

**2024 ENRTF Request for Proposal (RFP) - FY2025
Final Proposals Received by Category with Summaries**

Proposal ID	First Name	Last Name	Title	Summary	Organization	Requested \$
A. Foundational Natural Resource Data and Information (22 Proposals / \$15,035,000)						
2024-026	Preston	Dowell	PLSS Restoration T58R13	Restore and certify monuments of the Public Land Survey System. Collect geodetic coordinate values in order to improve foundational Geographic Information System (GIS) data.	St. Louis County	\$218,000
2024-044	Alexis	Grinde	Characterizing Tree Cavities and Use by Minnesota's Wildlife	Pileated Woodpeckers are keystone habitat modifiers that support an array of game, non-game, and conservation concern species. Additional information is needed to understand cavity dynamics for these species.	U of MN, Duluth - NRRI	\$349,000
2024-046	Ardeshir	Ebtehaj	Fate of Minnesota's Lakes in the Next Century	This proposal aims to answer this question: How would the water quality of Minnesota's lakes change in the next century under future scenarios of urbanization, agricultural growth, and climate change?	U of MN, College of Science and Engineering	\$499,000
2024-054	Robert	Blair	Detecting Window Collisions of Minnesota's Migratory Bird Species	We propose developing and implementing a system that will remotely detect bird-building collisions in order to understand where and when collisions occur and expeditiously implement mitigation at identified collision hotspots.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$393,000
2024-068	Sona	Psarska	Determining Ambient Background PFAS Concentrations in Minnesota Soils	This project determines ambient background per- and polyfluoroalkyl substance (PFAS) levels in urban and non-urban soils. This information will help Minnesota develop management strategies for PFAS contaminated soils.	Minnesota Pollution Control Agency	\$655,000
2024-071	Eric	Michel	Investigating Life History Characteristics of Minnesota Elk	We will assess movements, survival, and causes of mortality of Minnesota elk while developing a non-invasive, safer method to estimate population size. This information is important for long-term management efforts.	MN DNR, Fish and Wildlife Division	\$933,000
2024-078	Paul	Putzier	DNR County Groundwater Atlas	This project supports continuing development of the County Groundwater Atlases for approximately two years. The goal is to provide this valuable water and resource management "information infrastructure" to every county.	MN DNR, Ecological and Water Resources Division	\$3,200,000
2024-079	Kristine	Maurer	Collaborative Natural Resources Data Evaluation and Decision-Making	This project will coordinate natural resources conservation by identifying shared and needed datasets, developing a GIS tool to capture boots-on-the-ground knowledge, and sharing this information through a web portal.	Hennepin County	\$405,000
2024-083	Joseph	Bump	Voyageurs Wolf Project - Phase III	Wolf survival and predation in summer are almost unknown but critical to deer, moose, and wolf, management. We'll study wolf predator-prey ecology, share charismatic natural history, and promote Voyageurs' region.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$996,000
2024-088	Michael	Joyce	Distribution and Population Status of Weasels in Minnesota	We will determine the distribution, relative density, and spatial occupancy patterns of 3 small weasel species in Minnesota to fill key knowledge gaps in weasel distribution and status in Minnesota.	U of MN, Duluth - NRRI	\$400,000
2024-172	Mingzi	Xu	Sublethal Effects of Pesticides on Invertebrate Community	This project seeks to provide data on pesticide contamination in soil, water and the insect community across the state and the effect of exposure to insecticide exposure on insect reproduction.	U of MN, College of Biological Sciences	\$398,000

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2024-183	Benjamin	Anderson	Carlton County Remonument	Restore and certify monuments of the Public Land Survey System. Collect geodetic coordinate values in order to improve foundational Geographic Information System (GIS) data.	Carlton County	\$292,000
2024-186	Bruce	Carlson	Modernizing Minnesota's Plant Community Classification and Field Guides	Update the state's 20-year-old native plant community classification guides to incorporate new data; streamline user application and access to products; and increase connections to evolving climate and vegetation trends.	MN DNR, Ecological and Water Resources Division	\$1,800,000
2024-192	Erik	Runquist	Assessing Prairie Health to Inform Pollinator Conservation	We will assess the environmental quality of prairies across Minnesota. On-the-ground surveys and contaminant risk assessments will help inform partner management actions, endangered species recovery plans, and pollinator reintroduction efforts.	Minnesota Zoological Society	\$297,000
2024-193	Alec	Lackmann	Understanding Native Fishes in the Bowfishing Era	Minnesotans increasingly value native fishes. For example, >95% of bowfished species in MN are native, yet all are poorly understood. Foundational natural resource data is absolutely necessary for all stakeholders.	U of MN, Duluth	\$588,000
2024-199	Jiarong	Hong	Real-Time Monitoring of Statewide Pollen in Minnesota	Develop a smartphone-based, real-time pollen monitoring system using digital inline holography to track plant biodiversity, pollinator health, and invasive species, informing conservation efforts and aiding allergy sufferers.	U of MN, St. Anthony Falls Laboratory	\$229,000
2024-215	Meggan	Craft	White-Tailed Deer Movement and Disease in Suburban Areas	Our project aims to better understand white-tailed deer movement, habitat use, and disease dynamics at the suburban/agricultural interface to inform more efficient deer management and disease control.	U of MN, College of Biological Sciences	\$699,000
2024-220	Matthew	Tierney	Minnesota Ecological Design Toolkit	Develop an online toolkit that allows designers, engineers, state employees, developers and others to rapidly understand the ecological and cultural context of a site and implement sustainable design strategies.	U of MN, Center for Sustainable Building Research	\$433,000
2024-223	Barbara	Lusardi	Geologic Atlases for Water Resource Management	Geologic atlases provide maps/databases essential for improved management of ground and surface water. This proposal will complete current projects and start new projects to equal about 4 complete atlases.	U of MN, MN Geological Survey	\$1,236,000
2024-247	Axel	Garcia y Garcia	Harnessing Cover Crops and Roots for Sustainable Cropping	This project proposes to increase the adoption of cover cropping in southern Minnesota to address issues of loss of diversity and environmental degradation. By generating important information on cover crops,	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$375,000
2024-278	Lauren	Lynch	Genetic Detection of Endangered Mussels in the Mississippi	This project will create and optimize eDNA assays to detect the presence of 8 endangered or threatened mussel species around Buffalo Slough near Prairie Island Indian Community.	US Geological Survey, Ohio Water Microbiology Lab	\$241,000
2024-288	Leif	Olmanson	Minnesota Lake Water Quality and Temperature Forecasting App	App to deliver up-to-date actionable comprehensive lake water quality and temperature information to Minnesota swimming, boating, fishing, and lake management communities to improve natural, recreational, and travel experiences.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$399,000
					Subtotal =	\$15,035,000
A. Foundational Natural Resource Data and Information						

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H. Small Projects (21 Proposals / \$3,854,000)						
2024-011	Patrick	Veraguth	Grant County Public Land Survey System Project	Remonumenting and Certifying 90 Public Land Survey System in Grant County.	Grant County	\$200,000
2024-014	Virginia	Breidenbach	Native Plant Community Data in City of Duluth	Develop Native Plant Community data and maps for the City of Duluth and St. Louis River estuary to support conservation and restoration activities.	Minnesota Land Trust	\$198,000
2024-024	Nicolas	Jelinski	Soil Data Integration into the Ecological Classification System	We will integrate soil data into the Minnesota Native Plant Community (NPC) Classification to provide high-resolution predictions of most probable native plant communities to assist managers in developing restoration targets.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$170,000
2024-036	Lienne	Sethna	Reconstructing Historical Wild Rice to Understand Its Future	We will characterize environmental drivers contributing to the decline of wild rice using lake sediment cores to reconstruct historical wild rice abundance in relation to lake and watershed stressors.	Science Museum of Minnesota, St. Croix Watershed Research Station	\$200,000
2024-040	Jenny	Sanders	PLSS Section Corner Remonumentation	Restore and certify monuments of the Public Land Survey System. Collect geodetic coordinate values in order to secure land boundaries and improve foundational Geographic Information System (GIS) data.	Morrison County	\$195,000
2024-048	Annette S.	Lee	Turtle Island Skywatchers – Minnesota Research and Data Visualization	Turtle Island Skywatchers - Innovative Research and Data Visualization project works to protect Minnesota water, wildlife, and natural resources while empowering Indigenous youth as leaders and all citizens as researchers.	Native Skywatchers Inc	\$200,000
2024-063	Matthew	Petersen	Monitoring Minnesota’s Insects: Connecting Habitat to Insect Prey	The protection of insect-feeding animals is reliant on sustained insect abundance. We will investigate the ecological roles and energy transfer by Minnesota insects and train future insect researchers.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$199,000
2024-065	Liz	Lund	Roseau County Re-Monumenting of Jadis & Spruce Township	Restore and certify monuments of the Public Land Survey System. Collect geodetic coordinate values in order to improve foundational Geographic Information System (GIS) data.	Roseau County	\$156,000
2024-072	Kyle	Johnson	Foundational Data for Moth and Butterfly Conservation	This project will build the first comprehensive list of Minnesota moths and butterflies. Information gained through surveys and outreach efforts will inform land managers and inspire public appreciation.	MN DNR, Ecological and Water Resources Division	\$195,000
2024-118	Daniel	McAninch	Public Land Survey Monument Restoration T 140 R29	Restoration and maintenance of the Public Land Survey(PLS) monuments in Woodrow Township, T 140 N, R 29 W, Cass County Minnesota.	Cass County Highway Department	\$160,000
2024-119	Wayne	Hensche	T64NR4E- PLS Corner Restoration	Restoration of 90 PLS land/protracted corners in 12 sections of T64N R4E, 4th PM, Cook Co. No corners presently exist in the entire area negating any safe environmental practices.	Cook County	\$165,000

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2024-123	Chad	Gramentz	Kanabec County PLS Corner Restoration	Restore 63 Public Land Survey corners in Kanabec County, located in 4 Townships (Ford, Peace, Knife Lake, and Arthur Townships).	Kanabec County	\$152,000
2024-150	Holly	Bernardo	Improving Aquatic Plant Knowledge for Healthy Waters	Enhance knowledge of Minnesota's native aquatic plant biodiversity, the backbone of healthy aquatic systems, by delivering data products that support conservation, protection and management for decision-makers and scientists.	MN DNR, Ecological and Water Resources Division	\$198,000
2024-158	Ron	Moen	New Small Mammal Monitoring Methods for Minnesota	We will develop camera trapping methods for small mammals, a new tool in the toolbox to fill key knowledge gaps in status of Minnesota mammal species.	U of MN, Duluth - NRRI	\$199,000
2024-160	Steven	Van Natta	Natural Resources Inventory/Analysis for Restoration and Resilience	UMLA will conduct a comprehensive floristic inventory and assessment to understand and identify resiliency, community changes, and restoration priorities across UMLA's natural communities.	U of MN, Landscape Arboretum	\$63,000
2024-163	Ron	Moen	Status of Bats and Roost Trees after White-Nose	We will deploy acoustic detectors and revisit roost trees identified in our previous ENRTF project to measure effect of seven years of white-nose syndrome on Minnesota bats.	U of MN, Duluth - NRRI	\$195,000
2024-206	Ya	Yang	Preserving Minnesota Wildflower Information	We propose to integrate Minnesota Wildflowers Information, an online tool for plant identification, with the Minnesota Biodiversity Atlas, to preserve and extend this popular ENRTF-supported resource for future use.	U of MN, Bell Museum of Natural History	\$199,000
2024-222	Victoria	Hall	Highly Pathogenic Avian Influenza and Minnesota Raptors	Evaluation of Minnesota raptors, in rehabilitation and free ranging settings, for current or previous exposure to highly pathogenic avian influenza virus to better understand outbreak impacts to raptor populations.	U of MN, Raptor Center	\$187,000
2024-224	Wendy	Caldwell	Remote Sensing for Pollinator Habitat	This project uses remote sensing technology (UAVs) to evaluate pollinator habitat on energy and transportation lands across Minnesota.	Monarch Joint Venture	\$180,000
2024-251	Daniel	Tix	Effects of Conservation Grazing on Solar Pollinator Habitat	This research will analyze the effects of sheep grazing and mowing on the vegetation of solar sites that have been managed for pollinator habitat.	Minnesota Native Landscapes	\$88,000
2024-290	Michelle	Terrell	Ensuring Continued Access to Minnesota's Ornithological Records	Continued online access to statewide avian records and information maintained by the Minnesota Ornithologists' Union requires that the MOU contract with a website development vendor to modernize its custom website.	Minnesota Ornithologists' Union	\$175,000
2024-296	Todd	Arnold	Integrated Population Modeling for Trumpeter Swans	We will compile all available data for Minnesota Trumpeter Swans and use these sources to model historical population abundance and predict future population dynamics.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$180,000
					Subtotal =	\$3,854,000
B. Water Resources (23 Proposals / \$13,806,000)						

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Proposal ID	First Name	Last Name	Title	Summary	Organization	Requested \$
2024-037	Ardeshir	Ebtehaj	Hyperspectral Characterization of Toxic Harmful Algal Blooms	The project will investigate why, when, and where different species of harmful algal blooms release toxins into the water using hyperspectral microscopic imaging towards developing early warning remote sensing tools.	U of MN, St. Anthony Falls Laboratory	\$399,000
2024-057	Grace	Wilson	Characterization of Chemicals in Structural Fire Wastewater	The wastewater from extinguishing structural fires will be analyzed to identify and characterize chemicals present and better understand potential toxicity to humans and water systems.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$369,000
2024-061	James	Cotner	Climate Change and Management Effects on Lake Methane	Rising temperatures and increased precipitation contribute to decreased oxygen and increased methane in Minnesota lakes and wetlands. We will identify impacts on water quality and methane emissions, providing management guidance.	U of MN, College of Biological Sciences	\$599,000
2024-073	Timothy	LaPara	Enhancing Wastewater Treatment while Bioprospecting for Novel Pharmaceuticals	We will generate genome sequences of bacteria growing in wastewater treatment bioreactors, allowing us to improve phosphorus and nitrogen removal from wastewater in Minnesota and to discover novel pharmaceutical compounds.	U of MN, College of Science and Engineering	\$690,000
2024-086	William	Arnold	Fluorine Beyond PFAS: Pesticide and Pharmaceutical Degradation	The project will assess the fluorinated breakdown products produced from pesticides and pharmaceuticals to identify potentially persistent or toxic byproducts and allow development of sustainable chemistries.	U of MN, College of Science and Engineering	\$560,000
2024-152	Ted	Preister	Red River Basin Nutrient Offset Plan	The overall purpose of this project is to develop and implement an effective basin-wide plan for the implementation of water quality offset program the Red River Basin of the North.	Red River Basin Commission	\$469,000
2024-161	Bo	Hu	Novel Nutrient Recovery Process from Wastewater Treatment Plants	This proposal requests renewed funding for a new integrated process with potential to promote nutrient removal/recovery and renewable energy production at rural municipal and industrial wastewater treatment plants (WWTP).	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$486,000
2024-164	Bonnie	Keeler	Visitor Perceptions of Lake Water Quality	Use mobile AI-assisted technologies to survey lake visitors. Assess perceptions of water quality and perceived threats. Combine survey data with water quality trend monitoring to inform lake management.	U of MN, Humphrey School of Public Affairs	\$411,000
2024-173	Christopher	Filstrup	Wildfire Impacts on Mercury Cycling in Wilderness Lakes	Increasing wildfires in Minnesota are mobilizing mercury and degrading water in wilderness lakes, potentially causing increased mercury concentrations in fish. We will develop approaches to protect our lakes and fish.	U of MN, Duluth - NRRI	\$297,000
2024-203	Junaed	Sattar	Robotic Detection and Cleanup of Harmful Algal Blooms	This project will prototype a distributed robotic system that relies on observations from two autonomous aerial and surface vehicles to properly detect and clean harmful algal blooms from Minnesota's lakes.	U of MN, College of Science and Engineering	\$1,213,000
2024-210	Tianhong	Cui	Sulfate Sensors for Monitoring Water Pollution in Minnesota	We propose to develop a small, cheap, and accurate sensor using a graphene transistor to monitor sulfate concentrations for protection of wild rice waters and the environment in Minnesota.	U of MN, College of Science and Engineering	\$460,000
2024-211	Nigel	Pickering	Open Living Database for Stormwater Costs and Benefits	This project will collect data and create an open living database for stormwater treatment costs and benefits. The database will be easily accessible, inflation adjusted, and support future plug-in tools.	Geosyntec Consultants, Inc.	\$300,000

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2024-213	Wendy	Moylan	Flood and Drought Prediction for Minnesota	This project will analyze existing and projected data to develop simple tools to predict the effect of land use and climate change on extreme floods and droughts.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$499,000
2024-216	Miki	Hondzo	Rapid Pathogen Detection and Mitigation in Minnesota Lakes	Protection and enhancement of Minnesota waters by rapidly detecting, forecasting, and selectively mitigating viral and bacterial pathogens. Public and policymaker education on how to detect and mitigate emerging pathogens.	U of MN, College of Science and Engineering	\$646,000
2024-226	Natasha	Wright	Recovering Salts from Highly Saline Wastewater	We aim to develop a method of recovering useful salts from concentrated saline waste, increasing the economic sustainability of high water-recovery softening, sulfate removal, and industrial wastewater treatment.	U of MN, College of Science and Engineering	\$241,000
2024-233	Roger	Ruan	Integrated Bioprocessing of Organic Wastes towards Resource Circularity	Assess the effectiveness of novel integrated bioprocessing approaches for treatment and valorization of organic wastes towards resource circularity.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$582,000
2024-254	Boya	Xiong	Novel Laundry Filters to Reduce Microfiber Pollution	We will make a novel and effective laundry filter that can capture all types of microfibers to reduce plastic pollution in Minnesota's waterways.	U of MN, College of Science and Engineering	\$230,000
2024-257	Andrew	McCabe	Breaking the PFAS Cycle with a Full-Scale Demonstration	This full-scale pilot will evaluate supercritical water oxidation (SCWO) for managing PFAS in biosolids and water treatment residuals. SCWO can destroy PFAS in a variety of wastes and recover energy.	Barr Engineering Co.	\$1,724,000
2024-260	Beatriz	Baselga Cervera	Biogeography of Cyanobacteria and Their Toxins Across Minnesota	Knowledge regarding the occurrence and spread of cyanobacteria and their cyanotoxins across time and space is only in its infancy. We propose a systematic phylogenetic survey of Minnesota freshwater bodies.	U of MN, College of Biological Sciences	\$285,000
2024-265	Joe	Magner	Water and Ecosystems at Risk in Northeastern Minnesota	Northeastern Minnesota contains rich yet fragile unique public land and water. Changes in precipitation and recreation vehicle use may threaten pristine water quality, and the ecological character of the region.	U of MN, College of Science and Engineering	\$406,000
2024-267	Jana	Danker	Remove Pollutants from Well Water on Superfund Sites	Demonstrate a suite of technologies to remove dioxins and hydrocarbon contaminants from the water on Minnesota superfund sites.	Akiing 8th Fire	\$697,000
2024-276	Jeffrey	Strock	Ditches: Potential Water Storage Domain Providing Multiple Co-Benefits	This research project will demonstrate that ditch management is highly effective at protecting water quality and increasing water storage on the landscape. Guidance will be developed for resource managers statewide.	U of MN, Southwest Research and Outreach Center	\$1,122,000
2024-279	Adam	Heathcote	Uncovering the Past to Protect Minnesota's Walleye Fisheries	We will reconstruct historical lake conditions to identify factors linked to successful walleye fisheries and guide effective management in the face of warming temperatures, invasive species, and nutrient loading.	Science Museum of Minnesota, St. Croix Watershed Research Station	\$1,121,000
					Subtotal =	\$13,806,000
B. Water Resources						
H. Small Projects (9 Proposals / \$1,543,000)						

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2024-038	Andrew	Wickert	Stormy Southern Minnesota: Future Floods, Erosion, and Management	Frequent extreme floods are reshaping southern Minnesota's rivers and valleys. We aim to uncover their causes and predict future flood statistics alongside their impacts on river widening and erosion.	U of MN, St. Anthony Falls Laboratory	\$200,000
2024-077	Heidi	Quinn	Improving Water Efficiency Programming with Measurable Outcomes	The project will accelerate the implementation of three water efficiency programs that are estimated to save 79 million gallons of water annually and serve as an example for other communities.	City of Woodbury	\$200,000
2024-104	Jon	Erickson	KNA Boulevard and Watershed Grant	This project creates rain gardens on the boulevard portions of Kenny Neighborhood, which will help manage stormwater runoff, improve water quality, and enhance the natural beauty of the area.	Kenny Neighborhood Association	\$75,000
2024-209	Tianhong	Cui	Tiny Sensor to Detect Heavy Metals in Fish	We propose to develop an accurate, cheap and easy-to-use microsensor for detection of heavy metals in fish. It can be used for statewide fisheries management and household fish safety inspection.	U of MN, College of Science and Engineering	\$200,000
2024-231	Robyn	Dwight	Keep it Clean Winterized Sanidump Stations	Infrastructure for the safe collection and removal of raw sewage/waste from Shelter holding tanks throughout the winter fishing season.	Upper Red Lake Area Association	\$200,000
2024-258	Yuxin	Miao	Developing a Subfield Scale Soil Nitrate Virtual Estimator	This project will develop a virtual tool that can accurately estimate soil nitrate concentrations to help corn growers, researchers, crop consultants and state regulatory agencies to minimize nitrate contaminations.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$199,000
2024-261	Afton	Clarke-Sather	Empowering Minnesota Lake Associations to Improve Water Quality	This project will lay the foundation for accelerated improvements to water quality by documenting for local Lake Associations a set of governance practices and actions that are most effective.	U of MN, Duluth	\$173,000
2024-269	Andrew	Robertson	Are Stream Restoration Efforts Effective? An Evidence-Based Assessment	Assessing stream habitat improvement projects to improve trout populations and stream health in the Driftless Area.	Saint Mary's University	\$200,000
2024-275	Michael	Grochala	Lino Lakes Water Stewards Program	The City is proposing to implement a web based, interactive application for municipal water customers and City utility staff that provides information to make informed decisions about future usage.	City of Lino Lakes	\$96,000
					Subtotal =	\$1,543,000
C. Environmental Education (26 Proposals / \$18,259,000)						
2024-015	Luke	Reese	Jay C. Hormel Nature Center Supplemental Teaching Staff	This project sustains momentum from the pilot project funded previously by the ENRTF for growing environmental education opportunities for learners from outside of Austin.	City of Austin	\$410,000
2024-017	Christina	Hausman Rhode	Connecting Communities to Voyageurs Classroom & Minnesota's National Park	Voyageurs Conservancy will connect 17,000 Minnesotans to the state's only national park through standards-aligned K-12 education, career-building fellowships, and enhanced programs that engage diverse audiences in the park's conservation.	Voyageurs Conservancy	\$994,000

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2024-023	Seth	Thompson	Supporting Minnesota Teachers Implement Culturally Sustaining Environmental Education	To support teachers in addressing new science standards , we propose a series of workshops across Minnesota facilitating conversation about sustainability and water conservation, specifically integrating western science and Indigenous perspectives.	U of MN, College of Biological Sciences	\$311,000
2024-027	Robert	Blair	Phenology Investigations in Minnesota Schools	Provide professional development workshops at three Greater Minnesota locations for 60 teachers to use phenology education curriculum and community science resources, reaching >7,000 students in the first three years.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$392,000
2024-028	Kelly	Amoth	Get the Lead Out: Lead-Free Fishing Tackle Education	Get the Lead Out is focused on protecting common loons and wildlife through education and outreach about the danger of lead fishing tackle and promoting lead-free tackle alternatives.	Minnesota Pollution Control Agency	\$258,000
2024-034	Suzanne	Baumann	Municipal Wastewater Treatment Facility Operator Toolkit	Provide technical assistance and training resources to statewide municipal wastewater treatment plant operators.	Minnesota Pollution Control Agency	\$449,000
2024-058	Alexander	Frie	Water Science and Policy Fellowships for Minnesota	Minnesota Sea Grant seeks to create a science-policy fellowship program to train Minnesota’s science-policy workforce and advance Minnesota’s water resource policy, emulating Sea Grant’s successful federal-level fellowship program.	U of MN, Duluth - Sea Grant	\$445,000
2024-059	Deborah	Loon	Mentoring Next Generation of Conservation Professionals Phase 2	Internships and apprenticeships on the Minnesota Valley National Wildlife Refuge will introduce 37 diverse young people to careers in the conservation field.	Minnesota Valley National Wildlife Refuge Trust Inc	\$793,000
2024-075	Jeffrey	Marr	Educating Communities to Navigate the Mississippi's Future	The project will develop educational materials on the present day and future Mississippi River within the Twin Cities corridor and will deliver content through a rich media web environment.	U of MN, St. Anthony Falls Laboratory	\$598,000
2024-084	Lori	Nelson	Pilot Recycling Economy, Climate, and Plastics Outreach	Pilot outreach to selected Minnesota households will boost recycling participation based on data-driven behavior change research and updated natural resources, climate, and economic benefit data.	Recycling Association of Minnesota	\$500,000
2024-091	Hannah	Smith	Restoring Land, Reviving Heritage: Indigenous Conservation-Phase Two	This project will restore healthy ecosystems and Indigenous cultural practices. Through expanded programming for preK-12th grade, urban Native students and families will reestablish enduring connections to land and culture.	Belwin Conservancy	\$765,000
2024-099	Beth	Becker	Unlocking Minnesota Wilderness for Youth	Our goals are to engage 100,000 underserved youth statewide in environmental education, engaging them in the conservation and preservation of Minnesota wilderness through the experiences in the outdoors.	YMCA of the North	\$762,000
2024-100	Meg	Krueger	Outdoor Pathways to Environmental Education, Recreation, and Careers	Wilderness Inquiry engages 20,000 Minnesotans through outdoor adventures, promoting equity in access to outdoor activities, places, and careers and supporting stewardship and conservation values for current and future generations.	Wilderness Inquiry	\$1,500,000

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2024-115	Pete	Cleary	Launching Environmental Education at Shepard Farm	Dodge Nature Center will build environmental skills and increase knowledge for 10,000 Minnesota K-6 youth through standards-aligned, outdoor experiences and hands-on learning at our new Shepard Farm property.	Dodge Nature Center	\$639,000
2024-139	Alison	Nyenhuis	The Boundary Waters is Our Backyard	Connecting students from Northeastern Minnesota, especially Ely and Cook County schools, to the Boundary Waters Canoe Area Wilderness through grade-wide day trips and overnight wilderness experiences during the school year.	Friends of the Boundary Waters Wilderness	\$582,000
2024-154	Heidi	Roop	Minnesota Climate and Conservation Solutions for Justice Fellowship	The Climate and Conservation Solutions for Justice Fellowship builds a network of community changemakers to share narratives of hope and lead collective actions to strengthen Minnesota's frontline community climate resilience.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$260,000
2024-176	Betsy	Altheimer	Wakan Tipi/Bruce Vento Nature Sanctuary	Wakan Tipi/Bruce Vento Nature Sanctuary	Lower Phalen Creek Project	\$369,000
2024-177	Timothy	Dudley	Rural MN Mobile Lab: Environmental/Earth Science Education	The CREST team wants to create a mobile lab with innovative, engaging educational activities that would be used to travel to underserved, underrepresented schools and community events in Northwest Minnesota.	U of MN, Crookston	\$459,000
2024-188	Lindsay	Bjorklund	Increasing Accessibility of Environmental Education at Deep Portage	To enhance the accessibility of environmental education and outdoor recreation at Deep Portage Learning Center through projects that provide opportunities and support independence for physically disabled students visiting the campus.	Deep Portage Learning Center	\$228,000
2024-202	Mike	Anderson	Post-Baccalaureate Teacher-Researchers at Macalester's Ordway Field Station	A pilot post-baccalaureate program at Macalester's Ordway Field Station. Recent graduates will be recruited, preferentially from underrepresented groups, for 1-year terms to conduct place-based environmental research, education, and outreach activities.	Macalester College	\$555,000
2024-217	Brian	Huberty	Carbon Goods are Woods!	Forest carbon storage outreach and education with woodland owners and the public. Capacity Building.	Minnesota Forestry Association	\$1,087,000
2024-250	Nikolaos	Papanikolopoulos	Water Quality and Robots: Experientially Educating Minnesotan Youth	We propose educational activities for middle school youth on water quality in Minnesota. Youth will gain skills for measuring water quality and communicating results through group study and hands-on projects.	U of MN, College of Science and Engineering	\$353,000
2024-272	Brian	Nerbonne	Expanding Youth and Family Fishing Opportunities	Expand fishing opportunities in urban areas, teach more kids and families how to fish, and inventory and inform the public about safe and legal shore fishing sites throughout Minnesota.	MN DNR, Fish and Wildlife Division	\$1,162,000
2024-281	Autumn	Hubbell	Implementing the Minnesota River Greenway Interpretive Plan	Dakota County seeks to develop the final design plan for, and fabricate and install, the four remaining interpretive sites or exhibits conceptualized in the Minnesota River Greenway Interpretive Plan.	Dakota County	\$1,800,000
2024-286	Autumn	Hubbell	Implementing the Mississippi River Greenway Interpretive Plan	Dakota County seeks to develop the final design plan for, and fabricate and install, the four remaining interpretive sites or exhibits conceptualized in the Mississippi River Greenway Interpretive Plan.	Dakota County	\$1,800,000

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Proposal ID	First Name	Last Name	Title	Summary	Organization	Requested \$
2024-292	DeAnna	Perkins	North Minneapolis Nature Connection: Storytelling and Leadership Pathways	Loppet and community collaborators will promote urban nature connection for North Minneapolis residents through storytelling, nature and environmental justice programming, and environmental leadership pathways for high schoolers and young adults.	The Loppet Foundation	\$788,000
Subtotal =						\$18,259,000
C. Environmental Education						
H. Small Projects (13 Proposals / \$2,224,000)						
2024-067	MaryLynn	Pulscher	Immersive Outdoor Experiences for Underserved Youth	Underserved teens will engage in immersive outdoor experiences to develop an action-based conservation ethic. Teens will learn new outdoor skills, gain environmental knowledge, and create connections with nature.	Minneapolis Park and Recreation Board	\$200,000
2024-111	Bryan	Wood	Increasing Access to Environmental Education Youth Camps	Osprey Wilds Environmental Learning Center will provide meaningful, hands-on environmental education learning opportunities to underserved rural and metro area children through our day-use and residential summer camps.	Osprey Wilds Environmental Learning Center	\$163,000
2024-129	Jennifer	Swenson	YES! Students Step Up To Reduce Carbon Footprint	YES! (Youth Eco Solutions) will empower Minnesota youth to reduce their carbon footprints by losing 5,000 pounds of CO2 per YES! team each school year.	Prairie Woods Environmental Learning Center	\$199,000
2024-155	Keith	Peterson	Rock Ridge Deep Winter Greenhouse for Environmental Education	Build a deep winter greenhouse on the Rock Ridge ISD 2909 campus and hire a greenhouse coordinator to provide environmental education for elementary and high school students using appropriate curricula.	Iron Range Partnership for Sustainability	\$149,000
2024-168	Sarah	Bignall	Season Watch: Cultivating Young Naturalists with Phenology Education	This education project will continue building the next generation of conservationists in Minnesota by engaging youths and adults in science and outdoor learning through radio, podcasts, newsletters and schoolyard exploration.	Northern Community Radio, Inc.	\$180,000
2024-184	Andy	Chambers	Building Environmental Educator Capacity through Regional Learning Communities	The Science Museum will recruit elementary teachers and students from regions across Minnesota to participate in scaffolded capacity building in watershed education through residencies, on-demand professional development, and annual conferences.	Science Museum of Minnesota	\$190,000
2024-194	Jay	Walker	Great Lakes Aquarium Nature Playscape Improvement	We will create an urban nature playscape with protective shelter and native plants to provide opportunities for aquarium education programs, community members and tourists to be immersed in nature play.	Lake Superior Center and Great Lakes Aquarium	\$176,000
2024-196	Morteza	Maher	Enhancement of Environmental Aspects of Impoundments (Pilot Project)	This pilot project will look innovatively to the existing and planned impoundment projects to enhance their environmental aspects compared to their traditional design.	Middle-Snake-Tamarac Rivers Watershed District	\$126,000
2024-200	Kimberly	Musser	College-School Collaboration to Promote Environmental Career Paths	This project builds partnerships among natural resource professionals, college, middle and high schools to work collaboratively to increase youth exposure to outdoor experiences, environmental issues, and natural resource career paths.	Minnesota State Colleges and Universities, Minnesota State University Mankato	\$174,000

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Proposal ID	First Name	Last Name	Title	Summary	Organization	Requested \$
2024-236	Katy	Chapman	Demonstrating the Resiliency of a 40kW SolarArray	We seek to create a solar and pollinator garden in order to design a curriculum at the K-12 and post-secondary level to engage rural MN students in the STEM field.	U of MN, Crookston	\$200,000
2024-243	Stephen	Swazee	Geolocation Technology for Minnesota Environmental Education	Project will create collaborative community-based partnerships to install permanent geolocation markers that will facilitate environmental education and research, and improve public access and safety in Minnesota's outdoor recreational spaces.	SharedGeo	\$198,000
2024-249	Emily	Barker	Reuse for the Future: Youth Education and Engagement	To offer curriculum-based opportunities for students to learn about reuse and engage in hands-on activities to cultivate excitement for adopting reuse behaviors into their lives, now and in the future.	Reuse Minnesota	\$199,000
2024-273	Nicole	Pokorney	Youth Conservation Empowerment Project	UMN Extension Center for Youth Development will partner with Winona and Rochester ALCs to engage 40 youth in year-long activities that connect, engage, and empower youth as environmental change-agents.	U of MN, Extension Center for Youth Development	\$70,000
					Subtotal =	\$2,224,000
D. Aquatic and Terrestrial Invasive Species (4 Proposals / \$8,650,000)						
2024-089	Robert	Venette	Minnesota Invasive Terrestrial Plants and Pests Center, 6	The Minnesota Invasive Terrestrial Plants and Pests Center (MITPPC) requests \$7 million to fund up to 15 new, high-priority applied TIS research projects to improve Minnesota's natural and agricultural resources.	U of MN, MITPPC	\$7,000,000
2024-097	Vera	Krischik	Mitigating the Spread of Invasive Jumping Worms	Jumping worms are an invasive, exotic that poses a threat to forests by removing soil organic matter and seedlings. It is necessary to develop IPM tactics for mitigating jumping worms.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$516,000
2024-114	Brian	Nerbonne	Implementing Innovative Techniques to Manage Low-Density Invasive Carp	This project will enhance the current program, integrating new invasive carp control and detection methods to monitor and remove invasive carp to avoid establishment in Minnesota.	MN DNR, Fish and Wildlife Division	\$634,000
2024-208	Tianhong	Cui	Sequencing and Portable Device to Detect Invasive Species	This project is to use high throughput sequencing to characterize the invasive species constituency and use this information to develop a low-cost, easy-to-use, point-of-collection portable device to detect invasive species.	U of MN, College of Science and Engineering	\$500,000
					Subtotal =	\$8,650,000
D. Aquatic and Terrestrial Invasive Species						
H. Small Projects (2 Proposals / \$400,000)						
2024-151	Shannon	Wettstein	Oak Wilt Suppression at the Northern Edge III	Suppress oak wilt at the leading edge to prevent infestation in private and public forests to the north and west including Pillsbury State Forest and Camp Ripley.	Morrison Soil and Water Conservation District	\$200,000
2024-198	Declan	Schroeder	Early Detection of Invasive Viruses in Native Pollinators	Forewarned is Forearmed: Our goal is to protect the newly described MN DNR native bees from invasive virus-derived diseases and population declines.	U of MN, College of Veterinary Medicine	\$200,000
					Subtotal =	\$400,000

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Proposal ID	First Name	Last Name	Title	Summary	Organization	Requested \$
E. Air Quality, Climate Change, and Renewable Energy (21 Proposals / \$23,572,000)						
2024-019	Petrina	Rhines	Environmental Welfare through Sustainable Reuse in Iron Range	Protect and preserve Minnesota's environment through sustainable reuse and workforce development initiatives, prioritizing environmental protection and natural resource conservation through socially responsible and sustainable building practices within the built environment.	Birch Group	\$1,103,000
2024-031	Jennifer	Theodore	Next-Gen Refrigeration & Technician Training: A Climate Solution	Preparing Minnesota to meet the call of a national commitment to reduce emissions of high global warming potential refrigerants through training, workforce development, technical and financial assistance.	Minnesota Pollution Control Agency	\$511,000
2024-039	Jason	Allen	Minimizing Minnesota's Landfill Problem by Expanding Waste Diversion	Expanding waste diversion practices across the state this project will: create 16 jobs, reduce greenhouse gas emissions, provide data to measure the social, economic, and environmental benefits of waste diversion.	Better Futures Minnesota	\$2,596,000
2024-049	Todd	Rexine	Building Resilient Urban Forests for Climate Change	We will partner with urban municipalities and school districts to support planting of climate-resilient tree species. Activities include planting trees, gravel bed nursery creation, tree assessment and mapping, and community.	Great River Greening	\$752,000
2024-050	Lawrence	Zanko	Paving the Future with Biochar Modified Asphalt	Use biochar produced from Minnesota biomass in modified asphalt mixes (conventional and recycled material-based) to demonstrate/quantify its greenhouse gas and noxious emission reduction, resource/energy conservation, and economic benefits.	U of MN, Duluth - NRRI	\$369,000
2024-056	Colleen	Hetzel	Modeling Emissions Data from Consumption and Waste	The MPCA would hire a contractor to develop an efficient and standardized process to quantify the greenhouse gas emissions generated by Minnesotans' consumption and to create an environmental impact calculator.	Minnesota Pollution Control Agency	\$500,000
2024-069	Joel	Tallaksen	Reduced Ecosystem Impacts through Solar Powered Container Farming	Long-distance shipping of imported produce into Minnesota has significant environmental impacts. Containerized farming, incorporating solar energy, could mitigate environmental, energy, and climate challenges in Minnesota's urban and rural food supply.	U of MN, WCROC	\$998,000
2024-076	Eric	Buchanan	Improving Agricultural Ecosystems through Autonomous Weed Control	Autonomous robots, powered by green hydrogen and solar power, designed to remove weeds in row crop fields can improve agricultural ecosystems with reduced herbicide application and fossil fuel use.	U of MN, WCROC	\$978,000
2024-080	Hua	Zhao	Capturing and Converting Carbon Dioxide from Flue Gas	This project aims to develop a green and effective route for carbon dioxide capture and conversion, especially from flue gases generated by various industries in Minnesota.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$505,000
2024-098	Satoshi	Ishii	Advanced Biofilter for N2O Removal	This project will develop innovative and low-cost biofilters to decrease the concentration of nitrous oxide (N2O), a strong greenhouse gas and ozone layer destructor.	U of MN, College of Biological Sciences	\$335,000
2024-132	Jason	Hill	Reducing Rural Air Pollution to Benefit All Minnesotans	Pollution from agriculture is a major cause of air-quality-related deaths in Minnesota. This project explores how better farming practices in our state can improve air quality and promote environmental justice.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$251,000

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Proposal ID	First Name	Last Name	Title	Summary	Organization	Requested \$
2024-153	Heidi	Roop	Managing Future Floods and Droughts in Minnesota	Leveraging new statewide climate data, we will assess future change in the duration, frequency and magnitude of heavy precipitation and drought events and engage communities to prepare for these extremes.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$480,000
2024-204	Bill	Keegan	Innovative Solution to Renewable Energy from Food Waste	A private-public partnership supporting the State climate and renewable energy goals by diverting organics from landfills and producing Renewable Natural Gas (RNG) from anaerobic digestion and sequestering carbon into biochar.	Dem-Con	\$10,000,000
2024-218	Bradley	Heins	Reducing Methane Emissions for Dairy Production Systems	The project team at the WCROC will model and evaluate nutritional and genetic strategies that will reduce methane emissions of dairy cattle.	U of MN, WCROC	\$520,000
2024-219	Lian	Shen	Innovative Detection-Mapping-Prediction System for Wildfire Smoke and Air-Quality	We propose a novel drone-based technology for autonomously measuring wildfire smoke aerosols and mapping wildfires, and a simulation tool for fast-and-accurate prediction of wildfire and smoke spread and air quality.	U of MN, St. Anthony Falls Laboratory	\$545,000
2024-225	Sebastian	Behrens	Biomass to Biochar – Maximizing Minnesota’s Carbon Value	Improving carbon storage, climate resilience, and health of Minnesota’s soils by enhancing the carbon value of biochar. Life cycle analysis of biochar technology for effective soil carbon sequestration in Minnesota.	U of MN, College of Science and Engineering	\$543,000
2024-229	Roger	Ruan	Electrify Nitrogen Fertilizer Production using Solar Energy	Local and distributed production of liquid nitrogen fertilizer with high nitrate concentration and crop yield-boosting properties using renewable, low-cost resources.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$552,000
2024-238	Sayan	Biswas	Waste-Derived Synthetic Fuels for Sustainable Resource Recovery	Through University and Community partnerships, develop an affordable, eco-friendly synthetic fuel derived from waste streams with high combustion efficiency, low pollutant emissions, and competitive pricing compared to traditional fuels.	U of MN, College of Science and Engineering	\$420,000
2024-256	Uwe	Kortshagen	Agrivoltaics to Combine Photovoltaics with Commodity Crop Farming	Minnesota utilities need to transition to carbon-free energy by 2040. This project will determine the potential for agrivoltaic dual-use of land for commodity crop growth and photovoltaics in Minnesota.	U of MN, College of Science and Engineering	\$425,000
2024-259	Aditya	Bhan	Carbon-Free Hydrogen for Sustainable Power and Steel Production	Methane pyrolysis generates both hydrogen, a carbon-free energy resource, and solid carbon used in steel manufacturing. The proposed plasma-catalytic pyrolysis technology aims to supplant existing carbon-intensive technologies leveraging renewable electricity.	U of MN, College of Science and Engineering	\$490,000
2024-293	David	Bauer	Building Soil Health with Compost Top-Dressing in Communities	Eleven community partners will build soil health through compost top-dressing on four half-acre sites for three consecutive years and test the soil for improvements in soil health and	Minnesota Composting Council	\$699,000
					Subtotal =	\$23,572,000
E. Air Quality, Climate Change, and Renewable Energy						
H. Small Projects (7 Proposals / \$1,293,000)						

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Proposal ID	First Name	Last Name	Title	Summary	Organization	Requested \$
2024-147	Jason	Hill	Cleaning Minnesota's Air with Plant-Based Proteins	Agriculture contributes to poor air quality and climate change. This project explores the potential for plant-based protein production to clean Minnesota's air while supporting its rural economic base.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$145,000
2024-156	Sam	Toan	Post-Combustion Capture & Green-Fuel Production via CO2 Reduction	To mitigate greenhouse gas (GHG) emissions in Minnesota, we propose to convert post-combustion CO2 to green butanol fuel via a novel CuP2/3D graphene catalyst.	U of MN, Duluth	\$200,000
2024-187	Troy	Goodnough	Build Out - Center for Renewable Energy Technology	The focus of this project is to build out the University of Minnesota Center for Renewable Energy Storage Technology (CREST) in Morris, Minnesota .	U of MN, Morris	\$200,000
2024-190	Roger	Ruan	Sequester Waste CO2 Using Microalgae-Based Biohybrid Semi-Artificial System	High efficiency CO2 biosequestration for valuable microalgal biomass production using a biohybrid semi-artificial system that combines photovoltaic and microbial fuel cells with optimized algal cathode.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$200,000
2024-197	Erin	Cortus	Roadmap to Decarbonize Livestock Farms	This project will inventory opportunities for decarbonizing livestock farms based on current fossil fuel needs and explore the economic and environmental implications for these opportunities while supporting food production.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$200,000
2024-239	Sayan	Biswas	Carbon-Free Green Ammonia to Power Minnesota Farms	This proposal aims to demonstrate a cost-effective and efficient low-temperature plasma catalysis process to produce and utilize ammonia as fuel, a cleaner and more sustainable energy source.	U of MN, College of Science and Engineering	\$199,000
2024-244	Peter	Snyder	Challenges and Opportunities of Minnesota's Changing Winter Weather	In this data-driven project I address the changing character of Minnesota's winter weather. Winter weather impacts tourism, the environment, infrastructure, and the overall functioning of society both beneficially and detrimentally.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$149,000
					Subtotal =	\$1,293,000
F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat (23 Proposals / \$15,898,000)						
2024-022	Shannon	Wettstein	Morrison County Historical Society Streambank Stabilization and Restoration	Construction funding is needed to stabilize a unique shoreline site using a bioengineered design incorporating native plants soil wraps, stream barbs and root wads to create aquatic habitat.	Morrison Soil and Water Conservation District	\$519,000
2024-045	Marcella	Windmuller-Campione	Can Increased Tree Diversity Increase Community Diversity?	While aspen is one of the most dominant forest types, predicted future conditions will negatively impact aspen growth. Increasing tree diversity can provide increase ecological and economic resilience.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$415,000
2024-096	Rebecca	Tucker	Pollinator Central 4: Habitat Improvement with Public Engagement	Continuing pollinator habitat creation and enhancement on 11 sites from Lakeville to St. Cloud, with public engagement and education centered on youth, schools, and community awareness of natural resource stewardship.	Great River Greening	\$698,000
2024-103	Dale	Gentry	Conservation Grazing for Birds, Beef, and Better Soil	Assessing Audubon Conservation Ranching as a strategic approach to biodiversity conservation and grassland soils and vegetation ecosystem resilience.	Audubon Minnesota	\$361,000

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Proposal ID	First Name	Last Name	Title	Summary	Organization	Requested \$
2024-108	Brett	Barney	Minnesota Microbes for Enhanced Biodegradation of Microplastics	We will investigate the potential of natural microbes indigenous to Minnesota to biodegrade conventional plastics in the environment as a means for cleaning contaminated soils and waters across the state.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$524,000
2024-116	Jacob	Swanson	Soil Gas Measurements Protect/Enhance Minnesota Soil Health	We seek to build and deploy 25 soil gas instruments across the state that will measure soil health, to preserve and enhance farming and other land resources.	Minnesota State Colleges and Universities, Minnesota State University Mankato	\$415,000
2024-157	Brett	Barney	Lowering Nitrogen Fertilizer Application to Restore Water Quality	Our project will identify native microbes that provide nitrogen to plants through natural biological processes, and apply these to replace current industrial fertilizers while lowering fertilizer costs for farmers.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$292,000
2024-167	Sharon	Hexum-Platzer	Replace Bridge on Poplar River after 2022 Flooding	Lutsen Trailbreakers need to replace a bridge across Poplar River that was washed away in spring storm 2022. This vital link to Lutsen for fuel, food, and safety is essential to	Lutsen TrailBreakers Snowmobile Club	\$436,000
2024-170	John	Mertens	Completing the Mississippi River Greenway: Dakota County	Restore and enhance 54 acres of natural areas, five miles of linear natural signature plantings and install seven EV charging stations along the 27 mile Mississippi River Greenway.	Dakota County	\$675,000
2024-175	Romas	Kazlauskas	Enabling Nature to Destroy Environmental PFAS Contaminants	Low-levels of perfluoroalkyl substances (PFAS) contaminate water and soil in Minnesota. We propose to identify enzymes and microbes that break down PFAS, making them non-toxic.	U of MN, College of Biological Sciences	\$378,000
2024-185	Elena	West	Bioacoustics for Species Monitoring and Conservation Phase II	This study will leverage our current bioacoustics monitoring framework to assess avian diversity at the statewide scale through a citizen science acoustic monitoring program, with a focus on private lands.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$568,000
2024-189	Roger	Ruan	Preventing PFAS and Microplastics Contaminants across Minnesota	This project helps Minnesota entities that directly or indirectly cause PFAS and microplastics contamination stop the flow of the contaminants by developing strategies to manage solid waste streams.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$722,000
2024-227	Adam	Arvidson	Shingle Creek Aquatic and Shoreline Habitat Enhancement	This request will transform 1.6 miles of Shingle Creek in north Minneapolis into a functioning ecological corridor, leveraging an additional \$3.27 million in planned recreational improvements.	Minneapolis Park and Recreation Board	\$1,100,000
2024-237	Sayan	Biswas	LiDAR Technology Preventing Wildlife Fatalities from Wind Turbines	Create a low-cost and advanced LiDAR package to detect and prevent wildlife collisions with wind turbines, safeguarding bats, birds, and other wildlife from fatal accidents.	U of MN, College of Science and Engineering	\$550,000
2024-242	Clarence	Lehman	Restoring the Planet While Feeding the World	This project will evaluate ways of restoring natural habitats to maintain Minnesota wildlife populations while simultaneously providing material to produce clean, healthy foods for human populations.	U of MN, Cedar Creek Ecosystem Science Reserve	\$346,000
2024-252	Pedro	Urriola	Green Livestock Foods for Minnesota	The objective is to conserve and improve soil, water, and climate by providing farmers necessary information to market the use of perennial and winter annual crops in diets for pigs.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$367,000

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2024-255	John	Gulliver	Road Salt Pollution of Surface Waters from Groundwater	We propose identifying hot spots of groundwater chloride pollution of surface waters due to excessive road salt use, which is a long term source increasing chloride impairment of surface waters.	U of MN, College of Science and Engineering	\$689,000
2024-274	Jana	Danker	Removal of Dioxin and PCBs from Native Land	Demonstrate a suite of technologies to remove toxins from the soil on Minnesota superfund sites.	Akiing 8th Fire	\$987,000
2024-277	Edward	Quinn	Growing the Minnesota Bison Conservation Herd	Design and construct fencing and handling facility needed to reintroduce bison to Camden State Park as part of preserving and interpreting the population and genome of American Plains bison.	MN DNR, State Parks and Trails Division	\$2,415,000
2024-284	Steve	Apfelbaum	Native Prairie Grass for Human Food and Habitat	Virginia wildrye is a native prairie grass that produces edible seeds for direct human consumption. We will study its production, processing, and commercialization to expand it for wildlife and agriculture.	Applied Ecological Institute, Inc.	\$596,000
2024-285	Matthew	Leiphon	Nutrient Recovery and Recycling for Agricultural Lands	Identification, validation, and market assessment of technologies to recover and recycle nitrogen, phosphorus and other nutrients from process waste streams for use in agricultural land applications.	Agricultural Utilization Research Institute	\$700,000
2024-294	Matthew	Julius	Lake Restoration, Outreach, and Algae Commoditization	Applying novel algal harvesting technology to restore lake ecosystems and produce a high value organic fertilizer for agricultural application. Experimentation involves public, and private institutions with community and corporate partners.	Minnesota State Colleges and Universities, St. Cloud State University	\$255,000
2024-298	Crystal	Mathisrud	Priority Lakes: Meeting Protection Goals and Multiplying Benefits	Use existing tools and partnerships to meet protection goals and transition to long-term community driven, coordinated management for multiple benefits, including: habitat, water, forest health, local economy and climate resiliency.	Hubbard County Soil & Water Conservation District	\$1,890,000
					Subtotal =	\$15,898,000
F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat						
H. Small Projects (10 Proposals / \$1,393,000)						
2024-005	David	Remucal	Long-Term Preservation of Minnesota's Ball Cactus Population	A long-term project to protect Minnesota's only population of ball cactus has begun successfully. To cement this success, population expansion/establishment will finish and long-term volunteer monitors will be trained.	U of MN, Landscape Arboretum	\$100,000
2024-074	Kara	Komoto	Facilitating Community Conservation through Urban Agriculture	Developed scenarios of current and possible urban agriculture help connect conservation programs with community agricultural sites. Created outreach and information tools enable growers' and landholders' conservation investments, benefiting ecosystem health.	Twin Cities Community Agricultural Land Trust	\$200,000
2024-090	Ted	Gray	Restoration of Riverside Park	Project will mitigate the effects of climate change by restoring water retentive capabilities to 7 acres on the Long Prairie River while also creating both recreational and educational opportunities.	City of Long Prairie	\$141,000

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2024-131	Wiley	Buck	Accelerated Migration of Oaks Phase 2	Collect and disseminate the 5-10 year data on growth and survival, of 3 bur oak ecotypes planted in 4 restoration sites under ML2015 "Enhancing Restoration Techniques for Improved Climate Resilience".	Great River Greening	\$144,000
2024-182	Sabrina	Claeys	Enhancement of Grassland Habitats through Grazing	Increase opportunities for Minnesota's private and public grasslands to be enhanced through the provision of technical expertise and educational awareness of grasslands conservation.	Ducks Unlimited Inc	\$200,000
2024-228	Jeff	Haberman	Quarry Hill Nature Center Invasive Species Removal Replacement	Reduce presence of woody invasive species through a combination of mechanical, chemical and prescribed burn tactics. Introduce desirable vegetation by seeding native grass and forb species.	City of Rochester	\$46,000
2024-230	Alison	Schaub	Changing the Flight of Bird Conservation	Reduce and then eliminate bird strikes at the Bloomington Education and Visitor Center.	Minnesota Valley Refuge Friends	\$17,000
2024-245	Brandon	Miller	Preservation of the State Threatened Satiny Willow	Satiny willow is a state threatened shrub species which is considered vulnerable to severe weather events and land development. Preserving plants in off-site repositories will better protect this species.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$170,000
2024-248	Roger	Ruan	Rapid Restoration of Soil Functions Using Algal Crusts	Select suitable desert algal species through artificial intelligence-powered virtual screening and use a biological in-situ resource utilization-based approach to establish artificial algal crusts for rapid restoration of soil functions.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$200,000
2024-270	Stephen	Swazee	Using Underground Utility Mapping to Preserve Minnesota's Environment	Project will protect Minnesota's water resources and environment from hazardous material spills by developing nationally unique underground utility mapping software which will help minimize strikes on buried infrastructure.	SharedGeo	\$175,000
					Subtotal =	\$1,393,000
G. Land Acquisition, Habitat, and Recreation (27 Proposals / \$66,489,000)						
2024-007	Amber	Moon Peterson	Gull Lake Trail: Nisswa Connection	This final half mile of paved trail in Nisswa makes the vital connection to Lake Shore and rest of the regionally significant Gull Lake Trail in the Brainerd Lakes Area.	City of Nisswa	\$900,000
2024-009	Marty	Walsh	Minnesota Driftless Hiking Trail	Building a backpacking focused trail across Southeast Minnesota's Driftless Area.	Minnesota Driftless Hiking Trail	\$426,000
2024-016	Chris	Giesen	Harmony State Trail Extension Construction	To finish the construction of a new recreational trail segment linking the Harmony Preston Valley Trail and City of Harmony to the Minnesota/Iowa border and Niagara Cave.	City of Harmony	\$5,500,000
2024-042	Dave	Cizmas	Split Rock Wilds Beaver Bay Expansion	The Split Rock Wilds Beaver Bay Expansion will create a trail that directly connects Beaver Bay with a bike optimized, multiuse single track trail system.	Lake County Forestry	\$500,000

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2024-060	Tony	Wotzka	River to River Greenway – Underpass and Trail Reconstruction	Two-mile trail reconstruction of the Dakota County River to River Greenway through Valley Park, connecting from Trunk Highway 13 to a proposed underpass of Trunk Highway 149, in Mendota Heights.	Dakota County	\$3,942,000
2024-064	Audrey	Mularie	Local Parks, Trails and Natural Areas Grant Programs	Provide approximately 18 matching grants for local parks, trail, acquisition of natural areas and trails to connect people safely to desirable community locations and regional or state facilities.	MN DNR, State Parks and Trails Division	\$5,000,000
2024-081	Brett	Feldman	Acquisition of State Parks In-Holdings	Complete efficient, time-sensitive acquisition of high priority State Park inholdings, conduct needed site cleanup, and convey the properties to the state to enhance Minnesota’s environment and public recreation opportunities.	Parks & Trails Council of Minnesota	\$2,000,000
2024-092	Judy	Schulte	Scientific and Natural Area (SNA) Biodiversity Protection	Scientific and Natural Area (SNA) strategic acquisition (~100 acres) will conserve Minnesota’s most unique places and rare species for everyone’s benefit.	MN DNR, Ecological and Water Resources Division	\$1,100,000
2024-093	Jessica	Lee	Metropolitan Regional Parks System Land Acquisition Phase 8	Acquire properties with high-quality natural resources or natural resources restoration potential for the metropolitan Regional Parks System. This project will be matched over 100% with Council and local Agency funds.	Metropolitan Council	\$3,000,000
2024-101	Charles	Lehn	City of Champlin Brown Property Acquisition	The City is attempting to acquire of the last natural land parcels in the City to keep as natural habitat before it sells to a developer.	City of Champlin	\$693,000
2024-102	Stacy	Smith	Minnesota State Park Historic Structure Rehabilitation	Rehabilitation of historic structures, Seppmann Mill (Minneopa State Park) and WPA Beach house / beach walls (Lake Shetek State Park). Rehabilitation will preserve extraordinary examples and demonstrate significance of the parks.	MN DNR, State Parks and Trails Division	\$5,500,000
2024-107	Brian	Pogodzinski	Wildcat Park and Landing Improvements	Houston County is proposing a roadway access rehabilitation project and bathroom addition to Wildcat Park located on the banks of the Mississippi River in Southeastern Minnesota.	Houston County	\$500,000
2024-109	Caleb	Peterson	Historic D&NE St. Louis River Multi-Use Bridge	This project consists of upgrading the Historic D&NE St. Louis River Multi-use Bridge to allow safe use of the bridge by entities that enjoy outdoor recreation.	City of Cloquet	\$2,000,000
2024-113	Niki	Geisler	Spring Lake Park Reserve Restoration and River Access	Development of Mississippi River access that includes parking, a non-motorized boat launch, access to the national Mississippi River Trail and hiking trails, natural resource restoration, and cultural resource management.	Dakota County	\$4,770,000
2024-120	John	Paulson	Otter and Campbell Lakes Accessible Recreational Opportunities Project	The Otter and Campbell Lakes Accessible Recreational Opportunities Project will improve public access and opportunities for recreational activities.	City of Hutchinson	\$1,400,000
2024-125	Lori	Cacka	Recreational Improvement Grant	Improvements at Brownton Area Civic Center Complex, including trail connections, splash pad, shelter, tennis/pickleball/basketball court restoration, playground replacement, and related improvements.	City of Brownton	\$1,375,000

**2024 ENRTF Request for Proposal (RFP) - FY2025
Final Proposals Received by Category with Summaries**

Proposal ID	First Name	Last Name	Title	Summary	Organization	Requested \$
2024-136	Kent	Skaar	Minnesota State Trails Development	This project proposes to expand recreational opportunities on Minnesota State Trails through the rehabilitation and enhancement of existing state trails and replacement or repair of existing state trail bridges.	MN DNR, State Parks and Trails Division	\$5,125,000
2024-169	Nick	Arola	Carey Lake Recreation Area Campground	Continued development of Carey Lake Park into the Carey Lake Recreation Area with the construction of a new full-service campground, community facilities, and alignment of the trails to regional systems.	City of Hibbing	\$2,478,000
2024-232	Anna	Gruber	The Waterfront Park & Trail Development	Project includes development of a new park along the Mississippi River in Sartell, including site work to restore vegetation, construct a berm and new trails, and install lighting.	City of Sartell	\$980,000
2024-241	Craig	Schlichting	Jones Lake Restoration Project	The Jones Lake Restoration project will provide critical local and regional water quality and flood protection, habitat preservation, and recreational opportunities for the City of New Brighton.	City of New Brighton	\$725,000
2024-263	Brian	Silber	Virginia All Wheel Park	Construction of the Virginia All Wheel Park that is adjacent to and tied into the Silver Lake Trail providing a safe multi-modal recreational amenity to the public.	City of Virginia	\$1,210,000
2024-264	Nicholas	Leonard	Dent and Vergas Spur Trails	Construction of a 6.6 mile bituminous trail along CSAH 35 connecting the cities of Dent and Vergas to the Heart of the Lakes Regional Trail and Maplewood State Park.	Otter Tail County	\$934,000
2024-282	Kaycee	Melin	Brookston Campground, Boat Launch, and Outdoor Recreation Facility	The City of Brookston will be building a campground, boat launch, and outdoor recreation area on the banks of the St. Louis River in northeastern Minnesota.	City of Brookston	\$4,605,000
2024-289	Michael	Nigbur	Willow Creek Regional Trail & Safety Connection	Construction of approximately 2.5 miles of trail, wayfinding, rest areas, and trail head that connects the Rochester urban area under Trunk Highway 52 to Gamehaven Regional Park.	City of Rochester	\$4,000,000
2024-291	Jeff	Jacobson	City of Biwabik Recreation Area Phase 2	Updating and expanding utility service to add 50 additional campsites as well as resurfacing the roadway through the campground. Replacement of retaining wall at beach and pickleball court installation.	City of Biwabik	\$2,270,000
2024-295	Ronald	Gregg	Historic Forestville Bridge - Preserving Recreational Connections	The project will rehabilitate the failing 1899 Historic Forestville Bridge, located in and owned by Fillmore County, connecting Forestville State Park to the Historic Forestville State Historic Site.	Fillmore County	\$1,993,000
2024-300	Ellissa	Owens	City of Moose Lake - Campground Improvements	Expansion of Moose Lake Campground adding 21 campsites to accommodate recreational vehicles and tent campers. New campground office/garage will be constructed and both existing bathhouses will be upgraded.	City of Moose Lake	\$3,563,000
					Subtotal =	\$66,489,000
G. Land Acquisition, Habitat, and Recreation						
H. Small Projects (8 Proposals / \$1,510,000)						

**2024 ENRTF Request for Proposal (RFP) - FY2025
Final Proposals Received by Category with Summaries**

Proposal ID	First Name	Last Name	Title	Summary	Organization	Requested \$
2024-021	Sonja	Pelland	Littlefork Public RV Campground Design	This project consists of the design, surveying, permitting, wetlands delineation, site evaluations and geotechnical engineering (Phase 1) of the Littlefork Public RV Campground.	City of Littlefork	\$195,000
2024-094	Sunny	Bjorklund Schultz	Zumbro River Regional Water Trail	Completion of the Master Plan for the Zumbro River Regional Water Trail (ZRRWT). Roughly 150 miles of navigable waters that wind through a diverse landscape before joining the Mississippi River.	City of Oronoco	\$170,000
2024-110	Jeremy	Bartosh	Sandy Point Park Expansion	Expanding Recreational Opportunities at Sandy Point Park.	Jackson County	\$195,000
2024-141	Ray	Sogard	Minnesota Forest Zone Trappers Association Land Acquisition	The Minnesota Forest Zone Trappers Association (MFZTA) is requesting a \$165,000 grant to acquire additional property/closing costs to eventually develop a Sportsmen's & Sportswomen's Outdoor Training and Development Center.	Minnesota Forest Zone Trappers Association	\$165,000
2024-146	Sherril	Gautreaux	Ranier City Park Improvements	This project is to improve, update, upgrade the city of Ranier's Park.	City of Ranier	\$195,000
2024-159	Corinne	Suonvieri	Floodwood Campground Pavilion	The City of Floodwood is requesting \$195,000 from the LCCMR to construct a new pavilion in the Floodwood Campground.	City of Floodwood	\$195,000
2024-174	Kathy	Vraa	Birch Lake Marina Design (Phase 1)	This project consists of the design of a new marina/dock complex on Birch Lake in Babbitt Minnesota.	City of Babbitt	\$197,000
2024-191	Bob	Otremba	Pierz Park Master Plan and Acquisition	Create a Park Master Plan for a regional park with connections to local, regional, and statewide trails and acquire a 33.53-acre parcel of land for the future park.	City of Pierz	\$198,000
					Subtotal =	\$1,510,000
I. Administration (1 Proposal / \$275,000)						
2024-117	Katherine	Sherman-Hoehn	ML 2024 Contract Agreement Reimbursement	Provide contract management to ENRTF pass-through appropriation recipients for approximately 115 open grants. Ensure funds are expended in compliance with appropriation law, state statute, grants policies, and approved work plans.	MN DNR, Grants Unit	\$275,000
					Subtotal =	\$275,000
					Total =	\$174,201,000