



UNIVERSITY OF MINNESOTA EXTENSION

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Extension is expanding its [online education](#) and resources to adapt to COVID-19 restrictions.

Climate-smart trees take root in northeast Minnesota



Average annual temperatures in northeast Minnesota are rising, and the summer growing season is becoming sporadic and unpredictable. These trends threaten the iconic forested landscapes of the Northwoods, as well as the tourism, forestry industry and wildlife that depend on them.

"I am planning to live here and want to make sure I can walk in the woods when I'm old. We'll need a forest for that," said Joel Bransky, an AmeriCorps VISTA volunteer with the University of Minnesota Extension Northeast Regional Sustainable Development Partnership ([Northeast RSDP](#) [<https://extension.umn.edu/regional-partnerships/northeast-rsdp>](https://extension.umn.edu/regional-partnerships/northeast-rsdp)).

Planting climate-smart trees can help protect northeast Minnesota's forested ecosystems from changing conditions. Research from the University of Minnesota Duluth (UMD) and [The Nature Conservancy](#) [<https://www.nature.org/en-us/about-us/where-we-work/united-states/minnesota/>](https://www.nature.org/en-us/about-us/where-we-work/united-states/minnesota/) (TNC) has found that increasing the genetic diversity of tree species and growing tree seedlings adapted to warmer climates can improve forest resilience. Trees planted from seeds gathered in central and southern Minnesota are growing healthier and stronger in northeast Minnesota's rapidly warming climate than those native to northern Minnesota. In the future, while species like red oak and bur oak are predicted to thrive, other native species, such as paper birch, aspen, and black and white spruce, are expected to struggle.

Given this reality, how can land managers and foresters in northeast Minnesota sustainably source diverse tree seedlings better suited to these new conditions?



Northeast RSDP AmeriCorps volunteer Joel Bransky (right) collected climate-smart tree seeds with Kelly Popham (left). Photo credit: Debby Flowers.

Growing a market for climate-smart seedlings

With support from Northeast RSDP and a [University of Minnesota Institute on the Environment Impact Grant award](#) [<http://environment.umn.edu/news/introducing-the-impact-goal-grant-recipients/>](http://environment.umn.edu/news/introducing-the-impact-goal-grant-recipients/) , the Forest Assisted Migration Project has embarked on a five-year effort to build a regional market for cultivating climate-smart tree seedlings from local farms and nurseries that meet this need.

"We hope we can all be going into this as fully informed as we can be, eyes wide-open, and to build this slowly and deliberately. The best outcome would be a solid market this year, next year, and then long-term, if we're successful at this," said David Abazs, Northeast RSDP executive director and project lead.

Since work on this project began last year, its reach has grown, engaging more than 150



Northeast RSDP executive director David Abazs with equipment for planting tree seedlings.

people and 30 organizations. UMD undergraduate students Emily Pilz, Alaina Lawrence and Emily Rakos helped with initial outreach to farmers across the region. Since then, a growers network of local farmers and nurseries has formed.

With coordination and support from Abazs, Bransky and Gabrea Francis of the [Greater Mille Lacs Sustainable Farming Association \(SFA\)](https://www.sfa-mn.org/greater-mille-lacs/) ([<https://www.sfa-mn.org/greater-mille-lacs/>](https://www.sfa-mn.org/greater-mille-lacs/)), growers from this network will experiment with growing and selling 40,000 climate-forward tree seedlings to advance forest adaptation and mitigation in northeastern Minnesota. Bransky assisted in collecting some of the seeds volunteers will use from farmers and landowners in central and southern Minnesota.

The project held its first in a series of four trainings for the growers network in December 2020. The recent virtual training included a presentation on farm business planning basics by University of Minnesota Extension educator Ryan Pesch, as well as

specific considerations and budget tools for planting tree seedlings.

Partners at TNC agreed to buy and plant the seedlings from the growers network to support the nonprofit's ongoing climate adaptation efforts in the region.

"Yes, we are talking about loss of the Northwoods as we know it, but working toward a 'new normal' is worthwhile," [wrote <https://blog.nature.org/science/2017/10/11/adaptation-as-acceptance-toward-a-new-normal-in-the-northwoods/>](https://blog.nature.org/science/2017/10/11/adaptation-as-acceptance-toward-a-new-normal-in-the-northwoods/) Meredith Cornett, in an earlier article about her and TNC's work on forest-assisted migration. Cornett is TNC's Science Director in Minnesota, North Dakota and South Dakota, and a key collaborator on the project.

A branch between research and application

In addition to the applied aspects of this project, the team created a parallel track to explore important research questions about assisted migration strategies, including which traits help tree species have better survival or growth.

Julie Etterson, Ph.D., head of the Department of Biology at University of Minnesota Duluth (UMD) and director of the [Institute on the Environment Duluth](https://www.d.umn.edu/ionc/) ([<https://www.d.umn.edu/ionc/>](https://www.d.umn.edu/ionc/)), is co-leading the project's research efforts with Briana Gross, Ph.D., associate department head and professor at UMD's Swenson College of Science and Engineering. Both faculty members are engaging students in their work to provide mentorship and applied research experience.

"I've been working on this issue for the past 10 years – doing experimental work with The Nature Conservancy and figuring out whether assisted migration is a good idea. The data has let us know it is. But the reality is there is currently a shortage of climate-smart tree species in our region," Etterson said. "Now, it's a delight to work with Northeast RSDP to turn this academic research into an actual economic engine on the ground, translating our academic work to more applied contexts."

Despite contributing many different roles to the project, members of the Forest Assisted Migration Project team agreed that the goal of their work is to ensure a thriving forest in northeast Minnesota for decades to come.

"Our long-term success will certainly be maintaining a forested region in our state. That is the end goal," Etterson said.

Those interested in more information about the Northeast RSDP Forest Assisted Migration Project can contact [David Abazs](#) and [Joel Bransky](#).



University of Minnesota Extension tree identification class in Northwoods, 2019.

Learn more about the Forest Assisted Migration Project

As the Northeast RSDP Forest Assisted Migration Project continues and plants its first batch of tree seedlings this year, follow updates and explore resources provided to the growers network on the project's website.

[Follow updates on the Forest Assisted Migration Project <https://www.arrowheadgrown.org/forest-assisted-migration-project>](https://www.arrowheadgrown.org/forest-assisted-migration-project)

References

Etterson, Julie R., Meredith W. Cornett, Mark A. White, Laura C. Kavajecz. 2020. "Assisted migration across fixed seed zones detects adaptation lags in two major North American tree species." *Ecological Applications* 30(5):e02092. <https://doi.org/10.1002/eap.2092> [.<https://doi.org/10.1002/eap.2092>](https://doi.org/10.1002/eap.2092) .

Frelich, Lee E. 2018. "Report on Forest Vegetation: Analyses portion of 'Climate Change Adaptation Planning for Northern Forest Ecosystems in the Great Lakes National Parks.'" National Park Service. US Department of the Interior (PMIS 157471).

Marie Donahue, January 2021

Marie Donahue works as a statewide sustainability storyteller with the University of Minnesota Extension Regional Sustainable Development Partnerships (RSDP) and Clean Energy Resource Teams (CERTs).

Banner photo credit: Anthony V. Hall, Amy Rager

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2021 Aitkin Co. 4-H Fruit Sale

SOLD TO: _____ DATE: _____

ADDRESS: _____ PHONE: _____

Quantity	Description	Price/Box	Total
_____	Sm. 8 Oranges/6 Honeycrisp/2 Sumos/4 Pears...	\$23.00	_____
_____	#1 Med. 16 Oranges/9 Braeburn Apples/9 Pink Apples	\$26.00	_____
_____	#2 Med. 12 Oranges/6 Braeburn/6 Pink/10 Pears.....	\$26.00	_____
_____	#3 Med. 8 Grapefruit/13 Oranges/5 Braeburn/5 Pink.	\$26.00	_____
_____	#4 Med. 6 Grpft/12 Oranges/4 Brae/4 Pink/6 Pears.	\$26.00	_____
_____	Lg. Texas Red Grapefruit (40 ct.)	\$31.00	_____
_____	Lg. California Navel Oranges (72-88 ct.)	\$36.00	_____
_____	Sm. Washington Braeburn Apples (20 ct.)	\$17.00	_____
_____	Med. Washington Braeburn Apples (40 ct.)	\$26.00	_____
_____	Sm. Washington Honeycrisp Apples (20 ct.)	\$26.00	_____
_____	Sm. Washington Pink Lady Apples (20 ct.)	\$18.00	_____
_____	Med. Washington Pink Lady Apples (40 ct.)	\$29.00	_____
_____	Med. Washington Apple Sampler (8 Honey/8 Pink/8 G. Smith/8 Braeburn/8 Fuji).	\$32.00	_____
_____	Sm. Washington d'Anjou Pears (20 ct.)	\$18.00	_____
_____	Pineapple	\$6.00	_____
_____	2.5 lbs. Beef Sticks (25-30 count/bag)	\$25.00	_____
_____	1.5 lbs. String Cheese (24 sticks)	\$13.00	_____

*Supplier reserves the right to modify counts and varieties of fruit in boxes. **GRAND TOTAL**

4-H Salesperson: _____

Customers return this form to your 4-H salesperson by **Tues, Feb 16, 2021.**

Makes checks payable to : _____
(your 4-H club)

Approximate Delivery Date: Friday, March 12th 2021

Handout 7A



12300 Elm Creek Boulevard
Maple Grove, Minnesota 55369-4718
763-445-5000
greatriverenergy.com

February 8, 2021

Portage Lake Substation
WO # 207327

Aitkin County Land Department
Attn: Rich Courtemanche – via email only
502 Minnesota Ave N
Aitkin, MN 56431

SUBJECT: Great River Energy Land Purchase Request

Dear Rich:

Great River Energy is a not-for-profit wholesale electric power cooperative which provides electricity to 28 member-owner distribution cooperatives, including Mille Lacs Energy Cooperative. Together, our systems provide power to approximately two-thirds of Minnesota geographically and parts of Wisconsin, serving 700,000 families, farms, and businesses.

Great River Energy is proposing to construct a new 115/69-kV transmission substation in Kimberly Township. This project will benefit and improve reliability of the transmission grid in the area and provide an additional support for the Mille Lacs Energy Cooperative distribution system.

Great River Energy's preference is to acquire a portion, or all, of Aitkin County PID No. 15-0-017700. This parcel is adjacent to an existing Minnesota Power 115-kV transmission line that would be the source for the new substation. In addition, the site is beneficial compared to other sites nearby that would have greater wetland impacts or are irregularly shaped. Attached is an aerial map that shows a proposed acquisition of the North ½ of the NE ¼ of the NE ¼, lying easterly of 275th Avenue in Section 11, Township 47N, Range 25W. At a minimum, 10 acres of useable area is needed to allow for grading, the substation and adequate access/parking areas.

The signatory for Great River Energy for this project will be Daniel Leshar, Manager, Transmission Permitting and Land Rights. If you have any questions or need additional information, please contact me at 612-309-6839 or by email at mlommel@greenergy.com.

Sincerely,
GREAT RIVER ENERGY

Michelle Lommel
Sr. Field Representative

c: Dan Leshar – via email only

Attachment

ML:jh\s:\trans\capital project\207326 Portage lake area\207327 Portage lake Kimberly\LR\Land Sale\State of MN\Portage lake request ltr.docx

Direct dial (763) 445-5977

Email mlommel@greenergy.com

Fax (763) 445-6777



GIS Data sources: IRMNR, MNGEO, MNDNR, MNDOT, and Great River Energy

- Great River Energy**
- Existing 115-kV transmission line
 - Transmission line structure
 - Existing distribution substation
 - Proposed parcel to be purchased by GRE

- Foreign Transmission**
- Existing 115-kV transmission line

Great River Energy (GRE) and its employees make no warranties, expressed or implied, nor assumes any liability or responsibility for the accuracy, completeness, usefulness of information and/or representations regarding the quality, reliability, currency and suitability of this information for any purposes. This map has been produced from various sources. Every effort has been made to ensure the accuracy of this map. However, Great River Energy assumes no responsibility for actual or consequential damage incurred as a result of any person's reliance on this information. This information is subject to change at any time without notice.

0 50 100 Feet



Palisade to Portage





AITKIN COUNTY ADMINISTRATION

Aitkin County Government Center
307 2nd Street NW, Room 310
Aitkin, MN 56431

jessica.seibert@co.aitkin.mn.us
Phone: 218-927-3093
Fax: 218-927-7374

January 26, 2021

Galen Tveit
54446 US Hwy 169
Palisade, MN 56469

COPY

Dear Galen:

At the January 26, 2021 Aitkin County Board meeting, the Aitkin County Board of Commissioners appointed you to the Housing and Redevelopment Authority of Aitkin County as the District 5 representative. We thank you for your application and congratulate you on your appointment!

If you have any questions about this committee, please feel free to call Teresa Smude at 218-927-2151.

Sincerely,

J. Mark Wedel, Chair
Aitkin County Board of Commissioners

cc: Aitkin County Board of Commissioners
Teresa Smude



AITKIN COUNTY ADMINISTRATION

Aitkin County Government Center
307 2nd Street NW, Room 310
Aitkin, MN 56431

jessica.seibert@co.aitkin.mn.us
Phone: 218-927-3093
Fax: 218-927-7374

January 26, 2021

COPY

Marcia Gerber
37724 310th St.
Aitkin, MN 56431

Dear Marcia:

At the January 26, 2021 Aitkin County Board meeting, the Aitkin County Board of Commissioners appointed you to the East Central Regional Library Board. We thank you for your application and congratulate you on your appointment!

If you have any questions, please contact Carla Lydon at (763) 392-0649.

Sincerely,

J. Mark Wedel, Board Chair
Aitkin County Board of Commissioners

cc: Aitkin County Board of Commissioners
Carla Lydon, ECRL



AITKIN COUNTY ADMINISTRATION

Aitkin County Government Center
307 2nd Street NW, Room 310
Aitkin, MN 56431

jessica.seibert@co.aitkin.mn.us
Phone: 218-927-3093
Fax: 218-927-7374

January 26, 2021

COPY

Julie Yaeger
44623 296th Lane
Aitkin, MN 56431

Dear Julie:

The Aitkin County Board of Commissioners would like to thank you for your application to the East Central Regional Library Board, however, another applicant was chosen.

Thank you for your interest. It is very much appreciated.

Sincerely,

J. Mark Wedel, Chair
Aitkin County Board of Commissioners

cc: Aitkin County Board of Commissioners
Carla Lydon, ECRL

Aitkin County Board of Commissioners Board Meeting Attendance Record

Date: February 9, 2021

Name	Please check the boxes that apply.		
	Aitkin County Citizen	Aitkin County Employee	Company Representative – please list.
Susanne Hinrichs			U of M Extension
Shawn Pagnucci		X	U of M Extension
John Welle		X	Highway Department
Steve Cook	X		Self
Steve Bae			Waste Management
Diana Stebbels			waste management
Michelle Lommel			Great River Energy
Scott Johnson	X		The Offi. Shop
James Ratz		X	ACAO