ID#	Last Name	First Name	PROJECT TITLE	SUMMARY	Organization	\$ Requested
A. NATURAI	L RESOURCE DAT	A AND INF	ORMATION (13 proposals/sub		3.	4
			on: Collection (8 proposals/sเ			
001-A1	Converse	Carmen	Minnesota County Biological Survey (continuation)	Minnesota County Biological Survey systematically collects, interprets, and delivers data on the distribution and ecology of plants, animals, native plant communities and functional landscapes to guide and monitor conservation actions.	DNR	\$3,300,000
002-A1	Setterholm	Dale	MGS County Geologic Atlases for Sustainable Water Management	Geologic atlases provide information essential to sustainable management of ground water resources. They define aquifer boundaries and the connection of aquifers to the land surface and surface water resources.	U of MN - Minnesota Geological Survey	\$1,200,000
003-A1	Falteisek	Jan	County Geologic Atlases Part B for Seven Counties	Produce seven County Geologic Atlases Part B for groundwater protection, wise use, and long-term resource management: Anoka, Blue Earth, Clay, Nicollet, Renville, Sibley, and Wright counties.	DNR	\$903,000
004-A1	Kloiber	Steve	Updating the National Wetland Inventory for Minnesota: Phase3	This is the third phase of a multi-phase project to update and enhance the National Wetland Inventory for Minnesota. This phase will update wetland maps for southern and northeastern Minnesota.	DNR	\$2,645,000
007-A1	Lennon	Megan	The completion of a Statewide Digital Soil Survey	This is the last proposal to map and digitize Minnesota soils. Three project areas are emphasized, and gaps in seamless data coverage are addressed.	Board of Water and Soil Resources	\$500,000
008-A1	Martell	Mark	Final Phase of the Minnesota Breeding Bird Atlas	This will complete the Minnesota Breeding Bird Atlas, a statewide, comprehensive bird survey, with a final year of data collection and two years to analyze and present the information.	Audubon Minnesota	\$664,000
009-A1	Butler	Erika	Determining Causes of Death in Declining Moose Populations	Determining why Minnesota's moose are dying, and if nutritional stress is playing a fundamental role, will provide guidance for specific management actions to prevent further population decline.	DNR	\$717,250
013-A1	Mehus	Scott	Golden Eagle Research Project	The Golden Eagle Research Project aims to increase understanding of golden eagles in Minnesota by conducting surveys, tracking winter resident golden eagles and educating the public about golden eagles.	National Eagle Center	\$93,050
		T		and Training (5 proposals/subtotal = \$2,581,798)		
015-A2	Everett	Leslie	Strengthening Natural Resource Management with LiDAR Training	Natural resource managers will be provided workshops and web-based training and information to enable them to effectively use LiDAR elevation data in planning and management of natural resources.	U of MN	\$184,870
016-A2	Arbeit	David	Common Ground: The Minnesota Environmental Mapping Commons	Implements a "public commons" for finding and downloading environmental data, along with an interactive mapping and modeling system (ECOView) that uses "real-time" data feeds from state, local and federal agencies.	Dept. of Admin MN Geospatial Information Office	\$675,000

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017-A2	Kean	Allan	Drainage Records Modernization and Shared GIS Database	Develop shared GIS database for key characteristics of Minnesota Statutes Chapter 103E publicly administered drainage systems, update Drainage Records Modernization Guidelines, and make available cost-share for drainage records modernization.	Board of Water and Soil Resources	\$715,000
018-A2	Polasky	Stephen	InVEST in Minnesota	InVEST (Integrated Valuation of Ecosystem Services and Tradeoffs) for applications in Minnesota will be developed and made available to state agencies, local government and the public.	U of MN	\$424,928
020-A2	Benson	Steve	WMA-AMA Work Planning Information System	Develop a DNR WMA-AMA Enterprise Information System to facilitate protection, enhancement and restoration of wildlife and fish habitat and facilities, and facilitate work planning, budgeting and reporting.	DNR	\$582,000
B. WATER R 025-B	ESOURCES (12 p	oroposals/s Steven	ubtotal = \$5,281,951) Ecosystem Transects to Monitor Lake Superior's Health	Integrated and repeated measurements of environmental components along transects in Lake Superior will assess ecosystem health in response to environmental stresses, such as climate change, invasive species, and water quality	U of MN	\$504,639
026-B	Leete	Jeanette	Capture and Use of Groundwater Sustainability Data Pilot	Water supply systems typically collect but do not store groundwater level and flow-rate data. We will demonstrate feasibility and cost savings of automated data capture for groundwater sustainability investigations.	DNR	\$601,800
027-B	Reeves	Laurel	New Generation in Water Supply Management-Pilot Studies	This proposal will develop a new approach for sustainable water management planning across governmental jurisdictions and link users and citizens in water management decisions that are unique to their area.	DNR	\$986,500
028-B	Sadowsky	Michael	Mississippi Water Quality – Deeper Look, Broader Impacts	New DNA sequencing approaches and chemical analyses will be used to assess water quality in the Mississippi River, producing searchable databases that will be incorporated into classrooms and public exhibits.	U of MN	\$623,445
029-B	Green	Jeff	Innovative Trout Stream Springshed Mapping in Southeast Minnesota- Continuation	Innovative identification and delineation of supply areas (springsheds) for springs serving as coldwater sources for modern and historic trout streams and assessing impacts on them from land and water development.	DNR	\$676,765
030-B	Wammer	Kristine	Minnesota River: Occurrence and Potential Significance of Antibiotics	We will examine the potential threat of antibiotics in the Minnesota River. We will measure antibiotic concentrations and antibiotic resistance and assess the contributions of farm runoff and wastewater treatment.	University of St. Thomas	\$193,840
031-B	VanBuren Hanson	Princesa	Understanding Groundwater Sustainability in the I-94 Growth Corridor	This project builds understanding of how the corridors groundwater responds to land and water use, and helps communities understand their part in the broader community of corridor water interests.	Environmental Quality Board	\$594,000

035-B 037-B	Peterson Mohring Eadens	Joel Eric Lisa	Conservation-Based Approach for Assessing Public Drainage Benefits Potential Benefits of Perpetual Easements on Phosphorus Reduction	benefits on public systems, shifting the paradigm from a production- based approach to one that encourages and rewards water conservation. Most studies are not long enough to evaluate reductions in phosphorus.	Board of Water and Soil Resources Board of Water	\$189,900
037-B	J		Easements on Phosphorus		Board of Water	
	Eadens	Lisa			and Soil Resources	\$126,506
038-B			Prioritizing Critical Restoration Sites in the Zumbro Watershed	·	Zumbro Watershed Partnership	\$163,500
	Zanko	Larry	Waste Water Phosphorous Filtration Using Recycled By- Products	Evaluate the use of recycled iron by-products or waste products to create a waste water filtration method that will remove phosphorous to state acceptable surface water levels.	U of MN - NRRI	\$185,056
040-B	Kranz-McGuire	Megan	Nutrient Retention by Vegetation in Southeast Minnesota Streams		Whitewater Joint Powers Board	\$436,000
			AND ENHANCE LAND AND HAncement (8 proposals/subtotal	BITAT (19 proposals/subtotal = \$10,346,267)		
		Ruth	Conserving Prairie Plant	We will conserve the genetic diversity of plants of the MN tallgrass prairie and develop a scientific basis for identifying adapted seed sources for restoring prairie ecosystems.	U of MN	\$787,000
064-C1+2	Lehman	Clarence	Prairie Management for Wildlife and Bioenergy: Final Phase	This project will complete the monitoring of wildlife and other ecological responses to harvesting prairies for bioenergy, and will evaluate innovative management techniques for maintaining Minnesota's conservation lands.	U of MN	\$1,416,000
065-C1+2	Hastings	Jeff	Phase II Southeast Minnesota Showcase Stream Restoration Projects	This project will restore 4.2 miles of riparian corridor for trout and nongame species in Southeast Minnesota and increase the capacity of professional conservationists to implement integrated stream restoration projects.	Trout Unlimited, Inc.	\$250,000
066-C1+2	Damon	Susan	Conservation Easement Stewardship and Enforcement Program, Phase II	Accelerated implementation of Phase I Conservation Easement Stewardship Plan for existing easements through monitoring, Baseline data collection and report completion, corrective surveys, researching current fee ownership and enforcement protocol development.	DNR	\$750,000
067-C1+2	Perrine	Rich	Declining, At-Risk Native Species: A Recovery Project	species on protected habitat. Provide a commercially feasible path for seed growers to market source identified local ecotype native seed.	Martin County Soil and Water Conservation District	\$147,800

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068-C1+2	Biesboer	David D.	Genetic Diversity, Conservation and Threats to Wild Rice	Wild rice is an important and threatened species in Minnesota. This project seeks to understand its genetic diversity and conserve it for future generations in the state.	U of MN	\$195,000
069-C1+2	Walker	Michele	Restoration Strategies; Ditched Peatland Scientific and Natural Areas	Evaluate hydrology and habitat of the Winter Road Lake peatland watershed protection area to determine the effects of ditch abandonment and potential restoration on this and other patterned peatlands.	DNR	\$248,712
071-C1+2	Haroldson	Kurt	Controlling Encroachment of Woody Vegetation in Grasslands.	Expansion of woody vegetation has become one of the greatest threats to prairies and grasslands. We will evaluate treatments and identify the most effective methods for controlling woody vegetation.	DNR	\$240,680
C3+4. Techn	ical Assistance a	nd Commu	nity-Based Planning (11 propo	osals/subtotal = \$6,311,075)		
076-C3+4	Pfeifer	Sharon	Conservation Options for Urbanizing Communities	This project provides local officials and staff of growing communities with natural resource-based workshops and matching grants to obtain needed land cover information, land use assessment tools, and conservation ordinances.	DNR	\$824,600
077-C3+4	Rivers	Erika	Shoreland Incentives II: Natural Filters on Private Lands	Phase II of the Shoreland Incentives program will 1) pilot incentives programs in agricultural, urban and suburban contexts; 2) develop LGU tools for implementing effective incentives, and 3) deliver trainings.	DNR	\$841,000
078-C3+4	Liedl	Mark	Brainerd Lakes Community- Based Conservation Planning Project	Enhance inter-governmental cooperation to protect the area's natural resources through community-based planning, regional technical standards, cross-governance, and inter-jurisdictional recreation planning.	Crow Wing County	\$540,000
079-C3+4	Fuchs	Dennis	Protecting the "Orphan Stretch" of the Mississippi River	conservation measures to high biodiversity riparian properties through	Stearns County Soil and Water Conservation District	\$343,900
080-C3+4	Krystosek	Dale	Northeast Minnesota White Cedar Plant Community Restoration Project		Board of Water and Soil Resources	\$258,750
081-C3+4	Hoek	Tabor	MN Conservation Assistance Project	enrollment and retention of 60,000ac. of critical grasslands, wetlands,	Board of Water and Soil Resources	\$1,500,000
082-C3+4	Ryun	Deb	St. Croix Basin Protection: Coordinated, Innovative, Targeted	This initiative will create a coordinated, innovative and targeted system for St. Croix Basin protection and implement 20 projects that demonstrate the benefits and efficiencies possible through the new paradigm.	St. Croix River Association	\$1,180,000
087-C3+4	Gustafson	Jim	Sensitive Lakeshore Identification in Itasca County	To aid in the protection of high-value lake ecosystems in Minnesota, surveys to identify sensitive lakeshore and restorable shoreline will be conducted in collaboration with state and local partners.	Itasca County Soil and Water Conservation	\$190,000

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089-C3+4	Lennon	Megan	Measuring Conservation Outcomes with New and Revised Estimators	A 3-tiered approach to improve measurement of the environmental benefits of conservation practices: improve existing and develop new pollution estimators, verify field estimators, and local government unit training and education.	Board of Water and Soil Resources	\$340,000
090-C3+4	Thompson	Molly	Restoring the North Shore Lost Forest	Provide forest stewardship plans, training and tree planting assistance for Lake Superior coastal landowners with property sizes less than 20 acres, which are not eligible for other state stewardship programs.	Sugarloaf: The North Shore Stewardship Association	\$63,000
098-C3+4	Niemi	Gerald	Tree Retention Following Harvest: Benefit or Unnecessary Cost?	Determine effectiveness of tree retention on wildlife populations in Minnesota. Assess tree blowdown and economic efficiency of retention guideline. Results used to validate or modify Minnesota's Forest Management Guidelines.	U of MN - NRRI	\$229,825
D. LAND ACQI	JISITION FOR H	ABITAT AN Margaret (Peggy)	ND RECREATION (32 proposal SNA Acquisition, Restoration, Enhancement & Citizen Engagement	S/subtotal = \$46,652,220) Bio-diverse native plant communities and rare species habitat would be acquired as Scientific and Natural Areas and their quality sustained and improved through restoration, enhancement, monitoring, and volunteer-student involvement.	DNR	\$3,280,000
102-D	Garms	Jason	Native Prairie Stewardship and Native Prairie Bank Acquisition	Protection of native prairie through Native Prairie Bank easements and stewardship services to private landowners.	DNR	\$1,020,000
103-D	Stefferud	Arne	Metropolitan Regional Park System Land Acquisition	Award subgrants to Regional Park Agencies under the Metropolitan Council's Park Acquisition Opportunity Fund program to acquire about 210 acres for the Metropolitan Regional Park System.	Metropolitan Council	\$2,250,000
104-D	Strommen	Sarah	MeCC 6 - Overall Metropolitan Conservation Corridors (MeCC) Summary (Includes 8 rows below consisting of 12 individual sub- proposals)	Protect and restore a connected network of critical habitat in the greater metropolitan area by acquiring fee title and conservation easements on 1,695 acres and restoring and enhancing 905 acres.	Metro Conservation Corridors (Includes 7 partner organizations)	\$0
104-D-1.1+1.2	Strommen	Sarah	1.1 / 1.2 - MeCC 6 - Coordination, Mapping & Outreach (1.1) & Mapping and Database Work (1.2)	Protect and restore a connected network of critical habitat in the greater metropolitan area by acquiring fee title and conservation easements on 1,695 acres and restoring and enhancing 905 acres.	Minnesota Land Trust	\$50,000
104-D-2.1	Lewanski	Tom	2.1 - MeCC 6 - Restore and Enhance Significant Watershed Habitat	Improve and increase habitat by restoring and enhancing 200 acres of prairie and woodland/forest. We will also reach out to and assist 27 landowners to expand existing projects.	Friends of the Mississippi River	\$232,600
104-D-2.3	Buck	Wiley	2.3 - MeCC 6 - Restoring Our Lands and Waters	We will restore important natural communities through continued engagement in the Anoka Sandplain, St. Croix Healthy Waters Campaign, collar counties, and urban core; and Wild & Scenic Rivers.	Great River Greening	\$490,000

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104-D-2.6+3.3		Deborah	Expansion and Restoration MN Valley NW Refuge	another 250 acres with other non-state funds. Continue restoring savanna and	MN Valley National Wildlife Refuge Trust, Inc.	\$1,163,000
104-D-2.7+3.7		Alan	2.7 / 3.7 - MeCC 6 - Dakota County Riparian and Lakeshore Protection	Acquire permanent, riparian easements and develop natural resource management plans on 1,034 acres within the Vermillion and Cannon river systems and along Marcott Lake and Lake Marion in Dakota County.	Dakota County	\$2,700,000
104-D-3.1	Nash	Becca	3.1 - MeCC 6 - TPL's Critical Land Protection Program	the greater Twin Cities Metropolitan Area	The Trust for Public Land	\$1,000,000
104-D-3.2	Strommen	Sarah	3.2 - MeCC 6 - Protect Significant Habitat by Acquiring Conservation Easements	To protect 300 acres of critical habitat in the greater metropolitan area by securing permanent conservation easements and dedicating funds for the perpetual monitoring, management, and enforcement of those easements.	Minnesota Land Trust	\$900,000
104-D-3.5	Halverson	Mike	3.5 - MeCC 6 - Aquatic Management Area Acquisition	Projects that face high risk of development, provide angler access, and afford environmental protection of the shoreline - securing fee or easement on approximately one mile of critical shoreline habitat.	DNR	\$500,000
105-D	Hark	Peter	State Parks and Trails Land Acquisition	Acquire land from willing sellers within the statutory boundaries of State Parks, State Recreation Areas and authorized State Trails. State land acquisitions provide ecological and recreational benefits to the public	DNR	\$7,000,000
106-D	Pavelko	Joe	HCP 7 - Overall Habitat Conservation Partnership Summary (Includes 12 rows below consisting of 12 individual sub- proposals)	Nine partners within the Habitat Conservation Partnership will restore, enhance, and protect 2,332 acres of priority habitat within delineated focus areas of the state.	Habitat Conservation Partnership (Includes 8 partner organizations)	\$0
106-D-1a	Pavelko	Joe	1a - HCP 7 - Coordination, Mapping & Data Management	Project coordinator Pheasants Forever will coordinate all aspects of the Habitat Conservation Partnership, including mapping, data management and reporting to LCCMR.	Pheasants Forever, Inc.	\$72,000
106-D-2e	Mortensen	Steve	2e - HCP 7 - Wild Rice/Waterfowl Habitat: Enhancement and Long- term Monitoring		Leech Lake Band of Ojibwe	\$50,000
106-D-2g	Willhite	Suzann	2g - HCP 7 - Restoration & Management - Wildlife Management Areas	Habitat restoration and infrastructure development of new Wildlife Management Areas (WMA) needs to be included with the proposed 400 acre land acquisition efforts of the Habitat Conservation Partnership (HCP).	DNR	\$30,000
106-D-2h	Erickson- Eastwood	Linda	2h - HCP 7 - Restoration & Management - DNR Fisheries	To ensure quality fishing, improvements in water quality and aquatic communities will be addressed in SW through habitat work on shores and through technical assistance.	DNR	\$200,000
106-D-20	Hoch	Greg	2o - HCP 7 - Prairie Pothole Restoration on Waterfowl Areas	This project restores wetlands in Clay and Becker Counties for the benefit of migratory and endangered species. Restorations will also benefit flood water storage and carbon sequestration.	Friends of the Detroit Lakes Wetland Management	\$75,000
106-D-3a	Strommen	Sarah	3a - HCP 7 - Shoreland Protection Program	Protect 700-1000 acres of critical riparian habitats in three regions of Minnesota by securing permanent conservation easements along lakes, wetlands, rivers, and streams and dedicating funds to support those easements.	Minnesota Land Trust	\$900,000

ID#	Last Name	First Name	PROJECT TITLE	SUMMARY	Organization	\$ Requested
106-D-3c	Schneider	Jon	3c - HCP 7 - Shallow Lake Conservation Easements	Ducks Unlimited will secure purchased and donated permanent conservation easements on 440 acres along key shallow lakes for waterfowl, provide for annual monitoring and stewardship, and restore 200 acres where possible.	Ducks Unlimited	\$1,650,000
106-D-3d	Schneider	Jon	3d - HCP 7 - Wetlands Reserve Program	Ducks Unlimited will provide engineering assistance and contract with 10 wetland restoration specialists to provide technical assistance to help the USDA-NRCS promote, secure, and restore federal Wetland Reserve Program (WRP) easements.	Ducks Unlimited	\$1,330,000
106-D-4a	Pavelko	Joe	4a - HCP 7 - WMA/WPA Acquisition beyond Boundaries	Pheasants Forever will acquire 400 acres of priority wildlife habitat in fee-title from willing landowners for inclusion into the WMA/WPA system utilizing the acquisition beyond borders concept	Pheasants Forever, Inc.	\$1,750,000
106-D-4c	McGillivray	Robert	4c - HCP 7 - TPLs Critical Lands Protection Program	The Trust for Public Land (TPL) will acquire approximately 100 acres, protecting and linking valuable, high quality habitat in Minnesota.	The Trust for Public Land	\$1,000,000
106-D-4h	Loon	Deborah	4h - HCP 7 - Priority Acquisition,	Acquire in fee 100 acres of priority habitat in Southern Lakes Region for Waterfowl Production Area, MN Valley Wetland Management District. Acquire another 100 acres with other, non-state funds.	MN Valley National Wildlife Refuge Trust, Inc.	\$500,000
106-D-4i	Halverson	Mike	4i - HCP 7 - Habitat Acquisition – DNR Professional Services	This proposal is directly tied to the land acquisition efforts of the Habitat Conservation Partners, and ensures that newly acquired lands can be transferred into the WMA system.	DNR	\$35,000
107-D	Sames	Wayne	Natural and Scenic Area Acquisition	Four to twelve matching grants will be provided to local governments for acquisition of approximately 200-400 acres for new or expanded natural and scenic areas for public use.	DNR	\$2,050,000
109-D	Potter	Ronald	Regional Park, Trail, and Connections Acquisition and Development	This proposal is to provide grants for acquisition and development to local units of government for regional parks, regional trails, and trail connection.	DNR	\$3,075,000
110-D	Johnson	Richard	Minnesota's Critical Lands - Acquisition, Restoration & Research	Acquire critical habitat, 480 acres; restore prairie, 400 acres; native habitat enhancement, 10,000 acres; initiate/inventory invasives management, 375,000 acres; research prairie management effects on diversity, carbon sequestration, water storage.	The Nature Conservancy	\$2,650,000
112-D	Schmidt	Susan	LaSalle Lake: Protecting Critical Mississippi River Headwaters Lands	Protecting 700-acre La Salle Lake property adjacent to the Upper Mississippi River, with biologically significant steep-sloping forestland, deep-lake shoreline and cold-water stream habitat to be managed by multiple DNR divisions.	The Trust for Public Land	\$8,000,000
116-D	Cobb	Brad	Corridor Project Phase II	Protect the most ecologically sensitive available lands identified by MCBS, DNR Ecological Resources, and Green Corridor Conservation Plan from destruction/degradation/fragmentation in cooperation with the Minnesota DNR.	Green Corridor Inc.	\$2,699,620
E. AQUATIC A	ND TERRESTRI Hicks	AL INVASI\	/E SPECIES (6 proposals/sub Improved Detection of	total = \$2,982,897) This project will identify the potentially harmful bacteria transported to	U of MN	\$290,801
110-E	II IICKS	Natiuali	Harmful Microbes in Ballast Water	Lake Superior in ships ballast water that can cause ecological and economic damage and threaten human and aquatic animal health.	O OI IVIIN	\$290,801

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119-E	Chandler	Monika	Research and Implementation of Emerald Ash Borer Biocontrol	Our goal is to suppress EAB with biological control. Our objectives are to assess bioagent winter survival potential, develop release and monitoring methods, and implement EAB biocontrol.	Department of Agriculture	\$660,000
120-E	Koch	Robert	Risk Assessment for Proactive Response to Forest Pests	Pest risk assessment will proactively prioritize invasive species threats to Minnesota forests. An early detection network will be created to survey for high risk pests threatening to invade Minnesota.	Department of Agriculture	\$566,340
123-E	Eckberg	Jim	Switchgrass: A Biofuel Crop or Invasive Species?	Determine invasion risk of selectively bred native grasses for biofuel production. Develop strategies to minimize invasion potential and impacts on biodiversity. Evaluate trade-offs between biofuel production and invasion risk.	Central Lakes College	\$122,178
124-E	Krischik	Vera	Landscape Management of EAB: Nontarget Consequences	Our goals are to protect water quality and nontarget species by researching whether insecticides used for managing EAB runoff into plants and soil and affect beneficial insects and birds.	U of MN	\$343,578
126-E	Jones	Alan	Community Grants to Suppress EAB on Private Lands	Slowing the spread of emerald ash borer (EAB) by removing infested ash trees is critical but costly. Homeowners would receive community loans through DNR grants for timely removal and disposal.	DNR	\$1,000,000
			ERGY, AND AIR QUALITY (12 p (5 proposals/subtotal = \$1,667	proposals/subtotal = \$5,146,467)		
134-F1+2+5	Lindquist	Mark	Establish Scientific Foundation for Peatland Carbon Sequestration Projects		DNR	\$493,371
135-F1+2+5	Frelich	Lee	Climate Change and Resilience in Boreal Forests	Locate areas where boreal tree species may persist in a warmer climate, assess whether temperate species can replace boreal species and whether invasive species may interfere with climate change adaptation	U of MN	\$215,414
136-F1+2+5	Manolis	Jim	Building Species and Habitat Resilience to Climate Change	This project will develop "resilience clinics," "climate proofing" planning exercises, and webinars to help natural resource managers develop resilient management strategies for a range of possible future climate scenarios.	DNR	\$370,000
137-F1+2+5	Engstrom	Daniel	Unprecedented Recent Changes in Minnesota's Wilderness Lakes	Minnesota's remote wilderness lakes are experiencing unexpected ecological change, including blooms of noxious blue-green algae. We will explore the root causes and determine which lakes are most at risk.		\$321,700
138-F1+2+5	Marshall	Julian	Addressing Ozone Pollution in Minnesota: Equity and Efficiency	This project combines satellite measurements, monitoring data, and air quality modeling to study ozone pollution and exposure in Minnesota, and examines the effectiveness and environmental equity of potential control options.	U of MN	\$266,999

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			ıbtotal = \$3,478,983)			
145-F3+4	LaPara	Timothy	Energy Conservation at Municipal Wastewater Treatment Facilities	Municipal wastewater treatment is a major faction of the energy needs for municipalities. We propose to analyze existing treatment operations to identify opportunities for energy conservation and cost reduction.	U of MN	\$163,376
146-F3+4	DAmato	Anthony	Evaluation of Biomass Harvesting Impacts on Minnesota's Forests	Project assesses environmental impacts of biomass harvests for energy on Minnesota's forests. Results will quantify the impacts on soil nutrients, native forest vegetation, invasive species spread, and long-term tree productivity.	U of MN	\$448,152
147-F3+4	Pawlisch	Lissa	Statewide Lodging Facilities: Energy & Water Conservation Expansion	Help 50% of lodging facilities statewide (roughly 1200) adopt energy efficiency and water conservation practices and save over 2.5 million kilowatt-hours, 4.5 million gallons of water, and 765,000 therms.	U of MN	\$470,000
148-F3+4	Strack	Otto	Cost-Effective, Efficient Geothermal Heat Pump Systems	Development and testing of a cost-effective, high-efficiency, self- regulating geothermal energy system that can be used for heating and cooling of dwellings on either a district scale or as standalone.	U of MN	\$850,895
153-F3+4	Carmody	John	Low Environmental Impact Sustainable Neighborhoods	A groundbreaking approach to climate change, air pollution, stormwater, and energy reduction in existing neighborhoods built upon a community driven "mini-district" system to sharply curtail demand, and incorporate renewable energy.	U of MN	\$800,000
156-F3+4	Fernholz	Kathryn	Supporting Community-Driven Sustainable Bioenergy Projects	This project contributes to the sustainability of locally-produced community forest bioenergy programs in NE Minnesota and statewide through feasibility, impacts, and management case studies in Ely and Cook County.	Dovetail Partners, Inc.	\$262,160
157-F3+4	Bilek	Amanda	Optimizing Biogas' Role in Meeting Minnesota's Energy Goals	Remove market, technical and policy barriers for Minnesota to benefit from biogas's full economic and environmental potential. Despite past investments in anaerobic digestion R & D projects, barriers to widespread adoption remain.	Great Plains Institute	\$484,400
	MENTAL EDUCA	TION (9 pro	posals/subtotal = \$4,692,109)			
177-G	Sierks	William	Minnesota Schools Cutting Carbon- Conserving Energy and Water	We will empower 120 student-led high school teams to integrate long term energy and water conservation savings into daily school operations, create model school-utility partnerships, and develop student leadership.	Minnesota Pollution Control Agency	\$1,370,000
178-G	Woods	Steve	Minnesota Conservation Apprentice Academy	The apprentice program trains the next generation of conservation managers by pairing experienced Soil and Water Conservation District professionals with 30 university-level MCC students during summer field season.	Board of Water and Soil Resources	\$387,000
179-G	Blair	Robert	Minnesota Junior Master Naturalist: An After-School Program	Pairs trained adult Master Naturalist Volunteers with staff in after-school programs throughout Minnesota to offer outdoor, science-based, activities for youth to learn about the ecology of their schoolyards and neighborhoods. Page 9 of 10	U of MN	\$365,459

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185-G	Karius	Mary	UrbanWatch: Environmental Education for Urban Youth	Hennepin County will partner with The City, Inc. to initiate new Environmental Education programs targeting inner city youth. These programs will provide hands-on, experiential outdoor learning opportunities.	Hennepin County	\$790,450
186-G	Dybsetter	Anne	YES!(2.0) 30 Renewable Energy and Energy Conservation Projects	Youth Energy Summit (YES!) teams mobilize West Central & Southwest Minnesota communities to complete over 30 renewable energy and energy conservation projects. Prairie Woods Environmental Learning Center and Partners.	Prairie Woods Environmental Learning Center	\$246,000
188-G	Johnson-Grass	Tim	Conservation Corps Statewide Low-Income Solar Home Heating	Conservation Corps Minnesota and the Rural Renewable Energy Alliance will collaboratively install 60 Solar Heating systems on the homes of low-income families and train young corps members in green jobs.	Conservation Corps - Minnesota	\$565,000
189-G	Ponder	Julia	Following Eagles to Link Students and Nature	Engages students in exploring science and nature through curriculum built on real-life case studies of raptors treated at The Raptor Center and eagles tracked for post-release monitoring.	U of MN	\$177,500
191-G	Schuler	Kathleen	Community-Based Approach to Reducing Estrogenic Water Contaminants	We will reduce estrogenic chemical water pollution by helping local governments identify and implement green practices to reduce their and their citizens' pollution from cleaning products, pesticides and pharmaceuticals.	Institute for Agriculture and Trade Policy	\$299,700
198-G	Cung	Josee	Integrating Hmong Hunting and Fishing Heritage into Management	To incorporate Hmong values for white bass and squirrel into natural resources management and activities. Outcomes are Hmong adoption of game ethics and their evolution as significant conservation partners.	DNR	\$491,000
H. OTHER ID 215-H	EAS (2 proposals Nelson	s/subtotal = Courtland	\$15,075,570) Lake Vermilion State Park Development - Revenue Bonds	Initiate Phase 1 development of Lake Vermilion State Park, providing recreation and outdoor education opportunities to the public through development of campgrounds, day use facilities, trails and public water access.	DNR	\$15,000,000
216-H	Moen	Ron	Helping the Canada Lynx Population in Minnesota Recover	Canada lynx are a threatened species under ESA in Minnesota. We will develop economically and environmentally sound solutions to restore the Canada lynx population while avoiding costly litigation.	U of MN - NRRI	\$75,570