

## M.L. 2017 Environment and Natural Resources Trust Fund (ENRTF) Recommendations (FY 2017 and FY 2018)

*For the FY 2018 and FY 2019 biennium (July 1, 2017 - June 30, 2019), approximately \$50.8 million is available each year (total = \$101,656,000) for funding from the Environment and Natural Resources Trust Fund. Additionally, approximately \$8.4 million in ENRTF funds remain available from FY 2017 for appropriation during the 2017 legislative session if done so before the end of FY 2017. As of July 12-13, 2016, the Legislative-Citizen Commission on Minnesota Resources (LCCMR) has selected 69 appropriations totaling \$59.1 million to recommend to the 2017 Minnesota Legislature for funding from the Environment and Natural Resources Trust Fund (ENRTF). The recommendations are the result of the LCCMR's 2017 Request for Proposal (RFP) process, in which 195 proposals requesting a total of approximately \$159.6 million were received and considered through a competitive, multi-stage evaluation. The recommendations range from full funding for the full proposal and dollar amount requested to partial funding for specific proposal elements and partial dollar amounts requested.*

Topic Area	\$ Recommended (\$59,256,000)	Percentage of Total Recommendation
<b>Subd. 03 Foundational Natural Resource Data and Information</b> 14 Appropriations	\$12,601,000	21.30%
<b>Subd. 04 Water Resources</b> 9 Appropriations	\$3,175,000	5.37%
<b>Subd. 05 Environmental Education</b> 9 Appropriations	\$4,421,000	7.47%
<b>Subd. 06 Aquatic and Terrestrial Invasive Species</b> 6 Appropriations	\$4,721,000	7.98%
<b>Subd. 07 Air Quality, Climate Change, and Renewable Energy</b> 8 Appropriations	\$4,738,000	8.01%
<b>Subd. 08 Methods to Protect, Restore, and Enhance Land, Water, and Habitat</b> 12 Appropriations	\$10,808,000	18.27%
<b>Subd. 09 Land Acquisition, Habitat, and Recreation</b> 9 Appropriations	\$17,357,000	29.34%
<b>Subd. 10 Administration and Contract Agreement Reimbursement</b> 2 Appropriations	\$1,335,000	2.26%

<b>TOTAL \$ RECOMMENDATION</b>	<b>\$59,156,000</b>	<b>100.00%</b>
--------------------------------	---------------------	----------------

Fund Source	\$ Recommended	\$ Remaining for Recommendation
FY 2017 - Environment and Natural Resources Trust Fund (ENRTF)	\$8,428,000	\$0
FY 2018 - Environment and Natural Resources Trust Fund (ENRTF)	\$50,728,000	\$100,000
<hr/>		
Total \$ Available =	\$59,156,000	

**M.L. 2017 Environment and Natural Resources Trust Fund (ENRTF) Recommendations (FY2017 and FY2018)**

Subd.	ENRTF Proposal ID	Title	Total LCCMR \$ Recommended	Total LCCMR \$ Recommended	Organization	Program Manager	Region of Impact*
			FY2017	FY2018			
Subd. 03 Foundational Natural Resource Data and Information (14 Recommendations - Subtotal = \$12,601,000)							
03a	001-A	County Geologic Atlases - Continuation	\$4,729,000	\$0	U of MN - Minnesota Geological Survey	Dale Setterholm	Statewide
03b	002-A	Assessment of Public Benefits of Protecting Source Water	\$0	\$320,000	U of MN	Bonnie Keeler	Statewide
03c	004-A	Preserving Minnesota Prairie Plant Diversity – Phase II	\$0	\$900,000	U of MN	Ruth Shaw	Central, SE, SW, NW
03d	006-A	Minnesota Biological Survey - Continuation	\$0	\$2,900,000	MN DNR	Bruce Carlson	Statewide
03e	007-A	Minnesota Wildflowers Online Botanical Reference – Phase II	\$0	\$270,000	Minnesota Wildflowers Information	Katy Chayka	Statewide
03f	009-A	Assessment of Microbes for Improving Wild Rice Restoration	\$0	\$334,000	U of MN - Duluth NRRI	Chanlan Chun	NE
03g	011-A	Drainage Records Modernization Cost Share - Phase II	\$0	\$540,000	Board of Water and Soil Resources	Timothy Gillette	Statewide
03h	012-A	Groundwater Contamination Mapping	\$0	\$400,000	MPCA	Hans Neve	Statewide
03i	013-A	Landslide Susceptibility, Mapping, and Management Tools	\$0	\$500,000	U of MN	Karen Gran	Statewide
03j	015-A	Moose Calf Surveys and Monitoring	\$0	\$348,000	U of MN	Mark Ditmer	NE
03k	016-A	Cedar Creek Natural Area Wolf Recolonization Assessment	\$0	\$398,000	U of MN	Forest Isbell	Metro
03l	017-A	Effects of Wolves Predation on Beaver, Moose, and Deer	\$0	\$293,000	Voyageurs National Park	Steve Windels	NE
03m	031-A	Mapping Taxonomy and Environmental Toxicology of Minnesota Freshwater Sponges	\$0	\$258,000	U of MN	Venugopal Mukku	Statewide
03n	188-I	Analyzing Climate Data to Aid Local Planning Implementation Efforts	\$0	\$411,000	U of MN	Peter Snyder	Statewide
Foundational Natural Resource Data and Information Subtotal =			\$4,729,000	\$7,872,000			

**M.L. 2017 Environment and Natural Resources Trust Fund (ENRTF) Recommendations (FY2017 and FY2018)**

Subd.	ENRTF Proposal ID	Title	Total LCCMR \$ Recommended	Total LCCMR \$ Recommended	Organization	Program Manager	Region of Impact*
			FY2017	FY2018			
Subd. 04 Water Resources (9 Recommendations - Subtotal = \$3,175,000)							
04a	033-B	Assessment of Household Chemicals and Herbicides in Rivers and Lakes	\$0	\$236,000	U of MN	William Arnold	Statewide
04b	034-B	Wastewater Nitrogen Removal Technology to Protect Water Quality	\$0	\$450,000	U of MN	Paige Novak	Statewide
04c	035-B	Rearing Native Mussels for Reintroduction and Expanding Water Quality Awareness	\$0	\$591,000	Minnesota Zoo	Allan Maguire	Statewide
04d	044-B	Water Quality Monitoring in Southeastern Minnesota Trout Streams	\$0	\$500,000	Winona State University	Neal Mundahl	SE
04e	048-B	Reassessing Toxicity of Petrochemical Spills on Ground and Surface Water	\$0	\$300,000	University of St. Thomas	Dalma Martinovic-Weigelt	NW
04f	055-B	Assessment of Water Quality for Reuse	\$0	\$148,000	U of MN	Satoshi Ishii	Statewide
04g	059-B	Identification of Chemicals of Emerging Concern in Minnesota Fish	\$0	\$400,000	Grand Portage Band of Lake Superior Chippewa	Seth Moore	NE
04h	183-I	Techniques for Water Storage Estimates in Central Minnesota	\$0	\$250,000	U of MN	John Neiber	Statewide
04i	184-I	Assessing Release of Mercury and Sulfur on Aquatic Communities	\$0	\$300,000	U of MN	Ed Nater	Statewide
Water Resources Subtotal =			\$0	\$3,175,000			
Subd. 05 Environmental Education (9 Recommendations - Subtotal = \$4,421,000)							
05a	079-C	Connecting Youth to Minnesota Waterways through Outdoor Classrooms	\$0	\$1,200,000	Wilderness Inquiry	Meg Krueger	Statewide
05b	081-C	Youth Convening Minnesota –Phase II	\$0	\$300,000	Climate Generation: A Will Steger Legacy	Kristen Poppleton	Statewide
05c	082-C	Increasing Diversity in Environmental Careers	\$0	\$1,487,000	MN DNR	Denise Legato	Statewide
05d	083-C	Interactive Water Resource Programs for Planetariums in Minnesota	\$0	\$500,000	U of MN - Bell Museum of Natural History	George Weiblen	Statewide
05e	084-C	Expanding Raptor Center Online Education	\$0	\$270,000	U of MN	Julia Ponder	Statewide

**M.L. 2017 Environment and Natural Resources Trust Fund (ENRTF) Recommendations (FY2017 and FY2018)**

Subd.	ENRTF Proposal ID	Title	Total LCCMR \$ Recommended	Total LCCMR \$ Recommended	Organization	Program Manager	Region of Impact*
			FY2017	FY2018			
05f	092-C	Local Planning and Implementation Efforts for Bird Habitat	\$0	\$280,000	Audubon Minnesota	Joanna Eckles	Statewide
05g	100-C	Developing Youth Watershed Stewardship in Northwest Minnesota	\$0	\$121,000	Headwaters Science Center	Susan Joy	NW
05h	101-C	Increasing Residential Environmental Learning Center Opportunities	\$0	\$130,000	Audubon Center of the North Woods	Bryan Wood	NE
05i	185-I	Workshops and Outreach to Protect Raptors from Lead Poisoning	\$0	\$133,000	U of MN	Julia Ponder	Statewide
05j	186-I	WITHDRAWN - Analysis of Thermally Modified Wood Nesting Boxes for Birds (\$100,000)	\$0	\$0	U of MN - NRRI	Ryan Hueffmeier	Statewide
Environmental Education Subtotal = \$0 \$4,421,000							
Subd. 06 Aquatic and Terrestrial Invasive Species (6 Recommendations - Subtotal = \$4,721,000)							
06a	106-D	Aquatic Invasive Species Research Center - Phase II	\$2,700,000	\$0	U of MN	Nicholas Phelps	Statewide
06b	108-D	Emerald Ash Borer Biocontrol - Phase III	\$0	\$729,000	Minnesota Department of Agriculture	Jonathan Osthus	Statewide
06c	114-D	Invasive Bighead and Silver Carp and Native Fish Evaluation – Phase II	\$0	\$500,000	MN DNR	Bradford Parsons	Central, Metro, SW, SE
06d	119-D	Adapting Stream Barriers to Remove Common Carp	\$0	\$301,000	U of MN	Przemyslaw Bajer	Statewide
06e	122-D	Tactical Invasive Plant Management Plan Development	\$0	\$296,000	Minnesota Department of Agriculture	Monika Chandler	Statewide
06f	123-D	Maximize Value of Water Impoundments to Wildlife	\$0	\$195,000	Audubon Minnesota	Kristin Hall	NW
Aquatic and Terrestrial Invasive Species Subtotal = \$2,700,000 \$2,021,000							
Subd. 07 Air Quality, Climate Change, and Renewable Energy (8 Recommendations - Subtotal = \$4,738,000)							
07a	128-E	Solar Cells Manufacturing Research	\$0	\$388,000	U of MN	Tianhong Cui	Statewide
07b	129-E	Community-Scale Energy Storage Guide for Renewable Energy	\$0	\$500,000	U of MN	Ellen Anderson	Statewide

**M.L. 2017 Environment and Natural Resources Trust Fund (ENRTF) Recommendations (FY2017 and FY2018)**

Subd.	ENRTF Proposal ID	Title	Total LCCMR \$ Recommended	Total LCCMR \$ Recommended	Organization	Program Manager	Region of Impact*
			FY2017	FY2018			
07c	131-E	Extraction of Solar Thermal Energy in Minnesota	\$0	\$250,000	U of MN	Filippo Coletti	Statewide
07d	132-E	Assessment of Urban Air Pollution	\$0	\$700,000	MPCA	Monika Vadali	Metro
07e	147-E	Generation, Storage, and Utilization of Solar Energy	\$0	\$500,000	U of MN - West Central Research and Outreach Center in Morris	Bradley Heins	Statewide
07f	150-E	District Heating with Renewable Biomass at Camp Ripley Training Center	\$0	\$1,000,000	Department of Military Affairs	Josh Pennington	Central
07g	189-I	Geotargeted Distributed Clean Energy Initiative	\$0	\$800,000	Center for Energy and Environment	Carl Nelson	Statewide
07h	193-K	Develop Solar-Powered Robots for Weed Control in Agricultural Fields	\$0	\$600,000	U of MN	Michael Reese	Statewide
<b>Air Quality, Climate Change, and Renewable Energy Subtotal = \$0 \$4,738,000</b>							
<b>Subd. 08 Methods to Protect, Restore, and Enhance Land, Water, and Habitat (12 Recommendations - Subtotal = \$10,808,000)</b>							
08a	152-F	Optimizing the Nutrition of Roadside Plants for Pollinators	\$0	\$815,000	U of MN	Emilie Snell-Rood	Central, Metro, NW, SW, SE
08b	153-F	Promoting Conservation Biocontrol of Beneficial Insects	\$0	\$400,000	U of MN	Vera Krischik	Statewide
08c	154-F	Evaluating the Use of Bison to Restore and Preserve Savanna Habitat	\$0	\$388,000	U of MN - Cedar Creek Ecosystem Science Reserve	David Tilman	Central
08d	155-F	State Park Pollinator Habitat Restoration	\$0	\$672,000	MN DNR	Edward Quinn	Central, Metro, NW, SW, SE
08e	156-F	Enhancing Spawning Habitat Restoration in Minnesota Lakes	\$0	\$294,000	U of MN - St. Anthony Falls Laboratory	William Herb	Statewide
08f	157-F	Prescribed Fire Management for Roadside Prairies	\$0	\$345,000	Minnesota Department of Transportation	Ken Graeve	Central, Metro, NW, SE
08g	158-F	Minnesota Bee and Beneficial Species Habitat Restoration	\$0	\$732,000	Pheasants Forever Inc.	Steven Burdick	Statewide
08h	160-F	Mississippi and Vermillion River Restoration of Prairie, Savanna, and Forest Habitat - Phase Ten	\$0	\$213,000	Friends of the Mississippi River	Tom Lewanski	Metro

**M.L. 2017 Environment and Natural Resources Trust Fund (ENRTF) Recommendations (FY2017 and FY2018)**

Subd.	ENRTF Proposal ID	Title	Total LCCMR \$ Recommended	Total LCCMR \$ Recommended	Organization	Program Manager	Region of Impact*
			FY2017	FY2018			
08i	161-F	Community Stewardship to Restore Urban Natural Resources - Phase Ten	\$0	\$524,000	Great River Greening	Wiley Buck	Metro
08j	162-F	Economic Assessment of Precision Conservation and Agriculture	\$0	\$400,000	Pheasants Forever Inc.	Tanner Bruse	Central, NW, SW, SE
08k	167-F	Mississippi River Habitat Restoration Planning at Halls Island	\$0	\$25,000	Minneapolis Park and Recreation Board	Adam Arvidson	Metro
08l	196-K	Conservation Reserve Enhancement Program (CREP) Outreach and Implementation	\$0	\$6,000,000	BWSR	Tabor Hoek	Statewide
Methods to Protect, Restore, and Enhance Land, Water, and Habitat							
Subtotal =			\$0	\$10,808,000			
Subd. 09 Land Acquisition, Habitat, and Recreation (9 Recommendations - Subtotal = \$17,357,000)							
09a	169-G	Metropolitan Regional Parks System Land Acquisition	\$0	\$1,500,000	Metropolitan Council	Deborah Streets Jensen	Metro
09b	170-G	Scientific and Natural Areas Acquisition, Restoration, Citizen Science and Engagement	\$0	\$4,500,000	MN DNR	Peggy Booth	Statewide
09c	171-G	Minnesota State Parks and State Trails Land Acquisition	\$0	\$1,500,000	MN DNR	Jennifer Christie	Statewide
09d	171-G	Minnesota State Trails Acquisition, Development and Enhancement	\$999,000	\$39,000	MN DNR	Kent Skaar	TBD
09e	172-G	Native Prairie Stewardship and Prairie Bank Easement Acquisition	\$0	\$3,500,000	MN DNR	Judy Schulte	Central, NW, SW, SE
09f	174-G	Leech Lake Acquisition	\$0	\$1,500,000	Leech Lake Division of Resource Management	Levi Brown	Central
09g	176-G	Mesabi Trail Development	\$0	\$2,269,000	St Louis and Lake Counties Regional Railroad Authority	Robert Manzoline	NE
09h	180-G	Tower Trailhead Boat Landing and Habitat Improvement – Phase II	\$0	\$600,000	City of Tower	Linda Keith	NE
09i	192-K	Land Acquisition for Voyageurs National Park Crane Lake Visitors Center	\$0	\$950,000	Town of Crane Lake	Jim Janssen	NE
Land Acquisition, Habitat and Recreation Subtotal =			\$999,000	\$16,358,000			

**M.L. 2017 Environment and Natural Resources Trust Fund (ENRTF) Recommendations (FY2017 and FY2018)**

Subd.	ENRTF Proposal ID	Title	Total LCCMR \$ Recommended	Total LCCMR \$ Recommended	Organization	Program Manager	Region of Impact*
			FY2017	FY2018			
Subd. 10 Administration and Contract Agreement Reimbursement (2 Recommendations - Subtotal = \$1,335,000)							
10a	181-H	Contract Agreement Reimbursement	\$0	\$135,000	MN DNR	Katherine Sherman-Hoehn	Statewide
10b	n/a	Legislative-Citizen Commission on Minnesota Resources (LCCMR) Administration	\$0	\$1,200,000	LCCMR	Susan Thornton	Statewide
Other Subtotal =			\$0	\$1,335,000			
Total \$ Recommending =			\$8,428,000	\$50,728,000			

\* Region of Impact designated in the State include Statewide, Central, Metro, NE, NW, SE, SW. Metro region includes the 11 counties of Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington, and Wright.