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5	2024-100	Outdoor Pathways to Environmental Education, Recreation, and Careers	Wilderness Inquiry engages 20,000 Minnesotans through outdoor adventures, promoting equity in access to outdoor activities, places, and careers and supporting stewardship and conservation values for current and future generations.	C. Environmental Education	Meg Krueger / Wilderness Inquiry	\$1,500,000	77			15 out of 17	88	Will this project recruit from underserved and tribal communities?	yes
6	2024-017	Connecting Communities to Voyageurs Classroom & Minnesota's National Park	Voyageurs Conservancy will connect 17,000 Minnesotans to the state's only national park through standards-aligned K-12 education, career-building fellowships, and enhanced programs that engage diverse audiences in the park's conservation.	C. Environmental Education	Christina Hausman Rhode / Voyageurs Conservancy	\$994,000	95			14 out of 17	82	Department of Interior and it's National Park system have a trust responsibility to the tribal nations that ceded lands to the federal government. How will this project engage with tribal youth in support of educational efforts and to assist in the delivery of that trust responsibility?	
7	2024-206	Preserving Minnesota Wildflower Information	We propose to integrate Minnesota Wildflowers Information, an online tool for plant identification, with the Minnesota Biodiversity Atlas, to preserve and extend this popular ENTRF-supported resource for future use.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Ya Yang / U of MN, Bell Museum of Natural History	\$199,000	89			14 out of 17	82		yes
8	2024-071	Investigating Life History Characteristics of Minnesota Elk	We will assess movements, survival, and causes of mortality of Minnesota elk while developing a non-invasive, safer method to estimate population size. This information is important for long- term management efforts.	A. Foundational Natural Resource Data and Information	Eric Michel / MN DNR, Fish and Wildlife Division	\$933,000	87			13 out of 17	76		yes
9	2024-078	DNR County Groundwater Atlas	This project supports continuing development of the County Groundwater Atlases for approximately two years. The goal is to provide this valuable water and resource management "information infrastructure" to every county.	A. Foundational Natural Resource Data and Information	Paul Putzier / MN DNR, Ecological and Water Resources Division	\$3,200,000	92			13 out of 17	76		yes
10	2024-083	Voyageurs Wolf Project - Phase III	Wolf survival and predation in summer are almost unknown but critical to deer, moose, and wolf, management. We'll study wolf predator-prey ecology, share charismatic natural history, and promote Voyageurs' region.	A. Foundational Natural Resource Data and Information	Joseph Bump / U of MN, CFANS	\$996,000	92			13 out of 17	76	How will this project collaborate with MN tribal nations that monitor wolf populations?	yes
11	2024-089	Minnesota Invasive Terrestrial Plants and Pests Center, 6	The Minnesota Invasive Terrestrial Plants and Pests Center (MITPPC) requests \$7 million to fund up to 15 new, high-priority applied TIS research projects to improve Minnesota's natural and agricultural resources.	D. Aquatic and Terrestrial Invasive Species	Robert Venette / U of MN, MITPPC	\$7,000,000	86			13 out of 17	76		yes
12	2024-188	Increasing Accessibility of Environmental Education at Deep Portage	To enhance the accessibility of environmental education and outdoor recreation at Deep Portage Learning Center through projects that provide opportunities and support independence for physically disabled students visiting the campus.	C. Environmental Education	Lindsay Bjorklund / Deep Portage Learning Center	\$228,000	81			13 out of 17	76		yes
13	2024-222	Highly Pathogenic Avian Influenza and Minnesota Raptors	Evaluation of Minnesota raptors, in rehabilitation and free ranging settings, for current or previous exposure to highly pathogenic avian influenza virus to better understand outbreak impacts to raptor populations.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Victoria Hall / U of MN, Raptor Center	\$187,000	84			13 out of 17	76		yes
14	2024-064	Local Parks, Trails and Natural Areas Grant Programs	Provide approximately 18 matching grants for local parks, trail, acquisition of natural areas and trails to connect people safety to desirable community locations and regional or state facilities.	G. Land Acquisition, Habitat, and Recreation	Audrey Mularie / MN DNR, State Parks and Trails Division	\$5,000,000	86		JP	12 out of 16	75		yes
15	2024-136	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.	G. Land Acquisition, Habitat, and Recreation	Kent Skaar / MN DNR, State Parks and Trails Division	\$5,125,000	87		JP	12 out of 16	75		yes

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16	2024-023	Supporting Minnesota Teachers Implement Culturally Sustaining Environmental Education	To support teachers in addressing new science standards , we propose a series of workshops across Minnesota facilitating	C. Environmental Education	Seth Thompson / U of MN, College of Biological Sciences	\$311,000	85		_	12 out of 17	71	Great project. Of vital importance to improve the state of knowledge of educators in delivery of tribal literacy among educators.	yes
17	2024-037	Hyperspectral Characterization of Toxic Harmful Algal Blooms	The project will investigate why, when, and where different species of harmful algal blooms release toxins into the water using hyperspectral microscopic imaging towards developing early warning remote sensing tools.	B. Water Resources	Ardeshir Ebtehaj / U of MN, St. Anthony Falls Laboratory	\$399,000	87			12 out of 17	71		yes
18	2024-045	Can Increased Tree Diversity Increase Community Diversity?	While aspen is one of the most dominant forest types, predicted future conditions will negatively impact aspen growth. Increasing tree diversity can provide increase ecological and economic resilience.	F. Methods to Protect or Restore Land, Water, and Habitat	Marcella Windmuller- Campione / U of MN, CFANS	\$415,000	83			12 out of 17	71		yes
19	2024-068	Determining Ambient Background PFAS Concentrations in Minnesota Soils	This project determines ambient background per- and polyfluoroalkyl substance (PFAS) levels in urban and non-urban soils. This information will help Minnesota develop management strategies for PFAS contaminated soils.	A. Foundational Natural Resource Data and Information	Sona Psarska / Minnesota Pollution Control Agency	\$655,000	94			12 out of 17	71		yes
20	2024-091	Restoring Land, Reviving Heritage: Indigenous Conservation-Phase Two	This project will restore healthy ecosystems and Indigenous cultural practices. Through expanded programming for preK-12th grade, urban Native students and families will reestablish enduring connections to land and culture.	C. Environmental Education	Hannah Smith / Belwin Conservancy	\$765,000	91			12 out of 17	71	Great project. Of vital importance to improve the state of knowledge of educators in delivery of tribal environmental education.	yes
21	2024-092	Scientific and Natural Area (SNA) Biodiversity Protection	Scientific and Natural Area (SNA) strategic acquisition (~100 acres) will conserve Minnesota's most unique places and rare species for everyone's benefit.	G. Land Acquisition, Habitat, and Recreation	Judy Schulte / MN DNR, Ecological and Water Resources Division	\$1,100,000	89			12 out of 17	71		yes
22	2024-093	Metropolitan Regional Parks System Land Acquisition Phase 8	Acquire properties with high-quality natural resources or natural resources restoration potential for the metropolitan Regional Parks System. This project will be matched over 100% with Council and local Agency funds.	G. Land Acquisition, Habitat, and Recreation	Jessica Lee / Metropolitan Council	\$3,000,000	88			12 out of 17	71		yes
23	2024-103	Conservation Grazing for Birds, Beef, and Better Soil	Assessing Audubon Conservation Ranching as a strategic approach to biodiversity conservation and grassland soils and vegetation ecosystem resilience.	F. Methods to Protect or Restore Land, Water, and HabitatMethods to Protect, Restore, and Enhance Land, Water, and Habitat	Dale Gentry / Audubon Minnesota	\$361,000	79			12 out of 17	71	Is "Audubon Conservation Ranching" a proprietary system of grazing management?	yes
24	2024-108	Minnesota Microbes for Enhanced Biodegradation of Microplastics	We will investigate the potential of natural microbes indigenous to Minnesota to biodegrade conventional plastics in the environment as a means for cleaning contaminated soils and waters across the state.	F. Methods to Protect or Restore Land, Water, and Habitat	Brett Barney / U of MN, CFANS	\$524,000	83			12 out of 17	71		yes
25	2024-114	Implementing Innovative Techniques to Manage Low- Density Invasive Carp	This project will enhance the current program, integrating new invasive carp control and detection methods to monitor and remove invasive carp to avoid establishment in Minnesota.	D. Aquatic and Terrestrial Invasive Species	Brian Nerbonne / MN DNR, Fish and Wildlife Division	\$634,000		he proposal does not include research so is ot eligible for MAISRC funding.		12 out of 17	71	How successful have the previous project been?	yes
26	2024-223	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.	A. Foundational Natural Resource Data and Information	Barbara Lusardi / U of MN, MN Geological Survey	\$1,236,000	92			12 out of 17	71		yes

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27	2024-279		We will reconstruct historical lake conditions to identify factors linked to successful walleye fisheries and guide effective	B. Water Resources	Adam Heathcote / SMM, St. Croix Watershed Research Station	\$1,121,000	78		12 out of 17	71	Walleye are an important subsistence and commercial fish for MN tribal nations. How will this work collaborate with and inform those nations to protect or restore walleye fisheries?	yes
28	2024-049	Building Resilient Urban Forests for Climate Change	We will partner with urban municipalities and school districts to support planting of climate-resilient tree species. Activities include planting trees, gravel bed nursery creation, tree assessment and mapping, and community.	E. Air Quality, Climate Change, and Renewable Energy	Todd Rexine / Great River Greening	\$752,000	79		11 out of 17	65		yes
29	2024-059	Mentoring Next Generation of Conservation Professionals Phase 2	Internships and apprenticeships on the Minnesota Valley National Wildlife Refuge will introduce 37 diverse young people to careers in the conservation field.	C. Environmental Education	Deborah Loon / Minnesota Valley National Wildlife Refuge Trust Inc	\$793,000	86		11 out of 17	65	As an incorporated trust, how does this entity operate? Federal, state, non-profit, or for-profit? Will this project recruit from underserved and tribal communities? lot of \$ for 37 positions	yes
30	2024-096	Pollinator Central 4: Habitat Improvement with Public Engagement	Continuing pollinator habitat creation and enhancement on 11 sites from Lakeville to St. Cloud, with public engagement and education centered on youth, schools, and community awareness of natural resource stewardship.	F. Methods to Protect or Restore Land, Water, and Habitat	Rebecca Tucker / Great River Greening	\$698,000	86		11 out of 17	65		yes
31	2024-163	Status of Bats and Roost Trees after White-Nose	We will deploy acoustic detectors and revisit roost trees identified in our previous ENRTF project to measure effect of seven years of white-nose syndrome on Minnesota bats.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Ron Moen / U of MN, Duluth - NRRI	\$195,000	86		11 out of 17	65	Will this project work with tribal nations or Ceded Territory experts?	yes
32	2024-185	Bioacoustics for Species Monitoring and Conservation Phase II	This study will leverage our current bioacoustics monitoring framework to assess avian diversity at the statewide scale through a citizen science acoustic monitoring program, with a focus on private lands.	F. Methods to Protect or Restore Land, Water, and Habitat	Elena West / U of MN, CFANS	\$568,000	93		11 out of 17	65	Will this project work with tribes?	yes
33	2024-192	Assessing Prairie Health to Inform Pollinator Conservation	We will assess the environmental quality of prairies across Minnesota. On-the-ground surveys and contaminant risk assessments will help inform partner management actions, endangered species recovery plans, and pollinator reintroduction efforts.	A. Foundational Natural Resource Data and Information	Erik Runquist / Minnesota Zoological Society	\$297,000	68		11 out of 17	65		yes
34	2024-193	Understanding Native Fishes in the Bowfishing Era	Minnesotans increasingly value native fishes. For example, >95% of bowfished species in MN are native, yet all are poorly understood. Foundational natural resource data is absolutely necessary for all stakeholders.	A. Foundational Natural Resource Data and Information	Alec Lackmann / U of MN, Duluth	\$588,000	94		11 out of 17	65		yes
35	2024-292	North Minneapolis Nature Connection: Storytelling and Leadership Pathways	Loppet and community collaborators will promote urban nature connection for North Minneapolis residents through storytelling, nature and environmental justice programming, and environmental leadership pathways for high schoolers and young adults.	C. Environmental Education	DeAnna Perkins / The Loppet Foundation	\$788,000	83		11 out of 17	65		yes
36	2024-277	Growing the Minnesota Bison Conservation Herd	Design and construct fencing and handling facility needed to reintroduce bison to Camden State Park as part of preserving and interpreting the population and genome of American Plains bison.	F. Methods to Protect or Restore Land, Water, and Habitat	Edward Quinn / MN DNR, State Parks and Trails Division	\$2,415,000	92	qt	10 out of 16	63	Can the building facilities piece be taken out?	yes
37	2024-048	Turtle Island Skywatchers – Minnesota Research and Data Visualization	Turtle Island Skywatchers - Innovative Research and Data Visualization project works to protect Minnesota water, wildlife, and natural resources while empowering Indigenous youth as leaders and all citizens as researchers.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Annette S. Lee / Native Skywatchers Inc	\$200,000	88		10 out of 17	59		yes

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38	2024-081	Acquisition of State Parks In- Holdings	Complete efficient, time-sensitive acquisition of high priority State Park inholdings, conduct needed site cleanup, and convey the	G. Land Acquisition, Habitat, and Recreation	Brett Feldman / Parks &	\$2,000,000	89			10 out of 17	59		yes
39	2024-177	Rural MN Mobile Lab: Environmental/Earth Science Education	The CREST team wants to create a mobile lab with innovative, engaging educational activities that would be used to travel to underserved, underrepresented schools and community events in Northwest Minnesota	C. Environmental Education	Timothy Dudley / U of MN, Crookston	\$459,000	78			10 out of 17	59	How will they work with tribes?	yes
40	2024-215	White-Tailed Deer Movement and Disease in Suburban Areas	Our project aims to better understand white-tailed deer movement, habitat use, and disease dynamics at the suburban/agricultural interface to inform more efficient deer management and disease control.	A. Foundational Natural Resource Data and Information	Meggan Craft / U of MN, College of Biological Sciences	\$699,000	81			10 out of 17	59	How will this project work with urban and suburban tribal communities and underserved populations?	yes
41	2024-272	Expanding Youth and Family Fishing Opportunities	Expand fishing opportunities in urban areas, teach more kids and families how to fish, and inventory and inform the public about safe and legal shore fishing sites throughout Minnesota.	C. Environmental Education	Brian Nerbonne / MN DNR, Fish and Wildlife Division	\$1,162,000	93			10 out of 17	59	Will this project work with tribal experts and tribal communities?	yes
42	2024-273	Youth Conservation Empowerment Project	UMN Extension Center for Youth Development will partner with Winona and Rochester ALCs to engage 40 youth in year-long activities that connect, engage, and empower youth as environmental change-agents.	H. Small Projects Sub: C. Environmental Education	Nicole Pokorney / U of MN, Extension Center for Youth Development	\$70,000	77			10 out of 17	59		yes
43	2024-005	Long-Term Preservation of Minnesota's Ball Cactus Population		H. Small Projects Sub: F. Methods to Protect or Restore Land, Water, and Habitat	David Remucal / U of MN, Landscape Arboretum	\$100,000	76			9 out of 17	53		yes
44	2024-014	Native Plant Community Data in City of Duluth	restoration activities.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Virginia Breidenbach / Minnesota Land Trust	\$198,000	86			9 out of 17	53		yes
45	2024-044	Characterizing Tree Cavities and Use by Minnesota's Wildlife	Pileated Woodpeckers are keystone habitat modifiers that support an array of game, non-game, and conservation concern species. Additional information is needed to understand cavity dynamics for these species.	A. Foundational Natural Resource Data and Information	Alexis Grinde / U of MN, Duluth - NRRI	\$349,000	80			9 out of 17	53		yes
46	2024-046	Fate of Minnesota's Lakes in the Next Century	This proposal aims to answer this question: How would the water quality of Minnesota's lakes change in the next century under future scenarios of urbanization, agricultural growth, and climate change?	A. Foundational Natural Resource Data and Information	Ardeshir Ebtehaj / U of MN, College of Science and Engineering	\$499,000	86			9 out of 17	53	Are there plans for public outreach?	yes
47	2024-072	Foundational Data for Moth and Butterfly Conservation		H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Kyle Johnson / MN DNR, Ecological and Water Resources Division	\$195,000	81			9 out of 17	53		yes
48	2024-094	Zumbro River Regional Water Trail		H. Small Projects Sub: G. Land Acquisition, Habitat, and Recreation	Sunny Bjorklund Schultz / City of Oronoco	\$170,000	83			9 out of 17	53		yes

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49	2024-098	Advanced Biofilter for N2O Removal	This project will develop innovative and low-cost biofilters to decrease the concentration of nitrous oxide (N2O), a strong greenhouse gas and ozone layer destructor.	E. Air Quality, Climate Change, and Renewable Energy	Satoshi Ishii / U of MN, College of Biological Sciences	\$335,000	84			9 out of 17	53		yes
50	2024-129	YES! Students Step Up To Reduce Carbon Footprint	YESI (Youth Eco Solutions) will empower Minnesota youth to reduce their carbon footprints by losing 5,000 pounds of CO2 per YES! team each school year.	H. Small Projects Sub: C. Environmental Education	Kalley Pratt / Prairie Woods Environmental Learning Center	\$199,000	79			9 out of 17	53	Will this project work with tribal experts and tribal communities?	yes
51	2024-150	Improving Aquatic Plant Knowledge for Healthy Waters	Enhance knowledge of Minnesota's native aquatic plant biodiversity, the backbone of healthy aquatic systems, by delivering data products that support conservation, protection and management for decision-makers and scientists.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Holly Bernardo / MN DNR, Ecological and Water Resources Division	\$198,000	79			9 out of 17	53		yes
52	2024-237	LiDAR Technology Preventing Wildlife Fatalities from Wind Turbines		F. Methods to Protect or Restore Land, Water, and Habitat	Sayan Biswas / U of MN, College of Science and Engineering	\$550,000	85			9 out of 17	53		yes
53	2024-015	Jay C. Hormel Nature Center Supplemental Teaching Staff	This project sustains momentum from the pilot project funded previously by the ENRTF for growing environmental education opportunities for learners from outside of Austin.	C. Environmental Education	Luke Reese / City of Austin	\$410,000	75			8 out of 17	47		yes
54	2024-063	Monitoring Minnesota's Insects: Connecting Habitat to Insect Prey	The protection of insect-feeding animals is reliant on sustained insect abundance. We will investigate the ecological roles and energy transfer by Minnesota insects and train future insect researchers	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Matthew Petersen / U of MN, CFANS	\$199,000	65			8 out of 17	47	Will this project work with tribal nations or Ceded Territory experts? Will the future insect researchers trained include recruitment efforts to underserved and tribal communities?	yes
55	2024-073	Enhancing Wastewater Treatment while Bioprospecting for Novel Pharmaceuticals	We will generate genome sequences of bacteria growing in wastewater treatment bioreactors, allowing us to improve phosphorus and nitrogen removal from wastewater in Minnesota and to discover novel pharmaceutical compounds.	B. Water Resources	Timothy LaPara / U of MN, College of Science and Engineering	\$690,000		the proposed Activities 3 and 4 consistent the constitutional purpose of the ENRTF?		8 out of 17	47		yes
56	2024-088	Distribution and Population Status of Weasels in Minnesota	We will determine the distribution, relative density, and spatial occupancy patterns of 3 small weasel species in Minnesota to fill key knowledge gaps in weasel distribution and status in Minnesota.	A. Foundational Natural Resource Data and Information	Michael Joyce / U of MN, Duluth - NRRI	\$400,000	79			8 out of 17	47		yes
57	2024-097	Mitigating the Spread of Invasive Jumping Worms	Jumping worms are an invasive, exotic that poses a threat to forests by removing soil organic matter and seedlings. It is necessary to develop IPM tactics for mitigating jumping worms.	D. Aquatic and Terrestrial Invasive Species	Vera Krischik / U of MN, CFANS	\$516,000	was	proposal previously applied to MITPPC and not funded. Should they be encouraged to inue to seek ENRTF funds from MITPPC?		8 out of 17	47		yes
58	2024-153	Managing Future Floods and Droughts in Minnesota	Leveraging new statewide climate data, we will assess future change in the duration, frequency and magnitude of heavy precipitation and drought events and engage communities to prepare for these extremes.	E. Air Quality, Climate Change, and Renewable Energy	Heidi Roop / U of MN, CFANS	\$480,000	85			8 out of 17	47	Indigenous nations and underserved communities are disproportionately impacted by the effects of extreme weather. How will this project work with and inform those communities?	yes
59	2024-158	New Small Mammal Monitoring Methods for Minnesota	We will develop camera trapping methods for small mammals, a new tool in the toolbox to to fill key knowledge gaps in status of Minnesota mammal species.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Ron Moen / U of MN, Duluth - NRRI	\$199,000	77			8 out of 17	47	Will this project work with tribal nations or Ceded Territory experts?	yes

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60	2024-173	Wildfire Impacts on Mercury Cycling in Wilderness Lakes	Increasing wildfires in Minnesota are mobilizing mercury and degrading water in wilderness lakes, potentially causing increased mercury concentrations in fish. We will develop approaches to protect our lakes and fish.	B. Water Resources	Christopher Filstrup / U of MN, Duluth - NRRI	\$297,000	73		_	8 out of 17	47		yes
61	2024-227	Shingle Creek Aquatic and Shoreline Habitat Enhancement	This request will transform 1.6 miles of Shingle Creek in north Minneapolis into a functioning ecological corridor, leveraging an additional \$3.27 million in planned recreational improvements.	F. Methods to Protect or Restore Land, Water, and Habitat	Adam Arvidson / Minneapolis Park and Recreation Board	\$1,100,000	80			8 out of 17	47		yes
62	2024-264	Dent and Vergas Spur Trails	Construction of a 6.6 mile bituminous trail along CSAH 35 connecting the cities of Dent and Vergas to the Heart of the Lakes Regional Trail and Maplewood State Park	G. Land Acquisition, Habitat, and Recreation	Nicholas Leonard / Otter Tail County	\$934,000	79			8 out of 17	47		yes
63	2024-278	Genetic Detection of Endangered Mussels in the Mississippi	This project will create and optimize eDNA assays to detect the presence of 8 endangered or threatened mussel species around Buffalo Slough near Prairie Island Indian Community.	A. Foundational Natural Resource Data and Information	Lauren Lynch / US Geological Survey, Ohio Water Microbiology Lab	\$241,000	68			8 out of 17	47		yes
64	2024-009	Minnesota Driftless Hiking Trai	Building a backpacking focused trail across Southeast Minnesota's Driftless Area.	G. Land Acquisition, Habitat, and Recreation	Marty Walsh / Minnesota Driftless Hiking Trail	\$426,000	53			7 out of 17	41		yes
65	2024-028	Get the Lead Out: Lead-Free Fishing Tackle Education	Get the Lead Out is focused on protecting common loons and wildlife through education and outreach about the danger of lead fishing tackle and promoting lead-free tackle alternatives.	C. Environmental Education	Kelly Amoth / Minnesota Pollution Control Agency	\$258,000	84			7 out of 17	41	Is this a continuation of a past funded project? If so, should general funds be used at some point?	yes
66	2024-036	Reconstructing Historical Wild Rice to Understand Its Future	We will characterize environmental drivers contributing to the decline of wild rice using lake sediment cores to reconstruct historical wild rice abundance in relation to lake and watershed stressors.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Lienne Sethna / Science Museum of Minnesota, St. Croix Watershed Research Station	\$200,000	83			7 out of 17	41	How will this project collaborate with MN tribal nations that use rice for subsistence?	yes
67	2024-061	Climate Change and Management Effects on Lake Methane	Rising temperatures and increased precipitation contribute to decreased oxygen and increased methane in Minnesota lakes and wetlands. We will identify impacts on water quality and methane emissions, providing management guidance.	B. Water Resources	James Cotner / U of MN, College of Biological Sciences	\$599,000	71			7 out of 17	41	Will this work collaborate with tribal or ceded territory experts that co-manage MN aquatic resources?	yes
68	2024-090	Restoration of Riverside Park	Project will mitigate the effects of climate change by restoring water retentive capabilities to 7 acres on the Long Prairie River while also creating both recreational and educational opportunities.	H. Small Projects Sub: F. Methods to Protect or Restore Land, Water, and Habitat	Ted Gray / City of Long Prairie	\$141,000	70			7 out of 17	41		yes
69	2024-168	Season Watch: Cultivating Young Naturalists with Phenology Education	This education project will continue building the next generation of conservationists in Minnesota by engaging youths and adults in science and outdoor learning through radio, podcasts, newsletters and schoolyard exploration.	H. Small Projects Sub: C. Environmental Education	Sarah Bignall / Northern Community Radio, Inc.	\$180,000	79			7 out of 17	41	Will this project work with tribal experts and tribal communities?	yes
70	2024-170	Completing the Mississippi River Greenway: Dakota County	Restore and enhance 54 acres of natural areas, five miles of linear natural signature plantings and install seven EV charging stations along the 27 mile Mississippi River Greenway.	F. Methods to Protect or Restore Land, Water, and Habitat	John Mertens / Dakota County	\$675,000	80			7 out of 17	41		yes

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71	2024-175	Enabling Nature to Destroy Environmental PFAS Contaminants	Low-levels of perfluoroalkyl substances (PFAS) contaminate water and soil in Minnesota. We propose to identify enzymes and microbes that break down PFAS, making them non-toxic.	F. Methods to Protect or Restore Land, Water, and Habitat	Romas Kazlauskas / U of MN, College of Biological Sciences	\$378,000	81			7 out of 17	41		yes
72	2024-186	Modernizing Minnesota's Plant Community Classification and Field Guides	Update the state's 20-year-old native plant community classification guides to incorporate new data; streamline user application and access to products; and increase connections to evolving climate and vegetation trends.	A. Foundational Natural Resource Data and Information	Bruce Carlson / MN DNR, Ecological and Water Resources Division	\$1,800,000	80			7 out of 17	41		yes
73	2024-200	College-School Collaboration to Promote Environmental Career Paths	This project builds partnerships among natural resource professionals, college, middle and high schools to work collaboratively to increase youth exposure to outdoor experiences, environmental issues, and natural resource career paths.	H. Small Projects Sub: C. Environmental Education	Kimberly Musser / MN State Colleges and Universities, MSU Mankato	\$174,000	69			7 out of 17	41	There are 650 tribal science positions in the midwest. How will this project engage with tribal youth in support of educational efforts and to assist in the delivery of qualified tribal natural resources professionals?	yes
74	2024-247	Harnessing Cover Crops and Roots for Sustainable Cropping	This project proposes to increase the adoption of cover cropping in southern Minnesota to address issues of loss of diversity and environmental degradation. By generating important information on cover crops,	A. Foundational Natural Resource Data and Information	Axel Garcia y Garcia / U of MN, CFANS	\$375,000	49			7 out of 17	41		yes
75	2024-251	Effects of Conservation Grazing on Solar Pollinator Habitat	This research will analyze the effects of sheep grazing and mowing on the vegetation of solar sites that have been managed for pollinator habitat	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Daniel Tix / Minnesota Native Landscapes	\$88,000	74			7 out of 17		Is MN Native Landscapes a private company? What type of grazing practices? I would like to see intensive rotational grazing	yes
76	2024-257	Breaking the PFAS Cycle with a Full-Scale Demonstration	This full-scale pilot will evaluate supercritical water oxidation (SCWO) for managing PFAS in biosolids and water treatment residuals. SCWO can destroy PFAS in a variety of wastes and recover energy.	B. Water Resources	Andrew McCabe / Barr Engineering Co.	\$1,724,000	82			7 out of 17	41		yes
77	2024-269	Are Stream Restoration Efforts Effective? An Evidence-Based Assessment.	Assessing stream habitat improvement projects to improve trout populations and stream health in the Driftless Area.	H. Small Projects Sub: B. Water Resources	Andrew Robertson / Saint Mary's University	\$200,000	68			7 out of 17	41		yes
78				Total amount requested for projects se members73 propo		\$63,044,000			I		L		<u> </u>
79	2024-022	Morrison County Historical Society Streambank Stabilization and Restoration	Construction funding is needed to stabilize a unique shoreline site using a bioengineered design incorporating native plants soil wraps, stream barbs and root wads to create aquatic habitat.	F. Methods to Protect or Restore Land, Water, and Habitat	Shannon Wettstein / Morrison Soil and Water Conservation District	\$519,000	82	Would the LCCMR want to provide an exception to the requirement that restorations be conducted only on public land or private land permanently protected by a conservation easement? See applicant's answer to		6 out of 17	35		
80	2024-027	Phenology Investigations in Minnesota Schools	Provide professional development workshops at three Greater Minnesota locations for 60 teachers to use phenology education curriculum and community science resources, reaching >7,000 students in the first three years.	C. Environmental Education	Robert Blair / U of MN, CFANS	\$392,000	74	f f		6 out of 17	35	UMN is a land grant institution on the lands of indigenous nations? How will this project engage with tribal youth in support of educational efforts and to assist in the delivery of programming that is respectful of the indigenous heritage on which the University rests?	
81	2024-058	Water Science and Policy Fellowships for Minnesota	Minnesota Sea Grant seeks to create a science-policy fellowship program to train Minnesota's science-policy workforce and advance Minnesota's water resource policy, emulating Sea Grant's successful federal-level fellowship program.	C. Environmental Education	Alexander Frie / U of MN, Duluth - Sea Grant	\$445,000	67			6 out of 17	35	Will this project recruit from underserved and tribal communities?	
82	2024-077	Improving Water Efficiency Programming with Measurable Outcomes	The project will accelerate the implementation of three water efficiency programs that are estimated to save 79 million gallons of water annually and serve as an example for other communities.	H. Small Projects Sub: B. Water Resources	Heidi Quinn / City of Woodbury	\$200,000	56			6 out of 17	35		

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83	2024-099	Unlocking Minnesota Wilderness for Youth	Our goals are to engage 100,000 underserved youth statewide in environmental education, engaging them in the conservation and preservation of Minnesota wilderness through the experiences in the outdoors.	C. Environmental Education	Beth Becker / YMCA of the North	\$762,000	32			6 out of 17	35	Will this project recruit from underserved and tribal communities?	
84	2024-101	City of Champlin Brown Property Acquisition	The City is attempting to acquire of the last natural land parcels in the City to keep as natural habitat before it sells to a developer.	G. Land Acquisition, Habitat, and Recreation	Charles Lehn / City of Champlin	\$693,000	77			6 out of 17	35		
85	2024-111	Increasing Access to Environmental Education Youth Camps	Osprey Wilds Environmental Learning Center will provide meaningful, hands-on environmental education learning opportunities to underserved rural and metro area children through our day-use and residential summer camps.	H. Small Projects Sub: C. Environmental Education	Bryan Wood / Osprey Wilds Environmental Learning Center	\$163,000	63			6 out of 17	35	Will this project work with tribal experts and tribal communities?	
86	2024-113	Spring Lake Park Reserve Restoration and River Access	Development of Mississippi River access that includes parking, a non-motorized boat launch, access to the national Mississippi River Trail and hiking trails, natural resource restoration, and cultural resource management.	G. Land Acquisition, Habitat, and Recreation	Niki Geisler / Dakota County	\$4,770,000	81			6 out of 17	35		
87	2024-115	Launching Environmental Education at Shepard Farm	Dodge Nature Center will build environmental skills and increase knowledge for 10,000 Minnesota K-6 youth through standards- aligned, outdoor experiences and hands-on learning at our new Shepard Farm property.	C. Environmental Education	Pete Cleary / Dodge Nature Center	\$639,000	74			6 out of 17	35		
88	2024-152	Red River Basin Nutrient Offset Plan	The overall purpose of this project is to develop and implement an effective basin-wide plan for the implementation of water quality offset program the Red River Basin of the North.	B. Water Resources	Ted Preister / Red River Basin Commission	\$469,000	62	Is the proposed project consistent with M.S. 116P.08 (2) that prohibits ENRTF spending for purposes of municipal water pollution control in municipalities with a population of 5,000 or more under the authority of chapters 115 and 116?		6 out of 17	35		
89	2024-164	Visitor Perceptions of Lake Water Quality	Use mobile AI-assisted technologies to survey lake visitors. Assess perceptions of water quality and perceived threats. Combine survey data with water quality trend monitoring to inform lake management.	B. Water Resources	Bonnie Keeler / U of MN, Humphrey School of Public Affairs	\$411,000	74			6 out of 17	35		
90	2024-189	Preventing PFAS and Microplastics Contaminants across Minnesota	This project helps Minnesota entities that directly or indirectly cause PFAS and microplastics contamination stop the flow of the contaminants by developing strategies to manage solid waste streams.	F. Methods to Protect or Restore Land, Water, and Habitat	Roger Ruan / U of MN, CFANS	\$722,000	75			6 out of 17	35		
91	2024-198	Early Detection of Invasive Viruses in Native Pollinators	Forewarned is Forearmed: Our goal is to protect the newly described MN DNR native bees from invasive virus-derived diseases and population declines.	H. Small Projects Sub: D. Aquatic and Terrestrial Invasive Species	Declan Schroeder / U of MN, College of Veterinary Medicine	\$200,000		The proposed research does not address priority species so is not eligible for MITPPC funding.		6 out of 17	35		
92	2024-213	Flood and Drought Prediction for Minnesota	This project will analyze existing and projected data to develop simple tools to predict the effect of land use and climate change on extreme floods and droughts.	B. Water Resources	Wendy Moylan / U of MN, CFANS	\$499,000	75			6 out of 17		Underserved communities and tribal nations are disproportionately affected by extreme weather, how will this project inform and work with those communities?	
93	2024-224	Remote Sensing for Pollinator Habitat	This project uses remote sensing technology (UAVs) to evaluate pollinator habitat on energy and transportation lands across Minnesota.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Wendy Caldwell / Monarch Joint Venture	\$180,000	72			6 out of 17	35		

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94	2024-226	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.	B. Water Resources	Natasha Wright / U of MN, College of Science and Engineering	\$241,000	57			6 out of 17	35		
95	2024-250	Water Quality and Robots: Experientially Educating Minnesotan Youth	We propose educational activities for middle school youth on water quality in Minnesota. Youth will gain skills for measuring water quality and communicating results through group study and hands- on projects.		Nikolaos Papanikolopoulos / U of MN, College of Science and Engineering	\$353,000	80			6 out of 17	35		
96	2024-255	Road Salt Pollution of Surface Waters from Groundwater	We propose identifying hot spots of groundwater chloride pollution of surface waters due to excessive road salt use, which is a long term source increasing chloride impairment of surface waters.	F. Methods to Protect or Restore Land, Water, and Habitat	John Gulliver / U of MN, College of Science and Engineering	\$689,000	75			6 out of 17	35		
97	2024-296	Integrated Population Modeling for Trumpeter Swans		H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Todd Arnold / U of MN, CFANS	\$180,000	52			6 out of 17		Will this work collaborate with tribal or ceded territory experts that co-manage MN aquatic resources?	
98	2024-298	Priority Lakes: Meeting Protection Goals and Multiplying Benefits	Use existing tools and partnerships to meet protection goals and transition to long-term community driven, coordinated management for multiple benefits, including: habitat, water, forest health, local economy and climate resiliency.	F. Methods to Protect or Restore Land, Water, and Habitat	Crystal Mathisrud / Hubbard County Soil & Water Conservation District	\$1,890,000	88			6 out of 17	35		
99				Total amount requested for projects sel members93 propo		\$77,461,000							
100	2024-016	Harmony State Trail Extension Construction	To finish the construction of a new recreational trail segment linking the Harmony Preston Valley Trail and City of Harmony to the Minnesota/Iowa border and Niagara Cave.	G. Land Acquisition, Habitat, and Recreation	Chris Giesen / City of Harmony	\$5,500,000	68		RH	5 out of 16	31		
101	2024-011	Grant County Public Land Survey System Project		H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Patrick Veraguth / Grant County	\$200,000		Is the proposed project consistent with the constitutional purpose of the ENRTF?		5 out of 17	29		
102	2024-024	Soil Data Integration into the Ecological Classification System		H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Nicolas Jelinski / U of MN, CFANS	\$170,000	83			5 out of 17	29		
103	2024-040	PLSS Section Corner Remonumentation	boundaries and improve foundational Geographic Information	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Jenny Sanders / Morrison County	\$195,000		Is the proposed project consistent with the constitutional purpose of the ENRTF?		5 out of 17	29		
104	2024-057	Characterization of Chemicals in Structural Fire Wastewater		B. Water Resources	Grace Wilson / U of MN, CFANS	\$369,000	75			5 out of 17	29		
105	2024-065	Roseau County Re- Monumenting of Jadis & Spruce Township		H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Liz Lund / Roseau County	\$156,000		Is the proposed project consistent with the constitutional purpose of the ENRTF?		5 out of 17	29		

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106	2024-119	T64NR4E- PLS Corner Restoration	Restoration of 90 PLS land/protracted corners in 12 sections of T64N R4E, 4th PM, Cook Co. No corners presently exist in the entire area negating any safe environmental practices	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Wayne Hensche / Cook County	\$165,000	23	Is the proposed project consistent with the constitutional purpose of the ENRTF?		5 out of 17	29		
107	2024-123	Kanabec County PLS Corner Restoration	Restore 63 Public Land Survey corners in Kanabec County, located in 4 Townships (Ford, Peace, Knife Lake, and Arthur Townships)	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Chad Gramentz / Kanabec County	\$152,000	20	Is the proposed project consistent with the constitutional purpose of the ENRTF?		5 out of 17	29		
108	2024-139	The Boundary Waters is Our Backyard	Connecting students from Northeastern Minnesota, especially Ely and Cook County schools, to the Boundary Waters Canoe Area Wilderness through grade-wide day trips and overnight wilderness experiences during the school year.	C. Environmental Education	Alison Nyenhuis / Friends of the Boundary Waters Wilderness	\$582,000	78			5 out of 17	29		
109	2024-172	Sublethal Effects of Pesticides on Invertebrate Community	This project seeks to provide data on pesticide contamination in soil, water and the insect community across the state and the effect of exposure to insecticide exposure on insect reproduction.	A. Foundational Natural Resource Data and Information	Mingzi Xu / U of MN, College of Biological Sciences	\$398,000	78			5 out of 17	29		
110	2024-183	Carlton County Remonument	Restore and certify monuments of the Public Land Survey System. Collect geodetic coordinate values in order to improve foundational Geographic Information System (GIS) data.	A. Foundational Natural Resource Data and Information	Benjamin Anderson / Carlton County	\$292,000	21	Is the proposed project consistent with the constitutional purpose of the ENRTF?		5 out of 17	29		
111	2024-220	Minnesota Ecological Design Toolkit	Develop an online toolkit that allows designers, engineers, state employees, developers and others to rapidly understand the ecological and cultural context of a site and implement sustainable design strategies.	A. Foundational Natural Resource Data and Information	Matthew Tierney / U of MN, Center for Sustainable Building Research	\$433,000	86			5 out of 17	29	How will this project be implemented after the tool kit is developed?	
112	2024-249	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.	H. Small Projects Sub: C. Environmental Education	Emily Barker / Reuse Minnesota	\$199,000	72			5 out of 17	29		
113	2024-265	Water and Ecosystems at Risk in Northeastern Minnesota	Northeastern Minnesota contains rich yet fragile unique public land and water. Changes in precipitation and recreation vehicle use may threaten pristine water quality, and the ecological character of the region.		Joe Magner / U of MN, College of Science and Engineering	\$406,000	62			5 out of 17	29	Underserved communities and tribal nations are disproportionately affected by extreme weather, how will this project inform and work with those communities?	
114	2024-276	Ditches: Potential Water Storage Domain Providing Multiple Co-Benefits	This research project will demonstrate that ditch management is highly effective at protecting water quality and increasing water storage on the landscape. Guidance will be developed for resource managers statewide.	B. Water Resources	Jeffrey Strock / U of MN, Southwest Research and Outreach Center	\$1,122,000	65			5 out of 17	29		
115	2024-218	Reducing Methane Emissions for Dairy Production Systems	The project team at the WCROC will model and evaluate nutritional and genetic strategies that will reduce methane emissions of dairy cattle.	E. Air Quality, Climate Change, and Renewable Energy	Bradley Heins / U of MN, WCROC	\$520,000	66		MR	4 out of 16	25		
116	2024-026	PLSS Restoration T58R13	Restore and certify monuments of the Public Land Survey System. Collect geodetic coordinate values in order to improve foundational Geographic Information System (GIS) data.	A. Foundational Natural Resource Data and Information	Preston Dowell / St. Louis County	\$218,000	25	Is the proposed project consistent with the constitutional purpose of the ENRTF?		4 out of 17	24	We need this done across the State.	

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		Next-Gen Refrigeration &	Preparing Minnesota to meet the call of a national commitment to reduce emissions of high global warming potential refrigerants through training, workforce development, technical and financial assistance.	E. Air Quality, Climate Change, and Renewable Energy	Jennifer Theodore / Minnesota Pollution Control Agency	\$511,000	74	Stan comments	2	4 out of 17	24	Weinber Notes	resentation
118	2024-034	Municipal Wastewater Treatment Facility Operator Toolkit	Provide technical assistance and training resources to statewide municipal wastewater treatment plant operators	C. Environmental Education	Suzanne Baumann / Minnesota Pollution Control Agency	\$449,000	72			4 out of 17	24	MPCA should be doing this already.	
119	2024-067	Immersive Outdoor Experiences for Underserved Youth	Underserved teens will engage in immersive outdoor experiences to develop an action-based conservation ethic. Teens will learn new outdoor skills, gain environmental knowledge, and create connections with nature.	, H. Small Projects Sub: C. Environmental Education	MaryLynn Pulscher / Minneapolis Park and Recreation Board	\$200,000	65			4 out of 17	24		
120	2024-080	Capturing and Converting Carbon Dioxide from Flue Gas	This project aims to develop a green and effective route for carbon dioxide capture and conversion, especially from flue gases generated by various industries in Minnesota.	E. Air Quality, Climate Change, and Renewable Energy	Hua Zhao / U of MN, CFANS	\$505,000	84			4 out of 17	24		
121	2024-086	Fluorine Beyond PFAS: Pesticide and Pharmaceutical Degradation	The project will assess the fluorinated breakdown products produced from pesticides and pharmaceuticals to identify potentially persistent or toxic byproducts and allow development of sustainable chemistries.	B. Water Resources	William Arnold / U of MN, College of Science and Engineering	\$560,000	80			4 out of 17	24		
122	2024-118	Public Land Survey Monument Restoration T 140 R29	Restoration and maintenance of the Public Land Survey(PLS) monuments in Woodrow Township, T 140 N, R 29 W, Cass County Minnesota.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Daniel McAninch / Cass County Highway Department	\$160,000	23	Is the proposed project consistent with the constitutional purpose of the ENRTF?		4 out of 17	24		
123	2024-120	Otter and Campbell Lakes Accessible Recreational Opportunities Project	The Otter and Campbell Lakes Accessible Recreational Opportunities Project will improve public access and opportunities for recreational activities.	G. Land Acquisition, Habitat, and Recreation	John Paulson / City of Hutchinson	\$1,400,000	73			4 out of 17	24		
124	2024-131	Accelerated Migration of Oaks Phase 2	Collect and disseminate the 5-10 year data on growth and survival, of 3 bur oak ecotypes planted in 4 restoration sites under ML2015 "Enhancing Restoration Techniques for Improved Climate Resilience"	H. Small Projects Sub: F. Methods to Protect or Restore Land, Water, and Habitat	Wiley Buck / Great River Greening	\$144,000	75			4 out of 17	24		
125	2024-154	Minnesota Climate and Conservation Solutions for Justice Fellowship	The Climate and Conservation Solutions for Justice Fellowship builds a network of community changemakers to share narratives of hope and lead collective actions to strengthen Minnesota's frontline community climate resilience.	C. Environmental Education	Heidi Roop / U of MN, CFANS	\$260,000	70			4 out of 17		Will this project recruit from underserved and tribal communities?	
126	2024-156		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	H. Small Projects Sub: E. Air Quality, Climate Change, and Renewable Energy	Sam Toan / U of MN, Duluth	\$200,000	72			4 out of 17	24		
127	2024-161	Novel Nutrient Recovery Process from Wastewater Treatment Plants	This proposal requests renewed funding for a new integrated process with potential to promote nutrient removal/recovery and renewable energy production at rural municipal and industrial wastewater treatment plants (WWTP).	B. Water Resources	Bo Hu / U of MN, CFANS	\$486,000	81			4 out of 17	24		

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	2024-167		Lutsen Trailbreakers need to replace a bridge across Poplar River that was washed away in spring storm 2022. This vital link to Lutsen for fuel, food, and safety is essential to	F. Methods to Protect or Restore Land, Water, and Habitat	Sharon Hexum-Platzer / Lutsen TrailBreakers Snowmobile Club	\$436,000	26			4 out of 17	24	Is this project FEMA eligible?	
129	2024-191	Pierz Park Master Plan and Acquisition	Create a Park Master Plan for a regional park with connections to local, regional, and statewide trails and acquire a 33.53-acre parcel of land for the future park.	H. Small Projects Sub: G. Land Acquisition, Habitat, and Recreation	Bob Otremba / City of Pierz	\$198,000	64			4 out of 17	24		
130	2024-209	Tiny Sensor to Detect Heavy Metals in Fish	We propose to develop an accurate, cheap and easy-to-use microsensor for detection of heavy metals in fish. It can be used for statewide fisheries management and household fish safety inspection.	H. Small Projects Sub: B. Water Resources	Tianhong Cui / U of MN, College of Science and Engineering	\$200,000	59			4 out of 17	24	Many tribal communities rely heavily on fish for subsistence. There are consumption advisories for mercury in some tribal communities. How will this project with those communities to protect public health for the people that rely on fish for subsistence?	
131	2024-210	Sulfate Sensors for Monitoring Water Pollution in Minnesota	We propose to develop a small, cheap, and accurate sensor using a graphene transistor to monitor sulfate concentrations for protection of wild rice waters and the environment in Minnesota.	B. Water Resources	Tianhong Cui / U of MN, College of Science and Engineering	\$460,000	68			4 out of 17	24		
132	2024-216	Rapid Pathogen Detection and Mitigation in Minnesota Lakes	Protection and enhancement of Minnesota waters by rapidly detecting, forecasting, and selectively mitigating viral and bacterial pathogens. Public and policymaker education on how to detect and mitigate emerging pathogens.	B. Water Resources	Miki Hondzo / U of MN, College of Science and Engineering	\$646,000	75			4 out of 17	24		
133	2024-231	Keep it Clean Winterized Sanidump Stations	Infrastructure for the safe collection and removal of raw sewage/waste from Shelter holding tanks throughout the winter fishing season.	H. Small Projects Sub: B. Water Resources	Robyn Dwight / Upper Red Lake Area Association	\$200,000	45			4 out of 17	24		
134	2024-254	Novel Laundry Filters to Reduce Microfiber Pollution	We will make a novel and effective laundry filter that can capture all types of microfibers to reduce plastic pollution in Minnesota's waterways.	B. Water Resources	Boya Xiong / U of MN, College of Science and Engineering	\$230,000	71			4 out of 17	24		
135	2024-076	Improving Agricultural Ecosystems through Autonomous Weed Control	Autonomous robots, powered by green hydrogen and solar power, designed to remove weeds in row crop fields can improve agricultural ecosystems with reduced herbicide application and fossil fuel use.	E. Air Quality, Climate Change, and Renewable Energy	Eric Buchanan / U of MN, WCROC	\$978,000	72		MR	3 out of 16	19		
136	2024-256	Agrivoltaics to Combine Photovoltaics with Commodity Crop Farming	Minnesota utilities need to transition to carbon-free energy by 2040. This project will determine the potential for agrivoltaic dual- use of land for commodity crop growth and photovoltaics in Minnesota.	E. Air Quality, Climate Change, and Renewable Energy	Uwe Kortshagen / U of MN, College of Science and Engineering	\$425,000	72		MR	3 out of 16	19		
137	2024-007	Gull Lake Trail: Nisswa Connection	This final half mile of paved trail in Nisswa makes the vital connection to Lake Shore and rest of the regionally significant Gull Lake Trail in the Brainerd Lakes Area.	G. Land Acquisition, Habitat, and Recreation	Amber Moon Peterson / City of Nisswa	\$900,000	56			3 out of 17	18		
138	2024-039	Minimizing Minnesota's Landfill Problem by Expanding Waste Diversion	Expanding waste diversion practices across the state this project will: create 16 jobs, reduce greenhouse gas emissions, provide data to measure the social, economic, and environmental benefits of waste diversion.	E. Air Quality, Climate Change, and Renewable Energy	Jason Allen / Better Futures Minnesota	\$2,596,000	69			3 out of 17	18		

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	2024-042	Split Rock Wilds Beaver Bay Expansion	The Split Rock Wilds Beaver Bay Expansion will create a trail that directly connects Beaver Bay with a bike optimized, multiuse single track trail system.	G. Land Acquisition, Habitat, and Recreation	Dave Cizmas / Lake	\$500,000	55			3 out of 17	18		
140	2024-050	Paving the Future with Biochar Modified Asphalt	Use biochar produced from Minnesota biomass in modified asphalt mixes (conventional and recycled material-based) to demonstrate/quantify its greenhouse gas and noxious emission reduction, resource/energy conservation, and economic benefits.	E. Air Quality, Climate Change, and Renewable Energy	Lawrence Zanko / U of MN, Duluth - NRRI	\$369,000	73			3 out of 17	18		
141	2024-056	Modeling Emissions Data from Consumption and Waste	The MPCA would hire a contractor to develop an efficient and standardized process to quantify the greenhouse gas emissions generated by Minnesotans' consumption and to create an environmental impact calculator.	E. Air Quality, Climate Change, and Renewable Energy	Colleen Hetzel / Minnesota Pollution Control Agency	\$500,000	76			3 out of 17	18		
142	2024-084	Pilot Recycling Economy, Climate, and Plastics Outreach	Pllot outreach to selected Minnesota households will boost recycling participation based on data-driven behavior change research and updated natural resources, climate, and economic benefit data.	C. Environmental Education	Lori Nelson / Recycling Association of Minnesota	\$500,000	77			3 out of 17	18		
143	2024-110	Sandy Point Park Expansion	Expanding Recreational Opportunities at Sandy Point Park	H. Small Projects Sub: G. Land Acquisition, Habitat, and Recreation	Jeremy Bartosh / Jackson County	\$195,000	50	Is the proposed activity 3 consistent with the constitutional purpose of the ENRTF?		3 out of 17	18		
144	2024-116	Soil Gas Measurements Protect/Enhance Minnesota Soil Health	We seek to build and deploy 25 soil gas instruments across the state that will measure soil health, to preserve and enhance farming and other land resources.	F. Methods to Protect or Restore Land, Water, and Habitat	Jacob Swanson / MN State Colleges and Universities, MSU Mankato	\$415,000	66			3 out of 17	18		
145	2024-141	Minnesota Forest Zone Trappers Association Land Acquisition	The Minnesota Forest Zone Trappers Association (MFZTA) is requesting a \$165,000 grant to acquire additional property/closing costs to eventually develop a Sportsmen's & Sportswomen's Outdoor Training and Development Center.	H. Small Projects Sub: G. Land Acquisition, Habitat, and Recreation	Ray Sogard / Minnesota Forest Zone Trappers Association	\$165,000	49			3 out of 17	18		
146	2024-151	Oak Wilt Suppression at the Northern Edge III	Suppress oak wilt at the leading edge to prevent infestation in private and public forests to the north and west including Pillsbury State Forest and Camp Ripley.	H. Small Projects Sub: D. Aquatic and Terrestrial Invasive Species	Shannon Wettstein / Morrison Soil and Water Conservation District	\$200,000	76	Is the proposed project eligible for funding? The RFP states stand control, removal, and maintenance activities of invasive species will not be considered.		3 out of 17	18		
147	2024-155	Rock Ridge Deep Winter Greenhouse for Environmental Education	Build a deep winter greenhouse on the Rock Ridge ISD 2909 campus and hire a greenhouse coordinator to provide environmental education for elementary and high school students using appropriate curricula.	H. Small Projects Sub: C. Environmental Education	Keith Peterson / Iron Range Partnership for Sustainability	\$149,000		Is the proposed project eligible for funding under Environmental Education? The RFP states capital projects (e.g., buildings and infrastructure) and new curriculum will not be considered under this category.		3 out of 17	18		
148	2024-157	Lowering Nitrogen Fertilizer Application to Restore Water Quality	Our project will identify native microbes that provide nitrogen to plants through natural biological processes, and apply these to replace current industrial fertilizers while lowering fertilizer costs for farmers.	F. Methods to Protect or Restore Land, Water, and Habitat	Brett Barney / U of MN, CFANS	\$292,000	73			3 out of 17	18		
149	2024-169	Carey Lake Recreation Area Campground	Continued development of Carey Lake Park into the Carey Lake Recreation Area with the construction of a new full-service campground, community facilities, and alignment of the trails to regional systems.	G. Land Acquisition, Habitat, and Recreation	Nick Arola / City of Hibbing	\$2,478,000	55			3 out of 17	18		

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		rioject fille	Wakan Tipi/Bruce Vento Nature Sanctuary	Category / Subcategory	organization	Requested	S	Stan comments	2	rresentation	Jelecting	Member Notes	Fresentation
150	2024-176	Wakan Tipi/Bruce Vento Nature Sanctuary		C. Environmental Education	Betsy Altheimer / Lower Phalen Creek Project	\$369,000	46			3 out of 17	18		
151	2024-184	Building Environmental Educator Capacity through Regional Learning Communities	The Science Museum will recruit elementary teachers and students from regions across Minnesota to participate in scaffolded capacity building in watershed education through residencies, on-demand professional development, and annual conferences.	H. Small Projects Sub: C. Environmental Education	Andy Chambers / Science Museum of Minnesota	\$190,000	76			3 out of 17	18		
152	2024-204	Innovative Solution to Renewable Energy from Food Waste	A private-public partnership supporting the State climate and renewable energy goals by diverting organics from landfills and producing Renewable Natural Gas (RNG) from anaerobic digestion and sequestering carbon into biochar.	E. Air Quality, Climate Change, and Renewable Energy	Bill Keegan / Dem-Con	\$10,000,000	68	Is the proposed project consistent with M.S. 116P.08 (5) that prohibits ENRTF spending on solid waste disposal facilities?		3 out of 17	18		
153	2024-225	Biomass to Biochar – Maximizing Minnesota's Carbon Value	Improving carbon storage, climate resilience, and health of Minnesota's soils by enhancing the carbon value of biochar. Life cycle analysis of biochar technology for effective soil carbon sequestration in Minnesota.	E. Air Quality, Climate Change, and Renewable Energy	Sebastian Behrens / U of MN, College of Science and Engineering	\$543,000	79			3 out of 17	18		
154	2024-230	Changing the Flight of Bird Conservation	Reduce and then eliminate bird strikes at the Bloomington Education and Visitor Center.	H. Small Projects Sub: F. Methods to Protect or Restore Land, Water, and Habitat	Alison Schaub / Minnesota Valley Refuge Friends	\$17,000	66			3 out of 17	18		
155	2024-241	Jones Lake Restoration Project	The Jones Lake Restoration project will provide critical local and regional water quality and flood protection, habitat preservation, and recreational opportunities for the City of New Brighton.	G. Land Acquisition, Habitat, and Recreation	Craig Schlichting / City of New Brighton	\$725,000	56			3 out of 17	18		
156	2024-259	Carbon-Free Hydrogen for Sustainable Power and Steel Production	Methane pyrolysis generates both hydrogen, a carbon-free energy resource, and solid carbon used in steel manufacturing. The proposed plasma-catalytic pyrolysis technology aims to supplant existing carbon-intensive technologies leveraging renewable electricity.	E. Air Quality, Climate Change, and Renewable Energy	Aditya Bhan / U of MN, College of Science and Engineering	\$490,000	66			3 out of 17	18		
157	2024-261	Empowering Minnesota Lake Associations to Improve Water Quality	This project will lay the foundation for accelerated improvements to water quality by documenting for local Lake Associations a set of governance practices and actions that are most effective.	H. Small Projects Sub: B. Water Resources	Afton Clarke-Sather / U of MN, Duluth	\$173,000	83			3 out of 17		Is funding this project constitutional since there is a local / state policy aspect to it?	
158	2024-263	Virginia All Wheel Park	Construction of the Virgina All Wheel Park that is adjacent to and tied into the Silver Lake Trail providing a safe multi-modal recreational amenity to the public.	G. Land Acquisition, Habitat, and Recreation	Brian Silber / City of Virginia	\$1,210,000	21	Is the proposed project consistent with the constitutional purpose of the ENRTF?		3 out of 17	18		
159	2024-267	Remove Pollutants from Well Water on Superfund Sites	Demonstrate a suite of technologies to remove dioxins and hydrocarbon contaminants from the water on Minnesota superfund sites	B. Water Resources	Jana Danker / Akiing 8th Fire	\$697,000	25	Is the proposed project consistent with M.S. 116P.08 (1) that prohibits ENRTF spending for purposes of environmental compensation and liability under chapter 115B and response actions under chapter 115C?		3 out of 17	18		
160	2024-281	Implementing the Minnesota River Greenway Interpretive Plan	Dakota County seeks to develop the final design plan for, and fabricate and install, the four remaining interpretive sites or exhibits conceptualized in the Minnesota River Greenway Interpretive Plan.	C. Environmental Education	Autumn Hubbell / Dakota County	\$1,800,000	49			3 out of 17	18		

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	2024-285	Nutrient Recovery and Recycling for Agricultural Lands	Identification, validation, and market assessment of technologies to recover and recycle nitrogen, phosphorus and other nutrients	F. Methods to Protect or Restore Land, Water, and Habitat	Matthew Leiphon / Agricultural Utilization Research Institute	\$700,000	48			3 out of 17	18		
162	2024-288	Minnesota Lake Water Quality and Temperature Forecasting App	App to deliver up-to-date actionable comprehensive lake water quality and temperature information to Minnesota swimming, boating, fishing, and lake management communities to improve natural, recreational, and travel experiences	A. Foundational Natural Resource Data and Information	Leif Olmanson / U of MN, CFANS	\$399,000	67			3 out of 17	18		
163	2024-294	Lake Restoration, Outreach, and Algae Commoditization	Applying novel algal harvesting technology to restore lake ecosystems and produce a high value organic fertilizer for agricultural application. Experimentation involves public, and private institutions with community and corporate partners.	F. Methods to Protect or Restore Land, Water, and Habitat	Matthew Julius / MN State Colleges and Universities, St. Cloud State University	\$255,000	53			3 out of 17	18		
164	2024-295	Historic Forestville Bridge - Preserving Recreational Connections	The project will rehabilitate the failing 1899 Historic Forestville Bridge, located in and owned by Fillmore County, connecting Forestville State Park to the Historic Forestville State Historic Site.	G. Land Acquisition, Habitat, and Recreation	Ronald Gregg / Fillmore County	\$1,993,000	50			3 out of 17	18		
165	2024-069	Reduced Ecosystem Impacts through Solar Powered Container Farming	Long-distance shipping of imported produce into Minnesota has significant environmental impacts. Containerized farming, incorporating solar energy, could mitigate environmental, energy, and climate challenges in Minnesota's urban and rural food supply.	E. Air Quality, Climate Change, and Renewable Energy	Joel Tallaksen / U of MN, WCROC	\$998,000	74	Is the proposed project eligible for funding under Category E. Air Quality, Climate Change, and Renewable Energy? The RFP states capital projects (e.g., buildings or building infrastructure) will not be considered under	MR	2 out of 16	13		
166	2024-102	Minnesota State Park Historic Structure Rehabilitation	Rehabilitation of historic structures, Seppmann Mill (Minneopa State Park) and WPA Beach house / beach walls (Lake Shetek State Park). Rehabilitation will preserve extraordinary examples and demonstrate significance of the parks.	G. Land Acquisition, Habitat, and Recreation	Stacy Smith / MN DNR, State Parks and Trails Division	\$5,500,000	57		JP	2 out of 16	13	Is historic preservation of buildings constitutionally eligible?	
167	2024-021	Littlefork Public RV Campground Design	This project consists of the design, surveying, permitting, wetlands delineation, site evaluations and geotechnical engineering (Phase 1) of the Littlefork Public RV Campground.	H. Small Projects Sub: G. Land Acquisition, Habitat, and Recreation	Sonja Pelland / City of Littlefork	\$195,000	36			2 out of 17	12		
168	2024-038	Stormy Southern Minnesota: Future Floods, Erosion, and Management	Frequent extreme floods are reshaping southern Minnesota's rivers and valleys. We aim to uncover their causes and predict future flood statistics alongside their impacts on river widening and erosion.	H. Small Projects Sub: B. Water Resources	Andrew Wickert / U of MN, St. Anthony Falls Laboratory	\$200,000	52			2 out of 17	12		
169	2024-074	Facilitating Community Conservation through Urban Agriculture	Developed scenarios of current and possible urban agriculture help connect conservation programs with community agricultural sites. Created outreach and information tools enable growers' and landholders' conservation investments, benefiting ecosystem health.	H. Small Projects Sub: F. Methods to Protect or Restore Land, Water, and Habitat	Kara Komoto / Twin Cities Community Agricultural Land Trust	\$200,000	74			2 out of 17	12		
170	2024-079	Collaborative Natural Resources Data Evaluation and Decision-Making	This project will coordinate natural resources conservation by identifying shared and needed datasets, developing a GIS tool to capture boots-on-the-ground knowledge, and sharing this information through a web portal.	A. Foundational Natural Resource Data and Information	Kristine Maurer / Hennepin County	\$405,000	83			2 out of 17	12		
171	2024-107	Wildcat Park and Landing Improvements	Houston County is proposing a roadway access rehabilitation project and bathroom addition to Wildcat Park located on the banks of the Mississippi River in Southeastern Minnesota.	G. Land Acquisition, Habitat, and Recreation	Brian Pogodzinski / Houston County	\$500,000	23			2 out of 17	12		

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	2024-109	Historic D&NE St. Louis River Multi-Use Bridge	This project consists of upgrading the Historic D&NE St. Louis River Multi-use Bridge to allow safe use of the bridge by entities that enjoy outdoor recreation.	G. Land Acquisition, Habitat, and Recreation	Caleb Peterson / City of Cloquet	\$2,000,000	38	Is the proposed project consistent with the constitutional purpose of the ENRTF?		2 out of 17		Why is this one called out by staff but not 2024-102?	
173	2024-125	Recreational Improvement Grant	Improvements at Brownton Area Civic Center Complex, including trail connections, splash pad, shelter, tennis/pickleball/basketball court restoration, playground replacement, and related improvements.	G. Land Acquisition, Habitat, and Recreation	Lori Cacka / City of Brownton	\$1,375,000	16	Is the proposed project consistent with the constitutional purpose of the ENRTF?		2 out of 17	12		
174	2024-132	Reducing Rural Air Pollution to Benefit All Minnesotans	Pollution from agriculture is a major cause of air-quality-related deaths in Minnesota. This project explores how better farming practices in our state can improve air quality and promote environmental justice.	E. Air Quality, Climate Change, and Renewable Energy	Jason Hill / U of MN, CFANS	\$251,000	43			2 out of 17	12		
175	2024-146	Ranier City Park Improvements	This project is to improve, update, upgrade the city of Ranier's Park	H. Small Projects Sub: G. Land Acquisition, Habitat, and Recreation	Sherril Gautreaux / City of Ranier	\$195,000	21	Is the proposed project consistent with the constitutional purpose of the ENRTF?		2 out of 17	12		
176	2024-159	Floodwood Campground Pavilion	The City of Floodwood is requesting \$195,000 from the LCCMR to construct a new pavilion in the Floodwood Campground.	H. Small Projects Sub: G. Land Acquisition, Habitat, and Recreation	Corinne Suonvieri / City of Floodwood	\$195,000	20	Is the proposed project consistent with the constitutional purpose of the ENRTF?		2 out of 17	12		
177	2024-160	Natural Resources Inventory/Analysis for Restoration and Resilience	UMLA will conduct a comprehensive floristic inventory and assessment to understand and identify resiliency, community changes, and restoration priorities across UMLA's natural communities.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Steven Van Natta / U of MN, Landscape Arboretum	\$63,000	59			2 out of 17	12		
178	2024-174	Birch Lake Marina Design (Phase 1)	This project consists of the design of a new marina/dock complex on Birch Lake in Babbitt Minnesota.	H. Small Projects Sub: G. Land Acquisition, Habitat, and Recreation	Kathy Vraa / City of Babbitt	\$197,000	18	Is the proposed project consistent with the constitutional purpose of the ENRTF?		2 out of 17	12		
179	2024-187	Build Out - Center for Renewable Energy Technology	The focus of this project is to build out the University of Minnesota Center for Renewable Energy Storage Technology (CREST) in Morris, Minnesota .	H. Small Projects Sub: E. Air Quality, Climate Change, and Renewable Energy	Troy Goodnough / U of MN, Morris	\$200,000	45			2 out of 17	12		
180	2024-194	Great Lakes Aquarium Nature Playscape Improvement	We will create an urban nature playscape with protective shelter and native plants to provide opportunities for aquarium education programs, community members and tourists to be immersed in nature play.	H. Small Projects Sub: C. Environmental Education	Jay Walker / Lake Superior Center and Great Lakes Aquarium	\$176,000	48	Is the proposed activity 1 eligible for funding under Category C. Environmental Education? The RFP states capital projects (e.g., buildings or building infrastructure) will not be considered under this category.		2 out of 17	12		
181	2024-197	Roadmap to Decarbonize Livestock Farms	This project will inventory opportunities for decarbonizing livestock farms based on current fossil fuel needs and explore the economic and environmental implications for these opportunities while supporting food production.		Erin Cortus / U of MN, CFANS	\$200,000	72			2 out of 17	12		
182	2024-199	Real-Time Monitoring of Statewide Pollen in Minnesota	Develop a smartphone-based, real-time pollen monitoring system using digital inline holography to track plant biodiversity, pollinator health, and invasive species, informing conservation efforts and aiding allergy sufferers.	A. Foundational Natural Resource Data and Information	Jiarong Hong / U of MN, St. Anthony Falls Laboratory	\$229,000	69			2 out of 17	12		

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183		-	This project will prototype a distributed robotic system that relies on observations from two autonomous aerial and surface vehicles to properly detect and clean harmful algal blooms from Minnesota's lakes.	B. Water Resources	Junaed Sattar / U of MN, College of Science and Engineering	\$1,213,000	69			2 out of 17	12		
184	2024-217	Carbon Goods are Woods!	Forest carbon storage outreach and education with woodland owners and the public. Capacity Building.	C. Environmental Education	Brian Huberty / Minnesota Forestry Association	\$1,087,000	21			2 out of 17	12		
185	2024-229	Electrify Nitrogen Fertilizer Production Using Solar Energy	Local and distributed production of liquid nitrogen fertilizer with high nitrate concentration and crop yield-boosting properties using renewable, low-cost resources.	E. Air Quality, Climate Change, and Renewable Energy	Roger Ruan / U of MN, CFANS	\$552,000	45			2 out of 17	12		
186	2024-232	The Waterfront Park & Trail Development	Project includes development of a new park along the Mississippi River in Sartell, including site work to restore vegetation, construct a berm and new trails, and install lighting.	G. Land Acquisition, Habitat, and Recreation	Anna Gruber / City of Sartell	\$980,000	62			2 out of 17	12		
187	2024-233	Integrated Bioprocessing of Organic Wastes towards Resource Circularity	Assess the effectiveness of novel integrated bioprocessing approaches for treatment and valorization of organic wastes towards resource circularity.	B. Water Resources	Roger Ruan / U of MN, CFANS	\$582,000	48			2 out of 17	12		
188	2024-236	Demonstrating the Resiliency of a 40kW Solar Array	We seek to create a solar and pollinator garden in order to design a curriculum at the K-12 and post-secondary level to engage rural MN students in the STEM field.	H. Small Projects Sub: C. Environmental Education	Katy Chapman / U of MN, Crookston	\$200,000	76	Is the proposed project eligible for funding under Environmental Education? The RFP states new curriculum and capital projects (e.g., buildings or infrastructure) will not be considered under this category.		2 out of 17	12		
189	2024-238	Waste-Derived Synthetic Fuels for Sustainable Resource Recovery	Through University and Community partnerships, develop an affordable, eco-friendly synthetic fuel derived from waste streams with high combustion efficiency, low pollutant emissions, and competitive pricing compared to traditional fuels.	E. Air Quality, Climate Change, and Renewable Energy	Sayan Biswas / U of MN, College of Science and Engineering	\$420,000	54			2 out of 17	12		
190	2024-239	Carbon-Free Green Ammonia to Power Minnesota Farms	This proposal aims to demonstrate a cost-effective and efficient low-temperature plasma catalysis process to produce and utilize ammonia as fuel, a cleaner and more sustainable energy source.	H. Small Projects Sub: E. Air Quality, Climate Change, and Renewable Energy	Sayan Biswas / U of MN, College of Science and Engineering	\$199,000	63			2 out of 17	12		
191	2024-252	Green Livestock Foods for Minnesota	The objective is to conserve and improve soil, water, and climate by providing farmers necessary information to market the use of perennial and winter anual crops in diets for pigs.	F. Methods to Protect or Restore Land, Water, and Habitat	Pedro Urriola / U of MN, CFANS	\$367,000	69			2 out of 17	12		
192	2024-258	Developing a Subfield Scale Soil Nitrate Virtual Estimator	This project will develop a virtual tool that can accurately estimate soil nitrate concentrations to help corn growers, researchers, crop consultants and state regulatory agencies to minimize nitrate contaminations.	H. Small Projects Sub: B. Water Resources	Yuxin Miao / U of MN, CFANS	\$199,000	70			2 out of 17	12		
193	2024-260	Biogeography of Cyanobacteria and Their Toxins Across Minnesota	Knowledge regarding the occurrence and spread of cyanobacteria and their cyanotoxins across time and space is only in its infancy. We propose a systematic phylogenetic survey of Minnesota freshwater bodies.	B. Water Resources	Beatriz Baselga Cervera / U of MN, College of Biological Sciences	\$285,000	66			2 out of 17	12		

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	2024-274	Removal of Dioxin and PCBs from Native Land	Demonstrate a suite of technologies to remove toxinx from the soil on Minnesota superfund sites.	F. Methods to Protect or Restore Land, Water, and Habitat	Jana Danker / Akiing 8th Fire	\$987,000		Is the proposed project consistent with M.S. 116P.08 (1) that prohibits ENRTF spending for purposes of environmental compensation and liability under chapter 115B and response actions under chapter 115C?	-	2 out of 17	12		
195	2024-275	Lino Lakes Water Stewards Program	The City is proposing to implement a web based, interactive application for municipal water customers and City utility staff that provides information to make informed decisions about future usage.	H. Small Projects Sub: B. Water Resources	Michael Grochala / City of Lino Lakes	\$96,000	77			2 out of 17	12		
196	2024-282	Brookston Campground, Boat Launch, and Outdoor Recreation Facility	The City of Brookston will be building a campground, boat launch, and outdoor recreation area on the banks of the St. Louis River in northeastern Minnesota.	G. Land Acquisition, Habitat, and Recreation	Kaycee Melin / City of Brookston	\$4,605,000	41			2 out of 17	12		
197	2024-284	Native Prairie Grass for Human Food and Habitat	Virginia wildrye is a native prairie grass that produces edible seeds for direct human consumption. We will study its production, processing, and commercialization to expand it for wildlife and agriculture.	F. Methods to Protect or Restore Land, Water, and Habitat	Steve Apfelbaum / Applied Ecological Institute, Inc.	\$596,000	55			2 out of 17	12		
198	2024-286	Implementing the Mississippi River Greenway Interpretive Plan	Dakota County seeks to develop the final design plan for, and fabricate and install, the four remaining interpretive sites or exhibits conceptualized in the Mississippi River Greenway Interpretive Plan.	C. Environmental Education	Autumn Hubbell / Dakota County	\$1,800,000	49			2 out of 17	12		
199	2024-289	Willow Creek Regional Trail & Safety Connection	Construction of approximately 2.5 miles of trail, wayfinding, rest areas, and trail head that connects the Rochester urban area under Trunk Highway 52 to Gamehaven Regional Park	G. Land Acquisition, Habitat, and Recreation	Michael Nigbur / City of Rochester	\$4,000,000	49			2 out of 17	12		
200	2024-290	Ensuring Continued Access to Minnesota's Ornithological Records	Continued online access to statewide avian records and information maintained by the Minnesota Ornithologists' Union requires that the MOU contract with a website development vendor to modernize its custom website.	H. Small Projects Sub: A. Foundational Natural Resource Data and Information	Michelle Terrell / Minnesota Ornithologists' Union	\$175,000	66			2 out of 17	12		
201	2024-291	City of Biwabik Recreation Area Phase 2	Updating and expanding utility service to add 50 additional campsites as well as resurfacing the roadway through the campground.Replacement of retaining wall at beach and pickleball court installation.	G. Land Acquisition, Habitat, and Recreation	Jeff Jacobson / City of Biwabik	\$2,270,000	36	Is the proposed Activity 4 Pickle Ball Court consistent with the constitutional purpose of the ENRTF?		2 out of 17	12		
202	2024-293	Building Soil Health with Compost Top-Dressing in Communities	Eleven community partners will build soil health through compost top-dressing on four half-acre sites for three consecutive years and test the soil for improvements in soil health and	E. Air Quality, Climate Change, and Renewable Energy	David Bauer / Minnesota Composting Council	\$699,000	34			2 out of 17	12		
203	2024-019	Environmental Welfare through Sustainable Reuse in Iron Range	Protect and preserve Minnesota's environment through sustainable reuse and workforce development initiatives, prioritizing environmental protection and natural resource conservation through socially responsible and sustainable building practices within the built environment.	E. Air Quality, Climate Change, and Renewable Energy	Petrina Rhines / Birch Group	\$1,103,000	65			1 out of 17	6		
204	2024-054	Detecting Window Collisions of Minnesota's Migratory Bird Species	We propose developing and implementing a system that will remotely detect bird-building collisions in order to understand where and when collisions occur and expeditiously implement mitigation at identified collision hotspots.	A. Foundational Natural Resource Data and Information	Robert Blair / U of MN, CFANS	\$393,000	67			1 out of 17	6		

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205	2024-060	River to River Greenway – Underpass and Trail Reconstruction	Two-mile trail reconstruction of the Dakota County River to River Greenway through Valley Park, connecting from Trunk Highway 13 to a proposed underpass of Trunk Highway 149, in Mendota Heights	G. Land Acquisition, Habitat, and Recreation	Tony Wotzka / Dakota	\$3,942,000	70			1 out of 17	6		
206	2024-075	Educating Communities to Navigate the Mississippi's Future	The project will develop educational materials on the present day and future Mississippi River within the Twin Cities corridor and will deliver content through a rich media web environment.	C. Environmental Education	Jeffrey Marr / U of MN, St. Anthony Falls Laboratory	\$598,000	78			1 out of 17	6	How will this project incorporate indigenous worldview in the educational materials developed?	
207	2024-104	KNA Boulevard and Watershed Grant	This project creates rain gardens on the boulevard portions of Kenny Neighborhood, which will help manage stormwater runoff, improve water quality, and enhance the natural beauty of the area.	H. Small Projects Sub: B. Water Resources	Jon Erickson / Kenny Neighborhood Association	\$75,000	39			1 out of 17	6		
208	2024-202	Post-Baccalaureate Teacher- Researchers at Macalester's Ordway Field Station	A pilot post-baccalaureate program at Macalester's Ordway Field Station. Recent graduates will be recruited, preferentially from underrepresented groups, for 1-year terms to conduct place-based environmental research, education, and outreach activities.	C. Environmental Education	Mike Anderson / Macalester College	\$555,000	49			1 out of 17	6		
209	2024-208	Sequencing and Portable Device to Detect Invasive Species	This project is to use high throughput sequencing to characterize the invasive species constituency and use this information to develop a low-cost, easy-to-use, point-of-collection portable device to detect invasive species.	D. Aquatic and Terrestrial Invasive Species	Tianhong Cui / U of MN, College of Science and Engineering	\$500,000	71	The proposal previously applied to MAISRC and was not funded. Should they be encouraged to continue to seek ENRTF funds from MAISRC?		1 out of 17	6		
210	2024-211	Open Living Database for Stormwater Costs and Benefits	This project will collect data and create an open living database for stormwater treatment costs and benefits. The database will be easily accessible, inflation adjusted, and support future plug-in tools.	B. Water Resources	Nigel Pickering / Geosyntec Consultants, Inc.	\$300,000	69			1 out of 17	6		
211	2024-219		We propose a novel drone-based technology for autonomously measuring wildfire smoke aerosols and mapping wildfires, and a simulation tool for fast-and-accurate prediction of wildfire and smoke spread and air quality.	E. Air Quality, Climate Change, and Renewable Energy	Lian Shen / U of MN, St. Anthony Falls Laboratory	\$545,000	70			1 out of 17	6		
212	2024-228	Quarry Hill Nature Center Invasive Species Removal Replacement	Reduce presence of woody invasive species through a combination of mechanical, chemical and prescribed burn tactics. Introduce desirable vegetation by seeding native grass and forb species.	H. Small Projects Sub: F. Methods to Protect or Restore Land, Water, and Habitat	Jeff Haberman / City of Rochester	\$46,000		Is the proposed project eligible for funding? The RFP states stand control, removal, and maintenance activities of invasive species will not be considered.		1 out of 17	6		
213	2024-243	Geolocation Technology for Minnesota Environmental Education	Project will create collaborative community-based partnerships to install permanent geolocation markers that will facilitate environmental education and research, and improve public access and safety in Minnesota's outdoor recreational spaces.	H. Small Projects Sub: C. Environmental Education	Stephen Swazee / SharedGeo	\$198,000	61	Is the proposed project consistent with the constitutional purpose of the ENRTF?		1 out of 17	6		
214	2024-244	Challenges and Opportunities of Minnesota's Changing Winter Weather	In this data-driven project I address the changing character of Minnesota's winter weather. Winter weather impacts tourism, the environment, infrastructure, and the overall functioning of society both beneficially and detrimentally.	H. Small Projects Sub: E. Air Quality, Climate Change, and Renewable Energy	Peter Snyder / U of MN, CFANS	\$149,000	30			1 out of 17	6		
215	2024-300	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.	G. Land Acquisition, Habitat, and Recreation	Ellissa Owens / City of Moose Lake	\$3,563,000	29			1 out of 17	6		

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216	2024-147	Cleaning Minnesota's Air with Plant-Based Proteins	Agriculture contributes to poor air quality and climate change. This project explores the potential for plant-based protein production to		Jason Hill / U of MN, CFANS	\$145,000	50			0 out of 17	0		
217	2024-182	Enhancement of Grassland Habitats through Grazing	Increase opportunities for Minnesota's private and public grasslands to be enhanced through the provision of technical expertise and educational awareness of grasslands conservation.	H. Small Projects Sub: F. Methods to Protect or Restore Land, Water, and Habitat	Sabrina Claeys / Ducks Unlimited Inc	\$200,000	58			0 out of 17	0		
218	2024-190	Sequester Waste CO2 Using Microalgae-Based Biohybrid Semi-Artificial System	High efficiency CO2 biosequestration for valuable microalgal biomass production using a biohybrid semi-artificial system that combines photovoltaic and microbial fuel cells with optimized algal cathode	H. Small Projects Sub: E. Air Quality, Climate Change, and Renewable Energy	Roger Ruan / U of MN, CFANS	\$200,000	64			0 out of 17	0		
219	2024-196	Enhancement of Environmental Aspects of Impoundments (Pilot Project)	This pilot project will look innovatively to the existing and planned impoundment projects to enhance their environmental aspects compared to their traditional design.	H. Small Projects Sub: C. Environmental Education	Morteza Maher / Middle- Snake-Tamarac Rivers Watershed District	\$126,000	74	Is the proposed project eligible for funding under Environmental Education? The RFP states capital projects (e.g., buildings and infrastructure) and new curriculum will not be considered under this category.		0 out of 17	0		
220	2024-242	Restoring the Planet While Feeding the World	This project will evaluate ways of restoring natural habitats to maintain Minnesota wildlife populations while simultaneously providing material to produce clean, healthy foods for human populations.	F. Methods to Protect or Restore Land, Water, and Habitat	Clarence Lehman / U of MN, Cedar Creek Ecosystem Science Reserve	\$346,000	44			0 out of 17	0		
221	2024-245	Preservation of the State Threatened Satiny Willow	Satiny willow is a state threatened shrub species which is considered vulnerable to severe weather events and land development. Preserving plants in off-site repositories will better protect this species.	H. Small Projects Sub: F. Methods to Protect or Restore Land, Water, and Habitat	Brandon Miller / U of MN, CFANS	\$170,000	70			0 out of 17	0		
222	2024-248	Rapid Restoration of Soil Functions Using Algal Crusts	Select suitable desert algal species through artificial intelligence- powered virtual screening and use a biological in-situ resource utilization-based approach to establish artificial algal crusts for rapid restoration of soil functions.	H. Small Projects Sub: F. Methods to Protect or Restore Land, Water, and Habitat	Roger Ruan / U of MN, CFANS	\$200,000	36			0 out of 17	0		
223	2024-270	Using Underground Utility Mapping to Preserve Minnesota's Environment	Project will protect Minnesota's water resources and environment from hazardous material spills by developing nationally unique underground utility mapping software which will help minimize strikes on buried infrastructure.	H. Small Projects Sub: F. Methods to Protect or Restore Land, Water, and Habitat	Stephen Swazee / SharedGeo	\$175,000	47	Is the proposed project consistent with the constitutional purpose of the ENRTF?		0 out of 17	0		
224	2024-117	ML 2024 Contract Agreement Reimbursement	Provide contract management to ENRTF pass-through appropriation recipients for approximately 115 open grants. Ensure funds are expended in compliance with appropriation law, state statute, grants policies, and approved work plans.	I. Administration	Katherine Sherman- Hoehn / MN DNR, Grants Unit	\$275,000	100	Being submitted on LCCMR's behalf. Will advance automatically.		n/a			
225	2024-###	2024 Placeholder	Place Holder 2024	I. Administration	LCCMR Universal Account / Legislative- Citizen Commission on Minnesota Resources	\$0	100	Will automatically advance; no need to score or select		n/a			
226			1	Total amount requ	uested	\$174,201,0	000	1	4	1	I	I	1