

**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

For the FY 2024 and FY 2025 biennium (July 1, 2023 -June 30, 2025), approximately \$79 million is available each year for funding from the Environment and Natural Resources Trust Fund and approximately \$189,000 is available from the Great Lakes Protection Account. As of March 26, 2022, the Legislative-Citizen Commission on Minnesota Resources (LCCMR) received 174 proposals requesting a total of approximately \$164 million. This RFP process is for funding beginning July 1, 2023.

LCCMR reviews and evaluates all proposals against their 10 adopted evaluation criteria. On July 25, members selected 85 proposals requesting a total of approximately \$86 million to invite in for a presentation before the LCCMR on August 8, 9, 10, 16 and 17 in order to receive further consideration. On August 30, the LCCMR will meet to make final selection and funding allocation decisions. These selected projects will be presented to the 2023 Minnesota Legislature as the official LCCMR recommendations for spending from the Environment and Natural Resources Trust Fund and Great Lakes Protection Account.

Selected to Present	Proposal ID	Last Name	First Name	Title	Summary	Organization	Requested \$
<b>A. Foundational Natural Resource Data and Information (21 Proposals / \$14,278,000 - SELECTED TO PRESENT: 13 Proposals / \$8,134,000)</b>							
	2023-029	Mamun	Saleh	Nature's Benefits to People in Minnesota	We will develop a decision tool for stakeholders and resource managers to assess tradeoffs among ecosystem service benefits that result from different land use policy and management options.	U of MN, Duluth - NRRRI	\$ 624,000
X	2023-066	Zobel	John	Removing Barriers to Carbon Market Entry	Carbon markets incentivize carbon sequestration, but significant cost-barriers exist for landowner participation. Leveraging remotely sensed data, cost-effective fieldwork, and robust modeling will enable climate-smart activities that benefit all Minnesotans.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 590,000
X	2023-072	Gentry	Dale	Mapping Migratory Pitstops in Minnesota	Identifying Avian Migratory Stopover Sites to provide foundational information necessary for the conservation of migratory birds.	Audubon Minnesota	\$ 341,000
X	2023-092	Wilson	David	Statewide Forest Carbon Inventory and Change Mapping	Accurate inventories are needed to facilitate carbon market entry for forestland owners. An estimated 1,000 plot-based inventories will be collected from private forestland to expand all-lands lidar forest inventory statewide.	MN DNR, Forestry Division	\$ 1,538,000
	2023-093	Bernardo	Holly	Lake Biodiversity Conservation: Connecting Data to Action	Supporting lake and shoreline conservation through data collection and targeted outreach to lake and shoreline stakeholders.	MN DNR, Ecological and Water Resources Division	\$ 394,000
	2023-104	Clark	Mark	Understanding Native "Rough Fish" in the Bowfishing Era	Quantify age, size and reproductive status of four fishes, classified as "rough fish" with minimal or no harvest limits in Minnesota, which now experience increasing, significant exploitation by recreational bowfishing.	U of MN, Duluth	\$ 382,000

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	2023-106	Olmanson	Leif	Providing Critical Water Temperature Data for Minnesota Lakes	Create an automated system to acquire, process, and deliver new satellite-derived lake temperatures for all Minnesota lakes ~biweekly and make it available in the Minnesota LakeBrowser in near-real-time.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 297,000
X	2023-146	Reddy	Sushma	Salvaged Wildlife to Inform Environmental Health, Ecology, Education	Establish a statewide network to collect, analyze, and archive salvaged dead wildlife and build a foundation of biodiversity resources to track ecosystem-wide changes, monitor environmental health, and promote public education.	U of MN, Bell Museum of Natural History	\$ 486,000
X	2023-154	Lane	Ian	Developing Conservation Priorities for Rare and Specialist Bees	We will collect data on occupancy and range of rare pollen specialized bees and their habitat preference to determine status and conservation strategies.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 668,000
	2023-156	Yang	Ce	Multi-Level Monitoring and Control Toward Smart Pasture Management	This project will develop new pasture management strategies using multi-level robotic monitoring and precision agricultural techniques to remove weeds in pastures and determine optimal time and location for grazing rotation.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 1,027,000
	2023-159	Folta	Bradford	Water Protection Geomatic and Geospatial Intensive Data Capture	The goal is to establish a data foundation, with intensive data collection and educate the new and current workforce with modern tools that preserve, conserve and to protect Minnesota waters .	Minnesota Geospatial & Geomatics Institute	\$ 2,478,000
X	2023-169	Haus	Jacob	Efficacy of Urban Archery Hunting to Manage Deer	Several municipalities across Minnesota conduct special deer hunts within city-limits, but the efficacy is unknown. An analysis of deer survival and habitat use will improve management practices in these regions.	Minnesota State Colleges and Universities, Bemidji State University	\$ 393,000
	2023-173	Salomon	Christine	Survey, Protection and Application of Rare Minnesota Fungi	Survey, characterization and assessment of rare and endangered fungal species found in old growth forests and protected habitats in Scientific and Natural Areas (SNAs) throughout Minnesota.	U of MN, College of Pharmacy	\$ 647,000
X	2023-182	Garcia y Garcia	Axel	Cover Crops: Rooting for Sustainable Cropping in Minnesota	Synthesis of existing and new research coupled to modeling, will be used to develop decision-making information on cover crop carbon sequestration, nitrogen and water use, and environmental benefits in MN.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 365,000

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X	2023-183	Forester	James	Mapping the Ecology of Urban and Rural Canids	We will determine how disease prevalence, diet, habitat use, and inter-species interactions of coyote and red fox populations change from urban to rural areas along the Mississippi River corridor.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 624,000
X	2023-186	Windmuller-Campione	Marcella	Maximizing Lowland Conifer Ecosystem Services: Phase 2	Continue monitoring forested peatland network for hydrology and wildlife including a new species, bog lemming. Add measures to quantify above and below ground carbon by age and forest type.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 500,000
	2023-208	Caldwell	Wendy	Pollinator Habitat, Investments, and Community Science in Minnesota	We will support Minnesota pollinator conservation by working with the Conservation Corps to evaluate habitat, share research findings, engage the public in community science, and develop Minnesota-centric education resources.	Monarch Joint Venture	\$ 295,000
X	2023-209	Hall	Kristin	Modernizing Minnesota's Wildlife (and Plant!) Action Plan	Updating the Species in Greatest Conservation Need list through surveys, standardized assessments, and including rare plants for the first time to create v.3.0 of Minnesota's Wildlife Action Plan.	MN DNR, Ecological and Water Resources Division	\$ 889,000
X	2023-218	Peters	Emily	Old Growth Forest Monitoring	We will develop a method to monitor approximately 93,000 acres of protected old growth forest in Minnesota to ensure that these rare and important forest resources are properly protected.	MN DNR, Ecological and Water Resources Division	\$ 441,000
X	2023-232	Ruff	David	Community Response Monitoring for Adaptive Management	Project goal is to monitor species response at a community level, in order to determine if management actions increase biodiversity and build ecosystem resiliency as intended.	The Nature Conservancy	\$ 498,000
X	2023-248	Weiblen	George	Minnesota Biodiversity Atlas - Phase 3	We propose to expand the Minnesota Biodiversity Atlas, an online natural resource management tool, to include 2.5 million records by integrating expert observations and specimen records from multiple organizations.	U of MN, Bell Museum of Natural History	\$ 801,000
<b>Subtotal =</b>							<b>\$ 14,278,000</b>

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<b>A. Foundational Natural Resource Data and Information</b>							
<b>H. Small Projects (8 Proposals / \$1,414,000 - SELECTED TO PRESENT: 7 Proposals / \$1,219,000)</b>							
X	2023-044	Roth	Alex	Assessing Restorations for Rusty-Patched and Other Bumblebee Habitat	Using two prairie restorations, we will investigate how common restoration variables affect bumblebee habitat suitability by conducting bumblebee surveys and assessing nesting and foraging habitat in restored and remnant prairies.	Friends of the Mississippi River	\$ 75,000
X	2023-086	Sindt	Anthony	Enhancing Knowledge of Minnesota River Fish Ecology	Collect baseline information about lower trophic fish diets, the distribution and status of rare benthic fishes, and the movement patterns of large river fishes in the Minnesota River.	MN DNR, Fish and Wildlife Division	\$ 199,000
	2023-089	Hausman Rhode	Christina	Voyageurs Wildlife Atlas	We will create the Voyageurs Wildlife Atlas to summarize nearly a half-century history of wildlife research and monitoring in Voyageurs National Park in accessible digital and hardcopy formats.	Voyageurs Conservancy	\$ 195,000
X	2023-090	Joyce	Michael	Changing Distribution of Flying Squirrel Species in Minnesota	We will determine the current distribution and habitat associations of northern and southern flying squirrels to fill key knowledge gaps in flying squirrel status in Minnesota.	U of MN, Duluth - NRRI	\$ 186,000
X	2023-120	Waterhouse	Lynn	Predicting the Future by Understanding the Past	We will predict the ranges of native aquatic species in Minnesota using recently available high quality datasets and information on past and present ranges coupled with powerful statistical techniques.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 170,000
X	2023-139	Bracey	Annie	Assessing Status of Common Tern Populations in Minnesota	Common Tern populations across inland North America are significantly declining. Information on the status of breeding colonies in Minnesota is necessary to prioritize conservation and restoration actions.	U of MN, Duluth - NRRI	\$ 199,000
X	2023-217	Pavlovic	Emily	Linking Breeding and Migratory Bird Populations in Minnesota	Understand seasonal movements, population connectivity, and contaminant exposure of Minnesota's breeding and migrating birds to inform long-term conservation efforts.	Hawk Ridge Bird Observatory	\$ 199,000

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X	2023-222	Du Plissis	John	Integrating Remotely Sensed Data with Traditional Forest Inventory	We will evaluate state-of-the-art lidar technology's ability to provide stand-level summary statistics of forest resource measurements and how these data can be used to estimate ecosystem services.	U of MN, Duluth - NRRRI	\$ 191,000
<b>Subtotal = \$</b>							<b>1,414,000</b>
<b>B. Water Resources (23 Proposals / \$14,767,000 - SELECTED TO PRESENT: 12 Proposals / \$8,369,000)</b>							
X	2023-022	Graham	Andrew	Regional Assessment of Project Outcomes in the RRB	Carry out multi-resource monitoring at flood damage reduction and natural resource enhancement projects across the Red River Basin to evaluate outcomes and improve design of future projects at regional scale.	Red River Basin Flood Damage Reduction Work Group,	\$ 954,000
X	2023-026	Marr	Jeffrey	Wind Wave and Boating Impacts on Inland Lakes	Field study to measure the impacts of boat propeller wash and boat wakes on lake water quality, and compare them to the impacts of wind-waves.	U of MN, St. Anthony Falls Laboratory	\$ 440,000
	2023-030	Wilson	Grace	Identification and Analysis of Contaminants in Fire Wastewater	The waste-water 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	\$ 345,000
X	2023-063	Arnold	William	Finding, Capturing, and Destroying PFAS in Minnesota Waters	Novel methods for the detection, sequestration, and degradation of poly- and perfluoroalkyl substances (PFAS) will be developed to address a pressing contamination issue in Minnesota's lakes and rivers.	U of MN, College of Science and Engineering	\$ 500,000
	2023-068	Ishii	Satoshi	Source Tracking of Bacterial Contamination in Minnesota Waters	This project will identify the sources of fecal contamination in Minnesota's watersheds to improve surface water quality.	U of MN, College of Biological Sciences	\$ 488,000
X	2023-074	Minor	Elizabeth	Sinking and Suspended Microplastic Particles in Lake Superior	Microplastics suspended in and sinking within Lake Superior waters will be compared to help determine source and fate. The flux of microplastics from water to sediment will be determined.	U of MN, Duluth - Large Lakes Observatory	\$ 440,000
	2023-082	Gilkeson	John	Turn Down the Mercury: Outreach and Capture Campaign	MPCA proposes an innovative mercury outreach, incentive, and collection campaign to prevent mercury releases, eliminate mercury, and meet statewide water quality goals so that all fish are safe to eat.	Minnesota Pollution Control Agency	\$ 1,223,000

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	2023-099	Breneman	Dan	Using Local Forestry By-Products to Remediate Aquatic Sediments	Developing cost effective, locally sourced biochar from Minnesota forestry by-products to remediate contaminated aquatic sediment in the St. Louis River estuary.	Minnesota Pollution Control Agency	\$ 271,000
X	2023-107	Wammer	Kristine	Ecotoxicological Impacts of Quinone Outside Inhibitor (QoI) Fungicides	This work will provide a more comprehensive assessment of the ecological hazards associated with quinone outside inhibitor (QoI) fungicides and their major environmental transformation products.	University of St. Thomas	\$ 282,000
X	2023-129	Koliha	Anne	Brightsdale Dam Channel Restoration	Restore the channel of the North Branch Root River at the site of a former hydro power dam that failed and was removed in 2003.	Fillmore County Soil and Water Conservation District	\$ 1,020,000
X	2023-134	Kang	Peter	Mapping Aquifer Recharge Potential	We develop a practical tool for mapping aquifer recharge potential; demonstrate it with laboratory and field tests; and use it to evaluate the recharge potential of several aquifers in Minnesota.	U of MN, St. Anthony Falls Laboratory	\$ 417,000
X	2023-137	Gilbertson	Scott	ALASD's Chloride Source Reduction Pilot Program	The project reduces salt pollution in three impaired lakes in the Alexandria area via an innovative source reduction strategy that protects water quality and could serve as a replicable model.	Alexandria Lake Area Sanitary District (ALASD)	\$ 765,000
	2023-138	Hu	Bo	Novel Nutrient Recovery Process from Wastewater Treatment Plants	We request funding to extend an existing grant project, phosphorus recovery and anaerobic digestion at wastewater treatment plants, and include recovery of other nutrients as well as reduce sludge odor.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 482,000
	2023-162	Strock	Jeffrey	Intelliget Drainage Systems Embedded with Miniature Nutrient Sensors	We propose to develop an intelligent drainage system with embedded miniature sensors for precise monitoring and managing agricultural drainage water to reduce nitrogen and phosphorus pollution of surface waters.	U of MN, Southwest Research and Outreach Center	\$ 951,000
	2023-165	Xiong	Boya	Predicting and Preventing Microplastic Pollution in Minnesota Waters	We will study and model the generation of nano/microplastic from photoweathered bulk plastic of different types and offer strategies preventing fragmentation, enabling collection, and reducing plastic pollution in Minnesota's waterways.	U of MN, St. Anthony Falls Laboratory	\$ 497,000

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	2023-191	Xiong	Boya	Understanding Plastic Pollution Beyond Microplastic in Minnesota Waters	We will study how ubiquitous microplastic form potentially toxic chemicals during wastewater treatment or in Minnesota's waterways. The study will inform us to prevent toxic compounds from generating from microplastics.	U of MN, College of Science and Engineering	\$ 424,000
	2023-196	Ruan	Roger	Produce Green Nitrogen Fertilizer from Air and Water	Locally produced high-concentration nitrogen fertilizers from renewable and extremely low cost natural resources.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 499,000
X	2023-215	Erickson	Andy	Removing CECs from Stormwater with Biofiltration	This project will optimize a treatment practice design for removing contaminants of emerging concern (CECs) from stormwater runoff using biofiltration media. Guidance will be developed for stormwater managers statewide.	U of MN, St. Anthony Falls Laboratory	\$ 650,000
	2023-233	Hozalski	Raymond	Reducing Beach Closures through Improved Microbiological Monitoring	The goal of this research will be to develop better, faster, and more reliable methods for determining whether Minnesota's lakes are unsafe for swimming, hopefully limiting unnecessary beach closures.	U of MN, College of Science and Engineering	\$ 726,000
	2023-236	Roop	Heidi	Understanding and Improving Minnesota's Future Lake Water Quality	We will characterize how warming lakes across Minnesota might intensify or alter harmful algal blooms and share results and management strategies with the public using innovative tools and engagement strategies.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 492,000
X	2023-237	Edlund	Mark	Didymo II – The North Shore Threat Continues	Didymo or rock snot has invaded our North Shore streams. We must prevent its further spread and adapt our management approaches to this new invader.	Science Museum of Minnesota, St. Croix Watershed Research Station	\$ 394,000
X	2023-238	Beck	Brian	Leveraging Innovations in Data Analytics for Project Implementation	Integrating local and statewide datasets into a 21st-century planning tool, widely called for by our communities, that forecasts the impacts of changing precipitation patterns and quantitatively compares cost-effective solutions.	Minnehaha Creek Watershed District	\$ 738,000
X	2023-247	Konopacky	Jamie	Protecting Minnesota's Headwaters of the Mississippi/Pineland Sands	Enormous growth in irrigated agriculture in Minnesota's Mississippi Headwaters/Central Sands has occurred without assessment of water resource impacts. This project will assess aggregate irrigation water quality and quantity impacts.	Anishinaabe Agriculture Institute	\$ 1,769,000
<b>Subtotal =</b>							<b>\$ 14,767,000</b>

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<b>B. Water Resources</b>							
<b>H. Small Projects (7 Proposals / \$1,395,000 - SELECTED TO PRESENT: 1 Proposals / \$199,000)</b>							
X	2023-004	Wickert	Andrew	Ditching Delinquent Ditches: Optimizing Wetland Restoration	Can we maximize native wetland restoration while minimizing impact on human land use? Evaluating the water-resources impact of targeted agricultural ditch removal on ecosystem restoration.	U of MN, College of Science and Engineering	\$ 199,000
	2023-103	Filstrup	Christopher	Wildfire Impacts on Minnesota's Pristine Lakes	Wildfires are increasing in Minnesota and threaten our iconic wilderness lakes. We will develop decision support tools to protect our lakes and the vital ecosystem services they provide.	U of MN, Duluth - NRRI	\$ 197,000
	2023-121	Ruan	Roger	Innovative High Temperature Anaerobic Digestion of Organic Wastes	Evaluate the effectiveness of high temperature acid hydrolysis as pretreatment for efficient anaerobic digestion of organic wastes and downstream acidophilic microalgae cultivation.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 200,000
	2023-123	Cui	Tianhong	Small Cheap Portable COVID-19 Monitoring Device in Wastewater	This project is to develop a low-cost device for continuous monitoring of COVID-19 in wastewater, providing a comprehensive snapshot of community transmission to form an outbreak early warning system.	U of MN, College of Science and Engineering	\$ 200,000
	2023-124	Cui	Tianhong	Sensors for Monitoring PFAS and DBP in Water	This project is to develop an electrochemical sensor for monitoring water pollutants including PFAS and DBP in Minnesota, which is small, simple, cheap, efficient, and accurate.	U of MN, College of Science and Engineering	\$ 200,000
	2023-133	Havranek	Tony	Lino Lakes Water Stewardship Project-Phase 1	The City of Lino Lakes is proposing to implement a system that will empower users and the City to proactively manage groundwater use; addressing concerns surrounding groundwater conservation.	City of Lino Lakes	\$ 200,000
	2023-175	Bruggeman	Peter	Water Treatment Technology for a PFAS-Free Minnesota	The project aims to create a disruptive technology that can efficiently treat a broad spectrum of PFAS contaminated water, a growing health and environmental concern in Minnesota.	U of MN, College of Science and Engineering	\$ 199,000
<b>Subtotal =</b>							<b>\$ 1,395,000</b>



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<b>C. Environmental Education (8 Proposals / \$5,328,000 - SELECTED TO PRESENT: 6 Proposals / \$3,627,000)</b>							
X	2023-008	Nyenhuis	Alison	Fostering Conservation by Connecting Students to the BWCA	Friends of the Boundary Water Wilderness will connect over 10,000 Minnesota youth to the Boundary Waters through state standards-aligned environmental education, experiential learning, and multi-day wilderness canoe trips.	Friends of the Boundary Waters Wilderness	\$ 1,148,000
	2023-020	Pasela	Sarah	Outdoor Classroom	Saint John's Preparatory School seeks funding to build an outdoor classroom to connect nature and learning in an immersive environment for students in grades 6-12 and the surrounding community.	Order of Saint Benedict, Saint John's Preparatory School	\$ 210,000
X	2023-051	Dorn	Cindy	Statewide Environmental Education via PBS Outdoor Series	Pioneer PBS will produce 26 new episodes of a statewide television series designed to inspire Minnesotans to connect with the outdoors and to restore and protect our valuable natural resources.	Pioneer PBS	\$ 391,000
X	2023-062	Daniel	Mimi	Increasing Diversity in Environmental Careers	This collaborative project creates a college to workforce pathway for underrepresented students interested in pursuing Natural Resources careers by reducing barriers that inhibit successful educational attainment.	MN DNR, Operational Services Division (OSD)	\$ 787,000
	2023-071	Becker	Beth	Transforming Equity in Outdoor Spaces	Our goals are to engage 100,870 underserved youth and families statewide in environmental learning for conservation and preservation of Minnesota wilderness through immersive and interactive experiences.	YMCA of the North	\$ 1,491,000
X	2023-185	Hobbs	Joy	LCCMR Stories: Sharing Minnesota's Biggest Environmental Investment	The Science Museum of Minnesota will relay the results of LCCMR-funded research to public audiences; dissemination will include a free online interactive map, in-depth videos, and public events.	Science Museum of Minnesota	\$ 628,000
X	2023-201	Thompson	Molly	North Shore Private Forestry Outreach and Implementation	The North Shore Forest Collaborative (via Sugarloaf) seeks to contract foresters to perform a concerted private land forestry outreach to restore ecological health to Minnesota's North Shore forest landscape.	Sugarloaf The North Shore Stewardship Association	\$ 375,000

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X	2023-223	Lenczewski	John	Teaching Students about Watersheds through Outdoor Science	Hands-on learning outdoors will focus on water quality, groundwater, aquatic life and students' role as watershed stewards. Angling and volunteer opportunities for students and families will foster a conservation ethic.	Minnesota Trout Unlimited,	\$ 298,000
<b>Subtotal =</b>							<b>\$ 5,328,000</b>
<b>C. Environmental Education</b>							
<b>H. Small Projects (11 Proposals / \$1,820,000 - SELECTED TO PRESENT: 3 Proposals / \$460,000)</b>							
	2023-040	Barisonzi	Joseph	IWLA Green Crew Education, Service and Leadership Program	Expand the Green Crew's existing youth environmental education, service, and leadership program to reach and serve traditionally underrepresented communities by partnering and supplementing existing youth programs.	Izaak Walton League of America, Minnesota Division	\$ 200,000
	2023-087	Thompson	Seth	Integrating Environmental Education into Classroom Curriculum	Our project integrates a research-based environmental science curriculum into classrooms at Heritage Environmental STEM Magnet School in West Saint Paul to delivery world-class learning for ~750 students annually.	U of MN, College of Biological Sciences	\$ 64,000
X	2023-100	Wettstein	Shannon	Planting for the Future	This project integrates specific cultural customs among American Indian groups with environmental education on native prairie plants.	Morrison Soil and Water Conservation District	\$ 82,000
	2023-108	Zachay	Monica	From Science to Stewardship for Students	From Science to Stewardship equips 500 6th-12th grade students with the knowledge to become the next generation of environmental stewards through water quality monitoring and student-led stewardship projects.	Wild Rivers Conservancy	\$ 188,000
X	2023-167	Hall	Victoria	Reducing Biophobia & Fostering Environmental Stewardship in Underserved Schools	The Raptor Center proposes to foster long-lasting environmental stewardship and literacy in Minnesota youth in underserved schools through providing engaging, multi-unit, standards-based environmental curriculum programming featuring positive interactions with raptors.	U of MN, Raptor Center	\$ 180,000
	2023-188	Grilley	Dorian	Environmental Learning by Bicycle for Ages 8-80	This program will teach 4,000 children and adults about natural resources while also teaching them to safely explore trails, parks, wetlands, lakes, and rivers and their communities by bicycle.	Bicycle Alliance of Minnesota	\$ 197,000

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	2023-216	Amundson	Jill	West Central Young Citizen Scientists Project	West Central Initiative seeks to engage families in exploring, understanding, and protecting the region's ecology through regionally-based activities at home, through child care, and in partnership with existing enrichment centers.	West Central Initiative	\$ 187,000
	2023-225	Grilley	Dorian	Adult Learn to Ride	Adult Learn to Ride will teach 1,500 adults to safely bicycle in their Greater Minnesota communities and will include learning about the environmental, health, and community benefits of bicycling.	Bicycle Alliance of Minnesota	\$ 199,000
X	2023-229	Pulscher	MaryLynn	Bioblitz Urban Parks: Engaging Communities in Scientific Efforts	MPRB will work strategically with allies and volunteers to collect baseline biodiversity data for urban parks to inspire stewardship and inform habitat restoration work.	Minneapolis Park and Recreation Board	\$ 198,000
	2023-242	Kilgore	Amy	<b>WITHDRAWN</b> - Engaging a Diverse Public in Environmental Stewardship	We will increase community awareness of natural resources through directed outreach and engagement targeting a diverse audience that more accurately reflects the community in which we are restoring natural areas.	Great River Greening	\$ 200,000
	2023-246	Caldwell	Wendy	Partnering for Pollinator Protection	The Monarch Joint Venture will increase the efficiency and scale of pollinator conservation across the state by fostering an organized network of stakeholders in a multi-sector conservation consortium.	Monarch Joint Venture	\$ 125,000
<b>Subtotal = \$</b>							<b>1,820,000</b>
<b>D. Aquatic and Terrestrial Invasive Species (2 Proposals / \$7,487,000 - SELECTED TO PRESENT: 1 Proposals / \$5,500,000)</b>							
	2023-095	Altrichter	Kristine	Preventing AIS Spread Through Hay Creek Watershed	The Buffalo-Red River Watershed District will contain AIS from spreading using civic engagement and lake outlet modifications that prevent the spread of zebra mussels downstream of Turtle and Long Lakes.	Buffalo-Red River Watershed District	\$ 1,987,000
X	2023-176	Phelps	Nicholas	Developing Research-Based Solutions to Minnesota's AIS Problems	MAISRC will launch 18-24 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	\$ 5,500,000
<b>Subtotal = \$</b>							<b>7,487,000</b>

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<b>D. Aquatic and Terrestrial Invasive Species</b>							
<b>H. Small Projects (1 Proposal / \$163,000 - SELECTED TO PRESENT: 1 Proposals / \$163,000)</b>							
X	2023-153	Kozak	Kenneth	Northward Expansion of Ecologically-Damaging Amphibians and Reptiles	American bullfrogs and Red-eared sliders are non-native predators and competitors in Minnesota's native fish communities. This research will assess the distribution and potential for expansion of these species in Minnesota.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 163,000
<b>Subtotal = \$</b>							<b>163,000</b>
<b>E. Air Quality, Climate Change, and Renewable Energy (20 Proposals / \$11,709,000 - SELECTED TO PRESENT: 4 Proposals / \$3,773,000)</b>							
X	2023-013	Delcambre	Sharon	Community Forestry AmeriCorps	Over three years, we will train, deploy, and support 150 members to build more resilient ecosystems in communities statewide. Members will focus on planting trees and conducting tree inventories.	ServeMinnesota	\$ 1,500,000
	2023-034	Theodore	Jennifer	Cool It! Reducing Refrigerant Emissions in Retail Refrigeration	Expand technical and financial assistance to reduce high global warming potential (GWP) refrigerant emissions at small retailers. Promote adoption of low-GWP refrigerants and educate on system best management practices (BMPs).	Minnesota Pollution Control Agency	\$ 471,000
	2023-048	Barry	Brian	Creating Carbon Sequestration Markets for Minnesota Wood Products	The biochar industry is poised to bring carbon sequestration and forest health to Minnesota but it will require large-scale deployment demonstrations in order to become a reality.	U of MN, Duluth - NRRI	\$ 408,000
	2023-076	Toan	Sam	Converting Post-Combustion CO2 to Green Butanol Fuel	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	\$ 421,000
X	2023-101	Rowe	Erika	Completing Installment of the Minnesota Ecological Monitoring Network	The Ecological Monitoring Network will install the final 250 plots. Data are needed to understand how climate change is impacting Minnesota and identify resilient natural lands for conservation or enhancement.	MN DNR, Ecological and Water Resources Division	\$ 1,160,000
	2023-111	Bond	Daniel	Accelerating Biogas Production in Cold Climates	This project will demonstrate that energy-rich biogas production from wastewater at cold temperatures could be possible using small solar-powered devices that directly aid microbial growth.	U of MN, College of Biological Sciences	\$ 399,000

**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

Selected to Present	Proposal ID	Last Name	First Name	Title	Summary	Organization	Requested \$
	2023-116	Ruan	Roger	Complete Municipal Solid Waste Valorization Towards Carbon Neutrality	The proposed technology converts municipal solid waste into aromatics, green hydrogen, and biochar via a catalytic microwave-assisted pyrolysis process coupled with a porous calcium oxide based chemical looping process.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 499,000
	2023-126	Herrmann	Bryan	Establishing the Center for Renewable Energy Storage Technology	The focus of this project is to establish the University of Minnesota Center for Renewable Energy Storage Technology in Morris, Minnesota (CREST) and to hire its first coordinator and interns.	U of MN, Morris	\$ 472,000
	2023-130	Barney	Brett	Capturing Carbon Dioxide as Simple Sugars	Our project seeks to incentivize the capture of carbon dioxide from industrial or atmospheric sources by converting it into simple sugars that will be transformed into a new crop.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 240,000
	2023-150	Biswas	Sayan	Production and Utilization of Fuels from Landfill Waste	This proposal aims to demonstrate a) production of low-carbon fuels from single-use plastics and organic wastes, and b) utilization of waste-derived fuels sustainably and efficiently to power engines.	U of MN, College of Science and Engineering	\$ 205,000
	2023-151	Biswas	Sayan	Carbon-Free Green Ammonia to Power Minnesota Farms	This proposal aims to demonstrate a heavy-duty agricultural equipment engine fueled solely by green ammonia, employing a novel and inexpensive plasma-based ignition technology that minimizes nitrous oxide production.	U of MN, College of Science and Engineering	\$ 250,000
X	2023-152	Mossmann Koch	Natalia	Lichens as Low-Cost Air Quality Monitors in Minnesota	The proposed project aims to develop protocols for using lichens as indicators of air quality data across Minnesota and through time.	U of MN, College of Biological Sciences	\$ 344,000
X	2023-171	Kortshagen	Uwe	Environment-Friendly Decarbonizing of Steel Production with Hydrogen Plasma	Conventional ironmaking requires massive amounts of fossil fuels and generates significant waste and CO2 emissions. Our microwave hydrogen plasma ironmaking eliminates fossil fuel use and CO2 emissions while reducing waste.	U of MN, College of Science and Engineering	\$ 769,000
	2023-190	Cotner	James	Managing Lakes for Our Future	Minnesota Lakes are a major source of greenhouse gases, but the amounts of these gases coming from them is unknown. We will fill this gap and determine the causes.	U of MN, College of Biological Sciences	\$ 545,000

**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

Selected to Present	Proposal ID	Last Name	First Name	Title	Summary	Organization	Requested \$
	2023-193	Chan	Gabriel	The Distributed Energy Resource Innovation Initiative	A research-informed collaborative technology accelerator where iterative piloting, researching, and learning feeds into the decarbonization, electrification, and distributed energy goals of Great River Energy's 28 member utilities.	U of MN, Humphrey School of Public Affairs	\$ 408,000
	2023-202	Ruan	Roger	Virus, Bacteria and Odorous Air Pollutant Control	Development and demonstration of the feasibility of using low temperature microwave and nonthermal plasma (NTP) with catalysis enhancement for effective air sanitation for livestock and poultry facilities.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 499,000
	2023-228	James	Richard	Vertical Axis Wind Turbine for Greater Minnesota	Using origami design methods and modern experimental fluid dynamics, we will design a high efficiency vertical axis wind turbine for power generation in urban, suburban, exurban and rural Minnesota.	U of MN, College of Science and Engineering	\$ 720,000
	2023-234	Hetzel	Colleen	Modernizing Minnesota's Materials and Waste Data for Climate	The MPCA will modernize statewide measurement through waste composition sorts, economic data, and life cycle coefficients to develop an environmental impact calculator for products/materials consumed and wasted in Minnesota.	Minnesota Pollution Control Agency	\$ 1,732,000
	2023-235	Hong	Jiarong	Wildfire Air Quality Mapping Using Real-Time Drone-Based Diagnostics	Our aim is to develop a novel drone-based tool for autonomously measuring wildfire smoke aerosols, tracing them from the emission source, with the goal of improving air quality management capabilities.	U of MN, College of Science and Engineering	\$ 304,000
	2023-244	Ferry	Vivian	Energy and Water Reduction in Greenhouse Production Systems	The team will develop a comprehensive model for MN-based greenhouses that uses photovoltaics for more efficient energy and water utilization.	U of MN, College of Science and Engineering	\$ 363,000
<b>Subtotal =</b>							<b>\$ 11,709,000</b>

**E. Air Quality, Climate Change, and Renewable Energy**  
**H. Small Projects (6 Proposals / \$956,000 - SELECTED TO PRESENT: 2 Proposals / \$239,000)**

	2023-005	Aro	Matthew	Wildfire Resilience and Carbon Reductions Through Forest Management	This work supports greenhouse gas emission (GHG) reductions by promoting healthy and wildfire-resilient forests in Minnesota through improved management and removal of low-value and small-diameter balsam fir ladder fuels.	U of MN, Duluth - NRRI	\$ 120,000
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**ENRTF Request for Proposal (RFP) - FY2024  
Selected Proposals Received by Category with Summaries**

Selected to Present	Proposal ID	Last Name	First Name	Title	Summary	Organization	Requested \$
	2023-042	Wang	Ping	Dry State Biofiltration to Cleanup Animal Farming Emissions	This work develops novel bioactive filters which can be managed as regular air filters, but can absorb and digest airborne VOCs to fight in-situ air pollution generated in animal farming.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 200,000
X	2023-043	Rexine	Todd	Biochar Implementation in Habitat Restoration: Pilot	Great River Greening will pilot the Implementation of portable biochar kilns in natural resource management and restoration as a reduced carbon-emitting, biologically beneficial alternative to open pile burning when managing invasive.	Great River Greening	\$ 185,000
	2023-078	Hunter	Jon	Reducing Woodsmoke Emissions Exposure From Recreational Fires	This project will identify, test, and implement a public engagement effort with a high likelihood of reducing health impacts from recreational fire smoke while enabling ongoing enjoyment of backyard recreation.	American Lung Association in Minnesota	\$ 197,000
	2023-199	Ruan	Roger	Innovative Utilization of Waste CO2	Ammonia-based CO2 capture and utilization for valuable bioproducts production by ammonia-tolerant microalgae integrated with two-stage cultivation and pH-stat feeding strategy.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 200,000
X	2023-240	Bael	David	Economic Analysis Guide for Minnesota Climate Investments	Develop an economic analysis guide of the best practices, tools, and methodologies to include climate economics, including the incorporation of costs and benefits, into Minnesota climate policy decisions.	Minnesota Pollution Control Agency	\$ 54,000
<b>Subtotal =</b>							<b>\$ 956,000</b>
<b>F. Methods to Protect or Restore Land, Water, and Habitat (24 Proposals / \$25,168,000 - SELECTED TO PRESENT: 13 Proposals / \$16,251,000)</b>							
X	2023-006	Adams	Sabin	Minnesota Bee and Beneficial Species Habitat Enhancement II	This proposal seeks to enhance grassland habitats to benefit pollinators and other species on permanently protected lands. Research on enhanced sites will be conducted by the U of M.	Pheasants Forever Inc	\$ 948,000
X	2023-010	Moriarty	John	Karner Blue Butterfly Insurance Population Establishment in Minnesota	To establish a breeding insurance population of Karner Blue Butterflies for climate mitigation in a restored prairie/savanna at Crow-Hassan Park and assess the quality of habitat on butterfly populations.	Three Rivers Park District	\$ 422,000
X	2023-025	Foehrenbacher	Colleen	Root River Habitat Restoration	The Root River Restoration project is 3,300 linear feet of stream bank and instream habitat restoration located within Eagle Bluff and state owned land north of Lanesboro, Minnesota.	Eagle Bluff Environmental Learning Center	\$ 866,000

**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

<b>Selected to Present</b>	<b>Proposal ID</b>	<b>Last Name</b>	<b>First Name</b>	<b>Title</b>	<b>Summary</b>	<b>Organization</b>	<b>Requested \$</b>
	2023-027	Current	Dean	Landowner Networking for More Resilient Woodlands in Minnesota	We will increase management, resilience, and carbon storage on private woodlands by fostering peer exchange about land management practices and informing landowners about new payment systems for conservation services.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 610,000
	2023-037	deLaittre	Mary	East Side River District	The East Side River District project will reconnect Saint Paul to the river, restoring compromised ecosystems and biodiversity while protecting water quality and linking underserved communities to a long-neglected area.	Great River Passage Conservancy	\$ 2,300,000
X	2023-060	Pletta	Madeline	Restoring Mussels in Streams and Lakes - Continuation	Restoring native mussel assemblages can improve water quality and ecological health of rivers. Mussel filter water, purifying and improving water clarity by removing particles and contaminants like E. coli bacteria.	MN DNR, Ecological and Water Resources Division	\$ 825,000
X	2023-061	Etterson	Julie	Minnesota Million: Seedlings for Reforestation and CO2 Sequestration	A grower network will raise tree seedlings so that we have enough to conduct widespread reforestation in Minnesota to improve carbon sequestration, wildlife habitat, watershed resilience, and create economic opportunity.	U of MN, Duluth	\$ 1,012,000
	2023-079	Gulliver	John	Groundwater Pollution of Surface Waters: Chloride and Phosphate	We propose identifying two hot spots of groundwater to surface water pollution: chloride which is a long term source increasing impairment and phosphate pollution from groundwater is a substantial unknown.	U of MN, College of Science and Engineering	\$ 602,000
X	2023-117	Gordon	Brad	Restoring Forests and Savannas Using Silvopasture - Phase2	Demonstrate, evaluate, and increase adoption of silvopasture - the combined use of tree, forage, and grazing management - as a method to restore and manage forests and savannas across Minnesota.	Great River Greening	\$ 674,000
	2023-122	Barney	Brett	Biological Methods for Nitrogen Removal from Contaminated Waters	Our project will construct demonstration scale bioreactors using native microbes to remove nitrates accumulating in rural water systems.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 269,000
	2023-132	Biswas	Sayan	Minimizing Wildlife Collisions with Wind Turbines Using LiDAR	Design improved deterrent technologies to minimize wildlife fatalities at wind facilities by applying a novel sensing technique – LiDAR, enabling a better understanding of bat/bird behavior near wind turbines.	U of MN, College of Science and Engineering	\$ 500,000



**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

<b>Selected to Present</b>	<b>Proposal ID</b>	<b>Last Name</b>	<b>First Name</b>	<b>Title</b>	<b>Summary</b>	<b>Organization</b>	<b>Requested \$</b>
X	2023-135	Weiss	Eric	Minnesota Community Schoolyards	Minnesota Community Schoolyards will create at least 24 nature-focused habitat improvement projects at schoolyards across the state; engage students and the community in environmental stewardship; and encourage outdoor learning.	The Trust for Public Land	\$ 1,630,000
X	2023-142	Bruse	Tanner	Conservation Cooperative for Working Lands	Increasing federal conservation dollars coming to Minnesota by expanding technical expertise for working lands programs available to landowners. This project enhances our natural resources providing public benefits for every Minnesotan.	Pheasants Forever Inc	\$ 3,174,000
	2023-160	Chapman	Eric	Rural-Urban Partnerships to Advance Conservation Farming With Technology	We seek to broaden participation in conservation agriculture statewide by applying high-tech assessment tools, building farmer-scientist-student collaborations across rural and urban communities, and expanding farmer-farmer knowledge exchange networks.	University of St. Thomas	\$ 530,000
	2023-164	Berini	John	Restoring Wildlife Habitat with Perennial Grain Agriculture	Compare the wildlife benefits of Kernza® perennial grain to traditional annual crops and natural perennial cover, and create new modules for outreach and education focused on agriculture-wildlife dynamics.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 575,000
	2023-174	Jin	Zhenong	Innovative Sensing and Modeling for Improving Water Quality	Integrated soil nutrient management for improving Minnesotan water quality through a novel sensing and hybrid model data assimilation system.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 841,000
X	2023-177	Nieber	John	Quantifying Environmental Benefits of Peatland Restoration in Minnesota	We will quantify the capacity of restored peatlands to store and accumulate atmospheric carbon and their capacity to prevent release of accumulated mercury into streams, rivers and lakes.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 766,000
X	2023-189	Luukkala	Lisa	Addressing Erosion Along High Use River Loops	Rehabilitate and renew popular river loops of the Trail for a more resilient future to withstand high visitor use and serve Minnesotans for years to come.	Superior Hiking Trail Association	\$ 379,000
	2023-194	Shen	Lian	Making Prescribed-Fire Safer and Wildfires Easier to Predict	To make wildfires easier to predict and prescribed-fires safer to conduct, we will develop a modeling tool that learns from drone-measured in-situ data, providing fast, accurate predictions of fire spread.	U of MN, St. Anthony Falls Laboratory	\$ 489,000

**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

Selected to Present	Proposal ID	Last Name	First Name	Title	Summary	Organization	Requested \$
X	2023-211	Pederson	Eric	Pollinator Habitat Creation at Minnesota Closed Landfills	Create the maximum acres of pollinator habitat at five Closed Landfill Program sites. These sites will act as pilot projects to inform future pollinator habitat reconstruction projects in the program.	Minnesota Pollution Control Agency	\$ 1,581,000
	2023-214	deLaittre	Mary	Mississippi River Learning Center	The Mississippi River Learning Center will be a place of restoration, reconnecting Saint Paul to the river and protecting and enhancing this vital area's landscape, water, and habitat.	Great River Passage Conservancy	\$ 1,818,000
X	2023-219	Dolan	Shawn	Statewide Diversion of Furniture and Mattress Waste Pilots	Divert the growing problem of furniture disposal and implement test methods in collaboration with local governments to expand mattress and furniture recycling efforts. Reduce demand for new landfills. Create jobs.	EMERGE Community Development	\$ 3,000,000
X	2023-250	Leonard	Nicholas	Phelps Mill Wetland and Prairie Restoration	Restoration of 28 acres of prairie and 20 acres of wetland along 3/4 miles of the Otter Tail River.	Otter Tail County	\$ 974,000
	2023-251	Zentner	Dave	Training the Trainers: Expanding Regenerative Agriculture Mentor Networks	We will expand regenerative agriculture education capacity by recruiting and training farmer and agricultural landlord mentors passionate about conservation using a series of strategically designed workshops and conferences.	Izaak Walton League of America, Minnesota Division	\$ 383,000
<b>Subtotal =</b>							<b>\$ 25,168,000</b>

**F. Methods to Protect or Restore Land, Water, and Habitat**  
**H. Small Projects (13 Proposals / \$2,354,000 - SELECTED TO PRESENT: 5 Proposals / \$964,000)**

	2023-003	Remucal	David	Keeping American Ginseng Around for Future Generations	American ginseng, a rare native plant prized and harvested, is in danger of disappearing across its range, including Minnesota. We need to assess its current status, monitor, and bank seed.	U of MN, Landscape Arboretum	\$ 159,000
	2023-011	Komoto	Kara	Facilitating Community Conservation Via Urban Agriculture	Scenarios of current and possible urban agriculture help connect conservation programs with community agricultural sites. Outreach and information tools enable growers' and landholders' conservation investments, benefiting ecosystem health.	Twin Cities Community Agricultural Land Trust	\$ 199,000

**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

<b>Selected to Present</b>	<b>Proposal ID</b>	<b>Last Name</b>	<b>First Name</b>	<b>Title</b>	<b>Summary</b>	<b>Organization</b>	<b>Requested \$</b>
	2023-065	Windmuller-Campione	Marcella	Quantifying and Creating Fire Resilience in Northern Minnesota	Fire is a natural ecosystem process, but communities are threatened by wildfire. This project increases our understanding of fire in northern Minnesota and effective treatments to protect lives and property.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 174,000
X	2023-080	Kieser	Nick	Panoway on Wayzata Bay Shoreline Restoration Project	This project will feature an underwater wave break to create a buffer that will restore, enhance and protect Lake Minnetonka shoreline, using innovative and replicable technologies to improve the ecosystem.	City of Wayzata	\$ 200,000
	2023-083	Kozarek	Jessica	Maintaining Connectivity at Road-Stream Crossings: Floodplains and Fish	Road-stream crossings affect roadway safety, fish movement and access to habitat, and water quality. We will investigate the benefits and design of culverts for connectivity, fish passage, and infrastructure resiliency.	U of MN, St. Anthony Falls Laboratory	\$ 199,000
	2023-102	Peters	Terri	Zumbro River Biological Monitoring Pre/Post Habitat Improvement	This project will evaluate benefits and effectiveness of current restoration efforts on the Zumbro River in addition to future restoration efforts at confluences of cold water and warm water streams.	Wabasha County Soil and Water Conservation District	\$ 154,000
X	2023-105	Tucker	Rebecca	Pollinator Central III: Habitat Improvement with Community Monitoring	Small phase promoting the restoration and enhancement of 29 acres of pollinator habitat on 4 new sites, with community engagement and education through public planting and pollinator monitoring events.	Great River Greening	\$ 190,000
X	2023-136	Pennington	Josh	Pollinator Enhancement and Mississippi River Shoreline Restoration	This restoration project will restore native prairie, support pollinator plantings, and stabilize a large section of streambank along the Mississippi River.	Department of Military Affairs	\$ 187,000
	2023-179	Nelson	Heather	Elm Creek Restoration Biological Monitoring	Habitat restoration been completed in five phases on Elm Creek. Our project will evaluate fish and invertebrate populations to determine the success and effectiveness of these restoration efforts.	City of Champlin	\$ 106,000
X	2023-181	Luukkala	Lisa	Renewing Access to an Iconic North Shore Vista	We seek to renew access to one of Minnesota's most iconic vistas, the Bean and Bear Lakes section of the Superior Hiking Trail, using national trail design best practices.	Superior Hiking Trail Association	\$ 197,000

**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

<b>Selected to Present</b>	<b>Proposal ID</b>	<b>Last Name</b>	<b>First Name</b>	<b>Title</b>	<b>Summary</b>	<b>Organization</b>	<b>Requested \$</b>
	2023-197	Ruan	Roger	Remove Chemical and Biological Contaminants from Minnesota Soils	Develop and examine the feasibility of using a continuous low-cost microwave-assisted treatment system for destruction of organic contaminants in Minnesota soils.	U of MN, College of Food, Agricultural and Natural Resource Sciences	\$ 200,000
	2023-198	Hahn	Jennifer	Science Based Soil Health Examination and Execution	Examine the benefits of soil health implementation to both operators and natural resources, and support practical implementation approaches to encourage and elevate success.	Washington Conservation District	\$ 199,000
X	2023-212	Arvidson	Adam	Enhancing Habitat Connectivity within the Urban Mississippi Flyway	A pilot project that will enhance connectivity within the Mississippi Flyway by linking urban neighborhood parks to the Mississippi River through restoration and implementation of identified habitat corridors.	Minneapolis Park and Recreation Board	\$ 190,000
<b>Subtotal = \$</b>							<b>2,354,000</b>

**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

Selected to Present	Proposal ID	Last Name	First Name	Title	Summary	Organization	Requested \$
<b>G. Land Acquisition, Habitat, Recreation (25 Proposals / \$76,201,000 - SELECTED TO PRESENT: 15 Proposals / \$36,850,000)</b>							
	2023-009	Vlaminck	Dawn	Bluebird Creek Trail	Improvement and expansion of walking/biking trail to create connectivity, increase public access to conservation areas, and increase recreational opportunities in our community.	City of Ghent	\$ 10,906,000
	2023-012	Yoho	Marla	The Missing Link: Fairview Township Trail Part 2	To complete construction of northern 3.7-mile "missing link" segment of Fairview Township's portion of Gull Lake Trail (Part 2).	Fairview Township	\$ 1,443,000
	2023-024	Pelland	Sonja	Littlefork Public RV Campground	This project consists of the design and construction of a new campground with necessary amenities in the City of Littlefork.	City of Littlefork	\$ 4,500,000
X	2023-028	Roske	Molly	SNA Stewardship, Outreach, and Biodiversity Protection	Scientific and Natural Area (SNA) habitat restoration/enhancement (500+ acres), increased public involvement, and strategic acquisition (50+ acres) will conserve Minnesota's most unique places and rare species for everyone's benefit.	MN DNR, Ecological and Water Resources Division	\$ 1,955,000
X	2023-032	Anderson	Denise	Wannigan Regional Park Land Acquisition	Acquire 174.55 acres for river corridor conservation and future development of Wannigan Regional Park, where the Heartland State, North Country National, and Otter Tail River Water Trails will meet.	Fraze Community Development Corporation, Wannigan Regional Park Land Acquisition FCDC	\$ 727,000
X	2023-039	Mularie	Audrey	Local Parks, Trails and Natural Areas Grant Programs	Provide approximately 19 matching grants for local parks, trail, acquisition of natural areas and trails to connect people safety to desirable community locations and regional or state facilities.	MN DNR, Grants Unit	\$ 4,000,000
	2023-045	Hegland	Dawn	MN River Valley State Trail, Appleton/Marsh Lake	This project will complete a critical Minnesota River State Trail connection to the recently redeveloped Marsh Lake Recreation area.	Swift County	\$ 3,808,000
	2023-052	Sogard	Ray	Sportsmen's and Women's Training and Development Learning Center	The Minnesota Forest Zone Trappers Association (MFZTA) is requesting a \$7,500,000 grant to acquire additional property and develop a Sportsmen's & Sportswomen's Outdoor Training and Development Center.	Minnesota Forest Zone Trappers Association	\$ 7,500,000

**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

<b>Selected to Present</b>	<b>Proposal ID</b>	<b>Last Name</b>	<b>First Name</b>	<b>Title</b>	<b>Summary</b>	<b>Organization</b>	<b>Requested \$</b>
X	2023-064	Schulte	Judy	Native Prairie Outreach and Stewardship through Native Prairie	Prairie outreach and technical assistance will be provided to landowners, practitioners, and the public. Native prairie enhancement and monitoring activities will be implemented on existing Native Prairie Bank Easements.	MN DNR, Ecological and Water Resources Division	\$ 650,000
X	2023-081	Skaar	Kent	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	\$ 5,925,000
X	2023-091	Keller	Nate	East Park	Complete the first phase of East Park along the Sauk River in St. Joseph, including a canoe/kayak access, floating dock, paved and mowed trails, and parking/entrance enhancements.	City of St. Joseph	\$ 700,000
X	2023-110	Cammilleri	Kenneth	Scandia Gateway Trail to William O'Brien State Park	Complete construction-ready Gateway State Trail segment between Scandia Village Center and William O'Brien State Park with highway tunnel and trailhead parking lot on ROW already acquired by DNR.	City of Scandia	\$ 3,070,000
	2023-127	Gruber	Anna	35th Street North Trail Connection	Construction of a 10-foot wide, paved, multi-use trail along 35th Street North between existing trails at Blackberry Circle and 12th Avenue North. Trail connection length would be 3,600 feet.	City of Sartell	\$ 840,000
	2023-141	Arola	Nick	Hull Rust Mine View Park	The Hull Rust Mine View located within Hibbing, MN City limits, is an overlook park residing on top of a stockpile overlooking the massive Hull Rust Mine.	City of Hibbing	\$ 1,416,000
X	2023-148	Kok	Shelby	Acquisition of State Parks and Trails In-holdings	Acquire top priority in-holdings within legislatively established boundaries of Minnesota's 75 State Parks and State Recreation Areas and 26 State Trails from willing sellers.	MN DNR, State Parks and Trails Division	\$ 6,211,000
X	2023-172	Knettel	Cliff	St. Louis River Re-Connect Phase II	Acquire, preserve and enhance strategic quality natural resources and expand outdoor recreational access to the St. Louis River through additions and connections to state, regional, and local parks and trails.	City of Duluth	\$ 1,469,000

**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

<b>Selected to Present</b>	<b>Proposal ID</b>	<b>Last Name</b>	<b>First Name</b>	<b>Title</b>	<b>Summary</b>	<b>Organization</b>	<b>Requested \$</b>
	2023-204	Owens	Ellissa	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
	2023-205	Kindler	Patrick	Norpine Trail Association - Thomas Dambo	To protect the natural resource of the North Shore of MN and beyond, and expose more people to the sport Cross Country skiing through the Arts and Cultural Heritage.	Norpine Trail Association, Cook County Trail system	\$ 325,000
X	2023-207	Jacobson	Jeff	City of Biwabik Recreation	Reconstruction & renovation of amenities and multi-modal pathways to, and within, the Biwabik Recreation Area which consists of the city campground, beach, boat access, fishing pier, and walking/biking trails.	City of Biwabik	\$ 1,414,000
X	2023-210	Fralich	Lana	Silver Bay Multimodal Trailhead Project	Development of a Multi-Modal Trailhead Center that provides ample parking, safe access to non-motorized and motorized trails, a multi-use building with lavatories/showers, picnic/playgrounds, and conveniently located.	City of Silver Bay	\$ 3,000,000
X	2023-213	Arvidson	Adam	Above the Falls Regional Park Acquisition and Restoration	This project would acquire industrial acreage from willing sellers along the Mississippi River within the Above the Falls Regional Park.	Minneapolis Park and Recreation Board	\$ 2,000,000
X	2023-227	Gautreaux	Sherril	Ranier Safe Harbor/Transient Dock Phase 3	The City of Ranier will be constructing a safe harbor/transient dock on Rainey Lake to accommodate watercraft of all sizes.	City of Ranier	\$ 1,238,000
X	2023-231	Johnson	Donna	Redhead Mountain Bike Park	The Redhead Mountain Bike Park will add an additional 14 miles of trail and accommodations to Redhead Mountain Bike Trail System at the Minnesota Discovery Center in Chisholm, Minnesota.	Minnesota Discovery Center	\$ 1,977,000
	2023-239	Paulson	John	Otter and Campbell Lake Restoration Project	The Otter and Campbell Lakes Restoration Project will restore and improve habitat within the lakes and provide additional public access and opportunities for lake recreation activities.	City of Hutchinson	\$ 5,050,000
X	2023-249	Leonard	Nicholas	Maplewood State Park Trail Segment	Construction of the Maplewood State Park Segment (4.2 miles) of the 32-mile Perham to Pelican Rapids Regional Trail that will connect the City of Pelican Rapids to Maplewood State.	Otter Tail County	\$ 2,514,000

**ENRTF Request for Proposal (RFP) - FY2024**  
**Selected Proposals Received by Category with Summaries**

Selected to Present	Proposal ID	Last Name	First Name	Title	Summary	Organization	Requested \$
							<b>Subtotal = \$ 76,201,000</b>
<b>G. Land Acquisition, Habitat, and Recreation</b>							
<b>H. Small Projects (4 Proposals / \$740,000 - SELECTED TO PRESENT: 1 Proposals / \$200,000)</b>							
	2023-023	Bartosh	Jeremy	Sandy Point Park	Install a modern bathroom, hook up to local rural water provider, improve and remodel current shelter house, and add additional recreational opportunities at Sandy Point Park for the public.	Jackson County, Jackson County Public Works Department- Parks & Trails Division	\$ 198,000
X	2023-147	Nordlund	Paul	Grand Marais Mountain Bike Trail Rehabilitation: Phase II	Rehabilitate existing mountain bike trail to increase environmental sustainability through best trail building practices and to provide better user access through modifications allowing adaptive cycling opportunities.	Superior Cycling Association	\$ 200,000
	2023-157	Otremba	Bob	Pierz Gravel Pit Restoration - Park Development	Purchase land adjacent to city owned park and campground for the purpose of restoration and expansion. Create a master park plan to enhance the regional park, trail, and campground.	City of Pierz	\$ 200,000
	2023-241	Pietila	Miranda	Two Harbors Lake Superior Waterfront Planning	The City of Two Harbors is requesting a \$142,000 grant to complete a site evaluation and a master plan for the Two Harbors Waterfront.	City of Two Harbors	\$ 142,000
							<b>Subtotal = \$ 740,000</b>
<b>I. Administration (1 Proposal / \$224,000 - SELECTED TO PRESENT: 4 Proposals / \$224,000)</b>							
X	2023-001	Nash	Becca	LCCMR Administrative Budget Place Holder	LCCMR Admin Budget Place Holder	Legislative-Citizen Commission on Minnesota Resources	\$ -
X	2023-002	Nash	Becca	Emerging Issues	Place Holder 2023 Emerging Issues	Legislative-Citizen Commission on Minnesota Resources	\$ -
X	2023-073	Sherman-Hoehn	Katherine	ML 2023 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	\$ 224,000
X	2023-253	Nash	Becca	2023 Unallocated (Legislative Discretion)	Place Holder for 2023 unallocated funds that will be left for legislative discretion.	Legislative-Citizen Commission on Minnesota Resources	\$ -
							<b>Subtotal = \$ 224,000</b>
							<b>Total = \$ 164,004,000</b>