

ML 2017 Environment and Natural Resources Trust Fund Allocations Worksheet										Attachment #4
Line #	Blue Line #	X	ID #	Project Title	Organization	Project Manager	Average Member Score	\$ Requested	LCCMR \$ Recommended	Allocation Notes
									ENRTF: FY 2017	
1	1		A. Foundational Natural Resource Data and Information (17 Proposals / Subtotal \$16,620,760)							
2	2		001-A	Minnesota Geological Survey Geologic Atlases for Water Management	U of MN - Minnesota Geological Survey	Setterholm, Dale	7.82	\$3,784,700		
3	6		002-A	What are the Public Benefits of Protecting Sourcewater?	U of MN	Keeler, Bonnie	6.12	\$320,000		
4	9		003-A	Minnesota Trumpeter Swan Migration Ecology and Conservation	U of MN	Andersen, David	5.59	\$462,433		
5	13		004-A	Healthy Prairies II: Preserving MN Prairie Plant Diversity	U of MN	Shaw, Ruth	5.13	\$938,000		
6	17		005-A	Enhancing Targeted and Measureable Watershed Restoration and Protection	Board of Water and Soil Resources	Thomas, Doug	3.24	\$2,802,000		
7	3		006-A	Minnesota Biological Survey	MN DNR	Carlson, Bruce	7.35	\$2,955,861		
8	7		007-A	Continue Expansion of the Minnesota Wildflowers Online Botanical Reference	Minnesota Wildflowers Information	Chayka, Catherine	6.06	\$270,470		
9	4		009-A	Promoting Wild Rice Restoration Success by Examining Microbes	U of MN - Duluth NRRI	Chun, Chanlan	6.82	\$334,035		
10	18		010-A	Contaminants in Urban Soils: Understanding the Urban Environment	U. S. Geological Survey	Elliott, Sarah	1.94	\$1,000,000		
11	15		011-A	Drainage Records Modernization – Phase II, Cost-Share	Board of Water and Soil Resources	Gillette, Timothy	3.53	\$540,000		
12	11		012-A	Mapping Groundwater Contamination: Accessible Data to Protect Resources	MPCA	Neve, Hans	5.53	\$480,000		

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13	14		013-A	Landslide Hazards and Impacts on Minnesota's Natural Environment	U of MN	Gran, Karen	4.69	\$672,408		
14	5		015-A	Non-Invasive Moose Calf Surveys and Ecosystem Monitoring	U of MN	Ditmer, Mark	6.29	\$348,151		
15	10		016-A	Cascading Effects of Wolf Recolonization	U of MN	Isbell, Forest	5.56	\$398,000		
16	8		017-A	Effects of Wolves on Beavers, Moose, and Deer	Voyageurs National Park	Windels, Steve	5.65	\$293,000		
17	16		020-A	Lowland Conifer Ecosystems: Holistic Assessment for Adaptive Management	U of MN	Windmuller-Campione, Marcella	3.44	\$763,702		
18	12		031-A	Minnesota's Freshwater Sponges: Mapping Taxonomy and Environmental Toxicology	U of MN	Mukku, Venugopal	5.44	\$258,000		
19			A. Foundational Natural Resource Data and Information Subtotal =					\$16,620,760		
20	19		B. Water Resources (18 Proposals / Subtotal \$18,627,126)							
21	21		033-B	Household Chemicals as Water Pollutants and Toxic Precursors	U of MN	Arnold, William	6.24	\$236,000		
22	22		034-B	Innovative Nitrogen Removal Technology to Protect Water Quality	U of MN	Novak, Paige	6.06	\$476,100		
23	20		035-B	Rearing Native Mussels and Building Water Quality Awareness	Minnesota Zoo	Maguire, Allan	7.29	\$591,925		
24	32		036-B	Rural Industrial Water Efficiency Impact on Drinking Water	U of MN	Brauman, Kate	3.12	\$282,000		

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25	26		038-B	Removing Plastic Particle Pollution from Minnesota Water Bodies	U of MN	Coletti, Filippo	4.94	\$359,540		
26	30		042-B	Restoring Agricultural Lakes and Watersheds by Managing Carp	U of MN	Bajer, Przemyslaw	3.65	\$967,100		
27	25		044-B	Responsive Water Quality Monitoring: SEern Minnesota Trout Streams	Winona State University	Mundahl, Neal	5.44	\$583,980		
28	35		045-B	Buffer Gap Analysis	Board of Water and Soil Resources	Mohring, Eric	2.53	\$1,390,656		
29	29		046-B	How Rapidly can Groundwater Quality be Improved?	U of MN	Nieber, John	3.94	\$672,000		
30	23		048-B	Reassessing Toxicity of Petroleum Spills with New Technologies	University of St. Thomas	Martinovic-Weigelt, Dalma	6.00	\$423,189		
31	27		051-B	New Self-Sustaining Nitrate and Pesticides Removal Biotechnology	U of MN	Behrens, Sebastian	4.94	\$318,162		
32	37		052-B	The Minnesota Center for Water Treatment Technology Innovation	U of MN	Hozalski, Raymond	0.82	\$10,306,899		
33	31		054-B	Preventing Fish Kills by Increasing Understanding	MN DNR	Rantala, Heidi	3.65	\$699,905		
34	28		055-B	Maximizing the Benefits of Water Reuse	U of MN	Ishii, Satoshi	4.88	\$148,000		
35	34		058-B	Sulfate and Metal Removal from NE Minnesota Waters	U of MN	Dutcher, Cari	2.65	\$298,325		

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36	24		059-B	Chemicals of Emerging Concern in Minnesota Fish	Grand Portage Band of Lake Superior Chippewa	Moore, Seth	5.76	\$436,922		
37	36		066-B	Continuous Nitrate Pollution Monitoring at the Kitchen Sink	U of MN	Wickert, Andrew	1.59	\$276,590		
38	33		074-B	Measuring Reductions in Nitrate Pollution from Precision Agriculture	University of St. Thomas	Small, Gaston	3.00	\$159,833		
39			B. Water Resources Subtotal =					\$18,627,126		
40	38		C. Environmental Education (11 Proposals / Subtotal \$5,098,858)							
41	39		079-C	Floating Classroom: Connecting 20,000 Youth to Minnesota Waterways	Wilderness Inquiry	Lais, Greg	7.29	\$1,240,730		
42	46		081-C	Youth Convening Minnesota	Climate Generation: A Will Steger Legacy	Poppleton, Kristen	4.53	\$310,008		
43	41		082-C	Increasing Diversity in Environmental Careers: Fellowships, Internships, Mentorships	MN DNR	Getchell, Vikki	6.29	\$1,487,519		
44	45		083-C	Minnesota Water Stories Told in Digital Planetariums	U of MN - Bell Museum of Natural History	Weiblen, George	4.65	\$622,000		
45	44		084-C	Bridging Classroom and Outdoor Learning by Studying Birds	U of MN	Ponder, Julia	5.53	\$270,740		
46	48		085-C	Students Use Local Phenology to Understand Climate Variability	U of MN	Carlson, Stephan	4.18	\$240,000		
47	47		087-C	Market Science: Connecting Minnesotans to Environmental Research	U of MN	Tiffin, Peter	4.47	\$132,000		

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48	42		092-C	Bird City - Education for Lasting Conservation	Audubon Minnesota	Eckles, Joanna	6.18	\$280,000		
49	40		100-C	Developing Watershed Stewardship in NW Minnesota Youth	Headwaters Science Center	Joy, Susan	6.41	\$71,861		
50	43		101-C	Providing Residential Environmental Learning Experiences to Under-Served Students	Audubon Center of the North Woods	Wood, Bryan	5.63	\$130,000		
51	49		105-C	NE Minneapolis Sustainability Incubator	Holland Neighborhood Improvement Association	Koski, Adelheid	3.65	\$235,000		
52			C. Environmental Education Subtotal =					\$5,019,858		
53	50		D. Aquatic and Terrestrial Invasive Species (12 Proposals / Subtotal \$11,823,168)							
54	54		106-D	Using Science to Solve Minnesota's AIS problems - Phase II	U of MN	Galatowitsch, Susan	5.76	\$6,100,000		
55	53		107-D	Implementing Biological Control of Garlic Mustard	U of MN	Becker, Roger	5.82	\$421,987		
56	51		108-D	EAB Biocontrol Phase III: Assessment and Citizen Engagement	Minnesota Department of Agriculture	Osthus, Jonathan	6.18	\$729,540		
57	60		109-D	Quantifying Spiny Waterflea Threats to Minnesota Walleye Lakes	U. S. Geological Survey	Kiesling, Richard	2.65	\$1,690,320		
58	58		111-D	New Technology to Control Invasive Carp	U of MN	Smanski, Michael	4.94	\$389,000		
59	62		112-D	Mountain Pine Beetle Phase II: Protecting Minnesota	U of MN	Aukema, Brian	2.29	\$384,838		

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60	56		114-D	Continuation of Invasive Carp and Native Fish Evaluation	MN DNR	Parsons, Bradford	5.29	\$739,064		
61	61		115-D	Impact of Zebra Mussels on Mercury in Fish	U of MN - Duluth	Ozersky, Tedy	2.59	\$211,437		
62	59		117-D	Acquiring Key Information for a Carp Deterrent System at Lock and Dam #5	U of MN	Sorensen, Peter	4.18	\$284,000		
63	52		119-D	Adapting Stream Barriers to Remove Invasive Fish	U of MN	Bajer, Przemyslaw	5.94	\$381,150		
64	55		122-D	Tactical Invasive Plant Management Plan Development	Minnesota Department of Agriculture	Chandler, Monika	5.65	\$296,832		
65	57		123-D	Maximize Value of Water Impoundments to Wildlife	Audubon Minnesota	Hall, Kristin	5.18	\$195,000		
66			D. Aquatic and Terrestrial Invasive Species Subtotal =					\$11,823,168		
67	63		E. Air Quality, Climate Change, and Renewable Energy (10 Proposals / Subtotal \$8,205,768)							
68	72		127-E	Managing for "Climate Smart" Trees and Forests	U of MN	Reich, Peter	2.41	\$385,000		
69	64		128-E	Cheap Solar Energy from Simple Roll-to-Roll Manufacturing	U of MN	Cui, Tianhong	6.53	\$388,852		
70	66		129-E	Community-Scale Energy Storage Guide for Clean Energy	U of MN	Anderson, Ellen	5.47	\$625,478		
71	65		131-E	Enabling Extraction of Solar Thermal Energy in Minnesota	U of MN	Coletti, Filippo	5.71	\$351,040		

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72	67		132-E	Deploying New Technology to Understand Urban Air Pollution	MPCA	Vadali, Monika	5.29	\$981,564		
73	70		137-E	Forest Regeneration: Maximizing the Value of Our Investment	U of MN - Duluth	Etterson, Julie	3.29	\$732,046		
74	69		147-E	Generation, Storage, and Utilization of Solar Energy	U of MN	Heins, Bradley	4.06	\$795,500		
75	73		149-E	Climate-Smart Cities: Helping Cities Make Smarter Land-Use Decisions	The Trust for Public Land	Forbes, DJ	2.24	\$288,800		
76	68		150-E	District Heating with Renewable Biomass at Camp Ripley Training Center	Department of Military Affairs	Pennington, Josh	4.53	\$1,969,988		
77	71		151-E	Renewable Energy Production from Municipal Organic Waste	Minnesota Energy Center (MNEC)	Waite-Altringer, Melanie	2.47	\$1,687,500		
78			E. Air Quality, Climate Change, and Renewable Energy Subtotal =					\$8,205,768		
79	74		F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat (12 Proposals / Subtotal \$6,758,954)							
80	81		152-F	Optimizing the Nutrition of Roadside Plants for Pollinators	U of MN	Snell-Rood, Emilie	5.12	\$815,000		
81	77		153-F	Promoting Conservation Biocontrol of Beneficial Insects	U of MN	Krischik, Vera	5.82	\$399,000		
82	80		154-F	Restoring and Preserving Savanna Using Bison	Cedar Creek Ecosystem Science Reserve, U of MN	Tilman, David	5.59	\$388,000		
83	75		155-F	State Parks for Monarchs and Other Native Pollinators	MN DNR	Quinn, Edward	6.94	\$672,159		

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84	83		156-F	Prioritizing Shoreline Habitat Restoration in Minnesota Lakes	U of MN - St. Anthony Falls Laboratory	Herb, William	4.47	\$294,913		
85	76		157-F	Roadside Prairie Prescribed Fire	Minnesota Department of Transportation	Graeve, Ken	6.94	\$345,000		
86	78		158-F	MN Honey Bee & Monarch Butterfly Partnership	Pheasants Forever	Holland, Matt	5.76	\$732,162		
87	79		160-F	Restoring 83-acres of Prairie, Savanna & Forest Habitat	Friends of the Mississippi River	Lewanski, Tom	5.69	\$213,450		
88	82		161-F	Restoring Our Metro Lands and Waters: MeCC 10	Great River Greening	Buck, Wiley	5.00	\$524,400		
89	84		162-F	Precision Conservation and Agriculture: Growing Green2 Together	Pheasants Forever	Bruse, Tanner	3.38	\$508,370		
90	85		164-F	Identifying Optimal Soil Conditions for Sustainable Forest Management	U of MN	Slesak, Robert	3.18	\$415,000		
91	86		167-F	Mississippi River Habitat Restoration at Halls Island	Minneapolis Park and Recreation Board	Arvidson, Adam	2.76	\$1,451,500		
92			F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat Subtotal =					\$6,758,954		
93	87	G. Land Acquisition for Habitat and Recreation (7 Proposals / \$18,822,625)								
94	93		169-G	Metropolitan Regional Parks System Land Acquisition	Metropolitan Council	Streets Jensen, Deborah	5.00	\$2,400,000		
95	90		170-G	SNA Acquisition, Restoration, Citizen Science and Engagement	MN DNR	Booth, Margaret (Peggy)	6.65	\$6,022,220		

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96	88		171-G	Minnesota State Parks and State Trails Land Acquisition	MN DNR	Christie, Jennifer	6.76	\$1,500,000		
97	91		172-G	Native Prairie Stewardship and Prairie Bank Easement Acquisition	MN DNR	Schulte, Judy	6.59	\$5,185,457		
98	89		174-G	Leech Lake Natural Resource Multi-Benefit Conservation Acquisition	Leech Lake Division of Resource Management	Brown, Levi	6.75	\$1,500,000		
99	92		176-G	Mesabi Trail, Wetland Crossing and Bridge Rehab	St Louis and Lake Counties Regional Railroad Authority	Manzoline, Robert	6.35	\$1,231,500		
100	94		180-G	Tower Trailhead Boat Landing and Habitat Improvement	City of Tower	Keith, Linda	4.06	\$983,448		
101			G. Land Acquisition for Habitat and Recreation Subtotal =					\$18,822,625		
102	95	H. Other (2 Proposals / \$270,250)								
103	96		181-H	Contract Agreement Reimbursement	MN DNR	Sherman-Hoehn, Katherine	8.65	\$135,000		
104	N/A		N/A	LCCMR Administration	LCCMR	Thornton, Susan	N/A	\$1,200,000		
105				H. Other Subtotal =				\$1,335,000		
106	97	I. 2016 LCCMR Recommendations Removed from ML 2016 Bill (9 Proposals / \$5,014,000)								
107	98		182-I	Minnesota Vegetative Buffer Assessment and Prioritization to Protect Water Quality	U of MN	Mulla, David	6.50	\$170,000		
108	101		183-I	Techniques for Water Storage Estimates in Central Minnesota	U of MN	Nieber, John	6.40	\$250,000		

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109	104		184-I	Assessing Climate Change Effects on Release of Mercury and Sulfur into Aquatic Ecosystems	U of MN	Nater, Ed	5.73	\$300,000		
110	105		185-I	Workshops and Outreach for Nontoxic Ammunition Alternatives	U of MN	Ponder, Julia	5.67	\$133,000		
111	106		186-I	Analysis of Thermally Modified Wood Nesting Boxes for Birds	U of MN - NRRI	Hueffmeier, Ryan	4.73	\$117,000		
112	99		187-I	Solar Cells Manufacturing Research	U of MN	Cui, Tianhong	6.43	\$388,000		
113	102		188-I	High-Resolution Climate Projections to Aid Local Planning and Implementation Efforts	U of MN	Snyder, Peter	6.33	\$411,000		
114	100		189-I	Geotargeted Distributed Clean Energy Initiative	Center for Energy and Environment	Nelson, Carl	6.43	\$800,000		
115	103		190-I	State Parks and Trails Land Acquisition	MN DNR	Christie, Jennifer	6.27	\$2,445,000		
116				I. 2016 LCCMR Recommendations Removed from ML 2016 Bill Subtotal =				\$5,014,000		
117	107	J. Governor Vetoed Appropriations (1 proposal / \$488,128)								
118	108		191-J	Real Wildlife, Real Conservation, Real Impact	Wildlife Science Center	Callahan, Peggy	3.35	\$488,128		
119				J. Governor Vetoed Appropriations Subtotal =				\$488,128		
120	109	K. Proposals Received in Response to Extended Deadline of 06/26/16 (3 Proposals / \$11,361,320)								
121	110		192-K	Voyageurs National Park Crane Lake Visitor Center Partnership	Town of Crane Lake	Janssen, Jim	4.76	\$950,000		

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122	112		193-K	Organic Weed Control Using Solar-Powered Robots	U of MN - Morris	Reese, Michael	2.94	\$1,650,000		
123	111		196-K	CREP Implementation Phase 1	Board of Water and Soil Resources	Hoek, Tabor	3.88	\$8,761,320		
124				K. Proposals Received in Response to Extended Deadline Subtotal =				\$11,361,320		