



# Environment and Natural Resources Trust Fund

2027 Request for Proposal

## General Information

**Proposal ID:** 2027-294

**Proposal Title:** Team Tree Youth Education Program

## Project Manager Information

**Name:** Ryan Murphy

**Organization:** U of MN - College of Food, Agricultural and Natural Resource Sciences

**Office Telephone:** (612) 625-6781

**Email:** murph523@umn.edu

## Project Basic Information

**Project Summary:** The Team Tree Program engages K–12 students in hands-on science and learning rooted in their local urban forest. Through education, youth create lasting connections to trees and green spaces.

**ENRTF Funds Requested:** \$208,000

**Proposed Project Completion:** June 30, 2030

**LCCMR Funding Category:** Small Projects (G)

**Secondary Category:** Education and Outdoor Recreation (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

## Narrative

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

The community forestry industry is currently dealing with widespread tree death from invasive pests such as Emerald Ash borer, climate impacts, training gaps, and land use changes. According to the DNR's Outdoor Opportunities for Minnesota Youth Legislative Report, there are many gaps in outdoor youth education. A few of these gaps include a) a lack of time in student's schedules, b) inaccessibility to online and outdoor courses due to cost, and c) a lack of teacher training regarding outdoor learning spaces. These challenges and gaps create a need for youth, who will become the next generation of natural resource managers, to have access to meaningful and timely environmental education as well as career pathways within the urban forestry field.

### **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.**

With the future of our urban forests in mind as well as the current gaps in outdoor education, the University of Minnesota Urban Forestry Outreach and Research Lab (UFOR) is working to expand our Team Tree Youth Programming to offer educational opportunities to more youth across the state, specifically those in environmental justice areas. Firstly, our program will expand our connections to schools around the state to offer free classroom visits, including presentations, activities, and crafts. Team Tree will work with teachers to find topics that will engage their students and bring education directly into the classroom to decrease the issue of busy schedules. Secondly, to combat the barrier of cost in environmental education, UFOR will offer a free Youth Tree Inspector certificate to students in order to create an accessible pathway into the field and encourage interest in tree health topics. Team Tree will also adapt current fact sheets, curriculum, and graphics into youth-friendly resources to have available for free download on our website. Thirdly, presentations, coloring sheets, activity workbooks, and other community forestry resources will aid educators in teaching environmental topics to students in order to lessen the gap in teacher training.

### **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 will reinforce the protection, conservation, preservation, and enhancement of the state's natural resources through educating and inspiring the next generation of environmental stewards. Through expanding programming and free educational access, more youth will gain awareness of urban forestry, tree health, and related career pathways. By removing financial barriers to environmental education, the next generation will have the opportunity to learn hands-on skills, build confidence to engage with nature, and be encouraged to become leaders in their communities. This programming will also help expand educator capacity to deliver high-quality environmental instruction and result in over 25 classroom visits.

## Activities and Milestones

### Activity 1: Enhance existing youth curriculum and educational activities for direct outreach to youth.

**Activity Budget:** \$78,000

**Activity Description:**

Team Tree has existing resources available on our website including a field book and a tree identification guide. A large part of enhancing this program includes expanding on current resources, adapting old materials to be youth-friendly, and creating new resources that are freely available to educators. New materials will include tree identification cards, coloring sheets, memory games, activity sheets, and mini lesson plans easily available for printing in both color and black and white. This task will begin July 1, 2027 (or when funds become available) and continue throughout the three year grant period. In year one (7/1/2027 - 6/30/2028) twenty resources will be created and posted to our website for free access. The first year will be focused on updating and creating resources to have ready for school visits starting January of 2028. Additional resources and activities will be developed (7/1/2028 - 6/30/2030) based on classroom experiences and feedback from teachers and students.

**Activity Milestones:**

Description	Approximate Completion Date
Create and upload 20 free educational resources to our website.	June 30, 2028
Follow up with teachers after classroom visits to gain feedback on resources.	June 30, 2029
Enhance existing resources and create 5 new resources based on teacher feedback.	June 30, 2030

### Activity 2: Engage Minnesota schools and youth programs to provide in-classroom education and outreach.

**Activity Budget:** \$78,000

**Activity Description:**

Starting on September 1, 2027 Team Tree will initiate outreach efforts to elementary schools around the state to offer in-school visits, with priority outreach to schools located in environmental justice areas and communities that have historically had limited access to environmental education. We anticipate school visits beginning after January 1, 2028. Team Tree will provide ideas for topics and activities and allow teachers to choose based on their classroom's interest and age level. Team Tree will use existing presentations and create new content based on teacher needs and feedback. Presentations can be adapted to be indoor or outdoor and may be presentation-based, activity-based, or a combination of both. We will provide at least 10 school/youth program visits from 1/1/2028 - 12/31/2028 and an additional 15 visits from 1/1/2029 - 6/30/2030. Engagement directly with schools will be prioritized during the months of September through May with additional outreach to summer youth programs during the months of June through August.

**Activity Milestones:**

Description	Approximate Completion Date
Complete outreach to 50 teachers advertising classroom visit opportunities.	December 31, 2027
Conduct 10 classroom/youth program educational presentations.	December 31, 2028
Create connections with 5 new schools to conduct classroom visits.	June 30, 2029
Conduct an additional 15 classroom/youth program educational presentations.	June 30, 2030

### Activity 3: Adapt MN Certified Tree Inspector Program education materials and exam to create a youth appropriate Tree Inspector certificate.

**Activity Budget:** \$31,200

#### Activity Description:

The MN Certified Tree Inspector Program is a state-based certification (MN Statute 89.63) administered by the MN Department of Natural Resources in which participants must pass an exam to show competency on important tree health topics. Tree Inspector educational content will be adapted to cover high-school friendly topics and include more creative and interactive modes of education. This course will be developed starting on November 1, 2027 and completed by August 31, 2028. An online course hosted on the Canvas platform through the University of Minnesota will be available by September 1, 2028 and advertised the following week. Topics for the course will include; a) benefits of trees and urban forestry, b) photosynthesis, water movement, basic biology, c) introduction to species identification, d) introduction to tree disease, and e) best planting practices - encircling roots, depth, watering, stem protection, etc. The final project will encourage creativity with ideas such as an art work submission, creating a tree species handbook, writing a report, and nature journaling. Students who complete this program will receive a “Junior Tree Inspector” certificate.

#### Activity Milestones:

Description	Approximate Completion Date
Complete and launch the online Youth Tree Inspector course.	August 31, 2028
Advertise the certificate via email to 50 high schools/youth programs.	September 30, 2028
Enhance the online course based on feedback from students.	June 30, 2029

### Activity 4: Expand and support on-ground educational activities for University of Minnesota youth tree climbing experiences.

**Activity Budget:** \$20,800

#### Activity Description:

The University of Minnesota UFOR Lab offers youth tree climbing experiences where kids have the opportunity to ascend into tree canopies utilizing professional arboriculture equipment and techniques. Team Tree will expand these offerings by providing on-ground environmental learning activities which engage youth in-between climbs. Activities will be drawn from previous curriculum, those developed in Activity 1, and opportunities arising from the location where the climbing experiences are being held. This work will occur throughout the entirety of the grant period (July 1, 2027 - June 30, 2030).

#### Activity Milestones:

Description	Approximate Completion Date
Collaborate with climbing camp leaders to assess needs and plan logistics.	August 31, 2027
Provide educational activities during the summer climbing camp.	August 31, 2027
Provide educational activities during spring and summer climbing camps.	August 31, 2028
Provide educational activities during spring and summer climbing camps.	August 31, 2029

## 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.**

Our website (<https://trees.umn.edu/learn/team-tree-youth-program>) will be updated with enhanced resources as they are created. Project staff educator will reach out to schools around the state to offer free classroom visits and share our website details so they can have access to our resources and curriculum. The weekly MN Shade Tree Advisory Committee Newsletter along with the UFOR Quarterly Newsletter will include information about our updated programming and offerings. Information about the Junior Tree Inspector Program will be sent out to current MN Certified Tree Inspectors and schools.

## 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?**

Curriculum and activities developed through this project will be posted on the University of Minnesota's Urban Forestry Outreach & Research Lab website for free (<https://trees.umn.edu/>). Future funding for additional work will be sought through grants from the MN Department of Natural Resources Urban and Community Forestry USDA Forest Service pass-thru grant program and financial gifts from previous supporters such as the Minnesota Turf and Grounds Foundation and other private donors.

## Project Manager and Organization Qualifications

**Project Manager Name:** Ryan Murphy

**Job Title:** Research Manager 1 - Forestry

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

Ryan Murphy is a Research Manager 1 in the Department of Forest Resources. He currently directs the UMN Urban Forestry Outreach & Research (UFOR) Lab and Nursery. The UFOR lab conducts urban and community forestry outreach efforts around the state by offering education for the MN Certified Tree Inspector Program, a MN DNR administered competency-based certification program, and the Tree Care Advocate program, a set of community and volunteer-based training programs. UFOR also supports the MN Shade Tree Advisory Committee (MnSTAC) which serves as the state's tree board. The UFOR lab performs additional outreach through youth engagement by visiting schools and conducting youth tree climbing events, giving kids and young adults a hands-on experience of careers in arboriculture. Murphy is the current chair of the MN Shade Tree Short Course, a 2-day annual conference which regularly hosts over 1,200 attendees. Murphy has extensive experience in conducting educational outreach on arboricultural and community forestry topics. Through their ongoing efforts, Murphy and the UFOR lab have a strong urban and community forestry network in the Twin Cities area and around the state of MN.

**Organization:** U of MN - College of Food, Agricultural and Natural Resource Sciences

**Organization Description:**

The goal of the College of Food, Agriculture, and Natural Resource Sciences is to advance Minnesota as a global leader in food, agriculture, and natural resources through extraordinary education, science-based solutions, and dynamic public engagement that nourishes people and enhances the environment in which we live. The work put forth in this grant proposal will be conducted through the Urban Forestry Outreach and Research Lab (UFOR) housed in the Department of

Forest Resources. UFOR conducts education around the state on topics related to urban and community forestry. Our programs reach K-12 youth, professional arborists, municipal land managers, and the general public.

## Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
<b>Personnel</b>								
Project Principal Investigator		The project Principal Investigator (Ryan Murphy) will oversee project deliverables and provide content expertise on all educational materials and activities including the Junior Tree Inspector certificate.			36%	0.15		\$22,000
Staff Educator		The project staff educator will be primarily responsible for conducting outreach to schools, executing classroom educational visits, development of educational resources and activities, design and implementation of the Junior Tree Inspector certificate course, and providing on-ground education during youth tree climbing camps.			32%	2.25		\$184,000
							<b>Sub Total</b>	<b>\$206,000</b>
<b>Contracts and Services</b>								
							<b>Sub Total</b>	-
<b>Equipment, Tools, and Supplies</b>								
							<b>Sub Total</b>	-
<b>Capital Equipment</b>								
							<b>Sub Total</b>	-
<b>Acquisitions and Stewardship</b>								
							<b>Sub Total</b>	-
<b>Travel In Minnesota</b>								
	Miles/ Meals/ Lodging	Mileage reimbursement or car rental for 25 classroom visits for 1 UMN educator, IRS standard mileage rate will be used	Classroom visits will be provided as part of work to provide education directly to students					\$2,000

							<b>Sub Total</b>	<b>\$2,000</b>
<b>Travel Outside Minnesota</b>								
							<b>Sub Total</b>	-
<b>Printing and Publication</b>								
							<b>Sub Total</b>	-
<b>Other Expenses</b>								
							<b>Sub Total</b>	-
							<b>Grand Total</b>	<b>\$208,000</b>

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				
			State Sub Total	-
Non-State				
			Non State Sub Total	-
			Funds Total	-

**Total Project Cost: \$208,000**

**This amount accurately reflects total project cost?**

Yes

## Attachments

### Required Attachments

#### *Visual Component*

File: [9ccc0ea3-c8e.pdf](#)

#### *Alternate Text for Visual Component*

Team Tree will build connections to schools around the state of Minnesota with a focus on environmental justice areas as shown on the map....

### Supplemental Attachments

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

Title	File
UMN SPA endorsement _Team Tree Youth Program	<a href="#">0861e277-453.pdf</a>
Highlands Elementary School - Letter of Support	<a href="#">8ddac02a-2a6.pdf</a>

## Administrative Use

**Does your project include restoration or acquisition of land rights?**

No

**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 UMN Policy on travel 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?**

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")?**

Yes

**Do you certify that background checks are performed for background check crimes, as defined in Minnesota Statutes, section 299C.61, Subd. 2, on all employees, contractors, and volunteers who have or may have access to a child to whom children's services are provided by your organization?**

Yes

**Provide the name(s) and organization(s) of additional individuals assisting in the completion of this proposal:**

Andrea Little, University of Minnesota; Marissa Endres, University of Minnesota

**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