M.L. 2025 Environment and Natural Resources Trust Fund (ENRTF)
LCCMR Proposals Received for FY 2026

Overall Topic Area	\$ Requested	Percentage of Total Requested	#	Percentage of a		
A. Foundational Natural Resource Data and Information	\$34,821,000	19.01%	32	14.95%		
B. Water Resources	\$23,615,000	12.89%	35	16.36%		
C. Environmental Education	\$16,618,000	9.07%	20	9.35%		
D. Aquatic and Terrestrial Invasive Species	\$8,006,000	4.37%	3	1.40%		
E. Air Quality, Climate Change, and Renewable Energy	\$32,168,000	17.56%	19	8.88%		
F. Methods to Protect, Restore and Enhance Land, Water, and Habitat	\$16,655,000	9.09%	19	8.88%		
G. Land Acquisition, Habitat, and Recreation	\$38,860,000	21.22%	25	11.68%		
H. Small Projects	\$12,126,000	6.62%	60	28.04%		
I. Administration	\$280,000	0.15%	1	0.47%		
Total	\$183,149,000	100.00%	214	100.00%		

		Percentage of Total		
Category H Only - Topic Area	\$ Requested	Requested	#	Percentage of #
A. Foundational Natural Resource Data and Information	\$2,302,000	18.98%	11	18.33%
B. Water Resources	\$2,485,000	20.49%	13	21.67%
C. Environmental Education	\$2,550,000	21.03%	13	21.67%
D. Aquatic and Terrestrial Invasive Species	\$38,000	0.31%	1	1.67%
E. Air Quality, Climate Change, and Renewable Energy	\$2,186,000	18.03%	9	15.00%
F. Methods to Protect, Restore and Enhance Land, Water, and Habitat	\$2,112,000	17.42%	10	16.67%
G. Land Acquisition, Habitat, and Recreation	\$453,000	3.74%	3	5.00%
Total	\$12,126,000	100.00%	60	100.00%

## LCCMR Request for Proposal - M.L. 2025 (FY26) Final Proposals Received by Category with Summaries

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
A. Foundationa (RECEIVED: 31						
2025-009	Jacob	Haus	Fond du Lac Deer Study - Phase 1	Deer are important to the FDL Band and elk reestablishment could alter deer population dynamics. Baseline data will better inform future deer management by the RMD and Minnesota DNR.	Minnesota State Colleges and Universities, Bemidji State University	\$1,441,000
2025-046	Nicholas	Phelps	Are All Walleye Created Equal? Probably Not.	Given that walleye are vulnerable to climate change, we will investigate Minnesota walleye strain physiology and disease responses to warming water, and build a tool to guide adaptive management strategies.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$298,000
2025-053	Joseph	Bump	Deer Survival Within Minnesota's Densest Wolf Population	Deer are highly valued by Minnesotans, especially in the Northwoods. We'll assess causes of deer survival and habitat needs amidst high wolf density to inform the deer/wolf management debate.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$809,000
2025-070	Catherine	Early	Digitizing the Science Museum of Minnesota's Mollusk Specimens	This project will make the Minnesota mollusk specimens in our collection available for research and education by organizing all relevant specimens and digitizing their data.	Science Museum of Minnesota	\$399,000
2025-075	Irene	De Pellegrin Llorente	Integrating Wildlife Objectives in Long- Term Forest Management Planning	Strategic forest planning helps identify how and when management activities should be scheduled. We integrate wildlife objectives with timber production into the forest planning process to create more sustainable forests	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$328,000
2025-091	Kory	Thurnau	PLSS Preservation to Protect Public Lands	Provide funding to Minnesota Counties to perpetuate the Public Land Survey System (PLSS). This funding, if awarded, would focus on PLSS preservation projects that benefit public land management.	Minnesota IT Services, Minnesota Geospatial Information Office (MnGeo)	\$5,464,000
2025-092	Dale	Gentry	Surveying Minnesota's Secretive Marsh Birds	Audubon will conduct a statewide secretive marsh bird survey to provide state and federal agencies with an assessment of marsh bird population status and useful information on wetland habitat health.	Audubon Minnesota	\$443,000
2025-098	Michael	Osterholm	Critical Preparedness and Outreach for Possible CWD Spillover	Protecting Minnesota's public, wildlife, and economic health from the significant threats of a chronic wasting disease spillover through proactive preparedness activities and multidisciplinary exercises with local, state, and world experts.	U of MN, Center for Infectious Disease Research and Policy (CIDRAP)	\$3,308,000

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
2025-123	Ellen	Candler	Small-Mammals and Hunter Participation: Expanded Offal Wildlife Watching	This project creates a comprehensive picture of the offal community from scavengers and disease to hunters themselves, through hunter participation and experiments.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$563,000
2025-127	Elena	West	Green Heron as an Indicator of Wetland-Dependent Species	Green Herons have declined across much of their range. Information on their annual cycle habitat use and migratory movements is needed to understand and address conservation concerns for wetland-dependent birds.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$440,000
2025-130	Kassandra	Ford	Visualizing Minnesota's Natural Resources with CT-Scanning	This project will provide a new and innovative way to obtain and disseminate internal morphology data from the Bell Museum's organismal collections.	U of MN, Bell Museum of Natural History	\$1,062,000
2025-151	Michael	Joyce	Mapping Human-Carnivore Conflicts in Human-Dominated Landscapes	We will evaluate bear, bobcat, and coyote habitat use, activity, and diet in Duluth and surrounding areas to map hotspots for human-carnivore conflicts and fill knowledge gaps to reduce conflicts.	U of MN, Duluth - NRRI	\$629,000
2025-160	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	\$1,260,000
2025-180	Chris	Knopf	The Impacts of Climate Change on Northeastern Minnesota	We will aggregate research, data, and other information regarding the impacts of climate change on the habitat and wildlife of northeastern Minnesota into a publicly available, web-based database.	Friends of the Boundary Waters Wilderness	\$830,000
2025-187	Melinda	Wilkins	Commercialized Pollinators: A Risk to Native Minnesota Bees?	Assesses disease threats to MN native bees posed by imported commercialized solitary bees, support native pollinator populations, and promote best practices to protect the health of MN native bee populations.	U of MN, College of Veterinary Medicine	\$999,000
2025-188	Arno	Wuenschmann	Health and Disease Monitoring in Minnesota Wildlife	The project will enhance a. knowledge of wildlife health and disease and b. diagnostic capacity by significantly increasing the number of postmortem examinations of free-ranging animals and training wildlife pathologists.	U of MN, Minnesota Veterinary Diagnostic Laboratory	\$842,000
2025-215	Rui	Cheng	Affordable Statewide Tracking of Forestry Fragmentation and Degradation	To support forest management, the project provides interactive real-time business-ready information about forest fragmentation and degradation due to human activities and natural disasters by merging aircraft and satellite LiDAR data.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$346,000
2025-217	Colleen	Satyshur	Safeguarding Bees While Monitoring Pollinators and Nesting Habitats	We will pioneer low-mortality methods for tracking bee populations and nesting materials, partnering with community science. Empowering Minnesotans to protect bees will help conserve these vital pollinators for future generations.	U of MN, College of Biological Sciences	\$667,000

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
2025-222	Amy	Kendig	Expanding the Application of Minnesota's Wetland Monitoring Data	We will use recurring aerial photographs, collected 2006 to present, to produce new information and tools that enhance statewide grassland and wetland monitoring.	MN DNR, Ecological and Water Resources Division	\$318,000
2025-223	Brian	Dingmann	Bioprospecting Minnesota Wetlands for Phage and Bacterial Antimicrobials	Antibiotic resistance represents a critical global health issue. Our innovative approach combines studentsourcing with advanced research techniques to engage the next generation of scientists in discovering potentially new antimicrobials.	U of MN, Crookston	\$443,000
2025-239	Eric	Mousel	Enhancing the Value of Minnesota Public Grasslands	Evaluate prescribed fire, brush mowing and targeted conservation grazing to develop ready-to-use management strategies for public lands managers to mitigate woody species encroachment in public grasslands.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$390,000
2025-241	Joel	Tallaksen	Foundational Precision Agriculture Data to Reduce Environmental Impacts	Foundational data from sentinel farms, BMPs, and training will be developed to support adoption of precision agricultural technologies. These optimize fertilizer and chemical input use, improving water and air quality.	U of MN, WCROC	\$1,457,000
2025-244	Heather	Arends	Continued Aggregate Resource Mapping	DNR aggregate resource datasets provide vital information to local governments to support informed land-use decisions and resource conservation. This proposal will complete and start projects to equal about 4-6 counties.	MN DNR, Lands and Minerals Division	\$697,000
2025-247	Josh	Knopik	Advancing Collaborative Wild Rice Monitoring Program Technologies	Collaborate with tribal and Non Government Organizations in advancing wild rice monitoring tools (aerial imagery and remote sensing) to improve statewide coverage maps, and conduct trend analysis of distribution.	MN DNR, Ecological and Water Resources Division	\$900,000
2025-250	Mitchell	Hunter	Conserving Natural Resources by Advancing Forever Green Agriculture	The Forever Green Initiative will fund research projects focused on protecting water, wildlife, soil, the climate, and other natural resources by developing new perennial and winter-annual crops.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$5,000,000
2025-260	Solomon	David	Minnesota's Priority Native Rough Fish: Gars and Bowfin	This study will directly address priority native rough fish knowledge gaps regarding population dynamics and ecology as identified by MNDNR, and directed by the MN legislature.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$593,000
2025-280	Leif	Olmanson	Understanding to Improve Minnesota's Future Lake Water Quality	Use decade-long comprehensive real-world data to understand lake-specific drivers of water quality and high- resolution climate models to project the effects of future warming on HABs across Minnesota	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$595,000

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
2025-294	Jake	Walsh	Operationalizing State Zooplankton Data to Support Lake Health	We will operationalize valuable statewide monitoring data to understand how zooplankton support Minnesota fisheries and water quality. Results will streamline data collection, management, and preservation, and inform on lake health.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$445,000
2025-295	Alicia	Coleman	Trialing Climate-Ready Woodland Trees in Urban Areas	This project studies climate-adaptive tree species performance across metropolitan areas of Minnesota. This project will recruit volunteers to collect data and will assess volunteers' risk tolerance of climate-adaptive tree species.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$255,000
2025-304	Hailey	Sauer	Superior Shores: Protecting Our Great Lakes Coastal Habitats	The "Superior Shores" project aims to map, monitor, and conserve Lake Superior's rock pools, enhancing our North Shore's ecosystem health through scientific research, public engagement, and targeted conservation strategies.	Science Museum of Minnesota, St. Croix Watershed Research Station	\$675,000
2025-309	Michelle	Carstensen	Recruitment and Fecundity of Minnesota Moose	Through a co-stewardship research project, state and tribal biologists will work collaboratively to estimate survival and fecundity of yearling and 2-year-old moose in northeast Minnesota to inform future management efforts.	MN DNR, Fish and Wildlife Division	\$2,439,000
2025-323	Diana	Karwan	Emerging Issue: CWD Prions in Minnesota Waters	Chronic Wasting Disease (CWD) environmental detection is combined with watershed knowledge to predict and evaluate how far and how fast CWD might move through watersheds and serve as a source.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$486,000
					SubTotal	\$34,821,000
A. Foundationa H. Small Projec			d Information / Subtotal - \$2,302,000)			
2025-063	Michael	Joyce	Evaluating Anticoagulant Rodenticide Exposure in Minnesota's Carnivores	We will determine anticoagulant rodenticide exposure rates and concentrations in bobcats and fishers, evaluate factors influencing exposure risk, and evaluate negative effects of rodenticide exposure on carnivore health.	U of MN, Duluth - NRRI	\$247,000
2025-093	Tricia	Markle	Improving Conservation Outcomes for Imperiled Wood Turtles	We will help to restore imperiled wood turtles by leveraging our strengths in animal care, veterinary sciences, and field conservation, to bolster populations and inform conservation actions.	Minnesota Zoological Garden	\$242,000
2025-111	John	Fieberg	Data/Tools to Maximize Impact of ENRTF Projects	We will create a centralized database of movement data from LCCMR-funded studies and develop tools for visualizing movement of species through their environments with biologists working to conserve Minnesota wildlife.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$216,000

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
2025-113	Mary	Mallinger	Expanding the Statewide Motus Wildlife Tracking Network	We will expand the statewide Motus wildlife tracking system network to fill in critical gaps, guiding the conservation of imperiled grassland and boreal migratory birds, their habitats, and other wildlife.	Minnesota Zoological Garden	\$234,000
2025-115	Benjamin	Cull	Updating and Sharing Information on Minnesota's Tick Biodiversity	This project will update information on the biodiversity and distribution of ticks in Minnesota, and create a publicly accessible GIS dashboard integrating these data with citizen science-sourced tick records.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$186,000
2025-117	Sachiko	Graber	Environmental Justice Concerns in Greater Minnesota	The proposed project builds on a 2024 pilot to use qualitative and quantitative data to better understand the perspectives of residents of Greater Minnesota environmental justice areas towards natural resources.	Waxwing Consulting LLC, Climate and Equity Consulting	\$249,000
2025-178	Grant	Vagle	Leveraging Statewide Datasets for Native Rough Fish	To support future conservation and research efforts and enhance knowledge of Minnesota's native rough fish, we propose species distribution models to predict their presence and abundance across Minnesota streams.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$250,000
2025-210	Will	Bartsch	Expanding Access to Spatial Data in Minnesota	We will expand access to spatial data statewide using the MN Natural Resource Atlas through online tutorials and free training for local government, non-government organizations, and community involvement groups.	U of MN, Duluth - NRRI	\$65,000
2025-214	Kyungsoo	Yoo	Small Farm Challenge in the Root River Basin	We will conduct mapping analyses of the environmental challenges unique to small farms and examine how vulnerable small farms are to soil and water sustainability in the Root River Basin.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$244,000
2025-311	Cristian	Beza Beza	Fighting Insect Decline: Minnesota Bumblebees to the Rescue	We propose to use Minnesota native bumblebees as model organisms to gauge the effects of human activity on the states' ecosystems and understand the drivers of the global insect decline.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$249,000
2025-312	Lucy	Rose	Trace Metals in Municipal Yard Waste and Compost	The project will assess trace metal contamination of compost feedstocks (residential yard waste) and finished compost at municipal yard waste recycling programs in the Twin Cities metro area.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$120,000
B. Water Reso (RECEIVED: 35		ubtotal - \$23.6	515.000)		SubTotal	\$2,302,000
2025-010	Jeffrey	Broberg		Arsenic in Southern Minnesota drinking water: Linking health risk reduction (education) with well water testing, geology, and arsenic health risks to private well owners through family medicine and hydrology	Freshwater Society	\$1,062,000

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
2025-025	Kathryn	Holcomb	Restoration and Outreach for Minnesota's Native Mussels	We will improve the conservation of native mussels by rearing and releasing imperiled species, monitoring restored populations, and inspiring public action, thereby improving the health of aquatic ecosystems in Minnesota.	MN DNR, Ecological and Water Resources Division	\$1,546,000
2025-059	Lienne	Sethna	Pristine to Green: Toxic Blooms Threaten Northern Lakes	We will uncover drivers beyond watershed nutrient inputs that contribute to the formation of nuisance and toxic algal blooms in relatively pristine and protected lakes across Minnesota.	Science Museum of Minnesota, St. Croix Watershed Research Station	\$1,362,000
2025-064	Hilarie	Sorensen	Training Lake Communities to Track Chloride and Algae	Minnesota Sea Grant and partners will coordinate a network of community-based volunteers to track chloride and harmful algal blooms in lakes to understand these emerging environmental and public health problems.	U of MN, Duluth - Sea Grant	\$276,000
2025-074	Jestos	Taguta	Design of Zero Effluent Discharge Taconite Concentrators	The project aims to design zero effluent discharge taconite concentrators in Minnesota to maximize water resource utilization, conserve freshwater sources and prevent the pollution of surface freshwater sources.	U of MN, Duluth - NRRI	\$984,000
2025-077	Maggie	Karschnia	Clean Sweep Solution to Nonpoint Source Pollution	This project will result in long-term reduction of nonpoint source pollution in Minnesota's water resources by identifying opportunities to increase targeted street sweeping practices and removing barriers to implementation.	U of MN, Water Resources Center	\$398,000
2025-087	Paige	Novak	Enhancing Degradation of Emerging Contaminants via Microbial Starvation	Our research will provide concrete data to inexpensively improve the design of wastewater systems to biodegrade mixtures of pharmaceuticals, pesticides, and other contaminants of emerging concern, protecting our water resources.	U of MN, College of Science and Engineering	\$390,000
2025-088	Susan	Danzl	Detroit Lakes Wastewater Chloride and Sulfate Treatment	This project will pilot test a novel water treatment system to reduce chlorides and sulfates to acceptable discharge limits using a low-energy technology that includes modified reverse osmosis.	City of Detroit Lakes	\$750,000
2025-089	Tom	Slunecka	Plasma System for PFAS Remediation: Integration and Validation	Develop and validate a commercially viable 50 gph upwardly scalable liquid-phase plasma reactor system to eradicate PFAS from drinking water from common sources resulting in CaF2 and H2O.	Plasma Blue, LLC	\$1,032,000
2025-094	Jason	Amundsen	Atmospheric Water Collection Project	To find new avenues for water production for farms and municipalities, we are taking established dehumidification technology and adapting it for outdoor use powered either by the grid or solar.	Amundsen Farms, Inc DBA Locally Laid Egg Company	\$1,555,000

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2025-095	Sara	Heger	Evaluation, Management and	This project will evaluate a range of septage sources for	U of MN, Water Resources	\$494,000
		5	Education of Septage from SSTS	common and emerging contaminants, evaluate nitrogen	Center	. ,
				availability when land applied, and educate regarding the		
				options for proper septage treatment.		
2025-104	Larry	Zazzera	Measure Nanoplastics in Drinking	Minnesota's water resources community can leverage	CT Associates Inc.	\$429,000
	,		Water	unique local measurement technology to help protect the		. ,
				state's drinking water from potentially toxic nanoplastic		
				contaminants.		
2025-107	Marcelle	Lewandowski	Soil Health Management for Water	We will create guidance for watershed managers using in-	U of MN, Water Resources	\$500,000
			Storage	field and near-riparian soil health practices to reduce	Center	
				streamflow. We will complete essential research and		
				modeling connecting soil management to watershed		
				impacts.		
2025-110	Peter	Kang	Predicting Contaminant Movement in	We develop and demonstrate an easy-to-use software	U of MN, St. Anthony Falls	\$650,000
		-	Minnesota's Fractured Aquifers	program that predicts the fate and movement of	Laboratory	
				contaminants such as PFAS, chloride, nitrate, and		
				pathogens in Minnesota's fractured aquifers.		
2025-112	Lea	Pollack	Transfer and Toxicity of Microplastics	Researching how land use drives differences in the suites	U of MN, College of Biological	\$300,000
			in Urban Ecosystems	of microplastics and associated contaminants of concern	Sciences	
				found in ponds and the subsequent transfer of those		
				pollutants into wildlife.		
2025-128	Joel	Larson	Creating the Minnesota Well Index of	Create an updated, user-friendly Minnesota Well Index	U of MN, Water Resources	\$792,000
			the Future	(MWI) interface, evaluate methods to make the MWI more	Center	
				comprehensive, and create educational materials for MWI		
				users.		
2025-136	Hua	Zhao	Terminating PFAS-Type Pesticides via	This project will examine selected enzymes and cocktails	U of MN, College of Food,	\$301,000
			Enzyme Cocktails	for biodegradation of pesticide-type PFAS, and will design	Agricultural and Natural	
				a biofilter for effective elimination of pesticide PFAS from	Resource Sciences	
				water samples collected near farmlands.		
2025-150	Christine	Dolph	Impact of Statewide Conservation	Evaluate the effects of wetlands and riparian buffers on	U of MN, College of Biological	\$300,000
			Practices on Stream Biodiversity	stream and river biodiversity and biological condition	Sciences	
				statewide, to inform stream management decisions.		
2025-169	Jeffrey	Marr	Modeling the Future Mississippi River	A reduced-scale physical model of Mississippi River Pool 1	U of MN, St. Anthony Falls	\$450,000
			Gorge	and Lock & Dam 1 will be constructed to study water flow	Laboratory	
				and sediment movement under various pool management		
				strategies.		
2025-181	Satoshi	Satoshi Ishii Highly Efficient Nutrient Removal This project will apply our novel highly efficient nutrient U of MI	U of MN, College of Biological	\$460,000		
			Technology for Agricultural Drainage	removal technology for the treatment of agricultural	Sciences	
				drainage in the field.		

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2025-191	Melissa	Maurer-Jones	Citizen Scientists Capture Microplastic Pollution Around State	This project would develop adaptable methodologies and leverage citizen scientists to survey microplastic pollution throughout the state to allow for data-driven risk management decisions and solutions.	U of MN, Duluth	\$450,000
2025-193	Brett	Barney	Healthy Native Prairie Microbiomes for Cleaner Water	We will characterize and identify important microbes of the prairie microbiome that provide fixed-nitrogen through natural processes, and apply these to replace industrial fertilizers and prevent water contamination from nitrates.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$508,000
2025-199	Jessica	Kozarek	Protecting Shorelines and Preserving Habitat in Minnesota Lakes	The effectiveness of lakeshore protection and restoration approaches will be tested in a novel lakeshore laboratory designed to test the interactions between wind and boat waves and various shoreline vegetation.	U of MN, St. Anthony Falls Laboratory	\$683,000
2025-221	Sayan	Biswas	Aerial Multispectral Imaging for Minnesota Lake Ecosystem Monitoring	The MNI-WANA ("Water-Now" in Lakota language) Project, employing aerial drone-mounted multispectral cameras, aims to assess phosphorus, chloride, and nitrogen concentrations in eight heavily polluted lakes in central and southern Minnesota.	U of MN, College of Science and Engineering	\$425,000
2025-226	Junaed	Sattar	Harmful Algal Bloom Mitigation with Marine Robots	This project will design a distributed robotic system, involving observations from two autonomous aerial and surface vehicles, to detect and clean harmful algal blooms from Minnesota's lakes.	U of MN, College of Science and Engineering	\$668,000
2025-234	John	Nieber	Drainage Tools for Minimizing Downstream Impacts	This project will help understand how agricultural drainage changes downstream hydrology and create tools that will help improve drainage design to minimize the impacts of high flow, sediment and pollutants.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$297,000
2025-243	Timothy	LaPara	Optimizing Anaerobic Digestion to Eliminate Antibiotic Resistance Genes	This project will investigate anaerobic digestion of sewage sludge to also eliminating antibiotic resistance genes. This should be achievable by operating anaerobic digesters at slightly warmer temperatures than typical operation.	U of MN, College of Science and Engineering	\$290,000
2025-258	Keith	Rapp	Biofilm Mediated Destruction of PFAS in Groundwater	Microbes control the attenuation and destruction of environmental contaminants. Biofilms form structures to facilitate biodegradation of contaminated groundwater. We design, develop, and grow biofilms capable of destroying PFAS.	Bay West LLC	\$1,699,000
2025-265	Sebastian	Behrens	Impact of Microplastics on Wastewater Treatment in Minnesota	Research will focus on the fate of microplastics in wastewater treatment plants in Minnesota with emphasis on the impacts of weathered plastics on biological nutrient and contaminant removal processes.	U of MN, College of Science and Engineering	\$506,000

roposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
2025-272	Воуа	Xiong	Occurrence of Nanoplastics in Minnesota's Drinking Water	We will determine the extent of nanoplastic pollution in public water supplies, groundwater private wells, and bottled waters in Minnesota, identify their likely sources, and develop mitigation solutions.	U of MN, College of Science and Engineering	\$649,000
2025-275	Tianhong	Cui	Portable Arsenic and Nitrate Detector for Well Water	We propose to develop a tiny, cheap and easy-to-use detector for arsenic and nitrate. It can be used for well water to determine if the water is safe to drink.	U of MN, College of Science and Engineering	\$358,000
2025-278	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	\$272,000
2025-286	Jeff	Forester	Civic Organizing to Protect Lake Ecological Integrity	Pilot the Midwest Active Citizenship Initiative's approach among local civic groups and LGU's to drive public behavior change to improve shoreline health and prevent the aquatic invasive species spread.	Minnesota Lakes and Rivers Advocates	\$436,000
2025-299	Jonna	Spanier	Critical Destruction of PFAS in Landfill Leachate Waste	Onsite demonstration of PFAS destruction in MN leachate via supercritical water oxidation advances MN Water Resources (RFP Priority B.2 & C) through PFAS removal from critical waste management infrastructure.	Bay West LLC	\$1,782,000
2025-314	Brad	Matuska	Agricultural Technologies for Nutrient Efficiency and Water Protection	Identification and validation of technologies to optimize nutrient recovery in agri-food systems focused on targeting sustainable economic and environmental solutions that prevent nutrients from entering ground and surface water resources.	Agricultural Utilization Research Institute	\$561,000
					SubTotal	\$23,615,000

## H. Small Projects (RECEIVED: 13 Proposals / Subtotal - \$2,485,000)

		1				
2025-056	Kyungsoo	Yoo	Invasive Jumping Worms and Water in	Jumping worms belong to the 13 high-risk invasive species	U of MN, St. Anthony Falls	\$214,000
			Minnesota's Forests	that MN DNR classified as prohibited. We quantify the	Laboratory	
				extent to which jumping worms alter water flow in the		
				forest soils.		
2025-076	Christopher	Filstrup	Assessing Cyanobacteria Threats at	Because cyanobacteria blooms are becoming more severe	U of MN, Duluth - NRRI	\$197,000
			Lake Superior Beaches	in Lake Superior and the St. Louis River Estuary,		
				cyanobacteria toxin detection will be integrated into beach		
				monitoring programs to keep beachgoers safe.		

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
2025-084	William	Arnold	Cyanotoxins in Minnesota Lakes: The Role of Sunlight	The degradation of cyanobacterial toxins by sunlight will be quantified to understand how increasing frequency of cyanobacterial (harmful algal) blooms and changing environmental conditions influence toxin persistence in natural waters.	U of MN, College of Science and Engineering	\$220,000
2025-144	Jason	Ulrich	Addressing 21st Century Challenges for the St. Croix	A St. Croix River watershed model will be developed to identify potential hydrologic and water quality impacts to the Lower St. Croix River over the next 75 years.	Science Museum of Minnesota, St. Croix Watershed Research Station	\$243,000
2025-155	Kun	Zhang	Optimal Sampling Design for Tracking Impairments in Streams	Because agencies have limited resources and capacity to monitor streams at adequate resolution to assess stream health, we will use advanced computational approaches to develop and evaluate optimal sampling designs.	U of MN, Duluth	\$247,000
2025-211	Kelsey	Klucas	Wastewater Chloride Reduction through Industrial Source Reduction Assistance	Project seeks to reduce chloride effluent in communities with high chloride concentrations by providing technical assistance to identify cost-effective ways to reduce industrial/commercial chloride use.	U of MN, School of Public Health	\$247,000
2025-224	Andy	Erickson	Workforce Development and Certification for Water Quality Improvement	The project will create a certification curriculum that will enhance the technical capacity of water quality practitioners responsible for making watershed planning and project implementation decisions to maximize public benefit.	U of MN, St. Anthony Falls Laboratory	\$131,000
2025-233	John	Nieber	Pilot Water Budget Framework for Managing Water Withdrawals	This project will develop a pilot water budget framework to identify sensitive areas in Minnesota where net water withdrawals have a significant impact on surface and ground water.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$198,000
2025-245	Mary	Schneider	Loretto Water Treatment Pilot Study	This pilot study was recommended by city engineers before preliminary design of a water treatment facility to account for elevated levels of iron, ammonia, and manganese in the water system.	City of Loretto	\$68,000
2025-273	Andrew	Robertson	Riparian Zones: Managing the Landscape to Protect Streams	Assessing riparian zone buffering efficiency for preserving or improving physical stream health across different riparian zone types.	Saint Mary's University	\$250,000
2025-276	Tianhong	Cui	A Cheap Portable Sensor for PFAS Detection	We propose to develop a cheap, accurate, and easy-to-use sensor for detection of PFAS in water. It can be used for natural water monitoring and drinking water detection of PFAS.	U of MN, College of Science and Engineering	\$250,000
2025-298	Steven	Herrington	Leech Lake Fish Passage Feasibility Study	We will complete a feasibility study to restore fish passage at the U.S. Army Corps of Engineers' Leech Lake Dam in Cass County, MN.	The Nature Conservancy	\$125,000

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
2025-318	Kate	Ray	YMCA Camp Northern Lights Ground and Surface Water	We seek to protect the ground and surface water at YMCA Camp Northern Lights installing a rain garden and septic systemas we renovate and maintain a strong community asset.	YMCA of the North	\$95,000
					SubTotal	\$2,485,000
C. Environmen (RECEIVED: 20			518,000)	· · · · · · · · · · · · · · · · · · ·		
2025-016	Sara	Lemke	Advancing Equity in Environmental Education	Scholarships will provide inclusive Environmental Education for 7,900 Minnesota youth, addressing gaps in both classroom and outdoor learning. Aligned with state standards, the project supports ENRTF goals for equitable access.	Camp Fire Minnesota	\$700,000
2025-019	Patty	Born	Teacher Field School - Phase 2: Increasing Impact	Building on our successful LCCMR-funded, immersive, research-backed Teacher Field School, we expand the network of nature-based educators and pilot a train-the- trainer model to increase student learning and stewardship habits.	Hamline University	\$760,000
2025-023	Michelle	Wille	Nature-Centric Education: Bridging Gaps for Families	This proposal seeks funding to expand our nature education program, ensuring equity by providing families opportunities throughout the year. We aim to foster environmental stewards through place-based, multi-aged classes.	Project Wild Rooted	\$418,000
2025-027	Carrie	Jennings	Think Like a Geologist: Field-Training for Environmental Staff	County Geologic Atlases place water features in a regional geologic context. Geology field training for regional staff contextualizes protection and restoration efforts, promotes successful outcomes, and maximizes the State's return-on-investment.	Freshwater Society	\$334,000
2025-034	Ana	Munro	Creating Future Leaders in Outdoor and Environmental Leadership	Creating Future Outdoor & Environmental Leaders is a collaboration between K-12, higher education & outdoor organizations to increase environmental education, leadership, internship and career opportunities for underrepresented college and high school students.	North Hennepin Community College, Global and Cultural Studies Department	\$345,000
2025-065	Bryan	Wood	Outdoor School for Minnesota K-12 Students	Minnesota's five accredited outdoor schools will provide life-changing, immersive multi-day outdoor learning experiences at their campuses to a minimum statewide distribution of 20,000 K-12 students, achieving ENRTF's goals.	Osprey Wilds Environmental Learning Center	\$5,200,000

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Proposal ID	First Name		Title	Summary	Organization	Requested
2025-073	Cindy	Dorn		Pioneer PBS will produce 26 new episodes of a statewide	Pioneer PBS	\$415,000
			PBS Outdoor Series	television series designed to inspire Minnesotans to		
				connect with the outdoors and to restore and protect our		
				valuable natural resources.		
2025-103	2025-103 Brian	Miller	Maajii-akii-gikenjigewin Conservation	The Maajii-akii-gikenjigewin Conservation Crew Program,	Conservation Corps Minnesota	\$712,000
			Crew Program	developed in partnership with the Fond du Lac Band of		
				Lake Superior Chippewa, provides environmental		
				education and workforce development opportunities for		
				Indigenous young adults.		
2025-143	Lindsey	Kirkland	Minnesota's Roadmap for	The Roadmap for Sustainability and Climate Education will	Climate Generation	\$491,000
			Sustainability and Climate Education	mobilize stakeholders and align Minnesota's education		
				sector to the state's goals for equitable and accessible		
				sustainability and climate education.		
2025-147	Kristen	Poppleton	Connecting Students and Watershed	Student, teacher, and community outdoor learning	Minnesota Trout Unlimited	\$350,000
			Communities through Outdoor Science	opportunities to focus on water quality, groundwater, and		
				aquatic life will develop a community conservation ethic		
				and statewide network of watershed stewards.		
2025-149	Lee	Schmitt	ESTEP 2.0: Earth Science Teacher	The Earth Science Teacher Education Project (ESTEP) will	Minnesota Science Teachers	\$643,000
			Education Project	provide statewide professional development for	Association	
				Minnesota science teachers in Environmental and Earth		
				Science content and pedagogy to strengthen		
				environmental education in schools.		
2025-156	Beth	Becker	Wilderness Access and Leadership	This project increases leadership capacity and access to	YMCA of the North	\$1,134,000
			Development for Marginalized	immersive outdoor education experiences and curricula		
			Populations	for people of all ages with an emphasis on engaging		
				historically marginalized communities statewide.		
2025-198	Carolina	Ortiz	Engaging Latine Communities in	COPAL will utilize community-based partnerships and	Comunidades Organizando el	\$400,000
			Conservation and Preservation	communications platforms to host outdoor events	Poder y la Accion Latina	
				educating 15,550 Latine and BIPOC participants about the	-	
				need to protect Minnesota's air, water, and natural		
				resources.		
2025-212	Jessica	Ruthenberg	Inclusive Wildlife Engagement in	DNR will provide educational, hands-on, outdoor	MN DNR, Ecological and Water	\$796,000
			Classrooms and Communities	experiences for diverse demographics; leading students	Resources Division	
				and the public to conservation ethics and action through		
				three programs: Bird by Bird, EPIC, and Community		
				Science.		
2025-235	Sheila	Boldt	WonderTrek's Outdoor Adventure:	WonderTrek is on a mission to spark new generations of	WonderTrek Children's Museum	\$1,158,000
_			Sparking Next Generation Nature	nature enthusiasts by maximizing the power of playing in		. , , , = = =
			Enthusiasts	nature, outdoor recreation, & citizen science from the		
				earliest ages & up.		

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
2025-251	Roopali	Phadke	CollectED Project	CollectED will launch an education platform aimed at Minnesota educators, youth and families about the science of energy storage and the need for safe battery recycling and reuse.	Macalester College	\$559,000
2025-274	Lori	Nelson	Microtargeting Recycling Messaging for Better Environmental Outcomes	With a substantial amount of recyclables going to disposal, RAM proposes to pilot data-driven messaging to select Minnesotans to drive higher recycling rates that can be spread statewide.	Recycling Association of Minnesota	\$554,000
2025-281	Carol	Strecker	Linking Health Benefits of Nature to Conservation Mindedness	Diverse patients of Children's Minnesota health system will experience the health benefits of connecting to nature, increasing families' affinity for nature and laying the foundation for a lifelong conservation ethic.	Minnesota Zoological Garden	\$298,000
2025-284	Joseph	Grodahl	Norway House FriLife Project	Norway House is launching an educational series focused on equipping people with skills to enjoy the outdoors. FriLife program will be modelled after Norwegian cultural value of "open air living".	Norway House	\$260,000
2025-301	Lee	Furuseth	Science Centers Supporting Northern Boys and Girls Clubs	This proposal will expand access to environmental science education in Northern Minnesota by leveraging partnerships between rural and urban organizations to deliver culturally relevant, hands-on learning experiences to underserved students.	Headwaters Science Center	\$1,091,000
					SubTotal	\$16,618,000
C. Environmen H. Small Projec			/ Subtotal - \$2,550,000)			
2025-012	Jodee	Lund	Eagle's Nest: Where the World Becomes Your Classroom	Creating an innovative approach to improve people's mental health and wellbeing while developing an appreciation for, conservation of, and preservation of nature!	Glacial Hills Elementary School	\$130,000
2025-054	Brennan	Blue	Engaging our Diverse Public in Environmental Stewardship - Phase 2	Through outreach, education, internships and hands-on restoration activities, we will engage Minnesota's diverse population in community-based conservation work and learning that strengthens connection to and restores our natural areas.	Great River Greening	\$249,000
2025-085	Wendy	Caldwell	Prairie Oaks: Establishing Minnesota's Center for Pollinator Conservation	Our project will establish MJV's public-facing work at Prairie Oaks, inaugurating this campus as Minnesota's center for pollinator conservation. Activities include habitat demonstration sites, educational workshops, and a walking trail.	Monarch Joint Venture	\$173,000

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2025-120	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	\$225,000
2025-125	Brad	Bourn	River Bend Nature Center Outdoor Diversity Initiative	River Bend Nature Center will lead a coalition of educational partners and culturally specific organizations to expand recognized environmental education curriculum into East African and Latinx communities in Southern Minnesota.	River Bend Nature Center	\$247,000
2025-134	Katy	Nelson	Camp Parsons Mississippi Summer	Phyllis Wheatley Community Center (PWCC) will provide environmental education to Minneapolis youth through Camp Parsons Mississippi Summer, a program that fosters connections to nature and encourages responsible stewardship.	Phyllis Wheatley Community Center	\$225,000
2025-135	Ray	Ruiz	Adult Outdoor Education for Minnesota's Underrepresented Communities	Baztec Fishing & Outdoors is committed to creating fishing and hunting opportunities for underserved and underrepresented communities in the great state of Minnesota.	Baztec Fishing & Outdoors	\$247,000
2025-172	Brennan	Blue	Diverse Pathways to Place-Based Environmental Stewardship	A robust and diverse site stewardship program connecting Minnesota's diverse public to place-based stewardship and monitoring opportunities designed to nurture conservation ethic and support ongoing restoration work.	Great River Greening	\$137,000
2025-183	Michael	Granlund	Nature Play Area Expansion	The proposed project is to install natural play elements at the established nature play area that blends into the existing natural environment at Lake Bemidji State Park.	Friends of Lake Bemidji State Park	\$18,000
2025-184	Alison	Schaub	Minnesota Valley Refuge Friends	Bountiful, open opportunities to nature, conservation and education at our urban refuge.	Minnesota Valley Refuge Friends	\$210,000
2025-254	Victoria	Hall	Activating Youth and Family Environmental Stewardship through Raptors	The Raptor Center proposes to provide holistic student and community engagement in environmental education, inspiring and activating both youth in under-resourced schools and their families through community events.	U of MN, Raptor Center	\$228,000
2025-296	Brian	Hiller	Moving Minnesota towards a Lead- Free Sporting Future	We will use educational outreach to increase awareness of lead-free options for big game hunting, small game hunting, and fishing as a means of reducing wildlife exposure to lead.	Minnesota State Colleges and Universities, Bemidji State University	\$250,000
<del>2025-310</del>	Dave	<del>McMillan</del>	WITHDRAWN Nature Accessibility Initiative	The Nature Accessibility Initiative aims to build upon the recent improvements to the Long Lake campus, trail- systems and equipment so that people can experience the wonders of nature.	Long Lake Conservation Center	<del>\$211,000</del>
					SubTotal	\$2,550,000

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
•		vasive Species btotal - \$8,006		•	· · · · ·	
2025-126	Nicholas	Phelps	Aquatic Invasive Species: From Problems to Real-World Solutions	MAISRC will launch 20-24 high-priority projects aimed at solving Minnesota's AIS problems using a rigorous, prioritized, and collaborative process. Results will be delivered to end-users through strategic communication and outreach.	U of MN, MAISRC	\$6,500,000
2025-196	Megan	Fitzpatrick	Optimizing Non-Native Cattail Treatment Effectiveness in Prairie Wetlands	We propose research to compare effectiveness of several invasive cattail treatment methods. Outcomes will include practical recommendations for managers to maximize benefits of conservation dollars for native plants and wildlife.	MN DNR, Fish and Wildlife Division	\$1,006,000
2025-248	Matthew	Gabb	Edina Hazardous Ash Tree Removal Program	To slow the spread of invasive emerald ash borer and maintain a robust tree canopy, Edina will create an ash tree removal program focused on low-income and multifamily housing.	City of Edina	\$500,000
					SubTotal	\$8,006,000
•		vasive Species : 1 Proposals / <sup>Bluhm</sup>	Subtotal - \$38,000) Public Water Access AIS Cleaning	Installation of 200 additional Self-Service AIS Cleaning	Association of Cass County Lakes	\$38,000
			Station Signs and Tools	Station Signs & Tools at Cass County public and private water accesses. Twenty-seven percent (27%) increase in watercraft cleaning when AIS tools are present.	(ACCL)	
					SubTotal	\$38,000
•		ge, and Renew ubtotal - \$32,1				
2025-049	Gretchen	Hansen	Protecting Coldwater Fish Habitat in Minnesota Lakes	Identify lake-specific watershed protection targets and management practices needed to maintain coldwater fish habitat given warming temperatures and increasing extreme rain events, and integrate this information into conservation planning tools.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$587,000
2025-078	Bradley	Heins	Agrivoltaics 2.0 Building a Resilient E- Farm	The project team at the WCROC will evaluateemerging solar system designs that will maximize energy production as well as provide maximal benefits to farmers.	U of MN, WCROC	\$678,000
2025-080	Summer	Streets	Pine Needles Reveal Past and Present Airborne PFAS	Pine needles are great passive air samplers because their waxy outer layer attracts airborne pollutants. Pine needles will be used to assess airborne PFAS in current and historic pine needles.		\$574,000

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2025-133	Dan	Coughlin	New London Hydrogen Sulfide Mitigation Project	We will address the water quality impairments and deficiencies in Lake Monongalia that are creating hazardous hydrogen sulfide gas emissions in New London through the application of nanobubble aeration technology.	Middle Fork Crow River Watershed District	\$2,203,000
2025-161	Roger	Ruan	Sustainable Aviation Fuels from Renewables through Microwave- Assisted Conversion	This project aims to develop and demonstrate a catalytic microwave-assisted hydrodeoxygenation system for converting waste oils and fats into sustainable aviation fuels.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$898,000
2025-170	Craig	Hill	Breaking Waves and Ice Forces on Coastal Infrastructure	Great Lakes waves and ice conditions are changing. This project measures wave and ice forces on coastal infrastructure, informing designs to make Minnesota's coastal ecosystems resilient to extreme weather conditions.	U of MN, Duluth	\$437,000
2025-203	Roger	Ruan	Sustainable Nonthermal Plasma Assisted Ammonia Production	This project aims to develop a novel non-thermal plasma technology to replace the Haber-Bosch process with renewable electricity and water electrolysis for greener production of ammonia.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$850,000
2025-204	Roger	Ruan	Nonthermal Plasma and Microwave Technology for Virus Control	The project aims to develop pilot-scale non-thermal plasma and microwave air filtration modules for virus, aerosol, chemical gas, and odor removals with effectiveness surpassing HEPA filters.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$959,000
2025-218	Uwe	Kortshagen	Minnesota Center for Agrivoltaics and Biodiversity (MCAB)	Solar energy faces mounting land competition, rural reluctance, and aesthetic concerns, which may hinder Minnesota's clean energy transition. The Minnesota Center for Agrivoltaics and Biodiversity aims to overcome these barriers.	U of MN, College of Science and Engineering	\$2,750,000
2025-249	Jennifer	King	Industrial Decarbonization in Minnesota through Sustainable Aviation Fuels	Performing TEA/LCA of the relevant SAF pathways leveraging MN resources, providing a preliminary design of a potential SAF plant, identifying demonstration facilities necessary to derisk the MN SAF hub	National Renewable Energy Laboratory	\$1,000,000
2025-256	Natasha	Wright	Cultivating Sustainable Food Systems with Deep Winter Greenhouses	We will improve the efficiency and profitability of deep winter greenhouses, bridging growing seasons and creating resilient food systems via passive solar growing in winters and solar drying in summers.	U of MN, College of Science and Engineering	\$306,000
2025-257	Jun	Li	Facilitated Transport Hybrid Membranes for CO2 Separation	To capture CO2, we will develop advanced polymeric membranes infused with metal-organic framework nanoparticles. These membranes facilitate the passage and collection of CO2 while blocking the permeation of other gases.	U of MN, College of Science and Engineering	\$1,150,000

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2025-267	Harsh	Anurag	Impact of Changing Climate on Municipal Water Demand	Developing tool that utilizes advanced statistics on water demand and climate data to forecast the effect of climate change on municipal water demand, aiding in enhancing water supply system resilience	Geosyntec Consultants, Inc.	\$351,000
2025-269	Shehla	Mushtaq	Aligning ENRTF Research and Projects around Collaborative Strategies	Consultants and college students will facilitate the co- creation of Impact Strategy Maps and Research Strategy Maps to align ENRTF-funded work for greater impact, managing information in the InsightVision platform.	Collectivity	\$491,000
2025-290	Paul	Dauenhauer	Renewable Energy Conversion for Farm Diesel and Ammonia	To develop a novel charge-swing reactor that can convert water to hydrogen at lower cost (<\$1 / kg-H2) for on-the- farm energy storage or as reductant for diesel or ammonia fertilizer.	U of MN, College of Science and Engineering	\$836,000
2025-303	Cedric	Heller	Repurposed Railroad Tie Conversion to Biofuel Energy Source	We intend to pulverize used railroad ties and turn them into dense pellets for use in bio-fuel energy systems.	Hallett Dock 7, Bio-Fuel Solutions	\$3,327,000
2025-306	Matt	Phillips	Innovative Solution to Renewable Energy from Food Waste	A partnership supporting the State climate and renewable energy goals by diverting organic materials from landfills and producing renewable natural gas (RNG) through anaerobic digestion and sequestering carbon into biochar.	Ramsey/Washington Recycling & Energy Board	\$10,000,000
2025-313	Tracy	Hodel	Fueling the Future: Decarbonizing Regional Transportation Project	Utilizing green hydrogen as a renewable, carbon-free, alternate fuel source: decarbonizing city fleet, public transit, manufacturing and transportation sectors within the community; improving air quality and enhancing energy resiliency.	City of St. Cloud	\$4,300,000
2025-316	Luca	Zullo	Assessing and Improving Environmental Impacts of Agri-Food Businesses	Work with small-medium sized value-added agri-food businesses in Minnesota that lack the expertise to assess their environmental footprints and identify interventions to improve their sustainability profile.	Agricultural Utilization Research Institute	\$471,000
					SubTotal	\$32,168,000
E. Air Quality, H. Small Projec			able Energy Subtotal - \$2,186,000)			
2025-102	Mike	Reinikainen	Adapting Southeast Minnesota Oak Forests for Climate Change	We will assess performance of future-adapted tree seedlings planted across a suite of forested growing conditions associated with silvicultural harvest treatments designed to encourage adaptive capacity in dry-mesic oak- dominated forests.	MN DNR, Forestry Division	\$199,000
2025-162	Roger	Ruan	Bioelectrochemical Utilization of Waste CO2 from Ethanol Plants	This project combines CO2 capture from ethanol plants with wastewater treatment. It utilizes microbial electrosynthesis system with optimized bioelectrodes to convert the CO2 to valuable fuels and bioproducts.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$250,000

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2025-200	Audrey	Pallmeyer	Cooperative Energy Futures: Energy Efficiency Program	Cooperative Energy Futures will implement a coordinated community-based home energy upgrade program, providing behind-the-scenes program, funding, and technical coordination to increase uptake of residential energy efficiency in the Twin Cities.	Cooperative Energy Futures	\$249,000
2025-206	Roger	Ruan	Managing PFAS in Stand-Alone Digesters for Resource Circularity	Investigate sustainable methods for organic waste treatment in anaerobic digesters to recover energy and resources. Additionally, study the presence and transformation of PFAS during these processes to promote resource circularity.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$250,000
2025-207	Roger	Ruan	Sustainable Manipulation to Reduce Dairy Methane Emissions	This project will utilize in vitro simulation systems and prediction models to assess the potential of live microalgae as feed additives for regulating and mitigating dairy methane emissions.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$250,000
2025-208	Roger	Ruan	Sustainable Pilot-Scale Continuous Bin Composter Development	Developing a pilot scale continuous composter that integrates leachate recirculation, intelligent airflow control, and heat-to-energy conversion for maximized resource recovery and minimized environmental impacts.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$250,000
2025-220	Sayan	Biswas	Sustainable and Eco-Friendly Grain Drying Using Ammonia-Fired Technology	This proposal aims to demonstrate a reliable, cost- effective, and efficient 100% ammonia burner technology for grain drying applications, utilizing a preheated catalytic bed and high-pressure ammonia-air mixture.	U of MN, College of Science and Engineering	\$250,000
2025-225	Walter	Piper	Understanding Climate Impacts on Common Loons	Loss of water clarity hampers loon foraging and has caused population decline in Wisconsin. I propose to build a marked population of loons to determine if Minnesota shares that problem.	Chapman University, Schmid College of Science and Technology	\$238,000
2025-297	Andrew	Jones	Minnesota Roads CO2 Capture Using Carba Pyrolysis Technology	This proposal demonstrates and assesses the use of biomass-derived charcoal in Minnesota road construction layers to improve road properties, robustness and carbon sequestration.	Carba	\$250,000
					SubTotal	\$2,186,000
		store Land, Wa ubtotal - \$16,6	ater, and Habitat 555,000)			
2025-007		Remucal	Minnesota PlantWatch: Community Scientists Conserving Rare Plants	Grow MN PlantWatch to better enhance the conservation of Minnesota's natural resources by supporting community scientist-driven rare plant surveys and seed banking and investing Minnesotans in preserving their natural heritage.	U of MN, Landscape Arboretum	\$1,086,000

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2025-069	Sabrina	Claeys	Native Forages: Growing Drought and Climate Resiliency	Increasing ecosystem function and landscape resiliency by collaborating with the grazing community to establish and enhance native forages on working lands to improve ecological, economical, and climate resiliency.	Ducks Unlimited Inc	\$3,020,000
2025-096	Nfamara K	Dampha	Nature's Value in Reducing Climate Risks in Minnesota	Research aims to apply an integrated risk modeling with community engagement to assess nature-based solutions' effectiveness in mitigating floods, droughts, wildfires, and heatwaves in Minnesota's urban, rural, and tribal communities.	U of MN, Institute on the Environment	\$499,000
2025-116	Lisa	Luokkala	SHT Bridge, Boardwalk and Trailhead Renewal	The Superior Hiking Trail seeks to renew bridges, boardwalk and trailheads to increase user safety, improve the user experience, and protect adjacent land and water.	Superior Hiking Trail Association	\$532,000
2025-118	Brian	Vlach	Mississippi Gateway Shoreline Stabilization and Fishing Improvements	The project will improve water quality and shoreline fishing access through the stabilization of the Mississippi River Corridor Critical Shoreline Area within Mississippi Gateway Regional Park, Brooklyn Park.	Three Rivers Park District	\$735,000
2025-141	Lee	Penn	Biochar to Monitor and Remediate Microplastics	Microplastics are ubiquitous. We propose to develop a biochar-based method to monitor and sequester microplastics in Minnesota waters.	U of MN, College of Science and Engineering	\$546,000
2025-152	Michael	Smanski	Phytoremediation of PFAS from Soil	This collaborative project will use interdisciplinary research at the interface of biology, nanotechnology, chemistry, and genetic engineering to remediate soils contaminated with PFAS.	U of MN, College of Science and Engineering	\$1,066,000
2025-192	Aaron	Secrest	Reduce Landfill Waste and Capture E- Waste	The project would include building a fully functional recycling facility in order to capture E-Waste from reaching our landfills through community education and free drop off sites statewide.	Secrest Enterprise LLC	\$1,345,000
2025-205	Roger	Ruan	Microwave-Assisted Decontamination System for Destructing Soil Contaminants	This project aims to develop and demonstrate a continuous conveyor belt-type catalytic microwave-assisted decontamination system for remediating various contaminants in soil.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$989,000
2025-219	Sayan	Biswas	Improving Minnesota Forest Health via Post-Duff-Burning Soil Analysis	Study forest-bed duff-fire effects on soil, earthworms, nutrient cycles, tree regeneration seedbed characteristics, root systems, invasive shrub spread (buckthorn, honeysuckle), and hydrophobicity, to improve fire management for resilient ecosystems.	U of MN, College of Science and Engineering	\$700,000

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2025-228	Alex	Jordan	Minnesota Riverbank Protection and Parks Improvements	Integrate Minnesota Riverbank Protection with Huber Park and Historic Marina improvements to protect cultural resources, river corridor fish and wildlife habitat, public infrastructure, and encourage river access for parks users.	City of Shakopee	\$1,400,000
2025-232	Gabriele	Menomin	Restoration at Wakan Tipi/BVNS	Restoration and management of Wakan Tipi (aka Bruce Vento Nature Sanctuary), including invasive species removal, disposal and management, prescription burns, site monitoring and data collection, and native seeding & plantings.	Lower Phalen Creek Project	\$676,000
2025-246	John	Gulliver	Aerial Investigation of Stormwater Ponds' Water Quality Impacts	We propose analyzing Minnesota urban stormwater ponds using AI tools and satellite imagery to remotely assess water quality conditions of individual ponds and their potential impact on downstream surface waters.	U of MN, St. Anthony Falls Laboratory	\$426,000
2025-266	Adam	Кау	Promoting Pollinators on Corporate Campuses	We will use experimental "bee lawn" installations on corporate campuses, combined with landscape modeling and employee surveys, to determine potential ecological, economic, and societal benefits of widespread lawn habitat transformation	University of St. Thomas	\$591,000
2025-283	Brian	Aukema	Tree Protection for Minnesota's Tamarack Against Larch Beetle	Eastern larch beetle, native to Minnesota, has decimated one million acres of Minnesota's tamarack forests since 2001. This proposal evaluates new insect management techniques to protect and preserve trees.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$334,000
2025-287	Marya	Johnston- McIntosh	Collaborative All Lands Habitat Restoration Team	The habitat restoration team will support land stewardship across public, private, tribal lands with capacity and equipment to improve habitat through prescribed fire, invasive species management and timber stand improvement.	The Nature Conservancy	\$810,000
2025-288	Adam	Arvidson	Shoreline Restoration and Enhancement at Minneapolis Lakes	This project will restore and enhance approximately 2.75 miles of turf-dominated, eroding, low habitat value lakeshore around Minneapolis's famous Chain of Lakes.	Minneapolis Park and Recreation Board	\$1,000,000
2025-317	Margaret	Wagner	Developing Markets for CLC Crops	Grants to organizations in Minnesota to develop enterprises, supply chains, and markets for continuous living cover crops and cropping systems in the early stage of commercial development.	Minnesota Department of Agriculture	\$500,000
2025-320	Anna	Gruber	The Mill District Habitat Restoration Site	Project includes restoration of a riparian area to foster habitat and improve water quality within a previously abandoned industrial property along the Mississippi River.	City of Sartell	\$400,000
					SubTotal	\$16,655,000

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested
			iter, and Habitat / Subtotal - \$2,112,000)			
2025-030	Brandon	Miller	Grassland Restoration for Pollinator Conservation and Demonstration	UMLA will reconstruct a degraded 8.5-acre pasture to serve as a model for climate-resilient pollinator habitat, incorporating community engagement and species monitoring for continued educational opportunities.	U of MN, Landscape Arboretum	\$250,000
2025-066	Kristine	Maurer	Planning for Long-Term Natural Resources Protection, Hennepin County	We will implement a vision to protect, connect, and manage natural systems through a collaboratively sourced interactive mapping mechanism, centralized clearinghouse for data and best practices, and strategic training program.	Hennepin County	\$250,000
2025-097	Wiley	Buck	Accelerated Genetic Migration of Bur Oak- 10yr Data	Collect the 8-10yr data on growth and survival, of three bur oak ecotypes previously planted in four restoration sites under ML2015 "Enhancing Restoration Techniques for Improved Climate Resilience". Disseminate results.	Great River Greening	\$223,000
2025-154	Michael	Smanski	Removing Mercury from Minnesota Waters	We will test and refine a biotechnology approach to removing mercury from the food chain in Minnesota's lakes and rivers. If successful, this will make fish consumption in Minnesota safer.	U of MN, College of Biological Sciences	\$247,000
2025-176	Joshua	Lallaman	Evaluating Native Seed Mixes for Grazing	Assess the use of native hay and pasture mixes to benefit biodiversity, soil health, and Minnesota farmers.	Restoravore	\$208,000
2025-190	Carrie	Nicklow	Increase Native Tree Seedling Planting in Minnesota	Let's Plant Trees will expand seedling distribution and planting efforts by quantity and region, expand education and collaboration activities, and facilitate volunteer tree planting projects across the state of Minnesota.	Let's Plant Trees	\$128,000
2025-209	Adam	Arvidson	Nokomis Urban Wet Meadow Restoration Pilot	This project will restore approximately 3.5 acres of low- lying parkland currently dominated by invasive species to a native wet meadow landscape type.	Minneapolis Park and Recreation Board	\$240,000
2025-263	Kristina	Rehnelt	Increasing Resilience of Voss Park Campground	The City of Butterfield's Voss Park Campground is under threat from Emerald Ash Borer which could potentially impact the Ash trees.	City of Butterfield	\$81,000
2025-270	Christian	Lenhart	A Riparian Area Adaptation Strategy for Southeast Minnesota	We will conduct research on a riparian climate change adaptation strategy involving floodplain reconnection and shrub planting in Southeast Minnesota in partnership between TNC and the University of Minnesota	The Nature Conservancy	\$243,000
2025-282	Adam	Arvidson	Minnehaha Park South Plateau Oak Savanna Restoration	This project will restore approximately 5.5 acres of urban parkland in the heavily visited and historically significant Minnehaha Park to an oak savanna ecosystem.	Minneapolis Park and Recreation Board	\$242,000

Proposal ID	First Name	Last Name	Title	Summary	Organization	Amount Requested \$2,112,000
-		, and Recreatic ubtotal - \$38,8			Jubrotal	\$2,112,000
2025-024	Ansel	Schimpff	Duluth Traverse Accessibility and Progression	COGGS seeks to enhance the Duluth Traverse trail network, improving accessibility and sustainability across the system while increasing opportunities for progression and skills building for all users.	Cyclists of Gitchee Gumee Shores	\$285,000
2025-043	Nick	Arola	Carey Lake Recreation Area Enhancement Project	Development of Carey Lake Recreation Area consisting of multiple enhancements including the construction of new trails, a bog walk, playground structure, beach enhancement, pavilion construction, and maintenance building construction.	City of Hibbing	\$1,155,000
2025-051	Caleb	Peterson	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	\$1,485,000
2025-055	Lisa	West	Cannon River Preservation and Access	The project includes rehabilitating the historic Waterford Bridge for the Mill Towns State Trail, protecting and restoring land for habitat and improving recreational access to the Cannon River.	Dakota County	\$3,032,000
2025-060	Sonja	Pelland	Littlefork Public RV Campground	This project consists of the design and construction of a new campground with necessary amenities for the City of Littlefork.	City of Littlefork	\$2,500,000
2025-081	Sarah	Ciochetto	Mesabi Trail Aurora to Hoyt Lakes	The construction of an approximately 4.5 mile-long segment of the Mesabi Trail beginning at the intersection of Main Street (CR 100) and Forestry Road in Aurora toward Hoyt Lakes.	St. Louis & Lake Counties Regional Railroad Authority	\$2,000,000
2025-090	Emily	Dick	Prior Lake Outlet Pipe Lining	To avoid flood damage and provide climate resiliency, the Prior Lake Outlet pipe, the sole outlet for a 18,904-acre watershed, urgently needs repair to maintain and improve essential functionality.	Prior Lake-Spring Lake Watershed District	\$763,000
2025-114	Karli	Wittner	RTA Maintenance Trail Stabilization Project	Retaining wall construction along the maintenance trail at Richard T. Anderson Conservation Area (RTA) to mitigate ongoing erosion, to restore adjacent remnant prairie, and protect native habitat & plant communities.	City of Eden Prairie, Parks and Natural Resources Department	\$500,000
2025-122	Jenni	Bubke	Local Parks, Trails, and Natural Areas Grant Programs	Provide approximately 18 matching grants for local parks, trails, 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

	E		1			Amount
Proposal ID	First Name		Title	Summary	Organization	Requested
2025-182 Karlin	Karlin	Ziegler	Lake Zumbro Park Water Access and	Objectives of the project are to enhance the park's water	Olmsted County	\$2,500,000
			Site Improvements	access and ADA accessibility while creating new amenities		
				that are more user-friendly and accessible to individuals		
				and families.		
<del>2025-186</del> Eric	Eric	Mayranen	WITHDRAWN Facility Accessibility	We seek to connect disabled veterans and citizens with the		<del>\$400,000</del>
			Upgrades	outdoors and BWCA through the upgrading of our facilities		
				and the construction of a new ADA compliant facility.		
2025-197	Judy	Elbert	Scientific and Natural Area (SNA)	Scientific and Natural Area (SNA) strategic acquisition	MN DNR, Ecological and Water	\$1,200,000
			Biodiversity Protection	(~100 acres) will conserve Minnesota's most unique places	Resources Division	
				and rare species for everyone's benefit.		
2025-201	Kyle	Morell	Scandia Gateway Trail Connection:	Bike/pedestrian connection via a wetland trail connecting	City of Scandia	\$998,000
			Recreation, Wetlands, Environmental	the state Gateway Trail to		
			Education	recreational/cultural/environmental resources in Scandia		
				Gammelgården Museum, playgrounds, athletic facilities,		
				amphitheater, splash pad, and		
2025-213	Niki	Geisler	Lake Byllesby Regional Park	Improvements in Lake Byllesby Regional Park will involve	Dakota County	\$1,238,000
			Restoration and Recreation	natural resource restoration, new natural surface trails,		
				birding and picnic areas; in three areas to enhance the		
				visitor experience and stewardship.		
2025-216	Niki	Geisler	Thompson County Park Restoration	Through a "Pollinator Promenade," stream restoration,	Dakota County	\$1,050,000
			and Accessibility Improvements	and an accessible paddle launch, this project will		
				incorporate accessibility improvements and natural		
				resource restoration to enhance access to nature within an		
				urban setting.		
2025-227	Ray	Sogard	Sportsmen and Sportswomen Training	The Minnesota Forest Zone Trappers Association (MFZTA)	Minnesota Forest Zone Trappers	\$1,050,000
			Center - Phase 2	is requesting a \$1,050,000 grant for Phase 2 of the	Association	
				Sportsmen's & Sportswomen's Outdoor Training and		
				Development Center.		
2025-231	Michael	Honer	SLPR Bison Prairie Interpretive Center	This project is for programming, schematics, and design	Dakota County	\$600,000
			and Platforms	development for a bison prairie interpretive center and		
				two viewing platforms to complement the bison prairie at		
				Spring Lake Park Reserve (SLPR)		
2025-236	Katie	Bennett	Thom Storm Chalet and Outdoor	Reconstruct the Thom Storm Chalet and Outdoor	City of Duluth	\$2,850,000
			Recreation Center	Recreation Center to expand high-quality outdoor		
				recreation and environmental education opportunities to		
				preserve and protect the unique natural resources of		
				Chester Park.		
2025-240	Andrea	Harrell	Quarry Lake Erosion Project	The City of Shakopee will re-grade and stabilize portions of	City of Shakopee	\$404,000
				Quarry Lake affected by erosion, and construct a fishing		
				pier and paved trail.		

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2025-252	Sabin	Adams	Enhancing Public Access to Habitat	In partnership with state, federal and private agencies, we seek funding to expand public access to an additional 20,000 acres of private lands for hunting and other outdoor recreation.	Pheasants Forever Inc	\$1,470,00
2025-255	Jessica	Rich	City of Proctor 3rd Street Park	Redeveloping the 3rd Street Park into a vibrant community gathering space serving residents of Proctor. A new basketball court, pavilion, and green gathering spaces will be constructed.	City of Proctor	\$875,00
2025-291	Jessie	Dehn	TH 210 / Lum Park Trail and Pedestrian Bridge	The Project will construct a new pedestrian overpass bridge and grade-separated multi-use trail access to Lum Park at TH 210 in Brainerd.	City of Brainerd	\$3,750,00
2025-293	Kevin	Fellbaum	Echo Bay County Park - Phase 1 Construction	Construction of access roads, access trails, parking and bathroom facilities within the County's recently acquired 165-acre, Echo Bay County Park.	Otter Tail County	\$1,250,000
<del>2025-300</del>	Jeff	Jacobson	WITHDRAWN <del>City of Biwabik</del> Recreation Area - Phase <del>2</del>	Updating and expanding utility service to add 51 additional campsites as well as resurfacing the roadway through the campground. Replacement of retaining wall at beach and- pickleball court installation.	City of Biwabik	\$ <del>1,948,00</del>
2025-319	Ashley	Cauley	Chaska Big Woods Property Acquisition	The City of Chaska wishes to acquire property that contains remnant Big Woods for the preservation of its natural resources, including mature stands of trees and wetlands, in perpetuity.	City of Chaska	\$557,000
					SubTotal	\$38,860,000
						238,800,00
-	cts (RECEIVED	, and Recreation: 3 Proposals / Martin	Subtotal - \$453,000) Boardwalk Over Boggy Land for	Construct a 400-ft long, 5-ft wide boardwalk over	City of Battle Lake	
. Small Proje	cts (RECEIVED	: 3 Proposals /	Subtotal - \$453,000)	Construct a 400-ft long, 5-ft wide boardwalk over undevelopable city land giving walkers and hikers access to a boggy wildlife habitat while maintaining drainage considerations for low areas	City of Battle Lake	
. Small Proje	<b>cts (RECEIVED</b>	: 3 Proposals /	Subtotal - \$453,000) Boardwalk Over Boggy Land for	undevelopable city land giving walkers and hikers access to a boggy wildlife habitat while maintaining drainage	City of Battle Lake Ramsey County Parks and Recreation	\$148,000
2025-173	cts (RECEIVED	: <b>3 Proposals /</b> Martin	Subtotal - \$453,000) Boardwalk Over Boggy Land for Recreational Purposes Tamarack Nature Center Raptor Mew	undevelopable city land giving walkers and hikers access to a boggy wildlife habitat while maintaining drainage considerations for low areas Construction of a raptor mew to house and display animal ambassadors at Ramsey County Parks & Recreation's	Ramsey County Parks and	\$148,000

						Amount
Proposal ID	First Name	Last Name	Title	Summary	Organization	Requested
2025-166	Katherine	Sherman-Hoehn	2025 Contract Agreement	Provide contract management to ENRTF pass-through	MN DNR, Grants Unit	\$280,000
			Reimbursement	appropriation recipients for approximately 115 open		
				grants. Ensure funds are expended in compliance with		
				appropriation law, state statute, grants policies, and		
				approved work plans.		
					SubTotal	\$280,000
					Total	\$183,149,000