2023

### Overall Update

1. We have developed concrete plans and agendas for teacher field school that grounds sustained participation in the outdoors and development of conservation values and behaviors and support for conservation and preservation efforts.
2. We have developed a plan for recruitment statewide of two cohorts of teachers
3. We will have piloted a professional development opportunity in NBE that can be shared and adapted to be offered across the state.

### Activity 1

Program goals have been established and identified. Each retreat weekend will have specific learning outcomes tied to the larger program goals. Based on our experience with the pilot program, we have begun to establish a recruitment plan

### Activity 2

work has not yet begun on Activity 2.

### Activity 3

Work has not yet begun on Activity 3.

### Dissemination

Partners have updated their digital materials related to the project to reflect dissemination language.