

Environment and Natural Resources Trust Fund

2026 Request for Proposal

General Information

Proposal ID: 2026-590

Proposal Title: Minnesota Invasive Terrestrial Plants and Pests Center

Project Manager Information

Name: Robert Venette

Organization: U of MN - MITPPC

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Project Basic Information

Project Summary: The Minnesota Invasive Terrestrial Plants and Pests Center (MITPPC) requests \$6,435,000 for up to eighteen new research projects to protect wildlife and plants from high-priority invasive species.

ENRTF Funds Requested: \$6,435,000

Proposed Project Completion: December 31, 2031

LCCMR Funding Category: Fish and Wildlife (D)

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?

In the Future

Narrative

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

Terrestrial invasive species (TIS) threaten the wildlife and plants that sustain Minnesota's environment, economy, and quality of life. Invasive insects, pathogens, and weeds are transforming landscapes and degrading habitat in the state by stunting, killing or outcompeting valued plants (for example, as emerald ash borer and buckthorn have done in forests; Phragmites and purple loosestrife have done in wetlands; and tansy and wild parsnip have done in prairies). In addition, herbicides, insecticides, and fungicides used for the management of invasive species can move offsite and impair adjacent waters and untreated lands. Collectively, TIS cost Minnesotans at least \$3 billion annually through direct damage and increased management costs.

More than 400 terrestrial invasive species are present in Minnesota. Many have limited prevention or response options. To improve efforts to manage, protect, and restore habitats from TIS, land managers need: (1) enhanced techniques and technologies to detect and map invasive species; (2) better management alternatives such as biological control or integrated pest management; (3) reliable cost-benefit analyses of management options; and (4) dependable long-term maps of the potential distribution and impacts of invasive species.

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.

MITPPC is a national leader in transformative research solutions to the greatest TIS threats to Minnesota. This request will fund up to 18 interdisciplinary research teams to develop new ways to prevent the introduction, reduce the spread, and provide alternative control techniques for terrestrial invasive species. Priorities identified in an annual call for proposals will be determined through a management driven, science-based prioritization process, a hallmark of our previous successes. Only the worst invasive species will be eligible for research.

The progress of MITPPC is due, in part, to its ability to leverage the capacity of the entire University of Minnesota system (including the five campuses and ten Research and Outreach Centers across Minnesota) and of local, state, tribal, and federal partners, industry, and nonprofit organizations, among others. These engagements lead to bold proposals and critical management solutions. MITPPC will continue to expand these interactions under this proposal.

MITPPC also adds value to the course of research by helping teams manage programmatic and financial areas. MITPPC provides long-term accountability for research progress and ensures the results are shared broadly to different audiences, particularly through earned media.

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?

MITPPC will fund up to 18 research teams through a competitive grant program in this request. Research teams will develop suites of tools to prevent or mitigate the harmful effects of invasive species by utilizing advances in machine learning, molecular diagnostics, biological control, decision analysis, remote sensing, or integrated pest management. As examples, MITPPC anticipates new diagnostic tools to confirm the identities of cryptic species, biological control options to manage impacts from invasive species, and plant varieties with resistance to invasive species. MITPPC will produce and distribute research publications and user guides to help partners apply these advancements.

Activities and Milestones

Activity 1: Accelerate research on high priority, terrestrial invasive species

Activity Budget: \$1,435,000

Activity Description:

MITPPC will complete Activity 1 through the coordinated work of Center staff. Our staff Researcher oversees the prioritization process that determines which terrestrial invasive species are eligible for research. The staff researcher annually makes public requests for 6-10 new species to be evaluated. In addition, the researcher annually consults local experts and peer-reviewed literature to update existing assessments. The Researcher also conducts ad hoc studies to improve aspects of the prioritization process. All of that information feeds into an updated, prioritized list of TIS to be released in 2026 and 2028. The Researcher communicates findings broadly.

The Director and Associate Director use the prioritization for engagements with University researchers and external partners. The engagements build awareness of untapped talents at the University and pressing needs among interested communities. The Director and Associate Director build multi-disciplinary research teams and the refine research ideas to align with MITPPC goals. They subject pre-proposals to peer review and oversee the pace of research. They communicate results.

The Communications Specialist supports the implementation of MITPPC's Communication Plan and Digital Content Strategy. This person curates digital materials that summarize ongoing research or results from previous work. Communications are directed towards internal (University) or external audiences.

Activity Milestones:

| Description | Approximate Completion Date |
|---|-----------------------------|
| Issue of annual RFP, research project application review, determination of projects | January 31, 2026 |
| Complete 6-10 species assessments, update existing assessments and distribute updated prioritization | December 31, 2026 |
| Prepare up to 10 sub-project webpages | February 28, 2027 |
| Ongoing implementation and management of communication strategies to maximize dissemination of | June 30, 2027 |
| research results | |
| Complete 6-10 new species assessments for prioritization | December 31, 2027 |
| Issue of annual RFP, research project application review, determination of projects | January 31, 2028 |
| Prepare up to 10 new sub-project webpages | February 28, 2028 |
| Ongoing implementation and management of communication strategies to maximize dissemination of research results | June 30, 2028 |
| Complete 6-10 species assessments, update existing assessments and distribute updated prioritization | December 31, 2028 |
| Ongoing implementation and management of communication strategies to maximize dissemination of research results | June 30, 2029 |

Activity 2: Awarding sub-awards

Activity Budget: \$5,000,000

Activity Description:

Research projects will focus on the prediction and prevention of threats that are not yet in Minnesota, the early detection and rapid response of threats that are newly arrived, and solutions to terrestrial invasive species that are well established in the state. Research must address one or more invasive species that pose the greatest threats to Minnesota's forests, prairies, wetlands, or agricultural resources, as identified by MITPPC's prioritization process. The prioritization is revisited and updated regularly.

Proposals will be solicited annually for the first three years of the appropriation. Applicants first submit a preproposal which is reviewed and scored by a panel of up to five researchers in Minnesota. Research teams with the highest scoring preproposals are invited to submit a full proposals which are reviewed by relevant national and international experts. Project selection is based on the outcome of the peer review. Each proposal recommended for funding will be added as its own activity to this work plan for LCCMR review and approval. Budget lines are listed as "to be awarded to subprojects" and "awarded to sub-projects" in Professional and Technical Contracts.

Activity Milestones:

| Description | Approximate |
|--|------------------------|
| | Completion Date |
| Internal and external review of 2024 RFP proposals | September 30, 2026 |
| Award subproject funding to 6-10 proposals from 2024 RFP, subprojects begin January 1 | January 31, 2027 |
| Issue 2025 RFP on high priority research needs | March 31, 2027 |
| Internal and external review of 2025 RFP proposals | September 30, 2027 |
| Award subproject funding to 6-10 proposals from 2025 RFP, subprojects begin on January 1 | January 31, 2028 |

Project Partners and Collaborators

| Name | Organization | Role | Receiving Funds |
|------|--------------|---|-----------------|
| TBD | TBD | Each project is strongly encouraged to partner with an external partner. Current examples include the Minnesota Departments of Agriculture, Natural Resources, and Transportation, the US Forest Service, Minnesota Soybean Research and Promotion Council, Fond du Lac Band of Lake Superior Chippewa, and Friends of the Mississippi, among others. | 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 work be funded?

MITPPC will share findings with agencies and citizen groups so that public information and decision making is based on the best available science as described in the dissemination section of the work plan. The long-term funding for the MITPPC is dependent upon the ENRTF and other state and federal sources. There is a significant cost share provided by UMN through its contributions of physical space, finance, IT, HR, and communications support for the Center. The federal government contributes funding for the director's salary, as well as a significant amount of lab space for scientists..

Other ENRTF Appropriations Awarded in the Last Six Years

| Name | Appropriation | Amount |
|--|---|-------------|
| | | Awarded |
| Minnesota Invasive Terrestrial Plants and Pests Center | M.L. 2014, Chp. 312, Sec. 8 | \$1,460,000 |
| Minnesota Invasive Terrestrial Plants and Pests Center | M.L. 2015, Chp. 76, Sec. 2, Subd. 06a | \$5,000,000 |
| Minnesota Invasive Terrestrial Plants and Pests Center | M.L. 2016, Chp. 186, Sec. 2, Subd. 06a | \$3,750,000 |
| - Phase III | | |
| Minnesota Invasive Terrestrial Plants and Pests Center | M.L. 2018, Chp. 214, Art. 4, Sec. 2, Subd. 06a | \$3,500,000 |
| - Phase 4 | | |
| Minnesota Invasive Terrestrial Plants And Pests | M.L. 2021, First Special Session, Chp. 6, Art. 5, Sec. 2, | \$5,000,000 |
| Center, Phase5 | Subd. 06a | |
| Minnesota Invasive Terrestrial Plants and Pests Center | M.L. 2022, , Chp. 94, Art. , Sec. 2, Subd. 06a | \$6,230,000 |
| Minnesota Invasive Terrestrial Plants and Pests Center | M.L. 2024, , Chp. 83, Art. , Sec. 2, Subd. 06a | \$7,000,000 |
| - Phase 7 | | |

Project Manager and Organization Qualifications

Project Manager Name: Robert Venette

Job Title: Director, MITPPC, & Research Biologist, USDA Forest Service

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

Venette was named the inaugural Director of the Minnesota Invasive Terrestrial Plants and Pests Center (MITPPC) at the University of Minnesota in 2015 and continues to serve in that capacity. Venette provides intellectual leadership and oversight of the work of the Center. MITPPC has supported more than 70 research teams with approximately 50 principal investigators, 35 postdoctoral research associates, and 50 graduate students to conduct applied research to address the most threatening terrestrial invasive species to the state. Formal collaborations extend to 15 colleges and universities and 4 federal agencies, including the Forest Service. He oversees the work of MITPPC's Associate Director, staff researcher, and communications specialist. Through MITPPC, Venette has spurred exciting cross-disciplinary research with a clear path to implementation. He has promoted the work of MITPPC in numerous invited presentations

to stakeholder groups and the Minnesota Legislature. He serves on the Noxious Weed Advisory Committee in support of the work of the Minnesota Department of Agriculture. He is also a long-time member of the Minnesota Invasive Species Advisory Council. Venette is a senior Research Biologist with the USDA Forest Service where he leads a program of research on invasive insects, pathogens, and weeds that can affect trees and forests. He has published over 220 papers in peer-reviewed journals and other outlets. He has received national and international awards for his work on invasive species. He received his Bachelor of Science in Genetics and Cell Biology in 1991 from the University of Minnesota and his PhD in Ecology in 1997 from the University of California, Davis.

Organization: U of MN - MITPPC

Organization Description:

The MITPPC was established at the University of Minnesota under ML 2014, Chapter 312, Article 13, Section 44. The MITPPC is administratively located in the College of Food, Agricultural, and Natural Resources Sciences. Activities of the MITPPC are conducted in close collaboration with state, federal, local and tribal governments, nongovernmental agencies, the private sector, University of Minnesota Extension, and other colleges and universities. The MITPPC leverages talent and resources from the entire University of Minnesota system, including its five campuses and ten Research and Outreach Centers across Minnesota.

Budget Summary

| Category / Name | Subcategory or Type | Description | Purpose | Gen. Ineli gible | % Bene fits | # FTE | Class ified Staff? | \$ Amount |
|--------------------------------------|------------------------|--|---------|------------------------|-------------------|----------|--------------------|-------------|
| Personnel | | | | | | | | |
| Researcher | | Provides technical and intellectual support for prioritization process. Prepares and updates species assessments. Conducts research to improve the prioritization process. Communicates findings. | | | 36.6% | 3 | | \$346,830 |
| Associate director | | Admin and program support for research projects | | | 36.6% | 3 | | \$451,208 |
| Communications specialist | | Communication support for research project's result dissemination | | | 26.6% | 2.25 | | \$245,953 |
| Director | | Provides strategic direction to the MITPPC | | Х | 36.6% | 1.5 | | \$391,009 |
| | | | | | | | Sub Total | \$1,435,000 |
| Contracts and Services | | | | | | | | |
| To be awarded to sub-projects | Subaward | Budget reserve for awarding to sb-projects upon approval by LCCMR | | | | 1 | | \$5,000,000 |
| Awarded to sub- projects | Subaward | This is the cumulative budget, spent, and balance for all sub-projects combined. Detailed budgets for subprojects will be managed and submitted in an Excel workbook via the attachments page under "Optional Attachments/ Support Letter or Other" with the file name as the date of submission (for example, YYYY-MM-DD Budget Update) | | | | 20 | | - |
| | | | | | | | Sub Total | \$5,000,000 |
| Equipment, Tools, and Supplies | | | | | | | | |
| | | | | | | | Sub Total | - |
| Capital Expenditures | | | | | | | | |
| | | | | | | | Sub Total | - |
| Acquisitions and Stewardship | | | | | | | | |

| | | | Sub Total | - |
|-----------------------------|--|--|----------------|-------------|
| Travel In Minnesota | | | | |
| | | | Sub Total | - |
| Travel Outside Minnesota | | | | |
| | | | Sub Total | - |
| Printing and Publication | | | | |
| | | | Sub Total | - |
| Other Expenses | | | | |
| | | | Sub Total | - |
| | | | Grand Total | \$6,435,000 |

Classified Staff or Generally Ineligible Expenses

| Category/Name | Subcategory or Type | Description | Justification Ineligible Expense or Classified Staff Request |
|-------------------------|---------------------|--|--|
| Personnel - Director | | Provides strategic direction to the MITPPC | Contingency in the event of change in directorship |

Non ENRTF Funds

| Category | Specific Source | Use | Status | Amount |
|-----------|--|-----------------------------|-----------|-----------|
| State | | | | |
| | | | State Sub | - |
| | | | Total | |
| Non-State | | | | |
| In-Kind | US Department of Agriculture, Forest Service | Salary for Director Venette | Secured | \$184,600 |
| | | | Non State | \$184,600 |
| | | | Sub Total | |
| | | | Funds | \$184,600 |
| | | | Total | |

Total Project Cost: \$6,619,600

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: 210b360e-d7e.pdf

Alternate Text for Visual Component

The document describes the MITPPC and provides an overview of funded research projects....

Supplemental Attachments

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

| Title | File |
|-----------------------------|-------------------------|
| Approval from UMN to submit | <u>1a4f84ee-392.pdf</u> |

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?

N/A

Does your project have potential for royalties, copyrights, patents, sale of products and assets, or revenue generation?

Yes

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

Yes

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

No

Does your project include original, hypothesis-driven research?

Yes

Does the organization have a fiscal agent for this project?

Νo

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

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

Heather Koop, MITPPC - 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