

Governor's Committee on Pollinator Protection

Thursday, April 27, 2017

9:00 a.m. to 3:00 p.m.

MnDOT Office of Aeronautics 222 Plato Blvd, St. Paul MN 55107

AGENDA

**MATERIALS
ENCLOSED**

Activity	Time
1. Welcome, agenda review and introductions	9:00
2. Review and approval of meeting notes	9:10
3. Board of Water and Soil Resources pollinators overview- Dan Shaw <ul style="list-style-type: none">• <i>Questions</i>• <i>Discussion/Reflection</i>	9:20
BREAK	10:45
4. How agencies develop Legislative proposals	11:00
5. Public comment	11:20
LUNCH	11:30
6. DNR pollinators overview- Crystal Boyd <ul style="list-style-type: none">• <i>Questions</i>• <i>Discussion/Reflection</i>	12:15
BREAK	1:45
7. Updates <ul style="list-style-type: none">• <i>Values statements</i>• <i>Roadmap</i>	2:00
8. Next steps <ul style="list-style-type: none">• <i>June meeting with EQB</i>	2:30
ADJOURN	3:00

THANK YOU!

**GOVERNOR'S COMMITTEE ON POLLINATOR PROTECTION
MEETING MINUTES**

**Thursday, March 16 2017
MnDOT Office of Aeronautics
222 Plato Blvd, St. Paul MN 55107**

Governor's Committee on Pollinator Protection Members present: Erika Bailey-Johnson, Jim Calkins, Steve Ellis, Dave Flakne, Sarah Foltz Jordan, Lex Horan, Bob Koch, Dan MacSwain, Kevin Paap, Erin Rupp, Dan Schutte, Marla Spivak, Ted Suss, Yao Yang

I. Welcome, agenda review and introductions

II. Review and approval of meeting notes

III. Process updates

Charlie Petersen (Management Analysis and Development) continued the discussion of the Committee's scope as written in Executive Order 16-07.

Mr. Petersen also presented a road map for the Committee's activities, which includes spending the next few months establishing a common base of knowledge on how agencies are working on the pollinator issue.

Finally, Mr. Petersen and Mr. Schutte went over the final draft of the values statement, which incorporated elements of Mr. Flakne's contributions.

IV. Interaction between the Interagency Pollinator Protection Team and the Governor's Committee on Pollinator Protection

Mr. Petersen led a discussion on how the Committee envisions its relationship to the Interagency Pollinator Protection Team (Interagency Team). The Committee wishes to zero in on building partnerships and promoting pollinator protection in the state.

The Committee hopes that state agencies will reach out to them with ideas and program plans, as well as opportunities to leverage partnerships that Committee members may be able to develop. Additionally, members hope that the Interagency Team might start with larger associations and work with them to engage individual farmers on pollinator issues. Many members also discussed how to engage with pollinator groups and make the Committee a presence at pollinator events.

Will Seuffert, Executive Director of the Environmental Quality Board (EQB) noted that the Interagency Team would like to involve the Governor's Committee more in future goal-setting exercises.

With one member voicing disapproval, the Committee decided that a 60% supermajority (or 9 votes) would result in the Committee's ability to make statements on behalf of all members, with additional comments from dissenting voters.

V. Issues of interest

Claudia Hochstein (EQB) notified the Committee of a request to stay the listing of the rusty patched bumble bee as endangered under the Endangered Species Act. Ms. Hochstein used this opportunity to discuss how the Committee might respond to issues of interest that arise. It was suggested that the Committee's structure works best as a proactive (e.g., helping agencies' shape their Legislative proposals) rather than a reactive advisory group. The Committee determined that they will use a supermajority vote to determine whether they take any given action.

Assistant Commissioner Susan Stokes of the Department of Agriculture provided a Legislative update on HF1717 and SF1674, which are bills that affect the Department of Agriculture. The Committee was interested in sending a letter to the Legislature with a position on this bill, but a question arose about the Committee's role in advising any entities beyond state agencies and the Governor. Ms. Hochstein will follow up on the Committee's authorities.

VI. Department of Agriculture presentation on the Special Registration Review process and findings

Raj Mann, supervisor of MDA's Pesticide Technical Unit, presented on how MDA scoped and performed the Special Registration Review and some of the results. He then responded to questions from the Committee.

Following Mr. Mann's presentation, the Committee voted to send a letter to the Governor, the Interagency Pollinator Protection Team, and MDA Commissioner Frederickson in support of the MDA's original proposed language on establishing a treated seed program.

- Voting yes: Bailey-Johnson, Ellis, Foltz Jordan, Horan, MacSwain, Rupp, Schutte, Suss, Yang
- Voting no: Calkins, Flakne, Koch, Paap
- Abstaining: Spivak
- Absent: Thalmann

VII. Future topics for presentations

Mr. Petersen gave Committee members time to fill out suggestions for future presentations.

VIII. Public comments.

Ms. Hochstein read a comment submitted via email by Patricia Hauser, a member of the public, with suggestions for presentations and a question about how Committee members were selected.

Lynn Marcus, a member of the public, commented on the need to include other pollinators beyond bees.

IX. Next steps and adjournment

The Committee will meet again on April 27, 2017.

DRAFT



Minnesota Board of Water and Soil Resources
Action Steps for Pollinator Habitat Protection and Restoration
1-12-2017

1) Incorporate pollinator habitat into BWSR programs.

- Implement BWSR's *Pollinator Initiative*, focused on
 - Increasing awareness about declining pollinator populations,
 - Supporting local government unit partners in enhancing pollinator habitat, and
 - Focusing outreach on how to incorporate pollinator habitat into BWSR programs.
- Increase outreach on the role of beneficial insects in pollinating 70-80 percent of flowering plants in the Midwest, leading to seed production and sustained ability to perform important environmental functions such as filtering stormwater, improving soil quality and providing wildlife habitat.

2) Update and maintain vegetation policies and guidance for local seed and plant source selection for conservation, as well as restoration planning and design.

- Update the BWSR *Native Vegetation Establishment and Enhancement Guidelines* as needed to assist resource professionals and landowners in making informed decisions about the planting and maintenance of state funded restoration and water quality projects. Goals of the guidelines are to create consistency among state programs; to avoid the use of invasive species; and to ensure that plantings function at a high level and meet project goals.

3) Protect pollinator habitat through wetland protection and restoration.

- Work to achieve no net loss in the quantity, quality, and biological diversity of Minnesota's 10.6 million acres of existing wetlands, which provide important pollinator habitat. This is accomplished by 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. Wetlands such as the 16,000 acres of mitigation wetlands currently restored provide a refuge from pesticides and landscape stressors, as well as important water, food and nesting sites for pollinators.
- Provide guidance in the *Minnesota Wetland Restoration Guide* for ways to enhance pollinator habitat as part of wetland restoration projects.

4) Incorporate pollinator habitat protection and restoration planning into conservation easement projects.

- Restore pollinator habitat through the Reinvest in Minnesota (RIM) program that is focused on the acquisition and enhancement of sensitive land and critical habitat that currently includes around 280,000 acres of easements. This program includes restoring wetlands, establishing riparian buffers, protecting sensitive groundwater areas, planting critical winter cover for wildlife, preserving habitat for rare plant and animal species, protecting and restoring native prairie and grasslands, and increasing pollinator habitat.
- Implement a new RIM program practice developed to establish floral rich "pollinator plots" up to five acres in size and allowing for the strategic placement of pollinator habitat where it is protected from impacts.

- Further explore and implement innovative methods to enhance and manage easements to increase pollinator habitat.
- Target habitat protection and restoration efforts on habitat complexes and corridors such as the Prairie Core Areas identified in the *Minnesota Prairie Conservation Plan* that can act as pollinator reserves or refuges to provide long-term pollinator protection and maximize plant community benefits.
- Use diverse seed mixes following the *BWSR Native Vegetation Establishment and Enhancement Guidelines* and promote native seedbanks and natural colonization that provide additional native flowers such as mints, vervains, goldenrods, and milkweeds that benefit pollinators.

5) Incorporate pollinator habitat into agricultural conservation practices.

- Incorporate more pollinator habitat into agricultural conservation practices, such as prairie and wetland restoration, windbreaks/shelterbelts, contour buffer strips, filter strips, riparian buffers, critical area planting and cover crops. The approximately 24,000 acres of grassland and 6,500 acres of trees and shrubs that have been planted through soil and water conservation grants through 2016 provide important pollinator habitat in agricultural areas and also play a key role in supplying clean water sources for pollinators.
- Provide guidance in BWSR's *Buffer Establishment and Management Toolbox* on ways to incorporate pollinator habitat into buffer plantings while protecting pollinators from pesticides.
- Promote no-till farming, perennial vegetation and cover crops in agricultural areas to preserve nesting sites for pollinators and provide pollen and nectar sources, as well as improving soil and water quality.

6) Incorporate pollinator habitat into urban water quality projects.

- Focus outreach on ways to incorporate pollinator habitat into water quality projects such as raingardens, bioretention areas, stormwater ponds and impoundments. Conduct outreach through program policies and guidance, publications and sharing information at workshops. Additional guidance will be developed about how to incorporate pollinator habitat into urban BMPs while considering aesthetic needs.

7) Refine outreach and technical resources for pollinator habitat.

- Continue refining outreach documents including BWSR's *Pollinator Toolbox*, *Native Vegetation Establishment and Enhancement Guidelines*, *Minnesota Wetland Restoration Guide*, *Guidelines for Interseeding to Restore or Enhance Native Species Diversity*, *What's Working* webpage, and pollinator habitat assessment forms for urban landscapes, rural landscapes and solar projects.
- Through collaboration with conservation partners test BWSR's 45 new pilot state seed mixes developed to incorporate pollinator habitat into a wide range of project types (buffers, impoundments, wetlands, stormwater ponds, bioenergy plantings, landfills, mine reclamation, etc.). These mixes will be in addition to the existing set of approximately 30 state seed mixes that were developed by BWSR, MnDOT and DNR for prairie, wetland and woodland restoration. These mixes are used by federal, state and local agencies as well as consultants, non-profits and private landowners.
- Provide more information about how to incorporate additional spring blooming species into projects and how to manage weeds in floral diverse plantings, as this can often be challenging and cause projects to fail or lose diversity.
- Provide more detailed recommendations on how to benefit honeybees as we learn more about what plant species are most important to support populations.

8) Provide technical assistance and coordinate with partner agencies and researchers.

- Following the Governor's Executive Order (16-07) on Pollinators, collaborate with the Interagency Pollinator Protection Team and the Governor's Committee on Pollinator Protection to finalize the first statewide report on pollinator goals and metrics. Also, coordinate with other agencies to maximize statewide effectiveness of pollinator habitat protection and restoration efforts.
- Provide guidance to the Minnesota Pollution Control Agency about planning and implementing pollinator habitat on state-owned landfill sites.
- Assist the Minnesota Department of Administration with incorporating pollinator habitat onto the Capital grounds.
- Collaborate with a wide range of partners on grants to restore pollinator habitat in Minnesota and study how to be most effective with site selection, project design, and management to sustain diversity.

9) Strive for program and project improvement to maximize pollinator benefits

- Partner on the state's Restoration Evaluation Program to assess the success of restoration efforts and identify trends and opportunities for improvements for program planning and project implementation.
- Update BWSR's *What's Working* webpage yearly to document successful conservation practices and restoration strategies involving pollinators.



Buffer Program

What to Plant in Buffers

March 3, 2017

Purpose: The purpose of this document is to provide planting guidance relating to Minnesota's Buffer Law, based on conservation program requirements, intended uses, and landscape conditions. Local conservation staff, as well as natural resource and crop consultants, can provide additional site-specific guidance.

What to Plant

Buffer Plantings Not Funded by Programs - When not using federal, state and/or local program funding, landowners have a variety of options for buffer vegetation.

Prairie Vegetation - Prairie plants have deep roots that provide water infiltration and filtering, and provide wildlife habitat benefits. They can also be used as a source of biomass. Native seed vendors can provide local buffer seed mixes to match site conditions. [State seed mixes](#) have also been developed by state agencies for a variety of conservation purposes (saturated buffers, biomass/biofuels, pollinator plantings, etc.). Buffers may be an opportunity to plant species beneficial to pollinators (milkweeds, Black-eyed Susan, wild mints, asters, goldenrods etc.) in addition to native grasses. Pesticide drift is a concern for pollinators, so forbs are not recommended in buffer strips that are thirty feet wide or less and adjacent to cropland where pesticides are applied. Refer to [NRCS Agronomy Tech note #9](#) for mitigation practices related to protecting pollinators from pesticide applications.



Prairie grasses and flowers

Hay and Forage Crops - A variety of perennial vegetation that is commonly used for hay and forage crops, such as alfalfa, clovers and forage grasses can be used for buffer plantings. NRCS practice standard CPS-512 Forage and Biomass Planting found in [Agronomy Technical Note #31](#) provides seeding recommendations.



Buffer planted with hayed forage grasses

Perennial Grains – Grains that are perennial can be planted and later harvested from buffer areas. Kernza is an example of a species with increasing seed availability. More information is available about Kernza and other perennial species on the website for the [Forever Green Initiative](#) at the University of Minnesota.

Woody Vegetation – In addition to their ability to stabilize soils, woody vegetation can provide many other landscape benefits. Species such as Choke Cherry, Ninebark, Prairie Plum, Highbush Cranberry, Indigo Bush and Dogwood provide habitat for pollinators, songbirds and other wildlife. Some species such as Elderberry, Chokeberry, Hazelnuts and Willows are also being grown as [commercial crops](#). Woody plants should be planted in combination with prairie vegetation or other perennial groundcover species to ensure effective stormwater filtering and to suppress weeds.



Common elderberry fruit
Image by Dave Hanson

What Not to Plant

Invasive Species and State Noxious Weeds – Minnesota's Buffer Law states that invasive species and [state noxious](#) weeds cannot be planted on required buffers. The invasive risk of plants is often based on landscape conditions. For example, reed canary grass is a species that is often discouraged as it displaces native vegetation in wetland and riparian landscapes. DNR's [invasive species website](#) includes species that can be harmful to native plant communities.

Avoiding Palmer Amaranth and Other Weeds – The Minnesota Department of Agriculture is increasing inspections of seeds for native and non-native species to help prevent the introduction of [Palmer Amaranth](#). For plantings with native seed, work with native seed vendors to obtain local sources. Inspect plantings for weeds and work with local conservation staff, Extension agents, or consultants if any problems are identified.



Common tansy, a state noxious weed

What to Plant if You are in a Conservation Program

Buffer Plantings Funded by Conservation Programs – Federal, state and local conservation programs can be used for planting buffers. Each program has guidance for the types of vegetation to be used and for seed sources. Local [SWCD staff](#) can provide information about programs and funding options.

Federal Funding - Plantings conducted through the Conservation Reserve Enhancement Program ([CREP](#)) involve a perpetual Reinvest in Minnesota conservation easement and require the use of native vegetation, while Conservation Reserve Program ([CRP](#)) and Environmental Quality Incentive Program ([EQIP](#)) plantings can include native or non-native species depending on project goals. For federal programs, NRCS Field Office Technical Guide (FOTG) practice standards are used, along with [Agronomy Technical Note #31](#) to define applicable practice standards and seed source requirements.

State Funding – NRCS conservation practice standards including CPS-327 Conservation Cover and CPS-393 Filter Strip are also used for state (BWSR) funded projects, but only native vegetation species can be used. [BWSR's Native Vegetation Guidelines](#) define seed source requirements focused on using locally adapted species to the extent feasible. The BWSR [Buffer Establishment and Management Toolbox](#) provides additional detailed information for project planning and implementation, including plant selection.

Local Funding – In addition to guiding buffer projects, local Soil and Water Conservation Districts may know of additional local funding sources, as might watershed districts and local conservation organizations. Individual funding sources will have specific guidance for planting options.



Prairie grass in a buffer planting

Additional Information

For information about how to assess when a buffer is meeting vegetation requirements of Minnesota's Buffer Law, see the BWSR Buffer Law Implementation Guidance document titled [Vegetation Establishment Goals](#).

Insecticide Guidance in BWSR's Native Vegetation Establishment and Enhancement Guidelines: http://www.bwsr.state.mn.us/native_vegetation/seeding_guidelines.pdf

Insecticides and Chemical Carry-over

To protect pollinator populations, any native seed and plants supplied for projects must not be treated (seed coatings or foliar application) with insecticides including but not limited to neonicotinoid insecticides (such as imidacloprid, clothianidin, thiamethoxam, dinotefuran and acetamiprid) that can harm pollinators. Also, to the extent possible, place pollinator habitat enhancement plantings on soils free of persistent pesticides such as insecticides. Systemic insecticides, like neonicotinoids, can persist in the soil and be absorbed by new plantings and transferred to pollinators that forage on them (Hopwood et al. 2012). Use temporary cover crops such as oats or winter wheat in areas where insecticides may be a problem to allow time for the chemicals to break down.

Diverse pollinator plantings ("pollinator plots") should not be located adjacent to agriculture where insecticides will be used as seed treatments or through foliar application. A minimum buffer of 200 feet is recommended. Minnesota pesticide laws and rules define landowner responsibilities to minimize pesticide drift. The Minnesota Department of Agriculture oversees the state's Pesticide Applicator Licensing. NRCS Agronomy Technical Note 9 "Preventing or Mitigating Potential Negative Impacts of Pesticide on Pollinators Using Integrated Pest Management and Other Conservation Practices" provides detailed information about methods to minimize impacts to pollinators.

Several chemicals being used for weed control along with Glyphosate in Glyphosate resistant crops act as pre-emergents or post-emergents (designed to inhibit germination) and can be a problem for native vegetation establishment from seed. Temporary cover crops planted for one or two seasons can also allow time for these chemicals to break down in the soil if they have been used. Investigate prior chemical use and labels to help define probability of having chemical carryover that could/should be addressed by using temporary cover crops. If in doubt seek consultation from others with applicable experience.



TWIN CITIES

How You Can Help Pollinators

Guidance for using pollinator seed in Minnesota home landscapes

Each year, wild and domesticated bees pollinate around 30 percent of crops in the United States. These pollination services are worth approximately \$23 billion. Bees also pollinate around 70 to 80 percent of native flowering plants in the Midwest, allowing the plants to produce seed and survive. More than 4,000 native bee species call North America home, but many of their numbers are declining, along with many types of butterflies and other insects. At the same time, colonies of European honey bees have also suffered significant annual losses. Habitat loss, pesticide use, and a variety of other factors contribute to the declines of these insects.



Monarch butterfly on native meadow blazing star (*Liatris ligulistylis*)

You can establish plants for pollinators from seed or by planting bare-root or container-grown plants. Using seed mixes can be an economical and effective choice, but it is important to select species that will support native pollinator species and protect native plant communities. Only plant the contents of seed packets **in home gardens and not in public natural areas**. Here are some tips to help you choose a seed mix and plant your project successfully.

What should be in pollinator seed mixes?

- 40 to 60 percent wildflowers in each seed packet is recommended.
- Although native grasses are not a source of nectar, they provide pollinators with shelter and nesting habitat, serve as a food source for some pollinator larvae, and play an important role in supporting flowers.
- Including a mix of species that flower at different times in spring, summer, and fall to provide pollinators with a continuous food source throughout the seasons.
- Including a wide range of bloom times and flower colors and shapes will ensure that your garden benefits a variety of pollinator species.
- Finally, avoid seed mixes that contain invasive species.

Native seed mixes play an important role in providing pollinator habitat in home landscapes



Native sneezeweed (*Helenium autumnale*) may have an unattractive name, but bumble bees love it!

Key pollinator plant species

You can select plant species to support specific insects or a variety of insects. For example, if you want to help monarch butterflies, you will need to include milkweed species. On the opposite side of this page is a partial list of species that you can plant in your home garden and when they bloom.

Pollinator Plant Resources: [Upper Midwest Plants for Native Bees](#), [Protecting Bees from Neonicotinoids in Your Garden](#), [Monarch Habitat Guidebook](#), [Conserving Bumblebees](#); *Pollinator Friendly Gardening: Gardening for Bees, Butterflies, and Other Pollinators*; *100 Plants to Feed the Bees: Provide a Healthy Habitat to Help Pollinators Thrive*; *Pollinators of Native Plants*; *Bees: An Identification and Native Plant Forage Guide*; *Garden Plants for Honey Bees*; *Gardening for Butterflies*; *Attracting Native Pollinators: Protecting North America's Bees and Butterflies*

Some Widely Distributed Native Herbaceous Species for Establishment in Home Gardens	
Spring Blooming	<u>Red Columbine, Long-Bracted Spiderwort, Golden Alexanders, Wild Geranium, Virginia Waterleaf, Downy Yellow Violet</u>
Summer Blooming	<u>Purple Prairie Clover, Common Milkweed, Wild Bergamot, Canada Milkvetch, Culver's Root, Prairie Coreopsis, Blue Lobelia, Mountain Mint, JoePye Weed, Hoary Vervain, Black-eyed Susan, Rough Blazingstar, Meadow Blazingstar, Butterfly Milkweed, Swamp Milkweed, Stiff Sunflower, Common Yarrow, Spotted Joe-pye weed</u>
Fall Blooming	<u>Smooth Aster, Silky Aster, Panicked Aster, New England Aster, Sneezeweed, Bottle Gentian, Common Boneset, Showy Goldenrod, Common Sunflower, Stiff Goldenrod</u>
Grasses	<u>Sideoats Grama, Little Bluestem, Junegrass, Prairie Dropseed, Plains Oval Sedge, Canada wild Rye</u>
Some Non-Native Annual Species that are Not Invasive and Attractive to Pollinators:	
Zinnia, Coleus, Fuchsia, Wild Pansy, Pot Marigold, Nasturtium, Garden Pansy, Phacelia, Salvia, Sunflower, Sweet Pea, Basil, Borage, Lavender, Dahlia, Hyacinth, Crocus, Daffodil, Dill	

Should I buy local seeds and plants?

We recommend locally produced seed and plant sources for pollinator habitat projects. Buying local helps protect nearby native plant communities and provides plant species that are sure to be compatible with local insect populations. Xerces Society has resources, including [Pollinator Friendly Plant lists](#) for the Great Lakes Region, to guide your species selection. We also recommend that you should only use pollinator seed packets made up of species [native to Minnesota](#). Another important consideration is finding a local native seed supplier whose production process uses pesticides responsibly from a pollinator-safety perspective.

What Should be on a Seed Tag?

A complete [seed tag](#) should include the species in the seed mix (including scientific name), seed origin, species percentages, lot number, pack date, net weight, and the address of the company supplying the seed. You can look for other useful information like area of coverage and planting directions.

Seed Establishment

You can plant pollinator seeds in unused portions of yards, traditional perennial or annual beds, and even planters. Take care to plant pollinator seeds in areas where you do not use pesticides.

Here are some keys to successful native plant establishment:

- Control weeds before establishing pollinator habitat; this is especially important for perennial weeds.
- Pollinator seed mixes are often planted in **late fall** as many wildflower seeds benefit from exposure to winter conditions to help break seed dormancy. You can also plant seeds in spring though June.
- Spread seeds on top of the soil surface and lightly rake them into the soil to achieve good soil contact. Be careful not to bury the tiny seeds very deep.
- Lightly pack the soil surface after you have spread the seed.
- Generally, you do not need to provide native plant seedlings with supplemental watering as long as they receive about one inch of rainfall a week.

Seed Tag Example:

Planting instructions: Plant in spring or fall. Choose a sunny spot, remove existing growth, prepare a good seedbed, and scatter the seed evenly. Then compress the seed lightly into the soil, but do not cover. Water as needed throughout the first growing season. Covers 5 square feet.

This Pollinator Mix includes the following species:

Name	Source
10% Silky Aster (<i>Symphotrichum. sericeum</i>)	Martin Co. MN
15% Swamp Milkweed (<i>Asclepias incarnate</i>)	Chisago Co. MN
5% Black-Eyed Susan (<i>Rudbeckia hirta</i>)	Anoka Co. MN
15% Wild Bergamot (<i>Monarda fistulosa</i>)	Winona Co. MN
15% Golden Alexanders (<i>Zizia aurea</i>)	Winona Co. MN
20% Sideoats Grama (<i>Bouteloua curtipendula</i>)	Anoka Co. MN
20% Little Bluestem (<i>Schizachyrium scoparium</i>)	Stearns Co. MN

Lot No: MNLMDA1601

Packed for 2016, Net Wt. 400mg

Packet creation and seed provided by MN Wildflowers, Inc., 119 Loon Lake, MN 55155. Minnesota native plant species. Plant in spring after last frost or in the fall after growing season ends.

Prevention of Palmer Amaranth and other Noxious Weeds

The introduction of *Palmer amaranth* and other noxious weeds through seed mixes is a major concern in Minnesota, so it is important that Minnesota's [seed law](#) is followed for all projects. Seed coming from counties within states where *Palmer amaranth* has become established is of particular concern. The following is a process for addressing *Palmer amaranth* concerns for any BWSR or LCCMR/ENRTF funded projects (and other agencies following this guidance) and is also recommended for any planting to meet Minnesota's Buffer Law:

- 1) Local seed sources must be the first priority for projects (see the source sequence in these guidelines).
- 2) The following are steps to prevent Palmer amaranth in native and non-native seed mixes:
 - a. As part of the bidding process, seed vendors must provide seed test results for any Amaranth (Pigweed) seed that was found in seed tests for the seed lots proposed to be used for the project.
 - b. If Amaranth species were found in the test results, the Minnesota Department of Agriculture (MDA) requires that the vendor must also have a genetic test done (the vendor can have an official lab pull a sample and separate out the amaranth seed for testing) to determine if the Amaranth species are Palmer amaranth. These genetic test results must also be provided to project managers for the seed lots proposed to be used for the project.
 - c. The test results must be provided electronically to project managers and can be a letter from vendors but will need to include copies of seed test results or other documentation from the lab/s that tested the seed verifying that seed in proposed mixes has been tested." It is the project manager's responsibility to ensure that vendors provide this information as part of the bidding process. If the same seed mix will be purchased more than once in a calendar year, the test results do not need to be sent by the vendor again unless there has been a change in test results for the mix. Test results will also need to be available from vendors for random audits by MDA.
- 3) Soon after the acceptance of a seed bid, seed vendors must provide a preliminary seed label/tag for the proposed seed mix that lists any other weeds (restricted noxious and other weeds) that were identified in seed tests for species in a seed mix. This step is intended to allow project managers to see any undesirable weeds in a mix that could cause problems for a particular project and to seek final adjustments to a mix, as needed. Note that state seed law includes standards for prohibited and restricted noxious weeds, including a tolerance of up to 25 seeds per pound for restricted noxious weeds in mixes; and a mix cannot contain more than one percent total of weed seeds by weight (MDA fact sheet to be added). Official state seed labels/tags must be on or attached to seed bags, as required in state seed law, and seed labels and tags must be retained by project managers in the applicable project file.
- 4) Project managers should work with the MDA if they have any concerns about seed mixes. MDA can assist with taking official seed samples in the field, as needed.
- 5) Project inspections by local staff with plant identification expertise will play an important role as a final assurance that Palmer amaranth and other noxious weeds are not introduced into plantings.



IDENTIFYING PROGRAMS & FUNDING FOR MINNESOTA POLLINATOR HABITAT

Available funding for habitat projects plays a key role in the support of pollinator populations. The table on the following page summarizes state and federal water quality and habitat focused conservation programs that can be used to restore pollinator habitat as primary or secondary project goals.



Most of the state programs listed in the table are focused on solving water quality issues or providing high quality habitat and are competitive grant programs. The federal sources listed generally have primary goals of restoring habitat and environmental quality as part of agricultural production.

Local [conservation districts](#) and [watershed districts](#) are generally the most knowledgeable about what state and federal programs may be the best fit for an individual project; and if there are other “local” sources of funding that could be used for smaller projects that may not be eligible for state or federal funding. The last row of the table lists potential sources for smaller planting projects.





IDENTIFYING PROGRAMS & FUNDING FOR MINNESOTA POLLINATOR HABITAT



This table is designed to aid the selection of conservation programs that can be used to restore pollinator habitat. The table summarizes state and federal programs, and sources of additional match. Links in blue text provide funding for projects solely on agricultural land while those in brown text are for urban or agricultural land. Landowners should work with local NRCS, SWCD or DNR staff as needed for additional guidance.

Program Categories	Program	Program Goals	How to Incorporate Pollinator Habitat
State Programs	<u>Clean Water Fund (BWSR)</u>	To protect, enhance, and restore lakes, rivers, streams, and groundwater.	These competitive grants focus on water quality issues. However, plantings done as part of projects such as rain gardens or stormwater basins encourage secondary benefits such as pollinator habitat. Plans for restoring pollinator habitat should be included in the competitive grant application. There is no minimum acreage size for projects.
	<u>State Cost-Share (BWSR)</u>	To provide grants for installing conservation practices that protect and improve water quality by controlling soil erosion and reducing sedimentation.	This program involves partnerships with local Soil and Water Conservation Districts. Diverse plantings are encouraged and should be included in project plans when applicable for the project type to provide pollinator habitat. There is no minimum acreage size for projects.
	<u>Reinvest in Minnesota RIM (BWSR)</u>	To restore marginal and environmentally sensitive agricultural land, protect soil and water quality, and restore fish and wildlife habitat.	A competitive process is used to select lands for the establishment of permanent conservation easements. The land remains in private ownership and the landowner retains responsibility for maintenance. Diverse mixes are promoted for plantings, and separate floral rich pollinator plantings of a few acres in size can be included. Funding may also be available to enhance diversity in existing plantings. There is a three acre minimum size for projects.
	<u>Roadsides for Wildlife (MDNR)</u>	To reduce disturbance of roadside cover until after August 1st; Include native prairie species in roadside plantings; Explain the benefits of a diverse and undisturbed roadside environment.	Currently funding is not available for this program. The following things can be done to promote roadside habitat for pollinators: Improve the management of your adjacent roadsides for wildlife. Encourage other landowners and local road authorities to reduce mowing and haying during the nesting season. Promote pollinator cost-share assistance for new or re-vegetated roadside projects. Discuss opportunities to partner on roadside projects with local road authorities.
	<u>Conservation Partners Legacy Grant Program CPL (MDNR)</u>	To enhance, restore, or protect the forests, wetlands, prairies, and habitat for fish, game, or wildlife in Minnesota.	These Competitive grants focused on restoring wildlife habitat are provided to local, regional, state, and national nonprofit organizations, including government entities. Diverse plantings are promoted for projects and detailed information about plans for restoring pollinator habitat should be included in grant applications. There is no minimum acreage size for projects.
	<u>Living Snow Fences (MN DOT)</u>	To protect roadways and provide multiple environmental and agricultural benefits.	Funding is available to install living snow fences and guidance is provided about how to best benefit pollinators with the plantings.
Federal Programs	<u>Conservation Reserve Program CRP and Conservation Reserve Enhancement Program CREP (FSA)</u>	To retire and convert highly erodible cropland and other environmentally sensitive acreage to vegetative cover.	Funding is available to provide 50% cost-share for pollinator plantings using practice standard CP42 that require 3 species from each bloom period (9 minimum) and a minimum 75% forbs in plantings. 10-15 year contracts are used for CRP. There is no minimum acreage size for projects. There is also a new mid-contract management option to enhance honey bee habitat through establishment of honey bee beneficial cover.

<u>Conservation Stewardship Program CSP (NRCS)</u>	<p>To encourage agricultural producers to address resource concerns in a comprehensive manner.</p>	<p>Pollinator plantings are eligible through this program. The plantings require a minimum of 15 species and a minimum of 50% forbs, as well as species selected from each flowering group of spring, summer and fall are required. There is no minimum acreage size for projects.</p>
<u>Agricultural Conservation Easement Program ACEP (NRCS)</u>	<p>To provide support for grazing operations, enhancement of plant and animal biodiversity, and restoration and protection of grasslands under threat of conversion to other uses.</p>	<p>Agricultural Lands Easements (ALE) - Participants may conduct prescribed burning, and construct fences to improve diversity and grassland quality. Enrollment options include 30 year or permanent easements. A grazing management plan is required for participants that can address management for pollinator species. There is no minimum acreage size for projects.</p>
	<p>Provides assistance to restore, protect, and enhance wetlands and adjacent uplands through wetland reserve easements and plans.</p>	<p>Wetland Reserve Easements (WRE) - Enrollment options include 30 year or permanent easements. A restoration plan is required for participants that can provide specific guidance on seed mixes and management to benefit pollinator species. There is no minimum size for projects.</p>
<u>Environmental Quality Incentives Program EQIP (NRCS)</u>	<p>To promote compatibility between agricultural production and environmental quality through technical and financial assistance.</p>	<p>Funding is available for pollinator habitat with a focus on supporting honey bees. Through an agreement landowners agree to maintain the practice (1-10 years). There is a minimum of 75 % forbs for seed mixes, as well as species selected from each flowering group for spring, summer and fall are required for pollinator plantings. There is no minimum acreage size for projects. The program also provides funding for the development of a Pollinator “Conservation Activity Plan” (CAP) to maximize pollinator habitat.</p>
<u>U.S. Fish and Wildlife Service Grassland and Wetland Restoration (USFWS)</u>	<p>To improve water and soil quality, restore wildlife habitat, enhance pollinator habitat, and facilitate flood control by providing financial and restoration assistance.</p>	<p>Grasslands Restoration - A 50% cost-share for restoration work is provided for sites of a minimum of 10 acres, except for school gardens, for 15 years. Uplands with existing restorable wetlands present are preferred. The USFWS or a local conservation organization may work with the land owner to prepare and seed the site. Native vegetation is planted using site specific forb dominated seed mixes focusing on pollinator habitat. There is no haying or grazing typically allowed.</p> <p>USFWS also enhances seed mixes for butterflies and bees for school yard gardens and may offer assistance for cost-share on a host of lands. Lands enrolled in CRP, WRP, CREP, or other conservation programs may also be eligible.</p>
	<p>To improve water and soil quality, restore wildlife habitat, and facilitate flood control by providing financial and restoration assistance.</p>	<p>Wetlands Restoration - A 50% cost-share for restoration work is provided for sites of a minimum of 10 acres for 10 years. Areas where restoration is needed for present wetlands are considered, for example areas where a small ditch can be plugged or tile can be broken. There are no restrictions on haying or grazing.</p>
<u>U.S. Fish and Wildlife Service Habitat and Wetland Easements (USFWS)</u>	<p>To improve water and soil quality, restore wildlife habitat, enhance pollinator habitat, and facilitate flood control through perpetual easements.</p>	<p>Habitat Easement – A one lump payment is given based on fair market value determined by the USFWS appraiser. Payments vary by restrictions on use or location of the easement. Tracts with existing or restorable grasslands and wetlands are considered. The landowner maintains ownership, controls access and pays taxes; haying and grazing options are available. The USFWS maintains the right to manage the habitat on the easement. Native forb dominated seed mixes are used to best promote pollinator habitat.</p>
	<p>To improve water and soil quality, restore wildlife habitat, and facilitate flood control through perpetual easements.</p>	<p>Wetland Easement - A one lump payment is given based on fair market value determined by the USFWS appraiser. Naturally occurring or restorable wetlands are considered. The landowner maintains ownership and the rights to hay, graze, and farm when conditions allow, as well as controlling access, and paying taxes. The USFWS maintains the right to manage the habitat on the easement.</p>

Match Sources for Programs	Landowner Match Local Foundations Garden Clubs Soil & Water Conservation Districts Counties Private Companies	Local Sportsmen's Clubs Environmental Non-profits Watershed Districts Cities Lake Associations Neighborhood Associations	Master Gardeners Schools School Clubs
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