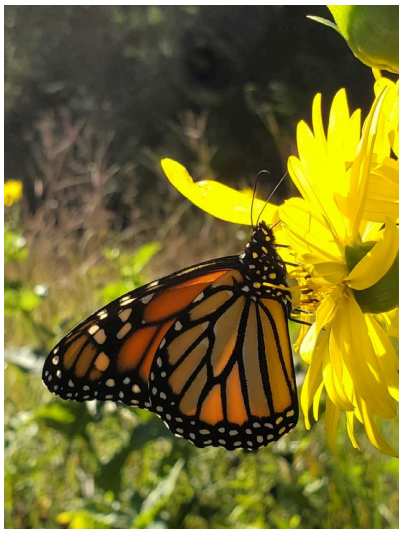
BOARD OF WATER AND SOIL RESOURCES

Pollinator Plan

2026

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Why Pollinator Populations and Habitat Restoration Matter

Minnesota is home to a wide variety of pollinating insects, including bees, butterflies, moths, flies, and beetles. Pollinating insects play a vital role in maintaining nearly 85% of our flowering plants' reproduction, including more than two-thirds of the world's crops.

Pollinators play an essential role in agriculture, pollinating more than 100 commercial crops in North America, and improving the quantity and quality of crops such as apples, raspberries, cherries, and melons. Crops that pollinators support have a value of around $34 billion (USFWS). Insect species also pollinate around 70-80 percent of native plants in the Midwest, playing a key role in their seed production and the sustained ability of natural landscapes and conservation plantings to perform important environmental functions such as filtering stormwater, improving soil quality, and providing wildlife habitat. Native bee populations include more than 4,000 species in North America and over 500 species in Minnesota. Many species have been in decline in recent years due to habitat loss, exposure to pesticides, diseases, parasites, and climate change. The nationally endangered Rusty patched bumble bee (Minnesota's State Bee) has disappeared from most of its historic range but still has a population in the Twin Cities metro areas.

At the same time, managed colonies of European honeybees have suffered colony losses in recent decades. A staggering 55.1% of managed honeybee colonies were reported as lost between April 2023 and April 2024. Recent research has also shown a twenty-two percent decline in North American butterflies between 2000 and 2020.

BWSR's Unique Role in Pollinator Protection


Rusty patched bumblebee

The Minnesota Board of Water and Soil Resources (BWSR) is charged with helping meet the state's goals for clean water, clean air, and abundant fish and wildlife. All of Minnesota benefits from lands and waters that are ecologically and economically sustainable. Through collaboration with residents statewide, BWSR plays an important role in enhancing pollinator habitat in Minnesota. Minnesota Executive Order 19-28 titled "*Directing Steps to Reverse Pollinator Decline and Restore Pollinator Health in Minnesota*" was issued by Governor Walz in 2019 to recognize pollinators as vital to the state's economy, ecology, and way of life. The order directs state agencies to restore pollinator health and collaborate through an Interagency Pollinator Protection Team. The order also directs BWSR to incorporate pollinator habitat across the agency's conservation programs. Through strong partnerships with local, state, federal, Tribal, and non-profit partnerships BWSR is working to restore and conserve pollinator habitat while also engaging residents across the state in sustaining Minnesota's diverse ecosystems.

BWSR's Living Landscapes Initiative

Pollinators require pollen and nectar sources, habitat, nesting sites, and habitat connectivity. These key habitat features are being protected and restored through BWSR's Living Landscapes Initiative. The Living Landscapes Initiative is focused on developing awareness, resources, and programs that address

environmental challenges such as climate change and biodiversity loss through collaboration with conservation partners, communities, and Minnesota residents.

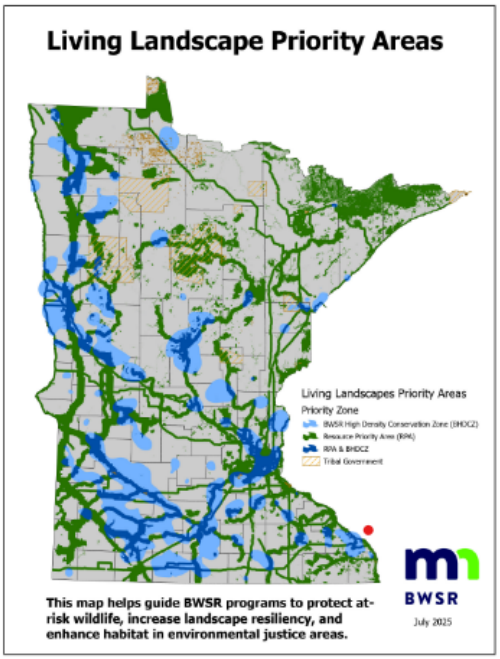
There are six Key Priorities of the Living Landscape Initiatives:

1. Increase awareness about declining wildlife and plant populations and build a movement to address these challenges in collaboration with partners and Minnesota residents
2. Build habitat corridors and structure across all types of Minnesota landscapes
3. Engage diverse communities and the next generation of conservationists
4. Focus on the biological health of landscapes to meet soil health and water quality goals
5. Support pollinators that sustain our food production and ecosystems
6. Build landscape resiliency

Bumblebee on New England aster

Living Landscape Mapping Project

BWSR has developed a Living Landscapes Priority Area map to guide BWSR efforts that protect at-risk wildlife, increase landscape resiliency, and expand habitat corridors. The map combines several layers of information to help guide conservation programs with considerations for habitat benefits across landscapes. The map will be updated periodically to add new habitat corridors that are being developed across the state.



BWSR Programs that Support the Living Landscapes initiative

BWSR programs help accomplish agency goals for protecting pollinators and working in a wide range of landscapes. The programs are also focused on building collaboration with a wide range of conservation partners across the state including Tribes, local, state,and federal government, non-profits, businesses, as well as residents across the state.

Lawns to Legumes

The Lawns to Legumes Program supports a movement to protects pollinator populations and other wildlife through community-based conservation, funding for residents and local conservation organizations, and outreach. Projects establish pollinator habitat in residential settings (such as yards) and community spaces, offering residents the opportunity to take a hands-on approach to conservation.

Butterfly on marsh milkweed

Habitat Enhancement Landscape Program (HELP)

HELP prioritizes landscape and regional scale initiatives that restore and enhance strategically located, diverse native habitat across Minnesota on conservation lands and natural areas to benefit populations of bees, butterflies, dragonflies, birds, and other wildlife. Projects are located on lands with a long-term commitment to conservation management. Example projects include non-profit conservation preserves, city parks, county parks, and protected natural areas.

Minnesota Living Schoolyards

This program partners with schools to establish habitat while engaging the next generation of environmental stewards. Through curriculum development, hands-on activities, and collaboration with local conservation professionals, students gain meaningful opportunities to connect with conservation and contribute to habitat restoration efforts.

Habitat Friendly Utilities Program

Launched in 2016 through state legislation, the Habitat Friendly Solar Program encourages the use of diverse native vegetation in solar projects. These efforts provide multiple co-benefits, including carbon sequestration, improved water management, pollinator and bird habitat, conservation grazing opportunities, and enhanced landscape aesthetics. Building on this foundation, the Habitat Friendly Utilities Program expands the approach to utility projects—particularly corridors vulnerable to invasive species. By incorporating native vegetation, these projects create valuable habitat for pollinators and other wildlife while strengthening landscape resilience.

Habitat friendly solar project with diverse native plants

Conservation Reserve Program State Incentives Grant Program

This program provides grants to eligible watershed plan partnerships to incentivize voluntary landowner participation in the federal Continuous Conservation Reserve Program (CCRP). These CCRP practices improve or protect surface water or groundwater pollution, drinking water, soil health, pollinator and wildlife habitat, and other conservation enhancements.

Managing Invasives for a Resilient Landscape

This program is to support the restoration of native plant communities in areas impacted by terrestrial invasive or noxious weeds. The program provides funding and technical support for collaborative efforts that manage terrestrial invasive plant species and reestablish resilient native vegetation.

The Minnesota Oak Savanna Initiative

Oak Savannas support over 90 species of greatest conservation need in Minnesota but only make up .1% of Minnesota Landcover (MDNR). As a result, The Oak Savanna Restoration project was developed and led by the Minnesota Board of Water and Soil Resources (BWSR) in partnership with Xerces Society. This new program aims to restore and enhance oak savannas, supporting woodlands and tallgrass prairies within Minnesota's Eastern Broadleaf Forest Province. This work addresses critical biodiversity loss and supports imperiled pollinators and wildlife species.

Wetland Protection and Restoration

The primary goal of the Minnesota Wetland Conservation Act is to achieve no net loss in the quantity, quality, and biological diversity of Minnesota's 10.6 million acres of existing wetlands. This is accomplished through avoiding direct or indirect impacts from activities that destroy or diminish wetlands and replacing wetland values through restoring wetlands where avoidance of such activity is not feasible and prudent. These wetlands and their buffers provide important water, food and nesting sites for pollinators in addition to supporting a wide range of other insects.

Conservation Easements

BWSR's RIM program is focused on the acquisition and enhancement of critical habitat in the predominantly agricultural areas of the state. This program includes restoring wetlands, establishing riparian buffers, protecting sensitive ground water areas, planting critical winter cover for wildlife, preserving habitat for rare plant and animal species, protecting and restoring native prairie and grasslands, increasing pollinator habitat, and preserving spawning and reproduction areas for fish.

Local Government Unit Grant Programs

BWSR's grant programs provide funding to Local Government Units to implement targeted conservation projects and practices. Many of these practices—such as tree and grass planting, prairie and wetland restoration, windbreaks and shelterbelts, grassed waterways, contour buffer strips, filter strips, riparian buffers, critical area plantings, and cover crops—deliver significant benefits for pollinators. These projects create food and nesting habitat in agricultural landscapes while also supporting clean water sources that pollinators depend on.

BWSR's Five Focus Areas to Maximize Pollinator Benefits

To support the goals of the Living Landscapes Initiative, BWSR worked through an advisory committee to identify five focus areas to maximize benefits for pollinators and guide strategic investments through state, federal, and other funding sources. The following information summarizes the five focus areas and next steps related to these priorities.

1) **Collaboration with Large Numbers of Minnesota Residents**

BWSR's Living Landscapes Initiative has been developed to connect with Minnesota residents and many conservation partners to protect pollinators and biodiversity across landscapes. Several conservation programs are used as part of the initiative to work across landscapes to establish habitat, including residences, commercial sites, solar projects, utility corridors, schools, riparian zones, and natural areas. The Lawns to Legumes Program has played an important role for BWSR in connecting with residents across Minnesota and helping them be part of the solution for protecting pollinator populations. Over 10,000 plantings have been installed through the program and there are around 40,000 residents currently receiving outreach from BWSR related to native plants and pollinator conservation. BWSR plans to increase outreach to continue building momentum for pollinator conservation and the role of conservation plantings in performing important environmental functions such as filtering stormwater, improving soil quality, and providing wildlife habitat.

2) **Engage the Next Generation of Stewards**

BWSR is committed to working with schools to inspire the next generation of conservation stewards. While habitat projects have already been supported through various conservation programs, BWSR will

expand these efforts by funding more school-based projects and collaborating with teachers to develop curriculum and classroom resources that connect students directly to conservation.

3) Strategic Programs and Projects to Maximize Pollinator Benefits

BWSR is prioritizing projects that deliver the greatest benefits for declining pollinator populations by focusing on both strategic locations and proven practices. The new Living Landscapes Map helps guide project selection and supports the creation of connected habitat corridors. In addition, BWSR is developing technical resources and tools to assist local conservation partners and is working to maximize pollinator habitat opportunities across all BWSR programs. Additional outreach will be conducted about the map and new corridors will be added as momentum builds in different areas of Minnesota.

It takes many partners for successful conservation programs

4) Strong Partner Collaboration

BWSR works closely with state agencies through the Interagency Pollinator Protection Team to align efforts and achieve the goals outlined in the Governor's Executive Order, *Directing Steps to Reverse Pollinator Decline and Restore Pollinator Health in Minnesota*. In addition, BWSR has a Biodiversity and Native Vegetation Advisory Team that guides conservation programs and is made up of around 100 conservation professionals representing organizations from across Minnesota. BWSR also collaborates with the University of Minnesota and other universities to advance research on effective site selection and project design. BWSR staff have also been pursuing grant funding to continue building momentum for pollinator conservation in additional types of landscapes including oak savannas that sustain large numbers of plant and animal species, and community spaces that provide important opportunities for public outreach.

5) Innovative Technical Assistance

In 2025, BWSR updated their *Native Vegetation Establishment and Enhancement Guidelines* to help resource professionals and landowners make informed decisions about planting and maintaining state-funded restoration and water quality projects. These guidelines provide practical, science-based recommendations to improve project success and long-term sustainability. BWSR has also developed a wide range of fact sheets, seed mixes, and additional information to guide pollinator restoration efforts and several new resources are currently being developed.

BWSR Pollinator Outcomes

Since its origin in 1987, the Minnesota Board of Water and Soil Resources has played a significant role in preserving and restoring pollinator habitat by protecting and restoring wetlands, retiring and restoring marginal agricultural land to native vegetation, and through soil and water conservation grants and the planting of native vegetation to provide multiple landscape benefits. The following are key outcomes related to the establishment of pollinator habitat.

Ohio spiderwort

1) The BWSR Lawns to Legumes Program has had a long list of outcomes since it started in 2019:

Installed Projects

- More than 12,500 plantings have been installed through funding and coaching
- Thousands of DIY projects have been supported through program resources
- Around 100 Shoreline projects completed
- 42 Pollinator Pathways restored (building pollinator corridors in partnership with communities)

Landscape and Pollinator Benefits

- Over 20 million square feet of high diversity residential pollinator habitat established
- Over 23,000 trees and shrubs planted
- Thousands of milkweed plants established to support monarch butterflies
- Sequestering more than 200 metric tons of carbon per year
- Collecting over 37 million cubic feet of water in gardens each year
- Participating residents have contributed around a 8:1 match for project installation

Outreach and Engagement Outcomes

- Around 700,000 visits to program webpages for resources
- Around 43,000 applications from Minnesotans for individual support reimbursement grants
- Trained and educated more than 20,000 residents through program workshops, webinars, and presentations
- Fostered collaboration with more than 100 partner organizations
- Supported more than 100 businesses that help residents create pollinator habitat
- Recruited 425 volunteer coaches in over 50 counties across the state

Social Outcomes

- Awarded more than 40% of all Individual Support grants to residents in environmental justice areas
- Over 4,000 new gardeners taught how to plant and maintain gardens
- Over 70 community spaces restored as part of community conservation efforts

2) Nearly 300,000 acres of conservation easements have been protected/restored over the last twenty-six years.

3) The Minnesota Wetland Conservation Act has been in place since 1991 and has significantly reduced the loss of wetland acres, protecting important pollen and nectar sources, clean water and nesting sites. Many of these wetlands are in important habitat corridors that provide a refuge from pollutants and landscape stressors. As part of wetland protection efforts, approximately 16,000 acres of mitigation wetlands have also been restored.

4) Approximately 24,000 acres of grassland and 6,500 acres of trees and shrubs have been planted through soil and water conservation grants providing important pollinator habitat in agricultural areas.

Outreach and Resources

BWSR uses a variety of outreach strategies to reach a broad audience with different learning styles to promote and guide the establishment of pollinator habitat and other associated landscape functions. The following information summarizes key outreach that is designed to aid pollinator protection and habitat restoration.

1) BWSR has developed a pollinator and biodiversity toolbox that is focused on: Increasing awareness about declining pollinator populations, and supporting local government partners and residents with establishing and maintaining pollinator habitat.

2) BWSR's Native Vegetation Establishment and Enhancement Guidelines provide vegetation establishment and enhancement standards and guidance for BWSR funded program. They include information about seed and plant source guidance, recommended diversity levels, climate change considerations, and information for a wide range of project types and site conditions. Goals of the guidelines are to create consistency among state programs, to avoid the

use of invasive species, protect remnant plant communities, and to ensure that plantings function at a high level and meet project goals. The guidelines will be updated periodically as new research and field experience becomes available.

3) Resources have been developed to help assess the ecological quality including habitat assessment forms for urban and rural landscapes.

4) Assessments have been developed for solar projects to set criteria for solar developers to claim "pollinator habitat benefits for projects" (Minnesota DNR also has specific guidance for solar projects to guide solar developers).

5) The Minnesota Wetland Restoration Guide developed by BWSR also provides detailed information about methods to restore and maintain wetlands and uplands.

6) BWSR's "What's Working" webpage is a peer-to-peer resource that also summarized effective methods of restoring diverse plantings.

7) A fact sheet has also been developed in partnership with Xerces Society focused on protecting conservation plantings from pesticides.

8) BWSR publishes featured plant articles each month to showcase species important for conservation and has been focused on species important to pollinators since April of 2013.

9) A BWSR Buffer Establishment and Management Toolbox focuses on ways to incorporate pollinator habitat into buffer plantings, while protecting pollinators from pesticides.

10) In partnership with MnDOT, DNR, Xerces Society, and other partners, BWSR has developed a wide range of state native seed mixes that focus on accomplishing a variety of ecological functions while also providing pollinator habitat. These mixes are used by federal, state, and local agencies as well as consultants, non-profits, and private landowners. The mixes are purchased from private seed vendors around the state. The BWSR Native Vegetation Establishment and Enhancement Guidelines provide new guidance about the use of existing state seed mixes for pollinator projects.

Additional Information Sources

BWSR Pollinator Toolbox
Minnesota NRCS Pollinator Conservation Planning Documents
Pollinator Habitat Assessment Form and Guide
Upper Midwest Plants for Native Bees
Pollinators and Roadsides, Roadside Management for Bees and Butterflies
Pollinator Conservation in Minnesota and Wisconsin
Pollinators in Natural Areas
Protecting Bees from Neonicotinoids in Your Garden
Risks of Neonicotinoid Use to Pollinators
Best Management Practices (BMPs) for Pollinator Protection in Field Corn
Pollinator-Friendly Parks
Monarch Butterfly Conservation
Conserving Bumblebees