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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	Selecting (Accounts for COI)	COI	Member Comments	Staff Comments
2	2021-043	Local Parks, Trails And Natural Areas Grant Programs	MN DNR, Grants Unit	Audrey Mularie	\$3,000,000	15			NEW
3	2021-363	Highbanks Ravine Bat Habernaculum Project	City of St. Cloud,	Lisa Vollbrecht	\$1,100,000	13			
4	2021-071	County Groundwater Atlas	MN DNR, Ecological and Water Resources Division	Paul Putzier	\$2,500,000	12			
5	2021-138	Geologic Atlases For Water Resource Management	U of MN, MN Geological Survey	Barbara Lusardi	\$4,122,000	12			NEW
6	2021-358	Assessing Membrane Bioreactor Wastewater Treatment Efficacy	Minnesota State Colleges and Universities, St. Cloud State University	Heiko Schoenfuss	\$493,000	12			
7	2021-188	Building Knowledge And Capacity For AIS Solutions	U of MN, MAISRC	Nicholas Phelps	\$5,000,000	12			
8	2021-022	Camp Ripley Sentinel Landscape Forest Restoration And Enhancements	Crow Wing Soil and Water Conservation District	Melissa Barrick	\$975,000	12			
9	2021-058	Pollinator Central II: Habitat Improvement With Community Monitoring	Great River Greening	Rebecca Tucker	\$742,000	12			NEW- continuation
10	2021-118	2021 Groundwater Contamination Mapping Project	Minnesota Pollution Control Agency	Myrna Halbach	\$940,000	11			
11	2021-175	Minnesota Master Naturalist: Nature For New Minnesotans	U of MN, College of Food, Agricultural and Natural Resource Sciences	Robert Blair	\$345,000	11			
12	2021-049	Metropolitan Regional Parks System Land Acquisition- Phase 7	Metropolitan Council	Jessica Lee	\$3,000,000	11			NEW
13	2021-154	Precision Acquisition For Restoration, Groundwater Recharge And Habitat.	Shell Rock River Watershed District	Courtney Phillips	\$549,000	11			
14	2021-390	Antibiotic Resistance And Wastewater Treatment: Problems And Solutions	University of St. Thomas,	Justin Donato	\$508,000	10			
15	2021-086	Boreal Observatory At Chik-Wauk On The Gunflint	Gunflint Trail Historical Society,	Joel Halvorson	\$545,000	10			
16	2021-111	Engaging Culturally-Diverse Hunting Communities On Chronic Wasting Disease	U of MN, College of Veterinary Medicine	Tiffany Wolf	\$288,000	10			NEW- cont of emerging issues
17	2021-217	Evaluating Minnesotas Last Best Chance To Stop Carp	U of MN, College of Food, Agricultural and Natural Resource Sciences	Peter Sorensen	\$499,000	10			

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	Selecting (Accounts for COI)	COI	Member Comments	Staff Comments
			-		-				
18	2021-169	Storing Renewable Energy In Flow-Battery For Grid Use	U of MN, Morris	Bryan Herrmann	\$3,210,000	10		can it be for smaller amount?	NEW
			MN DNR, Ecological and Water Resources			10			
19	2021-039	Restoring Mussels In Streams And Lakes - Continuation	Division	Mike Davis	\$825,000	10			
20	2024 275				¢550,000	10			
20	2021-375	Reintroduction Of Bison To Spring Lake Park Reserve	Dakota County,	Tom Lewanski	\$659,000	10			
21	2021-012	Perham To Pelican Rapids Regional Trail (Mcdonald	Ottor Tail County	Matthou Vavarou	\$2,245,000	10			NEW
21	2021-012	Segment)	Otter Tail County	Matthew Yavarow	\$2,243,000	10			INE VV
22	2021-028	Mesabi Trail Csah 88 To Ely	St. Louis & Lake Counties Regional Railroad	Robert Manzoline	\$2,200,000	10			NEW?; Required parcel list and acquisition information not
22	2021-028	iviesabi Itali Csali 60 TO Ely	Authority	Robert Marizonne	\$2,200,000	10			provided
23	2021-105	Native Prairie Stewardship & Prairie Bank Easement	MN DNR, Ecological and Water Resources	Judy Schulte	\$2,100,000	10			NEW
23	2021-103	Acquisition	Division	Judy Scharte	72,100,000	10			INCOV
24	2021-151	SNA Acquisition, Restoration, Citizen-Science And	MN DNR, Ecological and Water Resources	Molly Roske	\$4,760,000	10			NEW
2-7	2021 131	Outreach	Division	Wildly Roske	Ç4,700,000	10			1424
25	2021-371	State Parks And State Trails In-Holdings	MN DNR, State Parks and Trails Division	Kent Skaar	\$3,725,000	10			NEW
		State I allo / illa State I allo ill I solaligo	2, 3		+0,7 23,000	10			
26	2021-113	Minnesota Biological Survey: Setting A Future Course	MN DNR, Ecological and Water Resources	Bruce Carlson	\$3,200,000	9			
			Division		, , , , , , , , , ,	3			
27	2021-159	Collaborative State And Tribal Wild Rice Monitoring	MN DNR, Ecological and Water Resources	Josh Knopik	\$859,000	9			
		Program	Division		, ,				
28	2021-384	Long-Term Nitrate Mitigation By Maintaining Profitable	Stearns County Soil and Water Conservation	Dennis Fuchs	\$571,000	9			
		Kernza Production	District						
29	2021-164	Biocontrol Of Bee Lawns And Parklands	U of MN, College of Food, Agricultural and	Vera Krischik	\$500,000	9			
			Natural Resource Sciences			_			
30	2021-010	Enhanced Thermo-Active Foundations For Space Heating	U of MN, Duluth	Aggrey Mwesigye	\$367,000	9			
		In Minnesota							
31	2021-344	Create Jobs Statewide By Diverting Materials From	Better Futures Minnesota,	Steve Thomas	\$2,992,000	9			
		Landfills							
32	2021-212	Reducing Plastic Pollution With Biodegradable Erosion	Agricultural Utilization Research Institute,	Riley Gordon	\$227,000	9			
		Control Products							
33	2021-280	Economic And Ecological Benefits Of Soil Health	Redwood Soil & Water Conservation District,	Scott Wold	\$339,000	9			

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	Selecting (Accounts for COI)	COI	Member Comments	Staff Comments
34	2021-337	Lawns To Legumes Program Phase 2	Board of Water and Soil Resources	Dan Shaw	\$1,389,000	9			NEW- in House ENRTF bill as of 5/21
35	2021-069	Sauk Rapids Rapids Project Lions Park	City of Sauk Rapids,	Todd Schultz	\$545,000	9			
36	2021-325	Veterans On The Lake	Veterans on the Lake,	Neil Olson	\$650,000	9			Fiscal agent is Lake County (not Cook)
37	2021-330	Brookston Campground, Boat Launch & Outdoor Recreational Facility Final	City of Brookston,	Kaycee Melin	\$500,000	9			Check fiscal capacity
38	2021-380	Accessible Fishing Piers And Shore Fishing Areas	MN DNR, State Parks and Trails Division	Nancy Stewart	\$400,000	9			
39	2021-029	SW Mn Single Track Trail	Jackson County,	Jeremy Bartosh	\$190,000	9			
40	2021-055	Protecting Minnesota's Beneficial Macroalgae: All Stoneworts Aren't Starry	MN DNR, Ecological and Water Resources Division	Donna Perleberg	\$1,081,000	8			
41	2021-121	Monitoring Emerging Viruses In Minnesota's Urban Water Cycles	U of MN, College of Biological Sciences	Sebastian Behrens	\$489,000	8			
42	2021-266	Sustainable Irrigation Management: Expanding A Statewide Web Application	U of MN, College of Food, Agricultural and Natural Resource Sciences	Bryan Runck	\$1,519,000	8			
43	2021-364	Evaluating Coronavirus And Other Microbiological Contamination Of Drinking Water Sources From Wastewater	U of MN, College of Science and Engineering	Timothy LaPara	\$699,000	8			NEW- continuation of emerging issues
44	2021-376	St. James Pit Water Level Control	City of Aurora,	Becky Lammi	\$305,000	8			Draft resolution submitted - signature pending
45	2021-132	Minnesota Freshwater Quest: Environmental Education For 20000 Youth	Wilderness Inquiry	Julie Edmiston	\$932,000	8			NEW- continuation
46	2021-162	Oak Wilt Suppression At The Northern Edge II	Morrison Soil and Water Conservation District	Shannon Wettstein	\$498,000	8			
47	2021-097	Minnesota Green Schoolyards	The Trust for Public Land,	Eric Weiss	\$1,997,000	8			
48	2021-231	Urban Pollinator And Native American Cultural Site Restoration	Friends of the Mississippi River	Betsy Daub	\$250,000	8			
49	2021-093	Brooten Land Acquisition	Midwest Outdoors Unlimited,	Ron Welle	\$950,000	8			Check fiscal capacity; required financial info not provided; required resolution/letter not provided

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	for COI)	COI	Member Comments	Staff Comments
50	2021-109	Moose Lake - Trunk Highway 73 Trail	City of Moose Lake,	Katie Bloom	\$330,000	8			
51	2021-329	Voyageur National Park Crane Lake Visitors Center Project	Town of Crane Lake	JoAnn Pohlman	\$3,600,000	8			NEW
52	2021-332	Moose/Seven Beaver Multi-Use Trail Upgrade	City of Hoyt Lakes,	Rebecca Burich	\$1,200,000	8			
53	2021-089	Sentinel Springs, Measuring Continuous Groundwater Response And Improvement	MN DNR, Ecological and Water Resources Division	John Barry	\$183,000	8			
54	2021-115	Novel Nutrient Recovery Process From Wastewater Treatment Plants	U of MN, College of Food, Agricultural and Natural Resource Sciences	Во Ни	\$200,000	8			
55	2021-323	Expanding Access To Environmental Education For Underserved Communities	U of MN, Raptor Center	Julia Ponder	\$178,000	8			
56	2021-020	Sleepy Eye Lake Reclamation	City of Sleepy Eye	Bob Elston	\$120,000	8			Required parcel info not provided
57	2021-087	Improving Resiliency And Conservation Outcomes For Minnesota Turtles	Minnesota Zoological Society	Tricia Markle	\$460,000	7			
58	2021-278	Preserving Minnesota's Wetlands: Our Resource For Future Medicine	U of MN, Crookston	Brian Dingmann	\$247,000	7			
59	2021-396	Bioacoustics For Broad-Scale Species Monitoring And Conservation	U of MN, College of Food, Agricultural and Natural Resource Sciences	Elena West	\$359,000	7			
60	2021-050	Trout Stream Habitat Restoration Success	U of MN, Duluth - NRRI	Valerie Brady	\$375,000	7			
61	2021-131	Pollinator Education In The Science Classroom	U of MN, College of Food, Agricultural and Natural Resource Sciences	Elaine Evans	\$430,000	7			
62	2021-240	Engaging Diverse Low-Income Residents With Minnesota's Parks	U of MN, Extension Center for Family Development	Trina Adler	\$568,000	7			
63	2021-320	Restoring Land, Reviving Heritage: Conservation Through Indigenous Culture	Belwin Conservancy,	Katie Bloome	\$494,000	7			
64	2021-294	Behavioral Response Of Bald And Golden Eagles To Acoustic Stimuli	U of MN, St. Anthony Falls Laboratory	Christopher Feist	\$307,000	7			
65	2021-315	Greenhouse Gas Sampling Approaches For Minnesota Livestock Farms	U of MN, College of Food, Agricultural and Natural Resource Sciences	Erin Cortus	\$294,000	7			

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	Selecting (Accounts for COI)	COI	Member Comments	Staff Comments
66	2021-336	Distributed Energy Storage Partnerships With Municipal And Cooperative Utilities	U of MN, Humphrey School of Public Affairs	Gabriel Chan	\$364,000	7	COI	Weinber comments	Juli Comments
67	2021-065	Phase 2 - Prescribed-Fire Management For Roadside Prairies	Minnesota Department of Transportation	Nathan Johnson	\$255,000	7			
68	2021-362	Minnesota State Trails Development	MN DNR, State Parks and Trails Division	Kent Skaar	\$6,000,000	7			NEW
69	2021-032	What's "Bugging" Minnesota'S Insect-Eating Birds?	U of MN, Duluth - NRRI	Alexis Grinde	\$199,000	7			
70	2021-140	Redwood County Rim Easement Evaluation And Public Outreach	Redwood Soil & Water Conservation District,	Kristy Zajac	\$197,000	7			
71	2021-289	A Biodiversity Checkup For Minnesota'S Big Woods	U of MN, College of Food, Agricultural and Natural Resource Sciences	Lee Frelich	\$109,000	7			
72	2021-321	Microbiome In Raptors: A New Tool For Conservation	U of MN, Raptor Center	Julia Ponder	\$129,000	7			
73	2021-158	Evaluating Stream Habitat Projects In Southeast Minnesota	MN DNR, Fish and Wildlife Division	Doug Dieterman	\$197,000	7			
74	2021-062	Preserving Minnesota's Only Ball Cactus Population	U of MN, Landscape Arboretum	David Remucal	\$103,000	7			
75	2021-084	Restoring Upland Forests For Birds	American Bird Conservancy, Great Lakes Program	Kevin Sheppard	\$193,000	7			
76	2021-319	Surface Water Purification System Powered By Renewable Energy	U of MN, College of Science and Engineering	Tianhong Cui	\$200,000	7			
77	2021-191	Agrivoltaics To Improve The Environment And Farm Resiliency	U of MN, WCROC	Bradley Heins	\$861,000	7	Reese		
78	2021-103	Offal Wildlife Watching: How Do Hunters Provision Scavengers?	U of MN, College of Food, Agricultural and Natural Resource Sciences	Joseph Bump	\$531,000	6			
79	2021-144	Microgeographic Impact Of Antibiotics Released From Identified Hotspots	U of MN, College of Veterinary Medicine	Randall Singer	\$598,000	6			
80	2021-205	Scaling A Market-Driven Water-Quality Solution For Row- Crop Farming	U of MN, College of Food, Agricultural and Natural Resource Sciences	Nicholas Jordan	\$909,000	6			
81	2021-303	Rainfall History Recovered From Old Oak Tree Rings	U of MN, College of Liberal Arts	Daniel Griffin	\$332,000	6			

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	Selecting (Accounts for COI)	COI	Member Comments	Staff Comments
82	2021-186	The Voyageurs Classroom Initiative	Voyageurs National Park Association,	Christina Hausman Rhode	\$409,000	6			
83	2021-313	Stop Starry Invasion - Community Invasive Species Containment	Minnesota Lakes and Rivers Advocates,	Jeff Forester	\$1,676,000	6		smalller \$ amount	Check fiscal capacity; Map removed due to size
84	2021-402	Strengthening Minnesota's Reuse Economy To Conserve Natural Resources	ReUse Minnesota,	Jennifer Kedward	\$393,000	6			Check fiscal capacity
85	2021-223	Remote Sensing And Super-Resolution Imaging Of Microplastics	U of MN, St. Anthony Falls Laboratory	Ardeshir Ebtehaj	\$364,000	6			
86	2021-340	Bohemian Flats Savanna Restoration	Minneapolis Parks and Recreation Board	Adam Arvidson	\$424,000	6			
87	2021-377	Elm Creek Habitat Restoration Final Phase	City of Champlin	Todd Tuominen	\$613,000	6			NEW; Required restoration information not submitted
88	2021-092	City Of Brainerd - Mississippi Landing Trailhead	City of Brainerd,	David Chanski	\$3,800,000	6			
89	2021-338	Above The Falls Regional Park Acquisition And Restoration	Minneapolis Parks and Recreation Board	Adam Arvidson	\$1,267,000	6			
90	2021-224	High School River Bluff Pollinator Habitat Creation	Friends of the Mississippi River	Betsy Daub	\$28,000	6			
91	2021-017	Starch Allocation Patterns Of Starry Stonewort (Nitellopsis Obtusa) Harvested From Lake Koronis, Mn	Minnesota State Colleges and Universities, Minnesota State University Mankato - Department of Biological Sciences	Ryan Wersal	\$101,000	6			
92	2021-091	Long-Term Efficacy Of Invasive Removal In Floodplain Forests	Macalester College,	Mike Anderson	\$25,000	6			
93	2021-137	Plumbing The Muddy Depths Of Superior Hiking Trail	Superior Hiking Trail Association,	Denny Caneff	\$187,000	6			
94	2021-308	Creating Cost-Effective Forage And Management Actions For Pollinators	U of MN, College of Food, Agricultural and Natural Resource Sciences	Daniel Cariveau	\$198,000	6			
95	2021-322	Shoreline Stabilization, Fishing, ADA Improvements At Silverwood Park	Three Rivers Park District,	Jonathan Vlaming	\$200,000	6			Resolution pending due to COVID
96	2021-038	Ely Trezona Trail / Pioneer Mine Site Restoration	City of Ely,	Harold Langowski	\$185,000	6			
97	2021-359	Uniting Public And Private Sectors To Protect Pollinators	Monarch Joint Venture,	Wendy Caldwell	\$341,000	5			Check fiscal capacity

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	Selecting (Accounts for COI)	COI	Member Comments	Staff Comments
98	2021-047	Updating Pesticide Analytical Capabilities To Protect Minnesota Waters	Minnesota Department of Agriculture	Heather Johnson	\$3,000,000	5			
99	2021-053	Protecting Minnesota's Waters Using Sustainable Waste Materials	U of MN, Duluth - NRRI	Bridget Ulrich	\$497,000	5			
100	2021-057	Reducing Nutrients And Methane Emissions Using Wetland Microbes	U of MN, Duluth - NRRI	Chan Lan Chun	\$334,000	5			
101	2021-090	Leveraging Innovations In Data Analytics For Project Implementation	Minnehaha Creek Watershed District,	Brian Beck	\$883,000	5			
102	2021-130	Sediment-Phosphorus Management In Rainy-Lake Of The Woods Basin	US Geological Survey, Upper Midwest Water Science Center	Anna Baker	\$515,000	5			
103	2021-160	Establishment Of Safe Water Reuse	U of MN, College of Food, Agricultural and Natural Resource Sciences	Satoshi Ishii	\$362,000	5			
104	2021-326	Assessing Impacts Of Boat Waves On Minnesota Lakes	U of MN, St. Anthony Falls Laboratory	Jeffrey Marr	\$420,000	5			
105	2021-382	Evaluating Landfill Leachate Pfas Reduction Utilizing Engineered Wetlands	St. Louis County,	Mark St. Lawrence	\$895,000	5			
106	2021-041	Connecting Minnesotans To Water Through Environmental Education	U of MN, College of Biological Sciences	Seth Thompson	\$287,000	5			
107	2021-042	Increasing Outdoor Learning For Young Minnesotans	Wolf Ridge Environmental Learning Center,	Shannon Walz	\$450,000	5			
108	2021-386	Bird Academy: Conservation For Kids	Audubon Minnesota,	Katie Burns	\$291,000	5			Required resolution/letter not provided
109	2021-305	Reducing Plastic Waste By Innovating Waste-To-Energy Conversion Technology	U of MN, College of Science and Engineering	Boya Xiong	\$530,000	5			
110	2021-318	Efficient Filter And Sensor For Organic Pah Compounds	U of MN, College of Science and Engineering	Terrence Simon	\$275,000	5			
111	2021-398	Cleaner Air For Park Events And Disaster Resilience	City of St. Paul,	Tom Hagel	\$360,000	5			Required resolution/letter not provided
112	2021-094	Pollinator Habitat Study For Closed Landfill Program	Minnesota Pollution Control Agency	Eric Pederson	\$300,000	5			
113	2021-180	Carbon Sequestration And Climate Resiliency Using Forest Management	Board of Water and Soil Resources	Jeff Hrubes	\$615,000	5			

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	Selecting (Accounts for COI)	COI	Member Comments	Staff Comments
114	2021-357	Quantifying Environmental Benefits Of Peatland Restoration In Minnesota	U of MN, College of Food, Agricultural and Natural Resource Sciences	Timothy Griffis	\$742,000	5			
115	2021-021	Soo Line Trail Trestle Bridge	Mille Lacs County,	Dillon Hayes	\$725,000	5			
116	2021-339	Silver Lake Trail Improvement Project	City of Virginia	Britt See-Benes	\$1,428,000	5			
117	2021-019	Does The Herbicide Paraquat Harm Insect Microbial Symbionts?	U of MN, College of Food, Agricultural and Natural Resource Sciences	Ann Fallon	\$157,000	5			
118	2021-088	Minnesota Mammal Resource Atlas	U of MN, Duluth - NRRI	Ron Moen	\$148,000	5			
119	2021-128	Resilience And Increased Intense Rain In Minnesota Watersheds	Science Museum of Minnesota, St. Croix Watershed Research Station	Jason Ulrich	\$189,000	5			
120	2021-170	Minimizing Plastic Pollution Through Prediction Of Nano/Microplastic Generation	U of MN, College of Science and Engineering	Boya Xiong	\$200,000	5			
121	2021-026	Off-Site Construction Technology Portal	U of MN, Duluth - NRRI	Patrick Donahue	\$197,000	5			
122	2021-116	Water: Keep It Fresh	Headwaters Science Center,	Lee Furuseth	\$86,000	5			
123	2021-044	Bringing Minnesota Farmers Into The Low-Carbon Economy	U of MN, Duluth - NRRI	Brian Barry	\$176,000	5			
124	2021-193	Restoration Of Riverside Park	City of Long Prairie,	Reta Dahlen	\$156,000	5			
125	2021-269	Reducing Urban Heat Through Reflective Roofs	U of MN, College of Food, Agricultural and Natural Resource Sciences	Tracy Twine	\$165,000	5			
126	2021-078	Developing A Rare Plant Rescue Program For Minnesota	Anoka Conservation District,	Carrie Taylor	\$199,000	5			
127	2021-302	Mississippi Flyway Habitat Fingers	Minneapolis Parks and Recreation Board	Adam Arvidson	\$171,000	5			
128	2021-238	Morrison County Performance Drainage And Hydrology Management II	Morrison Soil and Water Conservation District	Shannon Wettstein	\$197,000	4	Faber		
129	2021-082	Aggregate Resource Mapping Of St. Louis County	MN DNR, Lands and Minerals Division	Heather Arends	\$767,000	4			

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	for COI)	COI	Member Comments	Staff Comments
130	2021-291	Factors Influencing Wild Turkey Productivity In Southeast Minnesota	National Wild Turkey Federation,	Matt Weegman	\$809,000	4			
131	2021-127	Water Storage Project Implementation Framework	International Water Institute,	Charles Fritz	\$290,000	4			Applicant based in Fargo, ND but proposed work is in MN
132	2021-134	Salt Threatens Minnesota Water Quality And Food Webs	Science Museum of Minnesota, St. Croix Watershed Research Station	Mark Edlund	\$1,174,000	4			
133	2021-177	Glyphosate, Phosphorus And Harmful Algal Blooms	U of MN, College of Biological Sciences	James Cotner	\$506,000	4			
134	2021-211	Reduction Of Environmental Impacts With Road De-Icing Alternatives	U of MN, College of Science and Engineering	John Gulliver	\$666,000	4			
135	2021-227	Seasonal Water Quality Effects Of Commercial Peat Harvesting	U of MN, College of Food, Agricultural and Natural Resource Sciences	Lucy Rose	\$204,000	4			
136	2021-265	Farming For Phosphorus Control At The Field Edge	U of MN, College of Food, Agricultural and Natural Resource Sciences	Christian Lenhart	\$577,000	4			
137	2021-100	Mn Backyard Science: Home-Based Environmental Education And Conservation	U of MN, Humphrey School of Public Affairs	Christina Locke	\$502,000	4			
138	2021-146	Providing K-12 Residential Environmental Learning Experiences	Osprey Wilds Environmental Learning Center,	Bryan Wood	\$400,000	4			
139	2021-335	Water Quality And Robots: Experientially Educating Minnesotan Youth	U of MN, College of Science and Engineering	Nikolaos Papanikolopoulos	\$344,000	4			
140	2021-387	Value Added Treatment Of Sewage Sludge	U of MN, College of Food, Agricultural and Natural Resource Sciences	Roger Ruan	\$910,000	4			
141	2021-274	Winter Dynamics Of Vulnerable Trout Streams: Central Minnesota	U of MN, College of Food, Agricultural and Natural Resource Sciences	Leonard Ferrington	\$520,000	4			
142	2021-328	Restoring Oak Forests For Wildlife In Southeast Minnesota	National Wild Turkey Federation,	Matt Weegman	\$661,000	4			
143	2021-013	Gateway State Trail	City of Scandia,	Kenneth Cammilleri	\$4,295,000	4			Required parcel list and acquisition information not provided
144	2021-145	Preserving Grindstone Lake's Shoreline: Mcconnell Property Acquisition	Osprey Wilds Environmental Learning Center,	Bryan Wood	\$640,000	4			
145	2021-048	Precision Forest Inventory For Aspen And Red Pine	U of MN, Duluth - NRRI	John Duplissis	\$199,000	4			

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	Selecting (Accounts for COI)	COI	Member Comments	Staff Comments
146	2021-234	Moss And Lichens Of Minnesota Prairies And Meadows	U of MN, College of Biological Sciences	Daniel Stanton	\$200,000	4			
147	2021-157	Minnesota Conservation Outreach & Education	Pheasants Forever Inc	Marissa Jensen	\$68,000	4			
148	2021-171	Expansion Of Ymca Mobile Day Camp	YMCA of the Greater Twin Cities	Beth Becker	\$195,000	4			Required resolution/letter not provided
149	2021-268	Mississippi River Crew For Forest Resilience	Mississippi Park Connection	Mary Hammes	\$199,000	4			
150	2021-261	Increasing Efficiency Of Methane Digesters	U of MN, College of Biological Sciences	Kyle Costa	\$148,000	4			
151	2021-031	Grassland Bird Conservation: To Hay Or Delay?	U of MN, Duluth - NRRI	Alexis Grinde	\$552,000	3			
152	2021-054	Distribution And Movements Of Fishers In Southern Minnesota	U of MN, Duluth - NRRI	Michael Joyce	\$415,000	3			
153	2021-152	Assessing Benefits Of Enhancing Biodiversity In Habitat Fragments	U of MN, Cedar Creek Ecosystem Science Reserve	Forest Isbell	\$498,000	3			
154	2021-372	Providing Critical Water Quality Information: Harmful Algal Blooms	Minnesota Pollution Control Agency	Pamela Anderson	\$657,000	3			
155	2021-142	Refined Petroleum Leaks: Improving Remediation And Risk Assessment	University of St. Thomas,	Dalma Martinovic-Weigelt	\$340,000	3			
156	2021-174	Slope Failures In Minnesota: Drivers, Projections, And Mitigation	U of MN, Duluth	Karen Gran	\$396,000	3		did we have a similar project before?	
157	2021-259	Whitewater River Evolution: Sediment Dynamics And Cross-Section Inventory	Minnesota State Colleges and Universities, Winona State University	Dylan Blumentritt	\$265,000	3			
158	2021-314	Solar-Powered Pesticide Sensor Network For Water Monitoring	U of MN, College of Science and Engineering	Tianhong Cui	\$660,000	3			
159	2021-300	Changing Yards And Minds: Overcoming Barriers To Ecoscaping	Metro Conservation Districts,	Chris Lord	\$546,000	3			
160	2021-167	Solar Windows: Combining Agriculture And Photovoltaics	U of MN, College of Science and Engineering	Uwe Kortshagen	\$280,000	3			
161	2021-007	South Central Minnesota Rock Berm Fish Barriers	State Line Lake Restoration Inc,	Scott Christenson	\$855,000	3			Check fiscal capacity; required financial info not provided

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Line	Droposal ID	Dyciost Title	Organization	Duniost Managar	Amount Boguested	Selecting (Accounts for COI)	COI	Mombor Comments	Staff Commonts
_ 5	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	for COI)	COI	Member Comments	Staff Comments
162	2021-155	Rural-Urban Partnerships To Advance Conservation Farming With Technology	University of St. Thomas,	Eric Chapman	\$548,000	3			
163	2021-182	Minnesota Center For Agricultural Spray Drift Reduction	U of MN, College of Science and Engineering	Christopher Hogan	\$1,049,000	3			
164	2021-397	Creating Prioritized Plan For Restoring The Stewart River Watershed	Minnesota Trout Unlimited	John Lenczewski	\$298,000	3			Required resolution/letter not provided
165	2021-277	Biocontrol Breakdown In Minnesota's Spruce Budworm- Affected Forests	U of MN, College of Food, Agricultural and Natural Resource Sciences	Brian Aukema	\$200,000	3			
166	2021-214	Emergency Location Markers For Minnesota's Trails, Parks & Landings.	Shared Geo,	Brian Huberty	\$130,000	3			
167	2021-389	Firewise In The Classroom	MN DNR, Forestry Division	Casey McCoy	\$155,000	3			
168	2021-239	Increasing Recycling Of Building Materials, Supplies, Home Goods	Twin Cities Habitat for Humanity, Inc,	Pete O'Keefe	\$60,000	3			Required resolution/letter not provided; required financial info not provided
169	2021-360	Sustainable Bricks Using Minnesota Clay And Recycled Aggregate	Minnesota State Colleges and Universities, Minnesota State University Mankato	Mohammad Yamin	\$123,000	3			
170	2021-229	Woodcrest Trail Expansion And Prairie Restoration	Country Manor Foundation,	Sara Gabrielson	\$92,000	3			Organization name on tax form and applicant name do not matchrequired financial info not submitted; required parcel and restoration info not provided.
171	2021-222	Lake Brophy Trail Expansion	Big Ole Bike Club,	Jefferson Brand	\$100,000	3			Check fiscal capacity; required financial information not provided.
172	2021-104	Habitat Use And Recruitment Rates In Exurban Wolves	Minnesota State Colleges and Universities, Bemidji State University	Jacob Haus	\$263,000	2			
173	2021-133	Ticks In Minnesota! Informing Control And Response	U of MN, School of Public Health	Jesse Berman	\$250,000	2			
174	2021-228	Solar Co-Benefits: Reducing Nitrates, Enhancing Habitat, Sequestering Carbon	U of MN, College of Food, Agricultural and Natural Resource Sciences	David Mulla	\$344,000	2			
175	2021-114	Multi-Scale Aquifer Characterization For Successful Aquifer Storage/Recovery	U of MN, St. Anthony Falls Laboratory	Peter Kang	\$671,000	2			
176	2021-190	Quantitative Risk Assessment Of Pathogens In Urban Waters	U of MN, St. Anthony Falls Laboratory	Miki Hondzo	\$499,000	2			
177	2021-204	Developing Smart-N App To Reduce Corn Nitrogen Pollution	U of MN, College of Food, Agricultural and Natural Resource Sciences	Yuxin Miao	\$248,000	2			

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	Selecting (Accounts for COI)	COI	Member Comments	Staff Comments
178	2021-260	Floodplain Reconnection In Southeast Minnesota's Driftless Area	The Nature Conservancy,	Leah Hall	\$572,000	2	COI	Weinsel comments	Stan Comments
179	2021-264	Automated Weed Management For Herbicide Water Runoff Reduction	U of MN, College of Science and Engineering	Junaed Sattar	\$829,000	2			
180	2021-348	Enhanced Thermophilic Anaerobic Digestion Of Swine Manure	U of MN, College of Food, Agricultural and Natural Resource Sciences	Roger Ruan	\$609,000	2			
181	2021-349	Novel Microalgae Attached Growth For Animal Wastewater Treatment	U of MN, College of Food, Agricultural and Natural Resource Sciences	Roger Ruan	\$760,000	2			
182	2021-350	Plastic-Wastes To Fuels And Chemicals Through Microwave-Assisted Pyrolysis	U of MN, College of Food, Agricultural and Natural Resource Sciences	Roger Ruan	\$914,000	2			
183	2021-141	ESTEEM (Earth Science Teachers Environmental Education Matters)	Minnesota Science Teachers Association,	Lee Schmitt	\$582,000	2			Check fiscal capacity
184	2021-341	Fostering Water Stewardship Through Hands-On Learning	Minnesota Trout Unlimited	John Lenczewski	\$654,000	2			Required resolution/letter not provided
185	2021-241	Foundational Data For Sequestering Co2 Using Minnesota Minerals	U of MN, Duluth - NRRI	Brett Spigarelli	\$353,000	2			
186	2021-345	Treatment Of Organic Medical And Covid-19 Contaminated Wastes	U of MN, College of Food, Agricultural and Natural Resource Sciences	Roger Ruan	\$910,000	2			
187	2021-347	Renewable And Green Polymers From Pennycress	U of MN, College of Food, Agricultural and Natural Resource Sciences	Roger Ruan	\$559,000	2			
188	2021-351	Disinfect Airborne-Pathogens And Contaminants In Animal Production Facilities	U of MN, College of Food, Agricultural and Natural Resource Sciences	Roger Ruan	\$754,000	2			
189	2021-394	Assessing Wind Curtailment Reduction Potential Via Hydrogen Production	Aerio Technologies,	Aditya Ranade	\$751,000	2			Check fiscal capacity
190	2021-059	Maximizing Economic And Ecological Benefits Of Forest Management	U of MN, College of Food, Agricultural and Natural Resource Sciences	Marcella Windmuller- Campione	\$650,000	2			
191	2021-027	ML 2021 Contract Agreement Reimbursement	MN DNR, Grants Unit	Katherine Sherman-Hoehn	\$135,000	2			
192	2021-112	Mapping Existing Structural Practices In Vulnerable Agricultural Landscapes	Board of Water and Soil Resources	Matt Drewitz	\$190,000	2			
193	2021-201	Status Of Bigmouth Buffalo Populations In Minnesota	U of MN, Duluth	Mark Clark	\$196,000	2			

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested		COI	Member Comments	Staff Comments
194	2021-225	Eyes Over Minnesota's Natural Resources	SharedGeo,	Brian Huberty	\$119,000	2			Visual removed due to size
195	2021-076	Will BMPs Be Effective With Increased Precipitation Variability?	U of MN, Humphrey School of Public Affairs	Ryan Noe	\$63,000	2			
196	2021-237	Converting Toxic Compounds To Fuels Using Solar Energy	U of MN, College of Biological Sciences	Kathryn Fixen	\$171,000	2			
197	2021-258	Manure Testing For Better Management And Clean Water	U of MN, College of Food, Agricultural and Natural Resource Sciences	Melissa Wilson	\$200,000	2			
198	2021-267	Optimization Of Water-Quality Monitoring In Surface Waters	U of MN, College of Science and Engineering	Paul Capel	\$147,000	2			
199	2021-304	Minimizing Agricultural Impacts Through Biological Nitrogen Fixation Alternatives	U of MN, College of Food, Agricultural and Natural Resource Sciences	Brett Barney	\$196,000	2			
200	2021-379	Understanding And Fixing Excess Lake Oxygen Depletion	U of MN, Duluth	John Downing	\$171,000	2			
201	2021-381	Nitrate Testing And Education For Private Well Owners	Minnesota Department of Agriculture	Margaret Wagner	\$197,000	2			
202	2021-085	Ecosystem Benefits From Urban Agriculture	Hamline University,	Valentine Cadieux	\$200,000	2			
203	2021-311	Empowering Youth To Become 21st Century Energy Leaders	U of MN, Institute on the Environment	Elizabeth Mercer-Taylor	\$200,000	2			
204	2021-098	Biomass Inventory For Minnesota Renewable Natural Gas Production	U of MN, College of Food, Agricultural and Natural Resource Sciences	Во Ни	\$200,000	2			
205	2021-135	Climate Mitigation Through Improved Forest Understory Health	Dovetail Partners Inc,	Ashley McFarland	\$179,000	2			
206	2021-281	Protecting Stream Banks Producing Energy	U of MN, St. Anthony Falls Laboratory	Michele Guala	\$198,000	2			
207	2021-068	Shakopee Riverfront Habitat Restoration And Education Project	City of Shakopee,	Michael Kerski	\$200,000	2		3	
208	2021-245	Improving Landscape Ecological Value With Hazelnuts	Rural Advantage,	Linda Meschke	\$161,000	2			
209	2021-036	A Second Life For Urban Ash Trees	U of MN, Duluth - NRRI	Matthew Aro	\$156,000	2			

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	Selecting (Accounts for COI)	COI	Member Comments	Staff Comments
210	2021-011	Minnesota Flora: A New Generation Of Discovery	U of MN, Bell Museum of Natural History	Timothy Whitfeld	\$1,527,000	1			
211	2021-052	Monitoring Carnivores Statewide: A Citizen-Science Trail- Cam Project	U of MN, College of Food, Agricultural and Natural Resource Sciences	John Fieberg	\$450,000	1			
212	2021-056	Healthy Forests: Wildlife As Dispersers Of Beneficial Fungi	U of MN, Duluth - NRRI	Michael Joyce	\$290,000	1			
213	2021-061	Manoomin Matters	U of MN, Duluth	Emily Onello	\$314,000	1			
214	2021-126	Are Fish Mercury Concentrations Higher In Winter?	U of MN, Duluth - Large Lakes Observatory	Ted Ozersky	\$387,000	1			
215	2021-156	Human Dimensions Of Urban Carnivore Management	U of MN, College of Food, Agricultural and Natural Resource Sciences	David Fulton	\$392,000	1			
216	2021-166	Survey Of Overlooked Natural Resource: Plant Growth- Stimulating Microbes	U of MN, College of Biological Sciences	Jannell Bazurto	\$339,000	1			
217	2021-181	Update Metro MLCCS For Enhanced Natural Resource Management	Metro Conservation Districts,	Chris Lord	\$499,000	1			
218	2021-183	Supporting Integrated Resource Management Through Upgraded Lidar Products	Minnesota IT Services,	Alison Slaats	\$3,200,000	1			
219	2021-230	Opening Or Closing Parks In A Pandemic?	U of MN, St. Anthony Falls Laboratory	Michele Guala	\$343,000	1			
220	2021-243	Baseline Asbestos-Emp Study Of NE Minnesota Air, Pre- Mining	U of MN, Duluth - NRRI	Stephen Monson Geerts	\$388,000	1			
221	2021-023	Larval Fishes As Indicators Of Lake Ecosystem Change	University of Wisconsin-La Crosse,	David Schumann	\$410,000	1			
222	2021-195	Changing Snowmelt Impacts Minnesota Forests, Streams, And Groundwater	U of MN, Institute on the Environment	Kate Brauman	\$607,000	1			required UMN resolution/letter not provided
223	2021-242	USGS Streamstats Enhances Sediment Monitoring In Minnesota	US Geological Survey, Upper Midwest Water Science Center	Joel Groten	\$300,000	1			
224	2021-279	Optimizing Youth Sports Fields To Reduce Environmental Impact	U of MN, College of Food, Agricultural and Natural Resource Sciences	Eric Watkins	\$957,000	1			
225	2021-286	Downscaling Water Storage For Comprehensive Water Resources Management	U of MN, College of Food, Agricultural and Natural Resource Sciences	John Nieber	\$592,000	1			

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Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	Selecting (Accounts for COI)	COI	Member Comments	Staff Comments
226	2021-317	Sensor-Embedded Purification System For Clean Drinking Water	U of MN, College of Science and Engineering	Tianhong Cui	\$536,000	1			
227	2021-346	Treatment Of Petrochemical Wastewater Using Photocatalysis And Algae	U of MN, College of Food, Agricultural and Natural Resource Sciences	Roger Ruan	\$559,000	1			
228	2021-352	Nitrogen Fixation Using Nano-Photocatalytic Non- Thermal Plasma	U of MN, College of Food, Agricultural and Natural Resource Sciences	Roger Ruan	\$555,000	1			
229	2021-355	Microplastics In Minnesota Water And Impact On Wildlife	U of MN, St. Anthony Falls Laboratory	Lian Shen	\$317,000	1			
230	2021-255	Cross Cultural Environmental Education	Diversity Intelligence in Climate Action,	Narayan Dhakal	\$420,000	1			Check fiscal capacity; required financial info not provided
231	2021-383	Balancing Aquatic Plant Communities For Recreation And Conservation	Fish and Waters Conservation Fund,	John James	\$569,000	1			Check fiscal capacity; they are willing to have a fiscal agent if needed
232	2021-196	Electricity Generation From Glycerol - Minnesota Biodiesel Waste	Minnesota State Colleges and Universities, Minnesota State University Mankato	Jacob Swanson	\$679,000	1			
233	2021-263	The Carbon Sequestration Potential Of A Perennial Grain	U of MN, College of Food, Agricultural and Natural Resource Sciences	Jessica Gutknecht	\$219,000	1			
234	2021-290	Efficient Production And Clean Combustion Of Renewable Biofuels	U of MN, College of Science and Engineering	Suo Yang	\$681,000	1			
235	2021-392	A Novel Co2-Reducing Cement Made From Minnesota Wastes	Designs by Natural Processes, Inc.,	Carolyn Dry	\$290,000	1			Check fiscal capacity
236	2021-161	Threshold Resiliency With Increased Precipitation Uncertainty	U of MN, College of Science and Engineering	Joe Magner	\$1,899,000	1			
237	2021-283	Engineered Solutions To Remove Nitrates From Contaminated Waters	U of MN, Twin Cities	Brett Barney	\$234,000	1			
238	2021-295	Kenilworth Channel Riparian Restoration And Enhancement	Minneapolis Parks and Recreation Board	Adam Arvidson	\$930,000	1			
239	2021-025	Does Micro-Pollution Impact Aquatic Food Webs And Birds?	U of MN, Duluth - NRRI	Katya Kovalenko	\$175,000	1			
240	2021-184	Algal Toxicity Detection And Mitigation In Minnesota Waters	U of MN, St. Anthony Falls Laboratory	Miki Hondzo	\$199,000	1			
241	2021-216	White Iron Chain Of Lakes: Baseline Trace Metals	US Geological Survey, Upper Midwest Water Science Center	Mark Brigham	\$117,000	1			

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						Number of Members Selecting (Accounts			
Line	Proposal ID	Project Title	Organization	Project Manager	Amount Requested	for COI)	COI	Member Comments	Staff Comments
242	2021-391	Bioblitz Urban Parks: Engaging Community In Scientific Efforts	Minneapolis Parks and Recreation Board	MaryLynn Pulscher	\$198,000	1			
243	2021-202	Studying Solar Panels' Impact On Wetland Quality	Minnesota Solar Energy Industries Project,	David Shaffer	\$199,000	1			Check fiscal capacity
244	2021-343	Small, Cheap, And Fast Nitrobenzene Detector For Water	U of MN, College of Science and Engineering	Tianhong Cui	\$200,000	1			
245	2021-356	Help MPCP By Understanding Seeds And Pollens Dispersion	U of MN, St. Anthony Falls Laboratory	Lian Shen	\$199,000	1			
246	2021-354	Modeling Wind Energy Resources And Environment In Minnesota	U of MN, St. Anthony Falls Laboratory	Lian Shen	\$318,000	0			
247	2021-165	Microbial Degradation Of Formaldehyde To Clean Polluted Waters	U of MN, College of Biological Sciences	Jannell Bazurto	\$393,000	0			
248	2021-331	Comprehensive Identification And Visualization Of Sourcewater Protection Opportunities	U of MN, Humphrey School of Public Affairs	Ryan Noe	\$299,000	0			
249	2021-369	Determining How Altered Streamflows Impair Fish And Macroinvertebrates	US Geological Survey, Upper Midwest Water Science Center	Jeffrey Ziegeweid	\$600,000	0			
250	2021-006	Promoting Minnesota Conservation Through Classroom Plant Science Research	U of MN, Landscape Arboretum	David Remucal	\$480,000	0			
251	2021-219	Promoting Environmental Conservation Through Storytelling	U of MN, College of Biological Sciences	Seth Thompson	\$392,000	0			
252	2021-213	Forests, Wildlife & Climate Change: Proactive Landscape Designs	U of MN, North Central Research and Outreach Center	Michael Carson	\$404,000	0			
253	2021-270	A Safety Rating System Of Mining Waste Storage In Northern Minnesota	U of MN, College of Science and Engineering	Joseph Labuz	\$390,000	0			
254	2021-400	Unearthing Soil Health Economics In Southern Minnesota	Minnesota Soil Health Coalition,	Jennifer Hahn	\$200,000	0			Check fiscal capacity
255	2021-189	Ag-Urban Partnership Pilot: Accelerating Action In Priority Watersheds	Minnesota State Colleges and Universities, Minnesota State University Mankato	Kimberly Musser	\$199,000	0			
256	2021-226	Smart Lawns: Data-Driven Lawn Care Information For Homeowners	U of MN, College of Food, Agricultural and Natural Resource Sciences	Eric Watkins	\$200,000	0			
257	2021-262	The Longspur Prairie Fund Urban Prairie Learning Lab	The Longspur Prairie Fund,	Peter Schultz	\$82,000	0			Check fiscal capacity

Line	Proposal ID	Project Title	Organization	Project Manager		Number of Members Selecting (Accounts for COI)	Member Comments	Staff Comments
258	2021-199	Twin Ports Air Quality Monitoring And Education Project	Twin Ports Action Alliance,	Kevin Swanberg	\$30,000	0		Check fiscal capacity; required resolution/letter not provided
259	2021-117	Water, Wildlife And Weather Friendly Labeling Pilot Program	Freshwater Society	Carrie Jennings	\$195,000	0		
	·			TOTAL	\$172,758,000			

Source: LCCMR Staff Page 17 of 17 6/30/2020