



# Environment and Natural Resources Trust Fund

2022 Request for Proposal

## General Information

**Proposal ID:** 2022-058

**Proposal Title:** Pollinator Habitat Pilot Project at Closed Landfills

## Project Manager Information

**Name:** Eric Pederson

**Organization:** Minnesota Pollution Control Agency

**Office Telephone:** (651) 757-2645

**Email:** eric.pederson@state.mn.us

## Project Basic Information

**Project Summary:** Create the maximum acres of pollinator habitat at five Closed Landfill Program sites. These sites will act as pilot projects to inform future pollinator habitat reconstruction projects in the program.

**Funds Requested:** \$1,375,000

**Proposed Project Completion:** November 30 2025

**LCCMR Funding Category:** Methods to Protect, Restore, and Enhance Land, Water, and Habitat (F)

## 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 Minnesota Pollution Control Agency's Closed Landfill Program is responsible for the long-term care and maintenance of 110 closed landfills on roughly 8,500 acres of land throughout Minnesota. These closed landfills are vegetated with non-native grasses and provide little to no beneficial pollinator habitat. The MPCA seeks to advance Executive Order 19-28 signed by Governor Walz, which included a directive to the MPCA to "manage closed landfills under its supervision to create, protect, and enhance pollinator habitat." Currently, the MPCA does not have statutory authority to allocate funding towards pollinator habitat reconstruction projects.

Pollinator species like bees and butterflies are in decline locally and globally. The decline in many pollinator species is due, in part, to a decline in habitat. Constructing and improving pollinator habitat on MPCA closed landfills will not only help pollinators, such as the endangered rusty patched bumble bee, but a number of species including other insects, mammals, and birds. The MPCA seeks to improve the health, sustainability, resiliency, and usefulness of the lands we manage by incorporating beneficial reuse projects, like pollinator habitat, on the properties. MPCA has the opportunity to provide perpetual and valuable habitat to pollinators but few ways of achieving this goal.

### **What is your proposed solution to the problem or opportunity discussed above? i.e. What are you seeking funding to do? You will be asked to expand on this in Activities and Milestones.**

The MPCA is seeking funding to convert the existing non-native vegetation at MPCA closed landfill sites to beneficial pollinator habitat. The MPCA will hire a restoration services contractor from an existing state contract to develop site-specific plans for five of the MPCA closed landfills. These landfills include Pine Lane in Chisago County, Pipestone Landfill in Pipestone County, Red Rock in Mower County, St. Augusta in Stearns County, and Woodlake in Hennepin County. The plans will include a project timeline, site preparation methods, specified seed mixes, and suggested vegetation management for two to three years. The site plans will be implemented at all five sites and the progress will be monitored by the contractor and MPCA. Three of the five sites are located in areas identified by the Fish and Wildlife Service as areas for additional conservation efforts for the endangered rusty patched bumble bee (RPBB). This proposal seeks to utilize the MPCA Closed Landfill Program land to provide valuable and reliable habitat for many pollinators including the RPBB. The information gathered from the five implemented projects will be used to inform future pollinator habitat installations at additional MPCA closed landfill sites.

### **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?**

The primary outcome of this project is an estimated 380 acres of new pollinator habitat on land on which reuse activities are restricted. This project will not only enhance the local ecosystem and help pollinators, but ripple out to protecting and preserving other insect, bird, and mammal populations by providing pesticide-free food sources and suitable habitat. Secondly, the robust root structures of pollinator habitat plants will stabilize the soils on the landfill caps and prevent erosion caused by more frequent heavy-rain events. Landfill caps prevent precipitation from entering the waste and causing increased leaching of landfill contaminants into groundwater resources.

## Activities and Milestones

### Activity 1: Develop Site-Specific Reconstruction Plans

**Activity Budget:** \$50,000

**Activity Description:**

The restoration contractor will create site-specific reconstruction plans for five MPCA state-owned closed landfill sites: Pine Lane Landfill in Chisago County, Woodlake Landfill in Hennepin County, Red Rock Landfill in Mower County, St. Augusta Landfill in Stearns County, and Pipestone County Landfill in Pipestone County. Site plans will include detailed recommendations for site preparation, current vegetation removal method, seed mixtures and quantities, project timelines, planting process, description of yearly vegetation management, and cost. Seed mixes will be chosen based on conditions at the landfill. Seed mixes planted on the landfill waste cap will likely be different than seed mixes for buffer areas around the cap due to different soil and moisture conditions. Developing site plans is estimated to cost \$10,000 per site for contractor time and resources.

**Activity Milestones:**

Description	Completion Date
MPCA will request bids from restoration contractors listed on S-910(5) state contract.	July 31 2022
Award contract to contractor(s).	August 31 2022
Contractor visits sites to gather information to develop site reconstruction plans.	October 31 2022
Completed reconstruction plans will be discussed with MPCA staff and modified if needed.	March 31 2023

### Activity 2: Implement Reconstruction Plans at Five Sites

**Activity Budget:** \$1,325,000

**Activity Description:**

The restoration contractor(s) will implement the reconstruction plans at all five chosen MPCA closed landfill sites. Reconstruction plans may include site preparations such as treating and mowing existing vegetation, seeding the area with specified seed mixes, planting an annual cover crop to protect the project during the first year of establishment, and two years of vegetation management. The vegetation management plays a vital role in the success of the pollinator habitat establishment. Vegetation management includes full site mows and integrated plant management (IPM) services. IPM services such as spot herbicide spraying, spot mowing, and hand weeding, are used to control weed species developing within the project area. The five MPCA closed landfill sites combined could create an estimated 380 acres of new pollinator habitat.

**Activity Milestones:**

Description	Completion Date
Prepare site by removing existing vegetation.	August 31 2023
Seed the site with specific pollinator habitat seed mixes.	November 30 2023
First growing season vegetation management - 2-3 full site mows, Integrated Plant Management (IPM) visit.	November 30 2024
Second growing season vegetation management - one full site mow, 3-4 IPM visits.	November 30 2025

## 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 be funded?**

The completed pollinator habitat projects will be maintained according to site plan specifications with MPCA's Closed Landfill Program (CLP) operation and maintenance funds. CLP funds cannot be used to create new pollinator habitat but are able to be used to maintain the site. Based on the pilot project results, MPCA may seek additional resources from the Legislature to create pollinator habitat on the remaining MPCA closed landfill sites. The results from this pollinator habitat pilot project will inform future reconstruction projects at additional MPCA closed landfill sites.

## Project Manager and Organization Qualifications

**Project Manager Name:** Eric Pederson

**Job Title:** Closed Landfill Program Supervisor

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

Mr. Pederson has led multiple projects as the Administrative Coordinator for the Minnesota Pollution Control Agency's Superfund Program. Projects include managing seven EPA grants totaling more than \$5,500,000 in funding, an annual operating budget of \$8,300,000 to be used at 65 sites or allocations, and long term and strategic Superfund goals and data.

Mr. Pederson currently supervises the Closed Landfill Program's 11 staff, 110 closed landfills, and an annual operating budget of over \$7,000,000.

**Organization:** Minnesota Pollution Control Agency

**Organization Description:**

The Minnesota Pollution Control Agency (MPCA) mission is to protect and improve the environment and human health. The MPCA monitors environmental quality, offers technical and financial assistance, and enforces environmental regulations. The agency finds and cleans up spills or leaks that can affect our health and environment. Staff develop statewide policy, and support environmental education.

## Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
<b>Personnel</b>								
							<b>Sub Total</b>	-
<b>Contracts and Services</b>								
Native Plant Community Restoration Services Contract - Contractor TBD	Professional or Technical Service Contract	The consultant will be creating the scope of work with information provided by Closed Landfill Program (CLP) staff. The consultant will also be implementing and completing the project with supervision from CLP staff.				0		\$1,375,000
							<b>Sub Total</b>	\$1,375,000
<b>Equipment, Tools, and Supplies</b>								
							<b>Sub Total</b>	-
<b>Capital Expenditures</b>								
							<b>Sub Total</b>	-
<b>Acquisitions and Stewardship</b>								
							<b>Sub Total</b>	-
<b>Travel In Minnesota</b>								
							<b>Sub Total</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>\$1,375,000</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	-

## Attachments

### Required Attachments

#### *Visual Component*

File: [0f669128-fa3.pdf](#)

#### *Alternate Text for Visual Component*

Minnesota state map showing the location of Closed Landfills chosen for the pollinator habitat pilot project and where they intersect with the rusty patched bumble bee range....

## Administrative Use

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

No

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

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?**

No

# Closed Landfill Program - Pollinator Habitat Pilot Project Sites and Rusty-Patched Bumble bee (RPBB) Presense

