

Environment and Natural Resources Trust Fund

M.L. 2024 Approved Work Plan

General Information

ID Number: 2024-185 Staff Lead: Becca Nash Date this document submitted to LCCMR: June 10, 2024 Project Title: Bioacoustics for Species Monitoring and Conservation - Phase 2 Project Budget: \$568,000

Project Manager Information

Name: Elena West Organization: U of MN - College of Food, Agricultural and Natural Resource Sciences Office Telephone: (612) 743-1530 Email: elwest@umn.edu Web Address: https://cfans.umn.edu/

Project Reporting

Date Work Plan Approved by LCCMR: June 20, 2024

Reporting Schedule: June 1 / December 1 of each year.

Project Completion: June 30, 2027

Final Report Due Date: August 14, 2027

Legal Information

Legal Citation: M.L. 2024, Chp. 83, Sec. 2, Subd. 08j

Appropriation Language: \$568,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to assess avian diversity at the statewide scale by developing a citizen science bioacoustics monitoring program with an initial focus on private lands.

Appropriation End Date: June 30, 2027

Narrative

Project Summary: This study will leverage our current bioacoustics monitoring framework to assess avian diversity at the statewide scale through a citizen science acoustic monitoring program, with a focus on private lands.

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

In the two years since our Bioacoustics project began, artificial-intelligence algorithms that can automatically identify thousands of species of vocalizing taxa are now available, significantly improving the efficiency with which large amounts of audio data can be analyzed. This has enabled an unprecedented approach to biodiversity monitoring that is especially applicable for long-term studies, and for use in habitats where other survey methods are difficult or impossible, such as lands under private ownership.

Importantly, private lands may support rare and declining species in unique ways and may serve as guideposts for integrating ecosystem restoration and biodiversity conservation on public lands. The scarcity of comprehensive biodiversity data on private lands represents a significant opportunity to document and preserve valuable species information for the historical record but also to understand how divergent management strategies and resultant differences in landscape structure between public and private lands have affected avian biodiversity in Minnesota.

Drawing on our acoustic monitoring framework established for a single species, the red-headed woodpecker, we will develop a statewide citizen science program that will address these knowledge gaps by providing acoustic monitoring devices to private landowners, leveraging Minnesotan's enthusiasm and interest in birds to help collect biodiversity data on private lands.

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.

The growing versatility and falling cost of bioacoustics technologies are creating a wildlife-and-ecosystem science that's faster and more powerful, but also more accessible. To that end, we seek funding to develop a statewide citizen science program that will address key knowledge gaps by recruiting, training, and providing acoustic monitoring devices to private landowners. Audio data will then be gathered from volunteers, archived, and analyzed to address our research questions. We will develop a program to manage volunteer recruitment, training, data collection and storage, assessment of key questions, and outreach.

Our approach builds on the bioacoustics monitoring work we have been conducting for red-headed woodpeckers by expanding the spatial and temporal scale of sampling, with a particular focus on private lands, where data on avian community diversity is currently lacking. Our approach also leverages collaborations with local chapters of the Audubon Society, enabling us to increase outreach capacity and sampling throughout the state.

This project will also build capacity of University of Minnesota students to pursue the many kinds of investigations that new bioacoustics tools and enormous datasets make possible through training and mentorship, so that they become natural resource professionals with relevant experience and marketable job skills.

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 has three main outcomes: 1) producing data that fill a knowledge gap needed for biodiversity conservation and management, 2) creating a novel and meaningful program for volunteer participation in citizen science, and 3) training the next generation of natural resource professionals in an emerging technology and providing marketable job skills. This project will result in a comprehensive understanding of avian diversity on public and private lands across Minnesota. With the support of volunteer landowners, we will generate statewide data to capture variation in avian biodiversity in the state and provide key information for management and conservation.

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: Recruit statewide and train volunteers to participate in our bioacoustics for biodiversity monitoring project

Activity Budget: \$74,000

Activity Description:

To accomplish this activity, we will facilitate volunteer recruitment and training through well designed events and materials, including traveling statewide to diverse groups including local Audubon chapters, Pheasants Forever, Ducks Unlimited, the Minnesota Master Naturalists Program, and The Wildlife Society. We will also expand our social media presence and design informative media and handouts related to project recruitment.

Our goal is to recruit and train 90 volunteers per year for two years, which will also help us increase spatial coverage to better represent the range of Minnesota's habitats on public and private lands. We aim to deploy devices at a minimum of 30 locations each on public and private land within Minnesota's three major biomes (~90 locations on public lands and ~90 locations on private land (volunteer sites)) each year of the study. This sample size will ensure that differences in measures of biodiversity (species richness, community composition, etc.) from the audio data collected across land ownership types and broad habitat class can be detected statistically. Volunteers will be trained in device deployment and management and vegetation sampling at each ARU deployment location, which will help us make inferences at both the local and landscape scale.

Activity Milestones:

Description	Approximate Completion Date
Recruit and train 30 volunteers in device deployment and habitat assessments (year 1)	March 31, 2025
Create project materials and resources for volunteer training and recruitment.	March 31, 2025
Recruit and train 30 volunteers in device deployment and habitat assessments (year 2)	March 31, 2026

Activity 2: Pilot work, audio data collection throughout Minnesota, data processing, and analysis Activity Budget: \$420,000

Activity Budgeti \$ 120,00

Activity Description:

During pilot work, we will validate field methods and compile species vocalization libraries at the Cedar Creek Ecosystem Science Reserve, which has habitats that represent much of the state, making it an ideal location for collection of training data. We will also determine potential locations for ARU deployments on public lands, including submitting permit applications.

To assess whether there are differences in measures of avian biodiversity (species richness, community composition, assessment of rare species) across both public and private lands, we will integrate a citizen science acoustic monitoring program with artificial intelligence approaches to efficiently identify the identity and occurrence of individual species. ARU kits will be shared with participating volunteer landowners. Once audio data has been recorded, we will collect sound files from volunteers (via online, mail, and in person), back them up and archive copies, and analyze audio data to evaluate how differences in land management practices (and the resulting differences in forest structure and disturbance regimes) between public and private lands affect species diversity and composition. We will use occupancy models to estimate species specific occurrence probabilities and community diversity from the acoustic data while accounting for imperfect detection of rare species.

Activity Milestones:

Description	Approximate Completion Date
Order and prepare equipment, develop ARU deployment methods at Cedar Creek and identify	December 31, 2024
deployment locations	
Locate 30 locations on public lands for deployment (year 1)	March 31, 2025
ARU deployment and field work (year 1)	September 30, 2025
Locate 30 locations on public lands for deployment (year 2)	March 31, 2026
ARU deployment and field work (year 2)	September 30, 2026
Audio data backup, processing, and analysis of data collected during year 1	September 30, 2026
Audio data backup, processing, and analysis of data collected during year 1	June 30, 2027
Data analysis and summary (ongoing)	June 30, 2027

Activity 3: Dissemination of results and public outreach via media, presentations, publications, and popular articles.

Activity Budget: \$74,000

Activity Description:

The objective of this activity is to share project results with private landowner volunteers and disseminate information to conservation professionals, land managers, and the public. To accomplish this objective, we will prepare popular and scientific presentations that will be given to volunteers, individuals, and organizations working at the interface between land management and biodiversity conservation. We will prepare popular articles and manuscripts for publication in peer-reviewed journals. We will also create programs in the use of ARUs and other bioacoustics technologies for bird conservation organizations, such as the Minnesota Ornithologists' Union, local chapters of the Audubon Society, and individuals engaged in Minnesota natural resources stewardship.

Activity Milestones:

Description	Approximate Completion Date
Present at the 2025 meeting of the Minnesota Ornithologists' Union	December 31, 2025
Present at the 2026 Minnesota Chapter of the Wildlife Society meeting	February 28, 2026
Present at the 2027 Minnesota Chapter of the Wildlife Society meeting	February 28, 2027

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Dr. Caitlin Barale Potter	Cedar CreekDr. Potter will help coordinate field logistics, development of project protocols,Ecosystemand will assist with the writing and dissemination of results.ScienceReserve		No
Dr. David Minnesota Andersen Cooperative Fish and Wildlife Research Unit		The Minnesota Cooperative Fish and Wildlife Research Unit will provide in-kind and other support, including purchase and loan of additional supplies (audio recorders, SD cards for recorders, batteries, etc.). Dr. Andersen will also serve as a scientific advisor to the project.	No
Rob Schultz Audubon Funds provided by Audubon Minnesota will support recr Minnesota Funds provided by Audubon Minnesota will support recr to local Audubon chapters, members of the public, land		Funds provided by Audubon Minnesota will support recruitment and communication with citizen scientist volunteers, dissemination of project results to local Audubon chapters, members of the public, land managers, and state and federal agencies.	No
Marian Weidner	Audubon Chapter of Minnesota	Ms. Weidner will help coordinate development of project training materials and protocols. Funds from ACM will support two research technicians for one year, training materials, citizen science volunteer engagement and communication, and dissemination of project results.	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. We will prepare popular and scientific presentations that will be given to volunteers, individuals, and organizations working at the interface between land management and biodiversity conservation. We will prepare popular articles and manuscripts for publication in peer-reviewed journals. We will also create programs in the use of ARUs and other bioacoustics technologies for bird conservation organizations, such as the Minnesota Ornithologists' Union, local chapters of the Audubon Society, and individuals engaged in Minnesota natural resources stewardship. The Environment and Natural Resources Trust Fund 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 ENTRF Acknowledgment 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 work be funded?

This project will provide foundational data on avian diversity in Minnesota, including rare and declining species. ENRTF support will increase the likelihood that the project can continue longer-term, helping to ensure continued support from the University of Minnesota, Audubon chapters, and numerous small donors and volunteers. This project will initiate long-term research opportunities for students in the Department of Fisheries, Wildlife, and Conservation Biology at the University of Minnesota who will participate in research described herein. Students will continue supervised research activities after this project is completed, which will support development of a long-term dataset and help secure future funding.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount	
		Awarded	

Bioacoustics for Broad-Scale Species Monitoring and	M.L. 2021, First Special Session, Chp. 6, Art. 6, Sec. 2,	\$305,000
Conservation	Subd. 03n	

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineli gible	% Bene fits	# FTE	Class ified Staff?	\$ Amount
Personnel								
Elena West		Principle Investigator responsible for responsible for overall project management, organizing all personnel across activities, as well as directly supervising and mentoring project assistant, graduate and undergraduate research assistants.			36.8%	0.46		\$66,182
Full-time		Field Leader responsible for field work, data			24.1%	1		\$103,922
Graduate Research Assistant		management, and analyses required to achieve project activities. One 50% GRA for two years.						
Undergraduate Research Assistant		Undergraduate Research Assistants will assist with ARU deployments across the state, device and data management, and sound analyses. 6 undergrads 40hrs/wk summer, 20hrs/wk academic year for 2 years.			0%	7.5		\$117,000
Project Associate		Leads volunteer recruitment, training, and coordination. Manages equipment and acoustic device inventory, data acquisition and management, assists in the development and testing of acoustic recorder hardware, and co-leads field work safely and efficiently, e.g. most field activities require at least two individuals.			32%	2		\$143,520
							Sub Total	\$430,624
Contracts and								
Services							Sub Total	-
Equipment, Tools, and Supplies								
••	Equipment	400 Autonomous Recording Unit (ARU) kits: ARU, security case, memory cards, and batteries @ \$180 ea.	Required to collect avian acoustic data at sites across Minnesota.					\$72,000
	Tools and Supplies	Field supplies for navigation, deploying ARUs, and recording ARU site vegetation information (GPS units, zipties, field notebooks, densiometers,	The purpose to the field supplies is to meet the everyday needs of various aspects of field work, such as					\$2,026

					Sub Total	\$45,750
	Louging		example, Annual meeting of The Minnesota Chapter of the Wildlife Society and The Minnesota Ornithologists' Union.			445 350
	Conference Registration Miles/ Meals/ Lodging	Travel support for PI, Graduate Research Assistant, and Project Assistant to attend one professional meeting each year for 2 years.	Needed for attendance to participate in formal presentation of project methods, results, and implications at relevant professional meetings. For	x		\$4,400
	Miles/ Meals/ Lodging	Miles traveled to complete field work. Vehicle rental: 6 vehicles for 4 months each during project duration @ \$1,100/month/vehicile = \$26,400. Mileage for 2.5 years of fieldwork requiring 65,000 miles of travel for deploying ARUs @ \$0.23 per mile = \$41,350).	The purpose of this travel support is to provide the transportation support to complete field work/ARU deployment and maintenance, delivering presentations, and meeting with collaborators and citizen science volunteers in Minnesota.			\$41,350
Travel In Minnesota					Total	
Acquisitions and Stewardship					Sub	-
					Sub Total	-
Capital Expenditures						
					Sub Total	\$77,526
	Tools and Supplies	10 external hard drives: 8TB drives that are portable @ \$150 each	Data storage capacity for field, lab, and office data maintenance and analysis.			\$1,500
	Equipment	Laptop computers to program ARUs, and download and store audio data: \$250/laptop for 8 laptops.	Small, portable computers are needed to program ARUs, download data, store, and transfer data to the cloud.	X		\$2,000
		carrying cases and storage containers for equipment and supples): \$1,013 per year for 2 years of data collection.	deploying ARUs and recording field data.			

Travel Outside Minnesota					
				Sub Total	-
Printing and Publication					
	Publication	Publication page charges for peer-reviewed journals: 2 per year @ \$2000/article for 2 years.	Needed to pay for publication of project related scientific articles.		\$8,000
	Printing	Volunteer recruitment flyers and announcements in print media and training materials.	Needed to broadly recruit volunteers to participate in project activities and for training materials and handouts.		\$1,600
				Sub Total	\$9,600
Other Expenses					
		Site-use fee (Cedar Creek Ecosystem Science Reserve)	Pilot work and reference libraries will be carried out at the Cedar Creek Ecosystem Science Reserve (site-use fee is \$500): \$500/year for 3 years.		\$1,500
		Postage	Needed to mail ARU kits and memory cards to and from volunteers to distribute supplies and collect data.		\$3,000
				Sub Total	\$4,500
				Grand Total	\$568,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
Equipment, Tools, Laptop computers to program ARUs,		Laptop computers to program ARUs,	Computers are necessary to program ARUs, download data, and transfer audio data to
and Supplies		and download and store audio data: \$250/laptop for 8 laptops.	the cloud for storage. Technicians working on the project will need computers to do these steps in a timely and efficient manner while they are traveling and in the field working to help deploy devices/working with volunteers.
Travel In	Conference	Travel support for PI, Graduate	Attendance at in-state conferences is to participate in formal presentations of project
Minnesota	Registration Miles/Meals/Lodging	Research Assistant, and Project Assistant to attend one professional meeting each year for 2 years.	findings.

Non ENRTF Funds

Category	Specific Source	Use	Status	\$ Amount
State				
			State Sub Total	-
Non-State				
In-Kind	Minnesota Cooperative Fish and Wildlife Research Unit	Additional autonomous Recording Units (ARUs) needed for audio recordings: AudioMoth Recorders (25 ARUs @ \$100 per ARU = \$2,500)	Potential	\$2,500
In-Kind	Minnesota Cooperative Fish and Wildlife Research Unit	Additional equipment for fieldwork including batteries, SD cards, and GPS units	Potential	\$2,000
In-Kind	Audubon Minnesota	Funds provided by Audubon Minnesota will support recruitment and communication with citizen scientist volunteers, dissemination of project results to local Audubon chapters, members of the public, land managers, and state and federal agencies.	Potential	\$2,000
Cash	Audubon Chapter of Minneapolis	Funds provided by the Audubon Chapter of Minneapolis RHWO Recovery Project will support field technician salaries (\$8,000/technician x 2 technicians x 1 field season = \$16,000)and costs associated with dissemination of project results and the monitoring protocol to local Audubon chapters, members of the public, land managers, and state and federal agencies working on red-headed woodpecker habitat restoration and conservation (\$1000/year for 2 years).	Potential	\$18,000
Cash	University of Minnesota unrecovered indirect cost return (55% MDTC).	\$568,000 direct total - \$36,434 tuition (exempt category) = \$531,566 x .55 = \$292,361 unrecovered IDC	Secured	\$292,361
			Non State Sub Total	\$316,861
			Funds Total	\$316,861

Attachments

Required Attachments

Visual Component File: <u>2a44aa0d-ef0.pdf</u>

Alternate Text for Visual Component

Diagram of our approach to engage volunteers, collect audio data on public and private lands, process and analyze audio data, and share results....

Supplemental Attachments

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

Title	File
University of Minnesota Sponsored Projects Administration	<u>4c292580-2be.pdf</u>
Approval Letter	
Letter of support for Bioacoustics for Species Monitoring and	<u>c94e797a-b85.pdf</u>
Conservation Phase II	

Difference between Proposal and Work Plan

Describe changes from Proposal to Work Plan Stage

June 10, 2024

Thank you for explaining the difficulties in determining exactly how many volunteers you will be recruiting and training. We do, however, need some measurable milestones for these efforts. What would be considered the bare minimum of volunteers needed to make the project successful? Can you start from there and then give an estimate in the milestones please?

I HAVE EDITED THE ACTIVITY 1 DESCRIPTION FOR CLARITY AND HAVE INCLUDED THE NUMBER OF VOLUNTEERS HERE MORE CLEARLY.

Could you please add to your ARU deployment milestone (Activity 2) the 30 locations private/ year and 30 locations/public/ year you mention in Activity 1? YES. I HAVE MADE THIS CHANGE -- I HAVE ADDED THE VOLUNTEER SPECIFIC MILESTONES TO ACTIVITY 1.

The appropriation language specifies this project is "to assess avian diversity at the statewide scale..." Some of your recent edits, however, seem to delete mention avian species and include anurans and possibly bats. Can you please adjust or explain so we can be clear that the project is about providing foundational data on avian diversity in Minnesota, including rare and declining species?

APOLOGIES THAT THIS WAS UNCLEAR. BREEDING BIRD DATA COLLECTION AND ANALYSIS ARE THE CENTRAL FOCUS OF THIS STUDY AND WERE NOT DELETED FROM THE NARRATIVES OR DESCRIPTIONS. MY INTENTION IN ADDING TWO OTHER TYPES OF TAXA (BATS AND ANURANS) WAS TO INDICATE THAT THESE TAXA COULD ALSO BE SAMPLED, NOT TO REMOVE THE FOCUS ON BIRDS. I REMOVED MENTION OF THESE TAXA TO CLARIFY THAT THE FOCUS OF THIS WORK IS ON BIRDS.

June 4, 2024

The outcomes listed in the narrative page include "producing data that fill a knowledge gap needed for biodiversity conservation and management." What specific data will you be collecting? Is there a specific research question you'll be

answering during the life of this funding? Please address in your activities and milestones. I HAVE EDITED THE ACTIVITY 1 and 2 DESCRIPTIONS TO CLARIFY OUR APPROACH AND DATA WE ARE COLLECTING.

How will you assess the land management practices (and the resulting differences in forest structure and disturbance regimes) in Activity 2? How will you determine the distribution of volunteers is statistically adequate to support your conclusions? Please address in your activities and milestones.

I ADDED LANGUAGE TO THE NARRATIVE DESCRIPTION FOR ACTIVITY 1 RELATING TO SAMPLE / VOLUNTEER SIZE, WHICH SHOULD HELP CLARIFY OUR APPROACH. I ALSO EDITED THE ACTIVITY 2 DESCRIPTION TO CLARIFY OUR APPROACH.

Please explain in the budget line item description why PI salary is more than summer salary. THE PI SALARY ON THIS BUDGET LINE ITEM IS FOR SUMMER SALARY ONLY (12 WEEKS FOR EACH OF TWO SUMMERS).

Purchase of computers, tablets, or audiovisual equipment is generally ineligible unless additional justification is provided and expenses are explicitly approved by LCCMR. It looks as if you likely have good reason for requesting funds for these costs but could you please click on "generally ineligible" for that budget item and provide additional justification in the box that then becomes available? Thanks.

I HAVE ADDED RELEVANT LANGUAGE TO THE JUSTIFICATION FOR THIS GENERALLY INELIGIBLE EXPENSE.

Please include in the Dissemination section a statement about how Environment and Natural Resources Trust Fund 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 ENTRF Acknowledgment Guidelines. I HAVE ADDED THIS STATEMENT TO THE DISSEMINATION SECTION.

Thanks for noting that you changed the funding category. I didn't know that you could do that in a draft workplan. We have this project in the Methods to Protect category in all our materials and appropriation language. It would be helpful to us if you could please change it back. It should not affect your project either way at this point and I can see that it fits in either category.

I HAVE MADE THIS CHANGE.

It's not clear what Activity 1 Milestones 1 & 3 are and how they differ from the training mentioned in Milestones 2 & 4. Please clarify.

I HAVE EDITED THESE MILESTONES FOR CLARITY. I ALSO REMOVED THE NUMBER OF VOLUNTEERS WE WILL RECRUIT AND TRAIN -- THE NUMBER OF VOLUNTEERS WE ARE ABLE TO RECRUIT AND TRAIN IS GOING TO VARY AND WILL ALSO BE DRIVEN BY THE NUMBER OF DEVICES WE CAN PURCHASE WITHIN OUR BUDGET, SO IT'S DIFFICULT TO PREDICT. DEVICE COSTS ARE CONTINUALLY CHANGING, SO THIS WILL ALSO BE A FACTOR IN TERMS OF HOW MANY VOLUNTEERS WE CAN RECRUIT (AND HOW MANY LOCATIONS WE CAN SAMPLE).

Out state conferences are double generally ineligible: out of state transportation and conferences are both "generally ineligible costs." We typically only fund one out of state conference per project. Please adjust. I HAVE EDITED THIS LANGUAGE TO REFLECT THAT WE WILL USE THESE FUNDS FOR IN-STATE CONFERENCES ONLY.

Activity 3 milestones include multiple conferences. We do not see the in-state conferences in the budget but also don't see those costs covered in your non- ENRTF funds. Please note, if you do include in -state conferences, please check the box to indicated generally ineligible and include additional justification. Justification must include statement that attendance is to participate in formal presentation of project findings.

I HAVE ADDED THE IN-STATE CONFERENCES TO THE BUDGET EXPLANATION (REMOVING THE OUT OF STATE CONFERENCES SO THAT THE FUNDS IN THE BUDGET COVER IN-STATE CONFERENCES). I ALSO ADDED THE REQUIRED JUSTIFICATION FOR THE GENERALLY INELIGIBLE EXPENSES.

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 UMN Policy.

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? Yes
- Does the organization have a fiscal agent for this project?

Yes, Sponsored Projects Administration

Does your project include the pre-design, design, construction, or renovation of a building, trail, campground, or other fixed capital asset costing \$10,000 or more or large-scale stream or wetland restoration? No

Do you propose using an appropriation from the Environment and Natural Resources Trust Fund to conduct a project that provides children's services (as defined in Minnesota Statutes section 299C.61 Subd.7 as "the provision of care, treatment, education, training, instruction, or recreation to children")?

No