MINNESOTA
ENVIRONMENTAL QUALITY BOARD

November 2026 Environmental Quality Board meeting

Wednesday, November 18 from 1 – 4:00 p.m.

Join in person or online

- In person: 520 Lafayette Road, St. Paul, MN 55155, lower level conference rooms
- Online: For the meeting link and more information, visit the board meeting webpage

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Participating in board meetings

Attending in person

The Environmental Quality Board (EQB) will convene its meeting in person at the Minnesota Pollution Control Agency St. Paul office building. All visitors must sign in at the front desk.

Transportation options:

- Bicycle: Visit the Saint Paul Bike Map webpage for route information. Outdoor bicycle parking is available to the left of the front doors near the loading dock.
- Transit: Use Metro Transit's Trip Planner to determine the best routes and times.
- Car: You may park in a Visitor Parking space in the parking lot just outside the front door, or park in one of the visitor lots. The visitor lots are the Blue Lot (Olive St. and University Ave.) and the Jupiter Lot (on Grove St. across from the Ramsey County Law Enforcement Center); please see the parking map. Parking in these lots is free of charge. You must register your vehicle at the front desk upon arrival.

Attending virtually

Members of the public may join the meeting virtually using the Teams link at the board meeting webpage link above. Please review the Guide to Teams Participation for additional information.

Accessibility

Please contact Environmental Quality Board (EQB) staff at least one week prior to the event at info.EQB@state.mn.us to arrange an accommodation. Meeting materials can be provided in different forms, such as large print, braille, or on a recording.

Public engagement opportunities at EQB meetings

EQB encourages public input and appreciates the opportunity to build shared understanding with members of the public. The opportunities for public engagement for this meeting are below.

Public comment opportunities at EQB meetings

EQB encourages public engagement and appreciates the opportunity to build shared understanding with members of the public. There are multiple ways to engage with staff and board members. One important way is to provide public comment at a board meeting.

The public comment period(s) at a board meeting provide an opportunity for members of the public to inform the board about their views related to the specific item under discussion or something related to the board's purview or authority. Tips for providing comments:

- Ensure that your comments are relevant and specific to the topic you are addressing.
- Say what you want the board to know or consider in moving forward with a piece of work.
- Identify a specific action that you want the Board to take.

If you have a question for the board or EQB staff, it will be noted by staff who will get back to you at a later time. This ensures that we have enough time at a meeting for all commenters to provide input to the board and that your questions can be fully considered.

Oral public comment



At each meeting, the agenda will show when the board will accept oral public comment. The chair will use their discretion to direct public comment and ensure the board's ability to effectively conduct business.

Procedure for giving oral public comment:

- **Virtual:** when prompted, use the "raise hand" feature in Teams, located at the top of your screen.
- **In person:** sign up at the welcome table before the meeting starts.
- When the chairperson calls on you to speak:
    - Introduce yourself before beginning your comment.
    - Please keep your remarks to the agenda item at hand.
    - Please be respectful of board members, staff, and other meeting participants. The chair, vice-chair, or other presiding officer will not tolerate personal attacks.
- The chairperson may limit commenters' time for remarks to ensure there is equal opportunity for the public to comment. Generally, your remarks will be limited to two (2) minutes.
- The chairperson may discontinue a commenter's time to speak if the comments are not reasonably related to the agenda item at hand.

Written public comment



You may submit written comment to EQB by emailing your letter to info.EQB@state.mn.us or mailing to: Environmental Quality Board, 520 Lafayette Road, Saint Paul, MN 55155. Comments must be received by EQB staff **by noon the day before the meeting**.

Staff will compile letters, make them available to members and the public, and attach them to the public record. Any written comments received after this deadline will be included in the next meeting packet.

Please only submit information that you wish to make available publicly. EQB does not edit or delete submissions that include personal information. We reserve the right to not publish any comments we deem offensive, intimidating, belligerent, harassing, bullying, or that contain any other inappropriate or aggressive behavior.

Agenda

Note that all listed times are estimates and are advisory only.

1. Welcome and roll call (1:00 pm)

Dan Katzenberger – Vice Chair, EQB; Public Member, Congressional District 3

2. Approval of consent agenda (1:10 pm)

- Meeting minutes from the October 21, 2026, Environmental Quality Board meeting on packet page 5
- Preliminary agenda for the November 18, 2026, Environmental Quality Board meeting

3. Executive Director's report (1:15 pm)

Catherine Neuschler – Executive Director, EQB

4. Annual pollinator report - acceptance (1:20 pm)

Type of item: Decision

Summary: The Board will hear a presentation about the 2026 Minnesota State Agency Pollinator Report, and will consider a resolution to accept the report, which highlights the ten year anniversary of our interagency work to protect pollinators and includes an update on the implementation of the Minnesota Pollinator Action Framework, fulfilling the requirements of EO 19-28. The report is on page 12 of the packet.

Public comment: EQB will take public comment specifically on this item.

Outcome: The Board accepts the 2026 Minnesota State Agency Pollinator Report and supports cross-agency collaboration to lead the implementation of the Minnesota Pollinator Action Framework.

Presenter: Rebeca Gutierrez-Moreno, Ph.D. – State Pollinator Coordinator, EQB; Erin Loeffler – Ecological Science Conservationist, Board of Water and Soil Resources

Break (2:05 pm / 5 minutes)

5. Update on environmental review of data centers in Minnesota (2:10 – 2:30)

Type of item: Informational

Summary: EQB staff will provide updates about the status of environmental review for data centers in Minnesota, building on information provided in the fall of 2025 and the data center FAQs developed in early 2026.

Outcome: Board members continue to increase their understanding of the issue.

Presenters: Catherine Neuschler – Executive Director; Sarah Lerohl – Environmental Review Program Administrator, EQB

6. Health Impact Assessments (2:30 pm)

Type of item: Informational

Summary: Minnesota Department of Health staff will provide a high-level overview of health impact assessments. This presentation is part of a series of health-related presentations to help establish a shared understanding of health impacts. This supports EQB's FY27 work to research ways to more consistently encourage gathering information on human health in environmental review documents.

Outcome: Board members will have the opportunity to learn about health impact assessments.

Presenter: Kristin Raab – Supervisor, Environmental Impacts Analysis Unit, Minnesota Department of Health

7. Public Comment (3:00 pm)

The board welcomes any additional oral public comment. Please see guidance and procedures on packet page 2.

8. Closing and adjournment (3:30 pm)

MINNESOTA
ENVIRONMENTAL QUALITY BOARD

October 2026 Environmental Quality Board meeting

Wednesday, October 21, 2026| 1:00-4:00 p.m. | 520 Lafayette Road, St. Paul, MN 55155, lower level conference rooms and online via Teams.

Minutes

1. Welcome and roll call

Chair Nancy Daubenberger, Commissioner of the Department of Transportation called to order the regular meeting of the Environmental Quality Board (EQB)

Members Present: Joseph Barten, Nancy Daubenberger, Brian Dingmann, Julia Dreier, Rebecca Haug, Daniel Katzenberger, Katrina Kessler, Emily Larson, Nicholas Martin, Thom Petersen, Angie Smith, Sarah Strommen, Matt Varilek

Members excused: Peter Bakken, Brooke Cunningham, Tamar Gronvall, Todd Holman, Robin Hutcheson

Proxies present: Myra Kunas (for Cunningham), Peter Lindstrom (for Hutcheson)

EQB staff present: Catherine Neuschler, Stephanie Aho, Rebeca Gutierrez-Moreno, Hazel Houle, Jesse Krzenski, Sarah Lerohl, Sophia Musiak, Kayla Walsh

2. Approval of consent agenda

- Meeting minutes from August 19, 2026, Environmental Quality Board meeting
- Proposed agenda for October 21, 2026, Environmental Quality Board meeting

Motion: Board Member Kessler moved the consent agenda; Board Member Smith seconded.

In favor: Barten, Daubenberger, Dingmann, Dreier, Haug, Katzenberger, Kessler, Larson, Martin, Smith, Strommen, Varilek

Opposed: None

Excused: Bakken, Cunningham, Gronvall, Holman, Petersen

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3. Executive Director's report

Catherine Neuschler – Executive Director, EQB

- GEIS request
    - Staff received a letter from the Grand Portage and Bois Forte bands notifying the Board that the bands are requesting a generic environmental impact statement to evaluate the impacts of mining and extractive industries on the 1854 ceded territory, and that they will be submitting more detailed information to support the request. The board, under Minn. R. 4410.3800, can order a GEIS to study projects that are not adequately reviewed on a case-by-case basis; the rule lays out factors for the EQB to consider in determining if a GEIS is needed. Completing a GEIS would likely require additional funding.

4. Adoption of mandatory categories for gas resource development projects

Presenter: Jesse Krzenski – Environmental Review Program Director, EQB

Type of item: Decision

Summary: In 2024, the Minnesota legislature directed or allowed multiple state agencies to "adopt rules governing gas and oil exploration or production." (Minn. Stat. § 93.514). On April 15, 2026, the board reviewed draft rules for gas resource development projects prepared by the EQB staff and authorized the Executive Director to move forward with a notice of intent to adopt expedited rules.

- The notice of intent to adopt rules establishing mandatory environmental review categories for gas resource development projects was published in the Minnesota State Register on May 18, 2026, with a public comment period ending July 2, 2026.

In response to public comments, and to legislation (Laws of Minnesota 2026, Chapter 127, Article 2), the EQB staff drafted and presented modifications to the proposed rules – including:

- Adjusting the definition of a "gas well" – to reference statute definition
- Remove proposed thresholds that conflict with the legislation
    - Underground injection for waste
    - Underground injection for creation of gas in the subsurface
    - High-volume hydraulic fracturing
- Add a new threshold for an EAW for projects in drinking water supply management areas (DWSMAs)

The staff recommended that the Board adopt the rules as modified, and delegate authority to the Executive Director to complete the process of adopting the rules.

The chair called for questions and comments from Board members.

Discussion:

- Board members discussed the five well threshold for an EAW, focusing on the Tribal comments and their suggestion of a lower threshold (1 or 3 wells).

- Board members noted that the modifications based on the legislative changes make sense.
- Board members asked for clarity on DWSMAs, their role (planning or regulatory), and what environmental protection they provide.

The chair called for public comment.

Public comment:

- Brad Cage – Vice President of Engineering, Pulsar Helium
  - Board members were directed to written input provided (included in the October meeting packet, additional comments).
  - Mr. Cage made oral comment: Due to some of the discussion, he would revise some of the comments Pulsar made about DWSMAs. Pulsar would be happy to discuss to get a clear understanding of the protections and rules already in place.

The chair asked for a motion on the resolution presented in the Board packet.

Motion: Board Member Katzenberger moved to approve and adopt the Expedited Permanent Rules in the Revisor of Statutes draft, file number AR4945, dated October 5, 2026. Board Member Strommen seconded.

The chair called for discussion on the motion.

Motion to Amend: Board member Smith moved to amend the proposed resolution to include a modification to the rules changing the EAW threshold from the five wells threshold to three wells. Board member Barten seconded.

In favor: Barten, Dingmann, Haug, Larson, Martin, Smith

Opposed: Daubenberger, Dreier, Katzenberger, Kessler, Petersen, Strommen

Excused: Bakken, Cunningham, Gronvall, Holman, Varilek

The motion to amend did not pass.

The chair returned to the original motion, to approve and adopt the Expedited Permanent Rules in the Revisor of Statutes draft, file number AR4945, dated October 5, 2026.

In favor: Barten, Daubenberger, Dingmann, Dreier, Haug, Katzenberger, Kessler, Petersen, Strommen, Varilek

Opposed: Larson, Martin, Smith

Excused: Bakken, Cunningham, Gronvall, Holman

Outcome: The Board adopted the rules, and delegated authority to the Executive Director to complete the process of adopting the rules.

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5. Application for variance for Hillview Business Park

Presenter: Jesse Krzenski – Environmental Review Program Director, EQB

Type of item: Decision

Summary: Maplewood Development and Construction is proposing to construct the Hillview Business Park, a 62-acre, 972,200 square foot warehouse/distribution/office park development in Arden Hills. An environmental impact statement (EIS) is required for the project because it exceeds the threshold for industrial, commercial, and institutional facilities set forth in Minn. R. 4410.4400, subp. 11. The City of Arden Hills is the Responsible Governmental Unit (RGU) for the EIS.

Under Minn. R. 4410.3100, no governmental approvals can be issued, and no construction can begin until the EIS is complete, unless the proposer applies for, and is granted, a variance from the prohibition. On August 6, 2026, the proposer submitted an application for a variance requesting to commence certain construction activity – namely the demolition of various structures.

As required, on behalf of the EQB chair, the staff published a notice of variance application in both the EQB Monitor (Volume 50, Number 24) and in the public notices section of the Shoreview Press on August 25, 2026, commencing a 20-day comment period that ended September 14, 2026. The staff also made the variance application and additional materials available on the EQB website. Several public comments were received.

Based on the contents of the application and the public comments, the staff recommended that the board deny the request for a variance.

Public comment:

- Board members were directed to written input provided by Alyssa Kruzel and Amber Brookman (included in the October meeting packet, additional comments).
- Ann Maslansky Takahashi: There are deficiencies. The proposal is 970,000 square feet with 100 to 200 vehicles exiting on one road. No complete assessments were ever done by the MPCA or by the US Army Environmental Control. The Restoration Advisory Board (RAB) has concluded there will be PFAS. They've misrepresented how this will impact the groundwater and the Mississippi River. Ramsey County at the meeting on Monday said they are actively going after selling and putting in data centers to create commercial revenue in Ramsey County and one Road I County Road. Already too much traffic on County Road I, and every week there is an accident. This is not sustainable.
- Katie Christensen – resident of Shamrock Park: Asked that the variance be denied because demolition threatens protected species, risks mobilizing toxic hazards, and soil vapor samples and environmental testing is out of date. The developer has failed to show how early demolition would prevent the mobilization of underlying contaminants at the site.
- Mary Rempfer – resident of Shamrock Park: Has serious concerns regarding the environmental and health impacts premature action could have on her community. Requests that the EQB take

the EQB staff's recommendation and deny the variance and require that all demolition efforts remain on hold until the comprehensive EIS is fully completed and reviewed.

- Thomas Lemke – resident of Shoreview: The Hillview Park area needs to be looked at and reviewed just as much as the other 480 acres in the same area, Rice Creek Commons, that took years to clean up and study. Should go through the EIS process and then at that point, the developer, the community and Arden Hills as the RGU can evaluate more.

Motion: Board Member Barten moved the resolution to adopt the Findings of Fact, Conclusions of Law, and Order denying the Application for Variance by Maplewood Development and Construction, Inc. acting as developer for SPQR Arden Hills, LLC at Proposed Hillview Business Park, and to authorize the Chair to sign the Order. Board Member Kessler seconded.

In favor: Barten, Daubenberger, Dingmann, Dreier, Haug, Katzenberger, Kessler, Larson, Martin, Petersen, Strommen

Opposed: None

Abstained: Smith

Excused: Bakken, Cunningham, Gronvall, Holman, Varilek

Outcome: The Board adopted the Findings of Fact, Conclusions of Law, and Order denying the Hillview variance and authorized the Chair to sign the Findings of Fact and Order.

6. Determinants of health

Presenter: David Bell – Environmental Review Planning Director, MPH, Minnesota Department of Health (MDH)

Type of item: Informational

Summary: The Minnesota Department of Health provided a high-level overview of public health frameworks and social determinants of health, the non-medical conditions that profoundly shape lifelong health, well-being, and quality of life. This presentation is part of a series of health-related presentations to help establish a shared understanding of health impacts. This supports EQB's FY27 work to research ways to more consistently encourage gathering information on human health in environmental review documents.

Discussion:

- Upcoming health related items: Kristen Raab from MDH will present at the November EQB meeting on Health Impact Assessments (HIAs), a presentation is planned for the December ERIS meeting on indigenous determinants of health, and staff have been researching and interviewing other states and will report out likely in early 2027.

Outcome: Board members had the opportunity to learn and discuss information on determinants of health.

7. Public comment

- Board members were directed to written input on data centers provided by Gary Keller and Jenna Vandenboom (October meeting packet, additional comments).

- Paula Maccabee: In addition to health impact assessments, health considerations have to be part of not only Environmental Assessment Worksheets but also scoping. Currently there isn't an adequate consideration of all kinds of health impacts.

- Kris Wegerson – family practice physician and member of the Minnesota Academy of Family Physicians (MAFP): At the October 19, 2016, EQB meeting, a petition was presented that requested amendments to Minnesota Rules Chapter 4410 to require a comprehensive independent health impact assessment (HIA) be prepared for all sulfide mining projects requiring an EAW or EIS. The petition had widespread support from the medical community, but it was never voted on. It's long past due that HIAs are considered in environmental review.

- Emily Onello – family practice physician: Implores EQB to seriously consider ways to integrate health more meaningfully upfront. Short and far reaching health impacts need to be considered. EISs are extensive, but often lack an integrated, comprehensive and holistic look at health.

- Cindy Olson – rural Duluth area resident: Has many concerns about the proposed hyperscale data center in Hermantown, including water usage, contaminated water, electricity, and the impact on natural, rural areas and wildlife. Data centers are too big for small communities to approve; local cities don't have the expertise. Would like to see something happen similar to what happened in Wisconsin, where they set a regulatory precedent in which they are going to create rules and standardizations and put a hold on any data center building.

8. Closing & adjournment

Having reached the end of the agenda, the Chair asked if there was any further business.

Adjournment:

With no further business, the Chair adjourned the meeting.

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MINNESOTA
ENVIRONMENTAL QUALITY BOARD

RESOLUTION OF THE MINNESOTA ENVIRONMENTAL QUALITY BOARD

Acceptance of the 2026 Minnesota State Agency Pollinator Report

Pollinators are essential for healthy ecosystems and the sustainability of our food production systems. However, they face multiple threats, including the loss and fragmentation of their habitat, diseases, parasites, pesticides, and climate change.

In Minnesota, Executive Order 19-28 directs state agencies to restore healthy, diverse pollinator populations, and instructs the Environmental Quality Board (Board) to convene the interagency pollinator protection team (the interagency team) to take action and report on progress to the Board in a report by December 1 of each year.

This year's pollinator report highlights the ten-year anniversary of our interagency work to help pollinators in Minnesota, new information about the status and needs of pollinators, a status update of the implementation of the Pollinator Action Framework, and highlights agencies' accomplishments.

The board resolves to accept the 2026 Minnesota State Agency Pollinator Report, prepared by the interagency pollinator protection team.

The board further resolves to support cross-agency collaboration to lead the implementation of the Minnesota Pollinator Action Framework.

The board approved and adopted this resolution on November 18, 2026.

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_____ Date: _____

Nancy Daubenberger, Chair
Minnesota Environmental Quality Board

Attachments: 2026 Minnesota State Agency Pollinator Report

10 YEARS PROTECTING POLLINATORS

Minnesota State Agency Pollinator Report

December | 2026



Prepared by

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Upon request, this material will be made available in an alternative format such as large print, Braille or audio recording.

2026 Interagency Pollinator Protection Team

Rebeca Gutierrez-Moreno, Ph.D.	Minnesota Environmental Quality Board
Christina Locke, Ph.D.	Minnesota Department of Natural Resources
Jamison Scholer, M.S.	Minnesota Department of Agriculture
Angela Kolonich, Ph.D.	Minnesota Department of Education
Tina Markeson	Minnesota Department of Transportation
Laura Marti	Minnesota Pollution Control Agency
Carl Stenoien, Ph.D.	Minnesota Pollution Control Agency
Michelle Gage, CEM	Minnesota Department of Corrections
Erik Runquist, Ph.D.	Minnesota Zoo
Charlie Krueger	Minnesota Department of Administration
Erin Loeffler	Board of Water and Soil Resources
David Bell	Minnesota Department of Health

Cover photo: A view of the pollinator garden in the Capitol Complex in Saint Paul, Minnesota. Photo by Charlie Krueger, ADM

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Figure 1. A wild bee (*Macropis nuda*) perches on a flower (*Lysimachia* sp). Photo by Nicole Gerjets, DNR

Charge

Executive Order 19-28 (EO 19-28) directs the Environmental Quality Board (EQB) to convene an interagency team for pollinator protection and conservation in Minnesota (the interagency team). This interagency team consists of staff from the Department of Administration (ADM), Agriculture (MDA), Corrections (MnDOC), Education (MDE), Health (MDH), Natural Resources (DNR), Transportation (MnDOT), the Board of Water and Soil Resources (BWSR), the Pollution Control Agency (MPCA), and the Minnesota Zoological Garden (Minnesota Zoo). The interagency team provides operational support, ensures interagency collaboration, develops cross-agency policies and programs, and reports annually to the EQB on progress toward statewide pollinator protection goals.

Introduction

Pollination is an essential component of food systems and natural area conservation. Pollinators help plants reproduce by moving pollen from one flower to another, and many flowering plants need help from animal pollinators to produce seeds and fruits. Insect pollinators in Minnesota include many species of bees, butterflies, beetles, and flies. Unfortunately, pollinators are threatened by the loss and fragmentation of their habitat, pesticides, climate change, diseases, and parasites. Human actions are responsible for many of these threats, but we also hold power to counteract these threats.

This year we celebrate 10 years of interagency coordination in Minnesota to protect and conserve insect pollinators. This work strengthens lines of communication among the state agencies that play key roles in pollinator conservation, allowing us to plan, coordinate, collaborate, and extend each other's capacity to help Minnesota's pollinators.

The interagency team works toward the three pollinator protection goals outlined by Executive Order 19-28, with an overarching desired outcome of "restoring healthy, diverse pollinator populations that sustain and enhance Minnesota's environment, economy, and way of life":

- Goal 1: Lands throughout Minnesota support healthy, diverse, and abundant pollinator populations. Key outcome: more food sources, nesting and overwintering sites for pollinators.
- Goal 2: Minnesotans use pesticides judiciously and only when necessary, to reduce harm to pollinators from pesticides while retaining economic strength. Key outcome: reduced impacts to pollinators from pesticides through integrated pest management (IPM).

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- Goal 3: Minnesotans understand, value, and actively support pollinators. Key outcome: more action through community commitments.

Beginning in 2022, the interagency team engaged with the public and subject matter experts to develop a Pollinator Action Framework (the framework) we use to guide decision-making and hold ourselves accountable to each other and to the public on our pollinator protection goals. This report includes the implementation matrix we use to track our progress, and identify agency leads and partners (*see Appendix I*). This year's report also highlights what we have learned during the last 10 years about Minnesota's pollinators, each agencies' accomplishments and challenges and a call to action to all Minnesotans to take part in the movement to protect our pollinators.



Figure 2. Monarch butterflies gather on a stream in their overwintering site in Mexico. Photo by the Monarch Joint Venture

State of pollinators

What we have learned about Minnesota's pollinators, 2017–2026

Information is one of the most powerful tools in the conservation and management toolbox. Significant contributions have been made over the past decade through both professional research and public participation to improve our understanding of the status and needs of Minnesota's pollinators. While questions remain, we now know:

- **Some pollinators are clearly in trouble, while the status of many others remain uncertain.** Several bumble bees, including the federally endangered rusty patched bumble bee, have experienced substantial declines, and Minnesota has also lost or nearly lost several butterflies, including the Poweshiek skipperling and Dakota skipper. At the same time, we lack sufficient long-term monitoring to determine population trends or the ecological needs of many other pollinators. [1, 2, 3]
- **Minnesota has more than 500 species of native bees.** Research over the past decade has resulted in a more complete understanding of Minnesota's bees, including many species for which historical state records were previously lacking. The statewide bee survey and subsequent checklist provide the most comprehensive baseline ever developed for Minnesota's bee fauna. There are also substantial differences in bee communities among habitats and regions of the state. The Minnesota Bee Atlas combines observations from thousands of participants with nest monitoring and standardized surveys, substantially expanding our knowledge of bee distributions, seasonal activity, nesting, and community composition. [1, 2, 3]
- **More diverse and abundant flowers generally support more diverse pollinator communities, but healthy pollinator habitat is about more than flowers.** Minnesota research has repeatedly found strong relationships between floral resources and bee diversity, but they also need suitable places to nest and overwinter. [4, 5, 6]
- **Restoring habitat can be beneficial, but does not benefit every species equally.** Recent Minnesota-led research found that plantings provide habitat for a core group of common bee species, but they fall short of resembling the diverse bee communities in remnant prairies. To be effective for the most kinds of pollinators, restorations should aim for floral communities similar to those found in remnant prairies. [7, 8]
- **Roadsides, yards, cities, solar farms, and other developed areas can provide important pollinator habitat.** These areas are not substitutes for natural ecosystems, but appropriately managed semi-developed spaces can provide valuable food and habitat. Minnesota research found that roadsides with more abundant and diverse

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flowers supported more abundant and diverse bumble bee and butterfly communities. [6, 9, 10, 11]

- **Pesticide use represents a risk to some pollinators.** Research has documented widespread occurrence of pesticides into nearby non-target natural areas, particularly prairies and some waterways. While the consequences of those exposures has been studied for some model organisms like European honey bees, the risk to most pollinators remains unclear. [12, 13, 14, 15]

- **Colony health of Minnesota's managed European honey bees depends on interacting pressures rather than a single disease or pest.** Researchers have found that better management of *Varroa* mites reduces both viral infection and colony mortality, while new research has revealed a diverse and changing community of viruses in Minnesota's managed European honey bees. Researchers are also finding that bees' own defenses or behaviors can influence disease resistance. New work is testing whether these defenses can be used to breed and manage healthier colonies, while also examining whether European honey bee pathogens can move between managed and wild bees. [16, 17]

State Wildlife Action Plan Update

States develop State Wildlife Action Plans to document threats and conservation measures for imperiled species, and to unlock federal funding for conservation purposes. In 2025, the Minnesota Department of Natural Resources completed a 10-year update to the Minnesota State Wildlife Action Plan (SWAP). For the first time, Minnesota employed a nationally standardized methodology to assess the conservation status of over 7,000 species, half of which are insects. 122 butterfly and moth species and 117 bee species are designated Species of Greatest Conservation Need (SGCN), up from 33 butterflies and moths and five bees (all *Bombus*) designated as SGCNs in the previous 2015-2025 SWAP. This increase in species of greatest conservation concern reflects the increase of information we have on insects, due to efforts such as the statewide bee survey conducted by the Minnesota Biological Survey. Still, we have little information for most of the estimated 30,000 insect species in Minnesota. To recognize this, 257 butterfly and moth species and 125 bee species are listed as Species in Need of Information (SNI) which is a category introduced in the 2025-2035 plan. Also new to this SWAP is the expansion of the SGCN list to include plants, lichens, and species of tribal significance.

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Honey bee trends

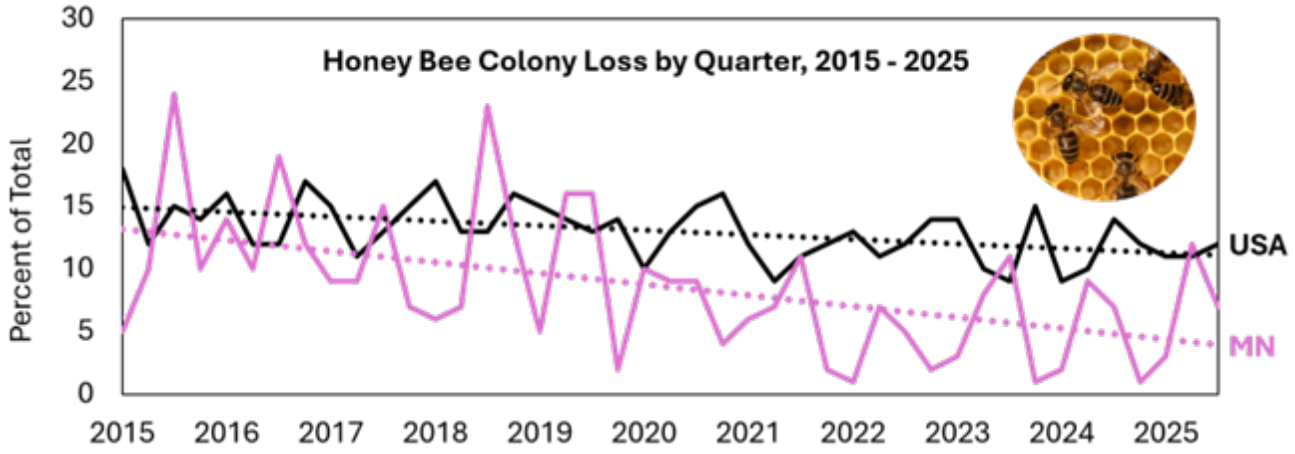


Figure 3. Honey bee colony loss trended downward at a faster rate in Minnesota than the U.S. as a whole since 2015. Average quarterly loss in 2015 was 12.25% in Minnesota and 14.75% in the U.S.; in 2025 it was 5.75% in Minnesota and 11.5% in the U.S., according to data from the National Agricultural Statistics Service [18].

Climate change and pollinators

Around the world, local climates are changing because of the high amount of greenhouse gases in the atmosphere. Human activities (like the burning of fossil fuels and conversion of natural lands) release carbon dioxide, methane, and nitrous oxide. High levels of these greenhouse gases trap heat in the atmosphere and warm the planet. Climate change affects every part of the globe, but high-latitude locations such as Minnesota are changing especially fast. So far in Minnesota, the most pronounced impacts of climate change have been warmer winters with less snow, warmer overnight low temperatures across all seasons, and changing rain patterns [19]. Minnesota gets more rainfall on average, but because a warmer atmosphere can hold more humidity, we are experiencing both heavier, more damaging rain as well as more summertime drought. These trends are expected to continue, and summers are projected to become hotter and more humid. You can explore these historic changes using Minnesota DNR's Climate Explorer Tool [20] and the anticipated changes to come using Minnesota Climate Adaptation Partnership's CliMAT Tool [21].

Insect pollinators interact with a variety of other organisms such as plants, parasites, and predators. As small cold-blooded animals, they are also greatly affected by temperature, precipitation, wind, and seasonality. Because of these interactions, climate change can impact pollinators in different ways. Native plants and animals have evolved within a relatively consistent climate, so while some changes can be beneficial for some species, climate change more often causes new stressors and reduces biodiversity [22, 23].

Some climate-related impacts can occur over the span of hours to days. For example, heatwaves can increase mortality, delay development, and impact insect adult behaviors [24, 25], while intense rains can flood the burrows of ground-nesting insects, such as many bumblebees and solitary bee species [26].

Over periods of days to weeks, climate change can indirectly affect pollinators, for example by impacting flowering plants. When stressed by unusually hot or dry conditions, plants often produce fewer flowers with less nectar and pollen, which can impact bee populations [27, 28].

Over the span of weeks to months, unusually warm, wet, or dry conditions can also impact pollinators. For example, warmer winters tend to have a thinner snowpack with more frequent freeze-thaw cycling. Many animals rely on a consistent snowpack under which to spend the winter because the snow acts as a blanket, maintaining temperatures near the freezing point and insulating against the cold and fluctuating conditions of the air above. As a result, and somewhat counterintuitively, warmer winters often lead to greater risk of exposure to dangerously cold conditions for insects that overwinter on the ground [29].

Finally, over the course of decades, climate change causes areas of habitat to shift in space, typically to the north in the northern hemisphere. Individual seeds and pollinators that disperse and find themselves in suitable habitat will be more likely to survive and reproduce, while those that remain in the previous location may not. This same phenomenon has allowed several non-native species to establish and become invasive in Minnesota (e.g. Emerald Ash Borer, Brown Marmorated Stink Bug, and Japanese Beetles are all more likely to survive in milder winters). As winters continue to warm, Minnesota could lose cold-adapted plants and animals as their suitable habitat shifts northward or they become locally extinct.



Figure 4. A wild bee (*Andrena erigeniae*) collects pollen from a native plant (*Claytonia sp.*). Specialist bees like this one that depend on a single plant species may be disproportionally affected by climate change. Photo by Nicole Gerjets, DNR

Over years and decades, climate change also alters the timing (or "phenology") of plants and pollinators. This becomes a risk if plants and insects use different environmental cues (e.g. daylength vs. temperature) to initiate activities such as spring emergence because co-dependent species can become out of sync with each other. This type of phenological mismatch and its impacts on plants and pollinators can be difficult to study, but specialist plant-pollinator interactions seem to be most vulnerable [30, 31]. Phenology can also be altered due to an extended growing season, which can have positive and negative impacts. Insects that might typically go through only one or two

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generations in a growing season might be able to produce an additional generation before fall or winter-like conditions set in. However, initiating an additional generation could also cause harm to the population if that generation is not able to reach the appropriate overwintering stage before cold temperatures set in [32].

Many of these climate-induced changes in habitats, phenology, and novel stressors also impact pollinators' floral resources, predators, parasites, and pathogens. These complex interactions make it difficult to predict outcomes for any given pollinator species. Adding to this complexity, the impacts of climate change do not occur in a vacuum, but in conjunction with other co-occurring threats, such as habitat loss and fragmentation, pesticides, pests and pathogens, pollution, and interactions with non-native species.

Despite the difficulties that climate change poses for pollinators, there is good news. While climate change is a global issue, local efforts to protect pollinators are effective and the benefits extend far beyond bees and butterflies [33]. First, protecting and establishing habitat for pollinators also provides a home for the many other plant and animal species that rely on those same habitats. Second, ecosystems with high biodiversity are more resilient to disturbances, so establishing diverse pollinator habitat can help buffer against the impacts of climate change. Third, the native plants that form the foundation of pollinator habitats are often deep-rooted perennials that improve soils, slow water runoff, and filter out pollution that would otherwise affect our lakes, rivers, and groundwater. Last, but not least, these plants (with the help of pollinators) help to mitigate climate change by removing carbon dioxide from the atmosphere via photosynthesis and storing that carbon underground in plant roots and soils.



Figure 5. A wild cuckoo bee (*Nomada sp*) perched on a willow (*Salix sp*.) branch. Photo by Rachel Kranz, DNR

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State Agency Highlights

Environmental Quality Board

Accomplishments

- **Interagency coordination.** Consistently convened and led the interagency pollinator protection team to:

- **Track implementation of the pollinator action framework.**
  - ✓ Propose the renewal of the Executive Order 19-28 with updated language for the next state administration.
  - ✓ Share expertise and data to make informed decisions.

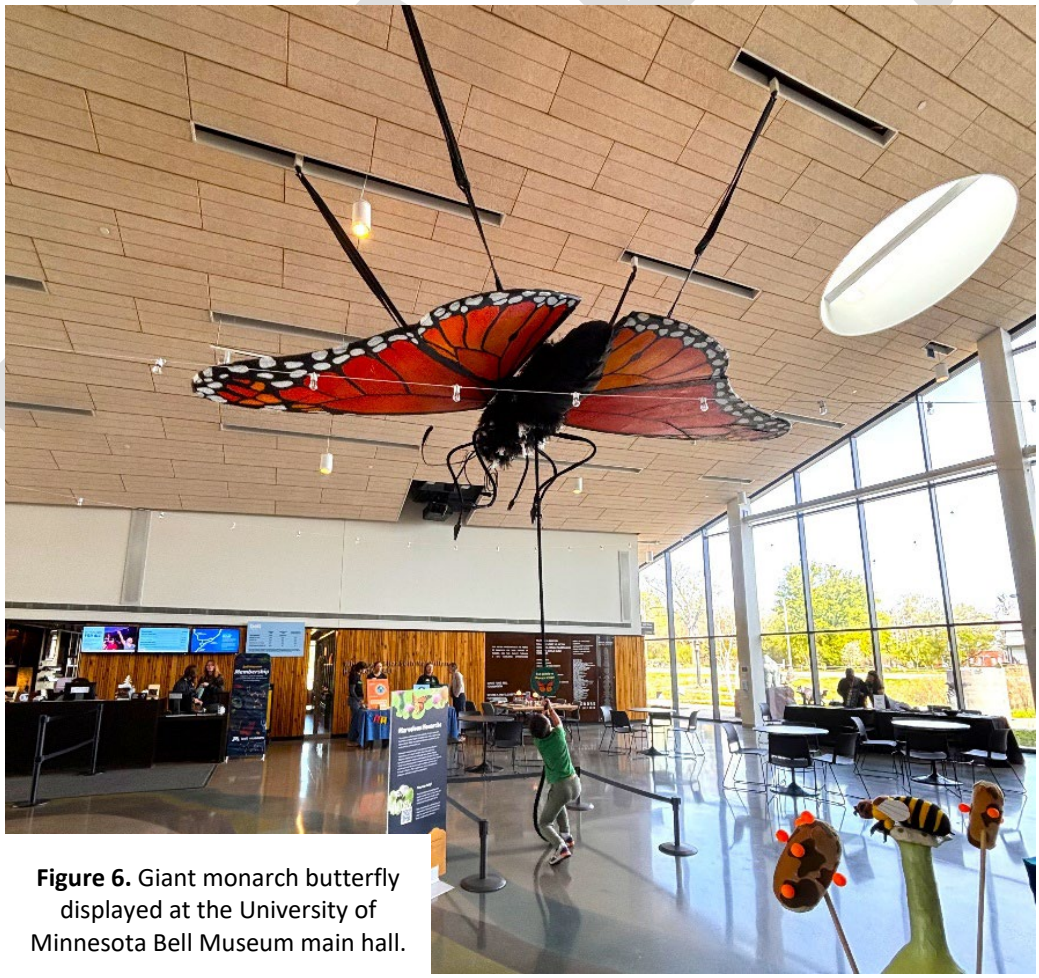


Figure 6. Giant monarch butterfly displayed at the University of Minnesota Bell Museum main hall.

- **Outreach and public engagement events.**

  - ✓ Participated in public events and shared information with more than 1,000 members of the public to build support for pollinators at the Great Minnsect Show, the Bell Museum's Spotlight Science, the Pollinator Party, and the Minneapolis Monarch Festival.
  - ✓ Collaborated with MDE and the MPCA's GreenStep Cities Program to host webinars and share information on how to help pollinators, including a focus on how to help pollinators overwinter successfully, and how cities can be more pollinator friendly.
  - ✓ Collaborated with the University of Minnesota Bell Museum to display a giant monarch butterfly sculpture in their main hall, creating an opportunity for museum goers to learn more about pollinator protection.
  - ✓ Collaborated with the DNR during Pollinator Day at the Minnesota State Fair and led a panel of interagency team members to highlight the accomplishments we achieved in the past 10 years of action in the state.

Challenges

- **Limited reach to help Minnesotans understand and value pollinators.** EQB relies on collaboration with partner agencies and outside collaborators to spread the word about the interagency pollinator protection work we lead and the resources and materials available to Minnesotans. Expanding into greater Minnesota is a priority, but progress toward this goal has been gradual.

Department of Natural Resources

Accomplishments

- **Minnesota Bumble Bee Atlas (BBA).** DNR continued to administer the State Wildlife Grant that funds the BBA. In partnership with key collaborators including the University of Minnesota, Xerces Society, and volunteers statewide, DNR staff supported the statewide sampling effort by conducting BBA surveys throughout the summer, including in rusty-patched bumble bee areas where permits are required.
- **New accomplishments from the Minnesota Biological Survey (MBS):**

  - ✓ MBS staff continued population monitoring of native butterflies, moths, and solitary bees.
  - ✓ MBS staff surveyed butterflies in western Minnesota prairies as part of the Sustaining Prairies in a Changing Environment (SPICE) long-term monitoring project.
  - ✓ MBS staff surveyed moths in 23 counties from March to July 2026, documenting approximately 700-1000 species including countless county records, range expansions, and even new state

records. Highlights include the first Minnesota record of white flower moth (*Schinia bimatris*), and documentation of over 418 species in just 36 hours within Whitewater Wildlife Management Area in Winona County.

- ✓ MBS staff reviewed conservation assessments of bee species as part of the national State of the Bees project, and reviewed S-ranks (state conservation ranks) for the State Wildlife Action Plan update.

- **Nongame Wildlife bee and butterfly surveys.** Staff in the Nongame Wildlife program continued surveys across several Wildlife Management Areas, Scientific and Natural Areas, and State Parks to assess the effects of prairie reconstructions on pollinators. Nongame staff also assisted the MBS Terrestrial Insect Ecologist with regal fritillary surveys.

- **Pilot study on urban native plant gardens.** In 2025, Nongame Wildlife Specialists led a pilot project to study the value of urban native plant gardens for pollinators in Northfield, Minnesota. Initial results showed urban native gardens were used by *Bombus affinis*, *Bombus pensylvanicus*, and *Danaus plexippus*. In 2026, the project expanded to include 25 properties in Northfield and emphasized bee Species of Greatest Conservation Need including bumble bees and solitary bees that are identifiable in the field.

- **Regal Quest.** This new volunteer project to survey regal fritillary and monarch butterflies launched and completed a pilot year in summer 2026. DNR staff trained a small group of volunteers in regal fritillary and monarch identification who then searched for these butterflies in prairies. After training, volunteers are asked to visit prairies where regal fritillaries have not been surveyed in recent decades to give a better idea on population trends in Minnesota. The project looks to expand its volunteer base in future years.

- **Early blooming native forbs project.** This year DNR staff concluded a three-year project to increase representation of early blooming native forbs in prairie restorations. The project resulted in over 24,000 early blooming native prairie forbs added to prairie restorations in southern and western Minnesota, and documented guidance for how to harvest seed from species with limited or no commercial availability. Funding for this project was provided by the Minnesota Environment and Natural Resources Trust Fund as recommended by the Legislative-Citizen Commission on Minnesota Resources (LCCMR).

- **Native seed production.** Seed production continued at the Minneopa State Park native plant nursery, with roughly $10,000 worth of seed harvested to supplement plantings throughout state parks in southern Minnesota. Additional early blooming species were added to the nursery, including wood betony, alumroot, and ground plum.

- **Hands-on public engagement.** Over 25 volunteers planted 800 prairie plants at Fort Ridgely state park through a partnership with Great River Greening. DNR staff also demonstrated survey techniques at

events for high school students interested in conservation careers, co-hosted a Midwest bee identification course with the University of Minnesota, gave presentations and technical guidance to land managers and local governments, and provided interactive displays at a number of outreach events.

- **Leaving the bees be.** The rustic campground at Flandrau State Park remains closed until Memorial Day each year to protect a large aggregation of nesting native bees (*Colletes inaequalis*).
- **Alignment of pollinator protection policy guidance.** DNR staff revised the Pollinator Best Management Practices document which provides guidance to ensure habitat enhancement and restoration projects benefit pollinators. This document is required for habitat projects on state lands and prairie restorations that use State of Minnesota funds. DNR also has an internal policy to prevent harming rusty patched bumble bees as a result of land management activities.



Figure 7. DNR scientists conduct bee surveys in the Cottonwood River Prairie Scientific and Natural Area. Photo by Deborah Rose, DNR

Challenges

- **There is a need for better information, increased expertise and capacity, including:**
  - ✓ Taxonomic expertise and capacity to make species-level identifications of various pollinator taxa such as solitary bees.
  - ✓ Basic survey information (i.e., state lists) for some pollinator taxa (e.g., flower visiting beetles, flies, wasps).
  - ✓ Support/funding/capacity for population assessments and status and trend monitoring for pollinators.
  - ✓ Knowledge of basic life history information for many pollinator species, leading to better understanding of the conservation needs of these species.
  - ✓ Increased awareness of state protections for endangered and threatened pollinators.
- **Higher capacity and efficiency for natural heritage review.** Staff capacity is needed to identify potential impacts to endangered or threatened pollinators by projects and activities most likely to impact them (i.e. pesticide application) and to quickly complete natural heritage reviews for all projects in need of a review.
- **Better species information for pesticide applicators.** Current mapping products available to pesticide applicators have limited information on locations of federally listed species and no information on state listed species, making it difficult for applicators to know whether they are complying with endangered species laws.
- **Reduced habitat protections for listed species.** A new rule rescinding the definition of "harm" in federal Endangered Species Act regulations reduces habitat protections for endangered and threatened species.

Board of Water and Soil Resources

Accomplishments

- **Lawns to Legumes (L2L) Program.** The Lawns to Legumes program offers a combination of competitive grants through the Pollinator Pathways program—which awarded 10 grants in 2025—and workshops, coaching, planting guides, and cost-share funding through Individual Support Grants to help residents install pollinator-friendly native plantings in residential lawns.

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- ✓ Since the program launched in 2019, more than 15,000 projects have been installed, including 28,000 beneficial pollinator trees and shrubs. Collectively, these projects provide more than 21 million square feet of pollinator habitat, sequester nearly 276 metric tons of carbon annually, and capture more than 47 million cubic feet of water.

- **Lawns to Legumes (L2L) Habitat at Home**. The Lawns to Legumes program offers a five-month, do-it-together program designed to support residents through every stage of a pollinator habitat project. Over 1,300 Minnesotans signed up for Lawns to Legumes: Habitat at Home to create or expand a pollinator habitat project in the fall of 2026.

- **Minnesota Living Schoolyards.** The Minnesota Living Schoolyards program educates future generations about the importance of biodiversity and healthy ecosystems through pollinator conservation while empowering students to design, install, and enhance diverse native pollinator habitats on public school grounds. The program includes a 7–8 day middle school curriculum that aligns with Minnesota Department of Education science standards and engages students in hands-on learning, culminating in a student-led pollinator habitat installation.

- **Habitat Enhancement Landscape Program (HELP).** This competitive grant program, focused on restoring and enhancing diverse native habitat across the state, continues to gain momentum in supporting pollinators and other wildlife species. In 2026, the current 16 HELP grantees have begun restoration and enhancement activities on the 110 proposed projects.

- **Habitat Friendly Utilities and Solar Programs.** These programs build collaboration with utility companies and conservation partners to increase landscape resiliency (along with co-benefits such as plant diversity, pollinator habitat, carbon sequestration, soil health, and water management) in solar projects and along utility corridors. Nearly 75 projects meet the Minnesota Habitat Friendly Solar standard, covering nearly 7,500 acres. In 2025 funds were provided to six organizations to restore utility corridors through the Habitat Friendly Utilities Program.

- **Conservation Easements.** The Reinvest in Minnesota and Wetland Bank easement programs currently focus on permanent wetland restoration, adjacent native grassland wildlife habitat complexes and permanent riparian buffers. They have resulted in over 7,700 easements that provide valuable pollinator habitat.

- **Mn Conservation Reserve Program.** The CRP State Incentive Grant Program supports water quality, soil health, and wildlife habitat by helping landowners install or preserve best management practices. This state investment leverages federal funding and private stewardship, providing measurable environmental benefits on 5,200 acres across Minnesota.

- **Oak Savanna Restoration for Living Landscapes Program.** BWSR is preparing to launch the Oak Savanna Restoration for Living Landscapes program to restore and reconnect threatened oak savanna habitats

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across Minnesota's Eastern Broadleaf Forest Province, providing critical habitat for pollinators, birds and other wildlife.

Challenges

- **Funding.** Interest in Living Landscape Programs, including Lawns to Legumes, continues to outpace available funding.
- **Native seed availability.** Some seed of plants species important to pollinators need increased collection and production within the state.
- **Expand collaborations and partnerships**. Further identify collaboration opportunities, with additional organizations and communities.

Department of Administration

Accomplishments

- **Actions to restore native prairie.** Executed controlled burns in Cass Gilbert Memorial Park as part of ongoing effort to restore 2.5 acres of native prairie.
- **Increased number of established native plantings:**
  - ✓ From 10 native plant beds to 14 beds from 2025-2026, a total of 12,180 square feet.
  - ✓ Started installation of 3 new natural areas on the Capitol Complex totaling 15,050 square feet.
- **Detection of state-threatened native plant species.** Located Kitten tails (*Synthyris bulli*) in a managed natural area.
- **Seed propagation program**. Initiated a seed propagation program to cultivate native plants in-house using seed from existing planted and natural areas.

Challenges

- **Increased space needs.** If our seed propagation program continues to build, we will require space for growing (greenhouse, irrigation, etc.)
- **Invasive species.** Need continuous efforts to eradicate invasive species on Capitol Complex, specifically Canada thistle (*Cirsium arvense*)

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Figure 8. Staff from the Department of Administration maintain pollinator habitat in the Capitol Complex and continue to look for opportunities to add more areas with pollinator-friendly native plants. Photo by Charlie Krueger, ADM

Minnesota Department of Agriculture

Accomplishments

- **Minnesota Ag Weather Network expansion.** Since 2024, the MDA expanded the Minnesota Ag Weather Network [34] by installing over 40 new weather stations that improve real-time data on wind, rainfall, temperature, and soil conditions. These data help farmers better time pesticide applications, reducing drift and exposure. Improved decisions directly protect pollinators and support healthier agricultural ecosystems.
- **Resources for pesticide applicators.** Expanded outreach and improved resources to help pesticide applicators understand and prepare for Endangered Species Act requirements being phased into pesticide labels.
- **Outreach and education efforts:**

- ✓ Continued outreach to beekeepers on legal use of pesticides in bee hives.
- ✓ Delivered training on treated seed application, human health safety, and environmental risks to applicators seeking their Category H treated seed license.

Challenges

- **Funding.** The MDA would require additional funding from the Minnesota Legislature to administer grants to conduct new research on topics in the pollinator action framework.
- **Communication.** Reaching general-use pesticide users who are not required to be licensed (e.g. residential pesticide applicators).

Minnesota Zoological Garden

Accomplishments

- The Minnesota Zoo Pollinator Conservation Initiative has continued to be a global leader in conservation of the Poweshiek skipperling ("The Most Minnesotan Butterfly"). One of the world's most Critically Endangered species, the Zoo and its partners in Michigan produced and then released nearly 1300 adults back into the only known remaining US populations in Michigan in 2026. Nearly extinct in the wild in 2022, wild populations of this orange and brown prairie-dependent butterfly have risen dramatically and are beginning to stabilize due to these efforts.
- The Zoo is a central member of the Poweshiek Skipperling International Partnership [35], serving in leadership roles.

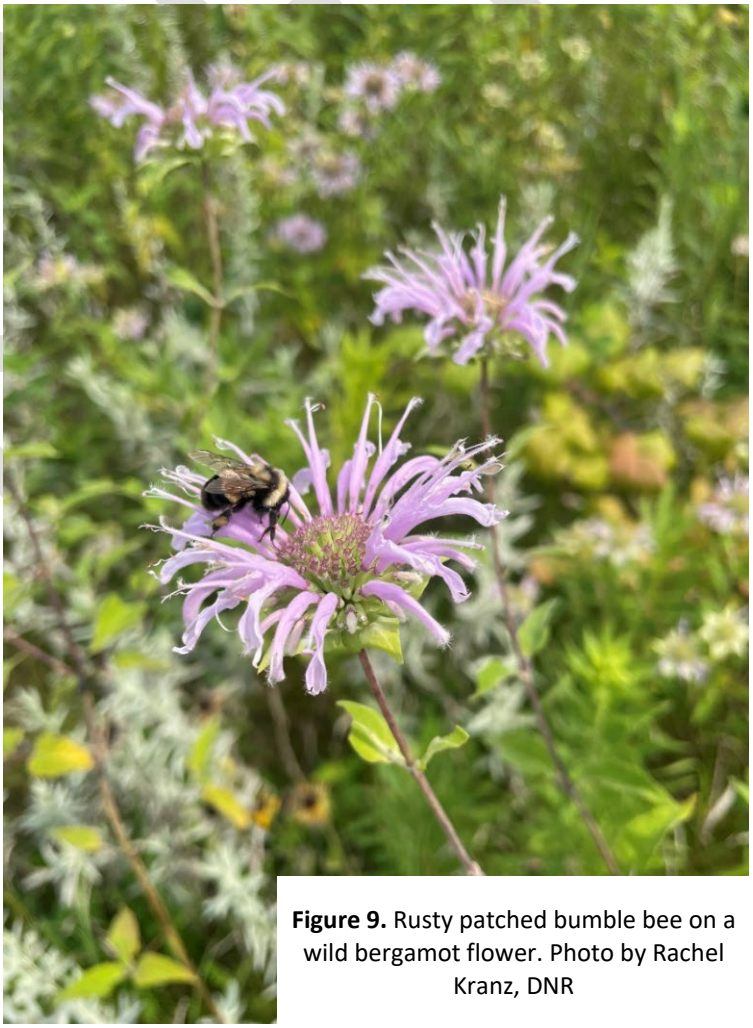


Figure 9. Rusty patched bumble bee on a wild bergamot flower. Photo by Rachel Kranz, DNR

- Zoo scientists are conducting habitat quality inventories and continuing prairie pesticides occurrence research at dozens of sites across Minnesota with the long-term goal of identifying prairies that may be suitable candidates for future Minnesota reintroductions of Poweshiek skipperling and Dakota skipper.
- Zoo scientists continue to monitor Endangered (and Minnesota State Bee) rusty patched bumble bees and populations of other bumble bees on Zoo grounds and collaborate with other researchers studying their genetics.

Challenges

- **Funding.** The Minnesota Zoo Pollinator Conservation Initiative continues to be heavily reliant on external, short-term funding, through several federal, state, and other grants that must be independently secured by the Initiative's staff. Reliance on grants constrains activities to their associated deliverables.

Minnesota Department of Transportation

Accomplishments

- **New mapping project to capture the use of native seeds in projects.** MnDOT continues to utilize native seed for turf re-establishment on construction projects where appropriate. The new mapping project captures the location, seed type, and success of these plantings.
- **Planting native trees and shrubs.** MnDOT is prioritizing the use of native trees and shrubs on landscape projects.
- **Pollinator habitat management**. Management on roadsides, rest areas, and district building locations use integrated vegetation management techniques.
- **Monarch conservation**. Ongoing conservation measures to fulfill MnDOT's commitments as a participant in the Monarch Candidate Conservation Agreement with Assurances (CCAA).

Challenges

- **Invasive species.** The density and distribution of invasive species on the roadsides requires MnDOT to prioritize which populations to control. This can lead to reduced control of species that are too widespread in a region.
- **Competing priorities**. MnDOT is committed to connecting and serving all people through safe, equitable, and sustainable transportation system. To support this, maintaining roads, bridges, and safety infrastructure is prioritized, which can limit resources available for routine maintenance.

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Minnesota Pollution Control Agency

Accomplishments

- **Pollinator habitat in MPCA's key programs:**
  - ✓ The Closed Landfill Program (CLP) installed and maintains 380 acres of pollinator habitat on five Minnesota closed landfills.
  - ✓ The Stormwater program developed several new materials on Green Infrastructure. While targeted to address water quality and quantity, one of many co-benefits of green infrastructure is pollinator habitat. These materials were added to the Minnesota Stormwater Manual [36] to help planners, designers, communities, residents, and businesses plan, design, and adopt green infrastructure practices. New or updated design details of green infrastructure practices were also developed for five practices: rain garden, permeable pavement, biofiltration planter, constructed wetland, and native plantings.
  - ✓ The Watershed Division provides grants to local partners to implement 319 projects, which are targeted to improve water quality. Some of these projects include aspects that benefit pollinators, such as prairie plantings, wetland restorations, rain gardens, and other practices. Several Watershed Restoration and Protection Strategies reports are also created each year. These reports identify strategies to restore and protect water quality, often with benefits to pollinator habitat in addition to water quality. Local partners use the reports in the Comprehensive Watershed Planning processes to target specific best management practices across the landscape.
  - ✓ The MPCA Climate Section is helping Minnesota communities prepare for climate change by awarding grants for climate resilience and local climate action. These grants fund planning and implementation efforts across the state. The first appropriation was in fiscal year 2022 and grants have continued in every fiscal year since. Four implementation grants from fiscal year 2024 and 2025 have supported native, pollinator-friendly plantings as a component of green infrastructure projects such as stormwater ponds and basins and riparian areas. These dual-purpose pollinator habitats are located in Grand Marais, Moorhead, Hopkins, and Albert Lea, Minnesota.

Challenges

- **Funding.** Need funding for the installation of new pollinator habitat in CLP.
- **Need expertise to maintain pollinator habitat on CLP.**

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- ✓ Establish native seed mixes on CLP caps where active operations and maintenance occur.
- ✓ Strategies for long-term maintenance of reconstructed native vegetation on CLP caps. For example, the removal of vegetative material is important to maintain native plants, but these areas cannot use prescribed fire due to landfill methane concerns. If certain invasive species persist, finding an output for hayed vegetation may be challenging.
- ✓ Address competing invasive, woody, and non-native plant species on CLP caps newly seeded with native seed mix.

Minnesota Department of Education

Accomplishment

- **Pollinator-related webinars.** MDE, in collaboration with the EQB and the MPCA's GreenStep Cities Program, organized two webinars focused on understanding, valuing, and actively supporting pollinators: Fall and Pollinators, and City to City Conversations.

Challenge

- **School curriculum decisions made locally.** Academic standards are revised every 10 years in each discipline. Decisions about what curricular resources will be used to address the standards, and any additional classroom instruction, are made at the local level.

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Call to action

Pollinators need our help!

After 10 years of coordinated pollinator protection actions, it's clear that we need an "all hands on deck" approach to make a bigger impact for wild and managed pollinators. All Minnesotans can play a role in moving progress forward. Some key steps include:

- Planting a variety of pollinator-friendly native plants that bloom from spring to fall to provide food throughout pollinators' active seasons. Even small spaces help!
- Avoiding pesticide use in areas where wildlife may be exposed. If pesticides are necessary, use them judiciously by carefully following a product's label and applying when pollinators are least active.
- Participating in community science programs, such as Bumble Bee Watch [37] and the Monarch Larvae Monitoring Project [38].
- Staying curious and continuing to learn about pollinators and how you can help them.
- Connecting with pollinator-friendly organizations that advocate for pollinators in Minnesota.
- Spreading information about pollinators and habitat in your community, workplace or school.



Figure 10. Staff from DNR and EQB hosted a table to share information about protecting pollinators at the 2026 Minneapolis Monarch Festival. Photo by Luis Allen

Appendix

Appendix I. Implementation matrix of the Minnesota Pollinator Action Framework

Interagency Team agencies track the implementation of the Framework actions for which they play a lead or support ("encouraging") role. The following categories indicate the status of each action or project.

- *Sustained effort:* denoting ongoing projects or actions that do not have an end date, or are part of the core duties of an agency
- *Completed:* denoting projects or actions that have reached their goals and are no longer active
- *In progress:* denoting ongoing projects or actions that have a specific end date
- *On hold:* denoting projects or actions waiting to be initiated by the lead agency

The following tables list projects, project statuses, and associated agency roles for each goal area of the Framework.

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Goal 1. Lands throughout Minnesota support healthy, diverse and abundant pollinator populations

Key outcome: More food resources, nesting, and overwintering sites for pollinators

Table 1. Implementation matrix of the Pollinator Action Framework for Goal 1, Category "Intentional land stewardship," Subcategory "Restore and create pollinator habitat"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Work with public land managers, private landowners and land stewards to identify and protect existing pollinator habitat	Implement Reinvest in Minnesota, Habitat Enhancement Landscape programs, CRP Incentive, Wetland Bank easement program.	BWSR	Lead and encourage	Metro Blooms, public and private landowners, Pheasants Forever	Sustained effort
Work with public land managers, private landowners and land stewards to identify and protect existing pollinator habitat	Continue following published pollinator best management practices [39] on all DNR lands in accordance with Minnesota Statute 84.973.	DNR	Lead and encourage	Varies by project	Sustained effort
Work with public land managers, private landowners and land stewards to identify and protect existing pollinator habitat	Complete three-year LCCMR project focused on increasing abundance of early blooming species in prairie reconstructions in southwestern Minnesota. Resulted in over 20,000 plants planted at six sites, and a guide for harvesting seed from early-season plants.	DNR	Lead and encourage	Varies by project	Completed

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Work with public land managers, private landowners and land stewards to identify and protect existing pollinator habitat	Develop working group representing pesticide applicator stakeholders. The goal of the working group was to coordinate outreach and education efforts to ensure all of Minnesota's pesticide applicators, including public, private landowners and stewards, are aware of and understand how to comply with new Endangered Species Act pesticide label language. A primary focus of new Endangered Species Act label language is to keep pesticides on their target site (i.e. minimize drift, runoff and erosion) and prevent pesticide exposure to lands where endangered species, like the rusty patched bumble bee, are known to have populations or habitat.	MDA	Lead and encourage	Agricultural commodity groups, Pesticide industries, Agricultural cooperatives, University of Minnesota Extension, Pesticide Safety Environmental Educators, Crop advisors	Completed
Work with public land managers, private landowners and land stewards to identify and protect existing pollinator habitat	Continue implementing Endangered Species Act working group-identified outreach needs. 1) Train the trainer workshop presentation to University of Minnesota extension staff. 2) Developed two Endangered Species Act training videos and posted them to MDA's Endangered Species webpage 3) Developed an MDA Endangered Species Act webpage to help pesticide applicators and landowners better comply with new Endangered Species Act regulations and label language.	MDA	Lead	University of Minnesota	Completed

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Work with public land managers, private landowners and land stewards to identify and protect existing pollinator habitat	Encourage and incentivize agricultural land managers and owners to obtain wildlife endorsement through Minnesota Agricultural Water Quality Certification Program. Wildlife endorsement certification requires evaluation of land cover attributes including the land's ability to: preserve food sources, provide nesting cover, support species diversity, and the land managers ability to incorporate integrated pest management and minimize land disturbance.	MDA	Lead and encourage	Soil Water Conservation Districts, National Resource Conservation Service, Monarch joint venture, Fish and Wildlife Services, The Nature Conservancy, Crop advisors, Private consultants, and the MN Department of Natural Resources.	Sustained effort
Work with public land managers, private landowners and land stewards to identify and protect existing pollinator habitat	Map and create vegetation management plans for areas of right of way that contain native grasses and forbs.	MnDOT	Lead and encourage	Counties, SWCD	In progress
Work with public land managers, private landowners and land stewards to identify and protect existing pollinator habitat	Implement Highway Sponsorship Program that allows interested parties to manage native vegetation on MnDOT rights of way.	MnDOT	Lead and encourage	Varies by project	Sustained Effort
Work with public land managers, private landowners and land stewards to identify and protect existing pollinator habitat	Install signage to help protect high-quality habitats where needed.	MnDOT	Lead and encourage	Varies by project	Sustained Effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Expand and improve compensation rates for DNR's Native Prairie Bank Program	Propose that the Minnesota Legislature pass higher compensation rates for Native. Prairie Bank easements. The Legislature did approve higher rates in April 2024.	DNR	Lead	Not applicable	Completed
Revise lighting guidelines in state-administered facilities to reduce light pollution detrimental to pollinators	Revise ADM's guidelines and protocols.	ADM	Lead	Not applicable	In progress

Table 2. Implementation matrix of the Pollinator Action Framework for Goal 1, Category "Intentional land stewardship," Subcategory "Protect pollinator habitat"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Work with public land managers and land stewards to promote the installation and management of pollinator habitat in rights-of-way	Support habitat projects in utility rights-of-way through the Habitat Friendly Utilities program.	BWSR	Encourage	Varies by project	Sustained effort
Work with public land managers and land stewards to promote the installation and management of pollinator habitat in rights-of-way	Implement Highway Sponsorship Program that allows interested parties to manage native vegetation on MnDOT rights of way	MnDOT	Encourage	Local civil groups	Sustained effort
Work with public land managers and land stewards to promote the installation and management of pollinator habitat in rights-of-way	Plant pollinator habitat at State Entry Signs when possible, meeting the Monarch Waystation criteria when able.	MnDOT	Encourage	Not applicable	In progress

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Work with public land managers and land stewards to promote the installation and management of pollinator habitat in rights-of-way	Install native seeds following construction projects as identified in MnDOT's Sustainability Plan.	MnDOT	Encourage	Varies by project	Sustained effort
Work with public land managers and land stewards to promote the installation and management of pollinator habitat in rights-of-way	Update MnDOT Seeding Manual to emphasize the use of native grasses and forbs.	MnDOT	Encourage	BWSR and DNR part of the review team	Completed
Expand beneficial reuse at state-managed Closed Landfill Program sites and promote opportunities to partner with the Minnesota Pollution Control Agency to facilitate pollinator habitat creation on closed landfill sites	Install native plant seed mixes on 380 acres of land on 5 closed landfill sites. Maintenance is ongoing.	MPCA	Lead	Minnesota Native Landscapes, BWSR	In progress
Engage public land managers to convert lawn or unused spaces and new developments to pollinator habitat (e.g., expanding the capacity of the Lawns to Legumes (L2L) Program to include public lands)	Implement Lawns to Legumes, Pollinator Pathways, Habitat Enhancement Landscape, and Habitat Friendly Utilities programs.	BWSR	Lead and encourage	Varies by project	In progress
Support and expand existing programs that provide incentives for farmers and foresters that implement pollinator-friendly land management practices (e.g., diversified crop production, no till, cover crops, prairie strips, forest thinning, wildlife openings, etc.)	Implement Habitat Enhancement Landscape Program, Soil Health Cost-share Program, Watershed Based Implementation Funding, Alliance for Climate Smart Ag, Clean Water Funds Projects and Practices, Clean Water Fund Legacy Partners, RIM for Working Lands, Conservation Contracts, Farm Bill Assistance Partnership.	BWSR	Lead	DNR, Pheasants Forever	Sustained effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Support and expand existing programs that provide incentives for farmers and foresters that implement pollinator-friendly land management practices (e.g., diversified crop production, no till, cover crops, prairie strips, forest thinning, wildlife openings, etc.)	Minnesota Water Quality Certification Program endorsements (Wildlife, Integrated Pest Management, Climate Smart, Soil Health) have components that incentivize farmers to implement more pollinator-friendly land management practices including implementing filter strips, cover crops, modifying tillage practices, crop rotation, use integrated pest management, and choosing less toxic pesticide products when possible.	MDA	Lead and encourage	Soil Water Conservation Districts, National Resource Conservation Service, University of Minnesota Extension, Crop advisors, private consultants	Sustained effort
Promote the installation of a certain percentage of pollinator-friendly landscaping in new developments (e.g., provide rebates for pollinator garden installations)	Included in development guidelines.	ADM	Lead and encourage	Not applicable	In progress
Promote the installation of a certain percentage of pollinator-friendly landscaping in new developments (e.g., provide rebates for pollinator garden installations)	Develop and promote technical resources.	BWSR	Lead and encourage	Varies by project	Sustained effort
Update state building design guidelines to consider pollinator habitat for new buildings and major renovations	Revise ADM's guidelines.	ADM	Lead	Not applicable	In progress

Table 3. Implementation matrix of the Pollinator Action Framework for Goal 1, Category "Intentional land stewardship," Subcategory "Enhance the quality of existing pollinator habitat"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Continue prioritizing the use of native plants in state-managed landscapes	Core practices of the agency.	ADM	Lead and encourage	Not applicable	Sustained effort
Continue prioritizing the use of native plants in state-managed landscapes	Provide landscape design to state owned property, Habitat Enhancement Landscape Program, Reinvest in Minnesota, and Wetland Banking.	BWSR	Lead and encourage	Varies by project	Sustained effort
Continue prioritizing the use of native plants in state-managed landscapes	Prioritize native plants is standard practice on DNR-managed lands.	DNR	Lead and encourage	Not applicable	Sustained effort
Continue prioritizing the use of native plants in state-managed landscapes	See action “Work with public land managers and land stewards to promote the installation and management of pollinator habitat in rights-of-way.”	MnDOT	Lead and encourage	See action “Work with public land managers and land stewards to promote the installation and management of pollinator habitat in rights-of-way”	Sustained effort
Continue prioritizing the use of non-chemical habitat management tools in state-managed landscapes	Part of the core duties of the agency.	ADM	Lead and encourage	Not applicable	Sustained effort
Continue prioritizing the use of non-chemical habitat management tools in state-managed landscapes	Expand signage that highlights non-chemical management options (goats, fire, cutting).	DNR	Lead and encourage	Not applicable	On hold

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Continue prioritizing the use of non-chemical habitat management tools in state-managed landscapes	Expand MnDOT's Prescribed Fire Program to Districts where prairie habitat exists.	MnDOT	Lead and encourage	Varies by project, DNR	Sustained effort
Continue prioritizing the use of non-chemical habitat management tools in state-managed landscapes	Use Integrated Roadside Vegetation Management including mowing and biological control.	MnDOT	Lead and encourage	Varies by project	Sustained effort
Continue prioritizing the use of non-chemical habitat management tools in state-managed landscapes	Part of the core practices of the agency.	Minnesota Zoo	Lead and encourage	Not applicable	Sustained effort
Promote the use of farming, forestry and other land management practices that provide multiple benefits to soil, water and wildlife	All BWSR Programming.	BWSR	Lead and encourage	Varies by project	Sustained effort
Promote the use of farming, forestry and other land management practices that provide multiple benefits to soil, water and wildlife	This is standard practice for DNR-managed lands.	DNR	Lead and encourage	Varies by project	Sustained effort
Promote the use of farming, forestry and other land management practices that provide multiple benefits to soil, water and wildlife	MN Ag. Water Quality Certification Program (Soil Health, Wildlife, IPM, Climate Smart, Irrigation Water Management Endorsements): Each of these endorsements has a different emphasis but they all share the goal of improving management practices for agricultural lands.	MDA	Lead and encourage	Soil Water Conservation Districts, National Resource Conservation Service, University of Minnesota Extension, Crop advisors, Private consultants	Sustained effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Promote the use of farming, forestry and other land management practices that provide multiple benefits to soil, water and wildlife	Pesticide Management Plan (PMP) and associated actions: The PMP outlines the MDA's approach to prevent, evaluate, and mitigate pesticides and their breakdown products in water. The MDA's approach involves developing and promoting best management practices that will protect water quality for wildlife and humans. Monitoring for pesticides in water is another key component of the PMP that guides the MDA in their management of pesticides. The MDA works to educate farmers and land managers about pesticide impacts (i.e. sharing monitoring data) and encourages the adoption of alternatives and practices that will minimize impacts to the environment.	MDA	Lead and encourage	Pesticide Management Plan Committee: Consists of representatives from MDH, MNDNR, MPCA, Pesticide Industry, Environmental Organization, Farm Organization, Farmers (2), University of Minnesota Extension (2), Public members (3), Tribal Representative, Urban Pesticide Specialist	Sustained effort
Promote the use of farming, forestry and other land management practices that provide multiple benefits to soil, water and wildlife	MDA's grant programs include, Agricultural Growth, Research, and Innovation (AGRI) Research, and Specialty Crop Block Program grants. Each of these programs overlaps with the goal to “promote the use of farming, forestry and other land management practices by provide multiple benefits to soil, water and wildlife” through supporting, developing and disseminating sustainability practices—such as cover crops, conservation tillage, nutrient and pest management—that enhance soil health, reduce runoff, and benefit ecosystem services.	MDA	Lead and encourage	Nonprofit organizations, Producer organizations, Government agencies, Universities, Tribal organizations, other agricultural groups, or other groups with agricultural research capabilities	Sustained effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Encourage peer-to-peer workshops focused on incorporating and protecting pollinator habitat on working lands	Habitat friendly solar, Technical Training Certification Program, BWSR Academy, Watershed Implementation, Minnesota Wetland Professional Certification Program, Watershed Implementors monthly call, monthly Tech Talks.	BWSR	Encourage	Varies by project	Sustained effort
Encourage peer-to-peer workshops focused on incorporating and protecting pollinator habitat on working lands	Lead and participate in peer-to-peer events.	DNR	Encourage	Varies by project	Sustained effort
Encourage peer-to-peer workshops focused on incorporating and protecting pollinator habitat on working lands	Webinars promoting pollinator friendly landscaping and landscape management.	EQB	Encourage	Varies by project	In progress
Ensure guidance for long-term management of pollinator habitat is available to the public	Pollinator Toolbox, Wetland Restoration Guide, Vegetative Establishment Guide, Easement Vegetative Guide, What's Working guide.	BWSR	Lead and encourage	Varies by project	Sustained effort
Ensure guidance for long-term management of pollinator habitat is available to the public	Host the pollinator best management practices document online [39].	DNR	Lead and encourage	Not applicable	Completed
Promote the use of farming, forestry and other land management practices that provide multiple benefits to soil, water and wildlife	Update Promote Pollinators in Agricultural Landscapes Best Management Practices guidance aimed at reducing negative impacts on pollinator habitat resulting from current management practices, improving exiting habitat, and creating new habitat.	MDA	Lead	Updated from previous collaboration, see MDA actions in Table 5.	In progress

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Promote the use of farming, forestry and other land management practices that provide multiple benefits to soil, water and wildlife	Create shortened two-page version of the Promote Pollinators in Agricultural Landscapes Best Management Practices guidance to increase reach of these BMPs.	MDA	Lead	None	In progress

Table 4. Implementation matrix of the Pollinator Action Framework for Goal 1, Category "Strategic policy and programs to protect, restore, create, and enhance pollinator habitat," Subcategory "Develop policy and programs to increase native plant supply"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Create a state native seed program with an emphasis on early season species	Pending. Any program would need to abide by MN seed law.	DNR	Lead	Native plant suppliers	On hold
Update the seed mixes and related guidance with emphasis on pollinator benefits	See action “Work with public land managers and land stewards to promote the installation and management of pollinator habitat in rights-of-way.”	MnDOT	Lead	See action “Work with public land managers and land stewards to promote the installation and management of pollinator habitat in rights-of-way”	Completed
Collaborate with and support seed and native plant vendors and other partners to increase the production of plant species important to pollinators (including trees and shrubs)	BWSR Native Vegetation and Biodiversity Advisory Team.	BWSR	Lead and encourage	Around 50 conservation organizations	In progress

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Collaborate with and support seed and native plant vendors and other partners to increase the production of plant species important to pollinators (including trees and shrubs)	Maintain a list of native plant suppliers, and support vendors as seed and plant sources for habitat restoration and enhancement projects.	DNR	Lead and encourage	Native plant suppliers [40]	Sustained effort
Support and expand the state forest nursery efforts to include a wide diversity of pollinator-friendly plants (e.g., flowering trees and shrubs)	Continue stocking species beneficial to pollinators in the state's forest nursery.	DNR	Lead	Not applicable	Sustained effort
Provide funding to diversify seed mixes used in private land restorations	Habitat Enhancement Landscape Program, Habitat friendly utilities, Reinvest in Minnesota/Conservation Reserve Enhancement Program, Lawns to Legumes, Oak Savanna, Clean Water Funds.	BWSR	Lead	Varies by project	Sustained effort
Provide funding to diversify seed mixes used in private land restorations	Pending	DNR	Lead	Pending	On hold

Table 5. Implementation matrix of the Pollinator Action Framework for Goal 1, Category "Strategic policy and programs to protect, restore, create, and enhance pollinator habitat," Subcategory "Design strategies to support pollinator habitat"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Develop guidance about integrated habitat management approaches in public and private lands	Seed mixes, planting templates, Living Landscape Initiative programs, L2L Habitat at Home	BWSR	Encourage	Varies by project, Metro Blooms	Sustained effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Develop guidance about integrated habitat management approaches in public and private lands	Revise pollinator best management practices [41].	DNR	Lead and encourage	Not applicable	Completed
Develop guidance about integrated habitat management approaches in public and private lands	The MDA formed three pollinator habitat working groups in 2016 to develop BMPs for Agricultural Lands, Yards and Gardens, and Rights of Way. The MDA followed up these efforts in 2025 to revise a shorter private land-owners document titled "Make Your Yard Bee-Friendly." Both the Yards and Gardens and Make Your Yard Bee-Friendly documents have been translated into Hmong, Somali, and Spanish to better facilitate outreach efforts. The MDA continues to promote and distribute these BMPs throughout the year.	MDA	Lead and encourage	Varies by project	Completed
Develop guidance about integrated habitat management approaches in public and private lands	Update MnDOT Maintenance Manual to reflect habitat management methods	MnDOT	Encourage	Pending	On hold
Develop and implement strategies to increase connectivity of habitat in highly fragmented landscapes	Create map of areas of pollinator habitat opportunities to connect fragmented landscapes along MnDOT managed roads	BWSR	Lead and encourage	See Stories of Success “A new interactive map for the Living Landscapes Initiative”	Sustained effort
Develop and implement strategies to increase connectivity of habitat in highly fragmented landscapes	Track and highlight conservation efforts within Conservation Opportunity Areas and the Wildlife Action Network, as they relate to goals in the Minnesota Prairie Conservation Plan [41] and State Wildlife Action Plan [44].	DNR	Lead and encourage	The Nature Conservancy, U.S. Fish & Wildlife Service, counties, private landowners, etc.	Sustained effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Create a certification program for pollinator-friendly landscaping available to landscape and gardening companies	Pending	Pending	Lead and encourage	Pending	On hold
Develop state regulations to increase remnant prairie protections	Pending	DNR	Lead	Pending	On hold
Develop technical assistance and resources to increase pollinator habitat to support pollination from native pollinator species	Develop technical assistance and resources to increase pollinator habitat to support pollination for native pollinator species.	All BWSR Programming	BWSR	Varies by project, Metro Blooms	Sustained effort
Develop technical assistance and resources to increase pollinator habitat to support pollination for native pollinator species	Develop new resources for landscaping with native plants, such as handouts Landscaping with Native Plants [43] and Natural Shorelines [44].	DNR	Lead and encourage	BWSR	Sustained effort
Develop technical assistance and resources to increase pollinator habitat to support pollination for native pollinator species	See MDA project on pollinator habitat best management practices documents under the action "Develop guidance about integrated habitat management approaches in public and private lands".	MDA	Lead and encourage	Varies by project	Completed
Improve coordination and management of DNR rights-of-way to meet pollinator best management practices in alignment with existing goals and objectives	Review utility rights-of-way licenses, leases, and easements that cross DNR lands to ensure approved practices align with pollinator best management practices. Though this process is case-by-case, core vegetation standards must be met before approval.	DNR	Lead	Not applicable	Sustained effort

Table 6. Implementation matrix of the Pollinator Action Framework for Goal 1, Category "Comprehensive research data collection related to pollinator habitat," Subcategory "Understand pollinator habitat needs"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Research how habitat management practices affect pollinators	Survey bees in southwest Minnesota to compare species assemblages at remnant vs restored prairies.	DNR	Lead and encourage	University of Minnesota	In progress
Research how habitat management practices affect pollinators	Study use of newly planted alumroot plants *by Colletes andrewsi*, a native bee alumroot specialist.	DNR	Lead	University of Minnesota	In progress
Support the development of resources to guide strategic prioritization of habitat conservation efforts	Publish updated Conservation Opportunity Areas (formerly Conservation Focus Areas) and Wildlife Action Network in the State Wildlife Action Plan and make available as GIS layers.	DNR	Lead and encourage	Partners who helped develop Minnesota's Wildlife Action Plan [42]	Completed
Increase capacity to evaluate the quality and success of habitat conservation projects	Wetland Bank Monitoring Program, BWSR monitoring L2L program	BWSR	Lead and encourage	Varies by project	In Progress
Increase capacity to evaluate the quality and success of habitat conservation projects	Standardize data collection methods through increased use of the Prairie Reconstruction Initiative (PRI) database.	DNR	Lead and encourage	PRI, U.S. Fish and Wildlife Service	In progress
Research the implications to pollinators of including adjacent-pollinator habitat in areas with intensive pesticide use (e.g. golf courses)	Publish research on pesticide presence in natural areas. See "Tallgrass prairie wildlife exposure to spray drift from commonly used soybean insecticides in Midwestern USA".	DNR	Encourage	University of Minnesota	Completed

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Document and monitor the occurrence and quantities of non-target pesticides in prairie remnants and restorations	Collect grass samples twice per year for three years from more than dozen prairies across Minnesota; continuation of identical surveys at 5 prairies since 2014. Share data with relevant agencies. Publication: "Widespread annual occurrence of pesticides within designated critical habitats for endangered prairie butterflies"	Minnesota Zoo	Lead	MDA, DNR, USFWS, others	In progress
Research the implications to pollinators of including adjacent-pollinator habitat in areas with intensive pesticide use (e.g. golf courses)	Collect this type of information when pesticide misuse is reported and when an incident investigation can be initiated.	MDA	Lead	University of Minnesota	Sustained effort
Research the implications to pollinators of including adjacent-pollinator habitat in areas with intensive pesticide use (e.g. golf courses)	Encourage researchers to study adverse effects of pesticides in high pesticide use areas	MDA	Encourage	University of Minnesota	Sustained effort
Identify low native plant diversity areas on state lands that would be good candidates for prairie or forest restoration or enhancement	Identify property and management units containing degraded habitats.	DNR	Lead	Varies by project	Sustained effort

Goal 2. Minnesotans use pesticides judiciously and only when necessary to reduce harm to pollinators while retaining economic strength

Key outcome: Reduced impacts to pollinators from pesticides through integrated pest management (IPM)

Table 7. Implementation matrix of the Pollinator Action Framework for Goal 2, Category "Judicious use of pesticides," Subcategory "Support integrated pest management on agricultural and non-agricultural lands"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Develop IPM programs for crops and non-agricultural systems where they do not exist yet	Consult with and encourage the University of Minnesota to conduct research on this subject.	MDA	Encourage	University of Minnesota College of Food Agricultural Natural Resources	Sustained effort
Develop and collect standardized methods to evaluate and analyze the adoption of IPM on Minnesota farms and in non-agricultural systems	Consult with and encourage the University of Minnesota to conduct research on this topic.	MDA	Encourage	University of Minnesota College of Food Agricultural Natural Resources	Sustained effort
Continue funding for projects that include implementation of or research on IPM	Consult with the University of Minnesota on the selection of research to be funded from the Pollinator Research Account (§18B.051).	MDA	Lead	University of Minnesota College of Food Agricultural Natural Resources	Sustained effort
Continue funding for projects that include implementation of or research on IPM	Legislation funded the Pollinator Research Account (§18B.051) through June 2027.	MDA	Encourage	MN Legislature	Completed

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Continue funding for projects that include implementation of or research on IPM	Administer several grant programs for research that supports crop production, including IPM-related projects. The Agricultural Growth, Research, and Innovation (AGRI) Crop Research Grant generates university level applied crop research that will improve agricultural product quality, quantity, or value. The AGRI Sustainable Agriculture Demonstration Grant funds aim to increase competitiveness of Minnesota-grown specialty crops, including through researching and developing techniques that focus on pest and disease control and prevention.	MDA	Leads	Farmers, nonprofit organizations, producer organizations, government agencies, universities, Tribal organizations, other agricultural groups, or other groups with agricultural research capabilities	Sustained effort
Continue funding for projects that include implementation of or research on IPM	Funded testing of soil samples for pesticides to complement a University of Minnesota Department of Entomology IPM research project.	MDA	Lead and encourage	University of Minnesota Entomology Department	Completed
Continue to strengthen compliance assistance for pollinator and IPM language on pesticide labels	The MDA with support from the University of Minnesota Pesticide Safety and Environmental Education continues to educate pesticide applicators on the importance of using IPM and where pollinator specific language can be found on pesticide product labels. The MDA also has Agricultural Chemical Investigators that conduct pesticide use and misuse investigations where compliance assistance is a core component of their investigation.	MDA	Lead and encourage	University of Minnesota Pesticide Safety and Environmental Education	Sustained effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Continue to strengthen and support compliance assistance for legal pesticide use	In addition to the regular work of pesticide label compliance, MDA Agricultural Chemical Investigators began working with pesticide users on Endangered Species Act label language to ensure products with Endangered Species Act specific language are being used with appropriate spray drift, runoff/erosion mitigation.	MDA	Lead and encourage	Endangered Species Act educators	In progress

Table 8. Implementation matrix of the Pollinator Action Framework for Goal 2, Category "Judicious use of pesticides," Subcategory "Promote IPM on agricultural and non-agricultural lands"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Increase integrated pest management education for all pesticide users	Require all DNR staff who apply pesticides to do annual training with IPM as a core focus. New information is distributed to training teams in each DNR division.	DNR	Lead and encourage	Not applicable	Sustained effort
Increase integrated pest management education for all pesticide users	Pesticide Recertification Workshops: Work with the University of Minnesota Pesticide Safety and Environmental Educators to incorporate integrated pest management concepts and practices into pesticide applicator trainings. Training includes how to find / understand pollinator label warnings and application restrictions when crops are blooming.	MDA	Encourage	University of Minnesota Extension Pesticide Safety and Environmental Education	Sustained effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Increase integrated pest management education for all pesticide users	Manual updates: Pesticide applicator training manuals are routinely updated to ensure current pesticide use concerns can be addressed. Integrated pest management and pollinator protection concerns are highlighted.	MDA	Encourage	University of Minnesota Extension Pesticide Safety and Environmental Education	Sustained effort
Collaborate to create and distribute signage about the use of integrated pest management and reducing risks to pollinators for different settings	Pending	ADM	Lead and encourage	Pending	On hold
Collaborate to create and distribute signage about the use of integrated pest management and reducing risks to pollinators for different settings	Install signage that focuses on pollinators and non-chemical management options (goats, fire, cutting). Including IPM methods could be a future focus.	DNR	Lead and encourage	Not applicable	On hold
Collaborate to create and distribute signage about the use of integrated pest management and reducing risks to pollinators for different settings	Minnesota Agriculture Water Quality Certification Program has developed a specific integrated pest management endorsement for farmers and land managers that record and incorporate sufficient alternative, non-pesticide, pest management practices in an effort to suppress, prevent, and avoid pest populations reaching levels that cause economic harm.	MDA	Lead and encourage	Minnesota farmers, crop advisors, private consultants, and land managers	Sustained effort

Table 9. Implementation matrix of the Pollinator Action Framework for Goal 2, Category "Judicious use of pesticides," Subcategory "Support IPM in managed pollinator colonies"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Continue to fund projects that include research on or implementation of integrated pest management for managed pollinator colonies	Consult with and encourage the University of Minnesota to conduct research on the subject.	MDA	Encourage	University of Minnesota College of Food Agricultural Natural Resources	Sustained effort
Continue to strengthen and support compliance assistance for legal pesticide use in managed pollinator colonies	Conduct outreach to Minnesota beekeepers. Focus messaging on issues around illegal in-hive pesticide use, signs and symptoms of honey bee exposure to non-beekeeper applied pesticides and available investigation and compensation options.	MDA	Encourage	Minnesota based beekeeping organizations including Minnesota Honey Producers Association and Minnesota Hobby Beekeepers Association	In progress
Continue to strengthen and support compliance assistance for legal pesticide use in managed pollinator colonies	Continue outreach through bee kill investigations. Compliance assistance is always a focus during bee kill investigations for both the complainants and the alleged responsible parties.	MDA	Lead and encourage	University of Minnesota Bee Lab (outreach)	Sustained effort
Promote the use of existing integrated pest management programs in managed pollinator colonies	Encourage and promote regional recommendations	MDA	Encourage	University of Minnesota Bee Lab, MN beekeeper associations	In progress

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Provide education on integrated pest management for pollinator colony health	Encourage and promote regional and national best practices for honey bee colony health.	MDA	Encourage	University of Minnesota Bee Lab, Honey bee Health Coalition, MN beekeeper associations	In progress
Provide education on integrated pest management for pollinator colony health	Coordinate intra-agency roles with the University of Minnesota on how the state would respond if the *Tropilaelaps* mite were to be found in Minnesota. Including legal pesticide options for treatment.	MDA	Encourage	University of Minnesota Bee Lab	In progress

Table 10. Implementation matrix of the Pollinator Action Framework for Goal 2, Category "Robust protections," Subcategory "Reduce off target movement of pesticides"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Increase promotion of mitigation strategies to reduce pesticide movement off-site, including promoting reduction of dust-off from treated seed	Minnesota Agriculture Water Quality Certification Program focuses on implementation, and maintenance of conservation practices that protect Minnesota's water resources, including protections from nutrient and pesticide off-site movement through voluntary incentives and coordinated help from conservation professionals.	MDA	Lead and encourage	Soil Water Conservation Districts, National Resource Conservation Service, University of Minnesota Extension, Crop advisors, Private consultants	Sustained effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Increase promotion of mitigation strategies to reduce pesticide movement off-site, including promoting reduction of dust-off from treated seed	Develop outreach materials on the Environmental Protection Agency's new strategies for protecting endangered species from pesticides.	MDA	Lead and encourage	University of Minnesota Pesticide Safety and Environmental Education, USEPA, NRCS, University of Minnesota Extension	Complete
Increase promotion of mitigation strategies to reduce pesticide movement off-site, including promoting reduction of dust-off from treated seed	Minnesota Agriculture Water Quality Certification Program increased outreach to program participants on off-target movement and impacts from insecticide coated treated seed.	MDA	Lead and encourage	Crop advisors, Private consultants, Soil and Water Conservation Districts	In progress
Expand promotion of existing best management practices for using and disposing of treated seed	Expand outreach on MPCA treated seed disposal requirements to treated seed retailers and labelers.	MDA	Lead and encourage	Commodity groups, Seed retailers/ labelers	Complete
Expand promotion of existing best management practices for using and disposing of treated seed	Continue promoting best management practices related to treated seed treatment, use, and disposal by incorporating and training category H: treated seed applicators.	MDA	Lead and encourage	University of Minnesota Extension Pesticide Safety and Environmental Education	In progress
Increase promotion of mitigation strategies to reduce pesticide movement off-site, including promoting reduction of dust-off from treated seed	Provide education focused on new Endangered Species Act label requirements and mitigation strategies to reduce pesticide movement off-site. As Endangered Species Act label requirements expand to new labels these mitigations will become common to all pesticide product labels.	MDA	Lead and encourage	Pesticide Safety and Environmental Education	In progress

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Increase promotion of mitigation strategies to reduce pesticide movement off-site, including promoting reduction of dust-off from treated seed	Since 2024, the MDA expanded the Minnesota Ag Weather Network [35]by installing over 40 new weather stations that improve real-time data on wind, rainfall, temperature, and soil conditions. These data help farmers better time pesticide applications, reducing drift and exposure. Improved decisions directly protect pollinators and support healthier agricultural ecosystems.	MDA	Lead	Local partners	In progress

Table 11. Implementation matrix of the Pollinator Action Framework for Goal 2, Category "Robust protections," Subcategory "Report pesticide misuse".

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Increase awareness about pesticide misuse reporting	Conduct more outreach to Minnesota beekeepers to make them aware of pesticide exposure symptoms, reporting, and state compensation options.	MDA	Lead and encourage	University of Minnesota Bee Lab, MN beekeeper associations	In progress
Strengthen capacity to investigate pesticide misuse reports	Backfill regional Agricultural Chemical Investigator positions and realign unit structure to better strengthen the MDA's capacity to investigate pesticide misuse reports.	MDA	Lead	Only MDA has compliance assistance authority	Complete
Strengthen capacity to investigate pesticide misuse reports	Strengthen technical expertise of bee kill investigation staff through professional network development and trainings held by the Apiary Inspectors of America.	MDA	Lead	Apiary Inspectors of America	Sustained effort

Table 12. Implementation matrix of the Pollinator Action Framework for Goal 2, Category "Focused research," Subcategory "Study the effects of pesticides and pesticide inert ingredients on pollinators and their habitat"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Conduct native pollinator species pesticide toxicity studies following EPA guidelines that can be used in risk analyses	Consult with and encourage the University of Minnesota to conduct research on the subject.	MDA	Encourage	University of Minnesota	Sustained effort
Conduct native pollinator species pesticide toxicity studies following EPA guidelines that can be used in risk analyses	Analyze and publish a study on the effects of a common agricultural insecticide on native skipper butterflies.	Minnesota Zoo	Lead	University of Minnesota College of Food Agricultural Natural Resources	In progress
Conduct studies on the effects of pesticide inert ingredients on pollinators following EPA guidelines that can be used in risk analyses	Consult with and encourage the University of Minnesota and other research institutions to conduct research	MDA	Encourage	University of Minnesota	Sustained effort
Conduct studies on how pesticides interact with each other and other stressors to affect pollinator health following EPA guidelines that can be used in risk analyses	Consult with and encourage the University of Minnesota to conduct research.	MDA	Encourage	University of Minnesota	Sustained effort
Create new or update outdated thresholds for common pests in Minnesota	Consult with and encourage the University of Minnesota to conduct research.	MDA	Encourage	University of Minnesota College of Food Agricultural Natural Resources	Sustained effort
Research and document obstacles pest managers face to adopt IPM and what factors lead to increased adoption	Consult with and encourage the University of Minnesota to conduct research.	MDA	Encourage	University of Minnesota College of Food Agricultural Natural Resources	Sustained effort

Goal 3. Minnesotans understand, value and actively support pollinators

Key outcome: More action through community commitments

Table 13. Implementation matrix of the Pollinator Action Framework for Goal 3, Category "Strong partnership and relationship building," Subcategory "Build intentional relationships with individuals and organizations for pollinator protection"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Connect with communities that have adopted pollinator-friendly resolutions to learn from their experiences and strategize ways to engage cities that have not participated	Facilitate conversations with city staff.	EQB	Lead and encourage	Varies by project	In progress
Strengthen relationships with non-profit and for-profit organizations that work to protect pollinators	Co-sponsor the North American Monarch Summit.	EQB	Lead	Monarch Joint Venture	Completed
Strengthen relationships with non-profit and for-profit organizations that work to protect pollinators	Participate in pollinator-related outreach events organized by different reputable organizations.	EQB	Lead	Varies by project	Sustained effort

Table 14. Implementation matrix of the Pollinator Action Framework for Goal 3, Category "Strong partnership and relationship building," Subcategory "Build strategic partnerships to advance pollinator protection goals"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Collaborate with GreenSteps Cities program to increase education and promotion of pollinator-friendly practices	Facilitate conversations between Minnesota cities to share information and resources about helping pollinators.	EQB	Lead	GreenSteps Cities program (MPCA)	In progress

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Collaborate with stores that sell retail pesticides and flowering plants to include information and resources about how to protect pollinators and their habitat	Enforce the Pollinator Labelling Law [45] regulating the labeling and advertising of nursery stock.	MDA	Lead and encourage	Nurseries	Sustained effort
Collaborate with stores that sell retail pesticides and flowering plants to include information and resources about how to protect pollinators and their habitat	Provide treated seed retailers summarized best practice information for customers. This information is required to be posted in an accessible, visible location.	MDA	Lead and encourage	Treated seed labelers and retailers including big box stores	In progress
Create a process with Tribal Nations to work together on pollinator protection	Implement Habitat Enhancement Landscape Program and Habitat Friendly Utilities, Lawns to Legumes Programs.	BWSR	Lead	MNTEC, MNTEC Tribal Governments (varies by project)	Sustained effort
Create a process with Tribal Nations to work together on pollinator protection	Pending	EQB	Lead	MNTEC, state agencies' Tribal liaisons	On hold
Collaborate with the Minnesota Science Teachers Association to promote pollinator educational resources for use in K-12 classrooms	Pollinator Pathways, Mn Living Schoolyards	BWSR	Lead and encourage	MDE	In progress
Collaborate with the Minnesota Science Teachers Association to promote pollinator educational resources for use in K-12 classrooms	Increase pollinator efforts within the School Forest Program, particularly around trees. There is a strong desire to continue distributing native seed packets to schools.	DNR	Lead and encourage	Schools and teachers	On hold

Table 15. Implementation matrix of the Pollinator Action Framework for Goal 3, Category "Diverse and inclusive public participation," Subcategory "Increase participation in initiatives and programs"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Assess which communities have not been involved in pollinator protection actions, reach out to them, and learn how to align this subject with their community priorities	Lawns to Legumes Program survey.	BWSR	Lead and encourage	Blue Thumb, Audubon	Sustained effort

Table 16. Implementation matrix of the Pollinator Action Framework for Goal 3, Category "Informed communities," Subcategory "Effective public access to information"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Improve accessibility of pollinator protection resources (i.e., translations)	Lawns to Legumes Program.	BWSR	Lead and encourage	Blue Thumb Washington SWCD	Sustained effort
Improve accessibility of pollinator protection resources (i.e., translations)	Translate MDA BMPs and outreach materials into multiple languages.	MDA	Lead and encourage	Enterprise Translations Office	Completed

Table 17. Implementation matrix of the Pollinator Action Framework for Goal 3, Category "Informed communities," Subcategory "Increase public awareness about pollinator needs and ways to help them"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Leverage Pollinator Week to raise awareness about pollinator protection through different strategies: pollinator costume contest, pollinator garden sign design contest, webinar series with pollinator experts, etc.	Social media campaign, but potential for organizing other events.	EQB	Lead and encourage	Interagency team-member agencies, University of Minnesota Bee Lab, Xerces Society, Monarch Joint Venture, other pollinator-friendly non-profit organizations	In progress
Promote pollinator-related apps (i.e. Bumble Bee Watch, iNaturalist) at community events	Refer to them in Lawns to Legumes Program trainings and at tabling events.	BWSR	Encourage	Varies by project	Sustained effort
Promote pollinator protection actions at the State Fair	Partner with Blue Thumb and MPCA to host a table outside the Eco Experience building to promote pollinator conservation.	BWSR	Lead and encourage	Blue Thumb	Sustained effort
Promote pollinator protection actions at the State Fair	Improve signage identifying plants in the DNR gardens.	DNR	Lead and encourage	Not applicable	In progress
Promote pollinator protection actions at the State Fair	Continue offering guided plant ID walks and/or tabling events for Pollinator Day at the State Fair.	DNR	Lead and encourage	Interagency-member agencies, University of Minnesota Bee Lab, Xerces Society, Monarch Joint Venture, Pheasants Forever, other pollinator non-profit organizations	Sustained effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Promote pollinator protection actions at the State Fair	Pollinator Day at the State Fair.	EQB	Lead and encourage	Interagency-member agencies, University of Minnesota Bee Lab, Xerces Society, Monarch Joint Venture, other pollinator non-profit organizations	Sustained effort
Provide clear information about how to create and improve pollinator habitat (e.g. increase awareness about mitigating the negative effects of light pollution)	Give presentations to special interest groups.	BWSR	Lead and encourage	EQB	Sustained effort
Provide information about the benefits to wildlife of using native vs non-native plants	Give presentations to special interest groups.	BWSR	Lead and encourage	EQB	Sustained effort
Increase visibility of pollinator-friendly lawn alternatives (e.g., media campaign that shows what pollinator habitat looks like)	Pending	EQB	Lead and encourage	Interagency pollinator protection team	On hold
Review local ordinances and coordinate with municipalities to make those ordinances compatible with adopting pollinator friendly landscaping	Pending	EQB	Encourage	Pending	On hold

Table 18. Implementation matrix of the Pollinator Action Framework for Goal 3, Category 'Sustained education and training," Subcategory "Strengthen programs with pollinator protection resources and information"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Develop an interagency communications plan to promote pollinator resources and programs	Featured Plants, Ecological Update	BWSR	Lead	Varies by project	Sustained effort
Develop an interagency communications plan to promote pollinator resources and programs	Develop an interagency communications plan for pollinator-related topics.	EQB	Lead	Interagency team-member agencies	Completed
Include pollinator-related education and resources in current agency-led programs where appropriate (e.g., as done in Ag in the Classroom)	Minnesota Wetland Professional Certification Program	BWSR	Lead	SWCDs and Counties	In progress
Include pollinator-related education and resources in current agency-led programs where appropriate (e.g., as done in Ag in the Classroom)	Include pollinator content in related programs: Emerging Professionals in Conservation, Bird by Bird, Project Wild (currently on hold), Scientific and Natural Area program outreach, Parks and Trails Interpretative Program.	DNR	Lead	Varies by project	Sustained effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Include pollinator-related education and resources in current agency-led programs where appropriate (e.g., as done in Ag in the Classroom)	The Minnesota Agriculture in the Classroom provides academic standards-based lesson plans and companion resources to Minnesota K-12 educators through their Curriculum Matrix. This matrix includes over 50 pollinator themed lessons and supporting resources. Pollinator-themed hands-on activities are also embedded in educator professional development opportunities.	MDA	Lead and encourage	School districts, University of Minnesota Bee Lab, National Center for Agricultural Literacy, National Agriculture in the Classroom Organization	Sustained effort
Include pollinator-related education and resources in current agency-led programs where appropriate (e.g., as done in Ag in the Classroom)	Continue distributing and discussing pollinator concerns and best practices during outreach events.	MDA	Lead and encourage	Varies by project	Sustained effort
Include pollinator-related education and resources in current agency-led programs where appropriate (e.g., as done in Ag in the Classroom)	Incorporate into multiple Zoo camps and Zoo special experiences annually.	Minnesota Zoo	Lead	Varies by project	Sustained effort
Develop programming in partnership with youth organizations like Girl Scouts, Boy Scouts, YMCA, etc. to educate and facilitate pollinator projects and participation in pollinator-related community science projects.	Pollinator Pathways/Habitat Enhancement Landscape Program.	BWSR	Lead	Varies by project	Sustained effort

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Develop programming in partnership with youth organizations like Girl Scouts, Boy Scouts, YMCA, etc. to educate and facilitate pollinator projects and participation in pollinator-related community science projects.	Launch Regal Quest, a new regal fritillary community science surveying effort. Expand volunteer base in future years.	DNR	Lead	Pending	Completed
Explore synergies with third-party certification programs that support pollinators and pollinator habitat	Pending	BWSR	Lead	Pending	On hold
Explore synergies with third-party certification programs that support pollinators and pollinator habitat	Keep up with changes in IPM practices required by forest certification organizations.	DNR	Lead	Pending	On hold
Work with organizations with expertise to expand pollinator-related education and training for inmates at state-administered facilities (e.g. beekeeping, habitat restoration training)	Pending	MnDOC	Lead	Pending	On hold

Table 19. Implementation matrix of the Pollinator Action Framework for Goal 3, Category 'Sustained education and training," Subcategory "Make pollinator protection educational resources readily available for the public"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Create a hub of pollinator-related curriculum/materials that makes it easy for educators to incorporate in their programs	Mn Living Schoolyard	BWSR	Lead	MDE, University of Minnesota Mankato	Sustained effort
Encourage members of the Master Gardener program to be a resource for schools who want to install pollinator habitat	Mn Living Schoolyard	BWSR	Lead and encourage	Pending	Sustained effort
Work with SWCDs to increase pollinator guidance and resources (e.g. pollinator-friendly plants to mitigate flooding)	Tech Training Certification Program	BWSR	Lead	Varies by project	Sustained effort
Increase awareness of programs to assist landowners, land stewards, and land managers in creating, managing, and maintaining pollinator habitat	Table events, public meetings etc.	BWSR	Lead and encourage	Varies by project	Sustained effort

Desired Outcome “Healthy, diverse pollinator populations that sustain and enhance Minnesota’s environment, economy, and way of life”

Table 20. Implementation matrix of the Pollinator Action Framework for Desired Outcome, Category “Informed decision-making," Subcategory "Long-term monitoring"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Secure permanent funding to inventory and monitor pollinators	Identify opportunities for permanent funding, possibly via Reinvest in Minnesota.	DNR	Lead	Pending	On hold
Secure permanent funding to inventory and monitor pollinators	Manage the Cooperative State Wildlife Grant that funds the Minnesota Bumble Bee Atlas.	DNR	Encourage	University of Minnesota-Extension	Sustained Effort
Explore and promote monitoring techniques that don’t require lethal captures	Pending	Pending	Lead and encourage	Pending	On hold

Table 21. Implementation matrix of the Pollinator Action Framework for Desired Outcome, Category "Informed decision-making," Subcategory "Generate new information and create a framework for sharing information"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Create a group to develop pollinator-specific research priority list and identify funding streams	Prioritize and pursue funding for research items in the new SWAP.	DNR	Lead and encourage	University of Minnesota	Sustained effort
Create a group to develop pollinator-specific research priority list and identify funding streams	Pending	EQB	Lead and encourage	Interagency team-member agencies, research institutions (TBD), pollinator-related non-governmental organizations (TBD)	On hold
Develop a framework to facilitate collaboration, data and information sharing about pollinators between organizations	Pending	EQB	Lead and encourage	Interagency team-member agencies	On hold
Research risk of environmental pollutants (e.g., salts and heavy metals) on pollinators	Pending	TBD	Encourage	Pending	On hold
Research the drivers behind changes of perception and behavior toward pollinator-friendly practices to inform state outreach and education efforts	Pending	EQB	Lead and encourage	Pending	On hold

Table 22. Implementation matrix of the Pollinator Action Framework for Desired Outcome, Category "Strategic protections," Subcategory "Develop effective policy to protect at-risk pollinator species"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Include a question on the Environmental Assessment Worksheet form that provides information about potential reductions in pollinator habitat and identifies proposed mitigation that will offset those reductions	Pending	EQB	Lead	Pending	On hold
Increase capacity for status assessments of pollinator species (monitoring data) to inform state listing of species (including staffing, taxonomic expertise, and data gathering)	Submit funding request to increase capacity for the listed species program.	DNR	Lead	Pending	On hold
Increase capacity for status assessments of pollinator species (monitoring data) to inform state listing of at-risk species (including staffing, taxonomic expertise, and data gathering)	Update State Wildlife Action Plan to unlock federal funds for conservation projects. The new 2025-2035 SWAP includes an updated list of Species of Greatest Conservation Need.	DNR	Lead	Partners who helped develop Minnesota's Wildlife Action Plan [42]	Completed

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Implement rearing, breeding, release, and associated release programs for US and State listed prairie butterflies to help achieve established recovery criteria, as appropriate and recommended	Continue the propagation and release program for Poweshiek skipperling (historically for Dakota skipper). Assess habitat statewide for potential future reintroductions.	Minnesota Zoo	Lead	USFWS, DNR, others	In Progress

Table 23. Implementation matrix of the Pollinator Action Framework for Desired Outcome, Category "Long-term planning," Subcategory "Improve interagency coordination"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Align state agencies' policies, practices and procedures to effectively protect pollinators and reduce inconsistencies across policies.	Facilitate ongoing conversations during interagency pollinator protection team meetings.	EQB	Lead	Interagency team-member agencies	In progress
Create and maintain an inventory of passed and ongoing pollinator protection programs and initiatives	Pending	EQB	Lead	Interagency team-member agencies	On hold
Synergize strategies and priorities between the Pollinator and the Climate Action Framework (e.g. integrate pollinator-friendly plants in green infrastructure projects)	Pending	EQB	Lead	Interagency team-member agencies	On hold

Table 24. Implementation matrix of the Pollinator Action Framework for Desired Outcome, Category "Long-term planning," Subcategory "Improve intra-agency coordination"

Action	Projects	Lead agency	Agency role (Lead/Encourage)	Partners	Status
Clarify internal pollinator policies and streamline their implementation across agency actions	Revise Pollinator BMPs and grazing guidelines.	DNR	Lead	Not applicable	Completed
Clarify internal pollinator policies and streamline their implementation across agency actions	Pending	Interagency team-member agencies	Lead	Pending	On hold
Update pollinator-related state policies, standard operating procedures, protocols, and guidelines in light of new scientific information	Pending	Interagency team-member agencies	Lead	Interagency team-member agencies	On hold

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From: lisa Keenan [redacted]
Sent: Tuesday, October 20, 2026 12:01 PM
To: MN_EQB_Info <info.EQB@state.mn.us>
Subject: Fwd: DC

Hello,

I am writing in regard to my concerns related to the health affects of Hyperscale Data Centers. There have been multiple studies from Harvard, Caltech and other universities that have estimated the the cost of negative impacts on health from data centers could be 11.7 to 20.9 billion dollars annually to public health costs. The pollution impacts don't stay within the city limits they are located in, they will affect much futher. The burdens will no be evenly distributed.

There are 10-20 proposed Hyperscale Data Centers in MN. If these are all approved without stricter regulations the health impacts will be felt for generations to come.

The AUAR completed for the proposed Hyperscale Data Center in Monticello has numerous gaps.

Thank you,

Lisa Keenan

From: Lysa Holmstrom [redacted]
Sent: Tuesday, October 20, 2026 3:39 PM
To: MN_EQB_Info <info.EQB@state.mn.us>
Subject:

Good Morning,

I'm writing to you in regard to my concerns about Hyperscale Data Center development.

I'm not in support of allowing the Small Modular Nuclear Reactors as there are numerous issues associated with them. Including increased waste volume and issues related to contaminated waste. SMRs will only exacerbate the issue of disposal and storage of radioactive waste. The safety and efficacy are unknown and I'm tired of Monticello/Minnesota being the test subjects of unknown risks. While smaller in size they still maintain the same large problems.

The AUAR completed for Monticello is insufficient. It has numerous gaps and the City refused to complete an EIS to address the issues. MCEA currently has a hearing scheduled in December regarding the insufficient AUAR in Monticello. Yet, Monticello has still been moving forward with the project. This is similar to many cities currently across Minnesota.

Communities not only bear the costs for increased utilities, loss of property value, etc. they also bear the costs from illnesses, missed work/school, etc. associated with pollution from power plants, generators, turbines, & waste streams supporting the buildouts. Sleep disruption, increased stress, and impaired concentration can result from Noises caused by cooling systems, fans, generators, & turbines. It's estimated by researchers from UC Riverside, Caltech, & Rochester Institute of Technology using an EPA model that "data center related air pollution could impose roughly 11.7 billion to 20.9 billion in annual public health costs by the year 2028. Meaning Data Center related health costs could rise 213% between 2023-2028. This pollution could contribute to approximately 600,000 asthma symptom cases and 1,300 premature deaths. This pollution can impact communities outside of the direct vicinity of the Hyperscale Data Centers crossing city & state boundaries. The burdens will not be evenly distributed. Meaning that per this study in the counties hosting a Hyperscale Data Center that the per household health costs can reach about 7 times the national average. It's estimated that even operating at 10% of their allowed limit onsite generators in Virginia contribute to approximately 14,000 asthma symptom cases and 13-19 premature deaths due to emissions of high equates to between $220-300 million in annual public health costs. Children tend to bear the brunt of this healthcare burden as their organs are still developing and they take on a greater percentage of pollution compared to their body size. These estimates are prior to the build of the 10-20 proposals for Hyperscale Data Centers in MN and prior to the weakening of

standards on our government regulations. There have been numerous federal actions taken that increase pollution health risks as data centers expand.

Shifting costs to the public is unacceptable. We need to require that developers and end users are held accountable for the costs they are incurring instead of allowing them to shift the costs to the public for this perceived economic benefit to the city they are building in. We (residents, small businesses, etc.) should not be liable for the costs of pollution, health, utilities, water, or infrastructure incurred because of their existence in our community. We want to see the data proving that these costs won't just fall on us the taxpayers.

I would argue that we should wait until we can use more advanced technology like for example in Finland they recapture the heat produced and transfer it through underground pipes to reuse it in places that need it.

Are we willing to jeopardize our communities house values, our resources, what about our health, & what about the health of our children?

Thank you for supporting people who know better, and want to do better.

Lysa

From: Jim Phillips [redacted]
Sent: Wednesday, October 21, 2026 4:16 PM
To: MN_EQB_Info <info.EQB@state.mn.us>; Jim Phillips [redacted]
Subject: Hermantown Data Center and the AUAR comment

Hello.

My name is Jim Phillips and I live in Hermantown.

I'm sure that I do not have to tell you about the proposed hyperscale data center involving the Harmony Group and Google. The majority of our citizens do not want it and have felt misled by city administrators and our city council. The SUP goes to a vote this Monday and there is every indication that it will pass allowing Google the first round of permits needed to build.

Based on the size and scope of this project, we have asked dozens of times for a full and comprehensive EIS rather than the AUAR that the city, as the RGU has decided to use, somehow believing that this is sufficient for a 1.66 million sq ft hyperscale data center.

After doing some research I learned that the definition of "light industrial" stems from a very old and outdated 1988 Minnesota statute (4410.0200 subpart 42a) that allows data centers to fall into a category comparable to a small warehouse or office space that uses far less in water, electricity, waste water and that does not come close to generating the same noise, light, heat and air pollution that a data center will that will take 4-8 years to build. Unfortunately, because this statute has not been updated to include hyperscale data centers (first data center in Minnesota opened in 2014), AUAR's "by law" have been deemed adequate for an environmental review. This is absurd!

We are losing the battle in this state against trillion dollar corporations who are using their financial and legal resources to manipulate towns and cities across this state. They are intentionally taking advantage of insufficient legislation and outdated statutes that would provide critical checks and balances to protect our communities and environment. We are being taken advantage of and I'm afraid all the impacts associated with the speed that they are being built and their proven willingness to take short cuts will be felt for generations to come.

We need your help and I would ask to please forward this email to anyone that can help address the concerns across our state with data centers starting with a mandatory Environmental Impact Statement for all data centers!

Respectfully,

Jim Phillips

Hermantown