



Environment and Natural Resources Trust Fund

2021 Request for Proposal

General Information

Proposal ID: 2021-359

Proposal Title: Uniting Public and Private Sectors to Protect Pollinators

Project Manager Information

Name: Wendy Caldwell

Organization: Monarch Joint Venture

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Project Basic Information

Project Summary: The Monarch Joint Venture will develop a statewide, multi-sector consortium to plan and enact data-driven actions for pollinator habitat conservation and address gaps in baseline research and habitat mapping.

Funds Requested: \$341,000

Proposed Project Completion: 2023-06-30

LCCMR Funding Category: Foundational Natural Resource Data and Information (A)

Project Location

What is the best scale for describing where your work will take place?

Statewide

What is the best scale to describe the area impacted by your work?

Statewide

When will the work impact occur?

During the Project and In the Future

Narrative

Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.

Monarchs, like many pollinators, have experienced dramatic declines recently, which causes concern regarding potential impacts to food systems and ecosystem health. As a gateway to broader conversations, monarchs are an important tool in meeting pollinator conservation needs. To ensure the significant resources Minnesota has invested in pollinator conservation have maximum impact, it is necessary to bring efforts and stakeholders together into a coordinated, statewide effort. Basic pollinator needs are clear – diverse, abundant, and connected habitats; however, enacting conservation at scale requires:

- 1) Sector coordination and engagement (public, private, conservation, rights-of-way, agriculture, municipal),
- 2) Knowledge of existing habitat quantity/quality, and
- 3) Statewide habitat mapping.

Coordination is necessary to leverage each sector's strengths. Each brings unique information needs, strategies for conservation, and community engagement opportunities. Coordination allows space for creating shared goals and priorities, and leverages the existing programs and resources of each participating entity. Thus, long-term coordination can expand and complement efforts already underway.

While some data are available, using standardized monitoring methods across land use types will greatly enhance Minnesota's ability to set appropriate goals and target key areas for pollinator habitat conservation. Habitat mapping is also essential for prioritizing future projects.

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

As a national, multi-sector partnership, we propose to leverage the leadership and infrastructure of the Monarch Joint Venture to establish a Minnesota Pollinator Conservation Consortium that will increase the cohesiveness of Minnesota's pollinator protection efforts. Minnesota's pollinator efforts are exemplary. The state's Lawns to Legumes program gained national attention, state agencies lead through an Interagency Pollinator Protection Team, and NGOs, researchers, and other stakeholders are active across the state. However, there is opportunity to expand collaboration in a new way. As demonstrated by several states including Missouri, Ohio, and Wisconsin, pollinator consortiums have had tremendous success. This model draws together stakeholders to share information, collaborate, and track progress towards statewide pollinator goals. A full-time coordinator facilitates consortium gatherings, oversees working groups, and ensures progress in plan development and implementation. Learning from the challenges of our partners, a major factor delaying conservation action is the lack of information available about the location and value of existing habitat. Using the MJV's national vegetation monitoring protocols, we propose a statewide habitat assessment and across land-use types to establish baselines and targets for Minnesota sectors. Additional efforts to geospatially map habitat statewide will be pursued in consultation with consortium members.

What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?

-A statewide pollinator conservation plan that complements the work of the Interagency Pollinator Protection Team and has actionable goals and targets for each land use sector and long-term investment from a broad set of stakeholders (business, NGO, agency, academic).

-Baseline habitat metrics (milkweed density, floral composition, pollinator use) across the state and in different land use types, including state and federal lands, rights-of-way, agricultural margins, private conservation lands, and other unprotected grasslands.

-A spatial database of pollinator habitat statewide.

-Voluntary commitments from consortium members to advance priorities and actions identified in the plan, including both direct actions and funding.

Activities and Milestones

Activity 1: Minnesota Pollinator Conservation Consortium Meetings

Activity Budget: \$96,045

Activity Description:

To build partnerships and stakeholder investment from early stages of this initiative, we will host and facilitate an introductory summit within the first 6 months of the project, inviting participation from all relevant stakeholders. The event will share knowledge on the current state of pollinators and relevant initiatives around which to form a broader consortium and shared conservation plan. Meeting objectives include establishing topic or sector based working groups responsible for further development of the plan; setting a timeline for plan development, delivery, and implementation; and beginning to identify potential goals, targets, or remaining information needs that will inform the development of the plan and the consortium's efforts. A full-time consortium coordinator position housed within the Monarch Joint Venture will organize and facilitate the consortium and will advance the goals of the consortium and its members. After the initial meeting, subsequent meetings of individual working groups or leadership teams, co-led by relevant consortium members, will commence to advance the development of the conservation plan. In these early stages of the consortium, part of maintaining accountability and building relationships relies on continued check-ins, so another statewide pollinator consortium meeting will occur in the second year.

Activity Milestones:

Description	Completion Date
Hire Minnesota Pollinator Conservation Coordinator	2021-08-31
Host Minnesota Pollinator Summit	2022-01-31
Organize and Facilitate Working Group Meetings	2022-06-30
Host 2nd Annual Consortium Conference or Meeting	2023-06-30

Activity 2: Minnesota Pollinator Conservation Plan Development

Activity Budget: \$68,350

Activity Description:

The initial Minnesota Pollinator Consortium meeting will gather information and priorities from stakeholders statewide to initiate the development of a comprehensive statewide pollinator conservation plan. This plan will complement other Minnesota pollinator reports by integrating data collection objectives and focusing on member collaboration and delivery of priority implementation activities. Plan development will be managed by the Minnesota Pollinator Consortium Coordinator, and subgroups identified at the initial meeting and co-led by consortium members will draft sections relevant to their groups. The Coordinator will synthesize the plan for review by consortium members, and a final plan will be released within a year of the initial consortium meeting. Participating consortium members will be asked to detail voluntary commitments to be included in the plan in order to measure expected progress towards goals and identify implementation gaps. Based on similar plans developed by other state consortiums, we have identified a broad suite of possible stakeholders to recruit and have devised a draft outline for the plan. The plan will include brief sections on pollinator biology, threats, and other background information, but will primarily focus on goals, actions, and metrics for measuring success for each section of the plan.

Activity Milestones:

Description	Completion Date
Complete working group drafts of each section for plan synthesis	2022-06-30

5/18/2020

Complete first fill draft of plan, ready for review	2022-10-31
Integrate consortium member comments into plan and release the final plan	2023-01-31
Review and update plan, and identify timeline for future revisions/plan evaluation	2023-06-30

Activity 3: MN Baseline Pollinator Habitat Assessment and Mapping

Activity Budget: \$176,605

Activity Description:

A comprehensive assessment of pollinator habitat across Minnesota is critical to establish an accurate baseline and set relevant, achievable targets and actions. A two-fold approach to habitat surveying and mapping will feed into consortium prioritization and implementation. We propose mapping pollinator habitat in the Eastern Broadleaf Forest Province, which will augment existing prioritization tools like the Minnesota Prairie Conservation Plan. Mapping pollinator habitat and analyzing it with other criteria (informed by consortium stakeholders and field monitoring) will enable strategic prioritization of conservation actions to maximize return on investment. Additionally, two field crews over two years will conduct habitat surveys in different land use types statewide, at both random and known conservation sites. Habitat data will include floral composition and milkweed density. The Monarch Conservation Science Partnership produced nationally adopted milkweed density targets, and therefore milkweed density is a tangible metric for measuring progress. Pollinator use data at each site will augment existing datasets that support development of the state's annual pollinator report and contribute to broader pollinator research goals. Crews will visit a total of 275-325 sites at least once. Preliminary data will be shared with the consortium and integrated into the conservation plan by the Fall of 2022.

Activity Milestones:

Description	Completion Date
Year 1 data collection complete	2021-10-31
Year 1 preliminary results analyzed and shared with working groups	2022-03-31
Mapping criteria identified by working group of consortium members	2022-06-30
Year 2 data collection complete	2022-09-30
Final dataset analyzed, habitat mapping completed, all is integrated into draft plan	2022-10-31

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Elaine Evans	University of Minnesota Bee Lab	Among many other initiatives and research objectives, the Bee Lab maintains a network of Minnesota pollinator educators, who would be instrumental in expanding the consortium's education goals. They would be an important member of the consortium to share information and available programs for the broader community.	No
Rebeca Gutierrez-Moreno	Minnesota Environmental Quality Board	EQB was charged with developing an Interagency Pollinator Protection Team (IPPT) made up of state agency representatives. The IPPT is responsible for developing an annual pollinator report. EQB and the IPPT would be valued collaborators in the consortium, which could support its goals and stakeholder engagement.	No
Rob Davis	Fresh Energy	Representing the solar and energy sector, Fresh Energy has been a leading partner at engaging this sector in pollinator conservation in Minnesota. Fresh Energy would recruit and lead participation from the energy sector, share information, and contribute to the consortium's broader goals.	No
Tanner Bruse	Pheasants Forever	As a valued partner, Pheasants Forever would help to recruit and engage the agricultural sector, and would serve an important role in delivering habitat through direct restoration efforts and technical assistance.	No
Erin Rupp	Pollinate Minnesota	As an education and advocacy organization, Pollinate Minnesota would be an important collaborator in shaping the communications of the consortium and bringing stakeholders together for the common cause.	No
Sarah Foltz Jordan	The Xerces Society for Invertebrate Conservation	The Xerces Society has been an MJV partner since MJV began. As a collaborator, Xerces would bring leadership, program offerings, information, and more to the broader consortium, helping to advance the group's goals.	No
Chris Smith	Minnesota Department of Transportation	MnDOT has been a valued partner in MJV's efforts to develop tools for roadside managers to assess and prioritize habitat. MnDOT has also developed targets for pollinator habitat conservation efforts in Minnesota. They would be a valued leader in engaging the ROW sector in the consortium.	No
Dan Shaw	Board of Water and Soil Resources	BWSR's pollinator toolkit, Lawns to Legumes program, and early efforts in advancing pollinator habitat mapping in the state make them an important collaborator in this effort. BWSR will advise on habitat mapping activities and will offer resources, information, and various programs to support habitat implementation.	No
Bre Bauerly	Minnesota Native Landscapes	MNL is a valued and trusted native plant provider in the state and has been actively involved in the MJV for several years. They, among other native plant producers, would be an important collaborator in supplying consortium members with seeds and plants for restoration projects.	No
Alan Ritchie	Minnesota Department of Natural Resources	The DNR engaged MJV as it developed state goals for inclusion in the Mid-America Monarch Conservation Strategy (Midwest Association of Fish and Wildlife Agencies). This early foundation provides a starting point for the consortium to build on and advance implementation of through broader stakeholder engagement.	No
Greg Emerick	Sentera	Sentera is a Minnesota based, global company dedicated to advancing precision agriculture through remote sensing technologies. MJV has been working with Sentera to use this technology to advance biological monitoring (counting stems of milkweed). Sentera would bring innovation and increase agricultural engagement to the consortium effort.	No

Long-Term Implementation and Funding

Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this be funded?

As the consortium grows, we will set expectations and voluntary contribution options for members to sustain a Consortium Coordinator through their own financial contributions beyond initial LCCMR funding. This Coordinator will assist working groups in pursuing project-specific funding to move forward Plan priorities. MJV's development team will also leverage its strong network of Minnesota supporters to secure long-term, ongoing funding for the consortium. Project data will be made available to consortium members; the spatial database and habitat data will be highly valuable to other pollinator studies as well as IPPT planning and decision-making, garnering additional support and investment.

Project Manager and Organization Qualifications

Project Manager Name: Wendy Caldwell

Job Title: Executive Director

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

Caldwell brings thirteen years of professional experience in monarch conservation. While pursuing environmental science and entomology at the University of Minnesota, she worked as a coordinator for several initiatives at the University's Monarch Lab. Through her history there, she managed laboratory activities, aided in graduate student research, coordinated citizen science efforts, supported planning and teaching for professional development opportunities for teachers, and organized local, national, and international meetings. In 2013, she became the coordinator of the national Monarch Joint Venture partnership based at the University. In this role, she successfully grew the partnership from 30 organizations nationwide to over 90 today, and increased staff capacity for the program from one half-time position to 9 full-time employees, 2 part-time employees, and 2-6 seasonal positions. From 2017-2019, she led the MJV through a period of growth and transition and facilitated the extraction of the program from the University to become a standalone nonprofit. The University fostered the MJV's growth and development for nearly 10 years, but with faculty leadership shifts and the nature of MJV's national, mission-driven work, the partnership saw an opportunity to grow as a nonprofit. Caldwell led the transition from the University while managing staff to maintain program operations as usual, and while simultaneously setting up the 501c3 nonprofit. In directing the efforts of the MJV and its staff, she has a rich history with building relationships and driving collaboration with many different stakeholders in Minnesota and across the country. Growing up on a farm in west central Minnesota, she also brings a history and understanding of Minnesota's landscape and farming culture, an important aspect in building partnerships across the state. A well-balanced career of partnership building, coordination and facilitation, research, education, habitat development, and administration makes Caldwell an ideal manager to lead this effort.

Organization: Monarch Joint Venture

Organization Description:

Since 2009, MJV has brought together partners from across the country in a unified effort to conserve the monarch migration. This diverse partnership includes government agencies, NGOs, businesses, and academic institutions that work together to implement science-based conservation actions through education, habitat, and research. As the leading authority for monarch conservation in the U.S., MJV maintains a Monarch Conservation Implementation Plan, which serves as a framework to guide conservation planning for stakeholders nationally. Extending beyond the benefits to monarch butterflies, the MJV's mission includes leveraging the charisma of the monarch butterfly to build collaboration and bring together efforts to address a variety of environmental concerns through grassland restoration. MJV drives conservation planning and implementation efforts by facilitating information sharing, partnership building, and carrying out conservation priorities. Partners look to MJV to lead working groups focusing on things like communications, agriculture, or monitoring. Additionally, MJV is the go-to resource for monarch information. While

MJV's coordination activities are national in scope, as a Minnesota based nonprofit, partnerships with Minnesota stakeholders are strong and numerous. Leveraging the organization's expertise, credibility, and organizational infrastructure, MJV sees an opportunity to lead and successfully maintain a Minnesota Pollinator Conservation Consortium.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
Personnel								
MN Pollinator Consortium Coordinator		Lead organizer and facilitator for MN Pollinator Conservation Consortium			26%	2		\$120,000
Science and Monitoring Coordinator		Lead in deploying field survey crews, analyzing results, and synthesizing for consortium use.			26%	0.5		\$30,000
GIS Manager		Oversee geospatial mapping task and GIS analyst, support field survey crews with data collection tools and data management activities, synthesize data for Science/Monitoring Coordinator.			26%	0.26		\$21,600
GIS Analyst		Lead geospatial habitat mapping project and share results with coordinators and consortium members			26%	0.5		\$27,000
Field Technician 1		Travel across Minnesota to survey sites between May and September to collect data for baseline habitat task.			10%	0.5		\$20,020
Field Technician 2		Travel across Minnesota to survey sites between May and September to collect data for baseline habitat task.			10%	0.5		\$20,020
Field Technician 3		Travel across Minnesota to survey sites between May and September to collect data for baseline habitat task.			10%	0.5		\$20,020
Field Technician 4		Travel across Minnesota to survey sites between May and September to collect data for baseline habitat task.			10%	0.5		\$20,020
							Sub Total	\$278,680
Contracts and Services								
TBD	Sub award	Working group co-leaders from consortium member organizations will be selected to help facilitate working group meetings over the 2-year project as their expertise is relevant. Working group topics will be established at the first meeting, so the subaward recipient is still to be determined.				0.1		\$5,000

TBD	Sub award	Working group co-leaders from consortium member organizations will be selected to help facilitate working group meetings over the 2-year project as their expertise is relevant. Working group topics will be established at the first meeting, so the subaward recipient is still to be determined.				0.1		\$5,000
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TBD	Sub award	Working group co-leaders from consortium member organizations will be selected to help facilitate working group meetings over the 2-year project as their expertise is relevant. Working group topics will be established at the first meeting, so the subaward recipient is still to be determined.				0.1		\$5,000
							Sub Total	\$25,000
Equipment, Tools, and Supplies								
	Tools and Supplies	Field work supplies, including plant sampling frames, tape measures, field guides, etc.	These items equip the field crews with what they need to adequately gather accurate data for the baseline habitat surveys.					\$500
	Tools and Supplies	Meeting supplies, like writing utensils, post-its, flip charts, etc.	Working group meetings will use these facilitation materials to advance objectives of respective working groups.					\$450
							Sub Total	\$950
Capital Expenditures								

							Sub Total	-
Acquisitions and Stewardship								
							Sub Total	-
Travel In Minnesota								
	Miles/ Meals/ Lodging	Mileage or car rental with fuel costs for survey crew	Each of 2 field crews will need a vehicle to travel throughout Minnesota to conduct site surveys.					\$22,000
	Miles/ Meals/ Lodging	Field crew lodging (2 crews/year, 2 years), including camping, bunkhouses, hotel, or other options based on weekly needs.	Field crews will need to be on the road throughout Minnesota, so will not be able to be out of one base location and therefore we budget for some overnight lodging to accommodate their survey schedule.					\$10,500
	Other	Venue rental costs and travel to meetings	Anticipating a large number of attendees and additional rooms necessary for breakout meetings, we anticipate meeting costs associated with venue rental, as well as travel for staff to plan and lead meetings that are in other parts of the state.					\$1,870
							Sub Total	\$34,370
Travel Outside Minnesota								
							Sub Total	-
Printing and Publication								
	Printing	Printing costs would support agendas or other informational materials for consortium meetings, as well as datasheets and other materials for field surveys.	Consortium meetings will require basic agendas or other worksheets to meet the goals of the group, and other informational sheets will be taken by participants in those meetings. We keep hard copy field work datasheets					\$2,000

			for each site visit to ensure data are not lost.					
							Sub Total	\$2,000
Other Expenses								
							Sub Total	-
							Grand Total	\$341,000

Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
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Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	-
Non-State				
In-Kind	Monarch Joint Venture unrestricted funds	Indirect costs to support the project (non-fringe benefits) including office space, computer and associated electronic equipment, office supplies, internet, phone, insurance, services, and other utilities are assumed at 10% of direct costs, the de minimis rate.	Secured	\$34,100
In-Kind	U.S. Forest Service cooperative agreement funds and/or MJV unrestricted funds.	MJV's existing staff would provide support, including management/supervision and fundraising. Existing program staff would also advise and participate in the Minnesota Consortium's working group activities and full consortium meetings.	Secured	\$30,000
In-Kind	National Fish and Wildlife Foundation	We have applied for a grant to support a full time habitat technical assistance staff to be based in Minnesota to guide landowners in pollinator habitat restoration. This position would be entirely leveraged to advance the objectives of the consortium regarding habitat restoration and enhancement.	Potential	\$185,000
			Non State Sub Total	\$249,100
			Funds Total	\$249,100

Attachments

Required Attachments

Visual Component

File: [e2d3e87f-14d.pdf](#)

Alternate Text for Visual Component

The graphic illustrates a group of stakeholders gathering to share information and priorities. Resulting from these conversations, icons represent the cooperation and investment that occurs through meeting, as well as information gained to inform mapping criteria. A box and map illustrates the geospatial mapping component (augmenting the MN Prairie Conservation Plan with a map of habitat for the Eastern Broadleaf Region). A second box describes the metrics (nectar resources, milkweed density, and pollinator use) that would be collected through field surveys. Meetings, mapping, and baseline data collection all point to a centralized Minnesota Pollinator Conservation Plan, which has an arrow leading to "Conservation Actions". Under this heading, icons representing planting, commitment and networking, financial investment, information sharing and collaboration, and evaluation illustrate the tangible outcomes completed by consortium members.

Financial Capacity

File: [99299f44-ba8.pdf](#)

Board Resolution or Letter

Title	File
MJV Board of Directors Resolution	50074808-2be.pdf

Optional Attachments

Support Letter or Other

Title	File
Explanation of financial capacity	6202ccd1-b5b.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Does your project have patent, royalties, or revenue potential?

No

Does your project include research?

Yes

Does the organization have a fiscal agent for this project?

No

Minnesota Pollinator Conservation Consortium

The Monarch Joint Venture will develop a statewide, multi-sector consortium to plan and enact data-driven actions for pollinator habitat conservation and address gaps in baseline research and habitat mapping.

Consortium Meetings and Working Groups

Agriculture - Conservation - Energy - Transportation - Urban/Municipal - Private & Public Sectors



Informs mapping criteria



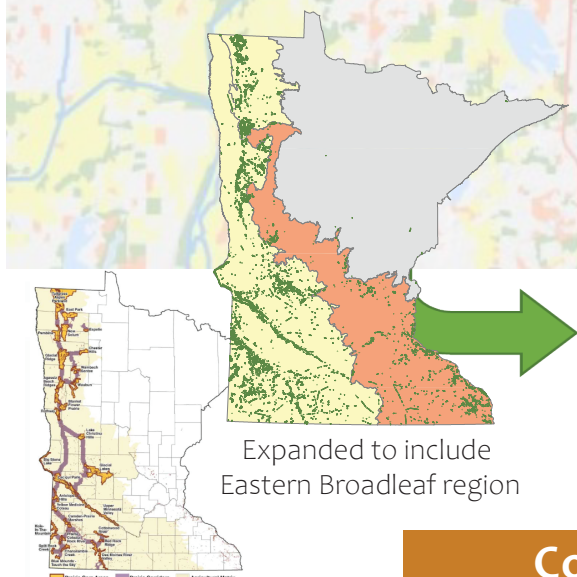
Gather information and priorities from stakeholders



Cooperation and investment in the consortium, plan, and conservation actions

Pollinator Habitat Mapping

Create spatial database of pollinator habitat (build off of existing work done in the Western Prairie Region - MN Prairie Conservation Plan)



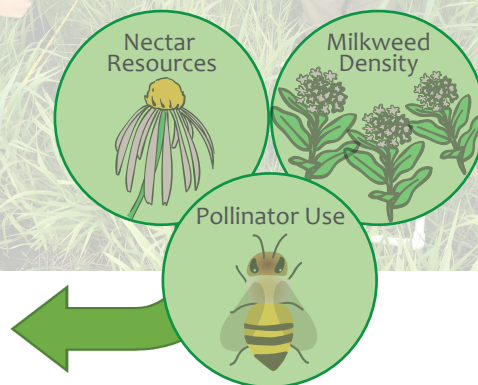
Expanded to include Eastern Broadleaf region

Minnesota Pollinator Conservation Plan



Baseline Data Collection

Collect baseline habitat metrics across an array of land use types and ownerships throughout the state



Informs the Pollinator Conservation Plan and prioritizes conservation efforts

Conservation Actions

Commitment from consortium member organizations and agencies to advance priorities and actions identified in the plan, including both direct actions and funding



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