OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Attachment #2

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
2	**216-F**	0419-2-269	Implementing Hemp Crop Rotation to Improve Water Quality	We will evaluate how hemp crops may reduce nitrogen contamination of surface and groundwater in conventional crop rotations while demonstrating the environmental and economic benefits of hemp grain production.	Central Lakes College	Keith Olander	**17**	**MR BF**	77	$740,000	$938,397			
3	**049-AH**	0419-2-240	Tools for Supporting Healthy Ecosystems and Pollinators	This project will create a pollination companion guide to MNDNR's Field Guides to Native Plant Communities for conservation practitioners to better integrate plant-pollinator interactions into natural resource planning and decision-making.	MN DNR	Jessica Petersen	**15**		80	$198,397	$198,397			-DNR direct and necessary expenses
4	**155-D**	0419-2-005	Minnesota Invasive Terrestrial Plants and Pests Center (MITPPC) Phase 5	The Minnesota Invasive Terrestrial Plants and Pests Center (MITPPC) requests $7 million to accelerate up to 15 new, high-priority research projects that will lead to better management of invasive species on the land.	U of MN - MITPPC	Robert Venette	**14**		80	$7,000,000	$7,938,397			
5	**158-D**	0419-2-315	Applying New Tools and Techniques against Invasive Carp	Invasive carp pose a major threat to Minnesota's rivers and lakes. The Minnesota DNR will apply cutting edge techniques to keep these aquatic pests at bay.	MN DNR	Brian Nerbonne	**13**		75	$578,000	$8,516,397		AIS- Focus is on implementation, not research, so does not fit under MAISRC	- Capital Equipment: $30,000 Attractant Station - DNR Direct and Necessary
6	**199-EH**	0419-2-231	Diverting Unsold Food from Landfills, Reducing Greenhouse Gases	This project will help us expand a Prepared Foods Donation Program, which will source food donations from restaurants and prevent food from going to landfills; thereby reducing greenhouse gas emission.	Second Harvest Heartland	April Rog	**13**		77	$130,000	$8,646,397			
7	**207-F**	0419-2-332	Pollinator Central: Habitat improvement with citizen monitoring	Restore / enhance 500 acres of pollinator habitat on 20 traditional and nontraditional sites, from Hastings to St. Cloud, to benefit pollinators and build knowledge of impact through citizen monitoring.	Great River Greening	Wiley Buck	**13**		85	$981,000	$9,627,397			-Travel expenses out of state-need add'l info
8	**209-F**	0419-2-079	Pollinator & Beneficial Insect Strategic Habitat Program	This project address dramatic declines of beneficial insects by building a new BWSR initiative to strategically restore and enhance approximately 1000 acres of diverse native habitat over 100 projects.	MN Board of Water and Soil Resources	Dan Shaw	**13**		84	$780,500	$10,407,897	-should have been doing this for years, why just now?		- Initiative includes potential for restorations on private lands secured with 10-15 year CRP contracts (i.e. not permanent)
9	**264-G**	0419-2-044	Grants for Local Parks, Trails, and Natural Areas	Provide approximately 25 matching grants for local parks, acquisition of locally significant natural areas and trails to connect people safety to desirable community locations and regional or state facilities.	MN DNR	Audrey Mularie	**13**		85	$3,000,000	$13,407,897			- DNR Direct and Necessary expenses - Estimated Capital Construction costs: $ 1,950,000
10	**001-A**	0419-2-001	Geologic Atlases for Water Resource Management	Geologic atlases provide maps/databases essential for improved management of ground and surface water. This proposal will complete current projects and start new projects to equal about 10 complete atlases.	U of MN - Minnesota Geological Survey	Barbara Lusardi	**12**		91	$4,121,625	$17,529,522			
11	**002-A**	0419-2-213	Expanding the Minnesota Ecological Monitoring Network	This project proposes to expand the Ecological Monitoring Network by adding 500 plots to inform the conservation and management of Minnesota's native forests, wetlands, and grasslands.	MN DNR	Hannah Texler	**12**		88	$1,587,134	$19,116,656			

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
12	**016-A**	0419-2-302	Expanding Restoration and Promoting Awareness of Native Mussels	The Minnesota Zoo will promote mussel conservation by rearing juvenile mussels for reintroduction, researching methods to improve growth and survival in captivity, and encouraging public action to benefit water quality.	Minnesota Zoological Society	Seth Stapleton	**12**		73	$489,270	$19,605,926			- Conferences in years 1 - 4 -- need add'l info
13	**070-B**	0419-2-311	Unprecedented Change Threatens Minnesota's Pristine Lakes	Why are Minnesota's nicest lakes turning green? We determine what's causing this change and which lakes are most at risk.	Science Museum of Minnesota	Mark Edlund	**12**		83	$849,392	$20,455,318			-Capital expenditure- water quality sonde $20,000
14	**116-BH**	0419-2-077	Expanding Protection of Minnesota Water through Industrial Conservation	Decrease water demand in communities at risk for inadequate ground water supply or quality by providing technical assistance to identify cost-effective ways to reduce industrial/commercial water use.	U of MN	Laura Babcock	**12**		85	$178,430	$20,633,748			
15	**122-C**	0419-2-262	Statewide Environmental Education via Public Television Outdoor Series	Pioneer Public TV will produce 26 new episodes of a statewide outdoor public television series designed to inspire Minnesotans to connect with the outdoors and restore and protect the environment.	Pioneer Public Television	Cindy Dorn	**12**		85	$300,000	$20,933,748	-What is status of earlier series? -What was viewership?		
16	**137-CH**	0419-2-146	YES! Students Take on Water Quality Challenge Phase-II	YES! teams statewide will mobilize local watershed stewardship efforts in 20 communities through student-driven action projects, filling the urgent need for citizen participation to protect and clean-up Minnesota waters.	Prairie Woods Environmental Learning Center	Shelli-Kae Foster	**12**		80	$199,700	$21,133,448			-Substitute teacher and mileage--need add'l info
17	**138-CH**	0419-2-228	Engaging Minnesotans with Phenology: Radio, Podcasts, Citizen Science	This project builds next generation conservationists using phenology, radio broadcasts, podcasts, and an online, interactive map interface to inspire teachers, students and the public to get outside and experience nature.	Northern Community Radio, Inc.	Maggie Montgomery	**12**		80	$198,478	$21,331,926			-Single source contracts-need add'l information
18	**157-D**	0419-2-028	White Nose Bat Syndrome Biological Control: Phase 3	Testing of best biocontrol microbes for controlling white nose syndrome (WNS) in bats: Mapping of fungal pathogen, field testing, and assessment of a WNS-free cave with healthy bats	U of MN	Christine Salomon	**12**		76	$444,636	$21,776,562			
19	**245-FH**	0419-2-100	Prescribed Burning for Brushland-Dependent Species-Phase II	Brushlands provide critical habitat for >250 wildlife species. We compare effects of spring, summer and fall burns on birds and vegetation, providing much needed management guidelines for this key habitat.	U of MN	Rebecca Montgomery	**12**		78	$147,428	$21,923,990			-Lodging at Cloquet Forestry Center for 2 people
20	**247-FH**	0419-2-018	Pollinator Habitat Creation Along the Urban Mississippi River	To improve habitat for pollinators and other wildlife, we will remove invasive plants and replace them with high-value native species at three urban sites along the Mississippi River.	Friends of the Mississippi River	Betsy Daub	**12**		74	$129,297	$22,053,287			

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
21	**007-A**	0419-2-027	County Groundwater Atlas	The groundwater atlas provides essential fundamental information for sustainable management and wise use of Minnesota's groundwater resources. Atlases are used by citizens, industry, agriculture and all levels of government.	MN DNR	Paul Putzier	**11**		82	$2,250,000	$24,303,287			-DNR direct and necessary expenses
22	**008-A**	0419-2-052	Foundational Hydrology Data for Wetland Protection and Restoration	This project will improve wetland protection, management and restoration in Minnesota by completing a partially established long-term wetland hydrology monitoring network that will provide critical knowledge of wetland hydrology dynamics.	MN DNR	Doug Norris	**11**		81	$461,499	$24,764,786			-DNR direct and necessary expenses
23	**010-A**	0419-2-089	Real-Time Measurements of Nitrate Pollution in Surface Water	Rising nitrates are threatening Minnesota streams, but current methods for measuring nitrates are not robust enough. We propose a multi-agency effort to measure, understand, and communicate nitrates in real-time.	U.S. Geological Survey	Joel Groten	**11**		77	$631,800	$25,396,586			-Capital expenditure: $200,750 for 11 nitrate sensors
24	**014-A**	0419-2-300	Voyageurs Wolf Project – Phase II	Wolf predation in summer is almost unknown but critical to deer, moose, wolf, and CWD management. With novel, proven methods, we'll study wolf predation in summer and promote Voyageurs' region wildlife.	U of MN	Joseph Bump	**11**		73	$608,320	$26,004,906			-Capital Expenditures: 1 snowmobile and trailer $15,000 -Capital Expenditures: 1 Digital Camera and long-range lens $20,000 -Capital Expenditure: Possible vehicle
25	**017-A**	0419-2-286	Improving Pollinator Conservation by Revealing Habitat Needs	Wild pollinators must survive outdoors during our harsh Minnesota winters. We aim to help them persist by discovering habitats they require for shelter through statewide citizen scientists and novel analyses	U of MN	Colleen Satyshur	**11**		72	$615,000	$26,619,906			- Single source contract- need add'l info
26	**048-AH**	0419-2-161	Enhancing Bat Recovery by Optimizing Artificial Roost Structures	Project will identify characteristics of successful artificial bat roost structures. Data will be used to optimize bat use and reproduction in these structures to improve survival of WNS impacted bats.	MN DNR	Ed Quinn	**11**		81	$190,271	$26,810,177			-DNR direct and necessary expenses
27	**069-B**	0419-2-117	Assessing the Value of Green Infrastructure within Minnesota's Water Infrastructure Funding Shortfall	Report on financing water infrastructure through green and grey solutions. Data on where and how natural resource management can address critical infrastructure funding shortfalls while improving habitat and ecosystem services.	U of MN	Terin Mayer	**11**		84	$384,923	$27,195,100	-Much of this is done by the Public Facilities Authority-any new study should be in collaboration with them		-Proposer is a grad student
28	**098-B**	0419-2-167	Developing Strategies to Manage PFAS in Land-Applied Biosolids	This projects helps municipal wastewater plants, landfills, and compost facilities protect human health and the environment by developing strategies to manage per- and polyfluoroalkyl substances (PFAS) in land-applied biosolids.	Minnesota Pollution Control Agency	Summer Streets	**11**		65	$1,403,556	$28,598,656	-Assumes continues land application of PFAS		- Large single source contract to out of state researcher-- need add'l info
29	**123-C**	0419-2-152	Minnesota Freshwater Quest: Environmental Education on State Waterways	30,000 underserved Minnesota youth (6-12 grade) explore and improve their local waterways through the "MN Freshwater Quest"—using freshwater species as the hook for place-based, hands-on environmental education.	Wilderness Inquiry	Julie Edmiston	**11**		85	$1,432,110	$30,030,766	-General question for youth based activities - Does LCCMR require background checks for all funded staff that works with youth?		

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
30	**124-C**	0419-2-272	TeachScience: Schools as STEM living laboratories	TeachScience will connect new science standards, renewable energy, and STEM opportunities through teacher training and support across the state to prepare students for the challenges and careers of the future.	Climate Generation: A Will Steger Legacy	Kristen Poppleton	**11**		74	$368,505	$30,399,271			-Single source contracts-need add'l info -Workshop meals for participants- need add'l info -Honorariums for speakers- need add'l info
31	**129-C**	0419-2-249	450 Underserved, Diverse Youth Gain Environmental Education	Increase opportunity for 450 underserved, diverse teens, from urban and first-ring suburbs, to experience and connect to environmental sciences in the natural world through YMCA canoeing/learning expeditions with experienced counselors.	YMCA of the Greater Twin Cities	Beth Becker	**11**		67	$428,250	$30,827,521	-General question for youth based activities - Does LCCMR require background checks for all funded staff that works with youth?		
32	**159-D**	0419-2-048	EAB and Black Ash: Maintaining Forests and Benefits	Utilize ongoing experiments to determine longterm EAB impacts on water, vegetation, and wildlife; optimal replacement species and practices for forest diversification; develop indicators and criteria for prioritization of mitigation activities.	U of MN	Robert Slesak	**11**		73	$774,000	$31,601,521		-TIS- Would be eligible for consideration under MITPPC. -Proposer stated this is a request for continuation of work previously funded by	
33	**198-EH**	0419-2-116	Eco-Friendly Plastics from Cloquet Pulp-Mill Lignin	We will reduce environmental pollution from plastics by creating eco-friendly replacements using lignin from the pulp mill in Cloquet. The lignin plastics will be similar in strength to polystyrene.	U of MN	Simo Sarkanen	**11**		79	$193,967	$31,795,488	-economic project		
34	**262-G**	0419-2-259	Private Native Prairie Conservation through Native Prairie Bank	Native Prairie Bank will help landowners conserve native prairie though multiple outreach methods, restoration and enhancement of 770 acres, and protection of 150 acres through conservation easements.	MN DNR	Judy Schulte	**11**		88	$2,280,000	$34,075,488			-DNR direct and necessary expenses -Stewardship funds-per M.S. 84.96
35	**263-G**	0419-2-022	Minnesota State Parks and State Trails In-Holdings	Acquire high priority State Park, State Recreation Area and State Trail in-holding parcels from willing sellers to protect Minnesota's natural and cultural heritage, enhance outdoor recreation and promote tourism.	MN DNR	Jennifer Christie	**11**		85	$5,000,000	$39,075,488			
36	**266-G**	0419-2-127	Minnesota Hunter Walking Trails, Public Land Recreational Access	Within Minnesota's ~1,000 hunter walking trail system; restore/upgrade ~200 trailheads and ~80 miles of trail; develop ~20 miles of new trail; and compile enhanced maps for management and public users.	Ruffed Grouse Society	Gary Drotts	**11**		83	$545,000	$39,620,488			
37	**271-G**	0419-2-040	Superior Hiking Trail As Environmental Showcase	Renew the Superior Hiking Trail (SHT) to minimize environmental damage, make it safer for users, and make it more resistant to increased traffic and climate change.	Superior Hiking Trail Association	Denny Caneff	**11**		78	$450,000	$40,070,488			-Capital expenditures: snowmobile $8,000
38	**019-A**	0419-2-045	Bobcat and Fisher Habitat Use and Interactions	We will describe habitat use, diet, and activity patterns of bobcats and fishers to understand why bobcats kill female fishers and identify potential solutions to reverse the fisher population decline.	U of MN	Michael Joyce	**10**		70	$440,719	$40,511,207			-24 GPS collars - $84k -Proposer is a Post Doc

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
49	**025-A**	0419-2-096	Healthy Prairies III: Restoring MN prairie plant diversity	We will collect and preserve germplasm of plants throughout Minnesota's prairie region, study microbial effects on them, and discover the scale of local adaptation and the capacity for ongoing adaptation.	U of MN	Ruth Shaw	**10**	**JW**	66	$1,128,000	$53,414,195			-Potential single source contract- need add'l info
39	**031-A**	0419-2-012	Morrison County Performance Drainage and Hydrology Management Phase II	This proposal, when funded, will enable Morrison SWCD to inventory an additional 4,000 culverts to complete the county wide culvert inventory started in 2016.	Morrison SWCD	Shannon Wettstein	**10**	**BF**	56	$213,300	$40,724,507	-Did LCCMR fund Phase I? -No natural resource outcome		
40	**047-AH**	0419-2-139	Do Beavers Buffer Against Droughts and Floods?	We propose to use existing data sets to link beaver population data to water storage in beaver ponds, to determine if they buffer against droughts and floods.	Voyageurs National Park	Steve Windels	**10**		82	$168,400	$40,892,907			-Computer software, licensing-- need add'l info -Office supplies: ineligible; needs to be removed
41	**076-B**	0419-2-056	Reducing Chloride in Minnesota's Water from Water Softening	This project will promote salt reduction through testing non-salt water softening alternatives; developing a residential web-based water softener tool; and working with two communities to implement softener salt reduction strategies.	U of MN	Sara Heger	**10**		76	$362,699	$41,255,606			-ETS-water softener replacement/rebate program 50 homes $50,000 -Capital expenditures: enclosed trailer $8,000
42	**139-CH**	0419-2-268	Driving Conservation Behavior for Mussels and Water Quality	The Minnesota Zoo will develop research-supported strategies to engage the public in specific conservation behaviors they can take in order to improve water quality and mussel health across the state.	Minnesota Zoological Society	Emily Kalnicky	**10**		76	$191,580	$41,447,186			
43	**173-E**	0419-2-073	Storing Renewable Energy in Flow-Battery for Grid Use	The University of Minnesota Morris, Otter Tail Power Company, business and project partners will install a large flow-battery for storing renewable energy and grid optimization, and research the battery's performance.	U of MN - Morris	Bryan Herrmann	**10**	**MR**	78	$3,271,229	$44,718,415	-What is the value of the electricity generated each year? Who gets the revenue? LCCMR? -Activity 1 and 3 only	-RFP p. 4, E. Air Quality, Climate Change, and Renewable Energy states "funding for capital projects (e.g. buildings or building infrastructure) will not be considered in this category."	- Contract for installation of battery - need add'l info on selection - Contract for battery operations and maintenance- $150k ($50k x 3 years) - Single source contract- needs add'l info
44	**219-F**	0419-2-160	Native Eastern Larch Beetle is Decimating Minnesota's Tamarack Forests	Eastern larch beetle, native to Minnesota, is suddenly decimating Minnesota's tamarack forests. This proposal develops insect management techniques and determines how bad this problem may remain in the future.	U of MN	Brian Aukema	**10**		72	$398,180	$45,116,595		This is a native insect, so per LCCMR guidelines, this does not fit under MITPPC	-Capital Expenditures-2 rearing chambers $25k
45	**267-G**	0419-2-252	Turning Back to Rivers: Environmental and Recreational Protection	This project will help communities acquire priority land along the Mississippi, St. Croix, and Minnesota Rivers, and their tributaries, protecting the environment and water quality while creating much-needed recreational opportunities.	The Trust for Public Land	DJ Forbes	**10**		83	$3,803,600	$48,920,195			
46	**276-G**	0419-2-196	Perham to Pelican Rapids Regional Trail (West Segment)	Requesting funding for the West Segment (6.83 miles) of the 32-mile Perham to Pelican Rapids Regional Trail that will connect the city of Pelican Rapids to Maplewood State Park.	Otter Tail County	Charles Grotte	**10**		70	$2,836,000	$51,756,195			Capital Expenses: $2,325,970 construction costs associated with 6.83 miles of trail development - County staff salary: supplement/supplant?

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
47	**285-GH**	0419-2-176	Chippewa Acquisition, Recreation and Education	Chippewa County will acquire 51 acres of riverine wetland/floodplain forest complex, floodplain and abandoned gravel pits along the MN River to provide water filtration, education and recreational opportunities.	Chippewa County	Scott Williams	**10**		80	$160,000	$51,916,195			-Capital expenditures: $15,000 for construction of a fishing pier
48	**005-A**	0419-2-138	Optimizing Land Cover Data for Water Resource Analysis	This project will employ new techniques and technologies to improve the accuracy and usability of the crop land data layer in Minnesota for water resource analysis.	MN Board of Water and Soil Resources	Matt Drewitz	**9**		82	$370,000	$52,286,195	-Isn't this already done? -Outcomes for natural resources are minimal at best		
50	**034-A**	0419-2-186	Winter Dynamics of Vulnerable Trout Streams: Central Minnesota	We will intensively evaluate brook trout streams that are vulnerable to climate warming, will develop quantitative models to predict most vulnerable streams, assess winter food, movement and refugia for fish.	U of MN	Leonard Ferrington	**9**		53	$767,060	$54,181,255			-Capital expenditures: Two remote fish passage data collection arrays ($13,104) -Participant incentives ($1,900)- need add'l info
51	**083-B**	0419-2-074	Technology for Energy-Generating Onsite Industrial Wastewater Treatment	We will develop "off the shelf" technology to treat industrial wastewater onsite, turning pollutants into hydrogen and methane for energy. This will lead to water quality benefits and cost savings.	U of MN	Paige Novak	**9**		73	$474,939	$54,656,194			
52	**125-C**	0419-2-283	Mentoring the Next Generation of Conservation Professionals	57 diverse young people will work with and learn from USFWS professionals in paid internships and apprenticeships on the Minnesota Valley National Wildlife Refuge and Wetland Management District.	Minnesota Valley National Wildlife Refuge Trust, Inc.	Deborah Loon	**9**		71	$755,544	$55,411,738	-General question for youth based activities - Does LCCMR require background checks for all funded staff that works with youth?		
53	**127-C**	0419-2-019	Jay C. Hormel Nature Center Supplemental Teaching Staff	The Jay C. Hormel Nature Center would like to offer its environmental education curriculum to more southeast Minnesota students by hiring an additional naturalist and interns for three years.	City of Austin	Luke Reese	**9**		69	$252,898	$55,664,636	-No relation to Mike Reese.		
54	**145-CH**	0419-2-142	River Watch on the Minnesota River	This project continues and expands the high school team-based water quality monitoring project in the Minnesota River basin through which data is collected by students and submitted to MPCA.	Friends of the Minnesota Valley	Ted Suss	**9**		55	$100,000	$55,764,636			
55	**208-F**	0419-2-297	Prairie to the People: Habitat Restoration and Education	Prairie to the People is a community-based restoration initiative that will permanently restore 60 acres of public green spaces into native prairie and pollinator habitat within Fergus Falls, Minnesota.	Wildlife Forever	Dane Huinker	**9**		85	$441,128	$56,205,764			- Travel expenses - needs to be per Commissioner's Policy
56	**215-F**	0419-2-178	Lignin-coated Fertilizers for Phosphate Control	This project will test a new natural slow-release fertilizer coating made from processed wood, which will decrease phosphorus runoff from farmland while also storing carbon in soils.	U of MN - Duluth NRRI	Eric Singsaas	**9**		80	$279,382	$56,485,146			
57	**218-F**	0419-2-185	Developing Cover Crop Systems for Sugarbeet Production	Cover crops in sugarbeet production can reduce erosion and nutrient loss from agroecosystems in West-Central and Northwest Minnesota. Developing agronomic guidelines will support growers adopting sustainable practices.	U of MN	Anna Cates	**9**		74	$300,546	$56,785,692			

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
58	**261-G**	0419-2-253	DNR Scientific and Natural Areas	Scientific and Natural Area (SNA) habitat restoration and improvements (1000+ acres), increased public involvement and strategic acquisition (500+ acres) will conserve Minnesota's most unique and rare resources for everyone's benefit.	MN DNR	Judy Schulte	**9**		91	$5,875,000	$62,660,692			-DNR direct and necessary expenses
59	**265-G**	0419-2-227	Mississippi River Aquatic Habitat Restoration and Mussel Reintroduction	MPRB and its scientific partners will undertake a large-scale project to restore lost habitat in the Mississippi River and reintroduce mussels above St. Anthony Falls.	Minneapolis Park and Recreation Board	Adam Arvidson	**9**		83	$2,538,000	$65,198,692			
60	**269-G**	0419-2-261	Minnesota State Trails Development	This project proposes to expand recreational opportunities on Minnesota State Trails through the development of new trail segments and the rehabilitation and enhancement of existing State Trails.	MN DNR	Kent Skaar	**9**		82	$10,000,000	$75,198,692	-bonding not ENTRF		- DNR Direct and Necessary expenses - Capital expenditures: $ 2,297,503 State Trail Bridge Renewal -Capital expenditures: $1,655,523 Blazing Star Trail development
61	**004-A**	0419-2-318	Minnesota; How much Water? How is it Changing?	Accurate water storage estimates (groundwater, soil moisture, streams, lakes, wetlands) are essential to sustainable water management. We will integrate satellite monitoring with traditional ground-based measurements to improve water storage estimates.	U of MN	John Nieber	**8**		83	$529,139	$75,727,831			-Potential purchase of data- $30k
62	**022-A**	0419-2-189	Enhancing Bird and Insect Recovery in Oak Savannas	Our GOALS are to determine the amount, type and intensity of restoration techniques needed to support two unique, imperiled animal communities in Minnesota's oak savannas: birds and insects.	U of MN	Francesca Cuthbert	**8**		67	$238,000	$75,965,831	-Will produce a lot of info with smaller investment		
63	**028-A**	0419-2-197	Habitat Friendly Solar Impacts: Environmental and Economic Guidance	This project will 1) measure ecosystem and economic benefits of solar installations with pollinator habitat and 2) develop guidance to accelerate the adoption of solar installations that provide these benefits.	U of MN	David Mulla	**8**		58	$751,048	$76,716,879			
64	**040-A**	0419-2-220	Freshwater Sponges and AIS: Engaging Citizen Scientists	The project will study the geographical spread, taxonomic diversity and anti-fouling potential of freshwater sponges against aquatic invasive species by involving faculty, students and citizen scientists.	U of MN	Venugopal Mukku	**8**		41	$460,000	$77,176,879	-Crookston adds statewide	AIS- A portion of this project fits under MAISRC.	
65	**056-AH**	0419-2-043	Conserving Black Terns and Forsters Terns in Minnesota	Black Tern and Forster's Tern populations have declined. Comprehensive assessment of distribution and breeding status will identify population limiting factors for best management practices and prioritizing conservation and restoration efforts.	U of MN - Duluth NRRI	Annie Bracey	**8**		67	$198,640	$77,375,519			
66	**058-AH**	0419-2-123	How to Save the Cisco-Trout Lakes	We will find the mechanism leading to rapid deoxygenation of deep, cold waters, stressing ciscoes and trout in lakes so that the problem can be fixed. The mechanism is unknown.	U of MN - Duluth- Sea Grant	John Downing	**8**		64	$185,438	$77,560,957			-Capital Expenditure: $14,725 multi-parameter Sonde
67	**062-AH**	0419-2-217	Engagement and Monitoring for the Insect Apocalypse	This project will document baseline insect biodiversity across Minnesota by deploying passive interception traps, and engaging with budding insect biologists to sort and identify collected material.	MN DNR	Jessica Petersen	**8**		58	$191,824	$77,752,781			-DNR direct and necessary expenses

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
68	**071-B**	0419-2-033	Microplastics: Occurrence, Toxins, and Detection with Drones	A baseline survey of microplastic occurrence and toxicity in Minnesota waters will be conducted to establish relationships with watershed attributes and develop cost effective remote sensing tools.	U of MN	Ardeshir Ebtehaj	**8**		82	$450,000	$78,202,781			-Capital Expenditure: $22,000 Spectroradiometric camera for drone measurements
69	**074-B**	0419-2-280	Trace Organic Contaminants in Groundwater from Stormwater Infiltration	Organic contaminants may be transported to groundwater from stormwater infiltration. Contaminants may be carried downstream to drinking water sources or receiving streams with unknown consequences for human and ecological health.	U.S. Geological Survey	Sarah Elliott	**8**		77	$910,000	$79,112,781			-Administrative assistant, IT and database assistant: need to state this is for actual work performed on the project
70	**075-B**	0419-2-219	Understanding and Managing Persistent Chloride Pollution in Freshwaters	Stormwater systems can retain road salt, releasing it during summer and maximizing chloride impacts on freshwaters. We will collaboratively collect information needed to design stormwater ponds/wetland systems to minimize impacts.	U of MN	Jacques Finlay	**8**		77	$299,000	$79,411,781			
71	**080-B**	0419-2-223	Managing Highly Saline Waste from Municipal Water Treatment	We will develop a cost- and energy-efficient method of managing the concentrated saline waste from a municipal desalination plant, increasing the economic feasibility of centralized water softening and sulfate removal.	U of MN	Natasha Wright	**8**		75	$255,000	$79,666,781			
72	**082-B**	0419-2-184	Is Glyphosate causing harmful Algal Blooms?	This project will determine if the widely used herbicide, glyphosate, is encouraging harmful algal blooms and degrading water quality in our lakes and streams by providing phosphorus to cyanobacteria.	U of MN	James Cotner	**8**		73	$427,000	$80,093,781	_What is the status of earlier Harmful Algal Bloom projects? - Does this expand on those projects?		-Single source contract-Barbara Cade-Menum Ag and Agri-food, Canada $6,000--need add'l info -Capital expenditures: Incubator $15,000 -Travel expenses-conferences: need add'l
73	**117-BH**	0419-2-303	Minnesota Sentinel Springs, Understanding Groundwater Recharge and Chemistry	The sentinel springs project builds foundational data necessary to increase understanding of groundwater and surface water interaction, aquifer recharge, and how changes in agricultural land management can protect water quality.	MN DNR	John Barry	**8**		75	$182,267	$80,276,048			- 3 single source contracts - needs add'l info - DNR Direct and Necessary expenses
74	**128-C**	0419-2-229	UMD Boreal Observatory at Chik-Wauk on the Gunflint	The University of Minnesota Duluth Boreal Observatory is where the public learns first hand about Minnesota's boreal forest, and future scientists and educators hone their skills.	U of MN - Duluth	Joel Halvorson	**8**		68	$514,865	$80,790,913			-Capital expenditure: $16,000 panoramic display screen -Capital expenditure: $12,000 projector with fisheye lens -Capital expenditure: $6,000 full dome
75	**156-D**	0419-2-066	Protect Community Forests by Managing Ash for EAB	Project will reduce EAB through community developed management (inventory, canopy assessment, management plan, removal, non-neonicotinoid treatment) and improve their community forest by involving citizens and planting a diversity of trees.	MN DNR	Valerie McClannahan	**8**		79	$5,929,174	$86,720,087	-Scalable	TIS- Not research, so not eligible for consideration under MITPPC.	

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
76	**160-D**	0419-2-245	Tactical Invasive Plant Management Plan Development and Implementation	We will systematically identify, prioritize, coordinate control and eliminate high priority invasive plant infestations.	Minnesota Department of Agriculture	Monika Chandler	**8**		72	$658,137	$87,378,224	-Needs to be funded at the Dept. of Ag; it is a basic government function	-TIS- A portion of this project (part of Activity 1) would be eligible for consideration under MITPPC. -RFP p. 4, D. Aquatic and Terrestrial	
77	**214-F**	0419-2-155	Marsh Bird Conservation Planning in St.Louis River Estuary	Audubon and partners will develop a landscape scale conservation action plan for the most critical marshes of the St. Louis River Estuary in Northeast Minnesota.	National Audubon Society	Nathaniel Miller	**8**		80	$284,068	$87,662,292			
78	**244-FH**	0419-2-163	Peatland Restoration in the Lost River State Forest	The project will collect physical attributes from the drained peatlands, incorporate the data into a decision matrix, and generate a report detailing restoration potential throughout the Lost River State Forest.	Roseau River Watershed District	Torin McCormack	**8**		82	$135,646	$87,797,938			
79	**270-G**	0419-2-327	Elm Creek Restoration Phase IV	Elm Creek Habitat Restoration Improvements includes 0.7 miles of habitat and stream restoration up-gradient of the Mill Pond Lakes and flows through the Elm Creek Protection Areas.	City of Champlin	Todd Tuominen	**8**		79	$650,200	$88,448,138			
80	**273-G**	0419-2-076	Red Wing Riverfront Trail Connection Project	Red Wing's project is the construction of a pedestrian-bicycle bridge and local recreational trail connector over railroad tracks providing a needed accessible route to a recreational and natural area.	City of Red Wing	Ron Rosenthal	**8**		78	$682,000	$89,130,138	-all capital		- Capital expenditures: $682,000 to construct a pedestrian-bicycle bridge and trail connection
81	**281-G**	0419-2-101	Mesabi Trail; New Trail and Additional Funding	Constructing two new Mesabi Trail segments and one new trail head; and additional funding for trail segments currently in development.	St. Louis and Lake Counties Regional Railroad Authority	Robert Manzoline	**8**		41	$6,337,000	$95,467,138			- Includes spending ENRTF $ on wetland mitigation -"Has been reviewed by LCCMR"-- need add'l info -Requesting funds for segments already
82	**286-GH**	0419-2-016	Construction of Pedestrian/Bicycle Bridge on LSSB/GRR	Construction of pedestrian/bicycle bridge over the Mississippi River on Lady Slipper Scenic Byway (LSSB)/Great River Road (Beltrami County HWY39) in Chippewa National Forest, to increase safety and enhance recreation.	Lady Slipper Scenic Byway, Inc.	Bruce Hasbargen	**8**		73	$133,000	$95,600,138			- Capital expenditures: $133,000 to construct a pedestrian-bicycle bridge and trail connection"
83	**003-A**	0419-2-131	Win-Win Forestry: Maximizing Economic and Ecological Benefits	Experimental research sites will be established to study forest management strategies that maximize ecological and economic benefits between forest products, tree growth, water quality, soil health, and wildlife habitat.	U of MN - Duluth NRRI	Alexis Grinde	**7**		84	$532,733	$96,132,871	-Should be funded by DNR forestry since economics is a large outcome		
84	**018-A**	0419-2-097	Bee Minnesota - Protect our Native Bumblebees	By screening and neutralizing bee pathogens we wish to promote best management practices to maintain honey bee health and prevent pathogen spill-over into native bee populations.	U of MN	Declan Schroeder	**7**		71	$693,000	$96,825,871	-no mention of pesticide interaction -Does not look at interrelationship between pathogens and other stressors		

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
85	**024-A**	0419-2-058	Impacts of Conservation Grazing on Greater Prairie-chickens	Our study will determine whether grazing to meet conservation objectives has trade-offs for ground-nesting birds like Greater Prairie-chickens, a Species of Special Concern, that should be considered and mitigated.	MN DNR	Charlotte Roy	**7**		66	$560,044	$97,385,915			- DNR direct and necessary expenses
86	**026-A**	0419-2-278	Estimating Fish Production in Stressed Minnesota Lakes	Using Sentinel Lakes Program data, we will develop a bioenergetics-based method to predict how disruption of primary (algae) and secondary (e.g., zooplankton) production changes fish production in Minnesota Lakes.	U.S. Geological Survey	Richard Kiesling	**7**		65	$416,500	$97,802,415			
87	**038-A**	0419-2-309	Taxonomic Survey of Earthworm Species in Minnesota	This proposed 2-year foundational research involves a statewide field survey of earthworm taxa and their distributions throughout Minnesota. Project outcomes include taxa list and distributional maps.	Bemidji State University	Richard Koch	**7**		45	$233,501	$98,035,916	-Coud they partner or coordinate with MIPTTC?	TIS- Not UMN so not eligible for consideration under MITPPC. Includes a high priority invasive species per MITPPC.	-Indirect costs 8%- prohibited and needs to be removed - Out of state travel (airfare) - needs add'l info
88	**051-AH**	0419-2-042	Modern eDNA Technology for Better Game Fish Census	We will develop an inexpensive and rapid eDNA measurement tool to determine the abundance and distribution of Walleye in MN lakes, which greatly enhances current counting methods to manage Walleye.	U of MN	Michael Sadowsky	**7**		75	$200,000	$98,235,916			
89	**066-AH**	0419-2-098	Understanding Environmental Factors that Impact Minnesota Tick Populations	Ticks and tick-borne disease are a major problem in Minnesota. Improved understanding of the environment and tick relationship can reduce risk of disease and inform pest control strategies.	U of MN	Jesse Berman	**7**		32	$199,938	$98,435,854		These ticks species are native species, so per LCCMR guidelines, this does not fit under MITPPC	
90	**073-B**	0419-2-321	Preventing Harmful Algal Blooms through Improved Stormwater Detention	Our project will identify assessment strategies for use in developing tools for pond management to limit nutrient release to be adopted by cities, counties, state agencies and watershed management organizations.	U of MN	John Gulliver	**7**		78	$619,031	$99,054,885	-What is the status of earlier Harmful Algal Bloom projects? -Does this expand on those projects? -need to know impact on wildlife		-Potential single source contract- need add'l info
91	**078-B**	0419-2-011	Bacterial Starvation for Improved Toxic Contaminant Treatment	We will understand how starvation changes bacterial function, resulting in their more extensive biodegradation of a greater number of contaminants of emerging concern, leading to development of simple treatment systems.	U of MN	Paige Novak	**7**		76	$235,854	$99,290,739			
92	**085-B**	0419-2-284	Our Future Drinking Water: Nitrate, Tile, and Climate	We will evaluate how to reduce nitrate in rural drinking water and how tile drainage and climate change impact replenishment of drinking water, i.e., groundwater recharge.	Science Museum of Minnesota	James Almendinger	**7**		71	$330,000	$99,620,739			-Conference-need add'l info
93	**086-B**	0419-2-114	Groundwater Microbiology Phase 2: Private Wells	The proposed study will generate critically important knowledge on the microbiological quality of private wells throughout Minnesota, identify risk factors, and provide sound guidance for protecting public health.	U of MN	Raymond Hozalski	**7**		71	$499,196	$100,119,935	-Dept. of Health should do this		
94	**110-B**	0419-2-221	Increased Sample Capacity for Analysis of Pesticides	Updating the MDA Laboratory pesticide analytical equipment with the latest technology will increase the capacity for analyzing pesticide water samples and increase the number of pesticides measured per water samples.	Minnesota Department of Agriculture	Heather Johnson	**7**		55	$736,079	$100,856,014	-conflict with 116P	-This appears to be a capital project in conflict with 116P.08 Subd. 1. Expenditures, which states: Money in the trust fund may be spent only for: ...(5) capital projects for the preservation and	-Capital expenditure-direct inject instrument- $499,470

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
95	134-C	0419-2-256	Restoring Land, Reviving Heritage: Conservation Through Indigenous Culture	By linking natural resource management, cultural heritage, and environmental education, we aim to restore an ecologically significant area of land while fostering multi-generational environmental stewardship and restoration of Indigenous culture.	Belwin Conservancy	Katie Bloome	7		51	$606,885	$101,462,899			
96	161-D	0419-2-147	Enhancing Habitat and Diversity in Cattail-Dominated Shorelines	Determine if hybrid cattail removal at the landowner scale benefits nearshore ecological function by experimentally removing cattails from sites in 36 lakes and measuring environmental, vegetation, and fish responses.	U of MN	Amy Schrank	7		71	$582,994	$102,045,893		AIS- Research on a MAISRC priority species: Fits under MAISRC.	
97	162-D	0419-2-200	Ticks! A Rising Threat in Minnesota	The Asian longhorned tick will bring disease and economic costs impacting wildlife, livestock, pets, and people. We will build a collaborative surveillance network to detect and limit its spread.	U of MN	Jonathan Oliver	7		66	$300,000	$102,345,893	-Needs to be evaluated by the invasive species center	TIS-Would potentially be eligible under MITPPC, however this is on a species that has not yet been proposed for evaluation by MITPPC.	
98	164-D	0419-2-258	Stop Starry Invasion - Community Invasive Species Containment	The destructive invasive algae starry stonewort, discovered in 2015, has now spread to 14 lakes. We hope to contain it in those lakes with boat cleaning stations at all accesses.	Minnesota Lakes and Rivers Advocates	Jeff Forester	7		60	$1,264,955	$103,610,848	Is MAISRC doing research on Starry Stonewort? -Should be general fund	AIS- Not research so does not fit under MAISRC	-Capital Expenditure: $728,000 waterless boat cleaning stations
99	167-DH	0419-2-273	How Effective and Protective are AIS Removal Methods?	The best way to prevent AIS spread in Minnesota is to stop the transfer of water and living material between lakes. We will test how well boat cleaning methods work	U of MN - Duluth NRRI	Valerie Brady	7		71	$110,699	$103,721,547		Fits under MAISRC.	
100	169-DH	0419-2-310	Rainy Lake Non-native Hybridized Cattail Removal	Eliminate non-native hybridized floating cattail mats, focusing on a 19-acre bog located in Jackfish Bay, that have displaced native vegetation outside of the Voyageurs National Park area on Rainy Lake.	Koochiching SWCD	Eric Olson	7		34	$199,500	$103,921,047	-conflict with RFP	-AIS- Not research so not eligible for MAISRC. -RFP p. 4, D. Aquatic and Terrestrial Invasive Species states "standard control, removal, and maintenance activities of	
101	176-E	0419-2-082	Produce Marketable Liquid Fuels from Plastic Wastes	Evaluate and develop conversion technology for production of high quality and marketable liquid fuels from plastic wastes and hence reduce solid pollutants and protect the environment.	U of MN	Paul Chen	7		75	$383,000	$104,304,047			
102	196-EH	0419-2-287	The Beltrami County Climate Vulnerability Assessment	HRDCs project is centered around completing a Climate Vulnerability Assessment for Beltrami County, which encompasses the Red Lake Tribal region, and looks to foster environmental stewardship in our community.	Headwaters Regional Development Commission	Joel Anastasio	7		82	$180,000	$104,484,047			-ETS-food-needs add'l info
103	224-F	0419-2-149	Habitat Associations of Mississippi Bottomland Forest Marsh Birds	This project will determine habitat associations of breeding bottomland forest birds in response to restoration actions along the Mississippi River at the Reno Bottoms outside Reno, MN.	National Audubon Society	Luis Ramirez	7		71	$295,336	$104,779,383			
104	255-FH	0419-2-109	Increase Golden Shiner Production to Protect Aquatic Communities	We propose four strategies to increase Golden Shiner (bait) production in-state because angler demand exceeds production. Suggested importation from out-state creates high risk of introducing aquatic invasive species and disease.	U of MN - Duluth - Sea Grant	John Downing	7		62	$188,161	$104,967,544		Project justification is to prevent AIS, however project focus is not on AIS. Does not fit under MAISRC	

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
105	**268-G**	0419-2-072	Metropolitan Regional Parks System Land Acquisition Phase 6	This project will acquire approximately five properties with high-quality natural resources or strong natural resource restoration potential for the metropolitan Regional Parks System.	Metropolitan Council	Emmett Mullin	**7**		82	$2,500,000	$107,467,544			
106	**275-G**	0419-2-148	Whiskey Creek & Mississippi River Water Quality/Habitat/Recreation Project	Project will purchase 13.8 acres and construct water quality, habitat, and recreational improvements to protect the Mississippi River from contaminants in the 400-acre, highly impervious watershed in Baxter Minnesota.	Mississippi Headwaters Board	Tim Terrill	**7**		74	$1,470,500	$108,938,044			-Director salary- needs to state this is for actual work conducted on the project
107	**277-G**	0419-2-193	Crow Wing County Community Natural Area Acquisition	Crow Wing County acquisition of three private parcels adjacent to the historic fire tower property will allow for diverse recreational opportunities while protecting wildlife habitat and preventing forest fragmentation.	Crow Wing County	Ryan Simonson	**7**		70	$405,000	$109,343,044			-County lands are open to ATVs unless posted closed -Revenue generation: Reinvest or return to ENRTF per 116P.10?
108	**284-G**	0419-2-020	Crane Lake Voyageurs National Park Campground & Visitors Center	This project consists of the design and construction of a new campground and site preparation/permitting/engineering/design for a new Visitors Center in Crane Lake; the gateway to the Voyageurs National Park.	Town of Crane Lake	Jim Janssen	**7**		38	$3,600,000	$112,943,044		-This appears to be a capital project in conflict with 116P.08 Subd. 1. Expenditures, which states: Money in the trust fund may be spent only for: ...(5) capital projects for the preservation and	- Capital expenditures: $3,600,000 to design and construct a new campground and Visitors Center - Revenue generation: Reinvest or return to ENRTF per 116P.10?
109	**289-GH**	0419-2-051	Sportsmens Training and Developmental Learning Center	The Minnesota Forest Zone Trappers Association is requesting LCCMR funds to complete a site evaluation and for the development of a master plan for their outdoor educational learning center.	Minnesota Forest Zone Trappers Association	Ray Sogard	**7**		35	$85,000	$113,028,044		-This appears to be a capital project in conflict with 116P.08 Subd. 1. Expenditures, which states: Money in the trust fund may be spent only for: ...(5) capital projects for the preservation and	- Funding to construct facilities for a private, non profit entity on private land.
110	**012-A**	0419-2-191	Detecting Road Dust Control Chemicals in Air/Water	This project responds to Minnesota road authority requests to detect and assess the transport and fate of chemicals used in dust mitigation on rural unpaved roads near environmentally sensitive areas.	U of MN - Duluth NRRI	Stephen Monson Geerts	**6**		76	$280,226	$113,308,270			
111	**037-A**	0419-2-032	Foundational Research on Fungi and Protecting Minnesota Trees	Collecting the medicinal fungus "Chaga" in Minnesota results in damage to trees and is being over harvested. This project develops new methods for sustainable production/harvest and characterizes its medicinal properties.	U of MN	Robert Blanchette	**6**		46	$362,196	$113,670,466			
112	**039-A**	0419-2-069	Minnesota Nature Trackers: A Citizen Science Project	This project will expand foundational knowledge on the diversity and distribution of trees, dragonflies, bees, and a suite of emerging terrestrial invasive plants by involving the public as citizen scientists.	U of MN	Robert Blair	**6**		42	$661,855	$114,332,321	-Does this use CBS data?		-Honorarium for curators- need add'l info

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
113	**044-A**	0419-2-205	MN DNR Water Infrastructure Needs (WIN)	This proposal will fund a water infrastructure needs (WIN) inventory, assessment and evaluation to identify the DNRs future water and waste water investments needed to protect ground and surface waters.	MN DNR	Kent Lokkesmoe	**6**		37	$2,000,000	$116,332,321	-Would this help prioritize dam safety and fish passage projects? -Should be funded with bonding		-DNR direct and necessary expenses
114	**050-AH**	0419-2-126	Developing Innovative Technology to Track Wildlife Movements	We will build a cost-effective network of automated radio-telemetry stations to assess fine-scale habitat use and track movements of wildlife to inform and improve management decisions for multiple taxa.	U of MN - Duluth NRRI	Alexis Grinde	**6**		75	$168,265	$116,500,586	-compare and contrast with 29A		
115	**052-AH**	0419-2-080	Cannon Valley Trail Natural Resources Inventory/Management Plan	Cannon Valley Trail traverses an ecologically diverse environment and stewards plant and animal species with protected status. This Project will update a 30-year old biological inventory and provide management direction.	Cannon Valley Trail	Scott Roepke	**6**		74	$50,000	$116,550,586	-Is budget large enough to meet scope?		
116	**064-AH**	0419-2-181	Environmental Factors Influencing Nutritional Content of Wild Rice	This project will establish foundational natural resource data on the nutritional variability of Minnesota's wild rice (Zizania palustris) and explore the influence of growth habitat on the nutritional composition.	U of MN	Emily Onello	**6**		50	$198,092	$116,748,678			
117	**077-B**	0419-2-031	Shedding Lights to Future Septic Systems	We want to add lights in the septic system to promote microalgae growth. It will enable septic systems to better treat domestic wastewater generated in the rural or small community.	U of MN	Bo Hu	**6**		76	$361,000	$117,109,678			-Capital expenditure: manhole for retrofitting- $8k
118	**079-B**	0419-2-254	Novel Field Methods to Evaluate Groundwater Quality Investments	Implement sampling technologies/approaches to measure vertical groundwater nitrate profiles. This alternative method will evaluate groundwater quality improvements from targeted land management changes and provide data for communication with producers.	Pipestone County SWCD	Laura DeBeer	**6**		75	$219,900	$117,329,578	-Does this project have board approval?		-Capital Expenditure: $35,000 Geoprobe hydraulic profiling and electrical conductivity system
119	**084-B**	0419-2-216	Chloride-Free Home Water Treatment: Increasing Efficiency, Reducing Cost	We will develop a new low-cost, high-efficiency pump that will enable a chloride-free solution to traditional household water softeners, thus eliminating the future cost of advanced treatment technology for WWTPs.	U of MN	Natasha Wright	**6**		73	$265,000	$117,594,578			
120	**089-B**	0419-2-104	Mitigating Insecticide Toxicity for Safer Waters in Minnesota.	We propose to harness the potential of newly discovered proteins from Minnesota ecosystems that turns environmental, toxic pollutants into harmless compounds to protect our state waters quality.	U of MN	Mikael Elias	**6**		68	$370,000	$117,964,578			- Contract - need add'l info
121	**094-B**	0419-2-083	Full Utilization of Concentrated Livestock Wastewaters	To develop and demonstrate a system for complete treatment and utilization of concentrated animal wastewater, reducing/preventing pollutants from escaping to air and leaching to groundwater, producing bioenergy, feeds, and foods	U of MN	Roger Ruan	**6**		67	$545,000	$118,509,578			

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
122	**102-B**	0419-2-234	Protozoan Microbes in Groundwater Used for Drinking Water	This project will determine the ability of a treatment system to destroy Cryptosporidium, Giardia, and other dangerous microbes that were recently detected in groundwater used for drinking water	U of MN	Timothy LaPara	**6**		64	$499,699	$119,009,277	-Dept. of Health should be a partner		-Capital expenditures: Design and construction of water treatment system - $80,000
123	**132-C**	0419-2-119	LSC Living Lab: Operations and Dissemination	We propose to develop, demonstrate and disseminate several new farming methods that have the potential to improve human health and stimulate local economic development while reducing environmental impacts.	Lake Superior College (LSC)	Randel Hanson	**6**		57	$258,058	$119,267,335			- 4 conferences - need add'l info
124	**141-CH**	0419-2-166	Providing Residential Environmental Learning Experiences to Underserved Students	Through program and busing scholarships, and a multi-language informational orientation video, we wish to connect Minnesota's increasingly diverse and changing K-12 student demographics to nature through residential environmental learning experiences.	Audubon Center of the North Woods	Bryan Wood	**6**		65	$150,000	$119,417,335			
125	**146-CH**	0419-2-307	Creating Awareness About Runoff to Protect Water Quality	We will create demonstration sites in Itasca County to study how phosphorous and chloride enters lakes. Outreach will educate the public about runoff impacts and strategies to reduce them.	City of Grand Rapids	Matt Wegwerth	**6**		55	$200,000	$119,617,335			-Single source contract-need add'l info -Requesting funds for city engineers: potential supplant-needs add'l info
126	**170-E**	0419-2-285	Increasing Resilience of Lakes to Extreme Precipitation Events	We will identify and communicate watershed best management practices for increasing resilience of coldwater fish habitat in lakes to warming and increased frequency of extreme storm events.	U of MN	Gretchen Hansen	**6**		81	$323,780	$119,941,115			- In-state conference attendance in years 2, 3, 4
127	**177-E**	0419-2-175	Converting Forest Products Industry Waste to Value-Added Bioproducts	We propose to reduce solid waste and greenhouse gas emissions from landfills by converting biomass in solid waste from forest products industry to value-added products and improve Minnesota's forest bioeconomy.	U of MN	Shri Ramaswamy	**6**		74	$309,000	$120,250,115	-not suited for ENTRF, economic dept.		
128	**180-E**	0419-2-179	Clean Hydrogen Fuel from Sunlight, Wind, and Water	Hydrogen is an attractive option for renewable energy storage. This project will develop inexpensive catalysts for hydrogen production via water splitting using electricity from intermittent renewable sources.	U of MN	Uwe Kortshagen	**6**		70	$240,000	$120,490,115			
129	**204-EH**	0419-2-151	Recycling Construction and Building Materials via Habitat ReStores	Keep usable building materials out of landfills via Habitat for Humanity ReStores. Purchase two box trucks to increase donation pickup capacity and make opening a third metro ReStore possible.	Twin Cities Habitat for Humanity, Inc.	Pete OKeefe	**6**		46	$98,000	$120,588,115			Capital expenditures-2 Commercial Box Trucks: $98,000
130	**211-F**	0419-2-087	Preserving and Learning from Minnesota's Native Orchids	The Minnesota Landscape Arboretum will continue vital conservation of Minnesota's sensitive native orchid species and implement a science-based curriculum for Minnesota grade schools leveraging this program's research and infrastructure.	U of MN	David Remucal	**6**		81	$556,100	$121,144,215			

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
131	**272-G**	0419-2-088	Creating Welcoming Environments at Minnesota State Parks	This project provides Minnesota State Park and Trail (PAT) visitors with an integrated, next-generation information system that creates a positive, safe, and welcoming experience for all users.	MN DNR	Rachel Hopper	**6**		78	$2,565,167	$123,709,382		- Supplement/supplant?	-Capital Expenditure: electronic paystation units $100,000 -DNR direct and necessary expenses
132	**287-GH**	0419-2-071	West Fork Singletrack Trail in SW Minnesota	The repurposing of an underutilized county park for the creation of the first multi-mobility competitive singletrack bicycle and hiking trail in SW Minnesota	Jackson County	Timothy Stahl	**6**		70	$194,500	$123,903,882	-capital expenditures need to be removed		-Potential single source contract-$150,000 needs add'l info -Capital expenditure-gravel driveway $25,000 -Capital expenditure-steel house roof
133	**015-A**	0419-2-170	Comparison of Burning and Haying for Prairie Restoration	This project will test how the frequency and timing of haying, used alone or combined with prescribed burning, can promote biodiversity and pollinator habitat in prairie.	Carleton College	Daniel Hernandez	**5**		73	$345,599	$124,249,481	-Did another earlier project do this? Staff Response-M.L. 2015 03o Effects of Grazing Versus Fire for Prairie Management -What is the status of that project? Staff Response-The project was completed 6/30/18		-Dissemination/hosting costs- need add'l info
134	**020-A**	0419-2-208	Adjusting Crop Water Demand to Protect Minnesota Groundwater	Irrigation increases crop yield but depletes groundwater. We will make computer-generated maps to find places where farmers can use less 'thirsty' crop varieties to save water without sacrificing crop yield.	U of MN	Xue Feng	**5**		69	$239,211	$124,488,692	-Looking soley at reducing ground water use		
135	**021-A**	0419-2-317	Complete Sonar Data Mapping on Three Minnesota Rivers	Acoustic data are compiled into an interactive web map that displays distribution and diversity of underwater habitat helping resource managers better understand underwater features critical to effective management and conservation.	National Park Service	Nancy Duncan	**5**		68	$525,945	$125,014,637			
136	**053-AH**	0419-2-068	Archiving Unreported Band Recoveries of Minnesota Birds	This project will ensure that >30,000 recaptures of banded non-game birds are made permanently available for analysis of population dynamics of Minnesota birds.	U of MN	Todd Arnold	**5**		73	$141,700	$125,156,337			
137	**057-AH**	0419-2-237	Studying Solar Panel Impact on Vegetation Quality	This project will assess the potential effects of solar installations on vegetative communities and seek to determine the success of native plantings for pollinators and other wildlife.	WSB & Associates	Tony Havranek	**5**		65	$160,083	$125,316,420			

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
138	**088-B**	0419-2-121	Cheap Small Sensor Network for Water Pollutants Monitoring	This project is to develop practical sensor networks based on sensors in Phase I, a very cheap and highly efficient approach for pollutants monitoring of lakes and rivers in Minnesota.	U of MN	Tianhong Cui	**5**		68	$635,000	$125,951,420			
139	**093-B**	0419-2-306	Innovative Phosphorus Removal Solutions for 10,000 Clean Lakes	Using a venture capitalist approach, the 10,000 Clean Lakes Project will solicit new opportunities for more affordable, more effective, and longer-lasting solutions to treat existing phosphorus problems in Minnesota's lakes.	Prior Lake-Spring Lake Watershed District	Maggie Karschnia	**5**		67	$405,000	$126,356,420			
140	**114-B**	0419-2-313	Innovative Solution for Protecting Minnesota from PFAS contamination	Demonstration of an innovative technology to protect the States drinking water and natural resources by eliminating Perfluoroalkyl and Polyfluoroalkyl substances (PFAS) from point source discharges.	Dem-Con	Bill Keegan	**5**		49	$750,000	$127,106,420	-conflict with 116P -This appears to be technology development at a private level. If it proceeds, LCCMR should require an IP position.	-This appears to conflict with 116P.08 Subd. 2. Exceptions, which states: Money in the trust fund may NOT be spent for: ...(5) solid waste disposal facilities	-Capital expenditure-LeachBuster $650,000 -Builds technology to remove PFAS in a private landfill
141	**119-BH**	0419-2-132	Cheap Efficient Filter to Remove Organic Compounds	This project is to develop a new filter to remove toxic organic compounds from drinking water. The technology is very cheap and highly efficient to improve Minnesota water quality.	U of MN	Tianhong Cui	**5**		62	$200,000	$127,306,420			
142	**126-C**	0419-2-324	Rivers Are Alive: Inspiring Life-long Environmental Stewardship	Expanding "Rivers Are Alive" in Minnesota to inspire life-long stewards of rivers and wild places through meaningful, equitable, and inclusive environmental education experiences.	St. Croix River Association	Jaime Souza	**5**		71	$363,900	$127,670,320			
143	**142-CH**	0419-2-328	Connecting 350 Northeastern Minnesota Students to Boundary Waters	This project will connect over 350 Northeastern Minnesota Students and young adults to the Boundary Waters through wilderness canoe experiences and conservation stewardship programs.	Friends of the Boundary Waters Wilderness	Chris Knopf	**5**		60	$184,050	$127,854,370	-General question for youth based activities - Does LCCMR require background checks for all funded staff that works with youth?		
144	**168-DH**	0419-2-281	Invasive Rock Snot Threatens North Shore Streams	We examine the recent spread, origin, cause, and economic and ecological threat of nuisance rock snot formation in North Shore streams and Lake Superior to inform management and outreach.	Science Museum of Minnesota	Mark Edlund	**5**		54	$197,896	$128,052,266		Fits under MAISRC.	
145	**172-E**	0419-2-320	Partnerships with Municipal and Cooperative Utilities	We propose to develop a three-year research engagement platform for university and non-profit experts to partner with diverse cohorts of municipal and cooperative utilities to develop targeted clean energy solutions.	U of MN	Gabriel Chan	**5**		78	$448,991	$128,501,257			-Workshop costs-need add'l info
146	**178-E**	0419-2-067	Deep Winter Greenhouses: Passive Solar Winter Food Production	The University of Minnesota will improve and advance a highly energy and water efficient passive solar Deep Winter Greenhouse (DWG) to reduce the carbon footprint of winter food production.	U of MN	Greg Schweser	**5**	**MR**	74	$1,559,706	$130,060,963			

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
147	**179-E**	0419-2-135	Power Electronics Circuits for Minnesota's Renewable Energy Future	Our project involves engineering techno-economic solutions that will propel pertinent stakeholders in Minnesota to the forefront of advances in next-generation ultra-wide-bandgap power-electronics circuits for renewable (solar) energy applications.	U of MN	Steven Koester	**5**		70	$472,647	$130,533,610			-Includes purchase of diamonds as substrate - $5k -Travel-- need add'l info
148	**185-E**	0419-2-061	Filling Empty Trucks: Energy Efficient Regional Food Distribution	This project fills empty wholesale trucks on existing routes to maximize energy efficiency, mitigate climate change and air quality impacts of food distribution, while opening markets for local food producers.	U of MN	Kathryn Draeger	**5**		64	$1,058,772	$131,592,382			- Software- $2,500- need add'l info - Stipends for producers ($6k) and grocers ($3k)- need add'l info
149	**200-EH**	0419-2-212	Resource Recovery from E-waste to Conserve Natural Resources	The project will analyze the challenges and opportunities to recover hazardous and valuable materials from electronic waste to conserve natural resources, reduce greenhouse gases, and to create local jobs.	U of MN - Duluth NRRI	Shashi Rao	**5**		72	$199,010	$131,791,392			
150	**222-F**	0419-2-049	Wetland and Forest Change Monitoring	We propose to develop an automated remote sensing system to monitor wetland and forest cover change on an ongoing basis, greatly enhancing our ability to respond to natural resource challenges.	MN DNR	Steve Kloiber	**5**		72	$450,000	$132,241,392			
151	**231-F**	0419-2-325	Improving the Success of Shoreline Restoration Projects	We propose to use field surveys of lakeshore restoration projects and experiments to develop tools for resilient and economic shoreline habitat restoration in Minnesota lakes and estuaries.	U of MN	Kimberly Hill	**5**		66	$335,618	$132,577,010	-need application and education		
152	**236-F**	0419-2-289	Phase II: Economic Assessment of Precision Conservation and Agriculture	Utilizing technology through precision agriculture, precision conservation and drones/remote sensing to improve farmers bottom line, provide additive conservation acres and monitor habitat using drones/sensors to support monarchs, pollinators and wildlife	Pheasants Forever	Tanner Bruse	**5**		60	$789,648	$133,366,658			-Outreach and outreach events-need add'l info
153	**279-G**	0419-2-021	Rocori Trail Phase 3	This project consists of the design and construction of Phase 3 of the Rocori Trail along the old BNSF rail corridor and will connect Cold Spring, Richmond and Rockville.	ROCORI Trail Construction Board	Pete Weber	**5**		65	$1,260,000	$134,626,658			-Capital expenditures: $891,730 for construction of 2.3 miles of trail
154	**280-G**	0419-2-009	Birch Lake Recreation Area Campground	This project consists of expanding the existing Birch Lake Recreation Area to add a new 22 acre campground that will include 49 campsites for recreational vehicles and tent campers.	City of Babbitt	Cathy Bissonette	**5**		53	$350,000	$134,976,658		-This appears to be a capital project in conflict with 116P.08 Subd. 1. Expenditures, which states: Money in the trust fund may be spent only for: ...(5) capital projects for the preservation and	-Contract for Material Testing etc.-- needs to be by competitive bid -Received $350k LCCMR 2019 recommendation for same project; as of 5/10/19 House ENRTF includes $700k,
155	**283-G**	0419-2-053	Ranier Safe Harbor/Transient Dock on Rainy Lake	To construct a dock in Ranier which would accommodate boats 26 feet or longer with the goal of increasing public access for boat recreation on Rainy Lake.	City of Ranier	Sherril Gautreaux	**5**		38	$762,650	$135,739,308		-This appears to be a capital project in conflict with 116P.08 Subd. 1. Expenditures, which states: Money in the trust fund may be spent only for: ...(5) capital projects for the preservation and	-Capital expenditures: $762,650 for construction of a dock for boats 26' or longer

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
156	**288-GH**	0419-2-038	Enhancing Winona's Prairie Island	The City of Winona aims to increase community access to the Mississippi River through updates to its riverfront campground, day use area, and boat launch.	City of Winona	Ross Greedy	**5**		54	$126,500	$135,865,808			-Contracts-need add'l info -Capital expenditure-boat docks $24,000 -Capital expenditure-vault toilet $73,000 -Capital expenditure-Naturescape Playground Designed play ground $12,000
157	**042-A**	0419-2-202	Building Statewide Daily Soil Temperature Maps	Building statewide daily soil temperature maps has many practical benefits in Minnesota where soil temperature can be different from air temperature because of thick snow cover and organic layer.	U of MN	Kyungsoo Yoo	**4**		40	$847,326	$136,713,134	-No specific natural resource outcomes		
158	**054-AH**	0419-2-125	Best Management Practices for Minnesota Coldwater Lakes	Remedial measures are needed to conserve fish in Minnesota's coldwater lakes. We will identify the causes of fish habitat loss and compile a set of management recommendations for salvageable lakes.	U of MN - Duluth	Euan Reavie	**4**		69	$199,653	$136,912,787			
159	**055-AH**	0419-2-304	Rapid Assessment of Wildlife Habitat for Environmental Review	Creation of a highly accessible and versatile online application for use by natural resource professionals to rapidly assess the implications of current or proposed forest management on wildlife habitat.	U of MN	John Zobel	**4**		68	$178,000	$137,090,787			
160	**060-AH**	0419-2-107	Assessing Vegetation Impacts from Deer	This project will use a citizen science program to determine the economic and ecological impacts of white-tailed deer populations on the health and productivity of Minnesota's forests.	U of MN	Matthew Russell	**4**		62	$186,460	$137,277,247			Capital expenditures: Thermal sensor ($22,000) and maintenance ($6,000)
161	**061-AH**	0419-2-243	Measuring Mussel Habitat Suitability in the Cannon River	We will measure physical attributes of known mussel sites in the Cannon River watershed and develop hydrodynamic models to determine habitat suitability. Our analysis will identify priority sites for management/restoration.	U of MN	Jabari Jones	**4**		58	$154,411	$137,431,658			- Proposer is a student - Publication costs of $10,000 - Administrative and accounting support 15% of budget- prohibited; needs to be removed
162	**107-B**	0419-2-128	Mobile Water Treatment Demonstration System for Sulfate Reduction	A flexible, mobile treatment system will be developed to demonstrate chemical and biological technologies to remove sulfate from waste streams to below 10 ppm at municipal and industrial sites.	U of MN - Duluth NRRI	Lucinda Johnson	**4**		60	$838,401	$138,270,059			-Potential single source contract-- need add'l info -Capital expenditures: Chemostat for bioreactor- $100k; Trailer and treatment platform- $150k

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
163	118-BH	0419-2-279	Field Testing of a New Phosphorus Removal Technology	The Comfort Lake-Forest Lake Watershed District will pilot new pollutant-removal nanotechnology by installing innovative adsorption pellet containers at multiple sites in order to reduce loading to impaired and/or near-impaired waterbodies.	Comfort Lake-Forest Lake Watershed District	Mike Kinney	4		73	$150,000	$138,420,059	-This appears to be technology development at a private level. If it proceeds, LCCMR should require an IP position.		
164	131-C	0419-2-255	MN GreenStep Schools: Statewide Launch in 12 Schools	MN GreenStep Schools integrates environmental best practices with hands-on environmental education. Funding will launch the program in 12 schools which become regional catalysts, yielding education and environmental outcomes.	U of MN	Jonee Brigham	4		58	$554,313	$138,974,372			
165	144-CH	0419-2-103	Environmental Education: Cricket Farming for Reducing Carbon Emissions	The project seeks to engage K-12 students in environmental education and cricket farming, an alternative to livestock for reduction of carbon emissions, for long-term preservation of Minnesota's natural resources.	U of MN	Sujaya Rao	4		56	$198,879	$139,173,251	-General question for youth based activities - Does LCCMR require background checks for all funded staff that works with youth?		-Possible single source contract- need add'l info
166	166-DH	0419-2-293	St. Croix Terrestrial Invasive Species Awareness, Prevention, and Control	St. Croix Terrestrial Invasive Species Awareness, Prevention, and Control will engage, educate, and empower key stakeholders to protect biodiversity and native ecosystems against the adverse impacts of terrestrial invasive species.	St. Croix River Association	Katie Sickmann	4		72	$191,940	$139,365,191		Not research and not UMN so not eligible for consideration under MITPPC.	
167	171-E	0419-2-084	Tracking Climate Benefits of Natural and Working Lands	Assess the climate change mitigation benefits provided by Minnesota's natural and working lands through an inventory and an interactive tool designed to measure and maximize these benefits going forward.	MN Board of Water and Soil Resources	Suzanne Rhees	4		81	$390,500	$139,755,691			
168	181-E	0419-2-264	Pilot Scale Crematorium Mercury Filter	This project will develop a pilot-scale system to capture mercury from crematorium exhaust. Cremation in Minnesota emits 95 pounds of mercury from dental amalgam annually (~5% of state total).	Mertron, LLC	William Mitchell	4		69	$597,500	$140,353,191	-This appears to be technology development at a private level. If it proceeds, LCCMR should require an IP position.		-Capital Expenditures: $85,000 crematorium
169	183-E	0419-2-257	Leveraging Carbon & Stormwater to Preserve Ash Trees	Community trees sequester enormous amounts of carbon and provide other valuable services. This project pioneers securing carbon credits and quantifying alternatives to costly stormwater infrastructure by preserving mature ash trees	Minnesota Pollution Control Agency	Kevin McDonald	4		66	$1,013,840	$141,367,031	-cut ash or save ash???		
170	184-E	0419-2-294	Carbon Capture through Biological Mineralization	We will utilize emerging technologies to capture and transform carbon dioxide into mineralized insoluble carbonates for use in secondary markets such as cement production.	U of MN	Brett Barney	4		65	$292,500	$141,659,531			
171	186-E	0419-2-334	A Community Table: Food Waste and Climate Change	Food waste contributes to climate change. This project will examine the experiences Minnesotans have with food and food waste to uncover more targeted, just, and effective waste prevention strategies.	U of MN	Jennifer Schmitt	4		64	$859,216	$142,518,747			-PI and other faculty @25% FTE- need add'l info -2 course buy outs- need add'l info -Community meals- $4,400- need add'l info

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
172	**197-EH**	0419-2-308	Visualizing projected climate information for Minnesota	Provide access to climate projections for the 21st century through a simple web tool, so that Minnesotans can use the best available science to plan for future conditions.	MN DNR	Kenneth Blumenfeld	**4**		82	$125,000	$142,643,747			
173	**205-EH**	0419-2-333	Rural Distributed Renewable Energy and Back-Up Power	This project will deploy ten Minnesota designed and manufactured SolarBank (solar/storage) systems, to provide rural energy consumers carbon free energy savings and back-up power during grid outages.	Northwest Renewable Energy LLC	Jill Thibert	**4**		43	$198,500	$142,842,247	-conflict with 116P -This appears to be technology development at a private level. If it proceeds, LCCMR should require an IP position.	-This appears to be a capital project in conflict with 116P.08 Subd. 1. Expenditures, which states: Money in the trust fund may be spent only for: ...(5) capital projects for the preservation and protection of unique natural resources; '-RFP p. 4, E. Air Quality, Climate Change, and Renewable Energy states "funding for capital projects (e.g. buildings or building infrastructure) will not be considered in this category."	-Capital Expenditures-SolarBank System components - PV Panels, Racking, Batteries, Inverter/Chargers, Electrical-$128,000 -Permits and inspections-$5,000 -Revenue generation: Reinvest or return to ENRTF per 116P.10?
174	**210-F**	0419-2-034	Adapting 4R Management for the Red River Basin	This multi-institutional collaboration proposes adapting 4R Nutrient Stewardship for Northwest Minnesota's Red River Basin to improve fertilizer use efficiency while maintaining profitability and limiting potential impairment to Minnesota's freshwater ecosystem	U of MN	Lindsay Pease	**4**		81	$459,218	$143,301,465			- Food for stakeholder & project meetings-need add'l info
175	**217-F**	0419-2-062	Developing a Rare Plant Salvage Program for Minnesota	Develops critically needed and scalable protocols for salvaging rare plant species permitted to be destroyed. Accomplished through development of a mobilized network, species specific protocols, field testing, and monitoring.	Anoka Conservation District	Carrie Taylor	**4**		76	$344,628	$143,646,093			
176	**221-F**	0419-2-204	Enhanced Forest Inventory Implementation for Multiple Values Management	Forest Inventory is the foundational data set for all stakeholders. This project will implement a new remote sensing forest inventory methodology across the state, allowing management for multiple values.	MN DNR	Scott Hillard	**4**		72	$1,470,000	$145,116,093			
177	**230-F**	0419-2-029	Documenting Species Response to Prairie Habitat Management	Conservation Focus Area project prioritizing effectiveness monitoring of bird and pollinator species to four defined prairie management actions. Results will help inform and guide future prairie habitat management efforts.	MN DNR	Kristin Hall	**4**		66	$599,522	$145,715,615			-DNR direct and necessary expenses -Contracts-need add'l info
178	**242-F**	0419-2-133	Biological Sulfate-Reduction System	Field demonstrate a low-cost sulfate-reducing system to remove sulfate from contaminated water that facilitates meeting state and federal sulfate standards while protecting wild rice and improving water quality.	Clearwater BioLogic LLC	Jeffrey Hanson	**4**		48	$1,268,266	$146,983,881	This appears to be technology development at a private level. If it proceeds, LCCMR should require an IP position.		-Capital Expenditures-$66,700 (4 bioreactors, solar panels, monitoring equipment, and clarifier and settle tank)
179	**282-G**	0419-2-017	Silver Bay Multi-Modal Trailhead Center	Development of a Multi-Modal Trailhead Center that provides ample lighted parking, safe access to non-motorized and motorized trails, a multi-use building with lavatories/showers, picnic/playgrounds, and conveniently located to city/business amenities.	City of Silver Bay	Lana Fralich	**4**		40	$1,400,000	$148,383,881		-This appears to be a capital project in conflict with 116P.08 Subd. 1. Expenditures, which states: Money in the trust fund may be spent only for: ...(5) capital projects for the preservation and	-Capital expenditure-parking area, buildings, playground, picnic shelters, etc.: $1,220,000 - Revenue generation: Reinvest or return to ENRTF per 116P.10?

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
180	**027-A**	0419-2-054	Soil and Plant Microbiomes: A Foundational Database for Environmental Health	We will create a statewide database of soil and plant microbiomes to enhance understanding, guide management, and inform policy to preserve Minnesota's environment and natural resources.	U of MN	Linda Kinkel	**3**		58	$758,860	$149,142,741			- Capital Expenditure: $40,000 Sequencing machines - Capital Expenditure: $10,900 Soil homogenizer - Capital Expenditure: $9,500
181	**029-A**	0419-2-063	Monitoring Carnivores Statewide: A Citizen-Science Trail-Cam Project	This project will develop and deploy the infrastructure needed to implement a statewide monitoring program for carnivores using remotely triggered cameras and citizen scientists.	U of MN	John Fieberg	**3**		57	$789,988	$149,932,729			- General Office Supplies: prohibited and needs to be removed
182	**068-AH**	0419-2-203	Rock County Aggregate Mapping	Map the aggregate resource potential in Rock County to assist with natural resource decision-making, planning and zoning, land use, and well head protection.	Rock County Land Management Office/SWCD	Eric Hartman	**3**		16	$120,000	$150,052,729	-Agg Mapping?	Connection to constitution?	
183	**095-B**	0419-2-039	Storing Sulfide Produced from Sulfate-Containing Wastewater Safely	Sulfate in wastewater is a major concern in Minnesota. We propose to process biproducts of sulfate remediation to produce bricks to safely store sulfur.	U of MN	Lee Penn	**3**		66	$280,790	$150,333,519			-Capital equipment- laboratory kiln- $12k
184	**103-B**	0419-2-180	Timing is everything: When is Groundwater in MN Recharged?	The goal of this project is to collect robust field data that allow us to determine when groundwater in Minnesota is recharged and quantify the amount of recharge.	U of MN - Duluth	Salli Dymond	**3**		63	$520,164	$150,853,683	-last session support?		-Capital Expenditure: Weather station $25k (5 @ $5k)
185	**104-B**	0419-2-174	Quantifying A New Urban Precipitation/Water Reality	Better understanding of groundwater and surface water interactions will be used to improve future infrastructure planning, reducing damage to home basements and underground infrastructure resulting from recent high water tables.	U of MN	Joe Magner	**3**		63	$1,377,893	$152,231,576			-Cellular modem for communications - need add'l info -Two laptops - needs add'l info
186	**108-B**	0419-2-046	Vermillion River Surface Water and Groundwater Nitrate Impacts	Identify ways to improve surface water and groundwater quality along the Vermillion River by developing better understanding of surface water-groundwater interaction; and identifying significant sources contributing nitrate to the subwatershed	Dakota County	Valerie Grover	**3**		58	$268,000	$152,499,576			
187	**115-B**	0419-2-266	Assess Water Quality and Flood Retention Structures	The unintended consequences of Minnesota's important agricultural success has been alteration of natural hydrology. This study quantifies water storage needs, solutions, and benefits, and may serve others as a template.	Yellow Medicine River Watershed District	Michelle Overholser	**3**		40	$500,000	$152,999,576			-Not enough detail provided to adequately evaluate
188	**130-C**	0419-2-164	Smart Trash Sorting for Zero Waste in Minnesota	We aim at enhancing recycling in Minnesota by providing a recycling-at-source solution, which is to help Minnesotans make immediate recycling decisions by a smartphone application connected to trash bin networks.	U of MN	Ce Yang	**3**		61	$394,709	$153,394,285			- $9,200 for paper publication -Revenue generation: Reinvest or return to ENRTF per 116P.10?
189	**143-CH**	0419-2-070	Lake Superior Zoo; Water Protection Intuitive Exhibit	Create an environmental water protection intuitive exhibit that uses Kingsbury Creek within the Lake Superior Zoo to demonstrate the importance and value of buffer areas adjacent to our watersheds.	Lake Superior Zoological Society	Erik Simonson	**3**		57	$197,500	$153,591,785			-Capital expenditures-displays $5,000

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
190	**163-D**	0419-2-226	Mississippi River Dams: Blocking Invasive Fish, Helping Natives	Deter Bigheaded Carp establishment in Minnesota by adjusting gates at six Mississippi River navigation dams. Downstream dams block carp, while upstream dams open pathways for native fishes to resist invasion.	U of MN	Jay Hatch	**3**		62	$324,282	$153,916,067	-Was this a previous proposal or similar to a previous proposal? -Needs to come from the aquatic institute	AIS-Research on a MAISRC priority species: Fits under MAISRC.	- 6 conferences-- need add'l info -Lock and dams located in Iowa
191	**165-D**	0419-2-215	Does AIS Outreach Lead to Behavior Change?	This project will augment AIS prevention efforts to increase boater compliance with regulations based on new community engagement outreach, social media and use of waterless boat cleaning stations.	U of MN - Duluth - Sea Grant	Douglas Jensen	**3**		60	$473,458	$154,389,525	-Should be general fund	AIS- Fits under MAISRC.	- 4 contracts- need add'l info on selection process
192	**174-E**	0419-2-247	Making Red Pine Forest Resilient to Climate Change	To increase resilience of red pine forests to climate change, we will conduct a statewide vulnerability assessment, develop approaches to adapt forest management, and create a Forest Adaptation Learning Network.	U of MN	Rebecca Montgomery	**3**		78	$628,737	$155,018,262		TIS-Not research on invasive species so this does not fit under MITPPC	-Capital Expenditures: Portable Photosynthesis System - $50,950
193	**175-E**	0419-2-177	"Climate-Smart" Trees and Forests for Minnesota	We will fill a key knowledge gap by identifying tree species likely to be 'winners' under future climate, helping establish a strategy to make our trees and forests "Climate-Smart"	U of MN	Peter Reich	**3**		77	$494,000	$155,512,262			
194	**182-E**	0419-2-085	Nitrogen Fixation for Fertilizers and Hydrogen Fuels Production	To demonstrate a new process to fix nitrogen from water and air to produce ammonia and nitrogen-rich water using renewable electricity from wind or solar energy, eliminating the need for fossil resources and pollutant emissions.	U of MN	Roger Ruan	**3**	**MR**	68	$487,000	$155,999,262			-ETS- needs add'l info on $145,000 in supplies, instruments, and equipment needed
195	**187-E**	0419-2-235	St. Louis County Building Deconstruction/Materials Reuse Pilot	St. Louis County, together with its public and private partners, will sponsor a building deconstruction and materials reuse pilot to reduce pollution and create jobs.	St. Louis County	Mark St. Lawrence	**3**		63	$1,463,000	$157,462,262			
196	**189-E**	0419-2-159	Remove Airborne Contaminants from Animal Production Facilities	Develop and evaluate innovative non-thermal plasma-based technologies for removing airborne biological and chemical contaminants from animal production facilities; protect human and animal health and environment.	U of MN	Roger Ruan	**3**		58	$585,000	$158,047,262			-Need add'l info on specific $100,000 in lab supplies, instruments, and equipment

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
197	**192-E**	0419-2-222	Phase 2: Integrated Small-Scale Ammonia Synthesis	Make ammonia sustainably for the farm, using renewable energy and with no greenhouse gas emission; phase 2 focuses on a new efficient integrated module made possible with previous advances.	U of MN	Alon McCormick	**3**	**MR**	53	$2,108,520	$160,155,782			-Co-Investigator @ 25% FTE- need add'l info
198	**194-E**	0419-2-150	Minnesota Shrimp Production Using Clean Energy	We propose to develop a modularized shrimp production system that can utilize solar thermal, solar PV, and energy storage to power the energy-intensive process; providing fresh seafood to Minnesota.	U of MN	Robert Gardner	**3**	**MR**	45	$1,129,000	$161,284,782		-RFP p. 4, E. Air Quality, Climate Change, and Renewable Energy states "funding for capital projects (e.g. buildings or building infrastructure) will not be considered in this category."	-Potential single source contracts (3): all need add'l info - Capital Expenditure: $195,500 Modified 40 ft shipping container - Capital Expenditure: $30,000 10kW Solar
199	**201-EH**	0419-2-057	Identifying Agricultural Energy Consumption and Impacts in Minnesota	This project uses data from multiple sources to analyze current and future agricultural energy use at the county and enterprise levels, filling a key knowledge gap for making system-wide improvements.	U of MN	Joel Tallaksen	**3**	**MR**	70	$146,791	$161,431,573			-Printing-needs details
200	**202-EH**	0419-2-187	Modelling PAH Emissions from Aircraft Surrounding MSP Neighborhoods	Use commercially available software (AEDT) to model emissions of polycyclic aromatic hydrocarbons and other air toxic gases from aircraft in areas surrounding MSP. Disseminate to public. Put results into context.	Minnesota State University Mankato	Jacob Swanson	**3**		69	$96,400	$161,527,973			
201	**213-F**	0419-2-047	Maximizing Ecosystem Benefits through Integrated Wetland-Watershed Planning	To improve ecological outcomes for wetland and watershed planning, the DNR and SCWRS propose to develop a web-based tool that delivers the latest wetland information within a watershed planning framework.	MN DNR	Steve Kloiber	**3**		80	$506,517	$162,034,490			
202	**220-F**	0419-2-305	Transformation of Plastic Waste into a Valued Resource	We will develop technologies that utilize indigenous microbes to convert waste plastics into useful chemical compounds and fuels.	U of MN	Brett Barney	**3**		72	$308,000	$162,342,490			
203	**223-F**	0419-2-168	Mississippi Gorge Veteran Oaks: Mapping and Preservation	We will identify and map veteran bur oaks above the Mississippi Gorge, and develop conservation arboriculture techniques to preserve and retain legacy trees while minimizing urban park public safety risk.	U of MN	Daniel Griffin	**3**		71	$239,907	$162,582,397			-Capital Expenditures- smartborer $6,756 -Capital Expenditures- arbotom- $20,986
204	**225-F**	0419-2-099	New Organic Fertilizer to Protect Minnesota's Water Quality	This study will protect Minnesota's water quality by developing a slow-nutrient-release, organic fertilizer based on co-composting biochar with manure. Fertilizer production and application provide economic incentives for Minnesota's livestock farmers.	U of MN	Sebastian Behrens	**3**		68	$499,000	$163,081,397			-Conference-need add'l info

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
205	**227-F**	0419-2-102	Protected Areas: A New Way to Save Fisheries	This project determines whether protecting a few key pieces of lakes in a holistic fashion could save our fisheries and waters, just as similar efforts have saved our wildlife.	U of MN	Peter Sorensen	**3**		67	$499,950	$163,581,347			
206	**237-F**	0419-2-239	Shifting Savannas: Assessing Management of At-Risk Sites	We propose to survey Central and Southern Minnesota savannas and prairies to develop assessments measuring the success of restorations and train practitioners on management practices that promote robust sites.	Minnesota State University Mankato	Matthew Kaproth	**3**		58	$351,754	$163,933,101			-Conference - need add'l info
207	**250-FH**	0419-2-201	Impacts from Larch Beetle to Forests and Wildlife	Larch beetle has damaged nearly half of Minnesota's tamarack forest. The ecological impacts are unknown. We propose surveying tree and bird populations to assess their response to widespread tree mortality.	MN DNR	Mike Reinikainen	**3**		69	$195,107	$164,128,208		This is a native insect, so per LCCMR guidelines, this does not fit under MITPPC.	-DNR direct and necessary expenses
208	**274-G**	0419-2-326	Acquire Riverfront Land at Upper St. Anthony Falls	The City of Minneapolis and Friends of the Lock & Dam seek fee title acquisition of land abutting the Upper Lock for recreational and educational purposes.	Friends of the Lock & Dam	Kjersti Monson	**3**		77	$3,000,000	$167,128,208		-per 116P.18 Money appropriated from the trust fund must not be used to purchase any land in fee title or a permanent conservation easement if the land in question is fully or partially owned	- Capital Expenditures: $1,250,000 Site capital improvements - add'l details needed on specific improvements
209	**035-A**	0419-2-214	Malaria in Migrant and Resident Birds of Minnesota	Minnesota birds carry avian malaria, but we do not know how frequently, what kinds, or where they come from. We propose to begin malaria monitoring to fill this knowledge gap.	U of MN	Keith Barker	**2**		48	$316,000	$167,444,208			
210	**059-AH**	0419-2-263	Enhanced Online Tool to Track Minnesota Lake Trends	We propose to update and refine an existing online visualization tool and database to explore long-term water quality trends in Minnesota lakes to support natural resources decision-making and environmental education.	U of MN - Duluth NRRI	Christopher Filstrup	**2**		62	$197,836	$167,642,044			
211	**081-B**	0419-2-182	Adaptive Management to Reduce Road Salt Pollution	We will develop a practical spreadsheet-based tool to enable cities to evaluate the impact of salting/de-icing practices on water quality and thereby enable adaptive management to improve efficiency.	U of MN	Lawrence Baker	**2**		74	$438,000	$168,080,044			-Lab services-need add'l info
212	**099-B**	0419-2-210	Rapid Detection of Algal Toxins in Minnesota Lakes	We will use satellite data to identify potentially HAB-impacted lakes, then apply genomics based models developed in this project to quantify cyanotoxin exposure risk in target lakes.	U of MN - Duluth NRRI	Andrew Bramburger	**2**		64	$830,326	$168,910,370			-Capital expenditure-water quality sonde $19,600 -Capital expenditure-Hyperspectral Radiometer $12,000
213	**100-B**	0419-2-156	Time-Integrated Sampling of Chemical Contaminants in Minnesota's Streams	Synthetic chemical contaminants in Minnesota streams occur frequently in pulses and mixtures. Time-integrating sampling will complement traditional stream sampling to provide a more complete understanding of the degree of contamination.	U of MN	Paul Capel	**2**		64	$349,383	$169,259,753			
214	**105-B**	0419-2-198	Cold Temperature Ammonia Consuming Bacteria during Wastewater Treatment	This project will investigate ammonia consuming microorganisms during municipal wastewater treatment in the winter. These bacteria protect Minnesota's environment by preventing the release of ammonia and estrogenic hormones.	U of MN	Timothy LaPara	**2**		62	$462,351	$169,722,104			

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
215	**109-B**	0419-2-023	Protecting Natural Resources & Groundwater Aquifers in Rochester	Significant population growth is expected in Rochester. This project will collect data on deep aquifers necessary ensure no impacts to natural resources and assess sustainability of future water supplies.	Rochester Public Utilities	Todd Osweiler	**2**		56	$537,700	$170,259,804			-Potential single source contracts-need add'l info
216	**133-C**	0419-2-130	Delivering Student-Centered Environmental Education to Minnesota Students	This project will provide student-centered environmental education to over 15,000 Minnesota students by expanding currently existing in-classroom programs over a three year period.	U of MN	Seth Thompson	**2**		55	$610,000	$170,869,804			
217	**135-C**	0419-2-338	Connecting Tribal Communities to Sustainable Energy Pathways	Windustry and partners will build new pathways for Minnesota Tribes to learn how to power their communities with renewable and sustainable energy solutions through trainings and installing demonstration systems.	Windustry	Lisa Daniels	**2**		45	$2,187,669	$173,057,473	-conflict with 116P	-This appears to be a capital project in conflict with 116P.08 Subd. 1. Expenditures, which states: Money in the trust fund may be spent only for: ...(5) capital projects for the preservation and	-Legal fees for contract development - prohibited -Single source contracts - needs add'l info -Capital Expenditures: $840,000 turbines, solar panels, batteries, etc.:
218	**148-CH**	0419-2-137	Enriching Natural Resource Knowledge for Informed Decision Making	A pilot educational outreach program designed to engage and encourage Minnesotans to participate in well-informed discussions about the complex interrelationships between Minnesota's water and mineral resources and clean energy future.	U of MN - Duluth NRRI	Lawrence Zanko	**2**		51	$196,627	$173,254,100			
219	**149-CH**	0419-2-143	Environmental Education through Regenerative Agriculture	The Audubon Center of the North Woods seeks to create a regenerative farm that models and teaches environmental education through sustainable agricultural practices to thousands of children and adults annually.	Audubon Center of the North Woods	Bryan Wood	**2**		50	$80,000	$173,334,100	-General question for youth based activities - Does LCCMR require background checks for all funded staff that works with youth?		
220	**151-CH**	0419-2-036	Promoting Forest Health and Reducing Forest Fire Hazards	The goal is to improve forest health, reduce wildfires, and grow Minnesota's forest products industry by demonstrating the benefits of a thermally modified tamarack and white pine boardwalk and boathouse.	U of MN - Duluth NRRI	Matthew Aro	**2**		40	$152,373	$173,486,473			
221	**188-E**	0419-2-301	Coping with Cold Weather in Minnesota Wind Energy	This project will use laboratory, field, and modeling studies to investigate and mitigate impacts of ice accumulation on wind turbine blades, a common issue in Minnesota and other cold regions.	U of MN	Jeffrey Marr	**2**		60	$399,562	$173,886,035			
222	**191-E**	0419-2-194	Pilot Scale Anaerobic Digester for Mixed Wastes	To develop a pilot-scale anaerobic digester and generate information for designing and building a commercial anaerobic digester in eastern Minnesota to produce renewable natural gas from organic wastes	U of MN	Min Addy	**2**		53	$250,000	$174,136,035			
223	**193-E**	0419-2-265	Multifunctional Materials for Building Energy and Power Generation	Our collaborative team proposes to design and engineer novel two dimensional (2D)-material aerogels with multifunctionalities for renewable energy applications including both building superinsulation and power generation.	U of MN	Xiaojia Wang	**2**		51	$395,136	$174,531,171			
224	**228-F**	0419-2-314	Lowering Nitrogen Requirements for Agricultural Crops	We will bestow upon plants the ability to obtain nitrogen through sustainable biological processes by improving associations between plants and nitrogen-fixing microbes that live with the above-ground plant tissues.	U of MN	Brett Barney	**2**		66	$271,000	$174,802,171			-Potential single source contract-need add'l info

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
225	**232-F**	0419-2-165	Bison as Keystone Species in Minnesota Savannas	Recently, bison have been reintroduced to Minnesota. Their reintroduction will likely have cascading effects on these ecosystem. We propose to study how bison reintroduction affects deer, pollinators, and other animals.	U of MN	Chad Zirbel	**2**		66	$344,000	$175,146,171			-Proposer is a Post Doc
226	**233-F**	0419-2-081	Supporting Pollinators and Prairie with Beneficial Soil Fungi	Develop methods to restore native prairies in agricultural areas with beneficial soil fungi, improving conservation of pollinators, soil, water, and other wildlife, and increasing resistance to invasive non-native plants	U of MN	Nicholas Jordan	**2**		65	$331,079	$175,477,250			
227	**234-F**	0419-2-209	Reducing Sediment Loading and Temperatures in Northshore Streams	This project will determine riparian vegetation best management practices to enhance habitat in the Northshore trout streams and reduce contaminant loading to Lake Superior.	U of MN	William Herb	**2**		63	$383,744	$175,860,994			
228	**235-F**	0419-2-288	Integrated Conservation to Achieve Water Quality Goals	Implementation of soil and water management and conservation practices to restore and protect soil and water resources while making measurable changes toward water quality improvements in southwest and northwest Minnesota	U of MN	Jeffrey Strock	**2**		63	$1,963,155	$177,824,149			-Capital Expenditure: $1,098,505 six nitrate sensors - Capital Expenditure: $57,045 ISCO refrigerated samplers - Capital Expenditure: $32,920 CSI
229	**238-F**	0419-2-190	Local Agriculture Steward Partnership: Science to Sustainable Action	To enhance water quality through implementation and evaluation of regenerative farming practices on 5,000 acres of land, education through four outreach events within the Middle Fork Crow River Watershed.	Middle Fork Crow River Watershed District	Margaret Johnson	**2**		55	$620,420	$178,444,569			- Single Source contract to HE - need add'l info - Single source contract to Discover Farms - need add'l info - Paying for land practices on private,
230	**240-F**	0419-2-050	Precursors of Failure in Mine Tailings Dams	We aim to obtain data for design of an early warning system for predicting conditions that result in failure of mine tailings dams.	U of MN	Joseph Labuz	**2**		51	$298,000	$178,742,569			- Capital Expenditures: $12,000 Bender Element Conditioner and data acquisition system
231	**241-F**	0419-2-195	Improving the Cost Effectiveness of Minnesota's Conservation Programs	By developing management guidance sensitive to the landscape (soils & topography) and weather (temperature & precipitation), we can increase the cost effectiveness of water conservation efforts in Minnesota.	U of MN	Brent Dalzell	**2**		50	$277,577	$179,020,146			
232	**246-FH**	0419-2-322	Management Strategies to Benefit Minnesota's Forests and Birds	Engage landowners in forest stewardship and encourage sustainably harvested forest products through the development and promotion of a guide and interactive web application on forestry methods that enhance bird habitat.	Forest Stewards Guild	Michael Lynch	**2**		76	$196,518	$179,216,664			
233	**251-FH**	0419-2-242	Lake Minnetonka Comprehensive Plan and Civic Governance Model	Our project will create a one-of-a-kind, large-lake, unified management plan linking together water quality, fisheries, vegetation, land-use, recreation, AIS, climate change, and economic development using the "Civic Governance" planning model	Lake Minnetonka Association	Eric Evenson	**2**		67	$195,000	$179,411,664			Contracts- need add'l info

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
234	**252-FH**	0419-2-092	Convert Solid Wastes to Protein Feed and Fertilizer	This project aims to use black soldier fly larvae to convert animal and food waste produced in Minnesota to $7 billion worth protein-rich animal feed and organic fertilizer	U of MN	Min Addy	**2**		66	$200,000	$179,611,664			-Is this a non-native species? Would you have to go through USDA APHIS for approval to use?
235	**254-FH**	0419-2-112	Safe Biopesticides for Protection of Minnesota Groundwater Resources	In order to protect Minnesota groundwater and human health, this project will identify bio-based chemical controls from fungi to replace highly toxic nematicides against the soybean cyst nematode.	U of MN	Kathryn Bushley	**2**		63	$199,000	$179,810,664			
236	**259-FH**	0419-2-312	Restoring Turf to Native Pollinator Gardens Across Metro	Turf to Pollinator Gardens will transition ecologically-degrading turf to native gardens throughout the Regional Park System to provide critical pollinator habitat, long-term stewardship, and help connect diverse populations with nature.	Wilderness in the City	Holly Jenkins	**2**		54	$197,000	$180,007,664			
237	**260-FH**	0419-2-171	Control Snowdrift Using Living Fences to Protect Wildlife	We propose to develop, study, and demonstrate living snow fences made of natural plants that balance ecological benefits and economical cost for protecting wildlife against snowdrift caused by winter storms.	U of MN	Lian Shen	**2**		40	$199,971	$180,207,635			
238	**278-G**	0419-2-271	Purchasing 316 acres for Conservation and Agriculture Education	The Food Group seeks to purchase 316 acres of farmland in Washington County to preserve it from development and sustain and expand our organic farmer education program.	The Food Group	Amber Stenson	**2**		65	$1,500,000	$181,707,635			- Funding to purchase land for a private, non- profit to operate -Revenue: Reinvest or return to ENRTF per 116P.10?
239	**013-A**	0419-2-298	Update and Expand 11-County Metro MLCCS Coverage	Provide critical geospatial land cover data and analytical protocols as a foundation for science-based water and ecological resource analysis, project identification, and ranking throughout the 3.2M acre 11-county metro area.	Metro Conservation Districts	Chris Lord	**1**		75	$2,934,624	$184,642,259			
240	**023-A**	0419-2-319	Networking and Economics of Soil Health– Phase I	Collecting and aggregating soil health data, connecting farmers interested in soil health together, while working with other farmers implementing soil health practices.	Minnesota Soil Health Coalition	Jennifer Hahn	**1**		67	$602,310	$185,244,569			-Proposer organization has not yet received 501c3 status
241	**032-A**	0419-2-230	Critical Insights from Historical Lake Water Quality Data	Derive ~40-year water quality database for >10,000 Minnesota lakes and analyze with in-lake, watershed, and economic factors to evaluate benefits to users and managers of improving or maintaining lake quality.	U of MN-Water Resources Center	Jeffrey Peterson	**1**		55	$480,000	$185,724,569			
242	**033-A**	0419-2-115	An Economy-Wide, Sub-Regional Tool for Economic and Environmental Decision-Making in Minnesota	We propose to create an environmentally extended input-output (EEIO) tool to inform State and local decision-makers on regional sustainable development and sustainable product and procurement policy and legislation.	U of MN	Timothy Smith	**1**		55	$597,973	$186,322,542			- Computers - need add'l info

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
243	**036-A**	0419-2-105	Realtime Monitoring of Statewide Pollen in Minnesota	This project aims to develop a low-cost phone attachment and mobile app that can be used by the public, enabling real-time monitoring of statewide pollen condition in Minnesota.	U of MN	Jiarong Hong	**1**		48	$319,133	$186,641,675			
244	**043-A**	0419-2-136	Fugitive Dust in Minnesota's Air: Why It Matters	Guidance manual for sampling and analyzing geological materials throughout Minnesota having potential to generate fugitive dust and produce respirable elongate mineral particles (EMPs); integrated with NRRI's Minnesota Natural Resources Atlas.	U of MN - Duluth NRRI	Lawrence Zanko	**1**		38	$381,558	$187,023,233	-No specific natural resource outcomes		
245	**045-A**	0419-2-154	Collaborative Foresight: Addressing Forest-related Workforce and Recreational Challenges	Loggers, truckers, and mill workers are all aging. Hunting, fishing, and other recreation patterns are changing due to demographics. This project brings key stakeholders together to deal with these issues.	U of MN	Jason Crabtree	**1**		36	$300,000	$187,323,233	-No specific natural resource outcomes		
246	**065-AH**	0419-2-124	Role of Submarine Groundwater Altering Lake Superior's Shore	We will determine the deep groundwater input to Lake Superior so that forecasts of lake level can be made. This will help protect important North Shore parks and environments.	U of MN - Duluth- Sea Grant	John Downing	**1**		41	$198,643	$187,521,876			
247	**087-B**	0419-2-090	Microplastics: Transporters of Contaminants in Minnesota Waters	Microplastics are ubiquitous environmental contaminants, can transport contaminants of concern (COCs), and pose a major environmental threat. We will determine how microplastics affect contaminant fate and transport in Minnesota waters.	U of MN	Lee Penn	**1**		71	$448,630	$187,970,506			
248	**092-B**	0419-2-157	Assessment of Water Quality for Reuse: Phase II	This project will maximize the potential of water reuse to conserve Minnesota's groundwater and improve surface water quality by providing the pathogen data needed to eliminate barriers to water reuse.	U of MN	Satoshi Ishii	**1**		67	$476,000	$188,446,506			
249	**096-B**	0419-2-030	Occurrence of Algal Toxicity in Minnesota Waters	We propose to develop real-time and technologies and prediction models to quantify the onset, transport, and mitigation of algal toxicity in Minnesota waters.	U of MN	Miki Hondzo	**1**		65	$351,446	$188,797,952			-Capital Expenditure: Hyperspectral VNIR Spectroradiometer $23k; Spectrophotometer $12k
250	**101-B**	0419-2-075	Maintaining Clean Water Supply from Working Forests	We will identify watersheds at risk of degradation due to forest disturbance (e.g. fire, storms, pests, harvests) develop proactive strategies to maintain clean water focusing in Northeastern Minnesota.	U of MN	Diana Karwan	**1**		64	$275,785	$189,073,737			
251	**112-B**	0419-2-060	Assessing Human Exposure Risk to Harmful Algae Blooms	Developing needed economic framework and tools for communities so they can assess the associated health risk and costs of chronic exposure to harmful algal blooms poisoning in lakes and ponds	U of MN	Shahram Missaghi	**1**		54	$529,632	$189,603,369			-1 time site registration + maintenance license for software- $10,000

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
252	**113-B**	0419-2-108	Mapping Lake Superior's Changing Biogeochemistry	We will develop an online and updatable atlas of water quality in western Lake Superior, which will provide stakeholders with key information about land-lake interactions to help prioritize conservation efforts.	U of MN	Laure Charleux	**1**		51	$286,192	$189,889,561			
253	**120-BH**	0419-2-106	Cascading Effects of Ice-Cover on Summer Water Quality	This project will determine the importance of variable ice cover conditions in controlling harmful cyanobacteria, phosphorus cycling, and oxygen distribution in Minnesota lakes.	U of MN	Lesley Knoll	**1**		50	$191,000	$190,080,561			
254	**121-BH**	0419-2-335	Temporal Analysis of Sulfate Loading	The study characterizes the introduction, movement, and fate of sulfate from discharge to impact in a way addressing the issues of impact on wild rice and mercury bioaccumulation in fish.	Izaak Walton League of America, Minnesota Division	Don Arnosti	**1**		43	$138,800	$190,219,361			
255	**150-CH**	0419-2-233	UMD Land Lab Sustainable Food System Project	The UMD Land Lab is a mold-breaking interdisciplinary outreach center that provides active-learning environmental and food systems education for school groups and community members.	U of MN - Duluth	Adam Pine	**1**		45	$199,860	$190,419,221			-Requesting staff funding for Farm Manager 100% FTE x 2 years: potential supplant-needs add'l info
256	**152-CH**	0419-2-290	Camp Katharine Parsons Conservation and Environmental Education Initiative	PWCC's Camp Katharine Parsons day camp and ecotourism program for youth served from North Minneapolis and the surrounding area, including environmental education, outdoor recreation, conservation efforts, and STEM projects.	Phyllis Wheatley Community Center	Gertrude Matemba-Mutasa	**1**		35	$200,000	$190,619,221	conflict with 116P -General question for youth based activities - Does LCCMR require background checks for all funded staff that works with youth?	-RFP p. 4, C. Environmental Education states "funding for capital projects (e.g. buildings or building infrastructure) will not be considered in this category."	-Capital Expenditure-12 passenger van $35,000 -Capital Expenditure-front entry gate $5,000 -Capital Expenditure-toilets $30,000
257	**153-CH**	0419-2-134	The Longspur Prairie Fund Urban Prairie Learning Lab	The Longspur Prairie Fund, an organization dedicated to conservation in the Red River Valley, will establish an urban micro-prairie and stormwater bioretention "learning lab" at the Rourke Art Museum.	The Longspur Prairie Fund	Peter Schultz	**1**		20	$62,943	$190,682,164	'conflict with 116P	-RFP p. 4, C. Environmental Education states "funding for capital projects (e.g. buildings or building infrastructure) will not be considered in this category."	-Single source contract- need add'l information -Capital expenditure-parking lot $21,050
258	**154-CH**	0419-2-094	Living Laboratory for Community Education of Solar Energy	To create a showcase of solar power and battery technologies which will serve to educate students, homeowners and the general public about societal and economic aspects of clean energy.	U of MN	Ned Mohan	**1**		19	$191,100	$190,873,264	'conflict with 116P	-RFP p. 4, C. Environmental Education states "funding for capital projects (e.g. buildings or building infrastructure) will not be considered in this category."	-Capital Expenditure: $40,000 solar power system, $15,000 battery system
259	**203-EH**	0419-2-336	Monetizing Carbon Capture by Minnesota Forests	Minnesota forests have tremendous potential to absorb excess CO2 from the atmosphere, mitigating climate change. This project is intended to jump-start a market for forest carbon offsets in Northern Minnesota.	U of MN - Duluth NRRI	Christopher Wright	**1**		64	$161,838	$191,035,102	-don't do markets		
260	**206-EH**	0419-2-095	Cellulosic Carbon Fiber-Intensified Capture and Biodegradation of Airborne VOCs	The overall goal of the project is to explore a nano carbon-assisted VOC capture and biodegradation strategy, taking advantages of our recently discovered electrically-switchable adsorption/desorption behaviors of VOCs.	U of MN	Ping Wang	**1**		40	$189,000	$191,224,102			
261	**239-F**	0419-2-055	An Engineered Solution to Toxic Copper Coatings for Boats	We propose to replace toxic antifouling coatings, and prevent the damage they cause, by developing a new and biologically advanced generation of coatings.	U of MN	Mikael Elias	**1**		51	$408,000	$191,632,102		AIS- Fits under MAISRC. MAISRC funding this on a 1 year pilot basis to be completed 6/30/2020; would then be eligible for continuation through MAISRC if successful.	- Contract - need add'l info - Existing patent

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
262	**243-F**	0419-2-064	Predicting Agriculture's Outcomes with Sensors and Machine Learning	We will use low-cost sensors on long-term cropping system experiments to develop advanced machine learning algorithms that will predict yield and water quality outcomes across the southern half of Minnesota	U of MN	Philip Pardey	**1**		40	$887,005	$192,519,107			
263	**248-FH**	0419-2-183	Concentrating Animal Waste for Solid Fertilizer Production	The proposal aims to develop an efficient and low-cost animal waste treatment process to concentrate the waste into solid fertilizers and separate the liquid for vegetables and microalgae production	U of MN	Min Addy	**1**		70	$200,000	$192,719,107			
264	**253-FH**	0419-2-120	Identifying Prairie Mixes to Reduce Pollution	We will identify which mixtures of prairie plant species best remove nitrates in vulnerable sandy soils, using existing long-term plantings under multiple environmental conditions.	U of MN	Jessica Gutknecht	**1**		65	$199,917	$192,919,024			
265	**257-FH**	0419-2-041	Communicating about Science: Knowledge Exchange in Forest Management	Field foresters need access to the best information. We will study what information foresters need, what information is already available, and create training opportunities to facilitate knowledge exchange.	U of MN	Forrest Fleischman	**1**		59	$199,922	$193,118,946			
266	**041-A**	0419-2-169	Dangerous Current Prediction on Lake Superior Minnesota Coast	Establish a database of rip currents on Lake Superior Minnesota coast, train an artificial intelligence model for prediction, and develop a forecasting App to alert people of dangerous currents.	U of MN	Lian Shen	**0**		41	$299,982	$193,418,928	-Not designed to protect natural resources	Connection to constitution?	

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
267	**046-A**	0419-2-316	Web-based Natural Resource Information Network Model	This collaborative project will create a web-based application and network that will serve as a model for natural resource information collection, management and sharing across the public and private sectors.	Dakota County	Alan Singer	**0**		20	$400,000	$193,818,928	-No specific natural resource outcomes		
268	**063-AH**	0419-2-246	Temperature and Ice Phenology Information for Lake Management	Develop cloud based image processing methods to map lake ice/snow phenology (snow, ice cover onset, thickening and disappearance) and lake surface temperature using satellite optical and all weather radar data.	U of MN	Leif Olmanson	**0**		54	$194,704	$194,013,632			- Capital Expenditure: $9,000 Lake Ice Coring system
269	**067-AH**	0419-2-110	Minnesota Public Trails and Waterways: A Comprehensive Database	Noteworthy features along select trails in Minnesota will be catalogued in a spatial database and displayed on maps to increase public land usage while fostering natural resource awareness and protection.	Outdoor Explorer	Andrew Gustin	**0**		30	$195,000	$194,208,632			
270	**090-B**	0419-2-199	Climate Impacts on Nitrogen Gas Release from Lakes	Nitrogen pollution enters lakes and microbes convert some of it to a nitrogen-based greenhouse gas. We will estimate nitrogen emissions in lakes statewide and guide management to enhance nitrogen removal.	U of MN	Nicole Hayes	**0**		68	$452,000	$194,660,632			-Proposer is a post-doc
271	**097-B**	0419-2-295	Engaging Private Well Owners in Groundwater Protection	Private well owners' level of engagement in groundwater management is not well understood. We propose to apply a social-science based approach to engage private well owners in groundwater protection.	U of MN	Amit Pradhananga	**0**		65	$381,000	$195,041,632			
272	**106-B**	0419-2-162	Maintaining Pollutant Removal in Stormwater Ponds	This study will develop a simple statistical tool to relate the filling rate of stormwater ponds to their watershed characteristics, enabling more efficient pond maintenance.	U of MN	Lawrence Baker	**0**		60	$306,683	$195,348,315			

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
273	**111-B**	0419-2-274	Predicting Contaminant Transport in Fractured Aquifers	We will develop a practical tool for accurately quantifying and predicting contaminant transport in fractured aquifers. The tool will help more efficiently and economically manage many active groundwater contamination sites.	U of MN	Peter Kang	**0**		55	$350,664	$195,698,979			-Capital expenditure-MLS liner $10,000
274	**136-C**	0419-2-111	Neighborhoods Sustained: Preserving Ecosystems through Behavior Change	Move Minnesota will decrease the environmental impact of suburban residents by reducing the environmental impact of transportation pollution, which makes up a full quarter of emissions in Minnesota.	St. Paul Transportation Management Organization, d/b/a Move Minnesota	Theresa Nelson	**0**		39	$787,787	$196,486,766			- Director salary-- needs to state for direct work on the project -Partnerships with organizations: needs add'l info on who & how selected
275	**147-CH**	0419-2-172	Carbon on Campus: Connecting Students to Minnesota Ecosystems	We aim to create a statewide, openly-accessible database and website of Minnesota's ecosystems, integrating student-driven environmental fieldwork, data analysis, web-based educational tools, and engagement with middle- and high-school science classes.	Macalester College	Mary Heskel	**0**	**RH**	53	$134,577	$196,621,343			-Capital Expenditure-Elemental Analyzer $65,000
276	**190-E**	0419-2-192	Clean Combustion of Renewable Biofuels from Waste Biomass	This proposal develops technology that enables clean combustion of waste biomass derived from agricultural or forest residue, and also performs a life-cycle assessment of the environmental impact of this technology.	U of MN	Vinod Srinivasan	**0**		56	$583,000	$197,204,343			-Text in proposal will need to be updated to reflect that ENRTF will have rights to any patents and future revenues per 116P.10
277	**195-E**	0419-2-173	Prediction of Inversions for Air-quality in Cold Weather	Use experiments and models to reveal the relationships between inversions and air pollution in cold weather, and provide tools to help reduce air pollution.	U of MN	Lian Shen	**0**		39	$304,984	$197,509,327			
278	**226-F**	0419-2-118	New Solution for Streambank Erosion and Energy Conversion	The project aims at scaling up a new technology, designed to protect river banks from erosion while producing energy, and deploy it in a river.	U of MN	Michele Guala	**0**		67	$278,344	$197,787,671			-SAFL main channel and OSL operating and maintenance costs: need add'l info -Capital Expenditures- turbine components- $20k
279	**229-F**	0419-2-078	Predicting Pollen Dispersal: Impact on Habitat and Population	We will conduct laboratory and field measurement of pollen dispersal by wind, and obtain a predictive model useful for both prairie conservation/restoration and for the evaluation of air quality.	U of MN	Filippo Coletti	**0**		66	$325,918	$198,113,589			-Capital Expenditures- high resolution camera $25k; YAG laser $35k
280	**249-FH**	0419-2-206	Restoration of Floodplain Forests along the Mississippi River	We want to assess and develop techniques for restoration and adaptive management at Crosby Farm Regional Park (70 acres) by monitoring seedlings, quantifying the environment, and developing restoration guidelines.	U of MN	Marcella Windmuller-Campione	**0**		70	$199,000	$198,312,589			- Capital Expenditure: $5,995 Reflectometer and soil moisture meter - 1 conference per year (x3) to present results

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
281	256-FH	0419-2-267	Integrating Water Storage, Conservation Targeting and Civic Involvement	This project focuses on improving water quality and mitigating the impacts from hydrological modifications by engaging community members, supporting partnerships and promoting water storage and targeted conservation practices.	Minnesota State University, Mankato - Water Resources Center	Kimberly Musser	0		62	$195,232	$198,507,821			- Contract/stipend-- need add'l info
282	258-FH	0419-2-158	Comprehensive Environmental Building Site Design Using GIS Mapping	This web-based tool would quickly provide in-depth site information, streamlining compliance with existing environmental regulations and allowing designers and owners to develop and operate sites which better support ecological networks.	U of MN	Patrick Smith	0		57	$195,000	$198,702,821			
283	290-I	0419-2-224	Contract Agreement Reimbursement	Provide continued contract management and customer service to ENRTF pass-through appropriation recipients. Ensure funds are expended in compliance with appropriation law, state statute, grants policies, and approved work plans.	MN DNR	Katherine Sherman-Hoehn	NA	NA	NA	$135,000	$198,837,821			
284	~~006-A~~	~~0419-2-260~~	~~Expanding the Interactive Natural Resource Atlas for Minnesota~~	~~The Natural Resource Atlas provides mapped information to improve decisions that impact the natural resources of NE Minnesota. We will expand the content and geographic scope of the Atlas.~~	~~U of MN - Duluth NRRI~~	~~Lucinda Johnson~~	~~NA~~	~~NA~~	~~NA~~	~~$799,991~~	$199,637,812	~~-Outcomes for natural resources are minimal at best~~		~~-Revenue generation: Reinvest or return to ENRTF per 116P.10?~~ ~~-As of 5/10/19, it appears as if $800,000 is included in ML 2019 Senate Omnibus ENRTF appropriation~~
285	~~009-A~~	~~0419-2-122~~	~~Optimizing Management of Minnesota's Forest Landscapes~~	~~We will develop a spatially-explicit decision tool that integrates forest productivity, ecosystem service, and economic information to identify benefits and tradeoffs of land management decisions under current and future climates.~~	~~U of MN - Duluth NRRI~~	~~George Host~~	~~NA~~	~~NA~~	~~NA~~	~~$495,463~~	$200,133,275	~~-Should be funded by DNR forestry since outcome is economic development~~		
286	~~011-A~~	~~0419-2-238~~	~~Completion of Wild Bee Surveys: Minnesota's Forest Habitats~~	~~Complete the statewide bee survey by surveying at up to 75 sites in the Laurentian Mixed Forest Province, thus building the foundation for detecting changes in bee fauna through time.~~	~~MN DNR~~	~~Jessica Petersen~~	~~NA~~	~~NA~~	~~NA~~	~~$664,593~~	$200,797,868			~~-DNR direct and necessary expenses~~ ~~-As of 5/10/19, $636,000 is included in ML 2019 House ENRTF Apprpriation~~
287	~~030-A~~	~~0419-2-065~~	~~Mapping Habitat Use and Disease of Urban Carnivores~~	~~We will map habitat and diseases of urban foxes and coyotes to understand what they need to live and risks posed to people and pets, thereby demystifying them for residents.~~	~~U of MN~~	~~Nicholas McCann~~	~~NA~~	~~NA~~	~~NA~~	~~$657,159~~	$201,455,027			~~-Proposer is a Post Doc~~ ~~-As of 5/10/19, $500,000 is included in ML 2019 House ENRTF Appropriation; included in ML 2019 Senate Omnibus ENRTF Appropriation and ML 2019 Senate~~
288	~~072-B~~	~~0419-2-059~~	~~Banking Groundwater~~	~~A team led by the Water Resources Center will complete an interdisciplinary analysis of the benefits and barriers to passive and active (injection) aquifer recharge in Minnesota.~~	~~U of MN - Water Resources Center~~	~~John Bilotta~~	~~NA~~	~~NA~~	~~NA~~	~~$350,000~~	$201,805,027	~~-Need to do atlases and other work first~~ ~~-We should be protecting before recharging~~		~~-Parking for stakeholders - need add'l info~~ ~~-As of 5/10/19, it appears as if $350,000 is included in ML 2019 Senate Omnibus ENRTF appropriation~~
289	~~091-B~~	~~0419-2-035~~	~~Phytoremediation for Extracting Deicing Salt from Roadside Soils~~	~~We propose to study native plants that can adsorb salts to be planted on the roadside to address the environmental concerns over deicing road salts.~~	~~U of MN~~	~~Bo Hu~~	~~NA~~	~~NA~~	~~NA~~	~~$368,000~~	$202,173,027			~~-Received LCCMR 2019 recommendation.~~ ~~-As of 5/10/19 $360,000 included in House ENRTF, $0 included in ML 2019 Senate Omnibus ENRTF appropriation~~

OVERALL HI LOW MEMBER EVALUTION FOR SELECTING PRESENTATIONS

Line	ENRTF ID #	Proposal ID	Project Title	Summary	Organization	Project Manager	Compiled Member Selection (Adj. for COI)	ict of Int	Staff Score Based on evaluation criteria (per RFP p. 9)	$ Amount Requested	Running Total	Member Notes Notes you wish to be shared with other Members or Proposers	Questions regarding fit per Constitution, 116P, funding priority exceptions in RFP p. 3-5	Generally ineligible costs per RFP p. 7, costs requiring specific approval, or potential policy issues
290	~~140-CH~~	~~0419-2-153~~	~~Groundwater: Education to Action~~	~~Leverage existing state funding to move water professionals (SWCD) from understanding to action addressing specific local groundwater projects; and repackage existing materials to support revised Grade 9 Earth Science Standards~~	~~MN DNR~~	~~Paul Putzier~~	~~NA~~	~~NA~~	~~NA~~	~~$180,000~~	$202,353,027			~~-DNR direct and necessary expenses~~
291	~~212-F~~	~~0419-2-296~~	~~Saving Endangered Pollinators through Data-driven Prairie Restoration~~	~~Minnesota Zoo, Parks, and TNC will use prairie restorations and Endangered Dakota skipper reintroductions to study factors supporting butterflies and develop foundational habitat management recommendations for Minnesota's imperiled prairie butterflies.~~	~~Minnesota Zoological Society~~	~~Erik Runquist~~	~~NA~~	~~NA~~	~~NA~~	~~$1,024,915~~	$203,377,942			~~-DNR Direct and Necessary~~