

LEGISLATIVE-CITIZEN COMMISSION ON MINNESOTA RESOURCES

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Susan Thornton, Director

MINUTES

Tuesday, July 12, 2016

9:00 a.m. – 5:00 p.m.

Minnesota Senate Building, Room 1100

95 University Avenue West

St. Paul, MN 55155

Members Present: Jeff Broberg, Sen. Gary Dahms, Sen. Kari Dziedzic, William Faber, Nancy Gibson, Sen. John Hoffman, Gary Lamma, Rep. Denny McNamara, Norman Moody, Rep. John Persell, Sen. David Tomassoni, Rep. Paul Torkelson, Rep. Jean Wagenius, Sen. Torrey Westrom, Della Young

Staff Present: S. Thornton, M. Banker, M. McDonough, M. Varien, D. Griffith

Members Absent: Rep. Tom Hackbarth, Bonnie Harper-Lore

Co-Chair: Rep. John Persell

1. Approve the minutes for June 27, 28, and 29, 2016

Co-Chair Persell started the meeting at 9:15 a.m.

MOTION [00:01:04]: Commissioner Dahms moved to approve the minutes for June 27, 2016 – motion prevailed.

MOTION [00:01:38]: Commissioner Gibson moved to approve the minutes for June 28 and 29, 2016 – motion prevailed.

2. Members report potential conflicts of interest regarding today's business

MS 116P.09 Subd 6 Conflict of interest. A commission member, technical advisory committee member, a peer review panelist, or an employee of the commission may not participate in or vote on a decision of the commission, technical advisory committee, or peer review panel relating to an organization in which the member, panelist, or employee has either a direct or indirect personal financial interest. While serving on the commission, technical advisory committee, or peer review panel, or being an employee of the commission, a person shall avoid any potential conflict of interest.

Members reported no new conflicts of interest for today's meeting.

Susan Thornton reminded members that previous conflict of interest statements given in previous meetings are attached. (See Attachment #1).

3. Approval of M.L. 2015, Chp. 76, Sec. 2, Subd. 10, "Avian Influenza distribution, evolution, and impacts on Ring-billed and Herring Gulls in Minnesota", U of MN, Marie Culhane, \$213,443 – Consent Agenda

Susan Thornton gave an overview of the Emerging Issues work plan titled "Avian Influenza distribution, evolution, and impacts on Ring-billed and Herring Gulls in Minnesota".

Jeff Broberg, Sen. Gary Dahms, Sen. Kari Dziedzic, William Faber, Nancy Gibson, Rep. Tom Hackbarth, Bonnie Harper-Lore, Sen. John Hoffman, Gary Lamma, Rep. Denny McNamara, Norman Moody, Rep. John Persell, Sen. David Tomassoni, Rep. Paul Torkelson, Rep. Jean Wagenius, Sen. Torrey Westrom, Della Young

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MOTION [00:05:01]: Commissioner Gibson moved to approve M.L. 2015, Chp. 76, Sec. 2, Subd. 10, "Avian Influenza distribution, evolution, and impacts on Ring-billed and Herring Gulls in Minnesota", U of MN, Marie Culhane, \$213,443 – motion prevailed.

4. Proposal Allocation Recommendations for the Environment and Natural Resources Trust Fund for FY18 (July 1, 2017)

Susan Thornton reviewed the additional information provided by proposers of the ML 2017 Environment and Natural Resources Trust Fund Request for Proposals (RFP). Staff handed out additional information received late in the day on July 11, 2016, regarding ENRTF ID: 005-A "Enhancing Targeted and Measureable Watershed Restoration and Protection", Board of Water and Soil Resources, Doug Thomas, \$2,802,000 and ENRTF ID: 191-J "Real Wildlife, Real Conservation, Real Impact", Wildlife Science Center, Peggy Callahan, \$488,128. (Attachment #2)

Susan Thornton handed out and reviewed the following materials:

1. Blue sheet titled "2017 Environment and Natural Resources Trust Fund Proposals Cumulative Average of Member Rankings – Listed by Category Rank – High to Low" (Attachment #3)
2. White sheet titled "2017 Environment and Natural Resources Trust Fund Proposals Cumulative Average of Member Rankings – Listed by Category Rank – High to Low" (Attachment #4)
3. Yellow sheet titled "2017 Environment and Natural Resources Trust Fund Proposals Cumulative Average of Member Rankings – Listed by Overall Rank – High to Low" (Attachment #5)
4. A sheet titled "Dollars Available from the Environment and Natural Resources Trust Fund Total \$'s Available for FY18-19 Recommendations: up to \$101,656,000" (\$50,828,000 each year). (Attachment # 6)
5. A sheet titled "2016 Allocations – Scoring Break Points" (Attachment #7)

Members continued discussions on the process. Members asked for a recess to discuss the materials handed out.

Members recessed at 10:05 a.m. and reconvened at 10:50 a.m.

MOTION [00:40:18]: Commissioner Hoffman moved all proposals on the blue spreadsheet titled "2017 Environment and Natural Resources Trust Fund Proposals Cumulative Average of Member Rankings – Listed by Category Rank – High to Low" that are ranked a 5 or above to be on the list for consideration at a zero dollar amount.

Mike Banker explained that there is approximately \$103,000,000 in proposals and approximately \$59,000,000 available from the Environment and Natural Resources Trust Fund. Mr. Banker reminded members a motion is needed to round the dollars down to the nearest thousandths.

Commissioner Gibson asked Commissioner Hoffman's if he would accept changing his motion to have all proposals on the blue spreadsheet titled "2017 Environment and Natural Resources trust Fund Proposals Cumulative Average of Member Rankings – Listed by Category Rank – High to Low" that are ranked a 5.5 or above to be on the list for consideration at a zero dollar amount. Commissioner Hoffman did not accept Commissioner Gibson's amendment.

Mike Banker reviewed the dollars on the sheet titled "2016 Allocations – Scoring Break Points" for 2017 proposals ranked 5, 5.5, and 6.

RENEWED MOTION: Commissioner Hoffman moved all proposals on the blue spreadsheet titled "2017 Environment and Natural Resources trust Fund Proposals Cumulative Average of Member Rankings – Listed by Category Rank – High to Low" that are ranked a 5 or above to be on the list for consideration at a zero dollar amounts – motion prevailed.

Commissioner McNamara asked for a half hour recess.

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Susan Thornton reminded members in previous years they have selected to move a certain amount of proposals at a certain ranking be put on the list for consideration and then randomly selected the proposal categories to begin discussions of the remaining proposals under the selected ranking for that year.

Commissioner Gibson explained at the last allocations members agreed they would randomly draw proposed categories as the starting point for discussions of the proposals.

Susan Thornton discussed the administration budget for Legislative-Citizen Commission on Minnesota Resources (LCCMR) and asked for a placeholder of \$1,200,000 for the (FY19-20 biennium). Budget instructions have not yet been received. Ms. Thornton said she will be coming back to the Executive Committee in the fall with a detailed budget recommendation.

MOTION [00:54:34]: Commissioner Gibson moved the Legislative-Citizen Commission on Minnesota Resources (LCCMR) administration budget for the next biennium (FY19-20) at \$1,200,000 –

Members discussed the LCCMR administration budget. Commissioner McNamara asked staff for a history of the last 10 years and comparison of administration budgets with the Lessard-Sams Outdoor Heritage Council (LSOHC). Members discussed that the current LSOHC budget is higher than LCCMR and the LCCMR has expenses for 17 members compared with LSOHC 12 members.

RENEWED MOTION: Commissioner Gibson renewed her motion to move the Legislative-Citizen Commission on Minnesota Resources (LCCMR) administration budget as a place holder for the next biennium (FY19-20) at \$1,200,000 – motion prevailed.

MOTION [01:59:55]: Commissioner Broberg moved Line 96, ENRTF ID: 181-H “Contract Agreement Reimbursement”, MN DNR, Katherine Sherman-Hoehn at 135,000 –motion prevailed.

MOTION [01:01:40]: Commissioner Faber moved the 2017 ENRTF proposal dollars be rounded down to the nearest one-thousandths dollar – motion prevailed.

Commissioner Torkelson said he did not score anything in Category I “2016 LCCMR Recommendations Removed from ML2016 Bill” and would like to have a discussion about Category I “2016 LCCMR Recommendations Removed from ML2016 Bill”. Commissioner Dahms also said he did not score anything in Category I “2016 LCCMR Recommendations Removed from ML2016 Bill”. Commissioner Wagenius asked staff to recalculate Category I “2016 LCCMR Recommendations Removed from ML2016 Bill” with the additions of “0” for a score for Commissioner Torkelson and Commissioner Dahms.

Susan Thornton explained on the blue spreadsheet titled “2017 Environment and Natural Resources trust Fund Proposals Cumulative Average of Member Rankings – Listed by Category Rank – High to Low” the MN DNR asked for Line 103, ENRTF ID: 190-I “State Parks and Trails Land Acquisition”, MN DNR, Jennifer Christie, \$2,445,000 be removed from discussions because DNR declined to resubmit the vetoed project and it was a staff error that it was on the spreadsheet. DNR also has a proposal submitted for FY18 funding on Line 88, ENRTF ID:171-G “Minnesota State Parks and State Trails Land Acquisition, MN DNR, Jennifer Christie at \$1,500,000.

Commissioner Gibson reminded members in a previous meeting members agreed that discussions should include the 2016 proposals if the proposer chose to be reconsidered that were a part of the LCCMR recommendations that were deleted during the 2016 Legislative Session.

Members requested to have new scores for all the proposals in Category I “2016 LCCMR Recommendations Removed from ML2016 Bill” for equal comparison with the other proposals.

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Mike Banker gave members the new scores for the following proposals on the blue spreadsheet titled “2017 Environment and Natural Resources trust Fund Proposals Cumulative Average of Member Rankings – Listed by Category Rank – High to Low”:

1. Line 98, ENRTF ID: 182-I “Minnesota Vegetative Buffer Assessment and Prioritization to Protect Water Quality, U of MN, David Mulla, \$170,000 – in the column “Average Score – Members that Scored” to replace 6.50 with 5.69
2. Line 99, ENRTF ID: 187-I “Solar Cell Manufacturing Research”, U of MN, Tianhong Cui, \$388,000 – in the column “Average Score – Members that Scored” to replace 6.43 with 5.63
3. Line 100, ENRTF ID: 189-I “Geotargeted Distributed Clean Energy Initiative”, Center for Energy and Environment, Carl Nelson, \$800,000 – in the column “Average Score – Members that Scored” to replace 6.43 with 5.64
4. Line 101, ENRTF ID: 183-I “Techniques for Water Storage Estimates in Central Minnesota”, U of MN, John Nieber, \$250,000 – in the column “Average Score – Members that Scored” to replace 6.40 with 5.65
5. Line 102, ENRTF ID: 188-I “High-Resolution Climate Projections to Aid Local Planning and Implementation Efforts”, U of MN, Peter Snyder, \$411,000 – in the column “Average Score – Members that Scored” to replace 6.33 with 5.59
6. Line 104, ENRTF ID: 184-I “Assessing Climate Change Effects on Release of Mercury and Sulfur into Aquatic Ecosystems”, U of MN, Ed Nater, \$300,000 – in the column “Average Score – Members that Scored” to replace 5.73 with 5.06
7. Line 105, ENRTF ID: 185-I “Workshops and Outreach for Nontoxic Ammunition Alternatives”, U of MN, Julia Ponder, \$133,000 – in the column “Average Score – Members that Scored” to replace 5.67 with 5.00
8. Line 106, ENRTF ID: 186-I “Analysis of Thermally Modified Wood Nesting Boxes for Birds”, U of MN – NRRI, Ryan Hueffmeier, \$117,000 – in the column “Average Score – Members that Scored” to replace 4.73 with 4.18

MOTION [01:23:58]: Commissioner Faber moved to remove on the blue spreadsheet titled “2017 Environment and Natural Resources Trust Fund Proposals Cumulative Average of Member Rankings – Listed by Category Rank – High to Low” Line 99, ENRTF ID: 187-I “Solar Cell Manufacturing Research”, U of MN, Tianhong Cui, \$388,000 because they are duplicates – motion prevailed.

All motions will refer to the blue spreadsheet titled “2017 Environment and Natural Resources Trust Fund Proposals Cumulative Average of Member Rankings – Listed by Category Rank – High to Low”. Members began discussing for consideration all proposals with an average ranking of 5 or below for consideration.

Members decided to draw proposed categories to see which category would be discussed first. The order of categories for discussion were:

1. Category C “Environmental Education”
2. Category F “Methods to Protect, Restore, & Enhance Land, Water, & Habitat”
3. Category I “2016 LCCMR Recommendations Removed from ML 2016 Bill”
4. Category A “Foundational Natural Resource Data and Information”

5. Category D “Aquatic and Terrestrial Invasive Species”
6. Category K “Proposals Received in Response to Extended Deadline of 6/26/2016”
7. Category E “Air Quality, Climate Change, and Renewable Energy”
8. Category J “Governor Vetoed Appropriations”
9. Category B “Water Resources”
10. Category G “Land Acquisition for Habitat and Recreation”

Commissioner McNamara asked members if they had seen any of the spreadsheets handed out today before today’s meeting. Members said they did not see any spreadsheets handed out today before today’s meeting. Commissioner Young said she did not get her scores in until Friday morning and she guessed some of the other members were also late. Members discussed it has been procedure to hand out the spreadsheets at the meeting and not earlier.

Members started reviewing proposals in Category C. “Environmental Education”

Commissioner Gibson would like to consider Line 46, ENRTF ID: 081-C “Youth Convening Minnesota”, Climate Generation: A Will Steger Legacy, Kristen Poppleton

Commissioner Broberg would like to consider Line 45, ENRTF ID: 083-C “Minnesota Water Stories Told in Digital Planetariums”, U of MN – Bell Museum of Natural History, George Weiblen

Members started reviewing proposals in Category F “Methods to Protect, Restore, & Enhance Land, Water, & Habitat”

Commissioner Dahms would like to consider Line 84, ENRTF ID: 162-F “Precision Conservation and Agriculture: Growing Green2 Together”, Pheasants Forever, Tanner Bruse

Commissioner Broberg would like to consider Line 83, ENRTF ID: 156-F “Prioritizing Shoreline Habitat Restoration in Minnesota Lakes”, U of MN – St. Anthony Falls Laboratory, William Herb

Commissioner Dziedzic would like to consider Line 86, ENRTF ID: 167-F “Mississippi River Habitat Restoration at Halls Island”, Minneapolis Park and Recreation Board, Adam Arvidson

Members started reviewing proposals in Category I “2016 LCCMR Recommendations Removed from ML 2016 Bill”

Commissioner Faber would like to consider – Line 106, ENRTF ID: 186-I “Analysis of Thermally Modified Wood Nesting Boxes for Birds”, U of MN – NRRI, Ryan Hueffmeier

Members started reviewing proposals in Category A “Foundational Natural Resource Data and Information”

Commissioner Torkelson would like to consider Line 15, ENRTF ID: 011-A “Drainage Records Modernization – Phase II, Cost Share”, Board of Water and Soil Resources, Timothy Gillette and Line 17, ENRTF ID: 005-A “Enhancing Targeted and Measureable Watershed Restoration and Protection, Board of Water and Soil Resources, Doug Thomas

Commissioner Broberg would like to consider Line 14, ENRTF ID: 013-A “Landslide Hazards and Impacts on Minnesota’s Natural Environment”, U of MN, Karen Gran

Commissioner Moody would like to consider Line 16, ENRTF ID: 020-A “Lowland Conifer Ecosystems: Holistic Assessment for Adaptive Management”, U of MN, Marcella Windmuller-Campione

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Members started reviewing proposals in Category D “Aquatic and Terrestrial Invasive Species”

Members added no additional proposals for consideration.

Members started reviewing proposals in Category K “Proposals Received in Response to Extended Deadline of 6/26/2016”

Commissioner Hoffman would like to consider Line 110, ENRTF ID: 192-K “Voyageurs National Park Crane Lake Visitor Center Partnership”, Town of Crane Lake, Jim Janssen

Commissioner McNamara would like to consider Line 111, ENRTF ID: 196-K “CREP Implementation Phase 1”, Board of Water and Soil Resources, Tabor Hoek

Commissioner Westrom would like to consider Line 112, ENRTF ID: 193-K “Organic Weed Control Using Solar-Powered Robots”, U of MN – Morris, Michael Reese

Members started reviewing proposals in Category E “Air Quality, Climate Change, and Renewable Energy”

Commissioner Young would like to consider Line 68, ENRTF ID: 150-E “District Heating with Renewable Biomass at Camp Ripley”, Department of Military Affairs, Josh Pennington

Commissioner Moody would like to consider Line 69, ENRTF ID: 147-E “Generation, Storage, and Utilization of Solar Energy”, U of MN, Bradley Heins

Members started reviewing proposals in Category J “Governor Vetoed Appropriations”

Members added no additional proposals for consideration.

Commissioner McNamara asked about projects that were vetoed in the ML2016, Chp. 186 and not under consideration for ML2017 and if it would be in order to add any of them. Commissioner Broberg said they were invited and declined to submit a proposal so having no detailed information available for review, it would not be in order. Any projects not listed on the blue sheet should not be allowed to be added and any of those projects that were vetoed in the ML2016, Chp. 186 may apply in 2017 for the 2018 ENRTF Request for Proposal that will be out around January of 2017. Members concurred.

Members started reviewing proposals in Category B “Water Resources”

Commissioner Gibson would like to consider Line 26, ENRTF ID: 038-B “Removing Plastic Particle Pollution from Minnesota Water Bodies”, U of MN, Filippo Coletti

Commissioner Della would like to consider Line 28, ENRTF ID: 055-B “Maximizing the Benefits of Water Reuse”, U of MN, Satoshi Ishii

Commissioner Denny would like to consider Line 35, ENRTF ID: 045-B “Buffer Gap Analysis”, Board of Water and Soil Resources, Eric Mohring

Members started reviewing proposals in Category G “Land Acquisition for Habitat and Recreation”

Commissioner Hoffman would like to consider Line 94, ENRTF ID: 180-G “Tower Trailhead Boat Landing and Habitat Improvement”, City of Tower, Linda Keith

Members recessed at 12:00 p.m. and reconvened at 1:15 p.m.

5. Continue Proposal Allocation Recommendations for the Environment and Natural Resources Trust Fund for FY18 (July 1, 2017)

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Members returned to reviewing proposals in Category C. “Environmental Education” and began allocating dollars to proposals

MOTION [02:11:54]: Commissioner Gibson moved Line 39, ENRTF ID: 079-C “Floating Classroom: Connecting 20,000 Youth to Minnesota Waterways”, Wilderness Inquiry, Greg Lais at \$1,200,000 – motion prevailed.

MOTION [02:13:51]: Commissioner Gibson moved Line 40, ENRTF ID: 100-C “Developing Watershed Stewardship in NW Minnesota Youth”, Headwaters Science Center, Joy Susan at \$71,000.

Co-Chair Persell requested that the dollar amount be reconsidered later in the process as a possibility of adding dollars to it.

RENEWED MOTION: Commissioner Gibson renewed her motion to move Line 40, ENRTF ID: 100-C “Developing Watershed Stewardship in NW Minnesota Youth”, Headwaters Science Center, Joy Susan at \$71,000 - motion prevailed.

MOTION [02:18:00]: Commissioner McNamara moved Line 41, ENRTF ID: 082-C “Increasing Diversity in Environmental Careers: Fellowships, Internships, Mentorships”, MN DNR, Vikki Getchell at \$2,000,000.

AMENDMENT: Commissioner Moody moved to amend Commissioner McNamara’s motion to move Line 41, ENRTF ID: 082-C “Increasing Diversity in Environmental Careers: Fellowships, Internships, Mentorships”, MN DNR, Vikki Getchell at \$1,487,000.

Commissioner McNamara requested a roll call. Commissioner McNamara withdrew his motion.

RENEWED MOTION [02:21:34]: Commissioner McNamara renewed his motion to move Line 41, ENRTF ID: 082-C “Increasing Diversity in Environmental Careers: Fellowships, Internships, Mentorships”, MN DNR, Vikki Getchell at \$1,487,000 – motion prevailed.

MOTION [02:22:00]: Commissioner Gibson moved Line 42, ENRTF ID: 092-C “Bird City – Education for Lasting Conservation”, Audubon Minnesota, Joanna Eckles at \$280,000 – motion prevailed.

MOTION [02:22:55]: Commissioner Faber moved Line 43, ENRTF ID: 101-C “Providing Residential Environmental learning Experiences to Under-Served Students”, Audubon Center of the North Woods, Bryan Wood at \$130,000 and needs to serve schools/students not already being served by other environmental learning centers – motion prevailed. Commissioner Young abstained from voting due to previous declared conflict of interest.

MOTION [02:24:13]: Commissioner Faber moved Line 44, ENRTF ID: 084-C “Bridging Classroom and Outdoor Learning by Studying Birds”, U of MN, Julia Ponder at \$270,000 – motion prevailed.

MOTION [02:24:53]: Commissioner Broberg moved Line 45, ENRTF ID: 083-C “Minnesota Water Stories Told in Digital Planetariums”, U of MN – Bell Museum of Natural History, George Weiblen at \$500,000 – motion prevailed.

MOTION [02:27:17]: Commissioner Gibson moved Line 46, ENRTF ID: 081-C “Youth Convening Minnesota”, Climate Generation: A Will Steger Legacy, Kristen Poppleton at \$300,000 – motion prevailed.

Members returned to reviewing proposals in Category F “Methods to Protect, Restore, & Enhance Land, Water, & Habitat” and began allocating dollars to proposals

MOTION [02:28:36]: Commissioner Broberg moved Line 75, ENRTF ID: 155-F “State Parks for Monarchs and Other Native Pollinators”, MN DNR, Edward Quinn at \$400,000. Members discussed.

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RENEWED MOTION: Commissioner Broberg renewed his motion to move Line 75, ENRTF ID: 155-F “State Parks for Monarchs and Other Native Pollinators”, MN DNR, Edward Quinn at \$672,000 – motion prevailed.

MOTION [02:30:39]: Commissioner Faber moved Line 76, ENRTF ID: 157-F “Roadside Prairie Prescribed Fire”, Minnesota Department of Transportation, Ken Graeve at \$345,000 – motion prevailed.

MOTION [02:31:24]: Commissioner Faber moved Line 77, ENRTF ID: 153-F “Promoting Conservation Biocontrol of Beneficial Insects”, U of MN, Vera Krischik at \$400,000 – motion prevailed.

MOTION [02:32:42]: Commissioner Hoffman moved Line 78, ENRTF ID: 158-F “MN Honey Bee and Monarch Butterfly Partnership”, Pheasants Forever, Matt Holland at \$732,000 – motion prevailed.

MOTION [02:33:36]: Commissioner Hoffman moved Line 79, ENRTF ID: 160-F “Restoring 83-acres of Prairie, Savanna and Forest Habitat”, Friends of the Mississippi River, Tom Lewanski at \$213,000 – motion prevailed. Commissioner Young abstained from voting due to previous declared conflict of interest.

MOTION [02:33:59]: Commissioner Dahms moved Line 80, ENRTF ID: 154-F “Restoring and Preserving Savanna Using Bison”, Cedar Creek Ecosystem Science Reserve U of MN, David Tilman at \$388,000 and members want to evaluate effects of using cattle as compared to bison. Fencing cost should be funded from another source and if not possible, the cost should be kept as low as possible – motion prevailed.

MOTION [02:39:10]: Commissioner Wagenius moved Line 81, ENRTF ID: 152-F “Optimizing the Nutrition of Roadside Plants for Pollinators”, U of MN, Emilie Snell-Rood at \$815,000 – motion prevailed.

MOTION [02:40:30]: Commissioner Gibson moved Line 82, ENRTF ID: 161-F “Restoring Our Metro Lands and Waters: MeCC 10”, Great River Greening, Wiley Buck at \$524,000 – motion prevailed.

MOTION [02:41:30]: Commissioner McNamara moved to consider category I “2016 LCCMR Recommendations Removed from ML 2016 Bill” to continue allocating dollars for 2017 proposals that are ranked five and above and then go back through and discuss the remaining proposals that were ranked below five.

Commissioner Westrom stated he did not vote for Category I “2016 LCCMR Recommendations Removed from ML 2016 Bill” and members continued discussion.

RENEWED MOTION: Commissioner McNamara renewed his motion to consider category I “2016 LCCMR Recommendations Removed from ML 2016 Bill” to continue allocating dollars for 2017 proposals that are ranked five and above and then go back through and discuss the remaining proposals that were ranked below five – motion withdrawn after member discussions.

MOTION [02:46:46]: Commissioner Faber moved Line 83, ENRTF ID: 156-F “Prioritizing Shoreline Habitat Restoration in Minnesota Lakes”, U of MN – St Anthony Falls Laboratory, William Herb at \$294,000 – motion prevailed.

MOTION [02:50:21]: Commissioner Dahms moved Line 84, ENRTF ID: 162-F “Precision Conservation and Agriculture: Growing Green2 Together”, Pheasants Forever, Tanner Bruse at \$508,000.

Commissioner Wagenius requested that Pheasants Forever be requested to follow the Board of Water and Soil Resources' Native Vegetation Establishment and Enhancement Guidelines’.

AMENDMENT: Commissioner Moody moved to amend Commissioner Dahms’ motion to move Line 84, ENRTF ID: 162-F “Precision Conservation and Agriculture: Growing Green2 Together”, Pheasants Forever, Tanner Bruse at \$250,000. Commissioner Dahms did not accept.

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RENEWED AMENDMENT: Commissioner Moody renewed his amendment to Commissioner Dahms motion to move Line 84, ENRTF ID: 162-F “Precision Conservation and Agriculture: Growing Green2 Together”, Pheasants Forever, Tanner Bruse at \$300,000. Commissioner Dahms accepted.

RENEWED MOTION: Commissioner Dahms renewed his motion as amended to move Line 84, ENRTF ID: 162-F “Precision Conservation and Agriculture: Growing Green2 Together”, Pheasants Forever, Tanner Bruse at \$300,000 – motion prevailed.

MOTION [02:58:28]: Commissioner Moody moved Line 85, ENRTF ID: 164-F “Identifying Optimal Soil Conditions for Sustainable Forest Management”, U of MN, Robert Slesak at \$200,000. Members discussed. Commissioner Moody tabled his motion for further discussion.

MOTION [03:02:14]: Commissioner Dziedzic moved Line 86, ENRTF 167-F “Mississippi River Habitat Restoration at Halls Island”, Minneapolis Park and Recreation Board, Adam Arvidson at \$25,000 for Activity 1 and efforts must be coordinated with the Department of Natural Resources and U.S. Army Corps of Engineers to ensure potential implementation is feasible – motion prevailed.

MOTION [03:05:05]: Commissioner Westrom moved to skip over Category I “2016 LCCMR Recommendations Removed from ML 2016 Bill” and move on to Category A “Foundational Natural Resource Data and Information” then return to Category I “2016 LCCMR Recommendations Removed from ML 2016 Bill” at the end of categories – motion did not prevail. Members called division (6 yes / 8 no).

Members returned to reviewing proposals in Category I “2016 LCCMR Recommendations Removed from ML 2016 Bill” and began allocating dollars to proposals

MOTION [03:15:44]: Commissioner Torkelson moved Line 98, ENRTF ID: 182-I “Minnesota Vegetative Buffer Assessment and Prioritization to Protect Water Quality”, U of MN, David Mulla at \$0.

AMENDMENT: Commissioner Wagenius moved to amend Commissioner Dahms’ motion to move Line 98, ENRTF ID: 182-I “Minnesota Vegetative Buffer Assessment and Prioritization to Protect Water Quality”, U of MN, David Mulla at \$170,000 – motion did not prevail.

RENEWED MOTION: Commissioner Torkelson renewed his motion to move Line 98, ENRTF ID: 182-I “Minnesota Vegetative Buffer Assessment and Prioritization to Protect Water Quality”, U of MN, David Mulla at \$0 – motion prevailed.

MOTION [03:20:38]: Commissioner Hoffman moved Line 100, ENRTF ID: 189-I “Geotargeted Distributed Clean Energy Initiative”, Center for Energy and Environment, Carl Nelson at \$800,000 and contingent on a \$200,000 match of an equal or greater amount of nonstate money.

AMENDMENT: Commissioner McNamara moved to amend Commissioner Hoffman’s motion to move Line 100, ENRTF ID: 189-I “Geotargeted Distributed Clean Energy Initiative”, Center for Energy and Environment, Carl Nelson at Line 100 at \$0. Commissioner McNamara requested a roll call. Motion did not prevail (2 Yes / 12 No).

Member	Y	N	Member	Y	N
Commissioner Broberg		X	Commissioner McNamara	X	
Commissioner Dahms		X	Commissioner Moody		X
Commissioner Dziedzic		X	Commissioner Persell		X
Commissioner Faber		X	Commissioner Tomassoni	---	---

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Commissioner Gibson		X	Commissioner Torkelson	X	
Commissioner Hackbarth	---	---	Commissioner Wagenius		X
Commissioner Harper-Lore	---	---	Commissioner Westrom		X
Commissioner Hoffman		X	Commissioner Young		X
Commissioner Lamppa		X			

AMENDMENT: Commissioner Westrom moved to amend Commissioner Hoffman's motion to move Line 100, ENRTF ID: 189-I "Geotargeted Distributed Clean Energy Initiative", Center for Energy and Environment, Carl Nelson at Line 100 at \$400,000.

Commissioner Dahm suggested to move Line 100, ENRTF ID: 189-I "Geotargeted Distributed Clean Energy Initiative", Center for Energy and Environment, Carl Nelson at Line 100 at \$600,000. Commissioner Westrom accepted.

RENEWED AMENDMENT: Commissioner Westrom renewed his amendment to Commissioner Hoffman's motion to move Line 100, ENRTF ID: 189-I "Geotargeted Distributed Clean Energy Initiative", Center for Energy and Environment, Carl Nelson at \$600,000 and contingent on a \$200,000 match of an equal or greater amount of nonstate money – amendment withdrawn.

RENEWED MOTION: Commissioner Hoffman renewed his motion to move Line 100, ENRTF ID: 189-I "Geotargeted Distributed Clean Energy Initiative", Center for Energy and Environment, Carl Nelson at \$800,000 and have potential review at the end of the day – motion prevailed.

MOTION [03:30:30]: Commissioner Broberg moved Line 101, ENRTF ID: 183-I "Providing Residential Environmental Learning Experiences to Under-Served Students", Audubon Center of the North Woods, Bryan Wood at \$250,000 and contingent on serving students that are not currently served through other residential environmental education learning centers.

AMENDMENT: Commissioner Hoffman moved to amend Commissioner Broberg's motion to move Line 101, ENRTF ID: 183-I "Providing Residential Environmental Learning Experiences to Under-Served Students", Audubon Center of the North Woods, Bryan Wood at \$0 – did not prevail

RENEWED MOTION: Commissioner Broberg renewed his motion to move Line 101, ENRTF ID: 183-I "Providing Residential Environmental Learning Experiences to Under-Served Students", Audubon Center of the North Woods, Bryan Wood at \$250,000 and contingent on serving students that are not currently served through other residential environmental education learning centers – motion prevailed.

MOTION [03:32:13]: Commissioner Wagenius moved Line 102, ENRTF ID: 188-I "High-Resolution Climate Projections to Aid Local Planning and Implementation Efforts, U of MN Peter Snyder at \$411,000.

AMENDMENT – Commissioner Westrom moved to amend Commissioner Wagenius' motion to move Line 102, ENRTF ID: 188-I "High-Resolution Climate Projections to Aid Local Planning and Implementation Efforts, U of MN Peter Snyder at \$0. Commissioner Westrom requested a roll call. – motion did not prevail (5 Yes / 9 No).

Member	Y	N	Member	Y	N
Commissioner Broberg		X	Commissioner McNamara	X	
Commissioner Dahms	X		Commissioner Moody		X

LEGISLATIVE-CITIZEN COMMISSION ON MINNESOTA RESOURCES

Commissioner Dziedzic		X	Commissioner Persell		X
Commissioner Faber		X	Commissioner Tomassoni	---	---
Commissioner Gibson		X	Commissioner Torkelson	X	
Commissioner Hackbarth	---	---	Commissioner Wagenius		X
Commissioner Harper-Lore	---	---	Commissioner Westrom	X	
Commissioner Hoffman	X		Commissioner Young		X
Commissioner Lamppa		X			

RENEWED MOTION: Commissioner Wagenius renewed her motion to move Line 102, ENRTF ID: 188-I “High-Resolution Climate Projections to Aid Local Planning and Implementation Efforts, U of MN Peter Snyder at \$411,000 – motion prevailed.

MOTION [03:44:58]: Commissioner Moody moved Line 104, ENRTF ID: 184-I “Assessing Climate Change Effects on Release of Mercury and Sulfur into Aquatic Ecosystems”, U of MN, Ed Nater at \$300,000 – motion prevailed.

MOTION [03:46:06]: Commissioner Faber moved Line 105, ENRTF ID: 185-I “Workshops and Outreach for Nontoxic Ammunition Alternatives”, U of MN, Julia Ponder at \$133,000 – motion prevailed.

MOTION [03:48:47]: Commissioner Moody moved Line 106, ENRTF ID: 186-I “Analysis of Thermally Modified Wood Nesting Boxes for Birds”, U of MN – NRRI, Ryan Hueffmeier at \$100,000 – motion prevailed.

Members returned to reviewing proposals in Category A “Foundational Natural Resource Data and Information” and began allocating dollars to proposals

MOTION [03:51:52]: Commissioner Gibson moved Line 2, ENRTF ID: 001-A “Minnesota Geological Survey Geologic Atlases for Water Management”, U of MN – Minnesota Geological Survey, Dale Setterholm at \$3,784,000.

AMENDMENT: Commissioner Torkelson moved to amend Commissioner Gibson’s motion to move Line 2, ENRTF ID: 001-A “Minnesota Geological Survey Geologic Atlases for Water Management”, U of MN – Minnesota Geological Survey, Dale Setterholm at \$4,729,000. Commissioner Gibson accepted Commissioner Torkelson’s amendment.

RENEWED MOTION: Commissioner Gibson renewed her motion as amended to move Line 2, ENRTF ID: 001-A “Minnesota Geological Survey Geologic Atlases for Water Management”, U of MN – Minnesota Geological Survey, Dale Setterholm at \$4,729,000 – motion prevailed.

MOTION [03:54:25]: Commissioner Gibson moved Line 3, ENRTF ID: 006-A “Minnesota Biological Survey”, MN DNR, Bruce Carlson at \$2,900,000.

AMENDMENT: Commissioner Dahms moved to amend Commissioner Gibson’s motion to move Line 3, ENRTF ID: 006-A “Minnesota Biological Survey”, MN DNR, Bruce Carlson at \$2,000,000 – motion did not prevail.

RENEWED MOTION: Commissioner Gibson renewed her motion to move Line 3, ENRTF ID: 006-A “Minnesota Biological Survey”, MN DNR, Bruce Carlson at \$2,900,000 – motion prevailed.

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MOTION [04:01:11]: Commissioner Moody moved Line 4, ENRTF ID: 009-A “Promoting Wild Rice Restoration Success by Examining Microbes”, U of MN – Duluth NRRI, Chanlan Chun at \$334,000 and must be coordinated with Minnesota Pollution Control Agency development of sulfate standards for Wild Rice as suggested by Co-Chair Persell - motion prevailed.

MOTION [04:02:03]: Commissioner Faber moved Line 5, ENRTF ID: 015-A “Non-Invasive Moose Calf Surveys and Ecosystem Monitoring”, U of MN, Mark Ditmer at \$348,000 – motion prevailed.

MOTION [04:03:15]: Commissioner Broberg moved Line 6, ENRTF ID: 002-A “What are the Public Benefits of Protecting Sourcewater”, U of MN, Bonnie Keeler at \$320,000 – motion prevailed.

MOTION [04:04:23]: Commissioner Faber moved Line 7, ENRTF ID: 007-A “Continue Expansion of the Minnesota Wildflowers Online Botanical Reference”, Minnesota Wildflowers Information, Catherine Chayka at \$270,000 – motion prevailed.

MOTION [04:04:58]: Commissioner Hoffman moved Line 8, ENRTF ID: 017-A “Effects of Wolves on Beavers, Moose, and Deer”, Voyageurs National Park, Steve Windels at \$293,000 – motion prevailed.

MOTION [04:06:33]: Commissioner Faber moved Line 9, ENRTF ID: 003-A “Minnesota Trumpeter Swan Migration Ecology and Conservation”, U of MN, David Anderson at \$462,000 – motion did not prevail (Division called - 4 yes / 7 No).

MOTION [04:09:28]: Commissioner Moody moved Line 10, ENRTF ID: 016-A “Cascading Effects of Wolf Recolonization”, U of MN, Forest Isbell at \$398,000 – motion prevailed.

MOTION [04:11:00]: Commissioner Broberg moved Line 11 ENRTF ID: 012-A “Mapping Groundwater Contamination: Accessible Data to Protect Resources”, MPCA, Hans Neve at \$400,000 – motion prevailed.

MOTION [04:11:58]: Commissioner Dahms moved Line 12 ENRTF ID: 031-A “Minnesota’s Freshwater Sponges: Mapping Taxonomy and Environmental Toxicology”, U of MN, Venugopal Mukku at \$258,000 – motion prevailed.

MOTION [04:12:33]: Commissioner Gibson moved Line 13, ENRTF ID: 004-A “Healthy Prairies II: Preserving Minnesota Prairie Plant Diversity”, U of MN, Ruth Shaw at \$900,000 – motion prevailed.

MOTION [04:13:24]: Commissioner Broberg moved Line 14, ENRTF ID: 013-A Landslide Hazards and Impacts on Minnesota’s Natural Environment”, U of MN, Karen Gran at \$500,000 – motion prevailed

MOTION [04:14:39]: Commissioner Torkelson moved Line 15, ENRTF ID: 011-A “Drainage Records Modernization – Phase II, Cost Share”, Board of Water and Soil Resources, Timothy Gillette at \$540,000 – motion prevailed (Division called 7 Yes / 5 No).

MOTION [04:17:37]: Commissioner Moody moved Line 16, ENRTF ID: 020-A “Lowland Conifer Ecosystems: Holistic Assessment for Adaptive Management”, U of MN, Marcella Windmuller-Campione at \$763,000.

AMENDMENT: Commissioner Faber moved to amend Commissioner Moody’s motion to move Line 16, ENRTF ID: 020-A “Lowland Conifer Ecosystems: Holistic Assessment for Adaptive Management”, U of MN, Marcella Windmuller-Campione at \$500,000. Commissioner Moody accepted the amendment.

LEGISLATIVE-CITIZEN COMMISSION ON MINNESOTA RESOURCES

RENEWED MOTION: Commissioner Moody renewed his motion as amended to move Line 16, ENRTF ID: 020-A “Lowland Conifer Ecosystems: Holistic Assessment for Adaptive Management”, U of MN, Marcella Windmuller-Campione at \$500,000 – motion did not prevail.

MOTION [04:20:30]: Commissioner Torkelson moved Line 17, ENRTF ID: 005-A “Enhancing Targeted and Measureable Watershed Restoration and Protection”, Board of Water and Soil Resources, Doug Thomas at \$2,800,000 - motion did not prevail (Division called 5 Yes / 8 No).

Members returned to reviewing proposals in Category D “Aquatic and Terrestrial Invasive Species” and began allocating dollars to proposals

MOTION [04:24:02]: Commissioner Wagenius moved Line 51, ENRTF ID: 108-D “Emerald Ash Borer Biocontrol Phase III: Assessment and Citizen Engagement”, Minnesota Department of Agriculture, Jonathon Osthus at \$729,000.

AMENDMENT: Commissioner Dahms moved to amend Commissioner Wagenius’ motion to move Line 51, ENRTF ID: 108-D “Emerald Ash Borer Biocontrol Phase III: Assessment and Citizen Engagement”, Minnesota Department of Agriculture, Jonathon Osthus at \$400,000 – motion did not prevail (Division called 7 Yes / 8 No).

RENEWED MOTION: Commissioner Wagenius renewed her motion to move Line 51, ENRTF ID: 108-D “Emerald Ash Borer Biocontrol Phase III: Assessment and Citizen Engagement”, Minnesota Department of Agriculture, Jonathon Osthus at \$729,000 – motion prevailed.

MOTION [04:29:25]: Commissioner Broberg moved Line 52, ENRTF ID: 119-D “Adapting Stream Barriers to Remove Invasive Fish”, U of MN, Przemyslaw Bajer at \$301,000 – motion prevailed.

MOTION [04:31:22]: Commissioner Faber moved Line 53, ENRTF ID: 107-D “Implementing Biological Control of Garlic Mustard”, U of MN, Roger Becker at \$421,000 – motion prevailed.

MOTION [04:32:20]: Commissioner Wagenius moved Line 54, ENRTF ID: 106-D “Using Science to Solve Minnesota’s AIS Problems – Phase II”, U of MN, Susan Galatowitsch at \$6,100,000.

Commissioner Westrom asked about laying Line 54, ENRTF ID: 106-D “Using Science to Solve Minnesota’s AIS Problems – Phase II” on the table until the end of discussions.

Commissioner Torkelson would like to fund the Minnesota Aquatic Invasive Species Research Center (MAISRC) and not fund the other AIS projects. Commissioner Wagenius agreed with Commissioner Torkelson that the individual proposals should go to MAISRC for funding.

AMENDMENT: Commissioner Dahms moved to amend Commissioner Wagenius’ motion to move Line 54, ENRTF ID: 106-D “Using Science to Solve Minnesota’s AIS Problems – Phase II”, U of MN, Susan Galatowitsch at \$5,000,000 and no other AIS projects from the U of MN.

Commissioner McNamara suggested reducing to \$3,000,000 and all AIS proposals need to start going through the Minnesota Aquatic Invasive Species Research Center (MAISRC). Members asked staff for an update on MAISRC at the next LCCMR meeting in November. Members continued discussions. Commissioner Dahms agreed at \$3,000,000.

RENEWED AMENDMENT: Commissioner Dahms renewed his amendment to amend Commissioner Wagenius’ motion to move Line 54, ENRTF ID: 106-D “Using Science to Solve Minnesota’s AIS Problems – Phase II”, U of MN, Susan Galatowitsch at \$3,000,000 and Line 52, ENRTF ID: 119-D “Adapting Stream Barriers to Remove Invasive Fish”, U of MN, Przemyslaw Bajer, Line 58, ENRTF ID: 111-D “New Technology to Control Invasive Carp”, U of MN, Michael Smanski, and Line 59,

LEGISLATIVE-CITIZEN COMMISSION ON MINNESOTA RESOURCES

ENRTF ID: 117-D “Acquiring Key Information for a Carp Deterrent System at Lock and Dam #5”, U of MN, Peter Sorensen need to go through MAISRC for funding.

Members continued discussions.

RENEWED AMENDMENT: Commissioner Dahms renewed his amendment to amend Commissioner Wagenius’ motion to move Line 54, ENRTF ID: 106-D “Using Science to Solve Minnesota’s AIS Problems – Phase II”, U of MN, Susan Galatowitsch at \$3,000,000 and MAISRC consider funding Line 52, ENRTF ID: 119-D “Adapting Stream Barriers to Remove Invasive Fish”, U of MN, Przemyslaw Bajer and Line 59, ENRTF ID: 117-D “Acquiring Key Information for a Carp Deterrent System at Lock and Dam #5”, U of MN, Peter Sorensen and requested staff to contact MAISRC to request they give consideration for funding Line 52, ENRTF ID: 119-D “Adapting Stream Barriers to Remove Invasive Fish”, U of MN, Przemyslaw Bajer and Line 59, ENRTF ID: 117-D “Acquiring Key Information for a Carp Deterrent System at Lock and Dam #5”, U of MN, Peter Sorensen.

Members continued discussions.

RENEWED AMENDMENT: Commissioner Dahms renewed his amendment to Commissioner Wagenius’ motion to move Line 54, ENRTF ID: 106-D “Using Science to Solve Minnesota’s AIS Problems – Phase II”, U of MN, Susan Galatowitsch at \$2,700,000 and requested staff to contact MAISRC to discuss the issue of AIS projects from the U of MN needing to go through MAISRC for funding and not the LCCMR – motion prevailed.

RENEWED MOTION: Commissioner Wagenius renewed her motion as amended to move Line 54, ENRTF ID: 106-D “Using Science to Solve Minnesota’s AIS Problems – Phase II”, U of MN, Susan Galatowitsch at \$2,700,000 and requested staff to contact MAISRC to discuss the issue of AIS projects from the U of MN needing to go through MAISRC for funding and not the LCCMR – motion prevailed.

MOTION [05:15:13]: Commissioner Broberg moved Line 55, ENRTF ID: 122-D “Tactical Invasive Plant Management Plan Development”, Minnesota Department of Agriculture, Monika Chandler at \$296,000 – motion prevailed.

MOTION [05:17:40]: Commissioner Broberg moved Line 56, ENRTF ID: 114-D “Continuation of Invasive Carp and Native Fish Evaluation”, MN DNR, Bradford Parsons at \$600,000.

AMENDMENT: Commissioner Faber moved to amend Commissioner Broberg’s motion to move Line 56, ENRTF ID: 114-D “Continuation of Invasive Carp and Native Fish Evaluation”, MN DNR, Bradford Parsons at \$500,000. Commissioner Broberg accepted.

RENEWED MOTION: Commissioner Broberg renewed his motion as amended to move Line 56, ENRTF ID: 114-D “Continuation of Invasive Carp and Native Fish Evaluation”, MN DNR, Bradford Parsons at \$500,000 – motion prevailed.

MOTION [05:28:45]: Commissioner Faber moved Line 57, ENRTF ID: 123-D “Maximize Value of Water Impoundments to Wildlife”, Audubon Minnesota, Kristin Hall at \$195,000 – motion prevailed.

Members recessed at 4:40 and reconvened at 4:50 p.m.

Mike Banker announced his move to Washington, DC.

Mike Banker announced that there are 25 proposals (for a total of \$39,925,000) remaining for discussion tomorrow with a remaining balance of \$29,649,000 left to be allocated out of the \$59,256,000.

MOTION [05:34:31]: Commissioner Hoffman moved that the meeting is adjourned for the day and return at 8:30 a.m. on July 13, 2016 – motion prevailed.

6. Other business (as needed)

- Next steps in the process
- Next meeting, July 13, 2016

7. Adjourn

The meeting adjourned at 4:40 p.m.

Draft

FY18 Conflict of Interest

ENRTF ID:	LCCMR Member
004-A	Commissioner Wagenius reported an indirect conflict of interest for ENRTF ID: 004-A “Healthy Prairies II: Preserving MN Prairie Plant Diversity”, Dr. Ruth Shaw – U of MN because her son collaborates with Dr. Ruth Shaw on other research.
016-A	Commissioner Gibson reported an indirect conflict of interest for ENRTF ID: 016-A, “Cascading Effects of Wolf Recolonization”, Isbell Forest - U of MN. (See Attachment # 2)
044-B	Commissioner Broberg reported an indirect conflict of interest for ENRTF ID: 044-B, “Responsive Water Quality Monitoring: Southeastern Minnesota Trout Streams”, Neal Mundahl – Winona State University. (See Attachment # 3)
101-C	Commissioner Young reported a conflict of interest for ENRTF ID: 101-C, “Providing Residential Environmental Learning Experiences to Under-Served Students”, Bryan Wood - Audubon Center of the North Woods. (See Attachment # 4)
160-F	Commissioner Young reported a conflict of interest for ENRTF ID: 160-F, “Restoring 83-acres of Prairie, Savanna & Forest Habitat”, Tom Lewanski - Friends of the Mississippi River. (See Attachment # 4)
174-G	Co-Chair Persell stated he has an indirect conflict with ENRTF ID: 174-G, “Leech Lake Natural resource Multi-Benefit Conservation Acquisition” Levi Brown – Leech Lake Division of Resource Management. (See Attachment # 5)
180-G	Commissioner Lappa reported a direct conflict of interest for ENRTF ID: 180-G, “Tower Trailhead Boat Landing and Habitat Improvement”, Linda Keith - City of Tower. (See Attachment # 6)
N/A	Commissioner Kari Dziedzic reminded members of a letter on file from Tom Bottern, Senate Counsel, regarding a family member working at the DNR affirming that it did not constitute a conflict of interest with MN DNR’s proposals submitted. (See Attachment # 1)

**Senate Counsel, Research,
and Fiscal Analysis**

G-17 STATE CAPITOL
75 REV. DR. MARTIN LUTHER KING JR. BLVD.
ST. PAUL, MN 55155-1606
(651) 296-4791
FAX (651) 296-7747
THOMAS S. BOTTERN
DIRECTOR

Senate

State of Minnesota

TO: Senator Kari Dziedzic

FROM: Tom Bottern, Director (651/296-3810) *TB*

DATE: June 29, 2012

RE: LCCMR Procedures -- Analysis of Conflict of Interest
Regarding a Family Member

You have asked me whether the Procedures of the Legislative-Citizen Commission on Minnesota Resources (LCCMR Procedures) (as adopted September 23, 2008, and attached to this memo as you provided them to me) raise any concerns regarding a potential conflict of interest arising from your brother-in-law's employment with the Minnesota Department of Natural Resources (DNR). After reviewing the procedures and the information you have provided to me, I do not believe a conflict of interest exists.

Item C, section 7 of the LCCMR Procedures deals with conflicts of interest. Under the heading titled "Conflict of Interest to be Managed through Procedures" the LCCMR Procedures state "nevertheless, certain affiliations may constitute a conflict of interest that must be managed by the LCCMR. They include...having a family relationship with a proposer or a staff or board member of a proposing organization." The LCCMR Procedures then state that a conflict of interest must be identified before or during the initial proposal review process, and that a member who has declared a conflict of interest "may not advocate for or against the proposal or vote on the proposal."

The first step in evaluating this issue is to determine whether your brother-in-law can be considered a "family member" within the meaning of the LCCMR Procedures, which do not contain a definition of the term "family member". In the absence of a specific definition, the term should be given a reasonable construction and interpretation based on the common understanding of the term. With that in mind, I have reviewed selected Minnesota Statutes in search of a definition of the term "family member." There are several sections in statute that



define the term "immediate family member." One example is Minnesota Statutes, section 58A.02, subdivision 4, found in the chapter of law regulating Individual Mortgage Licensing. This subdivision defines "immediate family member" as follows:

58A.02 DEFINITIONS.

Subd. 4. Immediate family member.

"Immediate family member" means a spouse, child, sibling, a parent, grandparent, or grandchild. This includes stepparents, stepchildren, stepsiblings, and adoptive relationships.

Another example is Minnesota Statutes, section 181.947, which provides unpaid leave for immediate family members of military personnel injured or killed in active service. Minnesota Statutes, section 181.947, subdivision 1, paragraph (e), defines "immediate family member" to mean "a person's parent, child, grandparents, siblings, or spouse."

I did not find a statute that defines in-laws (whether siblings or parents related by marriage) as family members. As you can see, the two statutes I have cited in this memo do not contain a reference to in-laws, even though they provide a broad and inclusive definition of the term "immediate family member." These definitions in statute provide a strong basis to interpret the term "family member" as it used in the LCCMR Procedures not to include siblings related by marriage.

I do not believe the term "family member" as it is used in LCCMR Procedures includes a relationship to a sibling by marriage. For this reason alone, I believe the LCCMR Procedures do not require you to declare a conflict of interest with respect to any LCCMR project proposal involving your brother-in-law.

/TSB

Attachment

cc: Greg Knopff

Diana Griffith

From: Nancy Gibson <nangibson@comcast.net>
Sent: Thursday, June 30, 2016 10:26 AM
To: Susan Thornton
Subject: conflict of interest statement

June 30, 2016

To: Susan Thornton
LCCMR Director

From: Nancy Gibson
LCCMR member

Subject: Conflict of Interest

I have a potential "conflict of Interest" with project number 16A, "the Cascading Effects of Wolf Recolonization" due to the mention of the International Wolf Center being mentioned as a recipient of data information from the outcomes. I currently sit on the board of the International Wolf Center. I do not received any compensation for sitting on this non-profit board. It is not clear that this is a conflict but I want it for the record.

Nancy Gibson

From: Jeffrey S Broberg <elbabroberg1@gmail.com>
Sent: Wednesday, June 22, 2016 9:51 AM
To: Susan Thornton; Diana Griffith
Subject: Jeff Broberg conflict of interest 044B

Follow Up Flag: Follow up
Flag Status: Flagged

I am currently Vice-chairman of the National Trout Center (NTC) in Preston, Mn. who is named as a cooperator and contributor to project 044B Responsive Water Quality Monitoring: SE Mn Trout Streams by Winona State University. The NTC would host an intern to train volunteers and necessary supplies would be funded through the project. I would not be a project manager or derive any personal financial gain from the project.

I am declaring a "Conflict of Interest to be managed through proceedings" as defined by our proceedings. and will not be voting on or advocating for or against the proposal.

Jeffrey S. Broberg

From: Young, Della NS <dnsyoung@burnsmcd.com>
Sent: Friday, June 24, 2016 1:33 PM
To: Diana Griffith
Subject: RE: LCCMR Conflict of Interest

LCCMR Commission Members:

As a board member of the Audubon Center North Woods and the Friends of the Mississippi River, although I have nothing directly to do with these, perceived conflicts exist for me with projects 101-C and 160-F.

Thanks,

Della Schall Young, PMP, CPESC \ Burns & McDonnell
Sr. Hydrologist \ Regional ES&P Manager
O 952.656.3613 \ M 651.249.6974
dnsyoung@burnsmcd.com

From: Rep.John Persell
Sent: Friday, June 24, 2016 7:38 PM
To: Susan Thornton
Subject: LCCMR Conflict of Interest

Susan -

I would like to report a conflict of interest with the Leech Lake Band's LCCMR proposal 174-G as I am a part time employee of the LLBO. Thank you.

John

John Persell
Minnesota House of Representatives
359 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd.
St. Paul, Minnesota 55155
651.296.5516
rep.john.persell@house.mn

From: Gary Lamppa <glamppa@crdllc.net>
Sent: Wednesday, June 22, 2016 8:53 AM
To: Susan Thornton
Subject: Tower

I have a conflict with the City of Tower's application for their Harbor/trail project. I have worked for the City before I retired in my position at SEH and have been retained as a consultant since my retirement. This is a part time contract. Thanks.

Sent from my iPad
Gary Lamppa, Principal
Community Resource Development
Office phone: 651-770-7417
Cell phone: 218-260-9639
glamppa@crdllc.net

Michael McDonough

From: Drewitz, Matt (BWSR) <matt.drewitz@state.mn.us>
Sent: Monday, July 11, 2016 2:48 PM
To: Susan Thornton
Cc: Michael McDonough; Mike Banker
Subject: RE: LCCMR Hearing Questions follow up for 005-A

Susan,

In response to your earlier follow up question, I have gotten in touch with Dr. Snyder for some additional context and also reviewed his previously submitted proposal. Your question related to how the datasets of 005-A: ***Enhancing Targeted and Measurable Watershed Restoration and Protection*** and the U of M Project ***High Resolution Climate Projections to Aid Planning Efforts*** could work together.

Both of these projects are important for understanding and managing water dynamics in Minnesota, although with different data inputs/outputs and associated landscape scales (square miles vs site specific). In relation to conservation practice implementation, Dr. Snyder's project could be helpful for the following

- Having more regional climatic data could help the need for different or more robust design standards for certain conservation practices that hold back, retain, or treat surface water runoff. Hence, data from Dr. Snyder's project could help inform SWCD and Watershed District staff designing and planning projects to engineer those projects to accommodate future flows predicted by climate models.
- Dr. Snyder's data could help inform water quality models like the Hydrologic Simulation Program Fortran (HSPF) model that is typically run at a major watershed scale (HUC-8). Better rainfall inputs could enhance the model's outputs, which in turn could realize more realistic water quality goals at this larger scale.
- Data from Dr. Snyder's model could help with culvert, ditch, and road designs by State and local organizations so that water conveyance infrastructure can handle future flow regimes while maintaining stable channels and preventing localized flooding or road and bridge wash-outs.

Dr. Snyder's project would improve precipitation inputs to large scale water quality models as well as help designers of water quality BMPs and stormwater infrastructure predict future flow regimes in the face of climate change. In contrast, our project fills a critical gap in developing fine-scale models and tools by accurately describing how water flows across the land at a detailed scale. These models and tools are used for targeting and siting water quality improvement projects, as well as measuring the water quality pollution reduction impacts of conservation actions.

The climate data is one additional piece of the water quality management pie and could help inform our project. But, the data outputs alone from Dr. Snyder's project would not allow the targeted tools mentioned in our proposal to be usable, as a hydro-modified DEM and resultant water flow network is required for these tools (ex. ACPF/PTMA, etc.).

The two proposals are complimentary to each other because they work on vastly different scales and are not duplicative in any way. Dr. Snyder's proposal is not appropriate for practice scale work, while our project does not work for larger scale climate change predictions. If the two projects were both funded, Minnesota would have a very powerful combination of future-looking climate models and an accurate description of water flows that would benefit all facets of water management in Minnesota.

Thanks again for your consideration of our project proposal. If you have any additional questions, please drop me a line.

Sincerely,

Matt Drewitz

From: Susan Thornton [mailto:susan.thornton@lccmr.leg.mn]
Sent: Thursday, June 23, 2016 12:28 PM
To: Drewitz, Matt (BWSR) <matt.drewitz@state.mn.us>
Cc: Michael McDonough <michael.mcdonough@lccmr.leg.mn>; Mike Banker <mike.banker@lccmr.leg.mn>; BeckerKudelka, Angie (BWSR) <angie.beckerkudelka@state.mn.us>; Thomas, Doug (BWSR) <Doug.Thomas@state.mn.us>
Subject: RE: LCCMR Hearing Questions follow up for 005-A

Matt,

Thanks but wrong answer. The Peter Snyder proposal was done at the request of the agencies to provide localized climate data for natural resource management.
How will these two data sets work together?
Susan

Susan Thornton
Director, LCCMR
651-296-6264
Rm. 65 State Office Building
100 Rev. Dr. Martin Luther King Jr. Blvd
St. Paul, Mn 55155

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From: Drewitz, Matt (BWSR) [mailto:matt.drewitz@state.mn.us]
Sent: Wednesday, June 22, 2016 4:34 PM
To: Susan Thornton <susan.thornton@lccmr.leg.mn>
Cc: Michael McDonough <michael.mcdonough@lccmr.leg.mn>; Mike Banker <mike.banker@lccmr.leg.mn>; BeckerKudelka, Angie (BWSR) <angie.beckerkudelka@state.mn.us>; Thomas, Doug (BWSR) <Doug.Thomas@state.mn.us>
Subject: LCCMR Hearing Questions follow up for 005-A

Susan,

Very much appreciated the opportunity to speak yesterday about the project *005-A: Enhancing Targeted and Measurable Watershed Restoration and Protection*. I wanted to follow up on a couple questions that came up yesterday regarding the project. Julie Westerlund, DNR, did some research and provided me with some additional information to following:

- Rep. Wagenius inquired about project #E-135 (http://www.lccmr.leg.mn/proposals/2016/2016_proposals_by_topic_area.html) that was submitted by Peter Snyder last year from the U of M. This project deals with a large climate models and Snyder's project looks at downscaling those models to a smaller scale. This project is much different than project 005-A that I spoke to yesterday and does not involve hydro-modification of the LiDAR DEM. The data outputs from Snyder's project are very different and would not be useful for the work we would like to accomplish with our project.
- Michael asked us yesterday about how project 005-A relates to work that Steve Kloiber is working on regarding the National Wetlands Inventory (NWI) project. Julie Westerlund spoke with Steve yesterday and he said he has done testing and that the data were "relatively insensitive" to hydro-modification for his project, but he would

welcome using data from project 005-A to help validate and improve his work. Steve has not created a hydro-modified DEM with the NWI project.

If you have any additional questions or would like any further clarification on project 005-A, just let me know. Again, thank you for your consideration.

Sincerely,

Matt Drewitz

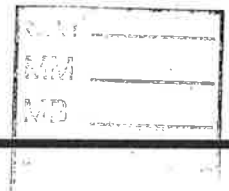
Matt Drewitz

BWSR Reporting and Outcomes Coordinator

Office Number: 507-344-2821

Cell Phone: 507-766-5020

RECEIVED JUL 11 2016



Diana Griffith

From: Bob Ebsen <bob@wildlifesciencecenter.org>
Sent: Monday, July 11, 2016 4:21 PM
To: Diana Griffith
Subject: Wildlife Science Center Proposal 2017
Attachments: LCCMR Budget July 2016.xlsx; Wildlife Science Center Activity Guide.doc; Wildlife Science Center main proposal.docx

To Whom It May Concern,

Thank you for the opportunity to submit the Wildlife Science Center's proposal. Please let me know if you need any additional information.

Peggy Callahan
651-464-4994
peggy@wildlifesciencecenter.org



PROJECT TITLE: "Real Wildlife, Real Conservation, Real Impact"

I. PROJECT STATEMENT

There is a growing disparity between the time kids spend indoors wired to technology and the time they spend outside experiencing and learning from the environment. According to marketing research conducted by Childwise, children ages 5-16 spend between 6-8 hours on "screen" each day compared to 3 hours in 1995. In addition, Nature Conservancy data suggests that 10 percent of youth say they spend time outdoors every day. The poll also showed youth that appreciated nature were those that had a personal experience in nature; clearly getting kids a meaningful experience outside is critical to getting them engaged in conversation about environmental issues.

Children are naturally drawn to animals – Wildlife Science Center programs foster this curiosity and wonder while teaching respect for all living things. Our approach to environmental education is a simple one, we use the natural world and all of its components to reinforce educational objectives set by the State of Minnesota. We reference state and national education standards when designing programs and strive to enhance what teachers are already covering in the classroom. Numerous studies have shown that when objectives are reinforced with real-life experiences, the students have a greater level of understanding and retention. Our programs not only tap into children's natural attraction to animals, but we leverage student's affinity for technology to bridge the gap between screen time and outdoor time, and introduce a means to benefit from both.

The Wildlife Science Center uses live wild animals to generate interest, inspire participation, illustrate systems, and explore the interface between natural systems and human systems in order to move toward the goal of informed environmental decision making by youth.

"Teaching children about our natural world should be treated as one of the most important events in their lives." –Thomas Berry

II. PROJECT ACTIVITIES AND OUTCOMES

Activity 1:

Introduce 7500 new students to environmental education programming through off-site education programs, using live animal ambassadors and existing curriculum.

Description:

WSC encourages the expectation on the part of those who work with and influence children that all students, regardless of gender, race, family background or previous academic record can be "good" at school and it is this expectation that forms the basis of all our programs.

Typically group sizes on or off-site range from 30-180, although class size is sometimes as small as six for special education students. The largest number of students participating at once was 10,000, through a virtual field trip where 67 schools from 20 states were linked via satellite in partnership with "Bell LIVE!" an educational science program from the Bell Museum of Natural History.

Goals for the Wildlife Science Center's Education Program

The goals of the programs are as follows:

- To provide equal access to programs for students of all socioeconomic and cultural backgrounds, and of all developmental abilities;



Environment and Natural Resources Trust Fund (ENRTF)

2016 Main Proposal

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- To make a connection between a student's natural affinity for animals and science.
- To use scientific research to create a living classroom for all students;
- To provide examples of science careers which are gender-fair and without ethnic or racial bias;
- To communicate a multi-disciplinary ethic of environmental conservation.
- To expose non-traditional students and those who may not be college bound to the field of science and the complexities of the natural world;
- To offer teachers a useable curriculum that can be suited to meet the diverse needs of their student's levels and abilities while supporting key teaching objectives.
- Most of WSC's students visit only one or two times per year, hence we are dependent upon teacher/student feedback. Teacher evaluations are overwhelmingly positive, and the letters we receive from both teachers and students provide assurances that we are achieving our goals of providing fun, accessible science.

Activity 2:

The Wildlife Science Center seeks funding to bring an additional 10 schools on-site each year for three years. Using the educational framework outlined above, WSC's on-site programs are made more impactful by the diversity and number of resident wildlife. WSC is home to the largest population of captive wolves in the lower 48, and the only facility in Minnesota to house both endangered red wolves and Mexican wolves as a part of the national effort to reintroduce these species. In addition, WSC houses black bears, all three wild cats, all of MN's wild dogs, raptors and other small, local carnivores, plus a porcupine.

Activity 3:

Evaluation Plan

Measurement of results

- WSC tracks both quantitative and qualitative data from all who attend programs. We use this information to improve our offerings in the future. ; WSC serves between 15,000-20,000 students annually through both on and off-site program; this program would serve to expand our impact.

Assessments evaluate each student's progress towards program objectives and provide information to make program adjustments. This assessment comes in two forms:

- Instructors assess the understanding of scientific method displayed in the actual project that each student conducts
- The overall experience of the student is assessed, since it must be positive and supportive in order to be lasting. Every effort is made to foster a positive experience throughout the program.. Science is taught under the guise of fun.



Environment and Natural Resources Trust Fund (ENRTF)

2016 Main Proposal

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Project Strategy:

Schools and school districts, community project leaders aka Mpls Parks and Rec, Camp Sunrise-will provide assistance in identifying and reaching target audiences;
Wildlife Science Center Staff and education specialists will provide the teaching along side the school and program teachers;

Project Impact:

WSC:

- Offers programs that enhance and illustrate classroom lessons;
- Adjust the content and pace the educational program to meet the specific needs of the audience;
- Receives an overwhelmingly positive response of visiting teachers;
- Provides instruction that ensures teachers are both willing and able to use a variety of material to develop interest in science and to increase their knowledge of science;
- Dispels the "white-lab-coat-only" myth about science;
- Teaches field techniques for collecting data that encourages interaction and offers new information to teachers to take back to the classroom;
- Offers women biologists/instructors who act as gender-fair role models in science;
- Teaches using the wolf as an umbrella species, not a stand-alone animal, that leads naturally into ecosystem-based education;

Our curriculum employs hands-on experiences and examples relevant to students, uses gender-fair, multi-cultural materials and includes science concepts tailored to students' developmental levels. This type of programming is in high demand, since wolves are an excellent method that teachers can use to spark students' interest in learning. WSC offers both on and off-site interactive presentations and overnight camping experiences to Minnesota youth by partnering with schools interested in bringing science education to life.

Past results

- Our extremely high rate of return (86%) serves as our best indicator of success. Our goal is to maintain a 75% return rate, with attendance comprised of 38% children of color and 55% female. WSC serves between 20,000-30,000 students annually through both on and off-site programs;
- Each student learns group interaction skills as well as independent learning.

Students incorporate the following skills into their experience: posing questions, hypothesizing, design, conduct and present an experiment, critical thinking to connect evidence and explanations, and finally to communicate these all to fellow students

WSC strives to maintain high return rates and rates of diversity while continuing to present accessible science programs to students of all ages.

Timeline requirements:

This project has a three year timeline in order to reach the target number of schools and students through on and off-site programs, using ambassador animals and experiential learning.

2016 Detailed Project Budget

Project Title: Real Animals. Real Conservation. Real Impact.

IV. TOTAL ENRTF REQUEST BUDGET for 3 years

BUDGET ITEM	AMOUNT
Personnel: Project Coordinator - 50% FTE salary only; 36 months; (\$35,000 annually) Education Specialist2 - 75% FTE salary only; 36 months; (\$37,500 annually) Additional benefits and taxes - (15,375 annually) taxes paid for by the Wildlife Science Center in-kind support.	\$ 263,625
Professional/Technical/Service Contracts: Augment current STEM based curriculum focused on predator/prey relationships, biodiversity, wildlife management, physical and behavioral adaptations, and Minneota wildlife using up-to-technology including equipment to live stream video \$12000, 10 trail cams \$2700, Laptop plus protective case \$1500, 2 Flat screen TVs plus sound system \$1500, 10 microscopes \$6000, 10 digital tablets plus cases \$3500, *Outreach Education Artifact Box \$1000, Resource books for classrooms \$2800, Cameras for student use \$1500 Marketing support; (\$5000 annually = \$15000 total over 3 years) Project data collection and evaluation (\$15,000 annually = \$45000 total over 3 years)	\$92,500
Equipment/Tools/Supplies -	
Acquisition (Fee Title or Permanent Easements): <i>In this column, indicate proposed number of acres and and name of organization or entity who will hold title.</i> Travel in MN: Roundtrip mileage from the Wildlife Science Center to the location of the outreach program using the federal mileage compensation rate (Estimated 60 miles roundtrip at the current federal mileage compensation rate of \$0.54 per mile for 75 programs over a three year period =	N/A \$2,430
Additional Budget Items: Liability insurance (\$6250 annually)	\$ 18,750
TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND \$ REQUEST =	\$ 377,305

V. OTHER FUNDS

SOURCE OF FUNDS	AMOUNT	Status
Other Non-State \$ To Be Applied To Project During Project Period: Foundation Grant \$10,000 pending Member support \$5000 pending	\$15,000	Pending
Other State \$ To Be Applied To Project During Project Period:	N/A	

In-kind Services To Be Applied To Project During Project Period: Staff and education volunteer time	N/A
Funding History:	N/A
Remaining \$ From Current ENRTF Appropriation:	N/A

2017 Environment and Natural Resources Trust Fund Proposals

CUMULATIVE AVERAGE OF MEMBER RANKINGS - LISTED BY CATEGORY RANK - HIGH TO LOW

Line #	LCCMR ID #	Project Title	Organization [Project Manager]	\$ Request	Region of Impact	Member Notes [Compiled from all members. Notes from individual members are designated with bullets]	Staff Notes	Average Score - Members that Scored	All Member Scores - High to Low	# Members that Scored	# Members with Conflict	SELECTED	LCCMR Recommendation
1	A. Foundational Natural Resource Data and Information (17 Proposals / Subtotal \$16,620,760)												
2	001-A	Minnesota Geological Survey Geologic Atlases for Water Management	U of MN - Minnesota Geological Survey [Setterholm, Dale]	\$3,784,700	Statewide	- MGS could accelerate by adding 25% for total of \$4.729MM (116P.08 2, 3,4) - Don't know if they need full amount. - \$3,784,700	-Continuation -Budget includes transport vehicle for bore hole drilling \$34,000 -M.L. 2015 "County Geologic Atlases - Part A" \$2,040,000 thru 6/30/2018 -M.L. 2013 "County Geologic Atlases - Part A" \$1,200,000 thru 6/30/2016	7.82	9,9,9,9,9,9,9,9,8,8,8,8,7,4,1	17	0		
3	006-A	Minnesota Biological Survey	MN DNR [Carlson, Bruce]	\$2,955,861	Statewide	- (116P.08 2, 3,4, 6) - Do they need full amount? - \$2,955,861	-Continuation - Budget includes \$179,861 for "DNR Direct and Necessary Expenses" -M.L. 2015 ENRTF \$2,450,000 thru 6/30/2017 with \$1,620,399 remaining -M.L. 2013 ENRTF \$2,650,000 completed 6/30/2015 -M.L. 2011 ENRTF \$2,250,000 completed 6/30/2013	7.35	9,9,9,9,9,9,9,9,8,7,7,6,5,3,0	17	0		
4	009-A	Promoting Wild Rice Restoration Success by Examining Microbes	U of MN - Duluth NRRI [Chun, Chanlan]	\$334,035	NE	- (116P.08 2, 3, 4) - \$334,035	-Budget includes conference costs \$2,289	6.82	9,9,9,9,8,8,8,7,7,7,5,5,4,4,3	17	0		
5	015-A	Non-Invasive Moose Calf Surveys and Ecosystem Monitoring	U of MN [Ditmer, Mark]	\$348,151	Statewide	- (116P.08 2, 3). Pening high leverage with \$810K from NSF - \$348,151	-Wildlife Research-Moose -Equipment includes a drone for \$18,000	6.29	9,9,9,9,9,8,6,6,6,6,6,5,2,2,1	17	0		
6	002-A	What are the Public Benefits of Protecting Sourcewater?	U of MN [Keeler, Bonnie]	\$320,000	Statewide	- (116P.08 2, 3,4) 75% of Minnesotans drink groundwater where source water protection is an emerging field, the rest drink river water where there is no real source water proteciton.	-Ecosystem Services-Drinking Water -M.L. 2015 "Understanding Water Scarcity, Threats, and Values to Improve Management" \$234,936 thru 6/30/2018	6.12	9,9,9,9,9,9,8,8,8,6,5,3,3,0,0,0	17	0		
7	007-A	Continue Expansion of the Minnesota Wildflowers Online Botanical Reference	Minnesota Wildflowers Information [Chayka, Catherine]	\$270,470	Statewide	- (116P.08 2, 4) - \$270,470	-Continuation -M.L. 2014 "Expansion of Minnesota Wildflowers Online Botanical Reference" \$150,000 thru 6/30/2017	6.06	9,9,9,9,9,8,7,7,7,6,5,5,4,0,0,0	17	0		
8	017-A	Effects of Wolves on Beavers, Moose, and Deer	Voyageurs National Park [Windels, Steve]	\$293,000	NE	- (116P.08 2, 3,4)	-Wildlife Research- Wolf -Includes approximately \$176,000 non-state other funds secured	5.65	9,9,9,9,9,6,6,6,5,4,4,3,2,2,2,2	17	0		

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9	003-A	Minnesota Trumpeter Swan Migration Ecology and Conservation	U of MN [Andersen, David]	\$462,433	Statewide	- (116P.08 2,4)	-Wildlife Research- Swans -Equipment includes costs of \$156,00 for 60 GPS transmitters	5.59	9,9,9,9,9,8,6,6,5,4,4,2,0,0,0	17	0		
10	016-A	Cascading Effects of Wolf Recolonization	U of MN [Isbell, Forest]	\$398,000	Metro	- (116P.08 2, 3) - \$398,000	-Wildlife Research- Wolf	5.56	9,8,8,8,7,7,7,6,4,4,3,3,3,2,2	16	1		
11	012-A	Mapping Groundwater Contamination: Accessible Data to Protect Resources	MPCA [Neve, Hans]	\$480,000	Statewide	- (116P.08 2, 3). This would set the standard for better data managemtn and better public access to data	-Superfund funding?	5.53	9,9,9,8,8,8,6,6,5,3,3,3,0,0,0	17	0		
12	031-A	Minnesota's Freshwater Sponges: Mapping Taxonomy and Environmental Toxicology	U of MN [Mukku, Venugopal]	\$258,000	Statewide	- (116P.08 4) - Interested in possible effects on zebra mussels.		5.44	9,9,9,9,9,8,8,6,5,3,3,0,0,0,0	16	0		
13	004-A	Healthy Prairies II: Preserving MN Prairie Plant Diversity	U of MN [Shaw, Ruth]	\$938,000	SE	- (116P.084, 6)	-Continuation -M.L. 2014 "Prairie Sustainability through Seed Storage, Beneficial Microbes, and Adaptation" \$600,000 thru 6/30/2017	5.13	9,9,9,9,9,8,7,7,3,2,1,0,0,0,0	16	1		
14	013-A	Landslide Hazards and Impacts on Minnesota's Natural Environment	U of MN [Gran, Karen]	\$672,408	Statewide	- (116P.08 2, 3)	-Budget includes funding for University of North Dakota staff \$67,875 and University of Wisconsin staff \$6,674	4.69	9,9,9,9,8,7,5,5,2,1,1,1,0,0,0	16	0		
15	011-A	Drainage Records Modernization – Phase II, Cost-Share	Board of Water and Soil Resources [Gillette, Timothy]	\$540,000	Statewide	- (116P.08 3) - \$540,000	-Continuation -The number of grants is unknown and dollar amount for grants is unknown -M.L. 2014 "Drainage Records Modernization and Statewide Geographic Information System Database" \$230,000 -2014 appropriation was to establish tools for development of a regular budget item for the grants	3.53	9,8,8,8,7,4,4,3,2,2,2,2,1,0,0,0,0	17	0		
16	020-A	Lowland Conifer Ecosystems: Holistic Assessment for Adaptive Management	U of MN [Windmuller-Campione, Marcella]	\$763,702	Central, NW, NE	- (116P.08 2, 3)		3.44	9,8,8,8,7,3,3,2,2,2,2,1,0,0,0,0	16	0		

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17	005-A	Enhancing Targeted and Measureable Watershed Restoration and Protection	Board of Water and Soil Resources [Thomas, Doug]	\$2,802,000	Statewide	- Clean water legacy is more appropriate	-Budget includes contract with Iowa State University for \$400,000 -Proposal consist of 3 contracts, MN DNR \$50,000, Iowa State University \$400,000, and UMN \$2,200,000, that BSWR proposes \$150,000 to manage. -Clean Water Fund funding?	3.24	9,9,8,8,7,5,3,2,2,1,1,0,0,0,0,0,0	17	0		
18	010-A	Contaminants in Urban Soils: Understanding the Urban Environment	U. S. Geological Survey [Elliott, Sarah]	\$1,000,000	Statewide	- (116P.08 2,3)		1.94	8,6,5,4,3,2,2,1,1,1,0,0,0,0,0,0,0	17	0		
19	B. Water Resources (18 Proposals / Subtotal \$18,627,126)												
20	035-B	Rearing Native Mussels and Building Water Quality Awareness	Minnesota Zoo [Maguire, Allan]	\$591,925	Statewide	- (116P.08 4, 6) - \$591,925	-Wildlife Research-Mussels -Expands capacity beyond existing collaboration with DNR on mussel rearing from 2016 DNR ENRTF recommendation M.L. 2016 "Restoring Native Mussels in Streams and Lakes" \$600,000 pending thru 6/30/2019 -Equipment includes a mussel research and rearing pod \$130,000	7.29	9,9,9,9,9,9,8,8,8,7,6,6,6,5,4,3	17	0		
21	033-B	Household Chemicals as Water Pollutants and Toxic Precursors	U of MN [Arnold, William]	\$236,000	Statewide	- (116P.08 2, 3)Need better understanding of the complex chemical reactions in waste water treatment	-Budget includes publication costs \$3,000 -Project is included in 2017 proposal 052-B "The Minnesota Center for Water Treatment Technology Innovation" \$10,306,899 -See Water Center (052-B) response to staff questions	6.24	9,9,9,9,9,9,8,8,6,6,5,5,4,1,0,0	17	0		
22	034-B	Innovative Nitrogen Removal Technology to Protect Water Quality	U of MN [Novak, Paige]	\$476,100	Statewide	- (116P.08 2, 3). This could be a double bonus, more effective treatmetn at a lower cost - Seems viable and could produce a product for commercial use.	-Project is included in 2017 proposal 052-B "The Minnesota Center for Water Treatment Technology Innovation" \$10,306,899 -See Water Center (052-B) response to staff questions	6.06	9,9,9,9,9,9,8,8,7,5,5,4,3,0,0,0	17	0		
23	048-B	Reassessing Toxicity of Petroleum Spills with New Technologies	University of St. Thomas [Martinovic-Weigelt, Dalma]	\$423,189	NW	- (116P.08 2, 4)	-Qualifications had 2 pages, 2nd page removed	6.00	9,9,9,9,9,9,6,5,4,4,4,4,4,3,3,2	17	0		
24	059-B	Chemicals of Emerging Concern in Minnesota Fish	Grand Portage Band of Lake Superior Chippewa [Moore, Seth]	\$436,922	NE	- (116P.08 2, 3,4) High leverage with \$242K secured and \$20K pending	-Qualifications had two pages, 2nd page removed -See response to staff questions	5.76	9,9,9,9,9,9,8,7,6,5,4,3,2,0,0,0	17	0		

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25	044-B	Responsive Water Quality Monitoring: SEern Minnesota Trout Streams	Winona State University [Mundahl, Neal]	\$583,980	SE	- After conclusion, what is action plan?	-Equipment includes 9 gauging stations \$180,000 -Equipment includes Smith-Root LR-24 electrofisher \$9,780 -Includes sensors	5.44	9,9,9,9,8,7,7,6,6,4,4,4,1,0,0	16	1		
26	038-B	Removing Plastic Particle Pollution from Minnesota Water Bodies	U of MN [Coletti, Filippo]	\$359,540	Statewide	- (116P.08 2, 3,4)	-St. Anthony Falls Laboratory (SAFL) -See response to staff questions about SAFL priorities	4.94	9,9,8,8,8,7,7,7,7,5,4,0,0,0,0	17	0		
27	051-B	New Self-Sustaining Nitrate and Pesticides Removal Biotechnology	U of MN [Behrens, Sebastian]	\$318,162	SW, SE	- Add neonics please. - (116P.08 2, 4) Patentable possible ROI - Good to use natural materials to filter; scalable, which is a plus.	-Project is included in 2017 proposal 052-B"The Minnesota Center for Water Treatment Technology Innovation" \$10,306,899 -Budget includes conference costs \$3,045 -See Water Center (052-B) response to staff questions	4.94	9,8,8,8,7,7,6,6,5,4,4,4,4,0,0,0	17	0		
28	055-B	Maximizing the Benefits of Water Reuse	U of MN [Ishii, Satoshi]	\$148,000	Statewide	- Where is the collaboration with other efforts we have funded regarding surface water and barriers? - (116P.08 2, 3,4)		4.88	9,9,9,8,7,7,7,7,6,5,5,4,0,0,0,0	17	0		
29	046-B	How Rapidly can Groundwater Quality be Improved?	U of MN [Nieber, John]	\$672,000	SE	- (116P.08 2, 3,4) - Should prevent not clean up - How will the water be cleaned up in an expedient manner?		3.94	9,8,8,7,5,4,4,4,4,4,3,2,1,0,0,0	17	0		
30	042-B	Restoring Agricultural Lakes and Watersheds by Managing Carp	U of MN [Bajer, Przemyslaw]	\$967,100	Central, Metro, SW, SE	- (116P.08 2, 6) - Possible to scale down? Possible to remove more carp from lakes as part of this? - \$967,100	-Budget includes publication costs \$5,000	3.65	9,8,7,7,6,6,6,5,4,1,1,1,1,0,0,0,0	17	0		
31	054-B	Preventing Fish Kills by Increasing Understanding	MN DNR [Rantala, Heidi]	\$699,905	Statewide	- (116P.08 2, 3,4) - \$699,905	-Wildlife Research- Fish -Budget includes \$4,490 for "DNR Direct and Necessary Expenses" -Equipment includes Data loggers and automated samplers \$147,000 -Budget personnel includes Minnesota Department of Agriculture \$333,000 for water sampling	3.65	8,7,7,6,6,5,5,4,3,3,3,2,2,1,0,0,0	17	0		
32	036-B	Rural Industrial Water Efficiency Impact on Drinking Water	U of MN [Brauman, Kate]	\$282,000	Central, NW, NE, SW, SE	- (116P.08 4)	-Budget includes publication costs \$2,000	3.12	9,6,6,6,6,4,4,4,3,2,1,1,1,0,0,0,0	17	0		
33	074-B	Measuring Reductions in Nitrate Pollution from Precision Agriculture	University of St. Thomas [Small, Gaston]	\$159,833	Central	- (116P.08 2 ,4)	-Budget includes \$32,908 in equipment for sensors, \$4,974 for a camera, and \$1,980 for loggers -Includes sensors	3.00	7,7,6,5,5,5,4,4,4,4,0,0,0,0,0,0	17	0		

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34	058-B	Sulfate and Metal Removal from NE Minnesota Waters	U of MN [Dutcher, Cari]	\$298,325	NE	- Industry should pay. - (116P.08 2, 3)	-Relationship to similar 2016 project unknown? -Equipment budget not very well broken down	2.65	8,6,5,4,4,4,3,3,3,2,2,1,0,0,0,0,0	17	0		
35	045-B	Buffer Gap Analysis	Board of Water and Soil Resources [Mohring, Eric]	\$1,390,656	Statewide	- 182 a better project for buffer gap. - (116P.08 2, 3) - 182 a better project for buffer gap. - \$1,390,656	-Budget includes conferences and printing \$21,000 -Equipment includes hydrologic instrumentation and gaging stations \$300,000 -5 year project -Includes drones	2.53	8,8,6,6,5,3,2,2,2,1,0,0,0,0,0,0	17	0		
36	066-B	Continuous Nitrate Pollution Monitoring at the Kitchen Sink	U of MN [Wickert, Andrew]	\$276,590	Statewide	- Agriculture should pay. - (116P.08 2,4) Highly leveraged with \$202K secured and \$3K pending	-Is this product testing for a private company? -Includes sensors -St. Anthony Falls Laboratory (SAFL) -See response to staff questions about SAFL priorities)	1.59	6,5,4,3,3,2,1,1,1,1,0,0,0,0,0,0	17	0		
37	052-B	The Minnesota Center for Water Treatment Technology Innovation	U of MN [Hozalski, Raymond]	\$10,306,899	Statewide	- (116P.08 2, 3,4) - Don't know if need a lot of directors but would prefer people or identify emerging issues & coordinate projects and proposals. Question if need full amount.	-Need competitive process for center directors -Includes funding for director and associate director -\$700,000 in equipment and \$729,626 for lab supplies before RFP for projects -6 year project -Outcomes not clear with narrative -See response to staff questions -Staff were anticipating fewer director and overhead staff and more of a coordinator for projects and center to get it going -Proposal includes 2017 proposals William Arnold 033-B "Household Chemicals as Water Pollutants and Toxic Precursors" \$236,000, Paige Novak 034-B "Innovation Nitrogen Removal Technology to Protect Water Quality" \$476,100, and Sebastian Behrens "New Self-Sustaining Nitrate and Pesticide Removal Biotechnology" \$318,162	0.82	7,6,1,0,0,0,0,0,0,0,0,0,0,0,0,0	17	0		

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38	C. Environmental Education (11 Proposals / Subtotal \$5,098,858)												
39	079-C	Floating Classroom: Connecting 20,000 Youth to Minnesota Waterways	Wilderness Inquiry [Lais, Greg]	\$1,240,730	Statewide	- Campsite adoption is innovative and on-going. - Great history really appreciate the inclusion. ALL means ALL. - (116P.08 4, 6) My #1 pick this year - Cut in half; seems expensive at \$443 per student for only 3-5 days. - \$1,240,730	-Continuation -M.L. 2014 "Urban Environmental Education Engaging Students in Local Resources" \$1,093,000 thru 6/30/2017 -M.L. 2013 "Youth Outdoors: Mississippi River Education and Employment Opportunities" \$450,000 completed 6/30/2015	7.29	9,9,9,9,9,9,9,8,8,7,7,6,6,5,3,2	17	0		
40	100-C	Developing Watershed Stewardship in NW Minnesota Youth	Headwaters Science Center [Joy, Susan]	\$71,861	NW	- Authentic Up North Educational Experiences. - (116P.08 4) low cost, high impact for NW Mn	-Budget and outcomes are not clear -Project needs fiscal agent	6.41	9,9,9,9,8,8,8,8,7,7,7,4,0,0,0	17	0		
41	082-C	Increasing Diversity in Environmental Careers: Fellowships, Internships, Mentorships	MN DNR [Getchell, Vikki]	\$1,487,519	Statewide	- Well thought out for long term support and benefits. - (116P.08 4) - Don't think they need that much money. - If agencies are will to fund years 2-5, why can't they fund year one?	-\$650,000 or more for DNR and Conservation Corps Minnesota and Iowa administration -Budget includes \$90,480 for "DNR Direct and Necessary Expenses" -See response to staff questions	6.29	9,9,9,8,8,8,8,8,7,7,6,5,4,3,0,0	17	0		
42	092-C	Bird City - Education for Lasting Conservation	Audubon Minnesota [Eckles, Joanna]	\$280,000	Statewide	- Has so much potential for public awareness! - Double the Money - (116P.08 4, 6) - \$280,000		6.18	9,9,9,9,8,8,7,7,6,6,5,5,4,4,0,0	17	0		
43	101-C	Providing Residential Environmental Learning Experiences to Under-Served Students	Audubon Center of the North Woods [Wood, Bryan]	\$130,000	NE	- Innovative opportunity! - Only for schools not served by other centers and, once started, no free ride. - (116P.08 4) Nedds restraint in not using grant to take schools away from other ELC's - Helps get students involved in the environment but concerned it could become an annual request.	-How much does it cost per student?	5.63	9,9,9,8,8,8,7,7,7,6,6,4,2,0,0,0	16	1		
44	084-C	Bridging Classroom and Outdoor Learning by Studying Birds	U of MN [Ponder, Julia]	\$270,740	Statewide	- Builds on "Drive to Discover" from Cornell. - (116P.08 4)	-Curriculum development or adaptation of existing material? -Outcomes are unclear? -It is unclear what the demonstrations are? -M.L. 2014 "Raptor Lab Integrating Online and Outdoor Learning Environments" \$186,000 thru 6/30/2016	5.53	9,9,9,9,8,8,8,7,6,6,5,5,3,2,0,0,0	17	0		

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45	083-C	Minnesota Water Stories Told in Digital Planetariums	U of MN - Bell Museum of Natural History [Weiblen, George]	\$622,000	Statewide	- Educates about Minnesota's critical water issue. - (116P.08 4)Just received NASA grant - highly leveraged. Planetarium shows extremely popular	-Budget includes \$114,000 for video equipment -Includes drones	4.65	9,9,9,9,8,7,6,5,5,5,4,2,1,0,0,0,0	17	0		
46	081-C	Youth Convening Minnesota	Climate Generation: A Will Steger Legacy [Poppleton, Kristen]	\$310,008	Statewide	- (116P.08 3, 4) an effective an popular program in outstate MN where it is rare to have these conversations with experts.	-M.L. 2014 "Educating Minnesotans about Potential Impacts of Changing Climate" \$325,000 thru 6/30/2016	4.53	9,9,9,9,8,8,6,6,5,4,4,0,0,0,0,0,0	17	0		
47	087-C	Market Science: Connecting Minnesotans to Environmental Research	U of MN [Tiffin, Peter]	\$132,000	Statewide	- Should expand to all Farmers' Markets. - (116P.08 4)		4.47	9,9,9,9,8,8,6,6,5,4,1,1,1,0,0,0,0	17	0		
48	085-C	Students Use Local Phenology to Understand Climate Variability	U of MN [Carlson, Stephan]	\$240,000	Statewide	- Overdue Citizen Science to aid future decisions. - where is the ROI from these investments - (116P.08 4)	-Why is there nature center room rental charges? -How will they choose the 10 nature centers?	4.18	9,8,8,8,8,7,7,5,5,3,2,1,0,0,0,0,0	17	0		
49	105-C	NE Minneapolis Sustainability Incubator	Holland Neighborhood Improvement Association [Koski, Adelheid]	\$235,000	Metro	- Model for others. - (116P.08 4) Highly leveraged with outside funds \$220 secured and \$350K pending -Non-profit? - Doesn't indicate any actual outcomes.		3.65	8,7,7,7,5,5,4,4,4,4,4,3,0,0,0,0,0	17	0		
50	D. Aquatic and Terrestrial Invasive Species (12 Proposals / Subtotal \$11,823,168)												
51	108-D	EAB Biocontrol Phase III: Assessment and Citizen Engagement	Minnesota Department of Agriculture [Osthus, Jonathan]	\$729,540	Statewide	- Implementation critical to ash tree future. - (116P.08 2, 4) - \$729,540	-TIS-Emerald Ash Borer -Continuation -M.L. 2014 "Biosurveillance and Biocontrol of Emerald Ash Borer - Phase 2" = \$447,000 thru 6/30/2017 -M.L. 2011 "Emerald Ash Borer Biocontrol Research and Implementation" \$500,000 completed 6/30/2014 -See TIS Center response to staff questions	6.18	9,9,9,8,7,7,7,7,7,7,5,5,5,3,2,1	17	0		
52	119-D	Adapting Stream Barriers to Remove Invasive Fish	U of MN [Bajer, Przemyslaw]	\$381,150	Statewide	- Clever technology transfer. - (116P.08 2, 3,4) - AIS Funding should cover. - Natural barriers are a plus. - \$381,150	-AIS- Common Carp -Equipment rental for \$105,000 for what appears to be the "Whooshh" system created by Whoosh Innovations -Budget includes publication costs \$4,000 -See AIS Center response to staff questions	5.94	9,9,9,9,8,8,8,7,7,6,6,5,3,3,2,2,0	17	0		

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53	107-D	Implementing Biological Control of Garlic Mustard	U of MN [Becker, Roger]	\$421,987	Statewide	- A solution to one of top three Forest Service invasives!!! - This is operational implementation. Should be funded immediately out of Terrestrial Invasive Species Center appropriations. - (116P.08 2,,4) - Leery of using non-native species to fight non-native species.	-TIS-Garlic Mustard -Continuation -M.L. 2007 "Biological Control of European Buckthorn and Garlic Mustard" \$300,000 6/30/2010 -M.L. 2013 "Biological Control of Garlic Mustard" \$140,000 thru 6/30/2016 -See TIS Center response to staff questions	5.82	9,9,9,9,9,7,5,5,5,5,4,4,4,3,3,0	17	0		
54	106-D	Using Science to Solve Minnesota's AIS problems - Phase II	U of MN [Galatowitsch, Susan]	\$6,100,000	Statewide	- Need project list before funding decision. - (116P.08 2, 3,4, 6) - Fund Center to do its job and screen the other AIS projects. - \$4,000,000	-AIS -Continuation -This is the Minnesota Aquatic Invasive Species Resource Center funding for reseach projects based on center priorities -See AIS Center response to staff questions	5.76	9,9,9,9,8,8,7,7,7,6,5,4,4,4,2,0,0	17	0		
55	122-D	Tactical Invasive Plant Management Plan Development	Minnesota Department of Agriculture [Chandler, Monika]	\$296,832	Statewide	- Proactive and leading other States. - (116P.08 2, 3, 4, 6)	-TIS- Plants -Why is this not already done and what plan have they been using? -See TIS Center response to staff questions	5.65	9,9,9,9,8,8,8,8,7,6,5,4,4,2,0,0,0	17	0		
56	114-D	Continuation of Invasive Carp and Native Fish Evaluation	MN DNR [Aukema, Brian]	\$739,064	Central, Metro, SW, SE	- (116P.08 2, 3,4)	-AIS- Invasive Bigheaded Carp -Continuation -Budget includes \$34,157 for "DNR Direct and Necessary Expenses" -M.L. 2013 "Detection and Monitoring of Asian Carp Populations" \$540,000 -DNR Game and Fish Fund? -See AIS Center response to staff questions	5.29	9,9,8,8,7,7,7,5,5,5,4,4,4,4,2,2,0	17	0		
57	123-D	Maximize Value of Water Impoundments to Wildlife	Audubon Minnesota [Hall, Kristin]	\$195,000	NW	- Many applications in Prairie Waterfowl region. - (116P.08 2, 5)	-AIS-Cattails -Proposal appears to include potentially ineligible standard maintenance and management per RFP -Land located in Agassiz Valley Impoundment owned by the Middle-Snake-Tamarac Rivers Watershed District -See AIS Center response to staff questions	5.18	9,9,9,9,8,8,7,6,5,4,4,4,3,2,1,0,0	17	0		
58	111-D	New Technology to Control Invasive Carp	U of MN [Smanski, Michael]	\$389,000	Statewide	- Marketable elsewhere. - (116P.08 2, 3,4) - AIS Funding should cover.	-AIS-Common Carp -See AIS Center response to staff questions	4.94	8,8,8,8,8,7,5,5,5,5,4,4,3,3,2,1,0	17	0		

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59	117-D	Acquiring Key Information for a Carp Deterrent System at Lock and Dam #5	U of MN [Sorensen, Peter]	\$284,000	NW	- Use reserve funds. LCCMR for \$84k only. - Just give \$84,000 since he still has \$200,000 \$84,000 - (116P.08 2, 4) - Just give \$84,000 since he still has \$200,000. - Has 200k remaining, support with 84k.	-Continuation-AIS- Carp -Score reflects past ENRTF funding still available -It is not clear if there is not already sufficient funding under current funding to do this project? -What is relationship to Messinger projects? -Equipment includes \$20,000 for fish tracking system with computer -M.L. 2014 "Blocking Bighead, Silver, and Other Invasive Carp by Optimizing Lock and Dams" \$853,000 thru 2017 -M.L. 2013 ENRTF "AIS Research Center Sub-Project 03: Reducing and Controlling AIS: Developing Effective Tools to Attract and Locate Aggregations of Invasive Carp" \$753,000 thru 2019 -M.L. 2012 "Aquatic Invasive Species Cooperative Research Center" \$981,000 thru 2018 -M.L. 2008 "Accelerating Plans for Integrated Control of the Common Carp" \$550,000 completed 2011 -M.L. 2005 "Integrated and Pheromonal Control of Common Carp" \$550,000 completed 2008 -M.L. 2003 "Developing Pheromones for Use in Carp Control" \$100,000 thru -See AIS Center response to staff questions	4.18	9,8,8,8,6,5,3,3,3,2,2,2,1,0,0	17	0		
60	109-D	Quantifying Spiny Waterflea Threats to Minnesota Walleye Lakes	U. S. Geological Survey [Kiesling, Richard]	\$1,690,320	Central, NW, NE	- No clear solutions. - (116P.08 2, 3,4) - Coordinate with AIS Center research - AIS Funding should cover.	-AIS-Spiny Waterflea -The AIS Center is going to fund a risk assessment on fish from spiny water flea but is not funding this research -Budget includes \$120,000 Portland State software development contract -Budget includes potentially ineligible general office supplies \$2,500 per RFP -Budget includes \$910,900 for 8 USGS staff salary -See AIS Center response to staff questions	2.65	5,5,5,5,4,4,4,3,3,2,2,2,1,0,0,0,0	17	0		
61	115-D	Impact of Zebra Mussels on Mercury in Fish	U of MN - Duluth [Ozersky, Tedy]	\$211,437	Statewide	- (116P.08 2, 4)	-AIS-Zebra Mussels -Budget includes \$15,000 in capital equipment -Budget includes international conference \$4,000 -See AIS Center response to staff questions	2.59	6,6,6,5,3,3,3,3,3,2,2,2,0,0,0,0,0	17	0		
62	112-D	Mountain Pine Beetle Phase II: Protecting Minnesota	U of MN [Aukema, Brian]	\$384,838	Central, Metro, NW, NE, SE	- Let nature solve this one! Forest will adjust. - Use existing funding from TIS Center - Fund out of current Terrestrial Invasive Species Center appropriations. - (116P.08 2, 3,4) Pay for this with existing funds to get to work ASAP - Use existing funding from TIS Center.	-TIS- Mountain Pine Beetle -Continuation -M.L. 2014 "Mountain Pine Beetle Invasive Threat to Minnesota's Pines" \$250,000 -See TIS Center response to staff questions	2.29	7,6,5,3,3,3,3,2,2,1,1,1,1,1,0,0,0	17	0		

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63	E. Air Quality, Climate Change, and Renewable Energy (10 Proposals / Subtotal \$8,205,768)												
64	128-E	Cheap Solar Energy from Simple Roll-to-Roll Manufacturing	U of MN [Cui, Tianhong]	\$388,852	NW	- California has 5. - (116P.08 2)	-Energy-Solar -Renewable Development Fund? -Resubmission of M.L. 2016 "Solar Cells Manufacturing Research" \$388,000 proposal	6.53	9,9,9,9,9,9,9,9,7,7,6,1,0,0,0	17	0		
65	131-E	Enabling Extraction of Solar Thermal Energy in Minnesota	U of MN [Coletti, Filippo]	\$351,040	Statewide	- (116P.08 2)	-Energy-Solar -Renewable Development Fund? -St. Anthony Falls Laboratory -See response to staff questions	5.71	9,9,9,9,8,8,8,8,7,6,5,5,3,2,1,0,0	17	0		
66	129-E	Community-Scale Energy Storage Guide for Clean Energy	U of MN [Anderson, Ellen]	\$625,478	Statewide	- (116P.08 2, 3,4)	-Energy-Storage -Budget includes \$300,000 for 3 energy storage systems -Budget includes office supplies \$3,040 -Renewable Development Fund?	5.47	9,9,9,9,9,8,7,6,6,5,3,3,1,0,0,0	17	0		
67	132-E	Deploying New Technology to Understand Urban Air Pollution	MPCA [Vadali, Monika]	\$981,564	Metro	- Using good science to include public awareness. - Could be a great tool in addressing economics and Asthma as was recently passed in legislation. - (116P.08 2, 3,4)	-Air Quality -Sensor development -Renewable Development Fund?	5.29	9,9,9,9,9,8,8,8,6,5,1,0,0,0,0,0	17	0		
68	150-E	District Heating with Renewable Biomass at Camp Ripley Training Center	Department of Military Affairs [Pennington, Josh]	\$1,969,988	Central	- No capital investment. - Ineligible capital cost - (116P.08 5) Highly leveraged with outside funds \$50K secured, \$500K pending - Do not cover capital costs? -Ineligible capital cost. - \$1,969,988	-Energy-Biomass -Proposal is for capital per RFP ineligible and not scored -Budget includes \$922,600 in ineligible capital for biomass combustion unit, hot water boiler, and thermal storage tank -Installation of heating plant for a military facility -Renewable Development Fund? -Capital Bonding?	4.53	8,8,8,8,7,7,6,5,5,5,5,4,1,0,0,0,0	17	0		
69	147-E	Generation, Storage, and Utilization of Solar Energy	U of MN [Heins, Bradley]	\$795,500	Statewide	- (116P.08 2) - Do not cover capital costs?	-Energy -Proposal includes potentially ineligible capital DC fast charging station \$560,000, Smart level II charging station with 3 Tesla batteris \$15,000 and 2 Recoil iS 100% Electric ATV's \$30,000 -Budget includes \$15,000 to lease a Nissan Leaf (automobile) -Appears to be the very similar to Mike Reese's M.L. 2014 "Transitioning Minnesota Farms to Local Energy" \$500,000 thru 6/30/2017 and Joel Tallaksen's M.L. 2014 "Life Cycle Energy of Renewably Produced Nitrogen Fertilizers" \$250,000 thru 6/30/2017 -Renewable Development Fund?	4.06	9,9,9,7,7,5,5,5,4,3,3,1,1,1,0,0,0	17	0		

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70	137-E	Forest Regeneration: Maximizing the Value of Our Investment	U of MN - Duluth [Etterson, Julie]	\$732,046	Statewide	- DNR needs seed source update. Consider different indicator species than white pine. - (116P.08 2, 6)	-Budget includes \$101,000 to DNR for Deer fencing	3.29	9,7,7,5,5,5,4,4,3,3,2,1,1,0,0,0,0	17	0		
71	151-E	Renewable Energy Production from Municipal Organic Waste	Minnesota Energy Center (MNEC) [Waite-Altringer, Melanie]	\$1,687,500	Statewide	- Ineligible capital cost, no new initiative. - (116P.08 5) - Ineligible capital cost, no new initiative.	-Energy-Biomass -Proposal is for capital per RFP ineligible and not scored -Waste Management Inc. -Budget includes \$935,000 in ineligible capital for a BIOFarms Energy System's EUColino Anaerobic Digester for local municipality -Renewable Development Fund? -Capital Bonding?	2.47	8,7,7,7,6,4,2,1,0,0,0,0,0,0,0,0	17	0		
72	127-E	Managing for "Climate Smart" Trees and Forests	U of MN [Reich, Peter]	\$385,000	Statewide	- Need to match ecoregions. - (116P.08 2, 4)	-Climate-Forestry -Budget includes room rentals and refreshments \$7,000 -Budget includes website development \$22,000 -M.L. 2014 "Assessing Species Vulnerability to Climate Change Using Phenology" \$175,000 thru 6/30/2017 -M.L. 2010 "Healthy Forests to Resist Invasion" \$359,000 completed 6/30/2013 -M.L. 2008 "Impacts of Climate Change and CO2 on Prairie and Forest Production" \$330,000 completed 6/30/2011	2.41	7,7,5,4,3,3,3,2,2,2,2,1,0,0,0,0	17	0		
73	149-E	Climate-Smart Cities: Helping Cities Make Smarter Land-Use Decisions	The Trust for Public Land [Forbes, DJ]	\$288,800	Metro	- (116P.08 2, 3,4)	-Budget includes potentially ineligible unidentified office related expenses \$30,000 -Qualifications and organization description had three pages, two pages removed	2.24	7,6,5,5,4,4,3,3,1,0,0,0,0,0,0,0	17	0		

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74	F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat (12 Proposals / Subtotal \$6,758,954)												
75	155-F	State Parks for Monarchs and Other Native Pollinators	MN DNR [Quinn, Edward]	\$672,159	Central, Metro, NW, SW, SE	- (116P.08 2, 3,4) - \$672,159	-Budget includes "DNR Direct and Necessary" \$22,159	6.94	9,9,8,8,8,8,7,7,7,7,7,7,5,5,5,4	17	0		
76	157-F	Roadside Prairie Prescribed Fire	Minnesota Department of Transportation [Graeve, Ken]	\$345,000	Central, Metro, NW, SE	- Pragmatic and cost-effective management method. - (116P.08 2, 6) - \$345,000		6.94	9,9,9,9,8,8,8,7,7,7,6,6,5,5,3,3	17	0		
77	153-F	Promoting Conservation Biocontrol of Beneficial Insects	U of MN [Krischik, Vera]	\$399,000	Statewide	- (116P.08 2, 6)	-Services using USDA AMS Lab in North Carolina chemical analysis \$60,000 -M.L. 2014 "Understanding Systemic Insecticides as Protection Strategy for Bees" \$326,000 6/30/2017 -M.L. 2010 "Mitigating Pollinator Decline in Minnesota" \$297,000 completed 6/30/2016	5.82	9,9,9,9,8,7,7,7,6,5,4,3,3,3,1,0	17	0		
78	158-F	MN Honey Bee & Monarch Butterfly Partnership	Pheasants Forever [Holland, Matt]	\$732,162	Statewide	- (116P.08 2, 4, 6)	-\$915 per acre to enhance 800-acres of prairie on approximately 75-100 sites -Includes RIM conservation plans and updates 100 plans for \$30,000 -Buses and workshops \$4,500 -Where are projects taking place? private or public land? -How are they deciding who will get work done?	5.76	9,9,8,8,7,7,7,7,6,6,5,4,4,3,3,2	17	0		
79	160-F	Restoring 83-acres of Prairie, Savanna & Forest Habitat	Friends of the Mississippi River [Lewanski, Tom]	\$213,450	Metro	- (116P.08 6)	-Continuation -M.L. 2015 "Metro Conservation Corridors Phase VIII - Prairie, Forest, and Savanna Restoration in Greater Metropolitan Area" \$276,000 thru 6/30/2018 -M.L. 2014 "Prairie, Forest, and Savanna Restoration in Greater Metropolitan Area" \$200,000 thru 6/30/2017	5.69	9,9,9,9,8,8,8,7,7,5,5,4,3,0,0,0	16	1		
80	154-F	Restoring and Preserving Savanna Using Bison	Cedar Creek Ecosystem Science Reserve, U of MN [Tilman, David]	\$388,000	Central	- Consider addition of cattle also. - Add cows for comparison grazing. - (116P.08 2, 6) - Remove 60k fencing, include cattle for comparison to bison grazing. - Fencing costs? - Omit fencing costs and have bison farmer take a write off.		5.59	9,9,9,9,8,8,8,7,7,5,5,5,3,2,1,0,0	17	0		
81	152-F	Optimizing the Nutrition of Roadside Plants for Pollinators	U of MN [Snell-Rood, Emilie]	\$815,000	Central, Metro, NW, SW, SE	- Place plots on County roads to increase their understanding of pollinator habitat. - (116P.08 2, 6) - Coordinate with MnDot & DNR.	-Budget includes publication costs \$8,000	5.12	8,8,8,8,7,6,5,5,5,5,5,5,3,3,1,0	17	0		

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82	161-F	Restoring Our Metro Lands and Waters: MeCC 10	Great River Greening [Buck, Wiley]	\$524,400	Metro	- (116P.08 6)	-Continuation -M.L. 2016 "Restoring Our Metro Lands and Waters: MeCC 10" \$524,400 Pending -M.L. 2015 "Metro Conservation Corridors Phase VIII - Enhancing Restoration Techniques for Improved Climate Resilience and Pollinator Conservation" \$400,000 thru 6/30/2018 -M.L. 2014 "Upland and Shoreline Restoration in Greater Metropolitan Area" \$300,000 thru 6/30/2017 -M.L. 2013" Metropolitan Conservation Corridors (MeCC) - Phase VII: 2.3: Restoring Our Lands and Waters " \$208,000 thru 6/30/2016	5.00	9,9,9,8,8,7,7,6,6,5,5,4,1,1,0,0,0	17	0		
83	156-F	Prioritizing Shoreline Habitat Restoration in Minnesota Lakes	U of MN - St. Anthony Falls Laboratory [Herb, William]	\$294,913	Statewide	- (116P.08 2, 6)	-St. Anthony Falls Laboratory (SAFL) -See response to staff questions about SAFL priorities)	4.47	9,9,9,7,7,6,5,5,5,5,5,2,2,0,0,0,0	17	0		
84	162-F	Precision Conservation and Agriculture: Growing Green2 Together	Pheasants Forever [Bruse, Tanner]	\$508,370	Central, NW, SW, SE	- (116P.08 2, 4, 6)	-Land owners are each being charged \$1,000 for the analysis and that money goes to a private company	3.38	9,9,7,7,6,5,4,3,3,1,0,0,0,0,0,0	16	0		
85	164-F	Identifying Optimal Soil Conditions for Sustainable Forest Management	U of MN [Slesak, Robert]	\$415,000	Statewide	- (116P.08 2,,4, 6)	-Equipment includes \$15,000 for 100 sensors, \$10,000 for 25 data loggers, and \$25,000 for a mobile soil pressure apparatus -Includes sensors	3.18	9,6,6,6,5,5,5,3,3,3,1,1,1,0,0,0,0	17	0		
86	167-F	Mississippi River Habitat Restoration at Halls Island	Minneapolis Park and Recreation Board [Arvidson, Adam]	\$1,451,500	Metro	- (116P.08 2 ,6) - Partial amount - Permits	-Funding match comes from Met Council and State Bonding -Project is part of Metro Regional Park system -It is not clear if funding is for restoration or construction of the island -M.L. 2010 \$6,467,000 as amended by M.L. 2013 as amended by M.L. 2015 with further amendment pending M.L. 2016	2.76	9,7,6,5,4,4,4,3,3,2,0,0,0,0,0,0,0	17	0		

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87	G. Land Acquisition for Habitat and Recreation (7 Proposals / \$18,822,625)												
88	171-G	Minnesota State Parks and State Trails Land Acquisition	MN DNR [Christie, Jennifer]	\$1,500,000	Statewide	- Can you afford to manage more land? - (116P.08 4, 5, 6) - Would support restoration only. - \$1,500,000	-Fee Title Acquisition -Continuation -2016 Bonding Request \$2,000,000 -M.L. 2016 ENRTF \$2,455,000 pending _M.L. 2015 ENRTF \$1,500,000 thru 6/30/2018 -M.L. 2013 ENRTF \$1,000,000 thru 6/30/2016 -M.L. 2011 ENRTF \$3,000,000 completed 6/30/2015 -M.L. 2009 ENRTF \$2,200,00 completed 6/30/2012 M.L. 2008 ENRTF \$1,590,00 completed 6/30/2010 -M.L. 2007 ENRTF \$750,000 completed 6/30/2010	6.76	9,9,9,9,9,8,8,8,7,7,6,5,5,0,0	17	0		
89	174-G	Leech Lake Natural Resource Multi-Benefit Conservation Acquisition	Leech Lake Division of Resource Management [Brown, Levi]	\$1,500,000	Central	- Cultural and ecological importance. - (116P.08 4, 5, 6)	-Fee Title Acquisition -Approximately \$33,000 per acre for 42.5 acres	6.75	9,9,9,9,9,9,8,6,5,5,5,4,4,3	16	1		
90	170-G	SNA Acquisition, Restoration, Citizen Science and Engagement	MN DNR [Booth, Margaret (Peggy)]	\$6,022,220	Statewide	- Restores and monitors 1000 acres! - (116P.08 4, 5, 6) - \$2,000,000	-Fee Title Acquisition and Restoration -Continuation -No other state dollars listed -2016 Bonding Request \$1,000,000 -LCCMR staff recommend 3-4 years to spend based on previous spending not 2 as requested -Budget includes "DNR Direct and Necessary" \$213,270 -M.L. 2016 ENRTF \$4,000,000 pending -M.L. 2015 ENRTF \$4,000,000 thru 6/30/2018 -M.L. 2014 ENRTF \$2,540,000 thru 6/30/2017 -M.L. 2013 ENRTF \$1,500,000 thru 6/30/2016	6.65	9,9,9,9,9,9,8,8,8,7,6,6,4,3,0,0	17	0		

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91	172-G	Native Prairie Stewardship and Prairie Bank Easement Acquisition	MN DNR [Schulte, Judy]	\$5,185,457	Central, NW, SW, SE	- 5200 acres of willing landowners on waiting list. Once plowed, can never be restored. - (116P.08 4, 5, 6) - Would support restoration only. - \$1,700,000	-Conservation Easements and Restoration -Continuation -Budget includes for \$200,000 Easement Stewardship Account -Proposal states it needs \$10,000,000 per biennium for next ten years? -2016 Bonding request \$2,000,000 -MNIT Services for Prairie Tax Exemption Database for county assessor access \$30,000? -Budget includes \$124,457 for "DNR Direct and Necessary Expenses" -\$5,553 per acre for 600 acres of easements -\$1,284 per acre to restore and enhance 900 acres of native prairie -\$2,700,000 for easements and transaction costs -Payment is determined by criteria set in Minnesota Statute -M.L. 2015 "Native Prairie Stewardship and Prairie Bank Easement Acquisition" \$3,325,000 thru 6/30/2018 -M.L. 2013 "Native Prairie Stewardship and Prairie Bank Easement Acquisition" \$750,000 thru 6/30/2016	6.59	9,9,9,9,9,9,8,8,7,7,6,6,4,3,0,0	17	0		
92	176-G	Mesabi Trail, Wetland Crossing and Bridge Rehab	St Louis and Lake Counties Regional Railroad Authority [Manzoline, Robert]	\$1,231,500	NE	- We may want to combine more than one year and add extra funding so they don't keep coming back in every year. My back of the envelop calculation is 3.7 million. - (116P.08 5, 6) Highly leveraged withoutside funds. We should fund 1/2 of the remaing total and ask them to come back in 2 years. - \$1,231,500	-Continuation -To complete the trail segment from TH 135 to Embarrass -DNR owned bridge in a WMA -See DNR response to staff questions -M.L. 2016 "Mesabi Trail, Wetland Crossing and Bridge Rehab" \$1,231,500 pending TH 135 to Embarrass segment -M.L. 2015 "Mesabi Trail Development Soudan to Ely-Phase II" \$1,000,000 (completed 6/30/2018) 7 miles between Soudan and Ely -M.L. 2014 "Mesabi Trail Development Soudan to Ely-Phase" \$1,000,000 (completed 6/30/2017) 11 miles of trail segments near Vermillion State Park -Capital Bonding?	6.35	9,9,9,8,8,8,7,7,6,6,5,5,5,3,0	17	0		
93	169-G	Metropolitan Regional Parks System Land Acquisition	Metropolitan Council [Streets Jensen, Deborah]	\$2,400,000	Metro	- Find additional partnerships. - (116P.08 5, 6) Highly leveraged with outside funds 2:3 match equals \$2.9M	-Fee Title Acquisition -Continuation -M.L. 2015 "Metropolitan Regional Park System Land Acquisition Phase 4" \$1,000,000 thru 6/30/2018 -M.L. 2014 "Metropolitan Regional Park System Acquisition" \$1,500,000 thru 6/30/2017	5.00	9,9,9,8,8,8,6,6,6,6,5,5,0,0,0,0,0	17	0		

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94	180-G	Tower Trailhead Boat Landing and Habitat Improvement	City of Tower [Keith, Linda]	\$983,448	NE	- Reassess existing opportunities. - Continuation of what was started last year. - (116P.08 5) - Don't want to fund - don't think we can fund parking lot paving. - Why not use existing parking lot across street? - For road and parking lot, available lot across street next to water	-DNR Water Recreation Account? -DNR recently built public access less than a mile away -M.L. 2016 Tower Historic Harbor Tower Trail ENRTF \$679,000 pending -Capital Bonding? -See DNR response to staff questions	4.06	9,9,9,6,6,6,6,5,4,4,1,0,0,0,0,0	16	1		
95	H. Other (1 Proposals / \$135,000)												
96	181-H	Contract Agreement Reimbursement	MN DNR [Sherman-Hoehn, Katherine]	\$135,000	Statewide	- (116P.08 8) - \$135,000	Not ranked: DNR fiscal agent funding for reimbursement contracts	8.65	9,9,9,9,9,9,9,9,9,9,9,9,7,5	17	0		
97	I. 2016 LCCMR Recommendations Removed from ML 2016 Bill (9 Proposals / \$5,014,000)												
98	182-I	Minnesota Vegetative Buffer Assessment and Prioritization to Protect Water Quality	U of MN [Mulla, David]	\$170,000	Statewide	- (116P.08 2, 3, 4) - \$170,000		6.50	9,9,9,9,9,8,8,8,8,5,0,0,0	14	0		
99	187-I	Solar Cells Manufacturing Research	U of MN [Cui, Tianhong]	\$388,000	Statewide	- (116P.08 2) RESUBMITTED		6.43	9,9,9,9,9,9,9,8,7,3,0,0,0	14	0		
100	189-I	Geotargeted Distributed Clean Energy Initiative	Center for Energy and Environment [Nelson, Carl]	\$800,000	Statewide	- (116P.08 4, 6)		6.43	9,9,9,9,9,8,8,8,6,6,0,0,0	14	0		
101	183-I	Techniques for Water Storage Estimates in Central Minnesota	U of MN [Nieber, John]	\$250,000	Statewide	- (116P.08 2, 3, 4)		6.40	9,9,9,9,9,8,8,8,7,6,5,0,0,0	15	0		
102	188-I	High-Resolution Climate Projections to Aid Local Planning and Implementation Efforts	U of MN [Snyder, Peter]	\$411,000	Statewide	- (116P.08 2, 3, 4)		6.33	9,9,9,9,9,9,9,8,6,5,4,0,0,0	15	0		
103	190-I	State Parks and Trails Land Acquisition	MN DNR [Christie, Jennifer]	\$2,445,000	Statewide	- (116P.08 4, 5, 6)		6.27	9,9,9,9,8,8,8,7,7,6,5,0,0,0	15	0		

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104	184-I	Assessing Climate Change Effects on Release of Mercury and Sulfur into Aquatic Ecosystems	U of MN [Nater, Ed	\$300,000	Statewide	- (116P.08 2, 3, 4)		5.73	9,9,9,9,9,8,8,7,7,5,4,2,0,0,0	15	0		
105	185-I	Workshops and Outreach for Nontoxic Ammunition Alternatives	U of MN [Ponder, Julia]	\$133,000	Statewide	- (116P.08 4)		5.67	9,9,9,9,8,7,7,6,5,4,3,0,0,0	15	0		
106	186-I	Analysis of Thermally Modified Wood Nesting Boxes for Birds	U of MN - NRRRI [Hueffmeier, Ryan]	\$117,000	Statewide	- (116P.08 6)		4.73	9,9,9,8,7,7,5,3,3,2,0,0,0,0	15	0		
107	J. Governor Vetoed Appropriations (1 proposal / \$488,128)												
108	191-J	Real Wildlife, Real Conservation, Real Impact	Wildlife Science Center [Callahan, Peggy]	\$488,128	Statewide	- (116P.08 4) - Poorly constructed budget, ineligible expenses.	- Activity budgets add up to \$232,500, but budget & dollars requested are for \$488,128. - Proposal has outcome completion dates listed that are prior to project start date. - Difference between Activity 1 & 2 is unclear; cost per student is 50% greater in Activity 2. - Budget includes \$65,000 for travel, but activity descriptions state project will occur "at the Wildlife Science Center" - not clear what the travel is for or where it is to. It appears part of this sum may be for a vehicle purchase. - No mention of curriculum development in activity descriptions; however, budget includes \$48,254 for "curriculum expansion and development". RFP category description indicates "Proposals to develop new curriculum will not be considered." - Budget includes capital expenditures over \$5,000: \$12,000 for "equipment to live stream video"; not clear to which activity this and other electronics equipment listed correspond. - Budget includes potentially ineligible expenses: \$70,000 for "Project Director" if this person is the Executive Director (who is listed as project manager); \$5,000 for "marketing support"; \$18,750 for liability insurance; and undesignated portions of \$65,000 for "vehicle", "maintenance", and "insurance to transport animals".	3.35	9,9,8,7,6,5,4,3,3,2,1,0,0,0,0,0	17	0		

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109	K. Proposals Received in Response to Extended Deadline of 06/26/16 (3 Proposals / \$11,361,320)												
110	192-K	Voyageurs National Park Crane Lake Visitor Center Partnership	Town of Crane Lake [Janssen, Jim]	\$950,000	NE	- Need NPS written agreement. - (116P.08 5, 6) - Bonding. - Need some Fed interest. - Maybe stage funding? Should try to purchase house. - Need some Fed interest. - \$950,000	- It appears there are existing buildings on the site. - DNR has indicated that they are not a partner on the proposal.	4.76	9,9,9,8,8,7,7,6,5,5,4,3,1,0,0,0,0	17	0		
111	196-K	CREP Implementation Phase 1	Board of Water and Soil Resources [Hoek, Tabor]	\$8,761,320	Statewide	- \$5.6 million already from LCCMR for four phases, said it was final. - Need federal guarantee first. - (116P.08 6) Seems like intended to usurp normal LCCMR process. - \$5.6 million already from LCCMR for four phases, said it was final. - \$8,761,320	- Related open appropriations: ML 2013 - Conservation Program Technical Assistance = \$3,000,000 (expires 06/30/16); ML 2015 - Acceleration of Minnesota Conservation Assistance - Final Phase = \$1,000,000 (expires 06/30/18). - Submitted in response to 2016 RFP, but not selected for a presentation to LCCMR.	3.88	9,9,9,9,8,7,5,3,3,2,1,1,0,0,0,0,0	17	0		
112	193-K	Organic Weed Control Using Solar-Powered Robots	U of MN - Morris [Reese, Michael]	\$1,650,000	Statewide	- Toro investment needed. - (116P.08 2) Invite back for next year, refine relationship and patent with Toro. - Extremely innovative and real world application. - \$1,650,000	- Proposal is to develop technology for agriculture weed control. - Budget includes capital expenditures over \$5,000: \$95,000 for "Toro Groundsmaster Mower"; \$42,000 for "Customized Electric UTV"; \$95,000 for "Robot Platform"; \$8,507 for "Trailer for Portable Solar Charging Station"; \$19,000 for "Smart Charge Controller and Battery Packs"; \$12,000 for "Solar PV Panels" [TOTAL = \$271,507]. - Budget includes \$7,200 for exhibit fees at FarmFest and MN State Fair, plus \$2,200 for exhibit display. - Budget has inadequate detail for \$10,000 in "lab supplies" and \$12,000 for "materials to fabricate custom weeding implements" - Related open appropriations to West Central Research and Outreach Center: ML 2014 - Transitioning Minnesota Farms to Local Energy = \$500,000 (expires 06/30/17); ML 2014 - Life Cycle Energy of Renewably Produced Nitrogen Fertilizers = \$250,000 (expires 06/30/17); ML 2015 - Renewable and Sustainable Fertilizers Produced Locally = \$1,000,000 (expires 06/30/18); ML 2016 - Utilization of Dairy Farm Wastewater for Sustainable Production = \$475,000; ML 2016 - Solar Energy Utilization for Minnesota Swine Farms - Phase II (expires 06/30/19); ML 2016 - Solar Energy Utilization for Minnesota Swine Farms - Phase II (expires 06/30/19)	2.94	9,9,7,5,4,3,3,3,2,2,2,1,0,0,0,0,0	17	0		
113	TOTAL \$ REQUEST REMAINING =			\$102,876,707									

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

ML 2017 Environment and Natural Resources Trust Fund Allocations Worksheet

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

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									ENRTF: FY 2017	
25	26		038-B	Removing Plastic Particle Pollution from Minnesota Water Bodies	U of MN	Coletti, Filippo	4.94	\$359,540		
26	30		042-B	Restoring Agricultural Lakes and Watersheds by Managing Carp	U of MN	Bajer, Przemyslaw	3.65	\$967,100		
27	25		044-B	Responsive Water Quality Monitoring: SEern Minnesota Trout Streams	Winona State University	Mundahl, Neal	5.44	\$583,980		
28	35		045-B	Buffer Gap Analysis	Board of Water and Soil Resources	Mohring, Eric	2.53	\$1,390,656		
29	29		046-B	How Rapidly can Groundwater Quality be Improved?	U of MN	Nieber, John	3.94	\$672,000		
30	23		048-B	Reassessing Toxicity of Petroleum Spills with New Technologies	University of St. Thomas	Martinovic-Weigelt, Dalma	6.00	\$423,189		
31	27		051-B	New Self-Sustaining Nitrate and Pesticides Removal Biotechnology	U of MN	Behrens, Sebastian	4.94	\$318,162		
32	37		052-B	The Minnesota Center for Water Treatment Technology Innovation	U of MN	Hozalski, Raymond	0.82	\$10,306,899		
33	31		054-B	Preventing Fish Kills by Increasing Understanding	MN DNR	Rantala, Heidi	3.65	\$699,905		
34	28		055-B	Maximizing the Benefits of Water Reuse	U of MN	Ishii, Satoshi	4.88	\$148,000		
35	34		058-B	Sulfate and Metal Removal from NE Minnesota Waters	U of MN	Dutcher, Cari	2.65	\$298,325		

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

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									ENRTF: FY 2017	
48	42		092-C	Bird City - Education for Lasting Conservation	Audubon Minnesota	Eckles, Joanna	6.18	\$280,000		
49	40		100-C	Developing Watershed Stewardship in NW Minnesota Youth	Headwaters Science Center	Joy, Susan	6.41	\$71,861		
50	43		101-C	Providing Residential Environmental Learning Experiences to Under-Served Students	Audubon Center of the North Woods	Wood, Bryan	5.63	\$130,000		
51	49		105-C	NE Minneapolis Sustainability Incubator	Holland Neighborhood Improvement Association	Koski, Adelheid	3.65	\$235,000		
52			C. Environmental Education Subtotal =					\$5,019,858		
53	50		D. Aquatic and Terrestrial Invasive Species (12 Proposals / Subtotal \$11,823,168)							
54	54		106-D	Using Science to Solve Minnesota's AIS problems - Phase II	U of MN	Galatowitsch, Susan	5.76	\$6,100,000		
55	53		107-D	Implementing Biological Control of Garlic Mustard	U of MN	Becker, Roger	5.82	\$421,987		
56	51		108-D	EAB Biocontrol Phase III: Assessment and Citizen Engagement	Minnesota Department of Agriculture	Osthus, Jonathan	6.18	\$729,540		
57	60		109-D	Quantifying Spiny Waterflea Threats to Minnesota Walleye Lakes	U. S. Geological Survey	Kiesling, Richard	2.65	\$1,690,320		
58	58		111-D	New Technology to Control Invasive Carp	U of MN	Smanski, Michael	4.94	\$389,000		
59	62		112-D	Mountain Pine Beetle Phase II: Protecting Minnesota	U of MN	Aukema, Brian	2.29	\$384,838		

ML 2017 Environment and Natural Resources Trust Fund Allocations Worksheet

Line #	Blue Line #	X	ID #	Project Title	Organization	Project Manager	Average Member Score	\$ Requested	LCCMR \$ Recommended	Allocation Notes
									ENRTF: FY 2017	
60	56		114-D	Continuation of Invasive Carp and Native Fish Evaluation	MN DNR	Parsons, Bradford	5.29	\$739,064		
61	61		115-D	Impact of Zebra Mussels on Mercury in Fish	U of MN - Duluth	Ozersky, Tedy	2.59	\$211,437		
62	59		117-D	Acquiring Key Information for a Carp Deterrent System at Lock and Dam #5	U of MN	Sorensen, Peter	4.18	\$284,000		
63	52		119-D	Adapting Stream Barriers to Remove Invasive Fish	U of MN	Bajer, Przemyslaw	5.94	\$381,150		
64	55		122-D	Tactical Invasive Plant Management Plan Development	Minnesota Department of Agriculture	Chandler, Monika	5.65	\$296,832		
65	57		123-D	Maximize Value of Water Impoundments to Wildlife	Audubon Minnesota	Hall, Kristin	5.18	\$195,000		
66			D. Aquatic and Terrestrial Invasive Species Subtotal =					\$11,823,168		
67	63		E. Air Quality, Climate Change, and Renewable Energy (10 Proposals / Subtotal \$8,205,768)							
68	72		127-E	Managing for "Climate Smart" Trees and Forests	U of MN	Reich, Peter	2.41	\$385,000		
69	64		128-E	Cheap Solar Energy from Simple Roll-to-Roll Manufacturing	U of MN	Cui, Tianhong	6.53	\$388,852		
70	66		129-E	Community-Scale Energy Storage Guide for Clean Energy	U of MN	Anderson, Ellen	5.47	\$625,478		
71	65		131-E	Enabling Extraction of Solar Thermal Energy in Minnesota	U of MN	Coletti, Filippo	5.71	\$351,040		

ML 2017 Environment and Natural Resources Trust Fund Allocations Worksheet										
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									ENRTF: FY 2017	
72	67		132-E	Deploying New Technology to Understand Urban Air Pollution	MPCA	Vadali, Monika	5.29	\$981,564		
73	70		137-E	Forest Regeneration: Maximizing the Value of Our Investment	U of MN - Duluth	Etterson, Julie	3.29	\$732,046		
74	69		147-E	Generation, Storage, and Utilization of Solar Energy	U of MN	Heins, Bradley	4.06	\$795,500		
75	73		149-E	Climate-Smart Cities: Helping Cities Make Smarter Land-Use Decisions	The Trust for Public Land	Forbes, DJ	2.24	\$288,800		
76	68		150-E	District Heating with Renewable Biomass at Camp Ripley Training Center	Department of Military Affairs	Pennington, Josh	4.53	\$1,969,988		
77	71		151-E	Renewable Energy Production from Municipal Organic Waste	Minnesota Energy Center (MNEC)	Waite-Altringer, Melanie	2.47	\$1,687,500		
78			E. Air Quality, Climate Change, and Renewable Energy Subtotal =					\$8,205,768		
79	74		F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat (12 Proposals / Subtotal \$6,758,954)							
80	81		152-F	Optimizing the Nutrition of Roadside Plants for Pollinators	U of MN	Snell-Rood, Emilie	5.12	\$815,000		
81	77		153-F	Promoting Conservation Biocontrol of Beneficial Insects	U of MN	Krischik, Vera	5.82	\$399,000		
82	80		154-F	Restoring and Preserving Savanna Using Bison	Cedar Creek Ecosystem Science Reserve, U of MN	Tilman, David	5.59	\$388,000		
83	75		155-F	State Parks for Monarchs and Other Native Pollinators	MN DNR	Quinn, Edward	6.94	\$672,159		

ML 2017 Environment and Natural Resources Trust Fund Allocations Worksheet										
Line #	Blue Line #	X	ID #	Project Title	Organization	Project Manager	Average Member Score	\$ Requested	LCCMR \$ Recommended	Allocation Notes
									ENRTF: FY 2017	
84	83		156-F	Prioritizing Shoreline Habitat Restoration in Minnesota Lakes	U of MN - St. Anthony Falls Laboratory	Herb, William	4.47	\$294,913		
85	76		157-F	Roadside Prairie Prescribed Fire	Minnesota Department of Transportation	Graeve, Ken	6.94	\$345,000		
86	78		158-F	MN Honey Bee & Monarch Butterfly Partnership	Pheasants Forever	Holland, Matt	5.76	\$732,162		
87	79		160-F	Restoring 83-acres of Prairie, Savanna & Forest Habitat	Friends of the Mississippi River	Lewanski, Tom	5.69	\$213,450		
88	82		161-F	Restoring Our Metro Lands and Waters: MeCC 10	Great River Greening	Buck, Wiley	5.00	\$524,400		
89	84		162-F	Precision Conservation and Agriculture: Growing Green2 Together	Pheasants Forever	Bruse, Tanner	3.38	\$508,370		
90	85		164-F	Identifying Optimal Soil Conditions for Sustainable Forest Management	U of MN	Slesak, Robert	3.18	\$415,000		
91	86		167-F	Mississippi River Habitat Restoration at Halls Island	Minneapolis Park and Recreation Board	Arvidson, Adam	2.76	\$1,451,500		
92			F. Methods to Protect, Restore, and Enhance Land, Water, and Habitat					Subtotal =	\$6,758,954	
93	87		G. Land Acquisition for Habitat and Recreation (7 Proposals / \$18,822,625)							
94	93		169-G	Metropolitan Regional Parks System Land Acquisition	Metropolitan Council	Streets Jensen, Deborah	5.00	\$2,400,000		
95	90		170-G	SNA Acquisition, Restoration, Citizen Science and Engagement	MN DNR	Booth, Margaret (Peggy)	6.65	\$6,022,220		

ML 2017 Environment and Natural Resources Trust Fund Allocations Worksheet

Line #	Blue Line #	X	ID #	Project Title	Organization	Project Manager	Average Member Score	\$ Requested	LCCMR \$ Recommended	Allocation Notes
									ENRTF: FY 2017	
96	88		171-G	Minnesota State Parks and State Trails Land Acquisition	MN DNR	Christie, Jennifer	6.76	\$1,500,000		
97	91		172-G	Native Prairie Stewardship and Prairie Bank Easement Acquisition	MN DNR	Schulte, Judy	6.59	\$5,185,457		
98	89		174-G	Leech Lake Natural Resource Multi-Benefit Conservation Acquisition	Leech Lake Division of Resource Management	Brown, Levi	6.75	\$1,500,000		
99	92		176-G	Mesabi Trail, Wetland Crossing and Bridge Rehab	St Louis and Lake Counties Regional Railroad Authority	Manzoline, Robert	6.35	\$1,231,500		
100	94		180-G	Tower Trailhead Boat Landing and Habitat Improvement	City of Tower	Keith, Linda	4.06	\$983,448		
101			G. Land Acquisition for Habitat and Recreation Subtotal =					\$18,822,625		
102	95	H. Other (2 Proposals / \$270,250)								
103	96		181-H	Contract Agreement Reimbursement	MN DNR	Sherman-Hoehn, Katherine	8.65	\$135,000		
104	N/A		N/A	LCCMR Administration	LCCMR	Thornton, Susan	N/A	\$1,200,000		
105				H. Other Subtotal =				\$1,335,000		
106	97	I. 2016 LCCMR Recommendations Removed from ML 2016 Bill (9 Proposals / \$5,014,000)								
107	98		182-I	Minnesota Vegetative Buffer Assessment and Prioritization to Protect Water Quality	U of MN	Mulla, David	6.50	\$170,000		
108	101		183-I	Techniques for Water Storage Estimates in Central Minnesota	U of MN	Nieber, John	6.40	\$250,000		

ML 2017 Environment and Natural Resources Trust Fund Allocations Worksheet										
Line #	Blue Line #	X	ID #	Project Title	Organization	Project Manager	Average Member Score	\$ Requested	LCCMR \$ Recommended	Allocation Notes
									ENRTF: FY 2017	
109	104		184-I	Assessing Climate Change Effects on Release of Mercury and Sulfur into Aquatic Ecosystems	U of MN	Nater, Ed	5.73	\$300,000		
110	105		185-I	Workshops and Outreach for Nontoxic Ammunition Alternatives	U of MN	Ponder, Julia	5.67	\$133,000		
111	106		186-I	Analysis of Thermally Modified Wood Nesting Boxes for Birds	U of MN - NRRI	Hueffmeier, Ryan	4.73	\$117,000		
112	99		187-I	Solar Cells Manufacturing Research	U of MN	Cui, Tianhong	6.43	\$388,000		
113	102		188-I	High-Resolution Climate Projections to Aid Local Planning and Implementation Efforts	U of MN	Snyder, Peter	6.33	\$411,000		
114	100		189-I	Geotargeted Distributed Clean Energy Initiative	Center for Energy and Environment	Nelson, Carl	6.43	\$800,000		
115	103		190-I	State Parks and Trails Land Acquisition	MN DNR	Christie, Jennifer	6.27	\$2,445,000		
116				I. 2016 LCCMR Recommendations Removed from ML 2016 Bill Subtotal =				\$5,014,000		
117	107			J. Governor Vetoed Appropriations (1 proposal / \$488,128)						
118	108		191-J	Real Wildlife, Real Conservation, Real Impact	Wildlife Science Center	Callahan, Peggy	3.35	\$488,128		
119				J. Governor Vetoed Appropriations Subtotal =				\$488,128		
120	109			K. Proposals Received in Response to Extended Deadline of 06/26/16 (3 Proposals / \$11,361,320)						
121	110		192-K	Voyageurs National Park Crane Lake Visitor Center Partnership	Town of Crane Lake	Janssen, Jim	4.76	\$950,000		

ML 2017 Environment and Natural Resources Trust Fund Allocations Worksheet										
Line #	Blue Line #	X	ID #	Project Title	Organization	Project Manager	Average Member Score	\$ Requested	LCCMR \$ Recommended	Allocation Notes
									ENRTF: FY 2017	
122	112		193-K	Organic Weed Control Using Solar-Powered Robots	U of MN - Morris	Reese, Michael	2.94	\$1,650,000		
123	111		196-K	CREP Implementation Phase 1	Board of Water and Soil Resources	Hoek, Tabor	3.88	\$8,761,320		
124				K. Proposals Received in Response to Extended Deadline Subtotal =				\$11,361,320		

2017 Environment and Natural Resources Trust Fund Proposals [legal size - YELLOW SHEET]
CUMULATIVE AVERAGE OF MEMBER RANKINGS - LISTED BY OVERALL RANK - HIGH TO LOW

Line #	Line #: Blue Sheet	ID #	Compiled Member Ranking (Out of 16)	Total # Members that Scored	Total # Members with Conflict	Project Title	\$ Requested	Organization	Project Manager
1	2	181-H	8.65	17	0	Contract Agreement Reimbursement	\$135,000	MN DNR	Sherman-Hoehn, Katherine
2	6	001-A	7.82	17	0	Minnesota Geological Survey Geologic Atlases for Water Management	\$3,784,700	U of MN - Minnesota Geological Survey	Setterholm, Dale
3	9	006-A	7.35	17	0	Minnesota Biological Survey	\$2,955,861	MN DNR	Carlson, Bruce
4	13	035-B	7.29	17	0	Rearing Native Mussels and Building Water Quality Awareness	\$591,925	Minnesota Zoo	Maguire, Allan
5	17	079-C	7.29	17	0	Floating Classroom: Connecting 20,000 Youth to Minnesota Waterways	\$1,240,730	Wilderness Inquiry	Lais, Greg
6	3	155-F	6.94	17	0	State Parks for Monarchs and Other Native Pollinators	\$672,159	MN DNR	Quinn, Edward
7	7	157-F	6.94	17	0	Roadside Prairie Prescribed Fire	\$345,000	Minnesota Department of Transportation	Graeve, Ken
8	4	009-A	6.82	17	0	Promoting Wild Rice Restoration Success by Examining Microbes	\$334,035	U of MN - Duluth NRRI	Chun, Chanlan
9	18	171-G	6.76	17	0	Minnesota State Parks and State Trails Land Acquisition	\$1,500,000	MN DNR	Christie, Jennifer
10	15	174-G	6.75	16	1	Leech Lake Natural Resource Multi-Benefit Conservation Acquisition	\$1,500,000	Leech Lake Division of Resource Management	Brown, Levi
11	11	170-G	6.65	17	0	SNA Acquisition, Restoration, Citizen Science and Engagement	\$6,022,220	MN DNR	Booth, Margaret (Peggy)
12	14	172-G	6.59	17	0	Native Prairie Stewardship and Prairie Bank Easement Acquisition	\$5,185,457	MN DNR	Schulte, Judy
13	5	128-E	6.53	17	0	Cheap Solar Energy from Simple Roll-to-Roll Manufacturing	\$388,852	U of MN	Cui, Tianhong
14	10	182-I	6.50	14	0	Minnesota Vegetative Buffer Assessment and Prioritization to Protect Water Quality	\$170,000	U of MN	Mulla, David
15	8	187-I	6.43	14	0	Solar Cells Manufacturing Research	\$388,000	U of MN	Cui, Tianhong
16	16	189-I	6.43	14	0	Geotargeted Distributed Clean Energy Initiative	\$800,000	Center for Energy and Environment	Nelson, Carl
17	12	100-C	6.41	17	0	Developing Watershed Stewardship in NW Minnesota Youth	\$71,861	Headwaters Science Center	Joy, Susan
18	21	183-I	6.40	15	0	Techniques for Water Storage Estimates in Central Minnesota	\$250,000	U of MN	Nieber, John
19	22	176-G	6.35	17	0	Mesabi Trail, Wetland Crossing and Bridge Rehab	\$1,231,500	St Louis and Lake Counties Regional Railroad Authority	Manzoline, Robert
20	20	188-I	6.33	15	0	High-Resolution Climate Projections to Aid Local Planning and Implementation Efforts	\$411,000	U of MN	Snyder, Peter
21	32	015-A	6.29	17	0	Non-Invasive Moose Calf Surveys and Ecosystem Monitoring	\$348,151	U of MN	Ditmer, Mark
22	26	082-C	6.29	17	0	Increasing Diversity in Environmental Careers: Fellowships, Internships, Mentorships	\$1,487,519	MN DNR	Getchell, Vikki
23	30	190-I	6.27	15	0	State Parks and Trails Land Acquisition	\$2,445,000	MN DNR	Christie, Jennifer
24	25	033-B	6.24	17	0	Household Chemicals as Water Pollutants and Toxic Precursors	\$236,000	U of MN	Arnold, William
25	35	092-C	6.18	17	0	Bird City - Education for Lasting Conservation	\$280,000	Audubon Minnesota	Eckles, Joanna
26	29	108-D	6.18	17	0	EAB Biocontrol Phase III: Assessment and Citizen Engagement	\$729,540	Minnesota Department of Agriculture	Osthus, Jonathan
27	23	002-A	6.12	17	0	What are the Public Benefits of Protecting Sourcewater?	\$320,000	U of MN	Keeler, Bonnie
28	27	007-A	6.06	17	0	Continue Expansion of the Minnesota Wildflowers Online Botanical Reference	\$270,470	Minnesota Wildflowers Information	Chayka, Catherine
29	37	034-B	6.06	17	0	Innovative Nitrogen Removal Technology to Protect Water Quality	\$476,100	U of MN	Novak, Paige
30	31	048-B	6.00	17	0	Reassessing Toxicity of Petroleum Spills with New Technologies	\$423,189	University of St. Thomas	Martinovic-Weigelt, Dalma
31	28	119-D	5.94	17	0	Adapting Stream Barriers to Remove Invasive Fish	\$381,150	U of MN	Bajer, Przemyslaw
32	34	107-D	5.82	17	0	Implementing Biological Control of Garlic Mustard	\$421,987	U of MN	Becker, Roger
33	24	153-F	5.82	17	0	Promoting Conservation Biocontrol of Beneficial Insects	\$399,000	U of MN	Krischik, Vera
34	36	059-B	5.76	17	0	Chemicals of Emerging Concern in Minnesota Fish	\$436,922	Grand Portage Band of Lake Superior Chippewa	Moore, Seth
35	33	106-D	5.76	17	0	Using Science to Solve Minnesota's AIS problems - Phase II	\$6,100,000	U of MN	Galatowitsch, Susan
36	39	158-F	5.76	17	0	MN Honey Bee & Monarch Butterfly Partnership	\$732,162	Pheasants Forever	Holland, Matt
37	46	184-I	5.73	15	0	Assessing Climate Change Effects on Release of Mercury and Sulfur into Aquatic Ecosystems	\$300,000	U of MN	Nater, Ed
38	41	131-E	5.71	17	0	Enabling Extraction of Solar Thermal Energy in Minnesota	\$351,040	U of MN	Coletti, Filippo
39	45	160-F	5.69	16	1	Restoring 83-acres of Prairie, Savanna & Forest Habitat	\$213,450	Friends of the Mississippi River	Lewanski, Tom

2017 Environment and Natural Resources Trust Fund Proposals [legal size - YELLOW SHEET]
CUMULATIVE AVERAGE OF MEMBER RANKINGS - LISTED BY OVERALL RANK - HIGH TO LOW

Line #	Line #: Blue Sheet	ID #	Compiled Member Ranking (Out of 16)	Total # Members that Scored	Total # Members with Conflict	Project Title	\$ Requested	Organization	Project Manager
40	44	185-I	5.67	15	0	Workshops and Outreach for Nontoxic Ammunition Alternatives	\$133,000	U of MN	Ponder, Julia
41	48	017-A	5.65	17	0	Effects of Wolves on Beavers, Moose, and Deer	\$293,000	Voyageurs National Park	Windels, Steve
42	47	122-D	5.65	17	0	Tactical Invasive Plant Management Plan Development	\$296,832	Minnesota Department of Agriculture	Chandler, Monika
43	42	101-C	5.63	16	1	Providing Residential Environmental Learning Experiences to Under-Served Students	\$130,000	Audubon Center of the North Woods	Wood, Bryan
44	40	003-A	5.59	17	0	Minnesota Trumpeter Swan Migration Ecology and Conservation	\$462,433	U of MN	Andersen, David
45	43	154-F	5.59	17	0	Restoring and Preserving Savanna Using Bison	\$388,000	Cedar Creek Ecosystem Science Reserve, U of MN	Tilman, David
46	49	016-A	5.56	16	1	Cascading Effects of Wolf Recolonization	\$398,000	U of MN	Isbell, Forest
47	54	012-A	5.53	17	0	Mapping Groundwater Contamination: Accessible Data to Protect Resources	\$480,000	MPCA	Neve, Hans
48	53	084-C	5.53	17	0	Bridging Classroom and Outdoor Learning by Studying Birds	\$270,740	U of MN	Ponder, Julia
49	51	129-E	5.47	17	0	Community-Scale Energy Storage Guide for Clean Energy	\$625,478	U of MN	Anderson, Ellen
50	60	031-A	5.44	16	0	Minnesota's Freshwater Sponges: Mapping Taxonomy and Environmental Toxicology	\$258,000	U of MN	Mukku, Venugopal
51	58	044-B	5.44	16	1	Responsive Water Quality Monitoring: SEern Minnesota Trout Streams	\$583,980	Winona State University	Mundahl, Neal
52	62	114-D	5.29	17	0	Continuation of Invasive Carp and Native Fish Evaluation	\$739,064	MN DNR	Parsons, Bradford
53	56	132-E	5.29	17	0	Deploying New Technology to Understand Urban Air Pollution	\$981,564	MPCA	Vadali, Monika
54	61	123-D	5.18	17	0	Maximize Value of Water Impoundments to Wildlife	\$195,000	Audubon Minnesota	Hall, Kristin
55	59	004-A	5.13	16	1	Healthy Prairies II: Preserving MN Prairie Plant Diversity	\$938,000	U of MN	Shaw, Ruth
56	52	152-F	5.12	17	0	Optimizing the Nutrition of Roadside Plants for Pollinators	\$815,000	U of MN	Snell-Rood, Emilie
57	55	161-F	5.00	17	0	Restoring Our Metro Lands and Waters: MeCC 10	\$524,400	Great River Greening	Buck, Wiley
58	57	169-G	5.00	17	0	Metropolitan Regional Parks System Land Acquisition	\$2,400,000	Metropolitan Council	Streets Jensen, Deborah
59	72	038-B	4.94	17	0	Removing Plastic Particle Pollution from Minnesota Water Bodies	\$359,540	U of MN	Coletti, Filippo
60	64	051-B	4.94	17	0	New Self-Sustaining Nitrate and Pesticides Removal Biotechnology	\$318,162	U of MN	Behrens, Sebastian
61	66	111-D	4.94	17	0	New Technology to Control Invasive Carp	\$389,000	U of MN	Smanski, Michael
62	65	055-B	4.88	17	0	Maximizing the Benefits of Water Reuse	\$148,000	U of MN	Ishii, Satoshi
63	67	192-K	4.76	17	0	Voyageurs National Park Crane Lake Visitor Center Partnership	\$950,000	Town of Crane Lake	Janssen, Jim
64	70	186-I	4.73	15	0	Analysis of Thermally Modified Wood Nesting Boxes for Birds	\$117,000	U of MN - NRRI	Hueffmeier, Ryan
65	69	013-A	4.69	16	0	Landslide Hazards and Impacts on Minnesota's Natural Environment	\$672,408	U of MN	Gran, Karen
66	73	083-C	4.65	17	0	Minnesota Water Stories Told in Digital Planetariums	\$622,000	U of MN - Bell Museum of Natural History	Weiblen, George
67	68	081-C	4.53	17	0	Youth Convening Minnesota	\$310,008	Climate Generation: A Will Steger Legacy	Poppleton, Kristen
68	71	150-E	4.53	17	0	District Heating with Renewable Biomass at Camp Ripley Training Center	\$1,969,988	Department of Military Affairs	Pennington, Josh
69	81	087-C	4.47	17	0	Market Science: Connecting Minnesotans to Environmental Research	\$132,000	U of MN	Tiffin, Peter
70	77	156-F	4.47	17	0	Prioritizing Shoreline Habitat Restoration in Minnesota Lakes	\$294,913	U of MN - St. Anthony Falls Laboratory	Herb, William
71	80	085-C	4.18	17	0	Students Use Local Phenology to Understand Climate Variability	\$240,000	U of MN	Carlson, Stephan
72	75	117-D	4.18	17	0	Acquiring Key Information for a Carp Deterrent System at Lock and Dam #5	\$284,000	U of MN	Sorensen, Peter
73	83	180-G	4.06	16	1	Tower Trailhead Boat Landing and Habitat Improvement	\$983,448	City of Tower	Keith, Linda
74	76	147-E	4.06	17	0	Generation, Storage, and Utilization of Solar Energy	\$795,500	U of MN	Heins, Bradley
75	78	046-B	3.94	17	0	How Rapidly can Groundwater Quality be Improved?	\$672,000	U of MN	Nieber, John
76	79	196-K	3.88	17	0	CREP Implementation Phase 1	\$8,761,320	Board of Water and Soil Resources	Hoek, Tabor
77	82	042-B	3.65	17	0	Restoring Agricultural Lakes and Watersheds by Managing Carp	\$967,100	U of MN	Bajer, Przemyslaw
78	84	054-B	3.65	17	0	Preventing Fish Kills by Increasing Understanding	\$699,905	MN DNR	Rantala, Heidi

2017 Environment and Natural Resources Trust Fund Proposals [legal size - YELLOW SHEET]
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Line #	Line #: Blue Sheet	ID #	Compiled Member Ranking (Out of 16)	Total # Members that Scored	Total # Members with Conflict	Project Title	\$ Requested	Organization	Project Manager
79	85	105-C	3.65	17	0	NE Minneapolis Sustainability Incubator	\$235,000	Holland Neighborhood Improvement Association	Koski, Adelheid
80	86	011-A	3.53	17	0	Drainage Records Modernization – Phase II, Cost-Share	\$540,000	Board of Water and Soil Resources	Gillette, Timothy
81	93	020-A	3.44	16	0	Lowland Conifer Ecosystems: Holistic Assessment for Adaptive Management	\$763,702	U of MN	Windmuller-Campione, Marcella
82	90	162-F	3.38	16	0	Precision Conservation and Agriculture: Growing Green2 Together	\$508,370	Pheasants Forever	Bruse, Tanner
83	88	191-J	3.35	17	0	Real Wildlife, Real Conservation, Real Impact	\$488,128	Wildlife Science Center	Callahan, Peggy
84	91	137-E	3.29	17	0	Forest Regeneration: Maximizing the Value of Our Investment	\$732,046	U of MN - Duluth	Etterson, Julie
85	89	005-A	3.24	17	0	Enhancing Targeted and Measureable Watershed Restoration and Protection	\$2,802,000	Board of Water and Soil Resources	Thomas, Doug
86	92	164-F	3.18	17	0	Identifying Optimal Soil Conditions for Sustainable Forest Management	\$415,000	U of MN	Slesak, Robert
87	94	036-B	3.12	17	0	Rural Industrial Water Efficiency Impact on Drinking Water	\$282,000	U of MN	Brauman, Kate
88	96	074-B	3.00	17	0	Measuring Reductions in Nitrate Pollution from Precision Agriculture	\$159,833	University of St. Thomas	Small, Gaston
89	98	193-K	2.94	17	0	Organic Weed Control Using Solar-Powered Robots	\$1,650,000	U of MN - Morris	Reese, Michael
90	101	167-F	2.76	17	0	Mississippi River Habitat Restoration at Halls Island	\$1,451,500	Minneapolis Park and Recreation Board	Arvidson, Adam
91	104	058-B	2.65	17	0	Sulfate and Metal Removal from NE MinnesotaWaters	\$298,325	U of MN	Dutcher, Cari
92	105	109-D	2.65	17	0	Quantifying Spiny Waterflea Threats to Minnesota Walleye Lakes	\$1,690,320	U. S. Geological Survey	Kiesling, Richard
93	106	115-D	2.59	17	0	Impact of Zebra Mussels on Mercury in Fish	\$211,437	U of MN - Duluth	Ozersky, Tedy
94	99	045-B	2.53	17	0	Buffer Gap Analysis	\$1,390,656	Board of Water and Soil Resources	Mohring, Eric
95	102	151-E	2.47	17	0	Renewable Energy Production from Municipal Organic Waste	\$1,687,500	Minnesota Energy Center (MNEC)	Waite-Altringer, Melanie
96	100	127-E	2.41	17	0	Managing for “Climate Smart” Trees and Forests	\$385,000	U of MN	Reich, Peter
97	103	112-D	2.29	17	0	Mountain Pine Beetle Phase II: Protecting Minnesota	\$384,838	U of MN	Aukema, Brian
98	108	149-E	2.24	17	0	Climate-Smart Cities: Helping Cities Make Smarter Land-Use Decisions	\$288,800	The Trust for Public Land	Forbes, DJ
99	110	010-A	1.94	17	0	Contaminants in Urban Soils: Understanding the Urban Environment	\$1,000,000	U. S. Geological Survey	Elliott, Sarah
100	112	066-B	1.59	17	0	Continuous Nitrate Pollution Monitoring at the Kitchen Sink	\$276,590	U of MN	Wickert, Andrew
101	111	052-B	0.82	17	0	The Minnesota Center for Water Treatment Technology Innovation	\$10,306,899	U of MN	Hozalski, Raymond

Dollars Available from the Environment and Natural Resources Trust Fund

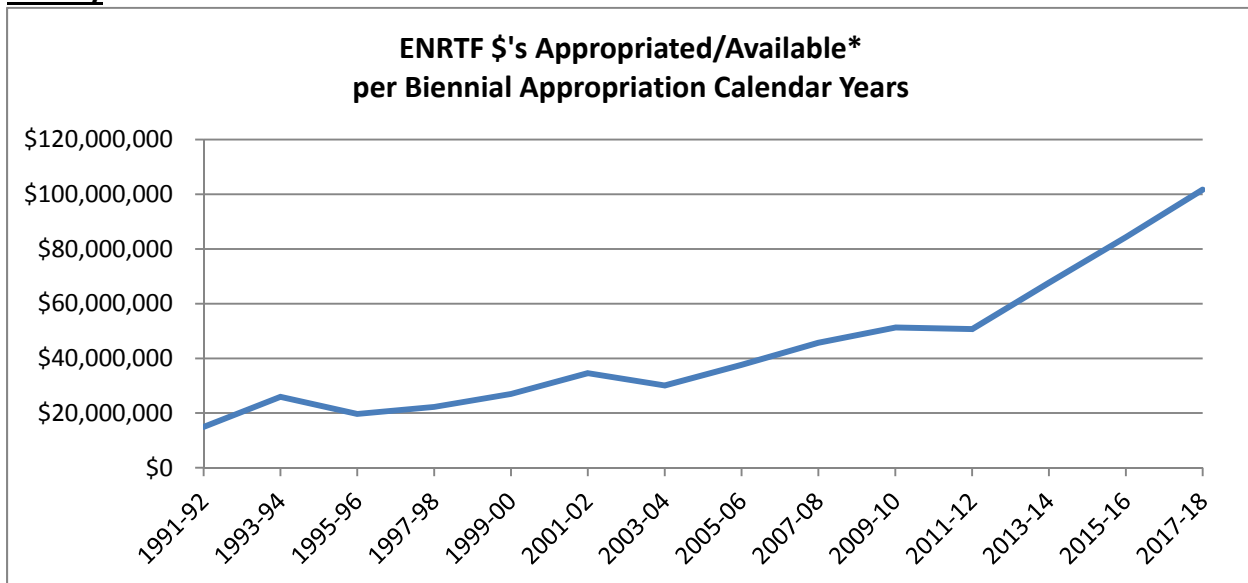
Total \$'s Available for FY 18-19 Recommendations: up to \$101,656,000

Basis

The Minnesota Constitution provides that up to 5.5% of the market value of the Environment and Natural Resources Trust Fund can be utilized for projects each year. This 5.5% value is determined for both years of each fiscal biennium based on the market value of the Trust Fund on June 30 one year prior to the start of the next fiscal biennium. Thus the dollars available for appropriation during fiscal years 2018 (beginning July 1, 2017) and 2019 (beginning July 1, 2018) was determined on June 30, 2016.

Value of the Environment and Natural Resources Trust Fund on June 30, 2016 =	\$924,152,297.79
5.5% of value on June 30, 2016 =	\$50,828,376.38
\$ Amount to be used for FY 2016-2017 LCCMR recommendations (rounded down to nearest thousandth) =	\$50,828,000/year
Total \$'s available for recommendation during fiscal 2016-2017 biennium =	\$101,656,000

History



Biennial Appropriation Calendar Years	\$'s Appropriated/Available*
1991-92	\$ 14,960,000
1993-94	\$ 25,946,000
1995-96	\$ 19,649,000
1997-98	\$ 22,270,000
1999-00	\$ 27,001,000
2001-02	\$ 34,620,000
2003-04	\$ 30,100,000
2005-06	\$ 37,657,000
2007-08	\$ 45,732,000
2009-10	\$ 51,244,000
2011-12	\$ 50,656,000
2013-14	\$ 67,620,000
2015-16	\$ 84,292,000
2017-18	\$ 101,656,000
TOTAL	\$ 613,403,000

*\$ amount for all bienniums except 2017-18 reflects the actual dollar amounts appropriated. \$ amount for 2017-18 reflects the dollars available to be appropriated.

1. 1991-2006: Biennial appropriations
2. 2007-2010: Annual appropriations
3. 2011-2012: Biennial appropriation
4. 2013-2018: Annual appropriations

2017 Allocations - Scoring Break Points

Option	# of Proposals	Running Total # of Proposals	\$ Amount	Running Total \$ Amount
7 and above	5	5	\$8,708,216	\$8,708,216
6.5 and above	9	14	\$16,117,723	\$24,825,939
6 and above	16	30	\$10,168,330	\$34,994,269
5.5 and Above	19	49	\$12,187,716	\$47,181,985
5.0 and Above	10	59	\$8,060,486	\$55,242,471
4.5 and Above	10	69	\$5,856,106	\$61,098,577
4.0 and Above	6	75	\$2,729,861	\$63,828,438
TOTAL	75		\$63,828,438	