

## M.L. 2014 Environment and Natural Resources Trust Fund Recommendations (FY 2015)

The Legislative-Citizen Commission on Minnesota's Resources (LCCMR) has selected 71 projects totaling \$28.9 million to recommend to the 2014 Minnesota Legislature for funding from the Environment and Natural Resources Trust Fund (ENRTF). The recommendations are the result of the LCCMR's 2014 Request for Proposal (RFP) process, in which 192 proposals requesting a total of approximately \$111 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 (\$28,970,000)	Percentage of Total Recommendation
<b>Subd. 03 Water Resources</b> 13 Appropriations	\$4,579,000	15.81%
<b>Subd. 04 Aquatic and Terrestrial Invasive Species</b> 6 Appropriations	\$2,298,000	7.93%
<b>Subd. 05 Foundational Natural Resource Data and Information</b> 14 Appropriations	\$4,210,000	14.53%
<b>Subd. 06 Methods to Protect, Restore, and Enhance Land, Water, and Habitat</b> 11 Appropriations	\$3,675,000	12.69%
<b>Subd. 07 Land Acquisition for Habitat and Recreation</b> 6 Appropriations	\$6,923,000	23.90%
<b>Subd. 08 Air Quality, Climate Change, and Renewable Energy</b> 9 Appropriations	\$3,360,000	11.60%
<b>Subd. 09 Environmental Education</b> 9 Appropriations	\$3,681,000	12.71%
<b>Subd. 10. Administration and Contract Agreement Reimbursement</b> 3 Appropriations	\$244,000	0.84%
<b>TOTAL \$ RECOMMENDATION</b>	<b>\$28,970,000</b>	<b>100.00%</b>
<b>Fund Source</b>		
<b>FY 2015 - Environment and Natural Resources Trust Fund</b>		<b>\$28,970,000</b>
	<b>TOTAL \$ RECOMMENDATION</b>	<b>\$28,970,000</b>

**ML 2014 Environment and Natural Resources Trust Fund (ENRTF) Recommendations (FY 2015)**

Subd.	ENRTF ID	Title	LCCMR \$	Affiliation	Program Manager	Region of Impact*
			Recommended ENRTF: FY 2015			
<b>Subd. 03 Water Resources (13 Appropriations - Subtotal = \$4,579,000)</b>						
03a	036-B	Solar Driven Destruction of Pesticides, Pharmaceuticals, and Contaminants in Water	\$291,000	U of MN	William Arnold	Statewide
03b	033-B	Methods to Protect Beneficial Bacteria from Contaminants to Preserve Water Quality	\$279,000	U of MN	Paige Novak	Statewide
03c	032-B	Triclosan Impacts on Wastewater Treatment	\$380,000	U of MN	Timothy LaPara	Statewide
03d	031-B	Evaluation of Wastewater Nitrogen and Estrogen Treatment Options	\$500,000	U of MN	Paige Novak	Statewide
03e	030-B	Antibiotics and Antibiotic Resistance Genes in Minnesota Lakes	\$300,000	U of MN	William Arnold	Statewide
03f	048-B	Impacts of Estrogen Exposure on Minnesota's Shallow Lake Wildlife	\$136,000	University of St. Thomas	Kurt Illig	Statewide
03g	046-B	Watershed-Scale Monitoring of Long-Term Best Management Practice Effectiveness	\$900,000	Science Museum of MN - St. Croix Watershed Research Station	Daniel Engstrom	Statewide
03h	035-B	Protection of State's Confined Drinking Water Aquifers	\$394,000	U. S. Geological Survey	James Stark	Statewide
03i	034-B	Watershed Water Budgets for Managing Minnesota's Groundwater	\$129,000	U.S. Geological Survey	David Lorenz	Statewide
03j	045-B	Identifying Causes of Exceptionally High Mercury in Fish	\$743,000	MN Pollution Control Agency	Bruce Monson	Central, NW, NE
03k	083-C	Reducing Lake Quality Impairments through Citizen Action	\$59,000	Freshwater Society	Alex Gehrig	Central
03l	038-B	Rainwater Reuse and Valuation Investigation	\$300,000	U of MN	Scott Alexander	Statewide
03m	040-B	Measuring Hydrologic Benefits from Glacial Ridge Habitat Restoration	\$168,000	Red Lake Watershed District	Tim Cowdery	NW
<b>Water Resources Subtotal =</b>			<b>\$4,579,000</b>			
<b>Subd. 04 Aquatic and Terrestrial Invasive Species (6 Appropriations - Subtotal = \$2,298,000)</b>						
04a	097-D	Blocking Bighead, Silver, and Other Invasive Carp by Optimizing Lock and Dams	\$854,000	U of MN	Peter Sorensen	Statewide
04b	101-D	Bioacoustics to Detect, Deter, and Eliminate Silver Carp	\$262,000	U of MN Duluth	Allen Mensinger	Statewide
04c	109-D	Northwest Minnesota Regional Aquatic Invasive Species Prevention Pilot	\$219,000	Red River Basin Commission	Joe Courneya	NW

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04d	098-D	Biosurveillance and Biocontrol of Emerald Ash Borer - Phase 2	\$447,000	MN Department of Agriculture	Monika Chandler	Statewide
04e	099-D	Mountain Pine Beetle Invasive Threat to Minnesota's Pines	\$175,000 \$75,000	U of MN MN Department of Agriculture	Brian Aukema Mark Abrahamson	Central, Metro, NW, NE, SE
04f	100-D	Brown Marmorated Stink Bug Monitoring and Biocontrol Evaluation	167,000 \$99,000	U of MN MN Department of Agriculture	Robert Koch Mark Abrahamson	Statewide
<b>Aquatic and Terrestrial Invasive Species Subtotal =</b>			<b>\$2,298,000</b>			
<b>Subd. 05 Foundational Natural Resource Data and Information (14 Appropriations - Subtotal = \$4,210,000)</b>						
05a	001-A	Update Statewide Land Cover Use Map	\$300,000	U of MN	Joseph Knight	Statewide
05b	009-A	State Spring Inventory for Resource Management and Protection	\$200,000	MN DNR	Jan Falteisek	Statewide
05c	010-A	Drainage Records Modernization and Statewide Geographic Information System Database	\$230,000	Board of Water and Soil Resources	Allan Kean	Statewide
05d	023-A	Restoring Forest Inventory Data	\$100,000	U of MN	Alan Ek	Statewide
05e	111-E	Assessing Species Vulnerability to Climate Change Using Phenology	\$175,000	U of MN	Rebecca Montgomery	Statewide
05f	008-A	Minnesota Breeding Bird Atlas - Final Phase	\$300,000	Audubon Minnesota	Mark Martell	Statewide
05g	005-A	Assessing Contaminants in Minnesota's Loons and Pelicans – Phase 2	\$260,000	MN DNR	Carol Henderson	Statewide
05h	019-A	Sandhill Crane Populations and Management in Minnesota	\$250,000	U of MN	David Andersen	Central, NW
05i	006-A	Wild Bee Pollinator Surveys in Prairie-Grassland Habitats	\$370,000	MN DNR	Gerda Nordquist	Statewide
05j	017-A	Imperiled Prairie Butterfly Conservation, Research, and Breeding Program	\$380,000 \$245,000	Minnesota Zoological Garden MN DNR	Erik Runquist Robert Dana	Central, NW, SW
05k	004-A	Conserving Minnesota's Native Freshwater Mussels	\$350,000	U of MN	Jessica Kozarek	Statewide
05l	014-A	Impacts of Forest Quality on Declining Minnesota Moose	\$300,000	U of MN	James Forester	NE
05m	016-A	Moose Decline and Air Temperatures in Northeastern Minnesota	\$600,000	MN DNR	Mike Larson	NE

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Subd.	ENRTF ID	Title	LCCMR \$	Affiliation	Program Manager	Region of Impact*
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05n	020-A	Expansion of Minnesota Wildflowers Online Botanical Reference	\$150,000	Minnesota Wildflowers Information	Katy Chayka	Statewide
<b>Foundational Natural Resource Data and Information Subtotal =</b>			<b>\$4,210,000</b>			
<b>Subd. 06 Methods to Protect, Restore, and Enhance Land, Water, and Habitat (11 Appropriations - Subtotal = \$3,675,000)</b>						
06a	146-F	Enhancing Pollinator Landscapes	\$864,000	U of MN	Marla Spivak	Statewide
06b	151-F	Understanding Systemic Insecticides as Protection Strategy for Bees	\$326,000	U of MN	Vera Krischik	Statewide
06c	147-F	Prairie Sustainability Through Seed Storage, Beneficial Microbes, and Adaptation	\$600,000	U of MN	Ruth Shaw	Statewide
06d	152-F	Northeast Minnesota White Cedar Restoration – Phase 2	\$335,000	Board of Water and Soil Resources	Dale Krystosek	NE
06e	154-F	Southeast Minnesota Watershed Protection Plan	\$200,000	The Nature Conservancy	Richard Biske	SE
06f	157-F	Upland and Shoreline Restoration in Greater Metropolitan Area	\$300,000	Great River Greening	Wiley Buck	Metro
06g	158-F	Prairie, Forest, and Savanna Restoration in Greater Metropolitan Area	\$200,000	Friends of the Mississippi River	Tom Lewanski	Metro
06h	058-B	Nutrient Capture through Water Management and Biomass Harvesting	\$300,000	Red River Basin Commission	Jeff Lewis	NW
06i	163-F	Cattail Management for Wetland Wildlife and Bioenergy Potential	\$74,000	U of MN - Crookston	Daniel Svedarsky	NW
06j	162-F	Dredged Sediment for Forest Restoration on Unproductive Minelands	\$300,000	U of MN - Duluth Natural Resources Research Institute	Tom Levar	NE
06k	174-F	Expansion of Greenhouse Production	\$176,000	City of Silver Bay	Lana Fralich	NE
<b>Methods to Protect, Restore, and Enhance Subtotal =</b>			<b>\$3,675,000</b>			
<b>Subd. 07 Land Acquisition for Habitat and Recreation (6 Appropriations - Subtotal = \$6,923,000)</b>						
07a	177-G	Scientific and Natural Area Acquisition, Restoration, Improvement and Citizen Engagement	\$2,540,000	MN DNR	Peggy Booth	Statewide
07b	178-G	Metropolitan Regional Park System Acquisition	\$1,500,000	Metropolitan Council	Arne Stefferud	Metro
07c	184-G	Mesabi Trail Development – Soudan to Ely Segment	\$1,000,000	St. Louis & Lake Counties Regional Railroad Authority	Robert Manzoline	NE
07d	183-G	Shoreland Acquisition on St. Croix River	\$1,250,000	Washington County	Jane Harper	Metro
07e	182-G	Martin County Park and Natural Area Acquisition	\$435,000	Fox Lake Conservation League, Inc.	Rich Perrine	SW

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07f	188-G	Minnesota River Water Trailhead and Landing in Morton	\$198,000	City of Morton	Carl Colwell	Central, SW
<b>Land Acquisition for Habitat and Recreation Subtotal =</b>			<b>\$6,923,000</b>			
<b>Subd. 08 Air Quality, Climate Change, and Renewable Energy (9 Appropriations - Subtotal = \$3,360,000)</b>						
08a	112-E	Solar Cell Materials from Sulfur and Common Metals	\$494,000	U of MN	Lee Penn	Statewide
08b	116-E	Innovative Groundwater-Enhanced Geothermal Heat Pump Study	\$196,000	U of MN	Martin Saar	Statewide
08c	121-E	Demonstrating Innovative Technologies to Fully Utilize Wastewater Resources	\$1,000,000	U of MN	Roger Ruan	Statewide
08d	122-E	Transitioning Minnesota Farms to Local Energy	\$500,000	U of MN - Morris	Michael Reese	Statewide
08e	126-E	Life Cycle Energy of Renewably Produced Nitrogen Fertilizers	\$250,000	U of MN - Morris	Joel Tallaksen	Statewide
08f	125-E	Clean Water and Renewable Energy from Beet Processing Wastewater and Manure	\$400,000	U of MN - Southern Research and Outreach Center Waseca	Xiao Wu	Statewide
08g	133-E	Next Generation Large-Scale Septic Tank Systems	\$258,000	U of MN	Bo Hu	Statewide
08h	137-E	Solar Photovoltaic Installation at Residential Environmental Learning Centers	\$150,000	Deep Portage	Dale Yerger	Statewide
08i	140-E	Itasca Community College Woody Biomass Utilization Project Design	\$112,000	Itasca Community College	Bart Johnson	NE
<b>Air Quality, Climate Change, and Renewable Energy Subtotal =</b>			<b>\$3,360,000</b>			
<b>Subd. 09 Environmental Education (9 Appropriations - Subtotal = \$3,681,000)</b>						
09a	066-C	Minnesota Conservation Apprenticeship Academy	\$392,000	BWSR	Jenny Gieseke	Statewide
09b	071-C	Youth-led Sustainability Initiatives in 40 Greater Minnesota Communities	\$350,000	Prairie Woods Environmental Learning Center	Dave Pederson	Statewide
09c	074-C	Urban Environmental Education Engaging Students in Local Resources	\$1,093,000	Wilderness Inquiry	Chad Dayton	Statewide
09d	077-C	Diversifying Involvement in the Natural Resources Community	\$416,000 \$84,000	MN DNR U of MN	Michele Hanson	Statewide
09e	069-C	Educating Minnesotans about Potential Impacts of Changing Climate	\$325,000	Will Steger Foundation	Kristen Poppleton	Statewide
09f	073-C	Pollinator Education Center at the Minnesota Landscape Arboretum	\$615,000	U of MN, Landscape Arboretum	Peter Moe	Statewide
09g	072-C	Minnesota Pollinator Partnership	\$100,000	Pheasants Forever	Drew Larsen	Statewide

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09h	076-C	Raptor Lab Integrating Online and Outdoor Learning Environments	\$186,000	U of MN	Julia Ponder	Statewide
09i	086-C	Wolf Management Education	\$120,000	International Wolf Center	Darcy Berus	Metro
<b>Environmental Education Subtotal =</b>			<b>\$3,681,000</b>			
<b>Subd. 10. Administration and Contract Agreement Reimbursement (3 Appropriations - Subtotal = \$244,000)</b>						
10a	191-H	Contract Agreement Reimbursement	\$135,000	MN DNR	Amanda Graeber	Statewide
10b	192-H	Legislative Coordinating Commission Legacy Web Site	\$9,000	Legislative Coordinating Commission	Sally Olson	Statewide
10c	N/A	Environment and Natural Resources Trust Fund (ENRTF) Project Records System Upgrade	\$100,000	LCCMR	Susan Thornton	Statewide
<b>Administration Subtotal =</b>			<b>\$244,000</b>			
<b>Total \$ Recommendation =</b>			<b>\$28,970,000</b>			

\*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.