



Environment and Natural Resources Trust Fund (ENRTF)

M.L. 2020 ENRTF Work Plan

Today's Date: 11/7/19

Date of Next Status Update Report: April 1, 2021

Date of Work Plan Approval:

Project Completion Date: Two years: June 30, 2022

Does this submission include an amendment request? no

PROJECT TITLE: Engaging Minnesotans with Phenology: Radio, Podcasts, Citizen Science

Project Manager: Maggie Montgomery

Organization: Northern Community Radio

College, Department, or Division: NA

Mailing Address: 260 NE 2nd St

City, State, Zip Code: Grand Rapids MN 55744

Project Manager Direct Telephone Number: 218/326-1234

Email Address: mmontgomery@kaxe.org

Web Address: www.kaxe.org

Location: Statewide

Total Project Budget: \$198,000

Amount Spent: \$0

Balance: \$198,000

Legal Citation: M.L. 2020, Chp. xx, Sec. xx, Subd. xx

Appropriation Language:

PROJECT STATEMENT:

“Alexa, play the KAXE phenology school reports”

The goal of this environmental education project is to build the next generation of conservationists in Minnesota by engaging youth and adults in science and outdoor learning through radio programming, podcasts, digital media, citizen science and schoolyard exploration. We use phenology, the rhythmic biological events of nature as they relate to climate, to draw people outdoors to observe and connect.

For more than thirty years, John Latimer has led the Phenology Show at Northern Community Radio, KAXE/KBXE, based in Grand Rapids, MN, inspiring thousands of people 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.

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

II. OVERALL PROJECT STATUS UPDATES:

First Update April 1, 2021

Second Update October 1, 2021

Third Update April 1, 2022

Final Report between project end (June 30) and August 15, 2022

III. PROJECT ACTIVITIES AND OUTCOMES:

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

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 1 ENRTF BUDGET: \$70,456

Outcome	Completion Date
1. 24 radio segments that present interviews with scientists that engage up to 18,000 listeners per week across northern MN (approximately 12 radio segments per year)	June 2022
2. 8 podcasts created and available online (spring, summer, fall, winter each year)	June 2022
3. 24 short radio segments (each up to 5 minutes) of statewide phenology “happenings” created and distributed to other noncommercial educational radio stations in Minnesota (approximately 12 radio segments per year)	June 2022

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

Description: We will 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.

ENRTF BUDGET: \$40,251

Outcome	Completion Date
1. 8 workshops train 80 teachers who engage 2400 students (4 per year)	June 2022
2. 360 radio segments created by kids in school program (approximately 160 radio segments per year)	June 2022

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

Description: We will 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.

ENRTF BUDGET: \$87,293

Outcome	Completion Date
1. <i>Online release of the interactive digital map of phenology data</i>	<i>December 2021</i>
2. <i>Web tool to compare current observations to past and to others in the state goes live</i>	<i>December 2021 2022</i>
3. <i>Online and print regional phenology calendars – 3681 print copies distributed</i>	<i>December 2021</i>

First Update April 1, 2021**Second Update October 1, 2021****Third Update April 1, 2022****Final Report between project end (June 30) and August 15, 2022****IV. DISSEMINATION:**

Description: This entire project is about dissemination: the act of carrying out the project creates educational programs that disseminate what we know about and can learn from phenology. In addition, we will share the monthly interviews with environmental scientists, podcasts related to the seasons of the year, and monthly radio segments about statewide phenology with other radio stations and online on the KAXE website. Materials from Activity 2 will be available through the MnPN website. The online map interface will be publically available through the University of Minnesota. We will work with local media outlets to raise awareness about our programming.

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

First Update April 1, 2021**Second Update October 1, 2021****Third Update April 1, 2022****Final Report between project end (June 30) and August 15, 2022****V. ADDITIONAL BUDGET INFORMATION:****A. Personnel and Capital Expenditures****Explanation of Capital Expenditures Greater Than \$5,000:****Explanation of Use of Classified Staff:****Total Number of Full-time Equivalents (FTE) Directly Funded with this ENRTF Appropriation:**

Enter Total Estimated Personnel Hours for entire duration of project: 2567	Divide total personnel hours by 2,080 hours in 1 yr = TOTAL FTE: 1.2
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Total Number of Full-time Equivalents (FTE) Estimated to Be Funded through Contracts with this ENRTF Appropriation:

Enter Total Estimated Contract Personnel Hours for entire duration of project: 2704	Divide total contract hours by 2,080 hours in 1 yr = TOTAL FTE: 1.3
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VI. PROJECT PARTNERS:

- A. Partners outside of project manager's organization receiving ENRTF funding: University of Minnesota
- B. Partners outside of project manager's organization NOT receiving ENRTF funding: MN Phenology Network, Rebecca Montgomery (University of MN), Ampers radio stations

VII. LONG-TERM- IMPLEMENTATION AND FUNDING:

The University of Minnesota will host the web map. Radio broadcasts and podcasts will be available through KAXE website.

VIII. REPORTING REQUIREMENTS:

- Project status update reports will be submitted April 1 and October 1 each year of the project
- A final report and associated products will be submitted between June 30 and August 15, 2022

IX. SEE ADDITIONAL WORK PLAN COMPONENTS:

- A. Budget Spreadsheet: Enclosed
- B. Visual Component or Map: Enclosed
- C. Parcel List Spreadsheet: N/A
- D. Acquisition, Easements, and Restoration Requirements: N/A
- E. Research Addendum: N/A

Attachment A: Project Budget Spreadsheet
Environment and Natural Resources Trust Fund
M.L. 2020 Budget Spreadsheet

Legal Citation:

Project Manager: Maggie Montgomery

Project Title: Engaging Minnesotans with phenology: radio, podcasts, citizen science

Organization: Northern Community Radio, Inc.

Project Budget: \$198,000

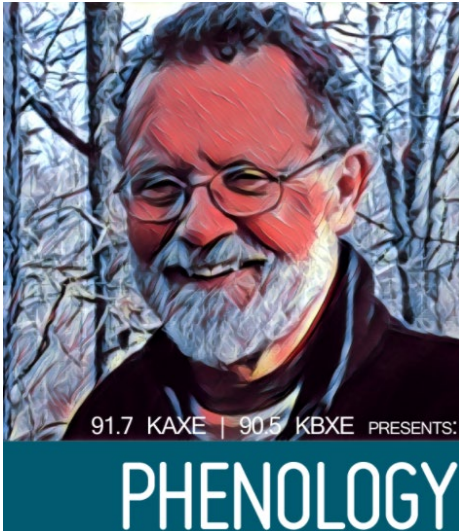
Project Length and Completion Date: Two years; June 30, 2022

Today's Date: April 9, 2019



ENVIRONMENT AND NATURAL RESOURCES TRUST FUND BUDGET		Budget	Amount Spent	Balance
BUDGET ITEM				
Personnel (Wages and Benefits)		\$ 62,256	\$ -	
Producer, 18h/week @ \$18/h +\$7/h fringe; two years; \$46,800				
Producer supervisor, 2h/week @ \$22/h +\$10/h fringe; two years; \$6,656				
Grant administration, 5h/month @ \$25/h +\$10/h fringe; two years; \$4,200				
John Latimer, 8 teacher trainings @ \$200/session + 30 follow-ups @ \$100/session; \$4,600				
Professional/Technical/Service Contracts				
Contract producer 24 statewide phenology episodes @ 650/episode per state contracting rules		\$ 15,600		
Subcontract with University of Minnesota: phenology data interpretation, 0.25 FTE (1 year @ base salary 49,000\$ + fringe 36%=\$16,660); Stephan Carlson, UMN Extension, 0.10 FTE (2 year @ base salary \$82,534 + fringe 36%=\$22,449); Digital Arts Science & Humanities mapping, Len Kne, 0.05 FTE (1 year @ base salary 86,107 + 36% fringe=\$11,711); Graduate RA, 0.5 FTE (1 year, \$48,000); travel per UMN Policy for 1 person for 8 training sessions, mileage @ 500 miles/session @ 0.58/mile = \$2,320; lodging @ \$94/night = \$752, per diem @ 41.25 per day (first/last day rates) = \$330.		\$ 102,222		
Modified graphic design for calendars based on existing calendar created by This is Folly per state contracting rules		\$ 4,000		
		\$ -	\$ -	\$ -
Equipment/Tools/Supplies				
		\$ -	\$ -	\$ -
Printing				
Calendar printing (3681 * \$1.50/calendar)		\$ 5,522	\$ -	
Travel expenses in Minnesota		\$ 8,400		
8 training sessions, 500 miles/session, 1 persons @ 0.545/mile = \$2,180				
30 follow up sessions, 250 miles/session, 1 person @ 0.545/mile = \$4,088				
Per commissioner's plan for lodging, 8 sessions * 1 persons * 94\$/night * 8 = \$752				
Per Commissioner's Plan for food, 8 sessions * 1 persons * \$46/day * 30 = \$1,380				
		\$ -	\$ -	\$ -
Other				
		\$ -	\$ -	\$ -
COLUMN TOTAL		\$ 198,000	\$ -	\$ -
SOURCE AND USE OF OTHER FUNDS CONTRIBUTED TO THE PROJECT		Status (secured or pending)	Budget	Spent
Non-State:			\$ -	\$ -
State:			\$ -	\$ -
In kind:UMN unrecovered ICR @ 52% (\$103,203); R. Montgomery, in-kind salary, 0.04 FTE for two years (\$11,000)		pending	\$ 114,203	\$ -
Other ENRTF APPROPRIATIONS AWARDED IN THE LAST SIX YEARS		Amount legally obligated but not yet spent	Budget	Spent
Project collaborator, R. Montgomery, M.L. 2014, Chp. 226, Sec. 2, Subd. 05e, Assessing species vulnerability to climate change using phenology			\$ 175,000	\$ 175,000
				\$ -

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**

