

**Environment and Natural Resources Trust Fund  
2019 Request for Proposals (RFP)**

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**Project Title:**

**ENRTF ID: 204-F**

Ensuring High-Quality Restoration Outcomes in Minnesota

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**Category:** F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat

**Sub-Category:**

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**Total Project Budget: \$** 529,102

**Proposed Project Time Period for the Funding Requested:** June 30, 2021 (2 yrs)

**Summary:**

This project seeks to improve Minnesota restoration quality by 1) designing certification standards for project/organizational excellence, 2) developing guidance for volunteer involvement, and 3) address training gaps in project planning/management.

**Name:** Susan Galatowitsch

**Sponsoring Organization:** U of MN

**Title:** Professor and Head

**Department:** Fisheries, Wildlife, and Conservation Biology

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St. Paul MN 55108

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**Location**

**Region:** Statewide

**County Name:** Statewide

**City / Township:**

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**Alternate Text for Visual:**

Restoration outcomes depend not only on site conditions but also on organizations expertise, leveraging of volunteers and partners, and adherence to best practices. This project develops standards for organizations and projects and addresses training gaps for organizations.

<input type="checkbox"/> Funding Priorities	<input type="checkbox"/> Multiple Benefits	<input type="checkbox"/> Outcomes	<input type="checkbox"/> Knowledge Base
<input type="checkbox"/> Extent of Impact	<input type="checkbox"/> Innovation	<input type="checkbox"/> Scientific/Tech Basis	<input type="checkbox"/> Urgency
<input type="checkbox"/> Capacity Readiness	<input type="checkbox"/> Leverage	<input type="checkbox"/> TOTAL	<input type="checkbox"/> %
<input type="checkbox"/> If under \$200,000, waive presentation?			



**PROJECT TITLE: Ensuring high-quality ecological restoration outcomes in Minnesota**

**I. PROJECT STATEMENT**

While Minnesota has made significant investments in ecological restoration in order to improve habitat and environmental quality of the state’s terrestrial and aquatic ecosystems, the extent to which restoration projects achieve the goals envisioned in funding proposals varies greatly. The outcome of every restoration reflects the capacity of the organization responsible for the project—the expertise of the team members, how they leverage resources, and their quality standards. **This project seeks to improve the quality of Minnesota restoration efforts by: 1) designing a system of statewide standards for project and organizational excellence in restoration, 2) developing best practices guidance for restoration work performed by volunteers, and 3) addressing training gaps for restoration organizations.**

**Restoration certification standards:** Certification is a powerful tool for promoting high standards of practice across a variety of sectors, including forest stewardship, green building, and organic foods. Certification standards can be established for individuals, organizations, or completed projects. Certification programs develop auditable standards that organizations can implement in project management and that external partners can use to verify their conformance. For restoration, national professional standards for individuals have been established, but certification standards for organizations and projects do not exist. Options for certification standards for restoration organizations and projects, tailored for Minnesota needs (e.g., publicly funded restoration and mitigation banking), will be explored and developed to increase achievement of restoration goals and objectives in the long-term.

**Volunteer involvement in restoration:** Many restoration projects depend on volunteers for high-labor, lower skill tasks. Volunteer use is often viewed as having many benefits (e.g., public education, cost-effectiveness) but has variable effects on restoration outcomes. Thus, improving volunteer use is critical to maximize benefits of Minnesota’s investment in ecological restoration. Based on a systematic evaluation of volunteer involvement, this project will create clear guidance for organizations that rely on volunteers for restoration.

**Professional restoration training:** Leaders in restoration organizations are key to achieving high standards. They are responsible for assembling teams, planning and documenting project work/progress, overseeing contractors & volunteers, and managing multi-partner restorations. Training resources to develop these skills are not available in MN or elsewhere in the U.S. With ENRTF support, the University of Minnesota launched the Ecological Restoration Training Cooperative (ERTC) for individuals seeking to build basic restoration skills. This project will expand the scope of ERTC to include targeted training for leaders of restoration organizations.

**II. PROJECT ACTIVITIES AND OUTCOMES**

**Activity 1: Evaluate and develop options for MN restoration certification standards.** We will begin by scoping the value of certification to different entities and sectors including project funders and restoration and land management organizations. Based on this scoping, a minimum of 3 options for certification frameworks will be designed, assessed, and pilot-tested. The assessment will be performed and options developed through analysis of certification standards across various sectors and collaboration with experts, practitioners, and key stakeholders. We will develop methodologies and business models for options feasible to implement in MN.

**ENRTF BUDGET: \$ 174,283**

<b>Outcome</b>	<b>Completion Date</b>
<i>1. Complete scoping of value for MN restoration certifications</i>	<i>January 15, 2020</i>
<i>2. Certification standard options researched and developed (minimum of 3)</i>	<i>July 15, 2020</i>
<i>3. Pilot-testing completed for proposed options and findings analyzed</i>	<i>January 15, 2021</i>
<i>4. Methodologies &amp; business models developed for certification standard implementation</i>	<i>June 30, 2021</i>



**Environment and Natural Resources Trust Fund (ENRTF)  
2019 Main Proposal Template**

**Activity 2: Develop & pilot training resources to strengthen volunteer involvement in restorations.** We will investigate volunteer involvement in MN ecological restoration projects to identify current norms and shortcomings in how they are being used. This assessment will include analysis of records from completed projects, interviews with restoration staff and volunteers, and observation of restoration events (5 metro/5 greater MN). Results will be used to develop training to improve volunteer use by restoration specialists and other volunteer-dependent organizations. The training will be pilot-tested and revised for broader use.

**ENRTF BUDGET: \$ 176,091**

<b>Outcome</b>	<b>Completion Date</b>
<i>1. Complete analysis of existing records</i>	<i>January 15, 2020</i>
<i>2. Complete volunteer use &amp; management assessment (including site visits, interviews)</i>	<i>July 15, 2020</i>
<i>3. Volunteer training resource drafted for review</i>	<i>January 15, 2021</i>
<i>4. Training program/courses-beta test complete</i>	<i>June 30, 2021</i>

**Activity 3: Develop & offer training for leaders of restoration organizations & project teams.** We will expand on the current offerings of ERTC online courses by developing 4 new courses for restoration professionals in leadership/management positions: 1) Project planning & cost estimation, 2) Tracking & documenting restoration progress, 3) Managing multi-partner restoration projects, and 4) Effective use of volunteers. The scope & content of each 15-20 hour course will be developed in consultation with state agency partners. Courses will be case-based, featuring Minnesota restoration projects & professionals and include problem-solving assignments. Each course will be beta-tested and revised prior to being widely offered.

**ENRTF BUDGET: \$ 178,728**

<b>Outcome</b>	<b>Completion Date</b>
<i>1. Detailed course outlines, including training sequences, cases, assignments</i>	<i>January 15, 2020</i>
<i>2. Course content completed for course 1 and 2.</i>	<i>July 15, 2020</i>
<i>3. Course content completed for third course</i>	<i>January 15, 2021</i>
<i>4. All courses completed and ready for regular offering (beta-tested and revised)</i>	<i>June 30, 2021</i>

**III. PROJECT PARTNERS:**

**A. Partners receiving ENRTF funding:**

Daniel Larkin, Assistant Professor/Extension Specialist, University of Minnesota, Co-project manager;  
Julia Bohnen, Researcher 5, Univ Minnesota, ERTC Curriculum Development;  
Lori Knosalla, Researcher 5, Univ Minnesota, Certification Analyst;  
TBD, Researcher 5, Univ Minnesota, Activity 3; Amy Rager-Extension Educator & Nathan Meyer-Extension Program Leader, Univ. Minnesota, Volunteer evaluation and training

**B. Partners NOT receiving ENRTF funding:** Susan Galatowitsch, Professor/Head, University of Minnesota, Project Manager; Wade Johnson, MN DNR; Dan Shaw, MN BWSR

**IV. LONG-TERM- IMPLEMENTATION AND FUNDING:** The University of Minnesota will offer the new courses as part of the Ecological Restoration Training Cooperative (established with ENRTF support). Future tuition revenues from ERTC courses are reinvested in ongoing ERTC instruction, improvements, and course management. Certification program analysis results will provide guidance on long-term funding and implementation options.

**V. TIME LINE REQUIREMENTS:** We propose this as an intensive 2-yr effort, in order to make the information and opportunities available to the restoration community and funders as soon as possible.

**VI. SEE ADDITIONAL PROPOSAL COMPONENTS:** A. Proposal Budget Spreadsheet B. Visual Component or Map F. Project Manager Qualifications and Organization Description.

## 2019 Proposal Budget Spreadsheet

**Project Title: Ensuring high-quality ecological restoration outcomes in Minnesota**

### IV. TOTAL ENRTF REQUEST BUDGET 2 years

BUDGET ITEM (See "Guidance on Allowable Expenses")	AMOUNT
<b>Personnel:</b> Dan Larkin, project co-manager, .04 FTE, \$9492 salary + \$3179 fringe (2 yrs): \$12,671	\$ 499,122
Julia Bohnen, Researcher 5, Curriculum Development Lead, 1 FTE, \$120,602 salary + \$40,402 fringe (2 yrs): \$161,004	
Lori Knosalla, Researcher 5, Cerification Analyst2, 1 FTE, \$121,500 salary + \$40,460 fringe (2 yrs): \$161,960	
TBD, Researcher 5, Volunteer Assessment, 1 FTE, \$101,250 salary +\$ 33,716 fringe (2 years): \$134,966	
Amy Rager, Extension Educator, Volunteer Assessment, 0.09 FTE, \$12,012 salary + \$5,719 fringe (2 years): \$17,731	
Nate Meyer, Program Leader, Volunteer Assessment, , 0.05 FTE, \$8082 salary + \$2708 fringe (2 yrs): \$10,790	
<b>Professional/Technical/Service Contracts:</b> Activity 3: Professional services contracts for videography (\$5000), instructional design support (\$5000).	\$ 10,000
<b>Equipment/Tools/Supplies:</b> Activity 1: Supplies for hosting stakeholder group meetings (\$1000) Activity 2: Supplies for trainings and site visits (\$1000), Activity 3: Supplies for curriculum development (\$500).	\$ 2,500
<b>Travel (all domestic, most in MN):</b> Activity 1: Travel for development of certification standards* (\$3500), Working group meetings for implementation planning (\$3600). Activity 2: Travel for site visits, research team meetings (\$6580), Activity 3: Travel to field sites to develop on-site curricular materials (\$3000). This may include some out-of-state travel to work with leaders of existing certification programs and leaders of multi-state restoration organizations.	\$16,680
<b>Additional Budget Items:</b> Activity 3: Nvivo subscription for data analysis (\$800)	\$ 800
<b>TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =</b>	<b>\$ 529,102</b>

### V. OTHER FUNDS (This entire section must be filled out. Do not delete rows. Indicate "N/A" if row is not applicable.)

SOURCE OF FUNDS	AMOUNT	Status
<b>Other Non-State \$ To Be Applied To Project During Project Period:</b>	N/A	N/A
<b>Other State \$ To Be Applied To Project During Project Period:</b>	N/A	N/A
<b>In-kind Services To Be Applied To Project During Project Period:</b> Galatowitsch, Project Manager, 0.05 FTE	\$ 21,274	<i>secured</i>
<b>Past and Current ENRTF Appropriation:</b> ENRTF 2010 Subd.04a, Ecological Training Cooperative for Habitat Restoration (Galatowitsch, Project Manager); ENRTF 2013, Subd. 04L, Restoration Evaluations (Galatowitsch, Project Manager).	\$ 750,000	<i>spent</i>
<b>Other Funding History:</b>	N/A	N/A

# Ensuring high-quality ecological restoration outcomes in Minnesota

*This proposal addresses gaps\* in the key components needed for successful restoration*

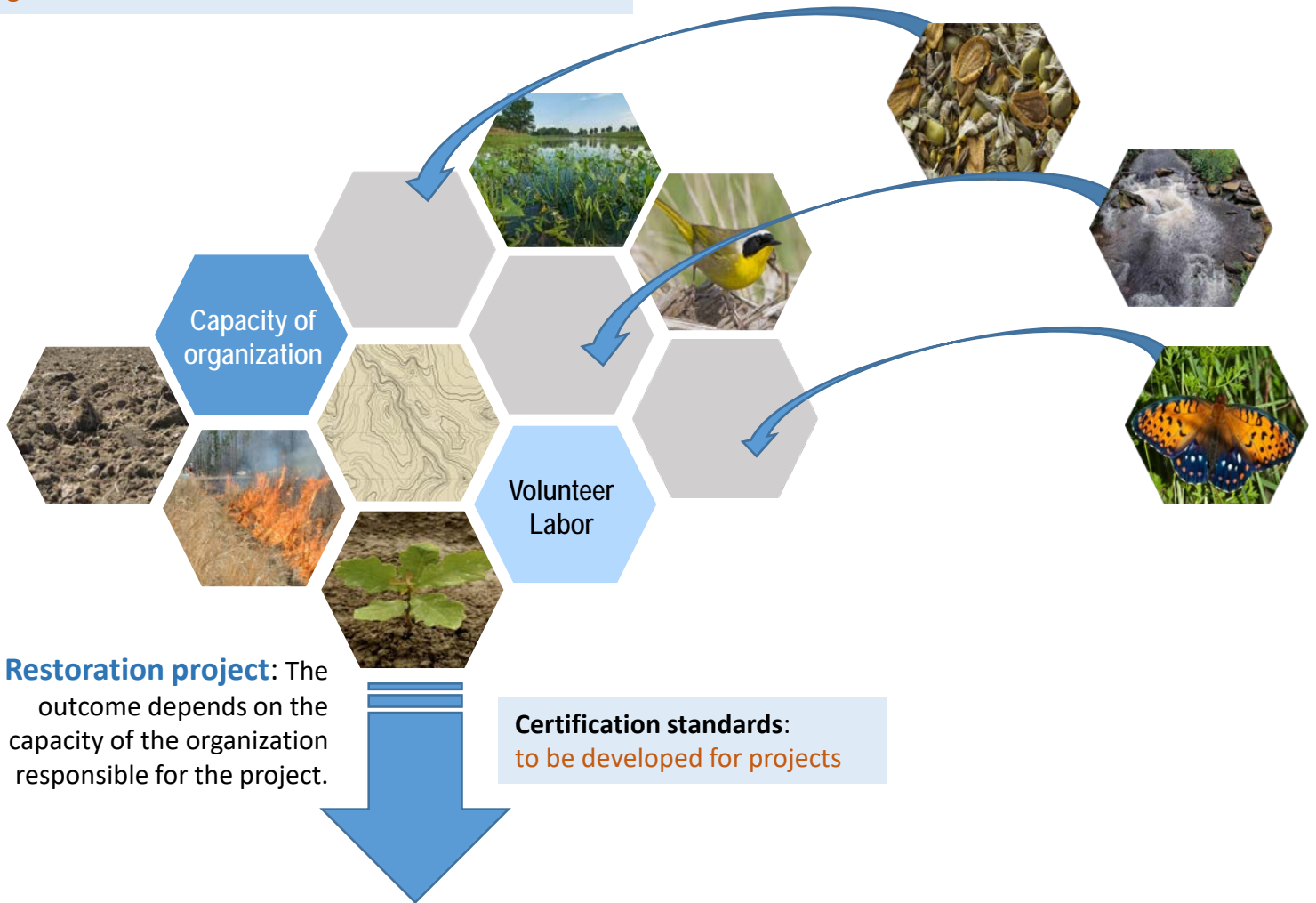
## Restoration organizations (teams)

Need to have adequate expertise for projects undertaken, know how to leverage external partners (volunteers, contractors, other organizations), and follow best practices.

**Training:** to be developed for leaders in organizations, inc. volunteer management best practice guidance  
**Certification standards:** to be developed for organizations

**Expertise of individuals** may include revegetation specialists, environmental engineers, landscape architects, soils scientists, hydrologists, species biologists or others

**Training:** exists –e.g., MN Ecological Restoration Training Cooperative  
**Certification standards:** National professional standards recently established



**Restoration project:** The outcome depends on the capacity of the organization responsible for the project.

**Certification standards:** to be developed for projects

RESTORATION  
OUTCOME

**Susan Galatowitsch** has been a faculty member of the University of Minnesota for 25 years and is professor and Head of the Department of Fisheries, Wildlife and Conservation Biology. She is a Fellow of the Society of Wetland Scientists, a member of Minnesota's Academy of Distinguished Teachers, a past Fesler-Lampert Distinguished Chair of Urban and Regional Affairs, and a Fulbright Scholar to South Africa (University of Cape Town). Her research focuses on restoration of degraded aquatic systems and grasslands, climate change adaptation for wetlands and rivers, and management of invasive species. She served as the Director, Minnesota Aquatic Invasive Species Research Center for three years. In addition to 75 research publications, she has authored two books, *Ecological Restoration* (Sinauer Associates) and *Restoring Prairie Wetlands: An Ecological Approach* (with Arnold van der Valk). Dr. Galatowitsch has a PhD from Iowa State University.