

M.L. 2018 Environment and Natural Resources Trust Fund Recommendations (FY 2019)

LCCMR Selected 65 Projects Totaling \$45,389,000

As of October 17, 2017 the Legislative-Citizen Commission on Minnesota Resources (LCCMR) has selected 65 projects totaling \$45,389,000 to recommend to the 2018 Minnesota Legislature for funding from the Environment and Natural Resources Trust Fund (ENRTF). The recommendations are the result of the LCCMR's 2018 Request for Proposal (RFP) process, in which 217 proposals requesting a total of approximately \$183 million were received and considered through a competitive, multi-stage evaluation. The recommendations range from funding the full proposal and dollar amount requested to partial funding for specific proposal elements. The LCCMR will meet in November and December to finalize its funding recommendations package before the recommendations are submitted to the 2018 Minnesota Legislature to consider for funding.

Line #	SELECTED	LCCMR ID #	Project Title	Organization	Project Manager	\$ Request	LCCMR \$ Recommended	Allocation Notes
4	A. Foundational Natural Resource Data and Information (12 Recommendations / Subtotal \$7,239,000)							
5	x	001-A	Minnesota Geological Survey Geologic Atlases for Water Resource Management Part-A	U of MN - MN Geological Survey	Setterholm, Dale	\$4,121,000	\$2,500,000	
6	x	002-A	County Geologic Atlas for Water Resource Sustainability Part-B	MN DNR	Putzier, Paul	\$2,400,000	\$1,500,000	
7	x	003-A	Providing Critical Water Quality Information for Lake Management	U of MN	Peterson, Jeffrey	\$477,000	\$250,000	
8	x	004-A	Minnesota Biodiversity Atlas: Phase II Expansion	U of MN	Weiblen, George	\$496,000	\$350,000	
9	x	006-A	Maximizing Wildlife, Water, and Productivity in Peatland Forests	U of MN	Windmuller-Campione, Marcella	\$698,000	\$600,000	
10		007-A	Deer Movement Related to Potential CWD Prion Transmission	MN DNR	Jennelle, Christopher	\$552,000	\$0	
11		008-A	Safeguarding Red Pine Forest Health and Productivity	U of MN	Montgomery, Rebecca	\$420,000	\$0	
12		009-A	Minnesota Trumpeter Swan Migration Ecology and Conservation	U of MN	Andersen, David	\$389,000	\$0	
13	x	011-A	Conserving Minnesota's Turtles through Research and Education	Minnesota Zoological Garden	Stapleton, Seth	\$364,000	\$300,000	
14		012-A	Forest Regeneration – Validating Operational Seed Zones	U of MN - Duluth	Etterson, Julie	\$796,000	\$0	
15	x	013-A	Assessing Ecosystem Services Provided by Lichens and Mosses	U of MN	Stanton, Daniel	\$213,000	\$213,000	
16	x	014-A	An Early Warning System for Wildlife Health Threats: Using Wildlife Rehabilitation Data to Monitor Wildlife Health	U of MN	VanderWaal, Kimberly	\$280,000	\$280,000	
17		015-A	Restoring Prairie Biodiversity and Pollinator Habitat with Haying	Carleton College	Daniel, Hernández	\$458,000	\$0	
18	x	016-A	Conservation of Minnesota's Forest Birds of Management Concern	U of MN - Duluth NRRI	Grinde, Alexis	\$613,000	\$500,000	
19		017-A	Minnesota Soil Microbiomes: Foundational Database for Environmental Health	U of MN	Kinkel, Linda	\$924,000	\$0	

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20	x	018-A	Mapping Avian Movement in Minnesota	U of MN - Duluth NRRRI	Niemi, Gerald	\$682,000	\$200,000	
21	x	022-A	Variable Winter Thermal Regimes and Managing Trout Streams	U of MN	Ferrington, Leonard	\$499,000	\$400,000	
22		027-A	Foundational Assessment of Soil Health Metrics in Minnesota	U of MN	Jelinski, Nicolas	\$695,000	\$0	
23		028-A	Cover Crops for Wildlife Phase I	Pheasants Forever Inc	Bruse, Tanner	\$346,000	\$0	
24	x	030-A	Data Acquisition to Develop Native Mussel Habitat Suitability	National Park Service	Duncan, Nancy	\$309,000	\$200,000	

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25	B. Water Resources (11 Recommendations / Subtotal \$5,275,000)							
26	x	034-B	Removing Plastic Particle Pollution from Minnesota Water Bodies	U of MN	Coletti, Filippo	\$388,000	\$300,000	
27	x	035-B	Wastewater Treatment Plant Optimization Pilot Program	Minnesota Pollution Control Agency	Peck, Joel	\$779,000	\$700,000	
28		036-B	Phosphorus Accumulating Fungi to Control Agricultural Runoff Pollution	U of MN	Bushley, Kathryn	\$361,000	\$0	
29	x	037-B	Investigation of Road Salt Alternatives and Pavement Innovations	U of MN	Gulliver, John	\$521,000	\$400,000	
30		038-B	Biological Sulfate Removal for Wastewater Treatment in Minnesota	U of MN	Behrens, Sebastian	\$494,000	\$0	
31	x	039-B	Defining Minnesota's Environmental Antibiotic and Antibiotic Resistance Footprint	U of MN	Singer, Randall	\$921,000	\$750,000	
32	x	041-B	Contaminant Removal Efficiency of Urban Stormwater Treatment Ponds	St. Cloud State University	Schoenfuss, Heiko	\$377,000	\$325,000	
33		042-B	Rapid Detection of Algal Toxins in Minnesota Lakes	U of MN - Duluth NRRI	Bramburger, Andrew	\$686,000	\$0	
34		045-B	Developing a Map of Arsenic Risk in Groundwater	U of MN	Ng, G.-H. Crystal	\$550,000	\$0	
35	x	048-B	Small Cheap Purification System for Cleaner Drinking Water	U of MN	Cui, Tianhong	\$496,000	\$425,000	
36	x	054-B	Emerging Pathogens in Lakes, Rivers, and Tap Water	U of MN	LaPara, Timothy	\$355,000	\$325,000	
37	x	055-B	Working Farmlands: Targeting Alfalfa Production for Water Protection	U of MN	Jordan, Nicholas	\$752,000	\$500,000	
38	x	057-B	Preventing Nitrate Contamination of Groundwater Using Perennial Grains	Minnesota Department of Agriculture	Wagner, Margaret	\$759,000	\$250,000	
39	x	064-B	Unregulated Contaminants: Addressing Gaps in Drinking Water Protection	Minnesota Department of Health	Robertson, Stephen	\$2,107,000	\$1,000,000	
40		072-B	Increasing Contaminants and Temperature Eliminate Minnesota Turtles	St. Cloud State University	Kohno, Satomi	\$248,000	\$0	
41		074-B	Minnesota's Coldwater Fish Decline: Causes and Solutions	U of MN - Duluth NRRI	Reavie, Euan	\$789,000	\$0	
42		086-B	Optimal Configuration of Windbreaks for Agricultural Water Conservation	U of MN	Ebtehaj, Ardeshir	\$368,000	\$0	
43	x	094-B	ShellRock River Watershed Stormwater Quality Trading Pilot Program	Shell Rock River Watershed District	Christensen, Courtney	\$350,000	\$300,000	

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44	C. Environmental Education (11 Recommendations / Subtotal \$4,368,000)							
45	x	099-C	Increasing Diversity in Environmental Careers: Fellowships, Internships, Mentorships	MN DNR	Legato, Denise	\$1,000,000	\$750,000	
46	x	101-C	Connecting Students with Watersheds through Hands-on Learning	Minnesota Trout Unlimited	Lenczewski, John	\$581,000	\$400,000	
47	x	102-C	Pollinator Ambassadors for Urban Gardens	U of MN	Evans, Elaine	\$421,000	\$250,000	
48		103-C	Online Modules Build Local Capacity to Protect Groundwater	Minnesota Department of Health	Raber, Carrie	\$335,000	\$0	
49	x	106-C	YES! Students Take on Minnesota Water Quality Challenge	Prairie Woods Environ. Learning Center	Foster, Shelli-Kae	\$213,000	\$213,000	
50	x	108-C	Preserve Resources by Expanding the State's Reuse Sectors	ReUSE Minnesota	Thomas, Steve	\$363,000	\$275,000	
51	x	109-C	Phase 2 Prairie Sportsman Statewide Environmental Education Project	Pioneer Public Television	Bakken, Timothy	\$300,000	\$300,000	
52		110-C	Unlocking the Science of Minnesotas Moose Decline	Minnesota Zoological Garden	Mattson, Nicole	\$300,000	\$0	
53		111-C	Youth Convening Minnesota	Climate Generation: A Will Steger Legacy	Poppleton, Kristen	\$300,000	\$0	
54	x	112-C	Get Outdoors After School!	Project Get Outdoors Inc	Holger, Sara	\$30,000	\$30,000	
55		114-C	Integrating Environmental Science Research in High School Education	U of MN	Yakub, Mohamed	\$445,000	\$0	
56		115-C	Students Using Local Phenology Contributes to Citizen Science	U of MN	Carlson, Stephan	\$224,000	\$0	
57		116-C	Strengthening Natural Resources Management with Drone Training	U of MN	Knight, Joseph	\$132,000	\$0	
58	x	118-C	Morris Prairie Pollinator Demonstration and Education	U of MN	Poppe, Steven	\$681,000	\$550,000	
59	x	120-C	Expanding Nature Knowledge and Experience in North Minneapolis	Minneapolis Parks and Recreation Board	Pulscher, MaryLynn	\$865,000	\$500,000	Matching funds are not a requirement of an appropriation but are encouraged.
60	x	121-C	River Watch on the Minnesota River	Friends of the Minnesota Valley	Suss, Ted	\$103,000	\$100,000	
61	x	127-C	Preparing Minnesotans for Changes in Wolf Management	International Wolf Center	Kline, David	\$1,200,000	\$1,000,000	

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62	D. Aquatic and Terrestrial Invasive Species (6 Recommendations / Subtotal \$5,760,000)							
63	x	132-D	Minnesota Invasive Terrestrial Plants and Pests Center 4	U of MN	Venette, Robert	\$7,000,000	\$3,500,000	
64	x	133-D	Developing RNA Interference Genetic Controls for Zebra Mussels	U.S. Geological Survey	Merkes, Christopher	\$716,000	\$500,000	
65	x	134-D	An Effective and Practical Invasive Carp Deterrent	U of MN	Sorensen, Peter	\$998,000	\$998,000	Explore option to purchase equipment instead of leasing.
66		135-D	Slow the Spread of the Emerald Ash Borer	Minnesota Department of Agriculture	Abrahamson, Mark	\$14,689,000	\$0	
67		138-D	Monitoring and Biocontrol of Brown Marmorated Stink Bug	Minnesota Department of Agriculture	Ambourn, Angie	\$199,000	\$0	
68	x	139-D	Determining Minnesota's Risk of a Toxic Algal Invader	Science Museum of MN - St. Croix Research Station	Heathcote, Adam	\$243,000	\$200,000	
69	x	141-D	Palmer Amaranth Detection and Eradication Continuation	Minnesota Department of Agriculture	Chandler, Monika	\$431,000	\$431,000	
70		147-D	Terrestrial Invasive Plant Detection Methods for Forest Lands	MN DNR	Burks, Susan	\$300,000	\$0	
71	x	152-D	Evaluate Control Methods for Invasive Hybrid Cattails	Voyageurs National Park	Windels, Steve	\$131,000	\$131,000	

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72	E. Air Quality, Climate Change, and Renewable Energy (5 Recommendations / Subtotal \$2,550,000)							
73	x	157-E	Agricultural Weed Control Using Robots	U of MN - Morris	Reese, Michael	\$600,000	\$550,000	
74	x	158-E	Clean Electricity from Solar Windows	U of MN	Kortshagen, Uwe	\$458,000	\$350,000	
75	x	159-E	Community-Scale Energy Storage Guide for Renewable Energy	U of MN	Anderson, Ellen	\$625,000	\$550,000	
76	x	160-E	Cheap Solar Energy from Simple Roll-to-Roll Manufacturing	The University of Minnesota	Cui, Tianhong	\$388,000	\$300,000	
77	x	164-E	Phase II- Reduce Solid Waste and Greenhouse Gas Emissions	The NetWork for Better Futures MN	Swaggert, Nick	\$1,151,000	\$800,000	
78		166-E	Life Cycle Analysis of Anaerobic Digestion and Organics	Minnesota Pollution Control Agency	Walsh, Kayla	\$250,000	\$0	
79		169-E	Bringing Geothermal Power to MN: CO2 Power-System Test	TerraCOH Inc.	Randolph, Jimmy	\$315,000	\$0	
80		174-E	Production and Utilization of Biomass: St. Louis County	St. Louis County Land & Minerals Dept	Weber, Mark	\$2,285,000	\$0	

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81	F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat (7 Recommendations / Subtotal \$2,569,000)							
82	x	178-F	Nongame Wildlife Program Acceleration	MN DNR	Henderson, Carrol	\$2,000,000	\$1,000,000	
83	x	179-F	Preserving and Restoring Minnesota's Native Orchids – Phase 2	U of MN	Remucal, David	\$468,000	\$259,000	Fund Activity One Expand collection/preservation efforts to at least 30 species
84	x	180-F	Show Me the Money: 10 Markets for Perennials	Science Museum of MN - St. Croix Research Station	Schottler, Shawn	\$347,000	\$150,000	
85	x	182-F	Restoring Minnesota's Forests in State Parks	MN DNR	Quinn, Edward	\$432,000	\$250,000	
86		183-F	Sediment Hazards to Trout in Southeast Minnesota Streams	U of MN	Wickert, Andrew	\$337,000	\$0	
87		184-F	Repurposing Unprofitable Cropland: Water and Wildlife's Silver Bullet?	Science Museum of MN - St. Croix Research Station	Ulrich, Jason	\$319,000	\$0	
88		185-F	Advancing Streambank Protection Systems	U of MN	Guala, Michele	\$286,000	\$0	
89	x	186-F	Restoring Wetland Invertebrates to Revive Wildlife Habitat	MN DNR	Larson, Danelle	\$417,000	\$400,000	
90		187-F	Implementing Novel Market-based Methods for Urban Habitat Restoration	Great River Greening	Huckett, Steven	\$499,000	\$0	
91		188-F	Converting Agricultural Wastes into Energy, Polymers, and Fertilizers	U of MN	Pagliari, Paulo	\$949,000	\$0	
92	x	189-F	Increasing Timber Availability and Habitat with Soil Management	U of MN	Slesak, Robert	\$396,000	\$200,000	
93		190-F	Working Conservation Lands for Grazing, Harvest, and Habitat	Board of Water and Soil Resources	Rhees, Suzanne	\$315,000	\$0	
94		191-F	Are We Turning Wild Prairie Plants into Crops?	U of MN - Duluth	Haines, Dustin	\$555,000	\$0	
95		194-F	MN CREP for Water Quality and Habitat	Board of Water and Soil Resources	Rickert, Dave	\$15,000,000	\$0	
96	x	195-F	Replacing Plastic Cover in Vegetable Production with BioMulch	U of MN	Pagliari, Paulo	\$310,000	\$310,000	
97		196-F	Okabena Creek Water Quality and Flood Protection Demonstration	Heron Lake Watershed District	Voit, Jan	\$720,000	\$0	

Line #	SELECTED	LCCMR ID #	Project Title	Organization	Project Manager	\$ Request	LCCMR \$ Recommended	Allocation Notes
98	G. Land Acquisition for Habitat and Recreation (12 Recommendations / \$17,439,000)							
99	x	199-G	SNA Habitat Restoration, Public Engagement, and Strategic Acquisition	MN DNR	Pierce, Ann	\$6,760,000	\$3,250,000	Fund Activity One Native Habitat Restoration, Enhancements and Improvements at \$1,500,000, Activity Two Public Engagement, Outreach & Citizen Science in Natural Areas at \$500,000 and Activity Three Strategic Acquisition of Sites with Biodiversity Significance at \$1,250,000 and fee title acquisition of SNA's is to be in southern Minnesota from willing sellers and an equal number of acres of state land are sold elsewhere in the state.
100	x	200-G	Minnesota State Parks and State Trails Land Acquisition	MN DNR	Christie, Jennifer	\$5,000,000	\$2,500,000	
101	x	201-G	Local Parks, Trails and Natural Area Grants	MN DNR	Mularie, Audrey	\$3,000,000	\$2,000,000	Focus on natural resource based recreation and not for athletic facilities such as sport fields, courts, and playgrounds.
102	x	202-G	Minnesota State Trails - Development and Enhancement	MN DNR	Skaar, Kent	\$5,000,000	\$2,500,000	
103	x	203-G	Private Native Prairie Conservation through Native Prairie Bank	MN DNR	Schulte, Judy	\$2,477,000	\$2,000,000	
104	x	205-G	Mesabi Trail, County Road 88 to Ely Segment	St. Louis & Lake Counties Reg. Railroad Authority	Manzoline, Robert	\$600,000	\$600,000	
105	x	207-G	Harmony State Trail Extension Land Acquisition	City of Harmony	Illg, Jerome	\$235,000	\$235,000	
106	x	208-G	Mississippi Blufflands State Trail - Red Wing Riverfront	City of Red Wing	Owens, Jay	\$920,000	\$550,000	
107	x	209-G	Superior Hiking Trail Enhancement Plan	Superior Hiking Trail Association	Caneff, Denny	\$100,000	\$100,000	
108	x	212-G	Swedish Immigrant Trail Segment within Interstate State Park	Chisago County Environmental Services	Mork, Laird	\$2,254,000	\$2,254,000	Must provide the "Natural and Cultural Resource Review" report to the LCCMR for review before proceeding with final engineering plans and trail development.
109	x	213-G	A Local-State-Federal Partnership Protects multiple public benefits on the Mississippi River	City of Baxter	Doty, Josh	\$700,000	\$700,000	
110		214-G	Mississippi Riverfront Redevelopment Project	City of Brainerd	Thoreen, Jim	\$1,000,000	\$0	
111	x	215-G	Prioritize and Target North-Central Minnesota Lakes for Protection	Crow Wing SWCD	Barrick, Melissa	\$1,492,000	\$750,000	
112	H. Other (1 Recommendations / \$135,000)							
113	x	217-H	Contract Agreement Reimbursement	MN DNR	Sherman-Hoehn, Katherine	\$135,000	\$135,000	
114						TOTAL	\$45,389,000	