LCCMR Peer Review for 2014 ENRTF Appropriations							
Subd.	Proposal Title	Funded \$	Organization	Project Manager			
. 3. Wa	iter Resources						
3a	Solar-Driven Destruction of Pesticides, Pharmaceuticals, and Contaminants in Water	\$291,000	U of MN	William Arnold			
3b	Methods to Protect Beneficial Bacteria from Contaminants to Preserve Water Quality	\$279,000	U of MN	Paige Novak			
3c	Triclosan Impacts on Wastewater Treatment	\$380,000	U of MN	Timothy LaPara			
3d	Evaluation of Wastewater Nitrogen and Estrogen Treatment Options	\$500,000	U of MN	Paige Novak			
3e	Antibiotics and Antibiotic-Resistant Genes in Minnesota Lakes	\$300,000	U of MN	William Arnold			
3f	Impacts of Estrogen Exposure on Minnesota's Shallow Lake Wildlife	\$136,000	St. Thomas University	Kurt Illig			
3g	Watershed-Scale Monitoring of Long-Term Best Management Practice Effectiveness	\$900,000	Science Museum-St. Croix WRS	Daniel Engstrom			
3h	Protection of State's Confined Drinking Water Aquifers	\$394,000	USGS	James Stark			
3i	Identifying Causes of Exceptionally High Mercury in Fish	\$129,000	USGS	David Lorenz			
3j	Identifying Causes of Exceptionally High Mercury in Fish	\$743,000	MPCA	Bruce Monson			
3m	Measuring Hydrologic Benefits from Glacial Ridge Habitat Restoration	\$168,000	Red Lake Watershed Dist./USGS	Myron Jesme/Tim Cowdry			
. 4. Aq	uatic and Terrestrial Invasive Species		•	,			
4a	Blocking Silver, Black and other invasive carp by Optimizing Lock and Dams	\$854,000	U of MN	Peter Sorensen			
. 5. Fou	undational Natural Resource Data and Information						
5h	Sandhill Crane population and Management in Minnesota	\$250,000	USGS	David Andersen			
5j-1	Imperiled Prairie Butterfly Conservation, Research, and Breeding Program	\$380,000	MN Zoological Garden	Erik Runquist			
5j-2	Imperiled Prairie Butterfly Conservation, Research, and Breeding Program	\$245,000	MN DNR	Robert Dana			
5k	Conserving Minnesota's Native Freshwater Mussels	\$350,000	U of MN	Jessica Kozarek			
51	Impacts of Forest Quality on Declining Minnesota Moose	\$300,000	U of MN	James Forester			
5m	Moose Decline and Air Temperatures in Northeastern Minnesota	\$600,000	MN DNR	Mike Larson			
Subd. 6. Methods to Protect, Restore, and Enhance Land, Water, and Habitat							
6b*	Understanding Systemic Insecticides as Protection Strategy for Bees	\$326,000	U of MN	Vera Krischik			
	3a 3b 3c 3d 3e 3f 3m 3m 4a 5. For 5h 5j-1 5k 5l 5m 6. Me	Subd. Proposal Title 3. Water Resources 3a Solar-Driven Destruction of Pesticides, Pharmaceuticals, and Contaminants in Water 3b Methods to Protect Beneficial Bacteria from Contaminants to Preserve Water Quality 3c Triclosan Impacts on Wastewater Treatment 3d Evaluation of Wastewater Nitrogen and Estrogen Treatment Options 3e Antibiotics and Antibiotic-Resistant Genes in Minnesota Lakes Impacts of Estrogen Exposure on Minnesota's Shallow Lake Wildlife 3g Watershed-Scale Monitoring of Long-Term Best Management Practice Effectiveness 3h Protection of State's Confined Drinking Water Aquifers 3i Identifying Causes of Exceptionally High Mercury in Fish 3j Identifying Causes of Exceptionally High Mercury in Fish 3j Measuring Hydrologic Benefits from Glacial Ridge Habitat Restoration 4. Aquatic and Terrestrial Invasive Species 4a Blocking Silver, Black and other invasive carp by Optimizing Lock and Dams 5. Foundational Natural Resource Data and Information 5h Sandhill Crane population and Management in Minnesota 5j-1 Program Imperiled Prairie Butterfly Conservation, Research, and Breeding Program 5j-2 Program 5j-2 Program 5j-2 Program Mose Decline and Air Temperatures in Northeastern Minnesota 6. Methods to Protect, Restore, and Enhance Land, Water, and Habitat Understanding Systemic Insecticides as Protection Strategy for	Subd. Proposal Title Funded \$ 3. Water Resources 3. Water Resources \$291,000 3b Solar-Driven Destruction of Pesticides, Pharmaceuticals, and Contaminants in Water \$291,000 3b Methods to Protect Beneficial Bacteria from Contaminants to Preserve Water Quality \$279,000 3c Triclosan Impacts on Wastewater Treatment \$380,000 3d Evaluation of Wastewater Nitrogen and Estrogen Treatment Options \$500,000 3e Antibiotics and Antibiotic-Resistant Genes in Minnesota Lakes \$300,000 3f Impacts of Estrogen Exposure on Minnesota's Shallow Lake Wildlife \$136,000 3g Watershed-Scale Monitoring of Long-Term Best Management Practice Effectiveness \$900,000 3h Protection of State's Confined Drinking Water Aquifers \$394,000 3i Identifying Causes of Exceptionally High Mercury in Fish \$129,000 3j Identifying Causes of Exceptionally High Mercury in Fish \$743,000 3m Resource Hydrologic Benefits from Glacial Ridge Habitat Restoration \$168,000 4a Blocking Silver, Black and other invasive carp by Optimizing Lock and Dams \$854,000 5.Foundational Natural Resourc	Subd. Proposal Title Funded \$ Organization 3. Water Resources 3. Solar-Driven Destruction of Pesticides, Pharmaceuticals, and Contaminants in Water Methods to Protect Beneficial Bacteria from Contaminants to Protect Beneficial Bacteria from Contaminants to Preserve Water Quality \$279,000 U of MN 3. Triclosan Impacts on Wastewater Treatment \$380,000 U of MN 3. Evaluation of Wastewater Nitrogen and Estrogen Treatment \$500,000 U of MN 3. Antibiotics and Antibiotic-Resistant Genes in Minnesota Lakes \$300,000 U of MN 3. Impacts of Estrogen Exposure on Minnesota's Shallow Lake Wildlife \$136,000 St. Thomas University Science Effectiveness \$900,000 Wastewater Nitrogen and Estrogen Treatment \$900,000 U of MN 3. Protection of State's Confined Drinking Water Aquifers \$394,000 USGS 3. Identifying Causes of Exceptionally High Mercury in Fish \$129,000 USGS 3. Identifying Causes of Exceptionally High Mercury in Fish \$129,000 USGS 3. Identifying Causes of Exceptionally High Mercury in Fish \$129,000 USGS 3. Identifying Causes of Exceptionally High Mercury in Fish \$168,000 Watershed Dist./USGS 4. Aquatic and Terrestrial Invasive Species 4. Apuatic and Terrestrial Invasive Species 4. Sondhill Crane population and Management in Minnesota \$250,000 USGS 5. Foundational Natural Resource Data and Information 5. Sandhill Crane population and Management in Minnesota \$250,000 USGS MN Donagement of Program S245,000 MN DNR 5. Conserving Minnesota's Native Freshwater Mussels \$380,000 U of MN 5. Impacts of Forest Quality on Declining Minnesota Moose \$300,000 U of MN 5. Moose Decline and Air Temperatures in Northeastern Minnesota \$600,000 MN DNR 6. Methods to Protect, Restore, and Enhance Land, Water, and Habitat Understanding Systemic Insecticides as Protection Strategy for S326,000 U of MN			

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19	6c*	Prairie Sustainability Through Seed Storage, Beneficial Microbes, and Adaptation	\$600,000	U of MN	Ruth Shaw			
Subd	Subd. 8. Air Quality, Climate Change, and Renewable Energy							
20	8a	Solar Cell Materials from Sulfur and Common Metals	\$494,000	U of MN	Lee Penn			
21	8c	Demonstrating Innovative Technologies to Fully Utilize	\$1,000,000	U of MN	Roger Ruan			
21		Wastewater Resources						
22	8f	Clean Water and Renewable Energy from Beet Processing	\$400,000	U of MN	Xiao Wu			
22		Wastewater and Manure		Waseca				
23	8g	Next Generation Septic Tank Systems	\$258,000	U of MN	Bo Hu			

Notes:

- 1. LCCMR process: 18 research addendums reviewed, 42 total reviewers, usually 3 reviewers per project
- 2. USGS Process: Four addendums reviewed by 3 USGS scientists at USGS locations outside of MN
- 3. U of MN process: One addendum reviewed internally to protect potential patent(s), 3 reviewers
- * 4. Projects previously peer reviewed are only re-peer reviewed in future phases if there are substantial changes

Environment and Natural Resources Trust Fund

Peer Review Comment sheet - Completed by individual peer reviewers

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Project Title:		
Project Number:		
Project Manager:		
Reviewer Name:		
Date:		

I. Project Design

- How well organized and complete is the project design and/or the experimental design?
- Is it scientifically and technically sound?
- Suggestions for changes:

II. Methodology

- Will the proposed methodology yield the necessary information and data?
- Is the proposed approach to the data analysis adequate?
- Suggestions for changes (Please be specific):

III. Probability of Completion as Proposed

- Is the schedule of the project reasonable?
- Can the technical aspects be achieved as proposed?

IV. Innovation

To what extent will the proposed work lead to new discoveries or fundamental advances in its field or across fields?

V. Qualifications

Are the technical and managerial capabilities of the project manager and cooperators sufficient to successfully carry out all phases of the project?

VI. Overall Project Quality

Comments:

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