

**ENRTF 2020 Request for Proposal (RFP) - FY2021
Final Proposals Received by Category**

For the FY 2020 and FY 2021 biennium (July 1, 2019 - June 30, 2021), approximately \$61 million is available each year for funding from the Environment and Natural Resources Trust Fund. As of April 15, 2019, the Legislative-Citizen Commission on Minnesota Resources (LCCMR) received 290 proposals requesting a total of approximately \$203 million. This RFP process is for funding beginning July 1, 2020.

LCCMR reviews and evaluates all proposals against their 10 adopted evaluation criteria. On June 5-6, members will select a subset of high-ranking proposals to invite for presentation before the LCCMR on June 17, 18, 24, 25, 26 and 27 in order to receive further consideration. On July 17-18, LCCMR will make final selection and funding allocation decisions. These selected projects will be presented to the 2020 Minnesota Legislature as the official LCCMR recommendations for spending from the Environment and Natural Resources Trust Fund.

Check the LCCMR schedule for the most up-to-date information and important process dates

ENRTF ID #	Last Name	First Name	Title	Organization	\$ Requested
A. Foundational Natural Resource Data and Information (46 Proposals / \$34,157,684)					
001-A	Lusardi	Barbara	Geologic Atlases for Water Resource Management	U of MN - Minnesota Geological Survey	\$ 4,121,625
002-A	Texler	Hannah	Expanding the Minnesota Ecological Monitoring Network	MN DNR	\$ 1,587,134
003-A	Grinde	Alexis	Win-Win Forestry: Maximizing Economic and Ecological Benefits	U of MN - Duluth NRRI	\$ 532,733
004-A	Nieber	John	Minnesota; How much Water? How is it Changing?	U of MN	\$ 529,139
005-A	Drewitz	Matt	Optimizing Land Cover Data for Water Resource Analysis	MN Board of Water and Soil Resources	\$ 370,000
006-A	Johnson	Lucinda	Expanding the Interactive Natural Resource Atlas for Minnesota	U of MN - Duluth NRRI	\$ 799,991
007-A	Putzier	Paul	County Groundwater Atlas	MN DNR	\$ 2,250,000
008-A	Norris	Doug	Foundational Hydrology Data for Wetland Protection and Restoration	MN DNR	\$ 461,499
009-A	Host	George	Optimizing Management of Minnesota's Forest Landscapes	U of MN - Duluth NRRI	\$ 495,463
010-A	Groten	Joel	Real-Time Measurements of Nitrate Pollution in Surface Water	U.S. Geological Survey	\$ 631,800
011-A	Petersen	Jessica	Completion of Wild Bee Surveys: Minnesotas Forest Habitats	MN DNR	\$ 664,593
012-A	Monson Geerts	Stephen	Detecting Road Dust Control Chemicals in Air/Water	U of MN - Duluth NRRI	\$ 280,226

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013-A	Lord	Chris	Update and Expand 11-County Metro MLCCS Coverage	Metro Conservation Districts	\$ 2,934,624
014-A	Bump	Joseph	Voyageurs Wolf Project – Phase II	U of MN	\$ 608,320
015-A	Hernandez	Daniel	Comparison of Burning and Haying for Prairie Restoration	Carleton College	\$ 345,599
016-A	Stapleton	Seth	Expanding Restoration and Promoting Awareness of Native Mussels	Minnesota Zoological Society	\$ 489,270
017-A	Satyshur	Colleen	Improving Pollinator Conservation by Revealing Habitat Needs	U of MN	\$ 615,000
018-A	Schroeder	Declan	Bee Minnesota - Protect our Native Bumblebees	U of MN	\$ 693,000
019-A	Joyce	Michael	Bobcat and Fisher Habitat Use and Interactions	U of MN	\$ 440,719
020-A	Feng	Xue	Adjusting Crop Water Demand to Protect Minnesota Groundwater	U of MN	\$ 239,211
021-A	Duncan	Nancy	Complete Sonar Data Mapping on Three Minnesota Rivers	National Park Service	\$ 525,945
022-A	Cuthbert	Francesca	Enhancing Bird and Insect Recovery in Oak Savannas	U of MN	\$ 238,000
023-A	Hahn	Jennifer	Networking and Economics of Soil Health– Phase I	Minnesota Soil Health Coalition	\$ 602,310
024-A	Roy	Charlotte	Impacts of Conservation Grazing on Greater Prairie-chickens	MN DNR	\$ 560,044
025-A	Shaw	Ruth	Healthy Prairies III: Restoring MN prairie plant diversity	U of MN	\$ 1,128,000
026-A	Kiesling	Richard	Estimating Fish Production in Stressed Minnesota Lakes	U.S. Geological Survey	\$ 416,500
027-A	Kinkel	Linda	Soil and Plant Microbiomes: A Foundational Database for Environmental Health	U of MN	\$ 758,860
028-A	Mulla	David	Habitat Friendly Solar Impacts: Environmental and Economic Guidance	U of MN	\$ 751,048
029-A	Fieberg	John	Monitoring Carnivores Statewide: A Citizen-Science Trail-Cam Project	U of MN	\$ 789,988

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030-A	McCann	Nicholas	Mapping Habitat Use and Disease of Urban Carnivores	U of MN	\$ 657,159
031-A	Wettstein	Shannon	Morrison County Performance Drainage and Hydrology Management Phase II	Morrison SWCD	\$ 213,300
032-A	Peterson	Jeffrey	Critical Insights from Historical Lake Water Quality Data	U of MN - Water Resources Center	\$ 480,000
033-A	Smith	Timothy	An Economy-Wide, Sub-Regional Tool for Economic and Environmental Decision-Making in Minnesota	U of MN	\$ 597,973
034-A	Ferrington	Leonard	Winter Dynamics of Vulnerable Trout Streams: Central Minnesota	U of MN	\$ 767,060
035-A	Barker	Keith	Malaria in Migrant and Resident Birds of Minnesota	U of MN	\$ 316,000
036-A	Hong	Jiarong	Realtime Monitoring of Statewide Pollen in Minnesota	U of MN	\$ 319,133
037-A	Blanchette	Robert	Foundational Research on Fungi and Protecting Minnesota Trees	U of MN	\$ 362,196
038-A	Koch	Richard	Taxonomic Survey of Earthworm Species in Minnesota	Bemidji State University	\$ 233,501
039-A	Blair	Robert	Minnesota Nature Trackers: A Citizen Science Project	U of MN	\$ 661,855
040-A	Mukku	Venugopal	Freshwater Sponges and AIS: Engaging Citizen Scientists	U of MN	\$ 460,000
041-A	Shen	Lian	Dangerous Current Prediction on Lake Superior Minnesota Coast	U of MN	\$ 299,982
042-A	Yoo	Kyungsoo	Building Statewide Daily Soil Temperature Maps	U of MN	\$ 847,326
043-A	Zanko	Lawrence	Fugitive Dust in Minnesota's Air: Why It Matters	U of MN - Duluth NRRI	\$ 381,558
044-A	Lokkesmoe	Kent	MN DNR Water Infrastructure Needs (WIN)	MN DNR	\$ 2,000,000
045-A	Crabtree	Jason	Collaborative Foresight: Addressing Forest-related Workforce and Recreational Challenges	U of MN	\$ 300,000
046-A	Singer	Alan	Web-based Natural Resource Information Network Model	Dakota County	\$ 400,000

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A. Foundational Natural Resource Data and Information					
H. Proposals Seeking \$200,000 or Less (22 Proposals / \$3,875,755)					
047-AH	Windels	Steve	Do Beavers Buffer Against Droughts and Floods?	Voyageurs National Park	\$ 168,400
048-AH	Quinn	Ed	Enhancing Bat Recovery by Optimizing Artificial Roost Structures	MN DNR	\$ 190,271
049-AH	Petersen	Jessica	Tools for Supporting Healthy Ecosystems and Pollinators	MN DNR	\$ 198,397
050-AH	Grinde	Alexis	Developing Innovative Technology to Track Wildlife Movements	U of MN - Duluth NRRI	\$ 168,265
051-AH	Sadowsky	Michael	Modern eDNA Technology for Better Game Fish Census	U of MN	\$ 200,000
052-AH	Roepke	Scott	Cannon Valley Trail Natural Resources Inventory/Management Plan	Cannon Valley Trail	\$ 50,000
053-AH	Arnold	Todd	Archiving Unreported Band Recoveries of Minnesota Birds	U of MN	\$ 141,700
054-AH	Reavie	Euan	Best Management Practices for Minnesota Coldwater Lakes	U of MN - Duluth NRRI	\$ 199,653
055-AH	Zobel	John	Rapid Assessment of Wildlife Habitat for Environmental Review	U of MN	\$ 178,000
056-AH	Bracey	Annie	Conserving Black Terns and Forsters Terns in Minnesota	U of MN - Duluth NRRI	\$ 198,640
057-AH	Havranek	Tony	Studying Solar Panel Impact on Vegetation Quality	WSB & Associates	\$ 160,083
058-AH	Downing	John	How to Save the Cisco-Trout Lakes	U of MN - Duluth - Sea Grant	\$ 185,438
059-AH	Filstrup	Christopher	Enhanced Online Tool to Track Minnesota Lake Trends	U of MN - Duluth NRRI	\$ 197,836
060-AH	Russell	Matthew	Assessing Vegetation Impacts from Deer	U of MN	\$ 186,460
061-AH	Jones	Jabari	Measuring Mussel Habitat Suitability in the Cannon River	U of MN	\$ 154,411
062-AH	Petersen	Jessica	Engagement and Monitoring for the Insect Apocalypse	MN DNR	\$ 191,824

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063-AH	Olmanson	Leif	Temperature and Ice Phenology Information for Lake Management	U of MN	\$ 194,704
064-AH	Onello	Emily	Environmental Factors Influencing Nutritional Content of Wild Rice	U of MN	\$ 198,092
065-AH	Downing	John	Role of Submarine Groundwater Altering Lake Superior's Shore	U of MN - Duluth - Sea Grant	\$ 198,643
066-AH	Berman	Jesse	Understanding Environmental Factors that Impact Minnesota Tick Populations	U of MN	\$ 199,938
067-AH	Gustin	Andrew	Minnesota Public Trails and Waterways: A Comprehensive Database	Outdoor Explorer	\$ 195,000
068-AH	Hartman	Eric	Rock County Aggregate Mapping	Rock County Land Management Office/SWCD	\$ 120,000
B. Water Resources (47 Proposals / \$23,266,308)					
069-B	Mayer	Terin	Assessing the Value of Green Infrastructure within Minnesota's Water Infrastructure Funding Shortfall	U of MN	\$ 384,923
070-B	Edlund	Mark	Unprecedented Change Threatens Minnesotas Pristine Lakes	Science Museum of Minnesota	\$ 849,392
071-B	Ebtehaj	Ardeshir	Microplastics: Occurrence, Toxins, and Detection with Drones	U of MN	\$ 450,000
072-B	Bilotta	John	Banking Groundwater	U of MN - Water Resources Center	\$ 350,000
073-B	Gulliver	John	Preventing Harmful Algal Blooms through Improved Stormwater Detention	U of MN	\$ 619,031
074-B	Elliott	Sarah	Trace Organic Contaminants in Groundwater from Stormwater Infiltration	U.S. Geological Survey	\$ 910,000
075-B	Finlay	Jacques	Understanding and Managing Persistent Chloride Pollution in Freshwaters	U of MN	\$ 299,000
076-B	Heger	Sara	Reducing Chloride in Minnesota's Water from Water Softening	U of MN	\$ 362,699
077-B	Hu	Bo	Shedding Lights to Future Septic Systems	U of MN	\$ 361,000
078-B	Novak	Paige	Bacterial Starvation for Improved Toxic Contaminant Treatment	U of MN	\$ 235,854
079-B	DeBeer	Laura	Novel Field Methods to Evaluate Groundwater Quality Investments	Pipestone County SWCD	\$ 219,900

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080-B	Wright	Natasha	Managing Highly Saline Waste from Municipal Water Treatment	U of MN	\$ 255,000
081-B	Baker	Lawrence	Adaptive Management to Reduce Road Salt Pollution	U of MN	\$ 438,000
082-B	Cotner	James	Is Glyphosate causing harmful Algal Blooms?	U of MN	\$ 427,000
083-B	Novak	Paige	Technology for Energy-Generating Onsite Industrial Wastewater Treatment	U of MN	\$ 474,939
084-B	Wright	Natasha	Chloride-Free Home Water Treatment: Increasing Efficiency, Reducing Cost	U of MN	\$ 265,000
085-B	Almendinger	James	Our Future Drinking Water: Nitrate, Tile, and Climate	Science Museum of Minnesota	\$ 330,000
086-B	Hozalski	Raymond	Groundwater Microbiology Phase 2: Private Wells	U of MN	\$ 499,196
087-B	Penn	Lee	Microplastics: Transporters of Contaminants in Minnesota Waters	U of MN	\$ 448,630
088-B	Cui	Tianhong	Cheap Small Sensor Network for Water Pollutants Monitoring	U of MN	\$ 635,000
089-B	Elias	Mikael	Mitigating Insecticide Toxicity for Safer Waters in Minnesota.	U of MN	\$ 370,000
090-B	Hayes	Nicole	Climate Impacts on Nitrogen Gas Release from Lakes	U of MN	\$ 452,000
091-B	Hu	Bo	Phytoremediation for Extracting Deicing Salt from Roadside Soils	U of MN	\$ 368,000
092-B	Ishii	Satoshi	Assessment of Water Quality for Reuse: Phase II	U of MN	\$ 476,000
093-B	Karschnia	Maggie	Innovative Phosphorus Removal Solutions for 10,000 Clean Lakes	Prior Lake-Spring Lake Watershed District	\$ 405,000
094-B	Ruan	Roger	Full Utilization of Concentrated Livestock Wastewaters	U of MN	\$ 545,000
095-B	Penn	Lee	Storing Sulfide Produced from Sulfate-Containing Wastewater Safely	U of MN	\$ 280,790
096-B	Hondzo	Miki	Occurrence of Algal Toxicity in Minnesota Waters	U of MN	\$ 351,446

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097-B	Pradhananga	Amit	Engaging Private Well Owners in Groundwater Protection	U of MN	\$ 381,000
098-B	Streets	Summer	Developing Strategies to Manage PFAS in Land-Applied Biosolids	Minnesota Pollution Control Agency	\$ 1,403,556
099-B	Bramburger	Andrew	Rapid Detection of Algal Toxins in Minnesota Lakes	U of MN - Duluth NRRI	\$ 830,326
100-B	Capel	Paul	Time-Integrated Sampling of Chemical Contaminants in Minnesota's Streams	U of MN	\$ 349,383
101-B	Karwan	Diana	Maintaining Clean Water Supply from Working Forests	U of MN	\$ 275,785
102-B	LaPara	Timothy	Protozoan Microbes in Groundwater Used for Drinking Water	U of MN	\$ 499,699
103-B	Dymond	Salli	Timing is everything: When is Groundwater in MN Recharged?	U of MN - Duluth	\$ 520,164
104-B	Magner	Joe	Quantifying A New Urban Precipitation/Water Reality	U of MN	\$ 1,377,893
105-B	LaPara	Timothy	Cold Temperature Ammonia Consuming Bacteria during Wastewater Treatment	U of MN	\$ 462,351
106-B	Baker	Lawrence	Maintaining Pollutant Removal in Stormwater Ponds	U of MN	\$ 306,683
107-B	Johnson	Lucinda	Mobile Water Treatment Demonstration System for Sulfate Reduction	U of MN - Duluth NRRI	\$ 838,401
108-B	Grover	Valerie	Vermillion River Surface Water and Groundwater Nitrate Impacts	Dakota County	\$ 268,000
109-B	Osweiler	Todd	Protecting Natural Resources & Groundwater Aquifers in Rochester	Rochester Public Utilities	\$ 537,700
110-B	Johnson	Heather	Increased Sample Capacity for Analysis of Pesticides	Minnesota Department of Agriculture	\$ 736,079
111-B	Kang	Peter	Predicting Contaminant Transport in Fractured Aquifers	U of MN	\$ 350,664
112-B	Missaghi	Shahram	Assessing Human Exposure Risk to Harmful Algae Blooms	U of MN	\$ 529,632
113-B	Charleux	Laure	Mapping Lake Superior's Changing Biogeochemistry	U of MN	\$ 286,192

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114-B	Keegan	Bill	Innovative Solution for Protecting Minnesota from PFAS contamination	Dem-Con	\$ 750,000
115-B	Overholser	Michelle	Assess Water Quality and Flood Retention Structures	Yellow Medicine River Watershed District	\$ 500,000
B. Water Resources					
H. Proposals Seeking \$200,000 or Less (6 Proposals / \$1,040,497)					
116-BH	Babcock	Laura	Expanding Protection of Minnesota Water through Industrial Conservation	U of MN	\$ 178,430
117-BH	Barry	John	Minnesota Sentinel Springs, Understanding Groundwater Recharge and Chemistry	MN DNR	\$ 182,267
118-BH	Kinney	Mike	Field Testing of a New Phosphorus Removal Technology	Comfort Lake-Forest Lake Watershed District	\$ 150,000
119-BH	Cui	Tianhong	Cheap Efficient Filter to Remove Organic Compounds	U of MN	\$ 200,000
120-BH	Knoll	Lesley	Cascading Effects of Ice-Cover on Summer Water Quality	U of MN	\$ 191,000
121-BH	Arnosti	Don	Temporal Analysis of Sulfate Loading	Izaak Walton League of America, Minnesota Division	\$ 138,800
C. Environmental Education (15 Proposals / \$9,815,493)					
122-C	Dorn	Cindy	Statewide Environmental Education via Public Television Outdoor Series	Pioneer Public Television	\$ 300,000
123-C	Edmiston	Julie	Minnesota Freshwater Quest: Environmental Education on State Waterways	Wilderness Inquiry	\$ 1,432,110
124-C	Poppleton	Kristen	TeachScience: Schools as STEM living laboratories	Climate Generation: A Will Steger Legacy	\$ 368,505
125-C	Loon	Deborah	Mentoring the Next Generation of Conservation Professionals	Minnesota Valley National Wildlife Refuge Trust, Inc.	\$ 755,544
126-C	Souza	Jaime	Rivers Are Alive: Inspiring Life-long Environmental Stewardship	St. Croix River Association	\$ 363,900
127-C	Reese	Luke	Jay C. Hormel Nature Center Supplemental Teaching Staff	City of Austin	\$ 252,898
128-C	Halvorson	Joel	UMD Boreal Observatory at Chik-Wauk on the Gunflint	U of MN - Duluth	\$ 514,865
129-C	Becker	Beth	450 Underserved, Diverse Youth Gain Environmental Education	YMCA of the Greater Twin Cities	\$ 428,250

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130-C	Yang	Ce	Smart Trash Sorting for Zero Waste in Minnesota	U of MN	\$ 394,709
131-C	Brigham	Jonee	MN GreenStep Schools: Statewide Launch in 12 Schools	U of MN	\$ 554,313
132-C	Hanson	Randel	LSC Living Lab: Operations and Dissemination	Lake Superior College (LSC)	\$ 258,058
133-C	Thompson	Seth	Delivering Student-Centered Environmental Education to Minnesota Students	U of MN	\$ 610,000
134-C	Bloome	Katie	Restoring Land, Reviving Heritage: Conservation Through Indigenous Culture	Belwin Conservancy	\$ 606,885
135-C	Daniels	Lisa	Connecting Tribal Communities to Sustainable Energy Pathways	Windustry	\$ 2,187,669
136-C	Nelson	Theresa	Neighborhoods Sustained: Preserving Ecosystems through Behavior Change	St. Paul Transportation Management Organization, d/b/a Move Minnesota	\$ 787,787
C. Environmental Education					
H. Proposals Seeking \$200,000 or Less (18 Proposals / \$3,017,667)					
137-CH	Foster	Shelli-Kae	YES! Students Take on Water Quality Challenge Phase-II	Prairie Woods Environmental Learning Center	\$ 199,700
138-CH	Montgomery	Maggie	Engaging Minnesotans with Phenology: Radio, Podcasts, Citizen Science	Northern Community Radio, Inc.	\$ 198,478
139-CH	Kalnicky	Emily	Driving Conservation Behavior for Mussels and Water Quality	Minnesota Zoological Society	\$ 191,580
140-CH	Putzier	Paul	Groundwater: Education to Action	MN DNR	\$ 180,000
141-CH	Wood	Bryan	Providing Residential Environmental Learning Experiences to Underserved Students	Audubon Center of the North Woods	\$ 150,000
142-CH	Knopf	Chris	Connecting 350 Northeastern Minnesota Students to Boundary Waters	Friends of the Boundary Waters Wilderness	\$ 184,050
143-CH	Simonson	Erik	Lake Superior Zoo; Water Protection Intuitive Exhibit	Lake Superior Zoological Society	\$ 197,500
144-CH	Rao	Sujaya	Environmental Education: Cricket Farming for Reducing Carbon Emissions	U of MN	\$ 198,879
145-CH	Suss	Ted	River Watch on the Minnesota River	Friends of the Minnesota Valley	\$ 100,000

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146-CH	Wegwerth	Matt	Creating Awareness About Runoff to Protect Water Quality	City of Grand Rapids	\$ 200,000
147-CH	Heskel	Mary	Carbon on Campus: Connecting Students to Minnesota Ecosystems	Macalester College	\$ 134,577
148-CH	Zanko	Lawrence	Enriching Natural Resource Knowledge for Informed Decision Making	U of MN - Duluth NRRI	\$ 196,627
149-CH	Wood	Bryan	Environmental Education through Regenerative Agriculture	Audubon Center of the North Woods	\$ 80,000
150-CH	Pine	Adam	UMD Land Lab Sustainable Food System Project	U of MN - Duluth	\$ 199,860
151-CH	Aro	Matthew	Promoting Forest Health and Reducing Forest Fire Hazards	U of MN - Duluth NRRI	\$ 152,373
152-CH	Matemba-Mutasa	Gertrude	Camp Katharine Parsons Conservation and Environmental Education Initiative	Phyllis Wheatley Community Center	\$ 200,000
153-CH	Schultz	Peter	The Longspur Prairie Fund Urban Prairie Learning Lab	The Longspur Prairie Fund	\$ 62,943
154-CH	Mohan	Ned	Living Laboratory for Community Education of Solar Energy	U of MN	\$ 191,100
D. Aquatic and Terrestrial Invasive Species (11 Proposals / \$18,329,636)					
155-D	Venette	Robert	Minnesota Invasive Terrestrial Plants and Pests Center (MITPPC) Phase 5	U of MN - MITPPC	\$ 7,000,000
156-D	McClannahan	Valerie	Protect Community Forests by Managing Ash for EAB	MN DNR	\$ 5,929,174
157-D	Salomon	Christine	White Nose Bat Syndrome Biological Control: Phase 3	U of MN	\$ 444,636
158-D	Nerbonne	Brian	Applying New Tools and Techniques against Invasive Carp	MN DNR	\$ 578,000
159-D	Slesak	Robert	EAB and Black Ash: Maintaining Forests and Benefits	U of MN	\$ 774,000
160-D	Chandler	Monika	Tactical Invasive Plant Management Plan Development and Implementation	Minnesota Department of Agriculture	\$ 658,137
161-D	Schrank	Amy	Enhancing Habitat and Diversity in Cattail-Dominated Shorelines	U of MN	\$ 582,994
162-D	Oliver	Jonathan	Ticks! A Rising Threat in Minnesota	U of MN	\$ 300,000

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163-D	Hatch	Jay	Mississippi River Dams: Blocking Invasive Fish, Helping Natives	U of MN	\$ 324,282
164-D	Forester	Jeff	Stop Starry Invasion - Community Invasive Species Containment	Minnesota Lakes and Rivers Advocates	\$ 1,264,955
165-D	Jensen	Douglas	Does AIS Outreach Lead to Behavior Change?	U of MN - Duluth - Sea Grant	\$ 473,458
D. Aquatic and Terrestrial Invasive Species					
H. Proposals Seeking \$200,000 or Less (4 Proposals / \$700,035)					
166-DH	Sickmann	Katie	St. Croix Terrestrial Invasive Species Awareness, Prevention, and Control	St. Croix River Association	\$ 191,940
167-DH	Brady	Valerie	How Effective and Protective are AIS Removal Methods?	U of MN - Duluth NRRRI	\$ 110,699
168-DH	Edlund	Mark	Invasive Rock Snot Threatens North Shore Streams	Science Museum of Minnesota	\$ 197,896
169-DH	Olson	Eric	Rainy Lake Non-native Hybridized Cattail Removal	Koochiching SWCD	\$ 199,500
E. Air Quality, Climate Change, and Renewable Energy (26 Proposals / \$20,048,620)					
170-E	Hansen	Gretchen	Increasing Resilience of Lakes to Extreme Precipitation Events	U of MN	\$ 323,780
171-E	Rhees	Suzanne	Tracking Climate Benefits of Natural and Working Lands	MN Board of Water and Soil Resources	\$ 390,500
172-E	Chan	Gabriel	Partnerships with Municipal and Cooperative Utilities	U of MN	\$ 448,991
173-E	Herrmann	Bryan	Storing Renewable Energy in Flow-Battery for Grid Use	U of MN - Morris	\$ 3,271,229
174-E	Montgomery	Rebecca	Making Red Pine Forest Resilient to Climate Change	U of MN	\$ 628,737
175-E	Reich	Peter	"Climate-Smart" Trees and Forests for Minnesota	U of MN	\$ 494,000
176-E	Chen	Paul	Produce Marketable Liquid Fuels from Plastic Wastes	U of MN	\$ 383,000
177-E	Ramaswamy	Shri	Converting Forest Products Industry Waste to Value-Added Bioproducts	U of MN	\$ 309,000
178-E	Schweser	Greg	Deep Winter Greenhouses: Passive Solar Winter Food Production	U of MN	\$ 1,559,706

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179-E	Koester	Steven	Power Electronics Circuits for Minnesota's Renewable Energy Future	U of MN	\$ 472,647
180-E	Kortshagen	Uwe	Clean Hydrogen Fuel from Sunlight, Wind, and Water	U of MN	\$ 240,000
181-E	Mitchell	William	Pilot Scale Crematorium Mercury Filter	Mertron, LLC	\$ 597,500
182-E	Ruan	Roger	Nitrogen Fixation for Fertilizers and Hydrogen Fuels Production	U of MN	\$ 487,000
183-E	McDonald	Kevin	Leveraging Carbon & Stormwater to Preserve Ash Trees	Minnesota Pollution Control Agency	\$ 1,013,840
184-E	Barney	Brett	Carbon Capture through Biological Mineralization	U of MN	\$ 292,500
185-E	Draeger	Kathryn	Filling Empty Trucks: Energy Efficient Regional Food Distribution	U of MN	\$ 1,058,772
186-E	Schmitt	Jennifer	A Community Table: Food Waste and Climate Change	U of MN	\$ 859,216
187-E	St. Lawrence	Mark	St. Louis County Building Deconstruction/Materials Reuse Pilot	St. Louis County	\$ 1,463,000
188-E	Marr	Jeffrey	Coping with Cold Weather in Minnesota Wind Energy	U of MN	\$ 399,562
189-E	Ruan	Roger	Remove Airborne Contaminants from Animal Production Facilities	U of MN	\$ 585,000
190-E	Srinivasan	Vinod	Clean Combustion of Renewable Biofuels from Waste Biomass	U of MN	\$ 583,000
191-E	Addy	Min	Pilot Scale Anaerobic Digester for Mixed Wastes	U of MN	\$ 250,000
192-E	McCormick	Alon	Phase 2: Integrated Small-Scale Ammonia Synthesis	U of MN	\$ 2,108,520
193-E	Wang	Xiaojia	Multifunctional Materials for Building Energy and Power Generation	U of MN	\$ 395,136
194-E	Gardner	Robert	Minnesota Shrimp Production Using Clean Energy	U of MN	\$ 1,129,000
195-E	Shen	Lian	Prediction of Inversions for Air-quality in Cold Weather	U of MN	\$ 304,984

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196-EH	Anastasio	Joel	The Beltrami County Climate Vulnerability Assessment	Headwaters Regional Development Commission	\$ 180,000
197-EH	Blumenfeld	Kenneth	Visualizing projected climate information for Minnesota	MN DNR	\$ 125,000
198-EH	Sarkanen	Simo	Eco-Friendly Plastics from Cloquet Pulp-Mill Lignin	U of MN	\$ 193,967
199-EH	Rog	April	Diverting Unsold Food from Landfills, Reducing Greenhouse Gases	Second Harvest Heartland	\$ 130,000
200-EH	Rao	Shashi	Resource Recovery from E-waste to Conserve Natural Resources	U of MN - Duluth NRRRI	\$ 199,010
201-EH	Tallaksen	Joel	Identifying Agricultural Energy Consumption and Impacts in Minnesota	U of MN	\$ 146,791
202-EH	Swanson	Jacob	Modelling PAH Emissions from Aircraft Surrounding MSP Neighborhoods	Minnesota State University Mankato	\$ 96,400
203-EH	Wright	Christopher	Monetizing Carbon Capture by Minnesota Forests	U of MN - Duluth NRRRI	\$ 161,838
204-EH	OKeefe	Pete	Recycling Construction and Building Materials via Habitat ReStores	Twin Cities Habitat for Humanity, Inc.	\$ 98,000
205-EH	Thibert	Jill	Rural Distributed Renewable Energy and Back-Up Power	Northwest Renewable Energy LLC	\$ 198,500
206-EH	Wang	Ping	Cellulosic Carbon Fiber-Intensified Capture and Biodegradation of Airborne VOCs	U of MN	\$ 189,000
F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat (37 Proposals / \$20,591,425)					
207-F	Buck	Wiley	Pollinator Central: Habitat improvement with citizen monitoring	Great River Greening	\$ 981,000
208-F	Huinker	Dane	Prairie to the People: Habitat Restoration and Education	Wildlife Forever	\$ 441,128
209-F	Shaw	Dan	Pollinator & Beneficial Insect Strategic Habitat Program	MN Board of Water and Soil Resources	\$ 780,500
210-F	Pease	Lindsay	Adapting 4R Management for the Red River Basin	U of MN	\$ 459,218
211-F	Remucal	David	Preserving and Learning from Minnesota's Native Orchids	U of MN	\$ 556,100

**ENRTF 2020 Request for Proposal (RFP) - FY2021
Final Proposals Received by Category**

ENRTF ID #	Last Name	First Name	Title	Organization	\$ Requested
212-F	Runquist	Erik	Saving Endangered Pollinators through Data-driven Prairie Restoration	Minnesota Zoological Society	\$ 1,024,915
213-F	Kloiber	Steve	Maximizing Ecosystem Benefits through Integrated Wetland-Watershed Planning	MN DNR	\$ 506,517
214-F	Miller	Nathaniel	Marsh Bird Conservation Planning in St.Louis River Estuary	National Audubon Society	\$ 284,068
215-F	Singsaas	Eric	Lignin-coated Fertilizers for Phosphate Control	U of MN - Duluth NRRRI	\$ 279,382
216-F	Olander	Keith	Implementing Hemp Crop Rotation to Improve Water Quality	Central Lakes College	\$ 740,000
217-F	Taylor	Carrie	Developing a Rare Plant Salvage Program for Minnesota	Anoka Conservation District	\$ 344,628
218-F	Cates	Anna	Developing Cover Crop Systems for Sugarbeet Production	U of MN	\$ 300,546
219-F	Aukema	Brian	Native Eastern Larch Beetle is Decimating Minnesotas Tamarack Forests	U of MN	\$ 398,180
220-F	Barney	Brett	Transformation of Plastic Waste into a Valued Resource	U of MN	\$ 308,000
221-F	Hillard	Scott	Enhanced Forest Inventory Implementation for Multiple Values Management	MN DNR	\$ 1,470,000
222-F	Kloiber	Steve	Wetland and Forest Change Monitoring	MN DNR	\$ 450,000
223-F	Griffin	Daniel	Mississippi Gorge Veteran Oaks: Mapping and Preservation	U of MN	\$ 239,907
224-F	Ramirez	Luis	Habitat Associations of Mississippi Bottomland Forest Marsh Birds	National Audubon Society	\$ 295,336
225-F	Behrens	Sebastian	New Organic Fertilizer to Protect Minnesota's Water Quality	U of MN	\$ 499,000
226-F	Guala	Michele	New Solution for Streambank Erosion and Energy Conversion	U of MN	\$ 278,344
227-F	Sorensen	Peter	Protected Areas: A New Way to Save Fisheries	U of MN	\$ 499,950
228-F	Barney	Brett	Lowering Nitrogen Requirements for Agricultural Crops	U of MN	\$ 271,000

**ENRTF 2020 Request for Proposal (RFP) - FY2021
Final Proposals Received by Category**

ENRTF ID #	Last Name	First Name	Title	Organization	\$ Requested
229-F	Coletti	Filippo	Predicting Pollen Dispersal: Impact on Habitat and Population	U of MN	\$ 325,918
230-F	Hall	Kristin	Documenting Species Response to Prairie Habitat Management	MN DNR	\$ 599,522
231-F	Hill	Kimberly	Improving the Success of Shoreline Restoration Projects	U of MN	\$ 335,618
232-F	Zirbel	Chad	Bison as Keystone Species in Minnesota Savannas	U of MN	\$ 344,000
233-F	Jordan	Nicholas	Supporting Pollinators and Prairie with Beneficial Soil Fungi	U of MN	\$ 331,079
234-F	Herb	William	Reducing Sediment Loading and Temperatures in Northshore Streams	U of MN	\$ 383,744
235-F	Strock	Jeffrey	Integrated Conservation to Achieve Water Quality Goals	U of MN	\$ 1,963,155
236-F	Bruse	Tanner	Phase II: Economic Assessment of Precision Conservation and Agriculture	Pheasants Forever	\$ 789,648
237-F	Kaproth	Matthew	Shifting Savannas: Assessing Management of At-Risk Sites	Minnesota State University Mankato	\$ 351,754
238-F	Johnson	Margaret	Local Agriculture Steward Partnership: Science to Sustainable Action	Middle Fork Crow River Watershed District	\$ 620,420
239-F	Elias	Mikael	An Engineered Solution to Toxic Copper Coatings for Boats	U of MN	\$ 408,000
240-F	Labuz	Joseph	Precursors of Failure in Mine Tailings Dams	U of MN	\$ 298,000
241-F	Dalzell	Brent	Improving the Cost Effectiveness of Minnesota's Conservation Programs	U of MN	\$ 277,577
242-F	Hanson	Jeffrey	Biological Sulfate-Reduction System	Clearwater BioLogic LLC	\$ 1,268,266
243-F	Pardey	Philip	Predicting Agriculture's Outcomes with Sensors and Machine Learning	U of MN	\$ 887,005
F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat					
H. Proposals Seeking \$200,000 or Less (17 Proposals / \$3,172,199)					
244-FH	McCormack	Torin	Peatland Restoration in the Lost River State Forest	Roseau River Watershed District	\$ 135,646

**ENRTF 2020 Request for Proposal (RFP) - FY2021
Final Proposals Received by Category**

ENRTF ID #	Last Name	First Name	Title	Organization	\$ Requested
245-FH	Montgomery	Rebecca	Prescribed Burning for Brushland-Dependent Species-Phase II	U of MN	\$ 147,428
246-FH	Lynch	Michael	Management Strategies to Benefit Minnesota's Forests and Birds	Forest Stewards Guild	\$ 196,518
247-FH	Daub	Betsy	Pollinator Habitat Creation Along the Urban Mississippi River	Friends of the Mississippi River	\$ 129,297
248-FH	Addy	Min	Concentrating Animal Waste for Solid Fertilizer Production	U of MN	\$ 200,000
249-FH	Windmuller-Campione	Marcella	Restoration of Floodplain Forests along the Mississippi River	U of MN	\$ 199,000
250-FH	Reinikainen	Mike	Impacts from Larch Beetle to Forests and Wildlife	MN DNR	\$ 195,107
251-FH	Evenson	Eric	Lake Minnetonka Comprehensive Plan and Civic Governance Model	Lake Minnetonka Association	\$ 195,000
252-FH	Addy	Min	Convert Solid Wastes to Protein Feed and Fertilizer	U of MN	\$ 200,000
253-FH	Gutknecht	Jessica	Identifying Prairie Mixes to Reduce Pollution	U of MN	\$ 199,917
254-FH	Bushley	Kathryn	Safe Biopesticides for Protection of Minnesota Groundwater Resources	U of MN	\$ 199,000
255-FH	Downing	John	Increase Golden Shiner Production to Protect Aquatic Communities	U of MN - Duluth - Sea Grant	\$ 188,161
256-FH	Musser	Kimberly	Integrating Water Storage, Conservation Targeting and Civic Involvement	Minnesota State University, Mankato - Water Resources Center	\$ 195,232
257-FH	Fleischman	Forrest	Communicating about Science: Knowledge Exchange in Forest Management	U of MN	\$ 199,922
258-FH	Smith	Patrick	Comprehensive Environmental Building Site Design Using GIS Mapping	U of MN	\$ 195,000
259-FH	Jenkins	Holly	Restoring Turf to Native Pollinator Gardens Across Metro	Wilderness in the City	\$ 197,000
260-FH	Shen	Lian	Control Snowdrift Using Living Fences to Protect Wildlife	U of MN	\$ 199,971
G. Land Acquisition for Habitat and Recreation (24 Proposals / \$62,810,117)					
261-G	Schulte	Judy	DNR Scientific and Natural Areas	MN DNR	\$ 5,875,000

**ENRTF 2020 Request for Proposal (RFP) - FY2021
Final Proposals Received by Category**

ENRTF ID #	Last Name	First Name	Title	Organization	\$ Requested
262-G	Schulte	Judy	Private Native Prairie Conservation through Native Prairie Bank	MN DNR	\$ 2,280,000
263-G	Christie	Jennifer	Minnesota State Parks and State Trails In-Holdings	MN DNR	\$ 5,000,000
264-G	Mularie	Audrey	Grants for Local Parks, Trails, and Natural Areas	MN DNR	\$ 3,000,000
265-G	Arvidson	Adam	Mississippi River Aquatic Habitat Restoration and Mussel Reintroduction	Minneapolis Park and Recreation Board	\$ 2,538,000
266-G	Drotts	Gary	Minnesota Hunter Walking Trails, Public Land Recreational Access	Ruffed Grouse Society	\$ 545,000
267-G	Forbes	DJ	Turning Back to Rivers: Environmental and Recreational Protection	The Trust for Public Land	\$ 3,803,600
268-G	Mullin	Emmett	Metropolitan Regional Parks System Land Acquisition Phase 6	Metropolitan Council	\$ 2,500,000
269-G	Skaar	Kent	Minnesota State Trails Development	MN DNR	\$ 10,000,000
270-G	Tuominen	Todd	Elm Creek Restoration Phase IV	City of Champlin	\$ 650,200
271-G	Caneff	Denny	Superior Hiking Trail As Environmental Showcase	Superior Hiking Trail Association	\$ 450,000
272-G	Hopper	Rachel	Creating Welcoming Environments at Minnesota State Parks	MN DNR	\$ 2,565,167
273-G	Rosenthal	Ron	Red Wing Riverfront Trail Connection Project	City of Red Wing	\$ 682,000
274-G	Monson	Kjersti	Acquire Riverfront Land at Upper St. Anthony Falls	Friends of the Lock & Dam	\$ 3,000,000
275-G	Terrill	Tim	Whiskey Creek & Mississippi River Water Quality/Habitat/Recreation Project	Mississippi Headwaters Board	\$ 1,470,500
276-G	Grotte	Charles	Perham to Pelican Rapids Regional Trail (West Segment)	Otter Tail County	\$ 2,836,000
277-G	Simonson	Ryan	Crow Wing County Community Natural Area Acquisition	Crow Wing County	\$ 405,000
278-G	Stenson	Amber	Purchasing 316 acres for Conservation and Agriculture Education	The Food Group	\$ 1,500,000

**ENRTF 2020 Request for Proposal (RFP) - FY2021
Final Proposals Received by Category**

ENRTF ID #	Last Name	First Name	Title	Organization	\$ Requested
279-G	Weber	Pete	Rocori Trail Phase 3	ROCORI Trail Construction Board	\$ 1,260,000
280-G	Bissonette	Cathy	Birch Lake Recreation Area Campground	City of Babbitt	\$ 350,000
281-G	Manzoline	Robert	Mesabi Trail; New Trail and Additional Funding	St. Louis and Lake Counties Regional Railroad Authority	\$ 6,337,000
282-G	Fralich	Lana	Silver Bay Multi-Modal Trailhead Center	City of Silver Bay	\$ 1,400,000
283-G	Gautreaux	Sherril	Ranier Safe Harbor/Transient Dock on Rainy Lake	City of Ranier	\$ 762,650
284-G	Janssen	Jim	Crane Lake Voyageurs National Park Campground & Visitors Center	Town of Crane Lake	\$ 3,600,000
G. Land Acquisition for Habitat and Recreation					
H. Proposals Seeking \$200,000 or Less (5 Proposals / \$699,000)					
285-GH	Williams	Scott	Chippewa Acquisition, Recreation and Education	Chippewa County	\$ 160,000
286-GH	Hasbargen	Bruce	Construction of Pedestrian/Bicycle Bridge on LSSB/GRR	Lady Slipper Scenic Byway, Inc.	\$ 133,000
287-GH	Stahl	Timothy	West Fork Singletrack Trail in SW Minnesota	Jackson County	\$ 194,500
288-GH	Greedy	Ross	Enhancing Winona's Prairie Island	City of Winona	\$ 126,500
289-GH	Sogard	Ray	Sportsmens Training and Developmental Learning Center	Minnesota Forest Zone Trappers Association	\$ 85,000
I. Other (1 Proposal / \$135,000)					
290-I	Sherman-Hoehn	Katherine	Contract Agreement Reimbursement	MN DNR	\$ 135,000