Environment and Natural Resources Trust Fund

2027 Request for Proposal

General Information

Proposal ID: 2027-261

Proposal Title: Milkweed Renaissance: Conservation-Compatible Milkweed Supply Chain

Project Manager Information

Name: Wenqing Zhang

Organization: U of MN - Duluth

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Project Basic Information

Project Summary: Design a conservation-compatible milkweed supply chain that analyzes market potential, aligns stakeholder incentives, and creates public tools to reward milkweed protection while supporting monarch habitat and native biodiversity.

ENRTF Funds Requested: $1,579,000

Proposed Project Completion: June 30, 2030

LCCMR Funding Category: Resiliency (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.

Minnesota needs more milkweed on the landscape, but the key barrier is not simply locating where milkweed occurs. Milkweed is still widely treated as a weed on roadsides, rights-of-way, farms, and other working lands, where mowing and herbicide use often remove it. At the same time, milkweed has potential value as seed, pods, fiber/floss, and other plant-based materials. If that value is organized through a conservation-compatible supply chain, it can create incentives to protect milkweed rather than eliminate it.

The opportunity is to connect habitat conservation with economic motivation through: (1) better understanding of the economic potential of milkweed products; (2) a supply-chain system that aligns the interests of monarch conservation, biodiversity protection, farmers, harvesters, Indigenous households, manufacturers, and downstream markets; (3) public standards and stewardship safeguards so harvest and cultivation don't damage native habitats; and (4) practical guidance on which milkweed species, source populations, and management approaches can support collection and production in ways that are compatible with monarch breeding and broader biodiversity goals.

Existing milkweed monitoring efforts already provide a useful foundation. The more urgent need is to turn that knowledge into practical systems, standards, and incentives that make milkweed protection economically and ecologically worthwhile across Minnesota.

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

We will develop a stewardship-first milkweed supply chain model that makes protecting milkweed more valuable than removing it. The project will begin by analyzing the economic potential of milkweed products, including seed, pods, and fiber/floss, and identifying realistic market pathways in Minnesota. We will also map the roles, interests, and constraints of key stakeholders, including monarch and biodiversity groups, farmers, harvesters, Indigenous households, public land managers, processors, manufacturers, and restoration and consumer markets.

To build this system, we will design the full pathway from milkweed source populations to end use. This includes identifying suitable supply areas, defining stewardship-based harvest eligibility, establishing quality and handling standards for different products, developing aggregation, storage, and transport procedures, and creating contracts and incentives that reward conservation-compatible participation. This model will connect entities already engaged in milkweed seed collection, propagation, etc. into a coordinated and scalable supply network.

Rather than start with statewide mapping from scratch, we will use existing datasets and practitioner knowledge to identify large, stewardship-compatible populations for targeted verification. We will test establishment, collection, and management practices for priority non-listed species and convert the results into public standards, implementation tools, and trainings that support monarch habitat, biodiversity, and long-term milkweed protection.

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?

Project outcomes will include: (1) an economic analysis of milkweed seed, pod, and fiber markets; (2) a stewardship-first supply chain model identifying roles, incentives, and safeguards for key stakeholders; (3) public standards for site eligibility, harvest timing, handling, storage, and transport; (4) a targeted inventory of large, stewardship-compatible milkweed populations; (5) tested protocols and tool for priority milkweed species and collection practices; and (6) public training materials and implementation tools. These outcomes will help protect milkweed, expand monarch habitat, reduce herbicide use, strengthen native plant supply for restoration, and conserve biodiversity in Minnesota's native plant communities.

Activities and Milestones

Activity 1: Economic and Stewardship-First Milkweed Supply Chain Analysis

Activity Budget: $631,600

Activity Description:
Lead the project by analyzing the economic potential of milkweed products and designing a stewardship-first supply chain that makes protecting milkweed more valuable than removing it. We will assess realistic Minnesota opportunities for milkweed seed, pods, fiber/floss, and other feasible product uses; identify likely buyers, processors, and market constraints; and evaluate how key stakeholders, such as monarch and biodiversity groups, farmers, harvesters, Indigenous households, land managers, manufacturers, and downstream markets, can participate in ways that support conservation. We will explicitly identify current entities and define how the model can connect them into a coordinated, non-proprietary, and scalable supply network rather than duplicating existing capacity. Using this analysis, we will develop a public supply-chain framework that defines where value is created, what stewardship conditions must govern harvest and use, how seed and plants move through the system, and how contracts and incentives can reward habitat-positive participation. Outputs will include product pathway analysis, stakeholder/incentive mapping, a current-entity connector model, seed-processing specifications, and a practical supply-chain model for Minnesota.

Activity Milestones:

Description	Approximate Completion Date
Baseline market and stakeholder assessment completed.	March 31, 2028
Draft supply-chain framework, including seed and plant pathways and seed-processing unit design, released for review.	December 31, 2028
Pilot connector model linking existing entities refined through partner review and feasibility testing.	September 30, 2029
Final economic analysis and scalable stewardship-first supply-chain framework published.	June 30, 2030

Activity 2: Targeted Source-Population Inventory, AI-Supported Field Decision and Reporting Tool, and Real-Time Monitoring

Activity Budget: $442,120

Activity Description:
Build a targeted milkweed source-area inventory for supply-chain implementation by compiling and harmonizing existing Minnesota datasets rather than conducting costly de novo statewide monitoring. We will build from Monarch Joint Venture, agency, refuge, transportation, private-land, and partner datasets and align methods with existing protocols where possible. Working with land managers and field biologists, we will identify large, stewardship-compatible milkweed populations that can realistically support seed and plant production, or seed, pod, or fiber-related collection, without compromising high-quality native habitat.

We will also develop and pilot an AI-supported field decision and reporting tool for harvesters, land managers, and other field participants to submit geo-referenced observations on milkweed condition and health, upload photos, document phenology and pod development, and receive protocol-based guidance on whether pods appear mature enough for picking. The tool will help standardize harvest decisions, reduce premature or harmful collection, improve compliance with harvesting protocols, and create a practical real-time reporting stream from participating sites.

Focused field verification will document site condition, phenology, management context, and collection suitability, while app-based submissions will provide a practical stream of field data during flowering and pod maturity windows. Screened data will be incorporated into a public GIS package, reporting dashboard, and prioritization guide.

Activity Milestones:

Description	Approximate Completion Date
Existing datasets assembled; reporting requirements and app specifications finalized.	December 31, 2027
Initial source-area inventory completed; prototype AI-supported field decision and reporting tool launched for pilot use.	June 30, 2028
Targeted field verification and pilot app testing completed; pod-maturity decision-support model refined.	November 30, 2028
Final public GIS package, reporting workflow, and prioritization guide released.	May 31, 2030

Activity 3: Field Trials for Stewardship, Establishment, and Conservation-Compatible Collection.

Activity Budget: $315,800

Activity Description:
Install and monitor field trials and demonstration sites to generate Minnesota-specific guidance for priority, non-listed milkweeds relevant to restoration, monarch habitat, and supply development: Asclepias syriaca, A. incarnata, A. tuberosa, A. verticillata, and one or two of A. speciosa or A. ovalifolia. For budgeting purposes, the project will plan around 3–5 populations per species, or about 17–25 seed lots total. Trials will test seed handling, establishment, and management practices across roadsides, restorations, and working-land buffers. We will compare mowing timing, selective vegetation control, and collection-compatible stewardship practices and evaluate milkweed vigor, stand persistence, flowering and pod production, monarch use indicators where appropriate, pollinator visitation, and native plant community integrity. Results will define practical safeguards and decision thresholds so increased milkweed use does not degrade biodiversity.

Activity Milestones:

Description	Approximate Completion Date
Species list and seed-lot scope finalized; trial designs completed; sites established.	June 30, 2028
Year 1 monitoring completed; interim results shared.	November 30, 2028
Year 2 monitoring completed; draft stewardship and collection guidance prepared.	November 30, 2029
Final species protocols and decision thresholds finalized.	May 31, 2030

Activity 4: Public Standards, Training, and Technology Transfer for Statewide Adoption.

Activity Budget: $189,480

Activity Description:
We will translate project results into statewide adoption through public standards, implementation tools, training, and an AI-supported field decision and reporting tool that helps users document milkweed condition, upload field photos, assess pod maturity, and follow stewardship-based harvest protocols consistently.

We will produce a stewardship-first harvest standard; site-eligibility and habitat safeguard criteria; product-specific quality standards for seed, plants, pods, and fiber/floss; seed-processing guidance covering cleaning, cold stratification, storage, and handling; aggregation, transport, and connector guidance that links existing growers, collectors, processors, nurseries, and buyers into a scalable statewide network; contracting templates that connect payment or participation to conservation outcomes; and an AI-supported app that helps users document milkweed condition, upload field photos, assess pod maturity, and follow harvest protocols consistently.

We will package these outputs with the economic analysis, stakeholder framework, source-area prioritization guidance,

species trial results, seed-processing specifications, and app-based reporting protocols into a public toolkit for agencies, landowners, harvesters, Indigenous households, manufacturers, nurseries, and conservation partners. Trainings, webinars, and field days will focus on practical adoption: identifying appropriate collection sites, applying stewardship safeguards, documenting compliance, using seed-processing and plant-production protocols, and using the app to support real-time reporting and harvest-readiness decisions.

Activity Milestones:

Description	Approximate Completion Date
Draft standards and outreach plan completed.	March 31, 2028
At least two trainings/field days delivered; materials refined with partner feedback.	September 30, 2029
Final practitioner toolkit and implementation materials published.	May 31, 2030
Final webinar, briefing, and synthesis report delivered.	June 30, 2030

Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Neil Anderson	University of Minnesota	Lead horticulture/propagation expertise: design milkweed establishment and low-herbicide management protocols; develop seed maturity, cleaning, and storage guidance; define quality specs for seed/fiber; and advise pilot logistics and trainings to ensure commercialization incentives reinforce monarch habitat outcomes.	Yes
Wendy Caldwell	Monarch Joint Venture	Lead coordination and dissemination. She will align project protocols with monarch conservation best practices, connect the team to agency and NGO networks, co-host trainings and webinars, and integrate the project's stewardship-first standards and guidance into Monarch Joint Venture toolkits and communications for broad adoption.	Yes
Evangeline Moen	Depot Studios	Lead community and stakeholder engagement. She will convene landowners, tribal and rural partners, and agencies; co-design culturally responsive trainings; coordinate site recruitment and feedback loops; and help package public-facing materials that translate monitoring and supply-chain standards into implementable stewardship actions across Minnesota priority landscapes.	Yes
Lisa Schutz	MN Food Rescue	Lead community-based milkweed stewardship and harvester training. She will develop culturally responsive protocols and certificate materials for pod/seed collection, coordinate volunteer/landowner participation, and support aggregation logistics consistent with the project's stewardship-first standards, ensuring collection reinforces monarch habitat protection and reduced herbicide	Yes
Edward St. John	Mille Lacs Band of Ojibwe	Serve as Tribal partnership lead in a consultant capacity: advise culturally appropriate engagement, coordinate site selection and participation where desired, guide stewardship practices that protect monarch habitat and culturally significant resources, and review data-sharing/dissemination approaches to ensure respectful, mutually beneficial outcomes.	Yes
Tom Uecker	Duluth Monarch Buddies	Help train local monitors on standardized protocols (milkweed/nectar resources, monarch use indicators where appropriate, management documentation); facilitate coordination with municipal/county partners to implement habitat-positive mowing/herbicide timing; contribute Northland case studies and co-host at least one Duluth/North Shore field day to accelerate adoption of project tools.	Yes
Cathy Wood	Duluth Monarch Buddies	Develop and deliver training content (presentations, checklists, quick-start guides) tailored to Northland land types; disseminate toolkit materials through community networks; gather structured participant feedback to improve usability of guidance and standards; support consistent ENRTF acknowledgement on outreach materials and at public events/field days.	Yes
Kristen A Baum	Monarch Watch	Serve as monarch and pollinator ecology advisor, providing input on the design, implementation, and results of the project. She will provide educational webinars and contribute to peer-reviewed publications and outreach materials for Minnesota partners.	No

Dissemination

Describe your plans for dissemination, presentation, documentation, or sharing of data, results, samples, physical collections, and other products and how they will follow ENRTF Acknowledgement Requirements and Guidelines.
We will disseminate project results through public standards, implementation tools, a public GIS package and reporting workflow, an AI-supported field decision/reporting tool, and a practitioner toolkit that packages the economic analysis, stakeholder framework, species protocols, source-area guidance, and seed-processing specifications for statewide use. Findings will be shared through trainings, webinars, field days, demonstration sites, implementation meetings, and a final webinar, briefing, and synthesis report, with materials refined through partner and participant feedback. Dissemination will be supported by statewide partners including Monarch Joint Venture, Depot Studios, SE MN Food Rescue, Duluth Monarch Buddies, and Tribal collaborators to reach agencies, landowners, harvesters, Indigenous

households, manufacturers, nurseries, and conservation partners. All public-facing materials and events will follow ENRTF Acknowledgement Requirements and Guidelines, and final materials will remain publicly available after project completion.

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 work be funded?

Project results will be implemented through public standards, supply-chain tools, species protocols, and trainings that agencies, landowners, harvesters, Indigenous households, manufacturers, and conservation partners can adopt after project completion. These products will support stewardship-based milkweed collection, propagation, and market development in restoration, roadside, refuge, and working-land programs. Ongoing implementation costs, including aggregation, contracting, collection, processing, and market development, will be supported by non-ENRTF sources such as participating businesses, partner programs, tribal and community initiatives, Extension and conservation networks, and future applied grants. Public datasets, standards, and training materials will remain available statewide for continued use.

Project Manager and Organization Qualifications

Project Manager Name: Wenqing Zhang

Job Title: Associate Professor

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

Dr. Wenqing Zhang is uniquely qualified to manage this project because its success depends on designing a practical, conservation-compatible supply chain that turns milkweed from a "weed to control" into a habitat asset—thereby reducing reliance on herbicides and strengthening monarch breeding habitat. As an expert in Operations and Supply Chain Management at University of Minnesota Duluth, Dr. Zhang brings the analytical tools needed to translate ecological goals into operational systems that work in the field: logistics and aggregation design, quality and chain-of-custody standards, incentive and contract structures, and measurable performance monitoring.

Dr. Zhang's research integrates sustainability and ethical decision-making into supply chain strategy, which is essential for ensuring that commercialization pressures do not undermine habitat outcomes. This perspective directly supports the project's core deliverables—public stewardship-first harvest standards, conservation procurement specifications, and contracting templates that link any payments to verified habitat-positive practices and monarch/pollinator indicators.

He also has a strong commitment to equitable development for Indigenous and rural communities, positioning him to lead stakeholder-driven initiatives that respect local priorities while delivering statewide environmental benefits. Dr. Zhang has successfully managed complex, multi-partner projects by combining rigorous planning, risk mitigation, and transparent communication—skills critical for coordinating field sites, data publication, and partner implementation. Under his leadership, the project will deliver public-facing tools and guidance on schedule, within budget, and aligned with ENRTF's public-purpose requirements.

Organization: U of MN - Duluth

Organization Description:

Labovitz School of Business and Economics (LSBE) at the University of Minnesota Duluth is a dynamic institution dedicated to fostering academic excellence, innovative research, and transformative community engagement in business education. LSBE is committed to preparing future business leaders and entrepreneurs through a comprehensive curriculum that emphasizes ethical decision-making, strategic management, and sustainable economic

practices. The school offers a diverse range of undergraduate and graduate programs designed to equip students with practical skills, critical thinking abilities, and a global perspective, ensuring they are well-prepared to navigate complex business environments.

LSBE's faculty comprises accomplished scholars and industry experts whose research and teaching integrate real-world applications with theoretical foundations. The school's strong emphasis on experiential learning, internships, and collaborative projects creates a vibrant learning environment that bridges classroom theory with practical business challenges. Through strategic partnerships with local businesses, non-profit organizations, and governmental agencies, LSBE contributes significantly to regional economic development and innovation. The Labovitz School of Business and Economics remains a catalyst for positive change, empowering its students and community partners to drive sustainable growth and economic resilience in an ever-evolving global marketplace. LSBE's forward-looking approach and deep industry ties ensure graduates are well-equipped to lead in an ever-changing global economy.

Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	$ Amount
Personnel								
Wenqing Zhang		Serve as the overall project manager, coordinate development and implementation of AI-supported field decision and reporting system, oversee economic and stewardship-first milkweed supply chain analysis, stakeholder engagement, project evaluation, and reporting.			27%	1.05		$288,428
Graduate Research Assistants - Academic Year and Summer		Literature review, interview support, field data support, training prep, administrative support. Benefits calculation includes tuition remission.			45%	1.86		$204,131
Data / GIS / App Research Specialist		Data harmonization, GIS support, app specifications, QA/QC, dashboard coordination.			27%	3		$253,330
Marie Abbey, R5 Research Scientist (Neil Anderson Lab)		Field manager to oversee supply purchases, seed germination and growth experiments (greenhouses) and field trials (fields), supervise undergraduate students			27%	0.45		$48,076
Undergraduate Research Assistants (2, Neil Anderson Lab)		Support research objectives, experimental design and setup, data collection, data entry, production and testing of plant materials in greenhouses and fields			0%	1.59		$54,654
Undergraduate Research Assistant		Support fieldwork, data collection, ecological monitoring, and assist with community workshops and outreach activities			0%	1.41		$46,712
							Sub Total	**$895,331**
Contracts and Services								
Monarch Joint Venture	Subaward	Support the development and refinement of monitoring protocols for milkweed establishment and pollinator use; assist with data compilation and management across project partners, and contribute to analysis and synthesis of monitoring results to inform adaptive management.				0		$116,145

Depot Studios	Subaward	Convene landowners, Tribal and rural partners, agencies, and other collaborators; co-design culturally responsive trainings; coordinate site recruitment and feedback loops; and help package public-facing materials that translate project monitoring, stewardship, and supply-chain guidance into implementable actions across Minnesota priority landscapes.				0		$54,000
SE MN Food Rescue	Subaward	Assist with development of stewardship harvest protocols, culturally responsive training materials, and certificate materials for pod and seed collection; coordinate community-based stewardship implementation, including volunteer and landowner participation in trainings, field demonstrations, and pilot harvest activities; support stewardship-compatible aggregation logistics, including handling and related procedures.				0		$144,000
Duluth Monarch Buddies	Subaward	Provide local dissemination and implementation support; contribute usability feedback to final toolkit materials; support continued partner coordination and public-facing communication; adapt project training and outreach materials for Northland audiences and land types; develop presentations and quick-start materials, establish local demonstration and outreach supports.				0		$18,980
Edward St. John / Mille Lacs Band of Ojibwe (consultant)	Service Contract	Serve as Tribal partnership lead; provide guidance on culturally appropriate engagement strategies, stewardship-based harvest considerations, and participation approaches relevant to Tribal and Indigenous partners; support Tribal partnership coordination and stewardship guidance as the project moves further into trainings, field demonstrations, and implementation planning.				0		$48,000
App / GIS technical development support	Service Contract	Develop and refine the AI-supported field decision and reporting tool, including photo upload workflow, geo-referenced reporting, pod-maturity decision support, user-interface refinement, testing, debugging, and deployment support.				0		$53,000
TBD - Tribal Partner	Service Contract	Serve as a Tribal implementation partner and host of a pilot milkweed pod collection, seed processing, and stewardship hub; co-design hub operations using existing facilities where appropriate;				0		$32,000

		coordinate community-based collection and intake from approved stewardship-compatible sites; pilot seed/pod drying, cleaning, storage, and quality-control workflows; support GIS-linked source tracking and						
Neil Anderson Lab	Internal services or fees (uncommon)	(Anderson lab) greenhouse space charges: 2 greenhouses (369-C12, C14) totaling 590 ft2; x 365 days/year X $0.0419/ft2/day for Years 1-3.				0		$27,069
(Anderson Lab) field rental charges at RROC, NCROC, WCROC ($1K / Acre, minimum).	Internal services or fees (uncommon)	Rental costs of fields at various UMN sites for milkweed seed trials				-		$9,000
							Sub Total	**$502,194**
Equipment, Tools, and Supplies								
	Tools and Supplies	Pilot hub intake and processing tools: screens, drying racks, bins, work tables, scales, PPE, cleaning tools, decontamination kits.	Support pilot hub intake, drying, cleaning, storage, and quality-control workflows					$24,000
	Tools and Supplies	Field trial establishment materials: seed lots, plugs, plot markers, signage, site-prep materials, startup supplies	Establish and maintain demonstration and trial plots					$24,000
	Tools and Supplies	Field monitoring tools and sample storage: sampling supplies, storage containers, envelopes, labels, pollinator monitoring materials.	Support monitoring and specimen/sample handling					$12,175
	Tools and Supplies	Transport, storage, and intake consumables: bags, totes, coolers, labels, barcode/ID materials.	Support chain-of-custody and intake logistics					$7,000
	Tools and Supplies	General consumables and replacements: batteries, printer supplies, replacement parts, field consumables	Support routine project operations					$5,000
	Tools and Supplies	(Anderson Lab) seed treatment supplies, greenhouse supplies, chemical supplies, seed stock	Support the milkweed propagation and seed production.					$1,100
							Sub Total	**$73,275**
Capital Equipment								

							Sub Total	**-**
Acquisitions and Stewardship								
							Sub Total	**-**
Travel In Minnesota								
	Miles/ Meals/ Lodging	Per Diem: Statewide partner meetings and site visits over 3 years. 28 days @ $65/day for two people, 34 days @ $70/day for two people, 24 days @ $75/day for two people.	Support coordination with partners and site selection					$12,000
	Miles/ Meals/ Lodging	Mileage: Field verification, plot monitoring, and Tribal hub coordination trips. Year 1: 6100 miles @ $0.74/mile. Year 2: 8200 miles @ $0.76/mile. Year 3: 5900 miles @ $0.79/mile	Support site visits, field verification, dissemination, and coordination.					$15,450
	Miles/ Meals/ Lodging	Lodging: Year 1: 14 days @ $140/day for two people; Year 2: 17 days @ $145/day for two people; Year 3: 12 days @ $150/day for two people	Support site visits, field operations, dissemination and practitioner adoption					$12,450
	Miles/ Meals/ Lodging	(Anderson Lab) Three program field sites: RROC ($1300/yr), WCROC ($900/yr), NCROC ($900/yr)	Support field verification and other operations.					$9,300
							Sub Total	**$49,200**
Travel Outside Minnesota								
							Sub Total	**-**
Printing and Publication								
	Printing	Toolkit layout and design	Produce usable public toolkit materials					$5,000
	Printing	Quick guides, checklists, field-day materials, signage	Support trainings and field demonstrations					$7,000
	Publication	Final reports and publication-ready graphics/files	Support final dissemination and reporting					$4,000
							Sub Total	**$16,000**
Other Expenses								
		App hosting, cloud storage, secure data services	Support app testing, data storage, and reporting workflows					$18,000

		Software licenses and data-management platforms	Support GIS, reporting, and project data administration					$10,000
		Meeting room rental, webinar platform, A/V support	Support public trainings, partner meetings, and webinars					$8,000
		Freight, shipping, and postage	Support sample/material shipment and dissemination					$4,000
		Transcription, accessibility formatting, miscellaneous support	Support accessible public materials and meeting documentation					$3,000
							Sub Total	**$43,000**
							Grand Total	**$1,579,000**

Classified Staff or Generally Ineligible Expenses

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

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
In-Kind	UMN unrecovered F&A costs at 54% MTDC	Indirect costs are those costs incurred for common or joint objectives that cannot be readily identified with a specific sponsored program or institutional activity. Examples include utilities, building maintenance, clerical salaries, and general supplies. (https://research.umn.edu/units/oca/fa-costs/direct-indirect-costs)	Secured	$673,718
			State Sub Total	**$673,718**
Non-State				
In-Kind	Monarch Watch	Serve as monarch and pollinator ecology advisor, providing input on the design, implementation, and results of the project. She will provide educational webinars and contribute to peer-reviewed publications and outreach materials for Minnesota partners.	Secured	$36,000
			Non State Sub Total	**$36,000**
			Funds Total	**$709,718**

Total Project Cost: $2,288,718

This amount accurately reflects total project cost?

Yes

Attachments

Required Attachments

Visual Component

File: 62cf79e0-dc9.pdf

Alternate Text for Visual Component

The supply chain begins with identifying stewardship-compatible milkweed populations, filters out sites that should not be harvested, guides compatible collection and handling, and links aggregation, processing, and end uses to contracts and incentives that reward milkweed protection and habitat outcomes....

Supplemental Attachments

Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other

Title	File
UMN submission authorization letter	589896de-41f.docx
Support Letter - Monarch Watch	783dfd71-0cc.pdf
Support Letter - Southeast Minnesota Food Rescue and Redistribution	6bd33853-c1e.pdf
Support Letter - Monarch Joint Venture	6f9bee51-23e.pdf
Support Letter - Duluth Monarch Buddies	4eebe642-ada.pdf
Support Letter - Depot Studio	8e877b4b-83f.pdf

Administrative Use

Does your project include restoration or acquisition of land rights?

No

Do you understand that travel expenses are only approved if they follow the "Commissioner's Plan" promulgated by the Commissioner of Management of Budget or, for University of Minnesota projects, the University of Minnesota plan?

Yes, I understand the UMN Policy on travel applies.

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

No

Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?

N/A

Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?

N/A

Does your project include original, hypothesis-driven research?

No

Does the organization have a fiscal agent for this project?

No

Does your project include the pre-design, design, construction, or renovation of a building, trail, campground, or other fixed capital asset costing $10,000 or more or large-scale stream or wetland restoration?

No

Do you propose using an appropriation from the Environment and Natural Resources Trust Fund to conduct a project that provides children's services (as defined in Minnesota Statutes section 299C.61 Subd.7 as "the provision of care, treatment, education, training, instruction, or recreation to children")?

No

Provide the name(s) and organization(s) of additional individuals assisting in the completion of this proposal:

UMD Sponsored Projects Administration.

Do you understand that a named service contract does not constitute a funder-designated subrecipient or approval of a sole-source contract? In other words, a service contract entity is only approved if it has been selected according to the contracting rules identified in state law and policy for organizations that receive ENRTF funds through direct appropriations, or in the DNR's reimbursement manual for non-state organizations. These rules may include competitive bidding and prevailing wage requirements

Yes, I understand