



Environment and Natural Resources Trust Fund

2021 Request for Proposal

General Information

Proposal ID: 2021-414

Proposal Title: Engaging Minnesotans with Phenology: Radio, Podcasts, Citizen Science

Project Manager Information

Name: Maggie Montgomery

Organization: Northern Community Radio, Inc.

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Project Basic Information

Project Summary: This education project will build the next generation of conservationists in Minnesota by engaging youth and adults in science and outdoor learning through radio, podcasts, citizen science and schoolyard exploration.

Funds Requested: \$198,000

Proposed Project Completion: 2023-06-30

LCCMR Funding Category: Small Projects (H)

Secondary Category: Environmental Education (C)

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

Narrative

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

For more than thirty years, John Latimer has led the Phenology Show at Northern Community Radio, KAXE/KBXE, based in Grand Rapids, MN, inspiring 1000s of people in to pay attention to what's happening in nature in their backyards and woodlots and share it with others. Every Tuesday morning, John gathers his phenology data and reports his findings in the weekly Phenology Report. Every week in Phenology Talkback we hear from Minnesota school kids and regular listeners as they call or email us with their nature observations. Bobcat tracks, downy woodpeckers, a snowdrift covering a classroom window (which a hero-custodian cleared away), a close study of layers of snow and much more are included in these phenology reports.

Phenology is an important tool for creating personal connection to places. We know that "place connection" is a key component of pro-environmental and conservation behavior. Our project builds on John's legacy by developing new programs that strengthen place connection and inspire the next generation of conservationists in Minnesota.

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.

At a time when outdoor engagement is dropping (e.g., statewide reductions in hunting and fishing), our project uses technology to draw people outdoors. We will do this by:

- developing new radio programming and podcasts that inspire listeners to engage with the outdoors and share their experiences
- expanding current partnership programs between KAXE and K-12 schools by offering workshops statewide that train teachers and 4-H leaders in existing phenology curricula, developing radio reports from schools, and supporting participating schools with follow-ups
- creating an online map based interface that will allow anyone – adult radio listeners, teachers and kids in school programs – to compare what they are seeing with others in Minnesota and with historical data compiled by the Minnesota Phenology Network.

In summary, this project will result in a set of tools equally accessible to the public, teachers and school kids that deliver science content and inspire people to get outdoors and build community around the environment through radio, podcasts, web-based data collection and nature exploration

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?

"Alexa, play the KAXE phenology school reports"

Deliver engaging environmental programming to Northern Minnesota through radio and podcasts.

Create a statewide program for school kids combining phenology observation with radio broadcasting.

Build interactive digital map of statewide phenology data and regional phenology calendars.

Activities and Milestones

Activity 1: Deliver engaging environmental programming to Northern Minnesota through radio and podcasts

Activity Budget: \$70,456

Activity Description:

Description: We will expand our current portfolio by developing three new programs: monthly interviews with environmental scientists, podcasts related to the seasons of the year, and monthly radio segments about statewide phenology that will be made available to other public radio stations in Minnesota. These public radio broadcasts and podcasts will educate and engage people in northern MN—and elsewhere around the state—about environmental science and its relationship to observable nature.

Activity Milestones:

Description	Completion Date
24 short radio segments of statewide phenology happenings shared with other MN noncommercial radio stations	2023-06-30
8 podcasts created and available online (spring, summer, fall, winter each year)	2023-06-30
24 radio segments that present interviews with scientists (approx 12 segments/year)	2023-06-30

Activity 2: Create a statewide program for school kids combining phenology observation with radio broadcasting

Activity Budget: \$40,251

Activity Description:

expand existing school partnerships in environmental education statewide and also work with county 4-H programs. With UMN extension support, we will offer teachers and 4-H leaders training in our phenology and radio curriculum once per season for two years (8 workshops) rotating the location around the state (NE, NW, SE, SW). The curriculum involves basic phenology observations combined with developing short school phenology reports for radio broadcast. We will offer a helpline, pair teachers and 4-H leaders with a Master Naturalist and provide 1-1 follow-up meetings to ensure strong support of classroom implementation. Further, we will develop easy data input for school reports that supports the map of observations in Activity 3.

Activity Milestones:

Description	Completion Date
360 radio segments created by kids in school programs (approximately 160 radio segments/year)	2023-06-30
8 workshops that train teachers who engage 2400 students (4 workshops per year)	2023-06-30

Activity 3: Build an interactive digital map of statewide phenology data and regional phenology calendars

Activity Budget: \$87,293

Activity Description:

create an online map interface for comparing current observations to others and to the past. Users will click on their location and search for earliest, latest and average time of a phenological event such as lilac blooming or sandhill crane return. In addition, they can view what others in the state are seeing. This interactive web application will allow people

to place their personal observations in a broader context and build community and awareness. In addition, we'll create regional phenology calendars available online and in print form that serve as guides to what to look for each month as well as personal journals.

Activity Milestones:

Description	Completion Date
Online and print regional phenology calendars - 3681 print copies distributed	2022-12-31
Web tool to compare current observations to past and to others in the state goes live	2022-12-31
Online release of the interactive digital map of phenology data	2022-12-31

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Stephan Carlson	University of Minnesota	Stephan Carlson is an extension educator who will assist with providing teacher trainings and other services through this proposed project.	Yes
Rebecca Montgomery	University of Minnesota	We will subcontract with Rebecca Montgomery and the University of MN Department of Forest Resources for part of the services we hope to provide through this proposal	No

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?

Long term: Web map will be hosted by University of Minnesota. Radio broadcasts and podcasts will be available through KAXE website.

Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Assessing Species Vulnerability to Climate Change Using Phenology	M.L. 2014, Chp. 226, Sec. 2, Subd. 05e	\$175,000

Project Manager and Organization Qualifications

Project Manager Name: Maggie Montgomery

Job Title: General Manager

Provide description of the project manager's qualifications to manage the proposed project.

Maggie Montgomery has 36 years' experience in public broadcasting. She has been General Manager of Northern Community Radio (NCR) since 1995. Northern Community Radio is an independent public educational broadcast organization that "builds community in northern Minnesota" (mission statement). The organization operates two public radio stations: 91.7 KAXE in Grand Rapids and 90.5 KBXE in Bemidji. Its website is www.kaxe.org. KAXE was the original public radio station for much of northern Minnesota and is the state's only full member of National Public Radio outside of MPR. KAXE and KBXE broadcast mostly contemporary music, news, and entertainment with a full-time staff of 9 and the contributions of more than 100 community volunteers. The organization is highly involved in its communities of service.

Maggie has been named Ampers (Association of MN Public Educational Broadcasters) Broadcaster of the Year, and was honored with NCR's first award for on-air creativity and artistry. Northwest Minnesota Foundation Women's Fund presented her with its annual Outstanding Community Builder award in 2013. She has served as President of the Ampers board, and as a board member for the National Federation of Community Broadcasters (NFCB). Invited speaker and workshop leader at state and national conferences, including NFCB conferences and the Public Radio Engineering Conference.

Her work at Northern Community Radio includes staff leadership, budgeting, grant writing and reporting, regulatory compliance, supervision, and working closely with the organization's board of directors. She is also host and producer for Morning Edition and the Wednesday Morning Show each week, and produces a weekly segment about local food.

Organization: Northern Community Radio, Inc.

Organization Description:

Northern Community Radio is a 501(c)3 nonprofit public educational media organization that was founded in 1971. It operates two public radio stations, 91.7 KAXE in Grand Rapids and 90.5 KBXE in Bemidji. It also operates smaller signals in Ely and Brainerd. Northern Community Radio is a member of National Public Radio and provides a mix of news and music programming to most of northern Minnesota. It also operates a website at KAXE dot org and has an active presence in a variety of social media. Because the organization is headquartered in the lakes and woods region of Minnesota, much of its public affairs programming has reflected the area's unique climate and nature. For over 30 years this programming has included Phenology, or the study of the rhythms of nature in relationship to climate. The organization has taken its phenology program into the schools to engage students in outdoor learning and science.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
Producer		identify and set up interviews, enter data from schools, produce web stories and interfaces, share information on social media, newspapers, etc			39%	0.9		\$46,800
Production supervisor		Work with producer to train, coordinate, and assist with all aspects of radio production			45%	0.1		\$6,656
Administration		Coordinate and administer the grant to be sure outcomes are achieved, bills are paid, reporting is accomplished			40%	0.06		\$4,200
Phenologist		conduct teacher trainings and followups			20%	0.08		\$4,600
							Sub Total	\$62,256
Contracts and Services								
Contract producer	Professional or Technical Service Contract	produce 24 statewide phenology episodes				0.18		\$15,600
University of Minnesota	Professional or Technical Service Contract	Phenology data interpretation; digital Arts, Science, and Humanities mapping; teacher training sessions. The entity is a co-collaborator on this project				1.2		\$102,222
This is Folly	Professional or Technical Service Contract	Graphic design for phenology calendars per state contracting rules.				0.04		\$4,000
							Sub Total	\$121,822
Equipment, Tools, and Supplies								
							Sub Total	-
Capital Expenditures								

							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	8 training sessions @ 500 miles/session, 1 person @ .545/mile; 30 follow-up sessions, 250 miles/session, 1 person @ .545/mile: per commissioner's plan for lodging, 8 sessions, 1 person @ \$94/night; per commissioner's plan for food, 8 sessions, 1 person @ \$46/day	teacher training and teacher follow-up training					\$8,400
							Sub Total	\$8,400
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
	Printing	calendars (3681 @ 1.50/calendar)	phenology calendars for distribution to students and others to track nature sightings					\$5,522
							Sub Total	\$5,522
Other Expenses								
							Sub Total	-
							Grand Total	\$198,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
In-Kind	UMN unrecovered ICR @ 52% (\$103,203); R. Montgomery, in-kind salary, 0.04 FTE for two years (\$11,000)	Project collaborator	Pending	\$114,203
			State Sub Total	\$114,203
Non-State				
			Non State Sub Total	-
			Funds Total	\$114,203

Attachments

Required Attachments

Visual Component

File: [c58c7363-879.pdf](#)

Alternate Text for Visual Component

Overarching Goal: to build the next generation of conservationists in Minnesota though through radio programming, podcasts, digital media, citizen science and schoolyard exploration

Photo: John Latimer, staff phenologist at KAXE/KBXE; Caption: Develop new radio programs and podcasts that inspire people to get outside and enjoy nature

Photo: Teacher with students outside; Caption: Expand schoolyard program statewide

Photo: Map with choices to enter bird sightings; Caption: View historical data and add observations through an easy-to-use map interface

Collaborators: University of MN Extension; KAXE/KBXE (Northern Community Radio); Minnesota Phenology Network

Financial Capacity

File: [487c107f-0a9.pdf](#)

Board Resolution or Letter

Title	File
Northern Community Radio Board Resolution	19229113-3e1.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Does your project have patent, royalties, or revenue potential?

No

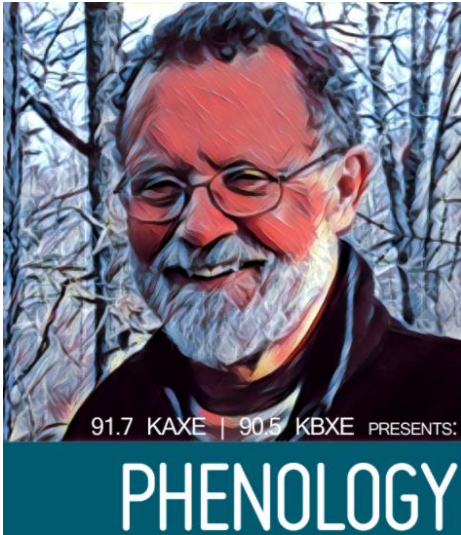
Does your project include research?

No

Does the organization have a fiscal agent for this project?

No

Overarching Goal: to build the **next generation of conservationists** in Minnesota though through radio programming, podcasts, digital media, citizen science and schoolyard exploration



Develop new **radio programs** and **podcasts** that inspire people to get outside and observe nature.

Expand schoolyard program statewide and get **kids doing nature reports on the radio!**



View historical data and **add** observations through an easy to use **map interface**

