

## II. Projects Funded Preceding Biennium

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*“a description of each project receiving money from the trust fund during the preceding biennium;”*

The following documents include:

- Summaries and descriptions of the adopted appropriations for projects funded in FY2018 (beginning July 1, 2017) and in FY2019 (beginning July 1, 2018).

Additional information:

- Research projects have been marked as such in the description.
- Full work plans are available at the LCCMR, Room 65, State Office Building and on the LCCMR website <http://www.lccmr.leg.mn/> (click on the tab titled “Projects Funded”).
- Legal Citations
  1. FY2018 - M.L. 2017, Chapter 96, Sec. 2 (65 projects for a total of \$64,250,000)
  2. a. FY2019 - M.L. 2018, Chapter 214, Article 4, Sec. 2 (67 projects for a total of \$45,828,000)  
  
b. FY2019 – Bond Sale Expenses; Annual Debt Service – M.L. 2018, Chapter 214, Article 6, Sec. 4, Subd. 4 (\$2,940,000 in FY19 and \$7,840,000 a year from FY2020 through FY2039).  
  
c. FY2019 – Appropriation Bonds - M.L. 2018, Chapter 214, Article 6, Sec. 4, Subd. 5-9 (8 projects for a total of \$98,000,000)



**1. FY2018 - MN Laws 2017, Chapter 96, Section 2**





## ENVIRONMENT AND NATURAL RESOURCES TRUST FUND M.L. 2017 LCCMR Recommendations

### **SUMMARY OF M.L. 2017 RECOMMENDATIONS BY SUBDIVISION** **(\$59,156,000 for 69 Recommendations)**

#### **SUBD. 03 Foundational Natural Resource Data and Information: \$12,601,000 – 14 Recommendations**

- Collection, analysis, mapping, and dissemination of foundational data and information pertaining to prairie and forest ecosystems, biological diversity, and groundwater mapping, including the continuation of the County Geologic Atlas and Minnesota Biological Survey.
- Research and analysis to optimize natural resource management practices and conservation strategies for protecting prairie plant diversity and wild rice through evaluation of microbial communities, ecosystem service evaluation of source water protection, and assessment of wildlife species.
- Development and implementation of tools to help guide and prioritize habitat protection and natural resource management in response to environmental change and stressors including the online wildflower identification guide, updating drainage records, landslide management tools, and an assessment of the use of unmanned aerial vehicles to monitor moose populations and natural resources.
- Development of localized planning tools and outreach assistance to communities to aid in decision making related to natural resources, infrastructure, and human health.

#### **SUBD. 04 Water Resources: \$3,175,000 – 9 Recommendations**

- Expansion and acceleration of a program to improve water quality and aquatic ecosystem health in streams and rivers through re-establishment of native mussel species.
- Research and assessment to improve understanding about household chemicals and herbicides in surface water, chemicals of emerging concern in lakes, long-term effects of oil spills on groundwater and surface waters, and increased effects of the release of mercury and sulfur from peatlands on aquatic communities.
- Research and analysis initiatives to develop or improve technologies and techniques for water quality protection including nitrogen removal in wastewater, biological monitoring in trout streams, and pathogen evaluation to maximize water reuse.
- Development of improved methodologies to estimate groundwater storage for improved water management.

#### **SUBD. 05 Environmental Education: \$4,421,000 – 9 Recommendations**

- Delivery of hands-on education, training, and mentoring of students, teachers, and community volunteers in conservation practices and environmental stewardship through various initiatives throughout the state including science based water recreational experiences, community focused workshops, scientific investigation of birds, youth watershed stewardship, protection of non-game wildlife species, and residential environmental learning center opportunities.
- Development and delivery of an interagency effort to increase diversity in students pursuing environment and natural resource careers, interactive planetarium program on water resources, and local planning for bird habitat through the implementation of the National Audubon Bird City Program.



## **ENVIRONMENT AND NATURAL RESOURCES TRUST FUND**

### **M.L. 2017 LCCMR Recommendations**

#### **SUBD. 06 Aquatic and Terrestrial Invasive Species: \$4,721,000 – 6 Recommendations**

- Research and analysis initiatives aimed at preventing, minimizing, and mitigating the threats and impacts posed by invasive species including expanded support for priority research and prevention efforts of the Minnesota Aquatic Invasive Species Research Center, stream barriers to remove common carp, continued monitoring of invasive Bighead and Silver carp and native fish populations.
- Implementation of innovative invasive species management efforts to continue Emerald Ash Borer biocontrol and control invasive cattails to improve bird habitat and water quality.
- Development of an interagency strategic action plan to manage terrestrial invasive species to protect and promote habitat and native species.

#### **SUBD. 07 Air Quality, Climate Change, and Renewable Energy: \$4,738,000 – 8 Recommendations**

- Research, analysis, and development of various clean energy technologies, including improved solar cell manufacturing, storage and use of solar thermal energy, generation and use of photovoltaic energy in agricultural applications including solar powered tools for weed management in agricultural fields.
- Analysis and demonstration of alternatives for meeting localized community energy needs and energy efficiency and a centralized biomass heating system supported by sustainable forest management at Camp Ripley Training Center.
- Targeted air quality monitoring and assessment in Minneapolis and St. Paul to improve understanding of the distribution of air pollutants in urban areas.

#### **SUBD. 08 Methods to Protect or Restore Land, Water, and Habitat: \$10,808,000 – 12 Recommendations**

- Research and analysis of methods for enhancing habitat for pollinators and game birds including optimizing roadside plantings and prescribed burning, development of best management practices for conservation of beneficial insects, evaluating the use of bison to restore oak savanna; and an assessment of wave energy impacts on shorelines to improve spawning habitat.
- Restoration of uplands, wetlands, and shorelands including approximately 1,932 acres of butterfly, bee, beneficial insects, and grassland bird habitat.
- Implement conservation through technical assistance to land owners with the Conservation Reserve Enhancement Program (CREP) and demonstrate a process of economic assessment of precision conservation for agriculture to assist farmers.

#### **SUBD. 09 Land Acquisition, Habitat, and Recreation: \$17,357,000 – 9 Recommendations**

- Acquisition and restoration of priority high quality lands including Scientific and Natural Area system (acquire 250 acres) and (restore 1,000 acres) of state lands, Native Prairie Bank conservation easements (335 acres) and (restore 570 acres), and acquire 45 acres of shoreline on Leech Lake in Cass County.
- Expansion of outdoor recreational opportunities including acquisition of 373 acres for state parks and trails and 197 acres for metropolitan regional parks; state trail development and enhancement in southern Minnesota and the Mesabi Trail in northern Minnesota; trailhead and water access in the City of Tower and acquisition of 29 acres by Crane Lake Township for a campground and access to Voyageurs National Park.

#### **SUBD. 10 Administration: \$1,335,000 – 2 Recommendations**

- LCCMR administration for the biennium FY 18-19 (\$600,000 each year) and DNR contract agreement for fiscal management of non-state entity reimbursements (\$135,000).

# M.L. 2017, Chapter 96 Environment and Natural Resources Trust Fund (ENRTF)

## APPROPRIATIONS BY SUBDIVISION - 1/10/2019

### Process for M.L. 2017

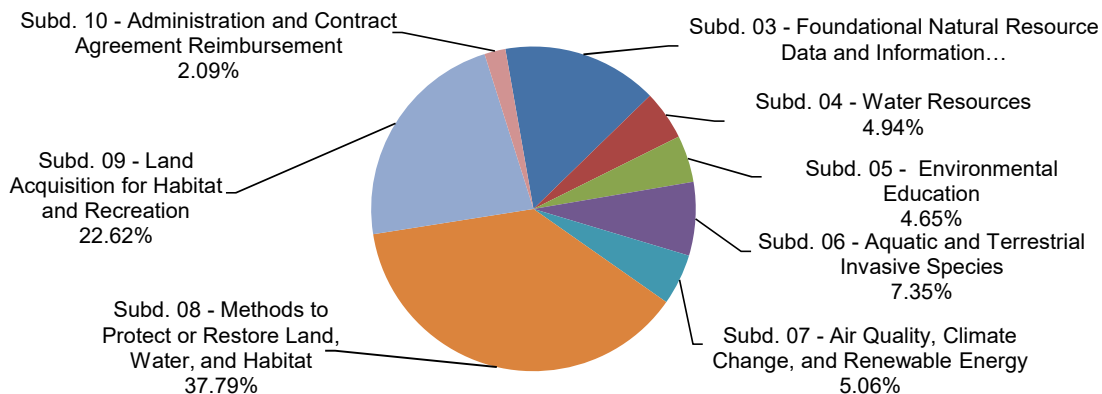
For the FY 2018 and FY 2019 biennium (July 1, 2017 - June 30, 2019), approximately \$50.8 million was available each year (total = \$101,656,000) for funding from the Environment and Natural Resources Trust Fund. Additionally, approximately \$8.4 million in ENRTF funds remained available from FY 2017 for appropriation during the 2017 legislative session. In response to the 2017 Request for Proposal (RFP) 195 proposals requesting a total of approximately \$159.6 million were received. Through a competitive multi-step process, 97 of these proposals, requesting a total of \$70.4 million, were chosen to present to the LCCMR and 69 proposals were selected to receive a recommendation for funding to the 2017 MN Legislature. On 05/22/17 the Legislature adopted 63 of the recommendations, including 59 without any changes and 4 at a decreased dollar amount; deleted 7 of the appropriations; and added 2 new appropriations for a total of 65 appropriations totaling \$64,250,000. On 05/30/2017, 65 appropriations totaling \$64,250,000, were signed into law by the Governor as M.L. 2017, Chapter 96 for appropriation in FY17 (\$8,428,000), FY18 (\$50,733,000) and FY19 (\$5,089,000).

December 6 & 13, 2016	2018 Funding Priorities Determined and RFP Adopted
December 21, 2017	2018 RFP Issued
May 15, 2017	2018 RFP Proposal Deadline (Received 219 Proposals totaling approx. \$184.5 million)
September 13-14, 2017	2018 Selection of Proposals for Presentations
Sept. 26, 27, 28 & Oct. 3, 4, & 5, 2017	2018 Proposal Presentations
October 17 & 18 or 24 & 25, 2017	2018 Allocations Recommendations
November 2017 - January 2018	Research Projects Recommended Undergo Peer Review
November 30, & December 5 and 14, 2016	2018 Appropriation Language Review & Adoption
December 21, 2017	2019 RFP Issued
March 7, 2017	Senate Committee on Environment and Natural Resources Finance S.F. 550 adopted House Environment and Natural Resources Policy and Finance Committee H.F. 1265 adopted as amended
March 16, 2017	
March 20, 2017	House Ways and Means Committee H.F. 1265 adopted as amended
May 11, 2017	Senate Floor Third Reading Passed S.F. 550 as amended
May 22, 2017	Appropriations adopted by MN Legislature
May 30, 2017	Appropriations signed into law by Governor
June 7, 2017	Project work plans approved by LCCMR
July 1, 2017	Projects can begin

### Summary of Appropriations by Subdivision

Subdivision	\$ Appropriations	# Appropriations
Subd. 03 - Foundational Natural Resource Data and Information	\$9,961,000	14
Subd. 04 - Water Resources	\$3,175,000	9
Subd. 05 - Environmental Education	\$2,988,000	7
Subd. 06 - Aquatic and Terrestrial Invasive Species	\$4,721,000	6
Subd. 07 - Air Quality, Climate Change, and Renewable Energy	\$3,250,000	5
Subd. 08 - Methods to Protect or Restore Land, Water, and Habitat	\$24,283,000	12
Subd. 09 - Land Acquisition, Habitat, and Recreation	\$14,532,000	9
Subd. 10 - Administration and Contract Agreement Reimbursement	\$1,340,000	3
<b>TOTAL</b>	<b>\$64,250,000</b>	<b>65</b>

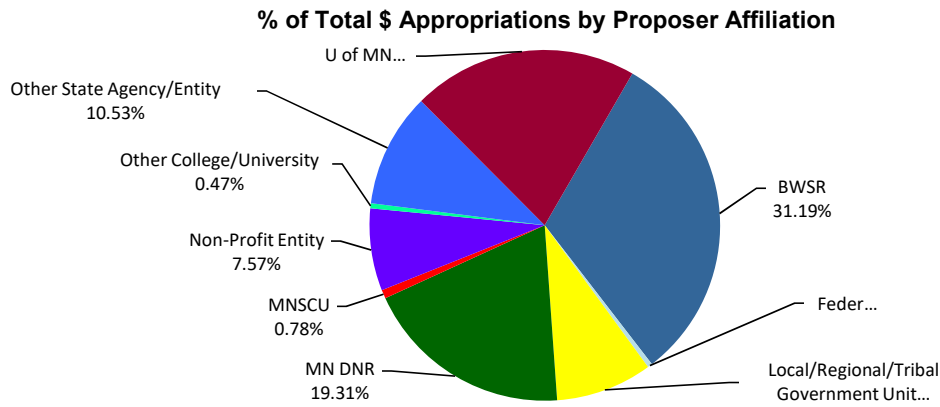
### % of Total \$ Appropriations by Subdivision



## 2017 ENRTF APPROPRIATIONS BY AFFILIATION AND AREA OF IMPACT

Summary of Appropriations by Proposer Affiliation*		
Affiliation Type by Proposer Affiliation	\$ Appropriations	# Appropriations
Minnesota Board of Water and Soil Resources (BWSR)	\$20,040,000	3
Federal	\$293,000	1
Local/Regional/Tribal Government Unit	\$5,719,000	5
Minnesota Department of Natural Resources (MN DNR)	\$12,407,000	9
Minnesota State Colleges and Universities (MNSCU)	\$500,000	1
Non-Profit Entity	\$4,865,000	11
Other College/University	\$300,000	1
Other State Agency/Entity	\$6,766,000	10
University of Minnesota (U of MN)	\$13,360,000	24
<b>TOTAL</b>	<b>\$64,250,000</b>	<b>65</b>

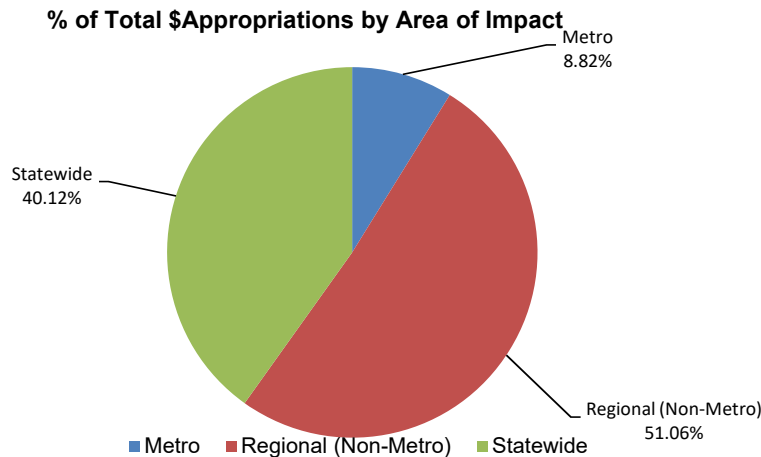
\*Dollar amounts based on project manager affiliation listed in the proposal; some proposals have multiple partners with multiple affiliations and dollars requested distributed between them.



Summary of Appropriations by Area of Impact		
Area of Impact	\$ Appropriations	# Appropriations
Metro*	\$5,667,000	9
Regional	\$32,803,000	20
Statewide	\$25,780,000	36
<b>TOTAL</b>	<b>\$64,250,000</b>	<b>65</b>

\* "Metro" region includes the 11 counties of Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington, and Wright.

\*\* "Regional" means area of impact is less than "Statewide" but includes one or more regions of the state ("Northwest", "Northeast", "Central", "Southwest", or "Southeast") other than the 11-county "Metro" region.



**M.L. 2017 Environment and Natural Resources Trust Fund (ENRTF) Appropriations  
(FY 2017, FY 2018 and FY2019) - Chp. 96, Sec. 2**

*For the FY 2018 and FY 2019 biennium (July 1, 2017 - June 30, 2019), approximately \$50.8 million was available each year (total = \$101,656,000) for funding from the Environment and Natural Resources Trust Fund. Additionally, approximately \$8.4 million in ENRTF funds remained available from FY 2017 for appropriation during the 2017 legislative session. In response to the 2017 Request for Proposal (RFP) 195 proposals requesting a total of approximately \$159.6 million were received. Through a competitive multi-step process, 97 of these proposals, requesting a total of \$70.4 million, were chosen to present to the LCCMR and 69 proposals were selected to receive a recommendation for funding to the 2017 MN Legislature. On 05/22/17 the Legislature adopted 63 of the recommendations, including 59 without any changes and 4 at a decreased dollar amount; deleted 7 of the recommendations; and added 2 new appropriations for a total of 65 appropriations. On 05/30/2017, 65 appropriations totaling \$64,250,000, were signed into law by the Governor as M.L. 2017, Chapter 96 for appropriation in FY17 (\$8,428,000), FY18 (\$50,733,000) and FY19 (\$5,089,000).*

Topic Area	Total \$ Appropriated (\$64,250,000)	FY2017 ENRTF \$	FY2018 ENRTF \$	FY2019 ENRTF \$	Percentage of Total Appropriation
<b>Subd. 03 Foundational Natural Resource Data and Information</b> 14 Appropriations	\$9,961,000	\$2,000,000	\$7,872,000	\$89,000	15.50%
<b>Subd. 04 Water Resources</b> 9 Appropriations	\$3,175,000	\$0	\$3,175,000	\$0	4.94%
<b>Subd. 05 Environmental Education</b> 7 Appropriations	\$2,988,000	\$0	\$2,988,000	\$0	4.65%
<b>Subd. 06 Aquatic and Terrestrial Invasive Species</b> 6 Appropriations	\$4,721,000	\$2,700,000	\$2,021,000	\$0	7.35%
<b>Subd. 07 Air Quality, Climate Change, and Renewable Energy</b> 5 Appropriations	\$3,250,000	\$0	\$3,250,000	\$0	5.06%
<b>Subd. 08 Methods to Protect or Restore Land, Water, and Habitat</b> 12 Appropriations	\$24,283,000	\$2,729,000	\$16,554,000	\$5,000,000	37.79%
<b>Subd. 09 Land Acquisition, Habitat, and Recreation</b> 9 Appropriations	\$14,532,000	\$999,000	\$13,533,000	\$0	22.62%
<b>Subd. 10 Administration and Contract Agreement Reimbursement</b> 3 Appropriations	\$1,340,000	\$0	\$1,340,000	\$0	2.09%
<b>TOTAL \$ APPROPRIATED</b>	<b>\$64,250,000</b>	<b>\$8,428,000</b>	<b>\$50,733,000</b>	<b>\$5,089,000</b>	<b>100.00%</b>

Fund Source	\$ Appropriated
FY 2017 - Environment and Natural Resources Trust Fund (ENRTF)	\$8,428,000
FY 2018 - Environment and Natural Resources Trust Fund (ENRTF)	\$50,733,000
FY 2019 - Environment and Natural Resources Trust Fund (ENRTF)	\$5,089,000
<b>Total \$</b>	<b>\$64,250,000</b>

**2017 Environment and Natural Resources Trust Fund (ENRTF) Appropriations**  
**M.L. 2017, Chp. 96, Sec. 2**

Subd.	Title	Total \$ Appropriated	FY2017 ENRTF \$	FY2018 ENRTF \$	FY2019 ENRTF \$	Organization	Project Manager	Region of Impact*
Subd. 03 Foundational Natural Resource Data and Information (14 Appropriations - Subtotal = \$9,961,000)								
03a	County Geologic Atlases - Continuation	\$ 2,000,000	\$ 2,000,000	\$ -	\$ -	U of MN - MN Geological Survey	Dale Setterholm	Statewide
03b	Assessment of Public Benefits of Protecting Source Water	\$ 320,000	\$ -	\$ 320,000	\$ -	U of MN	Bonnie Keeler	Statewide
03c	Preserving Minnesota Prairie Plant Diversity – Phase II	\$ 900,000	\$ -	\$ 900,000	\$ -	U of MN	Ruth Shaw	Central, NW, SE, SW
03d	Minnesota Biological Survey - Continuation	\$ 2,900,000	\$ -	\$ 2,900,000	\$ -	MN DNR	Bruce Carlson	Statewide
03e	Minnesota Wildflowers Online Botanical Reference – Phase II	\$ 270,000	\$ -	\$ 270,000	\$ -	MN Wildflowers Information	Katy Chayka	Statewide
03f	Assessment of Microbes for Improving Wild Rice Restoration	\$ 334,000	\$ -	\$ 334,000	\$ -	U of MN - NRRI	Chanlan Chun	NE
03g	Drainage Records Modernization Cost Share - Phase II	\$ 540,000	\$ -	\$ 540,000	\$ -	Board of Water and Soil Resources	Tim Gillette	Statewide
03h	Groundwater Contamination Mapping	\$ 400,000	\$ -	\$ 400,000	\$ -	Minnesota Pollution Control Agency	Hans Neve	Statewide
03i	Landslide Susceptibility, Mapping, and Management Tools	\$ 500,000	\$ -	\$ 500,000	\$ -	U of MN	Karen Gran	Statewide
03j	Moose Calf Surveys and Monitoring	\$ 348,000	\$ -	\$ 348,000	\$ -	U of MN	Mark Ditmer	NE
03k	Cedar Creek Natural Area Wolf Recolonization Assessment	\$ 398,000	\$ -	\$ 398,000	\$ -	U of MN	Forest Isbell	Metro
03l	Effects of Wolf Predation on Beaver, Moose, and Deer	\$ 293,000	\$ -	\$ 293,000	\$ -	Voyageurs National Park	Steve Windels	NE
03m	Mapping Taxonomy and Environmental Toxicology of Minnesota Freshwater Sponges	\$ 258,000	\$ -	\$ 258,000	\$ -	U of MN	Anthony Schroeder	Statewide
03n	Pollinator Research and Outreach	\$ 500,000	\$ -	\$ 411,000	\$ 89,000	U of MN	Open	Statewide
Foundational Natural Resource Data and Information Subtotal = \$		9,961,000	\$ 2,000,000	\$ 7,872,000	\$ 89,000			
Subd. 04 Water Resources (9 Appropriations - Subtotal = \$3,175,000)								
04a	Assessment of Household Chemicals and Herbicides in Rivers and Lakes	\$ 236,000	\$ -	\$ 236,000	\$ -	U of MN	William Arnold	Statewide
04b	Wastewater Nitrogen Removal Technology to Protect Water Quality	\$ 450,000	\$ -	\$ 450,000	\$ -	U of MN	Paige Novak	Statewide
04c	Rearing Native Mussels for Reintroduction and Expanding Water Quality Awareness	\$ 591,000	\$ -	\$ 591,000	\$ -	Minnesota Zoological Garden	Seth Stapleton	Statewide
04d	Water Quality Monitoring in Southeastern Minnesota Trout Streams	\$ 500,000	\$ -	\$ 500,000	\$ -	Winona State University	Neal Mundahl	SE
04e	Reassessing Toxicity of Petroleum Spills on Groundwater and Surface Water	\$ 300,000	\$ -	\$ 300,000	\$ -	St. Thomas University	Dalma Martinovic- Weigelt	NW

**2017 Environment and Natural Resources Trust Fund (ENRTF) Appropriations**  
**M.L. 2017, Chp. 96, Sec. 2**

Subd.	Title	Total \$ Appropriated	FY2017 ENRTF \$	FY2018 ENRTF \$	FY2019 ENRTF \$	Organization	Project Manager	Region of Impact*
04f	Assessment of Water Quality for Reuse	\$ 148,000	\$ -	\$ 148,000	\$ -	U of MN	Satoshi Ishii	Statewide
04g	Identification of Chemicals of Emerging Concern in Minnesota Fish	\$ 400,000	\$ -	\$ 400,000	\$ -	Grand Portage Band of Lake Superior	Seth Moore	NE
04h	Techniques for Water Storage Estimates in Central Minnesota	\$ 250,000	\$ -	\$ 250,000	\$ -	U of MN	John Nieber	Statewide
04i	Assessing Release of Mercury and Sulfur on Aquatic Communities	\$ 300,000	\$ -	\$ 300,000	\$ -	U of MN	Ed Nater	Statewide
Water Resources Subtotal =		\$ 3,175,000	\$ -	\$ 3,175,000	\$ -			
Subd. 05 Environmental Education (7 Appropriations - Subtotal = \$2,988,000)								
05a	Connecting Youth to Minnesota Waterways through Outdoor Classrooms	\$ 1,200,000	\$ -	\$ 1,200,000	\$ -	Wilderness Inquiry	Meg Krueger	Statewide
05b	Increasing Diversity in Environmental Careers	\$ 487,000	\$ -	\$ 487,000	\$ -	MN DNR	Denise Legato	Statewide
05c	Interactive Water Resource Programs for Planetariums in Minnesota	\$ 500,000	\$ -	\$ 500,000	\$ -	U of MN - Bell Museum of Natural History	Sally Brummel	Statewide
05d	Expanding Raptor Center Online Education	\$ 270,000	\$ -	\$ 270,000	\$ -	U of MN	Julia Ponder	Statewide
05e	Local Planning and Implementation Efforts for Bird Habitat	\$ 280,000	\$ -	\$ 280,000	\$ -	Audubon Minnesota	Joanna Eckles	Statewide
05f	Developing Youth Watershed Stewardship in Northwest Minnesota	\$ 121,000	\$ -	\$ 121,000	\$ -	Headwaters Science Center	Annie Butler Ricks	NW
05g	Increasing Residential Environmental Learning Center Opportunities	\$ 130,000	\$ -	\$ 130,000	\$ -	Audubon Center of the North Woods	Bryan Wood	NE
Environmental Education Subtotal =		\$ 2,988,000	\$ -	\$ 2,988,000	\$ -			
Subd. 06 Aquatic and Terrestrial Invasive Species (6 Appropriations - Subtotal = \$4,721,000)								
06a	Aquatic Invasive Species Research Center - Phase II	\$ 2,700,000	\$ 2,700,000	\$ -	\$ -	U of MN - AIS Center	Nicholas Phelps	Statewide
06b	Emerald Ash Borer Biocontrol - Phase III	\$ 729,000	\$ -	\$ 729,000	\$ -	Minnesota Department of Agriculture	Jonathan Osthus	Statewide
06c	Invasive Bighead Carp and Silver Carp and Native Fish Evaluation – Phase II	\$ 500,000	\$ -	\$ 500,000	\$ -	MN DNR	Bradford Parsons	Central, Metro, SE, SW
06d	Adapting Stream Barriers to Remove Common Carp	\$ 301,000	\$ -	\$ 301,000	\$ -	U of MN - AIS Center	Przemyslaw Bajer	Statewide
06e	Tactical Invasive Plant Management Plan Development	\$ 296,000	\$ -	\$ 296,000	\$ -	Minnesota Department of Agriculture	Monika Chandler	Statewide
06f	Maximize Value of Water Impoundments to Wildlife	\$ 195,000	\$ -	\$ 195,000	\$ -	Audubon Minnesota	Kristin Hall	NW

**2017 Environment and Natural Resources Trust Fund (ENRTF) Appropriations**  
**M.L. 2017, Chp. 96, Sec. 2**

Subd.	Title	Total \$ Appropriated	FY2017 ENRTF \$	FY2018 ENRTF \$	FY2019 ENRTF \$	Organization	Project Manager	Region of Impact*
Aquatic and Terrestrial Invasive Species Subtotal =		\$ 4,721,000	\$ 2,700,000	\$ 2,021,000	\$ -			
Subd. 07 Air Quality, Climate Change, and Renewable Energy (5 Appropriations - Subtotal = \$3,250,000)								
07a	Extraction of Solar Thermal Energy in Minnesota	\$ 250,000	\$ -	\$ 250,000	\$ -	U of MN	Filippo Coletti	Statewide
07b	Assessment of Urban Air Pollution	\$ 700,000	\$ -	\$ 700,000	\$ -	Minnesota Pollution Control Agency	Monika Vadali	Metro
07c	Generation, Storage, and Utilization of Solar Energy	\$ 500,000	\$ -	\$ 500,000	\$ -	U of MN - West Central Research and Outreach Center in Morris	Bradley Heins	Statewide
07d	District Heating with Renewable Biomass at Camp Ripley Training Center	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	Department of Military Affairs	Jay Brezinka	Central
07e	Geotargeted Distributed Clean Energy Initiative	\$ 800,000	\$ -	\$ 800,000	\$ -	Center for Energy and Environment	Carl Nelson	Statewide
Air Quality, Climate Change, and Renewable Energy Subtotal =		\$ 3,250,000	\$ -	\$ 3,250,000	\$ -			
Subd. 08 Methods to Protect or Restore Land, Water, and Habitat (12 Appropriations - Subtotal = \$24,283,000)								
08a	Optimizing the Nutrition of Roadside Plants for Pollinators	\$ 815,000	\$ -	\$ 815,000	\$ -	U of MN	Emilie Snell-Rood	Central, Metro, NW, SE, SW
08b	Promoting Conservation Biocontrol of Beneficial Insects	\$ 400,000	\$ -	\$ 400,000	\$ -	U of MN	Vera Krischik	Statewide
08c	Evaluating the Use of Bison to Restore and Preserve Savanna Habitat	\$ 388,000	\$ -	\$ 388,000	\$ -	Cedar Creek Ecosystem Science Reserve	David Tilman	Central
08d	State Park Pollinator Habitat Restoration	\$ 672,000	\$ -	\$ 672,000	\$ -	MN DNR	Edward Quinn	Central, Metro, NW, SE, SW
08e	Enhancing Spawning Habitat Restoration in Minnesota Lakes	\$ 294,000	\$ -	\$ 294,000	\$ -	U of MN - St. Anthony Falls Laboratory	William Herb	Statewide
08f	Prescribed Fire Management for Roadside Prairies	\$ 345,000	\$ -	\$ 345,000	\$ -	Minnesota Department of Transportation	Ken Graeve	Central, Metro, NW, SE
08g	Minnesota Bee and Beneficial Species Habitat Restoration	\$ 732,000	\$ -	\$ 732,000	\$ -	Pheasants Forever Inc	Steven Burdick	Statewide
08h	Mississippi and Vermillion River Restoration of Prairie, Savanna, and Forest Habitat - Phase Ten	\$ 213,000	\$ -	\$ 213,000	\$ -	Friends of the Mississippi River	Tom Lewanski	Metro
08i	Community Stewardship to Restore Urban Natural Resources - Phase Ten	\$ 524,000	\$ -	\$ 524,000	\$ -	Great River Greening	Wiley Buck	Metro
08j	Economic Assessment of Precision Conservation and Agriculture	\$ 400,000	\$ -	\$ 400,000	\$ -	Pheasants Forever Inc	Tanner Bruse	Central, NW, SE, SW

**2017 Environment and Natural Resources Trust Fund (ENRTF) Appropriations  
M.L. 2017, Chp. 96, Sec. 2**

Subd.	Title	Total \$ Appropriated	FY2017 ENRTF \$	FY2018 ENRTF \$	FY2019 ENRTF \$	Organization	Project Manager	Region of Impact*
08k	Conservation Reserve Enhancement Program (CREP) Outreach and Implementation	\$ 6,000,000	\$ -	\$ 6,000,000	\$ -	Board of Water and Soil Resources	Tabor Hoek	Central, NE, NW, SE, SW
08l	Conservation Reserve Enhancement Program (CREP)	\$ 13,500,000	\$ 2,729,000	\$ 5,771,000	\$ 5,000,000	Board of Water and Soil Resources	Open	Central, NE, NW, SE, SW
<b>Methods to Protect or Restore Land, Water, and Habitat</b>								
<b>Subtotal =</b>		<b>\$ 24,283,000</b>	<b>\$ 2,729,000</b>	<b>\$ 16,554,000</b>	<b>\$ 5,000,000</b>			
<b>Subd. 09 Land Acquisition, Habitat, and Recreation (9 Appropriations - Subtotal = 14,532,000)</b>								
09a	Metropolitan Regional Parks System Land Acquisition	\$ 1,500,000	\$ -	\$ 1,500,000	\$ -	Metropolitan Council	Deborah Streets Jensen	Metro
09b	Scientific and Natural Areas Acquisition, Restoration, Citizen Science and Engagement	\$ 2,500,000	\$ -	\$ 2,500,000	\$ -	MN DNR	Peggy Booth	Statewide
09c	Minnesota State Parks and State Trails Land Acquisition	\$ 1,500,000	\$ -	\$ 1,500,000	\$ -	MN DNR	Jennifer Christie	Statewide
09d	Minnesota State Trails Acquisition, Development and Enhancement	\$ 1,038,000	\$ 999,000	\$ 39,000	\$ -	MN DNR	Kent Skaar	Statewide
09e	Native Prairie Stewardship and Prairie Bank Easement Acquisition	\$ 2,675,000	\$ -	\$ 2,675,000	\$ -	MN DNR	Judy Schulte	Central, NW, SE, SW
09f	Leech Lake Acquisition	\$ 1,500,000	\$ -	\$ 1,500,000	\$ -	Leech Lake Division of Resource Management	Levi Brown	Central
09g	Mesabi Trail Development	\$ 2,269,000	\$ -	\$ 2,269,000	\$ -	St. Louis & Lake Counties Regional Railroad Authority	Bob Manzoline	NE
09h	Tower Trailhead Boat Landing and Habitat Improvement – Phase II	\$ 600,000	\$ -	\$ 600,000	\$ -	City of Tower	Linda Keith	NE
09i	Land Acquisition for Voyageurs National Park Crane Lake Visitors Center	\$ 950,000	\$ -	\$ 950,000	\$ -	Town of Crane Lake	Jim Janssen	NE
<b>Land Acquisition, Habitat and Recreation Subtotal =</b>		<b>\$ 14,532,000</b>	<b>\$ 999,000</b>	<b>\$ 13,533,000</b>	<b>\$ -</b>			
<b>Subd. 10 Administration and Contract Agreement Reimbursement (2 Appropriations - Subtotal = \$1,340,000)</b>								
10a	Contract Agreement Reimbursement	\$ 135,000	\$ -	\$ 135,000	\$ -	MN DNR	Katherine Sherman- Hoehn	Statewide
10b	Legislative-Citizen Commission on Minnesota Resources (LCCMR) Administration	\$ 1,200,000	\$ -	\$ 1,200,000	\$ -	Legislative-Citizen Commission on	Susan Thornton	Statewide
10c	Legislative Coordinating Commission Legacy Website	\$ 5,000	\$ -	\$ 5,000	\$ -	Legislative Coordinating Commission	Sally Olson	Statewide
<b>Administration and Contract Agreement Reimbursement</b>								
<b>Subtotal =</b>		<b>\$ 1,340,000</b>	<b>\$ -</b>	<b>\$ 1,340,000</b>	<b>\$ -</b>			
<b>Total \$ Appropriated =</b>		<b>\$ 64,250,000</b>	<b>\$ 8,428,000</b>	<b>\$ 50,733,000</b>	<b>\$ 5,089,000</b>			

**2017 Environment and Natural Resources Trust Fund (ENRTF) Appropriations  
M.L. 2017, Chp. 96, Sec. 2**

Subd.	Title	Total \$ Appropriated	FY2017 ENRTF \$	FY2018 ENRTF \$	FY2019 ENRTF \$	Organization	Project Manager	Region of Impact*
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\* Region of Impact designated in the State include Statewide, Central, Metro, NE, NW, SE, SW. Metro region includes the 11 counties of Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington, and Wright.

## **M.L. 2017 Projects**

For the FY 2018 and FY 2019 biennium (July 1, 2017 - June 30, 2019), approximately \$50.8 million was available each year (total = \$101,656,000) for funding from the Environment and Natural Resources Trust Fund. Additionally, approximately \$8.4 million in ENRTF funds remained available from FY 2017 for appropriation during the 2017 legislative session. In response to the 2017 Request for Proposal (RFP) 195 proposals requesting a total of approximately \$159.6 million were received. Through a competitive multi-step process, 97 of these proposals, requesting a total of \$70.4 million, were chosen to present to the LCCMR and 69 proposals were selected to receive a recommendation for funding to the 2017 MN Legislature. On 05/ 22/17 the Legislature adopted 63 of the recommendations, including 59 without any changes and 4 at a decreased dollar amount; deleted 7 of the recommendations; and added 2 new appropriations for a total of 65 appropriations. On 05/30/2017, 65 appropriations totaling \$64,250,000, were signed into law by the Governor as M.L. 2017, Chapter 96 for appropriation in FY17 (\$8,428,000), FY18 (\$50,733,000) and FY19 (\$5,089,000).

NOTE: For all projects, [contact](#) us to obtain the most up-to-date work programs for current projects (project updates are required twice each year) or the final reports of completed projects.

### **MN Laws 2017, Chapter 96 (beginning July 1, 2017)**

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When available, we have provided links to web sites related to the project. The sites linked to this page are not created, maintained, or endorsed by the LCCMR office or the Minnesota Legislature.

#### **MN Laws 2017 Chapter 96, Section 2**

##### **Subd. 03 Foundational Natural Resource Data and Information**

##### **County Geologic Atlases - Continuation**

###### **Subd. 03a \$2,000,000 TF (FY2017)**

###### **Dale Setterholm**

U of MN - MN Geological Survey

2609 Territorial Rd

St. Paul, MN 55114

Phone: (612) 626-5119

Email: [sette001@umn.edu](mailto:sette001@umn.edu)

Web: <http://www.mngs.umn.edu>

###### **Appropriation Language**

\$2,000,000 in fiscal year 2017 is from the trust fund to the Board of Regents of the University of Minnesota, Minnesota Geological Survey, to continue acceleration of the production of county geologic atlases for the purpose of sustainable management of surface water and groundwater resources. This appropriation is to complete Part A of county geologic atlases, which focuses on the properties and distribution of earth materials in order to define aquifer boundaries and the connection of aquifers to the land surface and surface water resources. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

###### **Assessment of Public Benefits of Protecting Source Water**

###### **Subd. 03b \$320,000 TF (FY2018)**

###### **Bonnie Keeler**

U of MN

1954 Buford Ave  
St. Paul, MN 55108  
Phone: (651) 626-2120  
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Web: <http://z.umn.edu/keeler>

**Appropriation Language**

\$320,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to map and quantify source water risks, determine ecosystem service valuation of clean water, and provide analyses of equity and community capacity to improve decisions about the protection and management of groundwater and surface water. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Preserving Minnesota Prairie Plant Diversity - Phase II - RESEARCH  
Subd. 03c \$900,000 TF (FY2018)**

**Ruth Shaw**  
U of MN  
1987 Upper Buford Cir, 100 Ecology Bldg  
St. Paul, MN 55108  
Phone: (612) 624-7206  
Email: [shawx016@umn.edu](mailto:shawx016@umn.edu)  
Web: <http://www.cbs.umn.edu/eeb/faculty/ShawRuth/>

**Appropriation Language**

\$900,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to continue collecting and preserving germplasm of plants throughout Minnesota's prairie region, study the microbial effects that promote plant health, analyze local adaptation, and evaluate the adaptive capacity of prairie plant populations. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Minnesota Biological Survey - Continuation  
Subd. 03d \$2,900,000 TF (FY2018)**

**Bruce Carlson**  
MN DNR  
500 Lafayette Rd  
St. Paul, MN 55155  
Phone: (651) 259-5083  
Email: [bruce.carlson@state.mn.us](mailto:bruce.carlson@state.mn.us)  
Web: <http://www.dnr.state.mn.us/eco/mcbs/index.html>

**Appropriation Language**

\$2,900,000 the first year is from the trust fund to the commissioner of natural resources for continuation of the Minnesota biological survey to provide a foundation for conserving biological diversity by systematically collecting, interpreting, monitoring, and delivering data on plant and animal distribution and ecology, native plant communities, and functional landscapes. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Minnesota Wildflowers Online Botanical Reference - Phase II**  
**Subd. 03e \$270,000 TF (FY2018)**

**Katy Chayka**

MN Wildflowers Information  
1590 Long Lake Rd  
New Brighton, MN 55112  
Phone: (651) 399-4064

Email: [kchayka@c-net.us](mailto:kchayka@c-net.us)

Web: <http://www.minnesotawildflowers.info/>

**Appropriation Language**

\$270,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with Minnesota Wildflowers Information to continue surveying and imaging plant species and publishing species profiles for a plant identification reference Web site available to the public and land managers. Images acquired and information compiled using these funds are for purposes of public information available on a Web site. If the organization is no longer able to maintain the Web site, the organization must work with the state and the University of Minnesota, Bell Museum of Natural History, to ensure the materials remain publicly available on the Web. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Assessment of Microbes for Improving Wild Rice Restoration - RESEARCH**  
**Subd. 03f \$334,000 TF (FY2018)**

**Chanlan Chun**

U of MN - NRRRI  
1405 University Drive SCiv 221  
Duluth, MN 55811  
Phone: (218) 788-2613

Email: [chun0157@d.umn.edu](mailto:chun0157@d.umn.edu)

Web: <http://www.nrrri.umn.edu>

**Appropriation Language**

\$334,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota, Natural Resources Research Institute, to evaluate the microbial communities and nutrients associated with wild rice and competing vegetation, with the goal of enhancing restoration success to increase the abundance of wild rice. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Drainage Records Modernization Cost Share - Phase II**  
**Subd. 03g \$540,000 TF (FY2018)**

**Tim Gillette**

Board of Water and Soil Resources  
520 Lafayette Rd  
St. Paul, MN 55155  
Phone: (651) 297-8287

Email: [tim.gillette@state.mn.us](mailto:tim.gillette@state.mn.us)

Web: <http://www.bwsr.state.mn.us>

#### **Appropriation Language**

\$540,000 the first year is from the trust fund to the Board of Water and Soil Resources to facilitate statewide modernization of public drainage records under Minnesota Statutes, chapter 103E, and integrate new specifications into existing drainage records modernization guidelines through matching cost-share grants to drainage authorities. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

#### **Groundwater Contamination Mapping**

**Subd. 03h \$400,000 TF (FY2018)**

##### **Hans Neve**

Minnesota Pollution Control Agency

520 Lafayette Rd

St. Paul, MN 55155

Phone: (651) 757-2608

Email: [hans.neve@state.mn.us](mailto:hans.neve@state.mn.us)

Web: <https://www.pca.state.mn.us/waste/superfund-program>

#### **Appropriation Language**

\$400,000 the first year is from the trust fund to the commissioner of the Pollution Control Agency to develop a Web-based interactive map of groundwater contamination to improve protection of groundwater resources for drinking water. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

#### **Landslide Susceptibility, Mapping, and Management Tools**

**Subd. 03i \$500,000 TF (FY2018)**

##### **Karen Gran**

U of MN, Duluth

1114 Kirby Dr

Duluth, MN 55812

Phone: (218) 726-7406

Email: [kgran@d.umn.edu](mailto:kgran@d.umn.edu)

#### **Appropriation Language**

\$500,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to create landslide susceptibility maps using a landslide inventory and quantitative analysis of LiDAR to provide tools and data for mitigation and restoration to reduce impacts on water resources. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

#### **Moose Calf Surveys and Monitoring**

**Subd. 03j \$348,000 TF (FY2018)**

##### **Mark Ditmer**

U of MN

2003 Upper Buford Cir, 135 Skok Hall  
St. Paul, MN 55108  
Phone: (651) 895-9883  
Email: [ditme004@umn.edu](mailto:ditme004@umn.edu)

**Appropriation Language**

\$348,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to assess the use of unmanned aerial vehicles in natural resource monitoring of moose populations and changes in ecosystems.

**Project due to be completed:** 6/30/2019 [Work Plan](#)

**Cedar Creek Natural Area Wolf Recolonization Assessment - RESEARCH  
Subd. 03k \$398,000 TF (FY2018)**

**Forest Isbell**

Cedar Creek Ecosystem Science Reserve, U of MN  
2660 Fawn Lake Drive NE  
East Bethel, MN 55005  
Phone: (612) 301-2601  
Email: [isbell@umn.edu](mailto:isbell@umn.edu)  
Web: <https://www.cedarcreek.umn.edu>

**Appropriation Language**

\$398,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota, Cedar Creek Ecosystem Science Reserve, to assess wolf recolonization impacts on wildlife, biodiversity, and natural resources and provide educational opportunities at Cedar Creek Ecosystem Science Reserve. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Effects of Wolves Predation on Beaver, Moose, and Deer - RESEARCH  
Subd. 03l \$293,000 TF (FY2018)**

**Steve Windels**

Voyageurs National Park  
360 Hwy 11 E  
International Falls, MN 56649  
Phone: (218) 283-6692  
Email: [steve\\_windels@nps.gov](mailto:steve_windels@nps.gov)

**Appropriation Language**

\$293,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with Voyageurs National Park to assess the effects of wolf predation on beaver, moose, and deer in the Border Lakes region. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Mapping Taxonomy and Environmental Toxicology of Minnesota Freshwater Sponges - RESEARCH  
Subd. 03m \$258,000 TF (FY2018)**

**Anthony Schroeder**  
U of MN, Crookston

2900 University Ave  
Crookston, MN 56716  
Phone: (218) 281-8252  
Email: [aschroed@crk.umn.edu](mailto:aschroed@crk.umn.edu)

**Appropriation Language**

258,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota, Crookston, to determine freshwater sponge distribution, identify and quantify accumulated contaminants, and provide educational research opportunities to undergraduate students. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Pollinator Research and Outreach**

**Subd. 03n \$500,000 TF (FY2018 - \$411,000 / FY2019 - \$89,000)**

**Daniel P Cariveau**

U of MN  
1980 Folwell Avenue  
St. Paul, MN 55108  
Phone: (612) 624-1254  
Email: [dcarivea@umn.edu](mailto:dcarivea@umn.edu)

**Appropriation Language**

\$411,000 the first year and \$89,000 the second year are from the trust fund to the Board of Regents of the University of Minnesota for pollinator research and outreach, including, but not limited to, science-based best practices and the identification and establishment of habitat beneficial to pollinators. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Subd. 04 Water Resources**

**Assessment of Household Chemicals and Herbicides in Rivers and Lakes - RESEARCH**

**Subd. 04a \$236,000 TF (FY2018)**

**William Arnold**

U of MN  
500 Pillsbury Dr. SE  
Minneapolis, MN 55455  
Phone: (612) 625-8582  
Email: [arnol032@umn.edu](mailto:arnol032@umn.edu)  
Web: <http://personal.ce.umn.edu/~arnold/>

**Appropriation Language**

\$236,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to quantify environmental levels of household chemical and herbicide ingredients in rivers and lakes and assess their potential to form toxic by-products.

**Project due to be completed:** 6/30/2019 [Work Plan](#)

**Wastewater Nitrogen Removal Technology to Protect Water Quality - RESEARCH**

**Subd. 04b \$450,000 TF (FY2018)**

**Paige Novak**

U of MN

500 Pillsbury Dr SE, 122 Civil Engineering Bldg

Minneapolis, MN 55455

Phone: (612) 626-9846

Email: [novak010@umn.edu](mailto:novak010@umn.edu)

Web: <http://www.ce.umn.edu/people/faculty/novak/>

**Appropriation Language**

\$450,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to develop a technology for inexpensive low-energy nitrogen removal in wastewater. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Rearing Native Mussels for Reintroduction and Expanding Water Quality Awareness**

**Subd. 04c \$591,000 TF (FY2018)**

**Seth Stapleton**

Minnesota Zoological Garden

13000 Zoo Blvd

Apple Valley, MN 55124

Phone: (952) 431-9443

Email: [seth.stapleton@state.mn.us](mailto:seth.stapleton@state.mn.us)

Web: <http://www.mnzoo.org>

**Appropriation Language**

\$591,000 the first year is from the trust fund to the Minnesota Zoological Garden in cooperation with the Department of Natural Resources to accelerate the reintroduction of native mussels into Minnesota rivers and streams through expanded mussel rearing, research, and statewide educational activities promoting mussel conservation and water quality. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Water Quality Monitoring in Southeastern Minnesota Trout Streams**

**Subd. 04d \$500,000 TF (FY2018)**

**Neal Mundahl**

Winona State University

175 W Mark St W

Winona, MN 55987

Phone: (507) 457-5695

Email: [nmundahl@winona.edu](mailto:nmundahl@winona.edu)

Web: <http://www.winona.edu>

**Appropriation Language**

\$500,000 the first year is from the trust fund to the Board of Trustees of Minnesota State Colleges and Universities, Winona State University, to develop a system of biological monitoring for water quality protection of trout streams

in southeastern Minnesota. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Reassessing Toxicity of Petroleum Spills on Ground and Surface Water - RESEARCH**

**Subd. 04e \$300,000 TF (FY2018)**

**Dalma Martinovic-Weigelt**

St. Thomas University

2115 Summit Ave, OWS 390

St. Paul, MN 55105

Phone: (651) 962-5233

Email: [mart6831@stthomas.edu](mailto:mart6831@stthomas.edu)

Web: <http://www.stthomas.edu/biology/research/environmental-toxicology.html>

**Appropriation Language**

\$300,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the University of St. Thomas to reassess long-term effects of oil spills through the analysis of chemical parameters related to oil degradation and evaluate the impacts on aquatic species, groundwater, and surface waters. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Assessment of Water Quality for Reuse**

**Subd. 04f \$148,000 TF (FY2018)**

**Satoshi Ishii**

U of MN

1479 Gortner Ave, 140 Gortner Labs

St. Paul, MN 55108

Phone: (612) 624-7902

Email: [ishi0040@umn.edu](mailto:ishi0040@umn.edu)

**Appropriation Language**

\$148,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to collect and analyze pathogen data for evaluation of water reuse in order to maximize water reuse and protect groundwater and surface water quality.

**Project due to be completed:** 6/30/2019 [Work Plan](#)

**Identification of Chemicals of Emerging Concern in Minnesota Fish - RESEARCH**

**Subd. 04g \$400,000 TF (FY2018)**

**Seth Moore**

Grand Portage Band of Lake Superior Chippewa

27 Store Rd

Grand Portage, MN 55605

Phone: (218) 370-9310

Email: [samoore@boreal.org](mailto:samoore@boreal.org)

**Appropriation Language**

\$400,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the Grand Portage Band of Lake Superior Chippewa to identify chemicals of emerging concern and metals in fish, water, and sediments from approximately 30 water bodies in northeastern Minnesota used for subsistence harvest and recreation. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Techniques for Water Storage Estimates in Central Minnesota**

**Subd. 04h \$250,000 TF (FY2018)**

**John Nieber**

U of MN

1390 Eckles Ave, Rm 203

St. Paul, MN 55108

Phone: (612) 625-6724

Email: [nieber@umn.edu](mailto:nieber@umn.edu)

Web: [https://wiki.umn.edu/view/Water\\_Sustainability](https://wiki.umn.edu/view/Water_Sustainability)

**Appropriation Language**

\$250,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to improve water storage estimates in groundwater, soil moisture, streams, lakes, and wetlands through integration of satellite monitoring and ground-based measurements in central Minnesota. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Assessing Release of Mercury and Sulfur on Aquatic Communities**

**Subd. 04i \$300,000 TF (FY2018)**

**Ed Nater**

U of MN

1991 Upper Buford Cir, 439 Borlaug Hall

St. Paul, MN 55108

Phone: (612) 625-9734

Email: [enater@umn.edu](mailto:enater@umn.edu)

**Appropriation Language**

\$300,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to determine the effects of increased temperatures on the release of mercury and sulfur from Minnesota peatlands to predict impacts on aquatic communities and fish health. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Subd. 05 Environmental Education****Connecting Youth to Minnesota Waterways through Outdoor Classrooms**

**Subd. 05a \$1,200,000 TF (FY2018)**

**Meg Krueger**

Wilderness Inquiry

808 14th Avenue SE  
Minneapolis, MN 55414  
Phone: (612) 676-9413  
Email: [meg@wildernessinquiry.org](mailto:meg@wildernessinquiry.org)  
Web: <http://www.wildernessinquiry.org>

**Appropriation Language**

\$1,200,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with Wilderness Inquiry to provide place-based environmental education science water experiences to approximately 20,000 middle- and high-school students. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Increasing Diversity in Environmental Careers**

**Subd. 05b \$487,000 TF (FY2018)**

**Denise Legato**

MN DNR  
500 Lafayette Rd  
St. Paul, MN 55155  
Phone: (651) 259-5317  
Email: [denise.legato@state.mn.us](mailto:denise.legato@state.mn.us)  
Web: <http://www.dnr.state.mn.us>

**Appropriation Language**

\$487,000 the first year is from the trust fund to the commissioner of natural resources in cooperation with Conservation Corps Minnesota and Iowa to encourage a diversity of students to pursue careers in environment and natural resources through internships and mentorships with the Department of Natural Resources, the Board of Water and Soil Resources, and the Pollution Control Agency. This appropriation is available until June 30, 2022, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

**Interactive Water Resource Programs for Planetariums Minnesota**

**Subd. 05c \$500,000 TF (FY2018)**

**Sally Brummel**

U of MN - Bell Museum of Natural History  
10 Church St SE  
Minneapolis, MN 55455  
Phone: (612) 624-8146  
Email: [sbrummel@umn.edu](mailto:sbrummel@umn.edu)  
Web: <http://www.bellmuseum.umn.edu>

**Appropriation Language**

\$500,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota, Bell Museum of Natural History, to create an interactive planetarium program on water resources, reaching approximately 400,000 citizens statewide through the Bell Museum Planetarium, St. Paul Public Schools, Mayo High School, Mankato East High School, Southwest Minnesota State University, Minnesota State University Moorhead, and University of Minnesota Duluth. This appropriation is available until June 30, 2022, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

**Expanding Raptor Center Online Education**

**Subd. 05d \$270,000 TF (FY2018)**

**Julia Ponder**

U of MN

1920 Fitch Ave

St. Paul, MN 55108

Phone: (612) 624-3431

Email: [ponde003@umn.edu](mailto:ponde003@umn.edu)

Web: <http://www.TheRaptorCenter.org>

**Appropriation Language**

\$270,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota, Raptor Center, to provide environmental education for approximately 15,000 middle-school students and 600 teachers, combining classroom learning and outdoor experiences with technology, scientific investigation of birds, and conservation projects. This appropriation is available until June 30, 2022, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

**Local Planning and Implementation Efforts for Bird Habitat**

**Subd. 05e \$280,000 TF (FY2018)**

**Joanna Eckles**

Audubon Minnesota

1 Water St W, Ste 200

St. Paul, MN 55107

Phone: (651) 739-9332

Email: [jeckles@audubon.org](mailto:jeckles@audubon.org)

Web: <http://mn.audubon.org/>

**Appropriation Language**

\$280,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the National Audubon Society, Minnesota office, to engage approximately 60 communities and 400,000 citizens in bird habitat improvement through local planning and implementation efforts using the National Audubon Bird City program. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Developing Youth Watershed Stewardship in Northwest Minnesota**

**Subd. 05f \$121,000 TF (FY2018)**

**Annie Butler Ricks**

Headwaters Science Center

413 Beltrami Ave NW

Bemidji, MN 56601

Phone: (218) 444-4472

Email: [director@hscbemidji.org](mailto:director@hscbemidji.org)

Web: <http://www.hscbemidji.org/>

**Appropriation Language**

\$121,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the Headwaters Science Center to accelerate a multiyear environmental science club for middle-school students focused on water quality, watershed evaluation, and aquatic invasive species in northwestern Minnesota. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Increasing Residential Environmental Learning Center Opportunities**

**Subd. 05g \$130,000 TF (FY2018)**

**Bryan Wood**

Audubon Center of the North Woods

54165 Audubon Dr, PO Box 530

Sandstone, MN 55072

Phone: (320) 245-2648

Email: [bwood@audubon-center.org](mailto:bwood@audubon-center.org)

Web: <http://www.audubon-center.org>

**Appropriation Language**

\$130,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the Audubon Center of the North Woods to provide scholarship opportunities for a minimum of 1,000 students that are not currently served through other residential environmental education learning centers. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Subd. 06 Aquatic and Terrestrial Invasive Species****Aquatic Invasive Species Research Center - Phase II**

**Subd. 06a \$2,700,000 TF (FY2017)**

**Nicholas Phelps**

U of MN - MAISRC

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St Paul, MN 55108

Phone: (612) 624-7450

Email: [phelp083@umn.edu](mailto:phelp083@umn.edu)

Web: <http://www.maisrc.umn.edu/>

**Appropriation Language**

\$2,700,000 in fiscal year 2017 is from the trust fund to the Board of Regents of the University of Minnesota to support the Minnesota Aquatic Invasive Species Research Center in finding solutions to Minnesota's aquatic invasive species problems through research, control, prevention, and early detection of existing and emerging aquatic invasive species threats. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Emerald Ash Borer Biocontrol - Phase III**

**Subd. 06b \$729,000 TF (FY2018)**

**Jonathan Osthus**

Minnesota Department of Agriculture  
625 Robert St N  
St. Paul, MN 55155

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Email: [jonathan.osthus@state.mn.us](mailto:jonathan.osthus@state.mn.us)

Web: <http://www.mda.state.mn.us/plants/pestmanagement/eab/eabbiocontrol.aspx>

**Appropriation Language**

\$729,000 the first year is from the trust fund to the commissioner of agriculture in cooperation with the Board of Regents of the University of Minnesota to implement biocontrol of emerald ash borer using a newly approved parasitic wasp, assess the impact of the statewide program, and engage citizen volunteers. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Invasive Bighead Carp and Silver Carp and Native Fish Evaluation - Phase II**

**Subd. 06c \$500,000 TF (FY2018)**

**Bradford Parsons**

MN DNR  
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St. Paul, MN 55106

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Email: [bradford.parsons@state.mn.us](mailto:bradford.parsons@state.mn.us)

Web: <http://www.dnr.state.mn.us>

**Appropriation Language**

\$500,000 the first year is from the trust fund to the commissioner of natural resources to continue invasive bighead and silver carp monitoring in the Mississippi River and tributaries through advanced acoustic telemetry and assess food chains to determine how native species might prevent invasive bighead and silver carp establishment. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Adapting Stream Barriers to Remove Common Carp**

**Subd. 06d \$301,000 TF (FY2018)**

**Przemyslaw Bajer**

U of MN - MAISRC  
2003 Upper Buford Cir, 135 Skok Hall  
St. Paul, MN 55108

Phone: (612) 625-6722

Email: [bajer003@umn.edu](mailto:bajer003@umn.edu)

**Appropriation Language**

\$301,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to conduct field tests at existing barrier sites and laboratory experiments to adapt a technology to remove common carp from streams during carp spawning migrations in Minnesota.

**Project due to be completed:** 6/30/2019 [Work Plan](#)

**Tactical Invasive Plant Management Plan Development**  
**Subd. 06e \$296,000 TF (FY2018)**

**Monika Chandler**

Minnesota Department of Agriculture  
625 Robert St N  
St. Paul, MN 55155  
Phone: (651) 201-6537  
Email: [monika.chandler@state.mn.us](mailto:monika.chandler@state.mn.us)

**Appropriation Language**

\$296,000 the first year is from the trust fund to the commissioner of agriculture in cooperation with the Board of Regents of the University of Minnesota to develop regional priorities and an interagency action plan for invasive plant management to protect and promote habitat and native species. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Maximize Value of Water Impoundments to Wildlife**  
**Subd. 06f \$195,000 TF (FY2018)**

**Kristin Hall**

Audubon Minnesota  
1 Water St W, Ste 200  
St. Paul, MN 55107  
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Web: <http://mn.audubon.org/>

**Appropriation Language**

\$195,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the National Audubon Society, Minnesota office, to control invasive hybrid cattails in water impoundments to improve habitat quality for migrating and breeding birds. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Subd. 07 Air Quality, Climate Change, and Renewable Energy**

**Extraction of Solar Thermal Energy in Minnesota - RESEARCH**  
**Subd. 07a \$250,000 TF (FY2018)**

**Filippo Coletti**

U of MN - Dept. of Aerospace Engineering and Mechanics - SAFL  
110 Union St SE  
Minneapolis, MN 55455  
Phone: (612) 625-6694  
Email: [fcoletti@umn.edu](mailto:fcoletti@umn.edu)

**Appropriation Language**

\$250,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to develop

new solar particle receivers as a low-cost, high-efficiency, and clean technology to absorb, store, and utilize solar thermal energy. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

#### **Assessment of Urban Air Pollution**

**Subd. 07b \$700,000 TF (FY2018)**

##### **Monika Vadali**

Minnesota Pollution Control Agency

520 Lafayette Rd

St. Paul, MN 55155

Phone: (651) 757-2776

Email: [monika.vadali@state.mn.us](mailto:monika.vadali@state.mn.us)

#### **Appropriation Language**

\$700,000 the first year is from the trust fund to the commissioner of the Pollution Control Agency to set up and operate a network of 250 air pollution sensors at 50 sites to monitor fine particles, ozone, nitrogen oxides, sulfur dioxide, and carbon monoxide in each zip code for the cities of Minneapolis and St. Paul to assess variability of urban air pollution. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

#### **Generation, Storage, and Utilization of Solar Energy**

**Subd. 07c \$500,000 TF (FY2018)**

##### **Bradley Heins**

U of MN - West Central Research and Outreach Center in Morris

46352 State Hwy 329

Morris, MN 56267

Phone: (320) 589-1711

Email: [hein0106@umn.edu](mailto:hein0106@umn.edu)

Web: <http://wcroc.cfans.umn.edu/research-programs/dairy>

#### **Appropriation Language**

\$500,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota, West Central Research and Outreach Center, Morris, to develop and demonstrate an integrated facility to generate electricity, shade dairy cattle, and provide energy storage and utilization from solar technologies at the West Central Research and Outreach Center, Morris. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

#### **District Heating with Renewable Biomass at Camp Ripley Training Center**

**Subd. 07d \$1,000,000 TF (FY2018)**

##### **Jay Brezinka**

Department of Military Affairs

15000 Highway 115

Little Falls, MN 56345

Phone: (320) 616-2618

Email: [jay.a.brezinka.nfg@mail.mil](mailto:jay.a.brezinka.nfg@mail.mil)

**Appropriation Language**

\$1,000,000 the first year is from the trust fund to the commissioner of military affairs to install a 5,000,000-BTU centralized biomass boiler system utilizing the forestry management at Camp Ripley. This appropriation must be matched by at least \$900,000 of nonstate money and must be committed by December 31, 2017. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Geotargeted Distributed Clean Energy Initiative**

**Subd. 07e \$800,000 TF (FY2018)**

**Carl Nelson**

Center for Energy and Environment

212 Third Ave N, Ste 560

Minneapolis, MN 55401

Phone: (612) 335-5871

Email: [cnelson@mncee.org](mailto:cnelson@mncee.org)

Web: <http://www.mncee.org>

**Appropriation Language**

\$800,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the Center for Energy and Environment. Of this amount, \$600,000 is for analysis of community-distributed clean energy investments as alternatives to utility capital investments for transmission and distribution upgrades to meet forecasted electrical loads, and \$200,000 is to conduct pilot programs using energy efficiency and other distributed energy resources to achieve forecasted electric energy loads in communities. The appropriation for pilot programs is contingent on a \$200,000 match of an equal or greater amount of nonstate money. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Subd. 08 Methods to Protect, Restore, and Enhance Land, Water, and Habitat**

**Optimizing the Nutrition of Roadside Plants for Pollinators**

**Subd. 08a \$815,000 TF (FY2018)**

**Emilie Snell-Rood**

U of MN

1479 Gortner Ave, 140 Gortner Labs

St. Paul, MN 55108

Phone: (612) 624-7238

Email: [emilies@umn.edu](mailto:emilies@umn.edu)

Web: <http://cbs.umn.edu/snell-rood-lab/home>

**Appropriation Language**

\$815,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota in cooperation with the Departments of Agriculture, Natural Resources, and Transportation and the Board of Water and Soil Resources to produce site-specific recommendations for roadside plantings in Minnesota to maximize the nutritional health of native bees and monarch butterflies that rely on roadside habitat corridors. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Promoting Conservation Biocontrol of Beneficial Insects - RESEARCH**  
**Subd. 08b \$400,000 TF (FY2018)**

**Vera Krischik**

U of MN

1980 Folwell Ave, #219

St. Paul, MN 55108

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Web: <http://www.entomology.umn.edu/cues>

**Appropriation Language**

\$400,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to research integrated pest management strategies, including insecticide alternatives, and overwintering habitat sites to conserve beneficial insects, including bees, butterflies, and predator insects. The integrated pest management strategies will be used to develop best management practices to increase pollinator and beneficial insect diversity and abundance in various restored habitats. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Evaluating the Use of Bison to Restore and Preserve Savanna Habitat - RESEARCH**  
**Subd. 08c \$388,000 TF (FY2018)**

**David Tilman**

U of MN - Cedar Creek Ecosystem Science Reserve

2660 Fawn Lake Drive NE

East Bethel, MN 55005

Phone: (612) 301-2601

Email: [tilman@umn.edu](mailto:tilman@umn.edu)

Web: <http://www.cedarcreek.umn.edu>

**Appropriation Language**

\$388,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota, Cedar Creek Ecosystem Science Reserve, to research combined bison grazing and fire management strategies to restore Minnesota's oak savanna ecosystems. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**State Park Pollinator Habitat Restoration**  
**Subd. 08d \$672,000 TF (FY2018)**

**Edward Quinn**

MN DNR, Division of Parks and Trails

500 Lafayette Rd, Box 39

St. Paul, MN 55155

Phone: (651) 259-5594

Email: [edward.quinn@state.mn.us](mailto:edward.quinn@state.mn.us)

Web: <http://www.dnr.state.mn.us/index.html>

**Appropriation Language**

\$672,000 the first year is from the trust fund to the commissioner of natural resources to restore at least 520 acres of monarch butterfly and other native pollinator habitats in at least seven state parks in the Minnesota Prairie Conservation Plan core areas and establish pollinator plantings and interpretive exhibits in at least ten state parks. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 11/30/2020 [Work Plan](#)

**Enhancing Spawning Habitat Restoration in Minnesota Lakes - RESEARCH**

**Subd. 08e \$294,000 TF (FY2018)**

**William Herb**

U of MN - St. Anthony Falls Laboratory

2 Third Ave SE

Minneapolis, MN 55414

Phone: (612) 624-5147

Email: [herb0003@umn.edu](mailto:herb0003@umn.edu)

Web: <http://www.safl.umn.edu/>

**Appropriation Language**

\$294,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota, St. Anthony Falls Laboratory, in cooperation with the Department of Natural Resources to enhance efforts to increase natural reproduction of fish in Minnesota lakes by assessing wave energy impacts on near-shore spawning habitat. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

**Prescribed Fire Management for Roadside Prairies**

**Subd. 08f \$345,000 TF (FY2018)**

**Ken Graeve**

Minnesota Department of Transportation

395 John Ireland Blvd

St. Paul, MN 55155

Phone: (651) 366-3613

Email: [kenneth.graeve@state.mn.us](mailto:kenneth.graeve@state.mn.us)

**Appropriation Language**

\$345,000 the first year is from the trust fund to the commissioner of transportation to enhance the prescribed-fire program to manage roadsides to protect and increase biodiversity and pollinator habitat. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

**Minnesota Bee and Beneficial Species Habitat Restoration**

**Subd. 08g \$732,000 TF (FY2018)**

**Steven Burdick**

Pheasants Forever Inc.

1783 Buerkle Cir

St. Paul, MN 55110

Phone: (701) 200-3588

Email: [sburdick@pheasantsforever.org](mailto:sburdick@pheasantsforever.org)

Web: <http://www.pheasantsforever.org>

**Appropriation Language**

\$732,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with Pheasants Forever in cooperation with the University of Minnesota and the Minnesota Honey Producers Association to restore approximately 800 acres of permanently protected land to enhance bee, butterfly, beneficial insect, and grassland bird habitats. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2021 [Work Plan](#)

**Mississippi and Vermillion River Restoration of Prairie, Savanna, and Forest Habitat - Phase Ten  
Subd. 08h \$213,000 TF (FY2018)**

**Tom Lewanski**

Friends of the Mississippi River  
101 Est 5th Street, Suite 2000  
St. Paul, MN 55101

Phone: (651) 222-2193

Email: [tlewanski@fmr.org](mailto:tlewanski@fmr.org)

Web: <http://www.fmr.org>

**Appropriation Language**

\$213,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with Friends of the Mississippi River for continued implementation of the Metro Conservation Corridors partnership by improving at least 80 acres of habitat at approximately seven sites along the Mississippi River and Vermillion River corridors. Expenditures are limited to the identified project corridor areas as defined in the work plan. A list of proposed restoration sites must be provided as part of the required work plan. Plant and seed materials must follow the Board of Water and Soil Resources' native vegetation establishment and enhancement guidelines. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

**Community Stewardship to Restore Urban Natural Resources - Phase Ten  
Subd. 08i \$524,000 TF (FY2018)**

**Wiley Buck**

Great River Greening  
35 Water St W, Ste 201  
St. Paul, MN 55107

Phone: (651) 665-9500

Email: [wbuck@greatrivergreening.org](mailto:wbuck@greatrivergreening.org)

Web: <http://www.greatrivergreening.org>

**Appropriation Language**

\$524,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with Great River Greening to work with volunteers for continued implementation of the Metro Conservation Corridors partnership to restore approximately 250 acres of forest, prairie, woodland, wetland, and shoreline throughout the greater Twin Cities metropolitan area. Expenditures are limited to the identified project corridor areas as defined

in the work plan. A list of proposed restoration sites and evaluations must be provided as part of the required work plan. Plant and seed materials must follow the Board of Water and Soil Resources' native vegetation establishment and enhancement guidelines. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

#### **Economic Assessment of Precision Conservation and Agriculture**

**Subd. 08j \$400,000 TF (FY2018)**

##### **Tanner Bruse**

Pheasants Forever Inc.

1783 Buerkle Circle

St. Paul, MN 55110

Phone: (507) 337-9789

Email: [tbruse@pheasantsforever.org](mailto:tbruse@pheasantsforever.org)

##### **Appropriation Language**

\$400,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with Pheasants Forever to demonstrate a new approach to promote conservation practices utilizing return-on-investment analysis and identifying revenue-negative acres on agricultural land to assist farmers in implementing conservation practices that will provide environmental and economic benefits. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

#### **Conservation Reserve Enhancement Program (CREP) Outreach and Implementation**

**Subd. 08k \$6,000,000 TF (FY2018)**

##### **Tabor Hoek**

Board of Water and Soil Resources

1400 East Lyon Street

Marshall, MN 56258

Phone: (507) 537-7260

Email: [tabor.hoek@state.mn.us](mailto:tabor.hoek@state.mn.us)

Web: <http://www.bwsr.state.mn.us>

##### **Appropriation Language**

\$6,000,000 the first year is from the trust fund to the Board of Water and Soil Resources to fund staff at soil and water conservation districts to assist landowners participating in the federal Conservation Reserve Enhancement Program. This appropriation is contingent upon receipt of federal funds for implementation. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

#### **Conservation Reserve Enhancement Program (CREP)**

**Subd. 08l \$13,500,000 TF (FY2017 - \$2,729,000 / FY2018 - \$5,771,000 / FY2019 - \$5,000,000)**

##### **Dave Rickert**

Board of Water and Soil Resources

520 Lafayette Rd

St. Paul, MN 55155

Phone: (651) 539-2569

Email: [dave.rickert@state.mn.us](mailto:dave.rickert@state.mn.us)

Web: <http://www.bwsr.state.mn.us>

**Appropriation Language**

\$2,729,000 in fiscal year 2017 and \$5,771,000 the first year and \$5,000,000 the second year are from the trust fund to the Board of Water and Soil Resources to acquire permanent conservation easements and restore land under Minnesota Statutes, section 103F.515. This work may be done in cooperation with the federal Conservation Reserve Enhancement Program. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

**Subd. 09Land Acquisition, Habitat and Recreation**

**Metropolitan Regional Parks System Land Acquisition**

**Subd. 09a \$1,500,000 TF (FY2018)**

**Deborah Streets Jensen**

Metropolitan Council

390 Robert St N

St. Paul, MN 55101

Phone: (651) 602-1554

Email: [deb.jensen@metc.state.mn.us](mailto:deb.jensen@metc.state.mn.us)

Web: <http://www.metrocouncil.org/parks/index.htm>

**Appropriation Language**

\$1,500,000 the first year is from the trust fund to the Metropolitan Council for grants to acquire approximately 197 acres of land within the approved park boundaries of the metropolitan regional park system. This appropriation may not be used to purchase habitable residential structures. A list of proposed fee title acquisitions must be provided as part of the required work plan. This appropriation must be matched by at least 40 percent of nonstate money that must be committed by December 31, 2017. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

**Scientific and Natural Areas Acquisition, Restoration, Citizen Science and Engagement**

**Subd. 09b \$2,500,000 TF (FY2018)**

**Peggy Booth**

MN DNR, Division of Ecological & Water Resources

500 Lafayette Rd, Box 25

St. Paul, MN 55155

Phone: (651) 259-5088

Email: [peggy.booth@state.mn.us](mailto:peggy.booth@state.mn.us)

Web: <http://www.dnr.state.mn.us/snas/index.html>

**Appropriation Language**

\$2,500,000 the first year is from the trust fund to the commissioner of natural resources to acquire at least 250 acres of land with high-quality native plant communities and rare features to be established as scientific and natural areas as provided in Minnesota Statutes, section 86A.05, subdivision 5, restore and improve at least 1,000 acres of scientific and natural areas, and provide technical assistance and outreach, including site steward events. At least one-third of the appropriation must be spent on restoration activities. A list of proposed acquisitions and restorations must be provided as part of the required work plan. Land acquired with this appropriation must be sufficiently improved to meet at least minimum management standards, as determined by the commissioner of

natural resources. When feasible, consideration must be given to accommodate trails on lands acquired. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

#### **Minnesota State Parks and State Trails Land Acquisition**

**Subd. 09c \$1,500,000 TF (FY2018)**

##### **Jennifer Christie**

MN DNR

500 Lafayette Rd, Box 25

St. Paul, MN 55155

Phone: (651) 259-5579

Email: [jennifer.christie@state.mn.us](mailto:jennifer.christie@state.mn.us)

Web: <http://www.mndnr.gov>

##### **Appropriation Language**

\$1,500,000 the first year is from the trust fund to the commissioner of natural resources to acquire approximately 373 acres from willing sellers for authorized state trails and critical parcels within the statutory boundaries of state parks. State park land acquired with this appropriation must be sufficiently improved to meet at least minimum management standards, as determined by the commissioner of natural resources. A list of proposed acquisitions must be provided as part of the required work plan. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

#### **Minnesota State Trails Acquisition, Development and Enhancement**

**Subd. 09d \$1,038,000 TF (FY2017 - \$999,000 / FY2018 - \$39,000)**

##### **Kent Skaar**

MN DNR, Division of Parks and Trails

500 Lafayette Rd, Box 25

St. Paul, MN 55155

Phone: (651) 259-5636

Email: [Kent.skaar@state.mn.us](mailto:Kent.skaar@state.mn.us)

Web: <http://www.mndnr.gov>

##### **Appropriation Language**

\$999,000 in fiscal year 2017 and \$39,000 the first year are from the trust fund to the commissioner of natural resources for state trail acquisition, development, and enhancement in southern Minnesota. A proposed list of trail projects on authorized state trails must be provided as part of the required work plan. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

#### **Native Prairie Stewardship and Prairie Bank Easement Acquisition**

**Subd. 09e \$2,675,000 TF (FY2018)**

##### **Judy Schulte**

MN DNR - SNA Program

1241 Bridge St E

Redwood Falls, MN 56283

Phone: (507) 637-6016

Email: [judy.schulte@state.mn.us](mailto:judy.schulte@state.mn.us)

Web: <http://www.dnr.state.mn.us/snas/index.html>

#### **Appropriation Language**

\$2,675,000 the first year is from the trust fund to the commissioner of natural resources to acquire native prairie bank easements in accordance with Minnesota Statutes, section 84.96, on approximately 335 acres, prepare baseline property assessments, restore and enhance at least 570 acres of native prairie sites, and provide technical assistance to landowners. Of this amount, up to \$132,000 may be deposited in a conservation easement stewardship account. Deposits into the conservation easement stewardship account must be made upon closing on conservation easements or at a time otherwise approved in the work plan. A list of proposed easement acquisitions must be provided as part of the required work plan. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

#### **Leech Lake Acquisition**

**Subd. 09f \$1,500,000 TF (FY2018)**

##### **Levi Brown**

Leech Lake Division of Resource Management

190 Sail Star Dr NE

Cass Lake, MN 56633

Phone: (218) 335-7400

Email: [levib@lldrm.org](mailto:levib@lldrm.org)

Web: <http://www.llojibwe.org/drm/index.html>

#### **Appropriation Language**

\$1,500,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the Leech Lake Band of Ojibwe to acquire approximately 45 acres, including 0.67 miles of shoreline of high-quality aquatic and wildlife habitat at the historic meeting place between Henry Schoolcraft and the Anishinabe people. The land must be open to public use including hunting and fishing. The band must provide a commitment that land will not be put in a federal trust through the Bureau of Indian Affairs.

**Project due to be completed:** 08/30/2017 [Work Plan](#)

#### **Mesabi Trail Development**

**Subd. 09g \$2,269,000 TF (FY2018)**

##### **Bob Manzoline**

St. Louis & Lake Counties Regional Railroad Authority

111 Station 44 Rd

Eveleth, MN 55734

Phone: (218) 744-2653

Email: [bamnzoline@rrauth.com](mailto:bamnzoline@rrauth.com)

#### **Appropriation Language**

\$2,269,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the St. Louis and Lake Counties Regional Railroad Authority for engineering and constructing segments of the Mesabi Trail. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 06/30/2020 [Work Plan](#)

**Tower Trailhead Boat Landing and Habitat Improvement - Phase II**  
**Subd. 09h \$600,000 TF (FY2018)**

**Linda Keith**

City of Tower

PO Box 576

Tower, MN 55790

Phone: (218) 753-4070

Email: [linda@cityoftower.com](mailto:linda@cityoftower.com)

**Appropriation Language**

\$600,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the city of Tower to construct a trailhead and boat landing and restore vegetative habitat on city-owned property. Plant and seed materials must follow the Board of Water and Soil Resources' native vegetation establishment and enhancement guidelines. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

**Project due to be completed:** 12/31/2019 [Work Plan](#)

**Land Acquisition for Voyageurs National Park Crane Lake Visitors Center**  
**Subd. 09i \$950,000 TF (FY2018)**

**Jim Janssen**

Town of Crane Lake

PO Box 402

Crane Lake, MN 55725

Phone: (218) 993-1303

Email: [info@cranelaketwp.com](mailto:info@cranelaketwp.com)

Web: <http://www.cranelaketwp.com>

**Appropriation Language**

\$950,000 the first year is from the trust fund to the commissioner of natural resources for an agreement with the town of Crane Lake, in partnership with Voyageurs National Park and the Department of Natural Resources, to acquire approximately 30 acres to be used for a visitor center and campground. Income generated by the campground may be used to support the facility.

**Project due to be completed:** 07/01/2018 [Work Plan](#)

**Subd. 10Administration**

**Contract Agreement Reimbursement**

**Subd. 10a \$135,000 TF (FY2018)**

**Katherine Sherman-Hoehn**

MN DNR

500 Lafayette Rd, Box 10

St. Paul, MN 55155

Phone: (651) 259-5533

Email: [Katherine.Sherman-Hoehn@state.mn.us](mailto:Katherine.Sherman-Hoehn@state.mn.us)

Web: <http://www.dnr.state.mn.us>

**Appropriation Language**

\$135,000 the first year is from the trust fund to the commissioner of natural resources, at the direction of the Legislative-Citizen Commission on Minnesota Resources, for expenses incurred for contract agreement reimbursement for the agreements specified in this section. The commissioner shall provide documentation to the Legislative-Citizen Commission on Minnesota Resources on the expenditure of these funds.

**Project due to be completed:** 06/30/2019 [Work Plan](#)

**Legislative-Citizen Commission on Minnesota Resources (LCCMR)**

**Subd. 10b \$1,200,000 TF (FY2018)**

**Susan Thornton**

Legislative-Citizen Commission on Minnesota Resources

100 Rev Dr Martin Luther King Jr Blvd, Rm 65

St. Paul, MN 55155

Phone: (651) 296-6264

Email: [susan.thornton@lccmr.leg.mn](mailto:susan.thornton@lccmr.leg.mn)

Web: <https://www.lccmr.leg.mn>

**Appropriation Language**

\$1,200,000 the first year is from the trust fund to the Legislative-Citizen Commission on Minnesota Resources for administration in fiscal years 2018 and 2019 as provided in Minnesota Statutes, section 116P.09, subdivision 5.

**Project due to be completed:** 06/30/2019

**Legislative Coordinating Commission Legacy Website**

**Subd. 10c \$5,000 TF (FY2018)**

**Sally Olson**

Legislative Coordinating Commission

100 Rev Dr Martin Luther King Jr Blvd, Rm 72

St. Paul, MN 55155

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Web: <https://www.lccmr.leg.mn>

**Appropriation Language**

\$5,000 the first year is from the trust fund to the Legislative Coordinating Commission for the Web site required in Minnesota Statutes, section 3.303, subdivision 10.

**Project due to be completed:** 06/30/2019



2.
  - a. **FY2019 - M.L. 2018, Chapter 214, Article 4, Sec. 2 (67 projects for a total of \$45,828,000)**
  - b. **FY2019 – Bond Sale Expenses; Annual Debt Service – M.L. 2018, Chapter 214, Article 6, Sec. 4, Subd. 4 (\$2,940,000 in FY19 and \$7,840,000 a year from FY2020 through FY2039).**
  - c. **FY2019 – Appropriation Bonds - M.L. 2018, Chapter 214, Article 6, Sec. 4, Subd. 5-9 (8 projects for a total of \$98,000,000)**





## ENVIRONMENT AND NATURAL RESOURCES TRUST FUND M.L. 2018 LCCMR Recommendations

### SUMMARY BY SUBDIVISION (\$45,828,000 for 66 Recommendations)

#### SUBD. 03 Foundational Natural Resource Data and Information: \$7,293,000 – 12 Recommendations

- Collection, analysis, mapping, and dissemination of foundational data and information needed for conservation planning and decision making. Projects include mapping geology and groundwater, native mussel habitat, and Minnesota's natural history collections including wildlife, plants, and fungi. Additional projects analyze winter trout-stream conditions and the pollution-filtering ability of mosses and lichens.
- Research and analysis to optimize natural resource management practices and conservation strategies. Projects include identifying actions to maximize peatland forest benefits to wildlife, water quality and timber; identifying forest management actions to conserve forest birds of concern; and testing strategies to reduce threats to native turtles.
- Development and implementation of tools to help guide and prioritize habitat protection and natural resource management. Projects include using satellites to create a real-time lake water quality system to guide lake and fisheries management; establishing a surveillance tool using wildlife rehabilitation data to monitor health threats; and piloting a network of radio telemetry systems to track animal migrations.



#### SUBD. 04 Water Resources: \$5,275,000 – 11 Recommendations

- Water protection pilot projects to optimize local wastewater treatment systems for improving water quality results without costly upgrades; to test a stormwater credit trading system for accelerating water quality improvements on a watershed scale; to reduce nitrate contamination through use of Kernza in wellhead protection areas; and to demonstrate farmer-led expansion of alfalfa production in agricultural areas.
- Mapping and dissemination of foundational data on emerging pathogens, unregulated contaminants, and quantifying antibiotic resistance in ground and surface waters throughout Minnesota.
- Developing or improving technologies and techniques for removing unregulated contaminants from storm water and microscopic plastic-particle pollution from Minnesota lakes, rivers, and streams; for purifying community drinking water at low cost; and for reducing chlorides in our waters through road-salt and pavement alternatives.



#### SUBD. 05 Technical Assistance, Outreach, and Environmental Education: \$5,168,000 – 12 Recommendations

- Delivery of hands-on youth education in aquatic biology with Trout Unlimited; in outdoor leadership with Get Outdoors After School training; and in watershed stewardship with YES! Teams across the state and through expanding the River Watch program for high school students on the Minnesota River.
- Development of a prairie pollinator demonstration area for students and visitors to University of Minnesota-Morris; creation of new interactive exhibits at North Mississippi Regional Park and at the International Wolf Center in Ely; and for continued public broadcast of the Prairie Sportsman environmental program.
- Outreach and technical assistance projects for expanding the state's building and materials reuse economy; for improving pollinator habitat in yards and gardens through youth Pollinators Ambassadors; and for a college-to-work program for students of diversity to pursue natural resources careers.





## ENVIRONMENT AND NATURAL RESOURCES TRUST FUND

### M.L. 2018 LCCMR Recommendations

#### SUBD. 06 Aquatic and Terrestrial Invasive Species: \$5,760,000 – 6 Recommendations

- Research initiatives at the Minnesota Invasive Terrestrial Plants and Pests Center aimed at protecting the state's agricultural and natural resources from terrestrial invasive species.
- Implementation and evaluation of innovative invasive species management efforts including a carp deterrent at a Mississippi lock and dam; muskrat control of hybrid cattails; and continued detection and eradication of Palmer amaranth.
- Developing genetic controls for zebra mussels and determining risk of a toxic blue-green alga in Minnesota waters.



#### SUBD. 07 Air Quality and Renewable Energy: \$1,200,000 – 3 Recommendations

- Demonstration of community scale energy storage; development of solar energy with innovative manufacturing techniques; and innovative window design to improve renewable energy efficiencies.

#### SUBD. 08 Methods to Protect or Restore Land, Water, and Habitat: \$3,119,000 – 8 Recommendations

- Accelerating the Nongame Wildlife Program, the preservation of native orchids, and restoration of high quality forests in state parks and recreation areas.
- Research and analysis of methods for enhancing wetland invertebrates, evaluating market based alternatives for perennial crops, and minimizing soil impacts of timber harvest to improve wildlife habitat and benefit water quality.
- Develop biomulch as a tool for managing agricultural weeds in crop and fruit production in a way that reduces waste and pesticide use.



#### SUBD. 09 Land Acquisition, Habitat, and Recreation: \$17,439,000 – 12 Recommendations

- Accelerating recreational opportunities through local parks, trails and natural areas grants and through an enhancement plan for the 310-mile long Superior Hiking Trail.
- Acquisition and restoration of priority high quality lands for Scientific and Natural Areas, Native Prairie Bank, and to protect North Central Minnesota lakes and riparian forests on the upper Mississippi River headwaters.
- Expansion of outdoor recreational opportunities including acquisition of state parks and trails inholdings; and development and enhancement of the Swedish Immigrant Regional Trail and the Gateway, Gitchi Gami, Mesabi, Mississippi Blufflands, and Harmony state trails.



#### SUBD. 10 Emerging Issues account: \$439,000 – 1 Recommendations

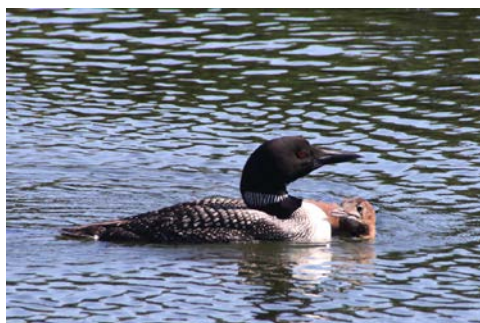
- Funding for emerging issues that come up unexpectedly between LCCMR funding cycles

#### SUBD. 11 Wastewater Treatment Recommendation: \$0 – 0 Recommendation

- Funding the Public Facilities Authority for loans and grants for wastewater treatment systems in communities with populations under 5,000.

#### SUBD. 12 Contract Agreement Reimbursement: \$135,000 – 1 Recommendation

- DNR contract agreement for fiscal management of non-state entity reimbursements.



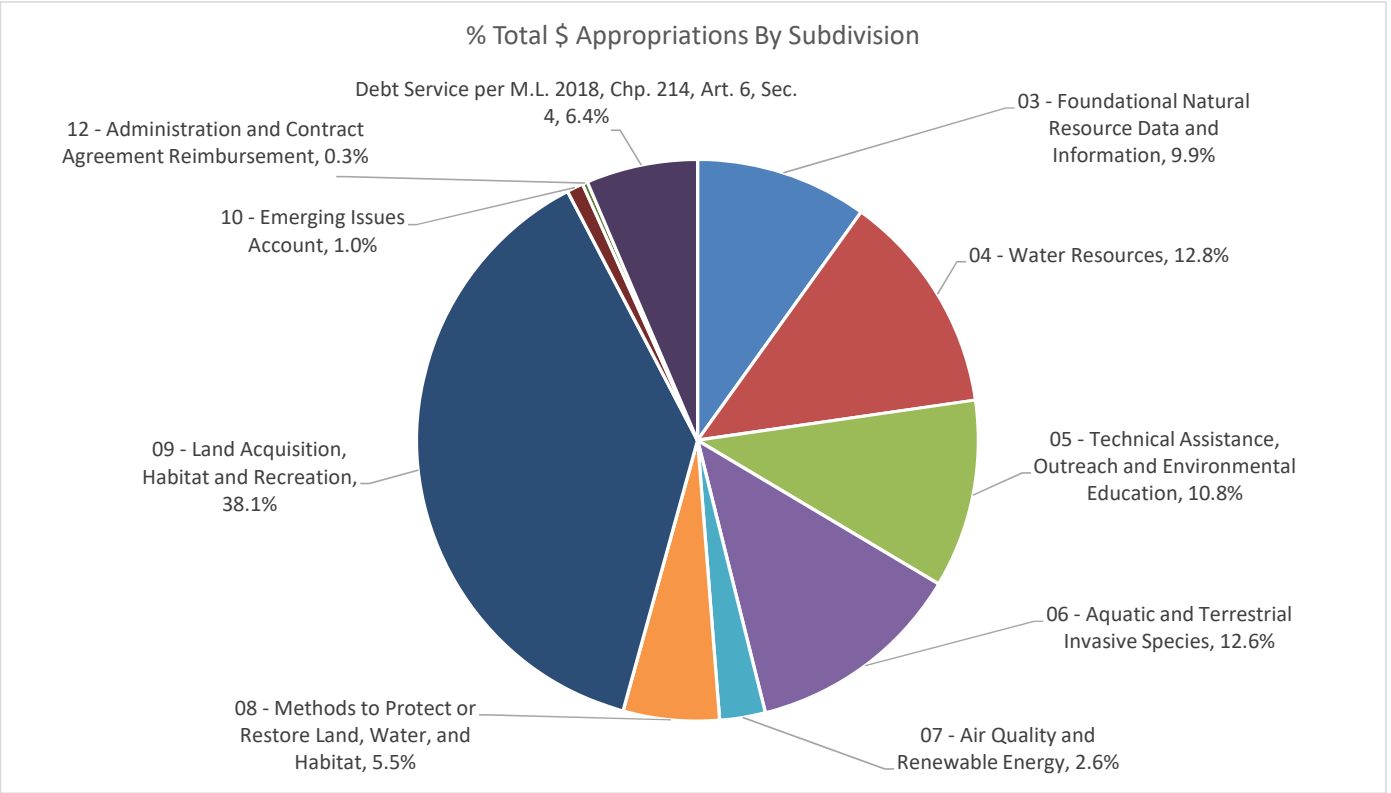
M.L. 2018, Chapter 214, Environment and Natural Resources Trust Fund (ENRTF)
Appropriations by Subdivision - 1/10/2019

Process for M.L. 2018

For the FY 2018 and FY 2019 biennium (July 1, 2017 - June 30, 2019), approximately \$50.8 million was available each year (total = \$101,656,000) for funding from the Environment and Natural Resources Trust Fund (ENRTF). The Legislative-Citizen Commission on Minnesota Resources (LCCMR) selected 66 projects totaling \$45,828,000 to recommend to the 2018 Minnesota Legislature for funding from the ENRTF. The recommendations were the result of the LCCMR's 2018 Request for Proposal (RFP) process, in which 217 proposals requesting a total of approximately \$183 million were received and considered through a competitive, multi-stage evaluation process. The recommendations ranged from funding the full proposal and dollar amount requested to partial funding for specific proposal elements. On May 20, 2018 the legislature adopted 65 LCCMR recommendations, including three with reduced amounts, one with an increased amount, two added appropriations, and 8 new projects funded with appropriations bonds. On May 30, 2018, 67 appropriations totaling \$45,828,000 as M.L. 2018, Chapter 214, Article 4, from FY18 (\$89,000) and FY19 (\$45,739,000) and 8 projects totaling \$98,000,000 funded with appropriations bonds in M.L. 2018, Chapter 214, Article 6, Section 4 were signed into law by the Governor.

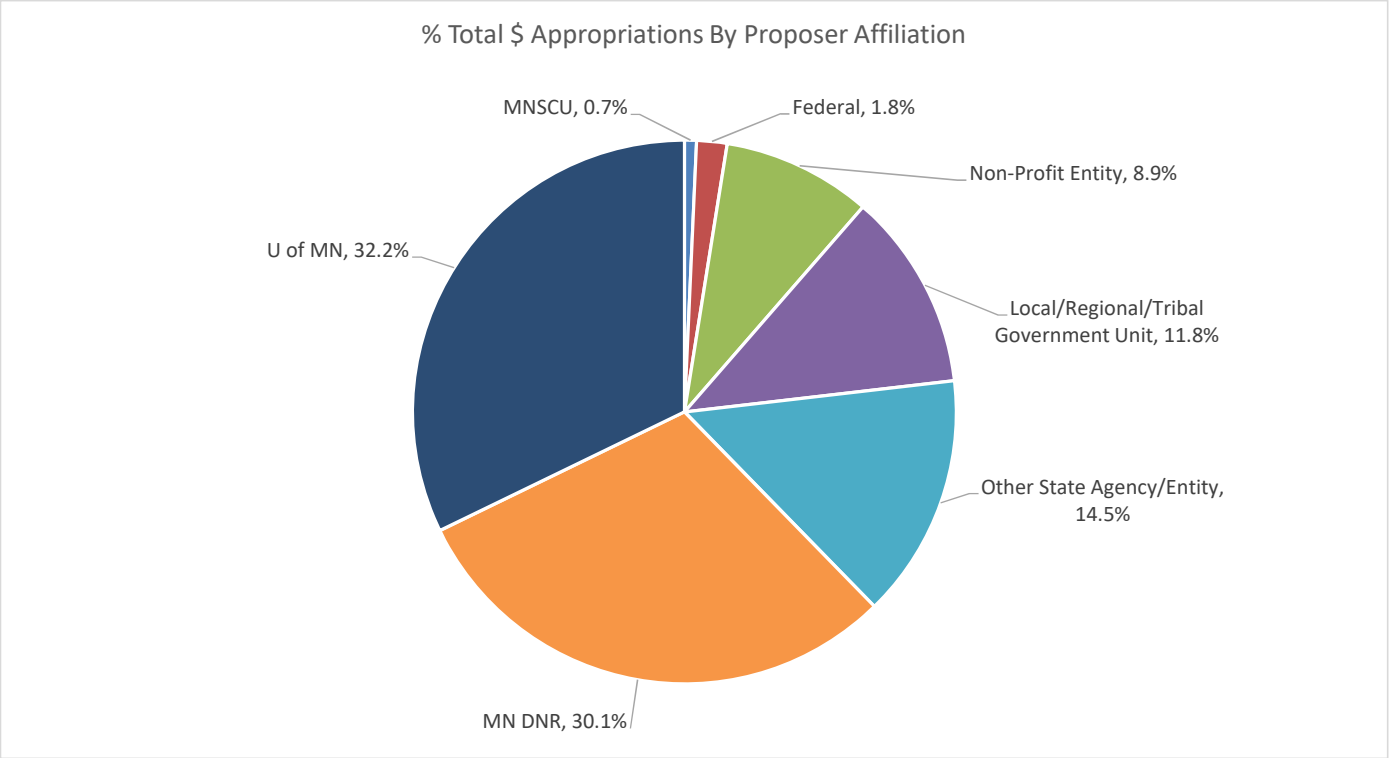
December 6 and 13, 2016	2018 Funding Priorities Determined and RFP Adopted
December 21, 2017	2018 RFP Issued
	2018 RFP Proposal Deadline
May 15, 2017	(Received 217 Proposals totaling approx. \$183 million)
	Extended Deadline for Resubmission of 2017 proposals removed in 2017 legislative session
July 15, 2017	
September 13-14, 2017	2018 Selection of Proposals for Presentations (102 proposals selected)
Sept. 26, 27, 28 & Oct. 3, 4, and 5, 2017	
	2018 Proposal Presentations
October 17, 2017	2018 Allocation Recommendations
November 2017 - January 2018	Research Projects Recommended Undergo Peer Review
	2018 Appropriation Language Review & Adoption and 2019 Funding Priorities and 2019 RFP Adopted
November 30, 2017	
January 3, 2018	2019 RFP Issued
February 20, 2018	2018 Minnesota Legislative Session Begins
June 30, 2018	Appropriations Signed into law by Governor
June 5, 2018	Project work plans approved by LCCMR
July 1, 2018	Projects with approved work plans can begin

Summary of Appropriations by Subdivision				
Subdivision	\$ Appropriations	\$ Percent	# Appropriations	# Percent
03 - Foundational Natural Resource Data and Information	\$4,533,000	9.9%	11	16.4%
04 - Water Resources	\$5,875,000	12.8%	12	17.9%
05 - Technical Assistance, Outreach and Environmental Education	\$4,968,000	10.8%	12	17.9%
06 - Aquatic and Terrestrial Invasive Species	\$5,760,000	12.6%	6	9.0%
07 - Air Quality and Renewable Energy	\$1,200,000	2.6%	3	4.5%
08 - Methods to Protect or Restore Land, Water, and Habitat	\$2,539,000	5.5%	8	11.9%
09 - Land Acquisition, Habitat, and Recreation	\$17,439,000	38.1%	12	17.9%
10 - Emerging Issues Account	\$439,000	1.0%	1	1.5%
11 - Wastewater Treatment Recommendations	\$0	0.0%	0	0.0%
12 - Contract Agreement Reimbursement	\$135,000	0.3%	1	1.5%
Debt Service per M.L. 2018, Chp. 2014, Art. 6, Sec. 4	\$2,940,000	6.4%	1	1.5%
TOTAL	\$45,828,000	100%	67	100%



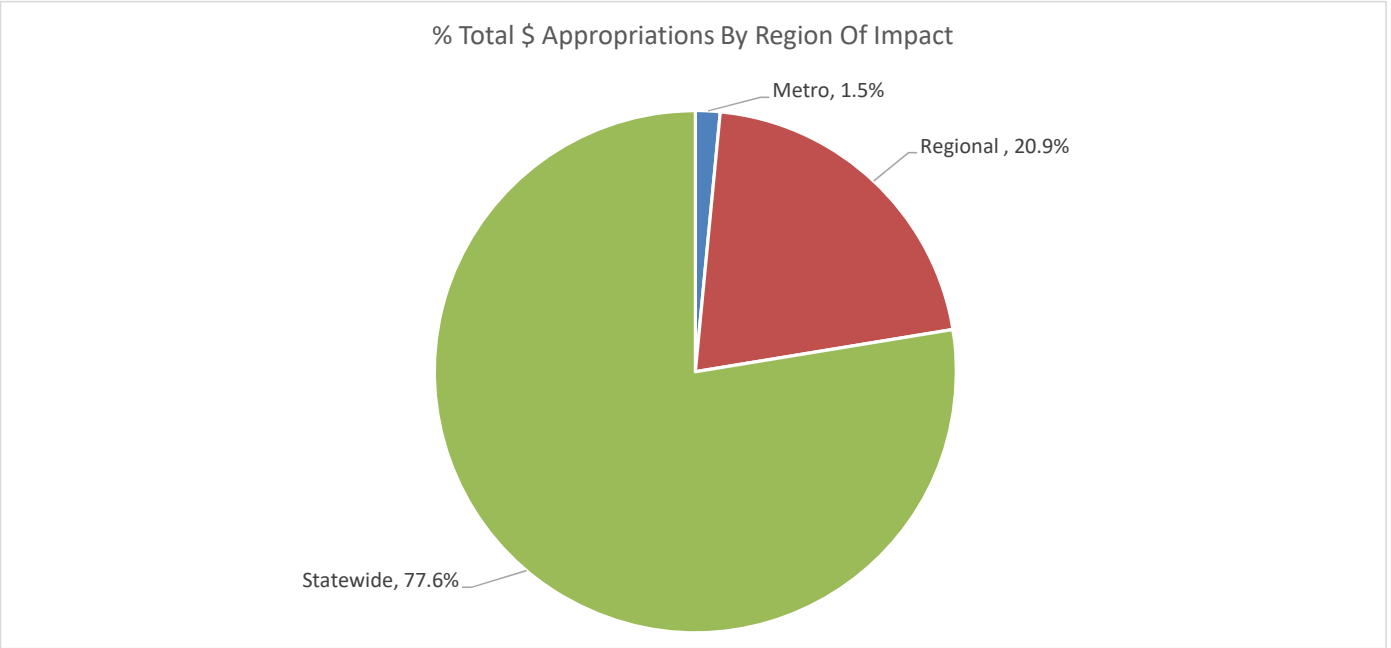
Summary of Appropriations by Proposer Affiliation*				
Affiliation Type by Proposer Affiliation	\$ Appropriations	\$ Percent	# Appropriations	# Percent
MNSCU	\$325,000	0.7%	1	1.5%
Federal	\$831,000	1.8%	3	4.5%
Non-Profit Entity	\$4,068,000	8.9%	12	17.9%
Local/Regional/Tribal Government Unit	\$5,389,000	11.8%	7	10.4%
Other State Agency/Entity	\$6,660,000	14.5%	8	11.9%
MN DNR	\$13,805,000	30.1%	10	14.9%
U of MN	\$14,750,000	32.2%	26	38.8%
<b>TOTAL</b>	<b>\$45,828,000</b>	<b>100%</b>	<b>67</b>	<b>100%</b>

\*Dollar amounts based on project manager affiliation listed in the proposal; some proposals have multiple partners with multiple affiliations and dollars requested distributed between them.



Summary of Appropriations by Area of Impact				
Area of Impact	\$ Appropriations	\$ Percent	# Appropriations	# Percent
Metro*	\$700,000	1.5%	2	3.0%
Regional	\$9,570,000	20.9%	17	25.4%
Statewide	\$35,558,000	77.6%	48	71.6%
<b>TOTAL</b>	<b>\$45,828,000</b>	<b>100%</b>	<b>67</b>	<b>100%</b>

\* "Metro" region includes the 11 counties of Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington, and Wright.  
 \*\* "Regional" means area of impact is less than "Statewide" but includes one or more regions of the state ("Northwest", "Northeast", "Central", "Southwest", or "Southeast").



**2018 Environment and Natural Resources Trust Fund (ENRTF) Appropriations**  
**M.L. 2018, Chp. 214, Art. 4, Sec. 2 and M.L. 2018, Chp. 214, Art. 6**

*For the FY 2018 and FY 2019 biennium (July 1, 2017 - June 30, 2019), approximately \$50.8 million was available each year (total = \$101,656,000) for funding from the Environment and Natural Resources Trust Fund (ENRTF). The Legislative-Citizen Commission on Minnesota Resources (LCCMR) selected 66 projects totaling \$45,828,000 to recommend to the 2018 Minnesota Legislature for funding from the ENRTF. The recommendations were the result of the LCCMR's 2018 Request for Proposal (RFP) process, in which 217 proposals requesting a total of approximately \$183 million were received and considered through a competitive, multi-stage evaluation process. The recommendations ranged from funding the full proposal and dollar amount requested to partial funding for specific proposal elements. On May 20, 2018 the legislature adopted 65 LCCMR recommendations, including three with reduced amounts, one with an increased amount, two added appropriations, and 8 new projects funded with appropriations bonds. On May 30, 2018, 67 appropriations totaling \$45,828,000 as M.L. 2018, Chapter 214, Article 4, from FY18 (\$89,000) and FY19 (\$45,739,000) and 8 projects totaling \$98,000,000 funded with appropriations bonds in M.L. 2018, Chapter 214, Article 6, Section 4 were signed into law by the Governor.*

Topic Area	FY2018 - FY2019 Trust Fund \$	FY2018 Trust Fund \$	FY2019 Trust Fund \$	Appropriation Bond \$	Percentage of Total Appropriation
<b>Subd. 03 Foundational Natural Resource Data and Information</b> 11 Appropriations	\$4,533,000	\$0	\$4,533,000	\$0	9.9%
<b>Subd. 04 Water Resources</b> 12 Appropriations	\$5,875,000	\$89,000	\$5,786,000	\$0	12.8%
<b>Subd. 05 Technical Assistance, Outreach, and Environmental Education</b> 12 Appropriations	\$4,968,000	\$0	\$4,968,000	\$0	10.8%
<b>Subd. 06 Aquatic and Terrestrial Invasive Species</b> 6 Appropriations	\$5,760,000	\$0	\$5,760,000	\$0	12.6%
<b>Subd. 07 Air Quality and Renewable Energy</b> 3 Appropriations	\$1,200,000	\$0	\$1,200,000	\$0	2.6%
<b>Subd. 08 Methods to Protect or Restore Land, Water, and Habitat</b> 8 Appropriations	\$2,539,000	\$0	\$2,539,000	\$0	5.5%
<b>Subd. 09 Land Acquisition, Habitat, and Recreation</b> 12 Appropriations	\$17,439,000	\$0	\$17,439,000	\$0	38.1%
<b>Subd. 10 Emerging Issues Account</b> 1 Appropriation	\$439,000	\$0	\$439,000	\$0	1.0%
<b>Subd. 11 Wastewater Treatment Recommendations</b> 0 Appropriations	\$0	\$0	\$0	\$0	0.0%
<b>Subd. 12 Contract Agreement Reimbursement</b> 1 Appropriation	\$135,000	\$0	\$135,000	\$0	0.3%
<b>Art. 6, Sec. 4, Subd. 4 ENRTF Appropriation Bonds and Appropriations</b> 1 Appropriation	\$2,940,000	\$0	\$2,940,000	\$0	6.4%
<b>Art. 6, Sec. 4, Subd. 5-9 Special Appropriation Trust Fund Bonds</b> 8 Appropriations	\$98,000,000	\$0	\$0	\$98,000,000	n/a
<b>TOTAL \$ APPROPRIATED</b>	<b>\$45,828,000</b>	<b>\$89,000</b>	<b>\$45,739,000</b>	<b>\$98,000,000</b>	<b>100.0%</b>

**Fund Source**

<b>FY 2018 - Environment and Natural Resources Trust Fund (ENRTF)</b>	<b>\$89,000</b>
<b>FY 2019 - Environment and Natural Resources Trust Fund (ENRTF)</b>	<b>\$45,739,000</b>
<b>Total \$</b>	<b>Total \$</b>
	<b>\$45,828,000</b>

**2018 Environment and Natural Resources Trust Fund (ENRTF) Appropriations**  
**M.L. 2018, Chp. 214, Art. 4, Sec. 2 and M.L. 2018, Chp. 214, Art. 6**

Subd.	Title	Total LCCMR Appropriation \$	Total LCCMR \$ Appropriated FY2018	Total LCCMR \$ Appropriated FY2019	Appropriation Bond \$	Organization	Project Manager	Region of Impact*
Subd. 03 Foundational Natural Resource Data and Information (11 Appropriations - Subtotal = \$4,533,000)								
03a	County Geologic Atlases - Part A	\$ 1,240,000	\$ -	\$ 1,240,000	\$ -	U of MN - MN Geological Survey	Dale Setterholm	Statewide
03b	Providing Critical Water-Quality Information for Lake Management	\$ 250,000	\$ -	\$ 250,000	\$ -	U of MN	Jeffrey Peterson	Statewide
03c	Minnesota Biodiversity Atlas - Phase 2	\$ 350,000	\$ -	\$ 350,000	\$ -	U of MN	George Weiblen	Statewide
03d	Peatland Forest Management	\$ 600,000	\$ -	\$ 600,000	\$ -	U of MN	Marcella Windmuller-Campione	Regional
03e	Assessing Natural Resource Benefits Provided by Lichens and Mosses	\$ 213,000	\$ -	\$ 213,000	\$ -	U of MN	Daniel Stanton	Statewide
03f	Develop a System to Assess Wildlife Health Threats in Minnesota	\$ 280,000	\$ -	\$ 280,000	\$ -	U of MN	Kimberly VanderWaal	Statewide
03g	Conserving Minnesota’s Forest Birds of Management Concern	\$ 500,000	\$ -	\$ 500,000	\$ -	U of MN - Duluth NRRI	Alesx Grinde	Regional
03h	Mapping Avian Movement in Minnesota	\$ 200,000	\$ -	\$ 200,000	\$ -	U of MN - Duluth NRRI	Gerald Niemi	Statewide
03i	Improve Trout-Stream Management by Understanding Variable Winter Thermal Conditions	\$ 400,000	\$ -	\$ 400,000	\$ -	U of MN	Leonard Ferrington	Regional
03j	Develop Sonar Data Mapping on Three Rivers to Assess Suitability for Native Mussel Habitat	\$ 200,000	\$ -	\$ 200,000	\$ -	National Park Service	Nancy Duncan	Metro
03k	Conserving Minnesota’s Nine Species of Freshwater Turtles	\$ 300,000	\$ -	\$ 300,000	\$ -	Minnesota Zoological Garden	Seth Stapleton	Metro/Regional
Foundational Natural Resource Data and Information Subtotal = \$		4,533,000	\$ -	\$ 4,533,000	\$ -			
Subd. 04 Water Resources (12 Appropriations - Subtotal = \$5,875,000)								
04a	Pilot Program to Optimize Local Mechanical and Pond Wastewater-Treatment Plants	\$ 700,000	\$ 89,000	\$ 611,000	\$ -	Minnesota Pollution Control Agency	Joel Peck	Statewide
04b	Assess and Develop Strategies to Remove Microscopic Plastic-Particle Pollution from Minnesota Water Bodies	\$ 300,000	\$ -	\$ 300,000	\$ -	U of MN	Filippo Coletti	Statewide
04c	Reduce Chlorides in Minnesota Waters by Evaluating Road-Salt Alternatives and Pavement Innovations	\$ 400,000	\$ -	\$ 400,000	\$ -	U of MN	John Gulliver	Statewide
04d	Protect Water Quality with Efficient Removal of Contaminants in Treatment Ponds for Storm Water	\$ 325,000	\$ -	\$ 325,000	\$ -	St. Cloud State University	Heiko Schoenfuss	Statewide
04e	Develop Small and Inexpensive Purification System for Community Drinking Water	\$ 425,000	\$ -	\$ 425,000	\$ -	U of MN	Tianhong Cui	Statewide
04f	Evaluate Emerging Pathogens in Lakes, Rivers, and Tap Water to Keep Drinking Water Safe	\$ 325,000	\$ -	\$ 325,000	\$ -	U of MN	Timothy LaPara	Statewide

**2018 Environment and Natural Resources Trust Fund (ENRTF) Appropriations**  
**M.L. 2018, Chp. 214, Art. 4, Sec. 2 and M.L. 2018, Chp. 214, Art. 6**

Subd.	Title	Total LCCMR Appropriation \$	Total LCCMR \$ Appropriated FY2018	Total LCCMR \$ Appropriated FY2019	Appropriation Bond \$	Organization	Project Manager	Region of Impact*
04g	Characterize Unregulated Contaminants in Source Water and Drinking Water	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	Minnesota Department of Health	Stephen Robertson	Statewide
04h	Mapping Antibiotic Resistance in Minnesota to Help Protect Environmental, Animal, and Human Health	\$ 750,000	\$ -	\$ 750,000	\$ -	U of MN	Randall Singer	Statewide
04i	Farmer-Led Expansion of Alfalfa Production to Increase Water Protection	\$ 500,000	\$ -	\$ 500,000	\$ -	U of MN	Nicholas Jordan	Regional
04j	Using Perennial Grain Crops in Wellhead Protection Areas to Protect Groundwater	\$ 250,000	\$ -	\$ 250,000	\$ -	Minnesota Department of Agriculture	Margaret Wagner	Statewide
04k	Implement a Pilot Credit-Trading System for Storm Water in Shell Rock River Watershed to Improve Water Quality	\$ 300,000	\$ -	\$ 300,000	\$ -	Shell Rock River Watershed District	Courtney Christensen	Regional
04l	Lake Agnes Treatment	\$ 600,000	\$ -	\$ 600,000	\$ -	Board of Water and Soil Resources	TBD	Statewide
Water Resources Subtotal = \$ 5,875,000 \$ 89,000 \$ 5,786,000 \$ -								
Subd. 05 Technical Assistance, Outreach, and Environmental Education (12 Appropriations - Subtotal = \$4,968,000)								
05a	Prairie Sportsman Statewide Environmental Broadcasts and Videos	\$ 300,000	\$ -	\$ 300,000	\$ -	Pioneer Public Television	Cindy Dorn	Statewide
05b	YES! Students Take on Minnesota Water-Quality Challenge	\$ 213,000	\$ -	\$ 213,000	\$ -	Prairie Woods Environmental Learning Center	Shelli-Kae Foster	Statewide
05c	Get Outdoors After-School Training	\$ 30,000	\$ -	\$ 30,000	\$ -	Project Get Outdoors Inc	Sara Holger	Statewide
05d	Connecting Students with Water Stewardship through Hands-on Learning	\$ 400,000	\$ -	\$ 400,000	\$ -	Minnesota Trout Unlimited	John Lenczewski	Statewide
05e	Expanding River Watch Program on the Minnesota River With High School Teams	\$ 100,000	\$ -	\$ 100,000	\$ -	Friends of the Minnesota Valley	Ted Suss	Regional
05f	Pollinator Ambassadors Program for Gardens	\$ 250,000	\$ -	\$ 250,000	\$ -	U of MN	Elaine Evans	Statewide
05g	Morris Prairie Pollinator Demonstration Area and Education	\$ 550,000	\$ -	\$ 550,000	\$ -	U of MN	Steven Poppe	Regional
05h	Expanding Nature Knowledge and Experience with New Interactive Exhibits at North Mississippi Regional Park	\$ 500,000	\$ -	\$ 500,000	\$ -	Minneapolis Parks and Recreation Board	MaryLynn Pulscher	Metro
05i	Update International Wolf Center Exhibits	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	International Wolf Center	Rob Schultz	Metro
05j	Expanding the State’s Reuse Economy to Conserve Natural Resources	\$ 275,000	\$ -	\$ 275,000	\$ -	ReUse Minnesota	Steve Thomas	Statewide

**2018 Environment and Natural Resources Trust Fund (ENRTF) Appropriations**  
**M.L. 2018, Chp. 214, Art. 4, Sec. 2 and M.L. 2018, Chp. 214, Art. 6**

Subd.	Title	Total LCCMR Appropriation \$	Total LCCMR \$ Appropriated FY2018	Total LCCMR \$ Appropriated FY2019	Appropriation Bond \$	Organization	Project Manager	Region of Impact*
05k	Expand Materials Reuse and Recycling Jobs Program	\$ 800,000	\$ -	\$ 800,000	\$ -	The NetWork for Better Futures d/b/a Better Futures Minnesota	Steve Thomas	Statewide
05l	Increase Diversity in Environmental Careers to Serve Minnesota’s Changing Demographics	\$ 550,000	\$ -	\$ 550,000	\$ -	MN DNR	Denise Legato	Statewide
Technical Assistance, Outreach, and Environmental Education Subtotal		\$ 4,968,000	\$ -	\$ 4,968,000	\$ -			
Subd. 06 Aquatic and Terrestrial Invasive Species (6 Appropriations - Subtotal = \$5,760,000)								
06a	Minnesota Invasive Terrestrial Plants and Pests Center - Phase 4	\$ 3,500,000	\$ -	\$ 3,500,000	\$ -	U of MN	Rob Venette	Statewide
06b	Palmer Amaranth Detection and Eradication Continuation	\$ 431,000	\$ -	\$ 431,000	\$ -	Minnesota Department of Agriculture	Monika Chandler	Statewide
06c	Evaluate Control Methods for Invasive Hybrid Cattails	\$ 131,000	\$ -	\$ 131,000	\$ -	Voyageurs National Park	Steve Windels	Regional
06d	Developing RNA Interference to Control Zebra Mussels	\$ 500,000	\$ -	\$ 500,000	\$ -	US Geological Survey	Christopher Merkes	Statewide
06e	Install and Evaluate an Invasive Carp Deterrent for Mississippi River Locks and Dams	\$ 998,000	\$ -	\$ 998,000	\$ -	U of MN	Peter Sorensen	Statewide
06f	Determining Risk of a Toxic Alga in Minnesota Lakes	\$ 200,000	\$ -	\$ 200,000	\$ -	Science Museum of Minnesota	Adam Heathcote	Statewide
Aquatic and Terrestrial Invasive Species Subtotal =		\$ 5,760,000	\$ -	\$ 5,760,000	\$ -			
Subd. 07 Air Quality and Renewable Energy (3 Appropriations - Subtotal = \$1,200,000)								
07a	Develop Solar Window Concentrators for Electricity	\$ 350,000	\$ -	\$ 350,000	\$ -	U of MN	Uwe Kortshagen	Statewide
07b	Demonstrations for Community-Scale Storage System for Renewable Energy	\$ 550,000	\$ -	\$ 550,000	\$ -	U of MN	Ellen Anderson	Statewide
07c	Develop Inexpensive Energy from Simple Roll-to-Roll Manufacturing	\$ 300,000	\$ -	\$ 300,000	\$ -	U of MN	Tianhong Cui	Statewide
Air Quality and Renewable Energy Subtotal =		\$ 1,200,000	\$ -	\$ 1,200,000	\$ -			
Subd. 08 Methods to Protect or Restore Land, Water, and Habitat (8 Appropriations - Subtotal = \$2,539,000)								
08a	Nongame Wildlife Program Acceleration	\$ 220,000	\$ -	\$ 220,000	\$ -	MN DNR	Carrol Henderson	Statewide
08b	Develop BioMulch to Replace Plastic Soil Covering in Vegetable and Fruit Production to Increase Yield and Reduce Waste	\$ 310,000	\$ -	\$ 310,000	\$ -	U of MN	Paulo Pagliari	Statewide

**2018 Environment and Natural Resources Trust Fund (ENRTF) Appropriations**  
**M.L. 2018, Chp. 214, Art. 4, Sec. 2 and M.L. 2018, Chp. 214, Art. 6**

Subd.	Title	Total LCCMR Appropriation \$	Total LCCMR \$ Appropriated FY2018	Total LCCMR \$ Appropriated FY2019	Appropriation Bond \$	Organization	Project Manager	Region of Impact*
08c	Develop Market-Based Alternatives for Perennial Crops to Benefit Water Quality and Wildlife	\$ 150,000	\$ -	\$ 150,000	\$ -	Science Museum of Minnesota	Shawn Schottler	Statewide
08d	Agricultural Weed Control Using Autonomous Mowers	\$ 750,000	\$ -	\$ 750,000	\$ -	U of MN - Morris	Mike Reese	Statewide
08e	Restoring Forests in Minnesota State Parks	\$ 250,000	\$ -	\$ 250,000	\$ -	MN DNR	Edward Quinn	Statewide
08f	Develop Strategies for Timber Harvest to Minimize Soil Impacts to Maintain Healthy and Diverse Forests	\$ 200,000	\$ -	\$ 200,000	\$ -	U of MN	Robert Slesak	Statewide
08g	Restoring Wetland Invertebrates to Revive Wildlife Habitat	\$ 400,000	\$ -	\$ 400,000	\$ -	MN DNR	Danelle Larson	Statewide
08h	Preserving Minnesota’s Native Orchids - Phase 2	\$ 259,000	\$ -	\$ 259,000	\$ -	U of MN - Landscape Arboretum	David Remucal	Statewide
Methods to Protect or Restore Land, Water, and Habitat Subtotal =		\$ 2,539,000	\$ -	\$ 2,539,000	\$ -			
Subd. 09 Land Acquisition, Habitat, and Recreation (12 Appropriations - Subtotal = \$17,439,000)								
09a	Grants for Local Parks, Trails, and Natural Areas	\$ 2,000,000	\$ -	\$ 2,000,000	\$ -	MN DNR	Audrey Mularie	Statewide
09b	Develop Mesabi Trail Segment From County Road 88 to Ely	\$ 600,000	\$ -	\$ 600,000	\$ -	St. Louis & Lake Counties Regional Railroad Authority	Bob Manzoline	Regional
09c	Harmony State Trail Extension Land Acquisition	\$ 235,000	\$ -	\$ 235,000	\$ -	City of Harmony	Jerome Illg	Regional
09d	Mississippi Blufflands State Trail - Red Wing Barn Bluff to Colvill Park Segment	\$ 550,000	\$ -	\$ 550,000	\$ -	City of Red Wing	Jay Owens	Regional
09e	Swedish Immigrant Regional Trail Segment within Interstate State Park	\$ 2,254,000	\$ -	\$ 2,254,000	\$ -	Chisago County Environmental Services	Laird Mork	Regional
09f	Enhancement Plan for Superior Hiking Trail	\$ 100,000	\$ -	\$ 100,000	\$ -	Superior Hiking Trail Association	Denny Caneff	Regional
09g	Protecting Mississippi River Headwaters Lands through Local, State, and Federal Partnership	\$ 700,000	\$ -	\$ 700,000	\$ -	City of Baxter	Josh Doty	Regional
09h	Protecting North-Central Minnesota Lakes	\$ 750,000	\$ -	\$ 750,000	\$ -	Crow Wing Soil and Water Conservation District	Sheila Boldt	Regional
09i	Easement Program for Native Prairie Bank	\$ 2,000,000	\$ -	\$ 2,000,000	\$ -	MN DNR	Judy Schulte	Statewide
09j	Minnesota State Trail Development	\$ 2,500,000	\$ -	\$ 2,500,000	\$ -	MN DNR	Kent Skaar	Statewide
09k	Minnesota State Parks and State Trails	\$ 2,500,000	\$ -	\$ 2,500,000	\$ -	MN DNR	Jennifer Christie	Statewide

**2018 Environment and Natural Resources Trust Fund (ENRTF) Appropriations**  
**M.L. 2018, Chp. 214, Art. 4, Sec. 2 and M.L. 2018, Chp. 214, Art. 6**

Subd.	Title	Total LCCMR Appropriation \$	Total LCCMR \$ Appropriated FY2018	Total LCCMR \$ Appropriated FY2019	Appropriation Bond \$	Organization	Project Manager	Region of Impact*
09I	Scientific and Natural Areas Program	\$ 3,250,000	\$ -	\$ 3,250,000	\$ -	MN DNR	Ann Pierce	Statewide
<b>Land Acquisition, Habitat, and Recreation Subtotal = \$ 17,439,000 \$ - \$ 17,439,000 \$ -</b>								
<b>Subd. 10 Emerging Issues Account (1 Appropriation - Subtotal = \$439,000)</b>								
10	Emerging Issues Account	\$ 439,000	\$ -	\$ 439,000	\$ -	LCCMR	Becca Nash	Statewide
<b>Emerging Issues Account Subtotal = \$ 439,000 \$ - \$ 439,000 \$ -</b>								
<b>Subd. 11 Wastewater Treatment Recommendations (0 Appropriations - Subtotal = \$0)</b>								
11a	Wastewater Treatment System Grants	\$ -	\$ -	\$ -	\$ -	PFA	TBD	Statewide
11b	Wastewater Treatment System Loans	\$ -	\$ -	\$ -	\$ -	PFA	TBD	Statewide
<b>Wastewater Treatment Recommendations Subtotal = \$ - \$ - \$ - \$ -</b>								
<b>Subd. 12 Contract Agreement Reimbursement (1 Appropriation - Subtotal = \$135,000)</b>								
12	Contract Agreement Reimbursement	\$ 135,000	\$ -	\$ 135,000	\$ -	MN DNR	Katherine Sherman-Hoehn	Statewide
<b>Contract Agreement Reimbursement Subtotal = \$ 135,000 \$ - \$ 135,000 \$ -</b>								
<b>Art. 6, Subd. 4 ENRTF Appropriation Bonds and Appropriations** (1 Appropriation - Subtotal = \$2,940,000)</b>								
Subd. 4	FY2019 Debt Service on Appropriations Bonds**	\$ 2,940,000	\$ -	\$ 2,940,000	\$ -	Minnesota Management and Budget	TBD	Statewide
<b>ENRTF Appropriation Bonds and Appropriations Subtotal = \$ 2,940,000 \$ - \$ 2,940,000 \$ -</b>								
<b>Art. 6, Subd. 4 ENRTF Appropriation Bonds and Appropriations** (8 Appropriations - Subtotal = \$98,000,000)</b>								
Subd. 5(1)	Natural Resources Asset Preservation	\$ -	\$ -	\$ -	\$ 3,419,000	MN DNR	David Johnson	Statewide
Subd. 5(2)	Elk River - Lake Orono	\$ -	\$ -	\$ -	\$ 1,500,000	City of Elk River	Brandon Wisner	Statewide
Subd. 5(3)	South St. Paul - Seidl's Lake	\$ -	\$ -	\$ -	\$ 781,000	City of South St. Paul	Chris Hartzell	Statewide
Subd. 6(1)	Anoka County – Waste Disposal Engineering (WDE) Closed Landfill Cleanup	\$ -	\$ -	\$ -	\$ 6,000,000	MPCA	Jamie Wallerstedt	Statewide
Subd. 6(2)	Lake Redwood Reclamation	\$ -	\$ -	\$ -	\$ 7,300,000	Redwood-Cottonwood Rivers Control Area	Kerry Netzke	Statewide
Subd. 7	Reinvest in Minnesota (RIM) Reserve Program	\$ -	\$ -	\$ -	\$ 10,000,000	BWSR	Dave Rickert	Statewide
Subd. 8	Public Facilities Authority	\$ -	\$ -	\$ -	\$ 59,000,000	Public Facilities Authority	Jeff Freeman	Statewide
Subd. 9	Metropolitan Regional Parks and Trails Capital Improvements	\$ -	\$ -	\$ -	\$ 10,000,000	Metropolitan Council	Deb Jensen	Statewide

**2018 Environment and Natural Resources Trust Fund (ENRTF) Appropriations**  
**M.L. 2018, Chp. 214, Art. 4, Sec. 2 and M.L. 2018, Chp. 214, Art. 6**

Subd.	Title	Total LCCMR Appropriation \$	Total LCCMR \$ Appropriated FY2018	Total LCCMR \$ Appropriated FY2019	Appropriation Bond \$	Organization	Project Manager	Region of Impact*
<b>Special Appropriation Trust Fund Bonds Subtotal =</b>		<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 98,000,000</b>			
<b>Total \$ Appropriated =</b>		<b>\$ 45,828,000</b>	<b>\$ 89,000</b>	<b>\$ 45,739,000</b>	<b>\$ 98,000,000</b>			

\* Region of Impact designated in the State include Statewide, Central, Metro, NE, NW, SE, SW. Metro region includes the 11 counties of Anoka, Carver, Chisago, Dakota, Hennepin, Isanti, Ramsey, Scott, Sherburne, Washington, and Wright.

\*\*FY2020-2039 annual debt service payments would be approximately \$7,840,000



## **M.L. 2018 Projects**

For the FY 2018 and FY 2019 biennium (July 1, 2017 - June 30, 2019), approximately \$50.8 million was available each year (total = \$101,656,000) for funding from the Environment and Natural Resources Trust Fund (ENRTF). The Legislative-Citizen Commission on Minnesota Resources (LCCMR) selected 66 projects totaling \$45,828,000 to recommend to the 2018 Minnesota Legislature for funding from the ENRTF. The recommendations were the result of the LCCMR's 2018 Request for Proposal (RFP) process, in which 217 proposals requesting a total of approximately \$183 million were received and considered through a competitive, multi-stage evaluation process. The recommendations ranged from funding the full proposal and dollar amount requested to partial funding for specific proposal elements. On May 20, 2018 the legislature adopted 65 LCCMR recommendations, including three with reduced amounts, one with an increased amount, two added appropriations, and 8 new projects funded with appropriations bonds. On May 30, 2018, 67 appropriations totaling \$45,828,000 as M.L. 2018, Chapter 214, Article 4, from FY18 (\$89,000) and FY19 (\$45,739,000) and 8 projects totaling \$98,000,000 funded with appropriations bonds in M.L. 2018, Chapter 214, Article 6, Section 4 were signed into law by the Governor.

### **Minnesota Session Laws - 2018 , Chapter 214 (beginning July 1, 2018)**

[Article 4, Section 2](#)

[Article 6, Section 4](#)

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When available, we have provided links to web sites related to the project. The sites linked to this page are not created, maintained, or endorsed by the LCCMR office or the Minnesota Legislature.

### **MN Laws 2018 Chapter 214, Article 4, Section 2**

#### **Subd. 03 Foundational Natural Resource Data and Information**

#### **County Geologic Atlases - Part A**

##### **Subd. 03a \$1,240,000 TF**

#### **Dale Setterholm**

U of MN - MN Geological Survey

2609 Territorial Rd

St. Paul, MN 55114

Phone: (612) 626-5119

Email: [sette001@umn.edu](mailto:sette001@umn.edu)

Web: <http://www.mngs.umn.edu>

#### **Appropriation Language**

\$1,240,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota, Minnesota Geological Survey, to continue producing county geologic atlases for the purpose of informed management of surface water and groundwater resources. This appropriation is to complete part A, which focuses on the properties and distribution of earth materials to define aquifer boundaries and the connection of aquifers to the land surface and surface water resources. This appropriation is available until June 30, 2022, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

#### **Providing Critical Water-Quality Information for Lake Management**

##### **Subd. 03b \$250,000 TF**

#### **Jeffrey Peterson**

U of MN

1985 Buford Ave, 173 McNeal Hall  
St. Paul, MN 55108  
Phone: (612) 624-9282  
Email: [paul.putzier@state.mn.us](mailto:paul.putzier@state.mn.us)  
Web: <https://www.wrc.umn.edu/>

#### **Appropriation Language**

\$250,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop a semiautomated system to acquire, process, and deliver new satellite-derived water-quality data in near real time on water clarity, algae, and turbidity for Minnesota lakes. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

#### **Minnesota Biodiversity Atlas - Phase 2** **Subd. 03c \$350,000 TF**

##### **George Weiblen**

U of MN - Bell Museum of Natural History  
10 Church St SE  
Minneapolis, MN 55455  
Phone: (612) 624-3461  
Email: [gweiblen@umn.edu](mailto:gweiblen@umn.edu)  
Web: [www.bellmuseum.umn.edu](http://www.bellmuseum.umn.edu)

#### **Appropriation Language**

\$350,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to expand the biodiversity atlas project by adding more than 800,000 records and images of Minnesota wildlife, plants, and fungi, including observations from state agencies and other museum collections, to enhance research, guide field surveys, and inform conservation planning. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

#### **Peatland Forest Management** **Subd. 03d \$600,000 TF**

##### **Marcella Windmuller-Campione**

U of MN  
1530 Cleveland Ave N, 115 Green Hall  
St. Paul, MN 55108  
Phone: (847) 772-5458  
Email: [mwind@umn.edu](mailto:mwind@umn.edu)  
Web: <https://www.forestry.umn.edu/marcella-windmuller-campione>

#### **Appropriation Language**

\$600,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to identify management actions to maximize benefits to wildlife, water quality, timber production, and native plant communities in peatland forests. This appropriation is available until June 30, 2022, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

**Assessing Natural Resource Benefits Provided by Lichens and Mosses**  
**Subd. 03e \$213,000 TF**

**Daniel Stanton**

U of MN  
1479 Gortner Ave, 140 Gortner Labs  
St. Paul, MN 55108  
Phone: (651) 494-7625  
Email: [stan0477@umn.edu](mailto:stan0477@umn.edu)

**Appropriation Language**

\$213,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to survey, map, and analyze mosses and lichens across the state, including their moisture-retention capacity, effects on hydrology, and ability to filter airborne pollutants. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Develop a System to Assess Wildlife Health Threats in Minnesota**  
**Subd. 03f \$280,000 TF**

**Kimberly VanderWaal**

U of MN  
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St. Paul, MN 55108  
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Email: [kvw@umn.edu](mailto:kvw@umn.edu)  
Web: <https://www.raptor.umn.edu/>

**Appropriation Language**

\$280,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop a statewide information-management system that uses wildlife-rehabilitation data to identify emerging threats to wildlife health in Minnesota

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Conserving Minnesota's Forest Birds of Management Concern**  
**Subd. 03g \$500,000 TF**

**Alexis Grinde**

U of MN - Duluth NRRI  
5013 Miller Trunk Hwy  
Duluth, MN 55811  
Phone: (320) 496-0016  
Email: [agrinde@d.umn.edu](mailto:agrinde@d.umn.edu)

**Appropriation Language**

\$500,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Natural Resources Research Institute in Duluth to identify forest-management actions and guidelines to conserve birds in Minnesota's forests. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Mapping Avian Movement in Minnesota**  
**Subd. 03h \$200,000 TF**

**Gerald Niemi**

U of MN - Duluth NRRI

5013 Miller Trunk Hwy

Duluth, MN 55811

Phone: (218) 720-4270

Email: [gniemi@nrri.umn.edu](mailto:gniemi@nrri.umn.edu)

Web: <http://www.nrri.umn.edu>

**Appropriation Language**

\$200,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Natural Resources Research Institute in Duluth to pilot the establishment of a network of automated radio-telemetry stations to monitor bird migration and local movements and to develop strategic plans for using the infrastructure long term to monitor animal movement for conservation. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Improve Trout-Stream Management by Understanding Variable Winter Thermal Conditions**  
**Subd. 03i \$400,000 TF**

**Leonard Ferrington**

U of MN

1980 Folwell Ave, 219 Hodson Hall

St. Paul, MN 55108

Phone: (612) 624-3265

Email: [ferri016@umn.edu](mailto:ferri016@umn.edu)

**Appropriation Language**

\$400,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to identify how winter groundwater flows, air temperature, and streambed conditions affect insect productivity in order to guide restoration and management efforts in southeastern Minnesota trout streams. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Develop Sonar Data Mapping on Three Rivers to Assess Suitability for Native Mussel Habitat**  
**Subd. 03j \$200,000 TF**

**Nancy Duncan**

National Park Service

111 E Kellogg Blvd, Ste 105

St. Paul, MN 55101

Phone: (651) 293-8434

Email: [nancy\\_duncan@nps.gov](mailto:nancy_duncan@nps.gov)

Web: <https://www.nps.gov/miss/index.htm>

**Appropriation Language**

\$200,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with

the National Park Service to create high-resolution sonar data maps to identify critical native mussel habitat for the designated Lower St. Croix National Scenic Riverway and the Mississippi National River and Recreation Area including part of the Minnesota River.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Conserving Minnesota's Nine Species of Freshwater Turtles**

**Subd. 03k \$300,000 TF**

**Seth Stapleton**

Minnesota Zoological Garden

13000 Zoo Blvd

Apple Valley, MN 55124

Phone: (952) 431-9443

Email: [seth.stapleton@state.mn.us](mailto:seth.stapleton@state.mn.us)

Web: [www.mnzoo.org](http://www.mnzoo.org)

**Appropriation Language**

\$300,000 the second year is from the trust fund to the Minnesota Zoological Garden to improve the long-term viability of Minnesota's imperiled turtle populations by researching threats, identifying mitigation strategies, implementing mechanisms to reduce threats and mortality, and creating related outreach and educational materials. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Subd. 04Water Resources**

**Pilot Program to Optimize Local Mechanical and Pond Wastewater-Treatment Plants**

**Subd. 04a \$700,000 TF**

**Joel Peck**

Minnesota Pollution Control Agency

520 Lafayette Rd N

St. Paul, MN 55155

Phone: (651) 757-2202

Email: [joel.peck@state.mn.us](mailto:joel.peck@state.mn.us)

Web: <https://pca.state.mn.us>

**Appropriation Language**

\$89,000 the first year and \$611,000 the second year are from the trust fund to the commissioner of the Minnesota Pollution Control Agency, in partnership with the Minnesota Rural Water Association and the University of Minnesota's Technical Assistance Program, to implement a pilot program to optimize existing local mechanical and pond wastewater-treatment systems to increase nutrient removal and improve efficiency without requiring costly upgrades.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Assess and Develop Strategies to Remove Microscopic Plastic-Particle Pollution from Minnesota Water**

**Subd. 04b \$300,000 TF**

**Filippo Coletti**

U of MN

110 Union St SE  
Minneapolis, MN 55455  
Phone: (650) 289-8216  
Email: [fcoletti@umn.edu](mailto:fcoletti@umn.edu)

**Appropriation Language**

\$300,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to assess, track, and develop methods to remove microscopic plastic particles that are dispersed and accumulating as pollution in Minnesota water bodies. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Reduce Chlorides in Minnesota Waters by Evaluating Road-Salt Alternatives and Pavement Innovations**

**Subd. 04c \$400,000 TF**

**John Gulliver**

U of MN  
2 Third Ave SE  
Minneapolis, MN 55414  
Phone: (612) 625-4080  
Email: [gulli003@umn.edu](mailto:gulli003@umn.edu)

**Appropriation Language**

\$400,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to investigate road-salt alternatives and pavement innovations to reduce lake, stream, and groundwater degradation caused by road-salt chlorides. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Protect Water Quality with Efficient Removal of Contaminants in Treatment Ponds for Storm Water**

**Subd. 04d \$325,000 TF**

**Heiko Schoenfuss**

St. Cloud State University  
720 Fourth Ave S WSB-273  
St. Cloud, MN 56301  
Phone: (320) 308-3130  
Email: [hschoenfuss@stcloudstate.edu](mailto:hschoenfuss@stcloudstate.edu)  
Web: <http://web.stcloudstate.edu/aquatictox/>

**Appropriation Language**

\$325,000 the second year is from the trust fund to the Board of Trustees of the Minnesota State Colleges and Universities system for St. Cloud State University to evaluate the effectiveness of best management practices in removing contaminants from storm water to safeguard aquatic habitats. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Develop Small and Inexpensive Purification System for Community Drinking Water**

**Subd. 04e \$425,000 TF**

**Tianhong Cui**

U of MN

111 Church St SE

Minneapolis, MN 55455

Phone: (612) 626-1636

Email: [tcui@me.umn.edu](mailto:tcui@me.umn.edu)

**Appropriation Language**

\$425,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop a small and inexpensive purification-technology system for community drinking-water facilities to remove toxic contaminants, make water safe to drink, and improve drinking-water quality. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Evaluate Emerging Pathogens in Lakes, Rivers, and Tap Water to Keep Drinking Water Safe**

**Subd. 04f \$325,000 TF**

**Timothy LaPara**

U of MN

500 Pillsbury Dr SE

Minneapolis, MN 55455

Phone: (612) 624-6028

Email: [lapar001@umn.edu](mailto:lapar001@umn.edu)

Web: <http://web.stcloudstate.edu/aquatictox/>

**Appropriation Language**

\$325,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to evaluate emerging pathogens including Legionella and mycobacteria to ensure that surface water used for drinking water and tap water is safe to drink. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Characterize Unregulated Contaminants in Source Water and Drinking Water**

**Subd. 04g \$1,000,000 TF**

**Stephen Robertson**

Minnesota Department of Health

625 Robert St N

St. Paul, MN 55164

Phone: (651) 201-4648

Email: [steve.robertson@state.mn.us](mailto:steve.robertson@state.mn.us)

Web: <http://www.health.state.mn.us/>

**Appropriation Language**

\$1,000,000 the second year is from the trust fund to the commissioner of health to establish monitoring networks of public water-system wells and surface-water intakes to determine if contaminants persist after standard public water treatment. This appropriation is available until June 30, 2022, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

**Mapping Antibiotic Resistance in Minnesota to Help Protect Environmental, Animal, and Human Health**  
**Subd. 04h \$750,000 TF**

**Randall Singer**

U of MN  
1971 Commonwealth Ave  
St. Paul, MN 55108  
Phone: (612) 625-6271  
Email: [rsinger@umn.edu](mailto:rsinger@umn.edu)

**Appropriation Language**

\$750,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to quantify and map antibiotic and antibiotic-resistance gene contamination in Minnesota waters and soils to identify locations in need of mitigation to protect environmental, animal, and human health. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Farmer-Led Expansion of Alfalfa Production to Increase Water Protection**  
**Subd. 04i \$500,000 TF**

**Nicholas Jordan**

U of MN  
1991 Upper Buford Cir, 411 Borlaug Hall  
St. Paul, MN 55108  
Phone: (612) 625-3754  
Email: [jorda020@umn.edu](mailto:jorda020@umn.edu)

**Appropriation Language**

\$500,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop a farmer-led, market-based working-lands approach to increase water protection in agricultural areas by targeted expansion of alfalfa production and development of methods to convert alfalfa to high-value bioproducts. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Using Perennial Grain Crops in Wellhead Protection Areas to Protect Groundwater**  
**Subd. 04j \$250,000 TF**

**Margaret Wagner**

Minnesota Department of Agriculture  
625 Robert St N  
St. Paul, MN 55155  
Phone: (651) 201-6014  
Email: [margaret.wagner@state.mn.us](mailto:margaret.wagner@state.mn.us)  
Web: <https://www.mda.state.mn.us>

**Appropriation Language**

\$250,000 the second year is from the trust fund to the commissioner of agriculture to establish demonstration

plots of Kernza, a new intermediate perennial grain crop, to evaluate the potential to profitably reduce nitrate contamination of groundwater in vulnerable wellhead protection regions of Minnesota. Any income generated as part of this appropriation may be used to expand the project.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Implement a Pilot Credit-Trading System for Storm Water in Shell Rock River Watershed to Improve Water Quality**

**Subd. 04k \$300,000 TF**

**Courtney Christensen**

Shell Rock River Watershed District

214 West Main St

Albert Lea, MN 56007

Phone: (507) 377-5785

Email: [courtney.christensen@co.freeborn.mn.us](mailto:courtney.christensen@co.freeborn.mn.us)

Web: <http://www.shellrock.org>

**Appropriation Language**

\$300,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the Shell Rock River Watershed District to develop and implement a pilot water-quality credit-trading program for storm water that provides voluntary and cost-effective options to reduce pollution on a watershed scale.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Lake Agnes Treatment**

**Subd. 04l \$600,000 TF**

**Scott Gilbertson**

Alexandria Lake Area Sanitary District (ALASD)

2201 Nevada Street SW

Alexandria, MN 56308

Phone: 320-762-1135

Email: [jbischoff@wenck.com](mailto:jbischoff@wenck.com)

**Appropriation Language**

\$600,000 the second year is to the Board of Water and Soil Resources for a grant to the Alexandria Lake Area Sanitary District for lake management activities, including, but not limited to, alum treatment in Lake Agnes, carp removal in Lake Winona, and related management and reassessment measures that are intended to achieve and maintain compliance with water quality standards for phosphorus and the total maximum daily load for Lake Winona.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Subd. 05 Technical Assistance, Outreach, and Environmental Education**

**Prairie Sportsman Statewide Environmental Broadcasts and Videos**

**Subd. 05a \$300,000 TF**

**Cindy Dorn**

Pioneer Public Television

120 W Schileman

Appleton, MN 56265

Phone: (651) 239-3995

Email: [cdorn@pioneer.org](mailto:cdorn@pioneer.org)

Web: <http://www.pioneer.org>

**Appropriation Language**

\$300,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Pioneer Public Television to provide outreach on outdoor recreation, conservation, and natural resource issues, including water quality, wildlife habitat, and invasive species, through a series of interrelated educational and training videos and statewide broadcast television programs.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**YES! Students Take on Minnesota Water-Quality Challenge**

**Subd. 05b \$213,000 TF**

**Shelli-Kae Foster**

Prairie Woods Environmental Learning Center

12718 10th Street NE

Spicer, MN 56288

Phone: (320) 441-9254

Email: [Shelli-kae.Foster@co.kandiyohi.mn.us](mailto:Shelli-kae.Foster@co.kandiyohi.mn.us)

Web: [www.youthenergysummit.org](http://www.youthenergysummit.org)

**Appropriation Language**

\$213,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Prairie Woods Environmental Learning Center to expand the Youth Energy Summit (YES!) model to improve local waterways by training and mobilizing over 20 youth-led teams in Minnesota communities to complete 30 or more projects related to water quality including monitoring and reporting.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Get Outdoors After-School Training**

**Subd. 05c \$30,000 TF**

**Sara Holger**

Project Get Outdoors Inc

PO Box 244

Wabasha, MN 55981

Phone: (507) 951-5885

Email: [sara.grover@yahoo.com](mailto:sara.grover@yahoo.com)

Web: <http://www.mnprojectgo.org>

**Appropriation Language**

\$30,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Project Get Outdoors to train and equip youth leaders at out-of-school youth organizations across Minnesota with knowledge, skills, and resources to incorporate outdoor nature activities into after-school programs for at least 6,000 children, including those from underserved populations.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Connecting Students with Water Stewardship through Hands-on Learning**  
**Subd. 05d \$400,000 TF**

**John Lenczewski**

Minnesota Trout Unlimited  
PO Box 845  
Chanhassen, MN 55317  
Phone: (612) 670-1629  
Email: [jlenczewski@comcast.net](mailto:jlenczewski@comcast.net)  
Web: <http://www.mntu.org>

**Appropriation Language**

\$400,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Minnesota Trout Unlimited to engage students in classroom and outdoor hands-on learning focused on water quality, groundwater, aquatic life, and watershed stewardship and providing youth and their families with fishing experiences. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Expanding River Watch Program on the Minnesota River With High School Teams**  
**Subd. 05e \$100,000 TF**

**Ted Suss**

Friends of the Minnesota Valley  
6601 Auto Club Road  
Bloomington, MN 55438  
Phone: (507) 828-3377  
Email: [tedlsuss@gmail.com](mailto:tedlsuss@gmail.com)

**Appropriation Language**

\$100,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Friends of the Minnesota Valley to expand a River Watch program on the Minnesota River to recruit at least 15 additional teams of high school students in monthly monitoring and reporting of water quality.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Pollinator Ambassadors Program for Gardens**  
**Subd. 05f \$250,000 TF**

**Elaine Evans**

U of MN  
1980 Folwell Ave, 219 Hodson Hall  
St. Paul, MN 55108  
Phone: (651) 644-1227  
Email: [evan0155@umn.edu](mailto:evan0155@umn.edu)  
Web: <https://www.beelab.umn.edu>

**Appropriation Language**

\$250,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to increase knowledge of pollinators in gardens and yards and improve pollinator habitat by expanding outreach, training, and

tools for Minnesota communities as part of the Pollinator Ambassadors program. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Morris Prairie Pollinator Demonstration Area and Education**

**Subd. 05g \$550,000 TF**

**Steven Poppe**

U of MN - Morris

WC Research and Outreach Ctr

Morris, MN 56267

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Email: [poppesr@morris.umn.edu](mailto:poppesr@morris.umn.edu)

Web: <http://www.wcroc.cfans.umn.edu>

**Appropriation Language**

\$550,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the West Central Research and Outreach Center at Morris to restore 17 acres of native prairie for pollinators and to construct wayside shelters and kiosks along an existing trail to provide information to visitors on the importance of pollinators and native prairie ecosystems. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Expanding Nature Knowledge and Experience with New Interactive Exhibits at North Mississippi Regional Park**

**Subd. 05h \$500,000 TF**

**MaryLynn Pulscher**

Minneapolis Parks and Recreation Board

3800 Bryant Ave S

Minneapolis, MN 55419

Phone: (612) 313-7784

Email: [mpulscher@minneapolisparcs.org](mailto:mpulscher@minneapolisparcs.org)

Web: <http://www.minneapolisparcs.org>

**Appropriation Language**

\$500,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the Minneapolis Park and Recreation Board to develop new interactive exhibits at North Mississippi Regional Park to encourage the approximately 326,000 annual visitors to better understand and explore the river and surrounding natural area.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Update International Wolf Center Exhibits**

**Subd. 05i \$1,000,000 TF**

**Rob Schultz**

International Wolf Center

7100 Northland Circle N, Ste 205

Brooklyn Park, MN 55428

Phone: (763) 560-7374 x222

Email: [rob@wolf.org](mailto:rob@wolf.org)

Web: <http://www.wolf.org>

**Appropriation Language**

\$1,000,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the International Wolf Center to design, construct, and install new interactive educational exhibits to help Minnesotans understand coexistence with the state's wolf populations and ongoing wolf- management efforts.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Expanding the State's Reuse Economy to Conserve Natural Resources**

**Subd. 05j \$275,000 TF**

**Steve Thomas**

ReUse Minnesota  
2446 University Ave W  
St. Paul, MN 55114

Phone: (612) 568-5566

Email: [sthomas@betterfutures.net](mailto:sthomas@betterfutures.net)

Web: <https://www.reusemn.org/>

**Appropriation Language**

\$275,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with ReUSE Minnesota to provide outreach and technical assistance to communities and small businesses to create and expand opportunities for reusing, renting, and repairing consumer goods as an alternative to using new materials so solid-waste disposal and its impacts are measurably reduced and more local reuse jobs are created. Net income generated as part of this appropriation may be reinvested in the project if a plan for reinvestment is approved in the work plan.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Expand Materials Reuse and Recycling Jobs Program**

**Subd. 05k \$800,000 TF**

**Steve Thomas**

The Network for Better Futures (D/B/A) Better Futures Minnesota  
PO Box 6596  
Minneapolis, MN 55406

Phone: (612) 455-6133

Email: [sthomas@betterfutures.net](mailto:sthomas@betterfutures.net)

Web: <https://www.betterfuturesminnesota.com>

**Appropriation Language**

\$665,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Better Futures Minnesota, in cooperation with the Northwest Indian Community Development Corporation, and \$135,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Natural Resources Research Institute in Duluth to expand building deconstruction and material-reuse practices and jobs in partnership with counties, tribes, and municipalities statewide and to document the environmental, health, and economic benefits of these practices. Net income generated by Better Futures as part of this or a previous related appropriation from the environment and natural resources trust fund may be reinvested in the project if a plan for reinvestment is approved in the work plan.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Increase Diversity in Environmental Careers to Serve Minnesota's Changing Demographics**  
**Subd. 05I \$550,000 TF**

**Denise Legato**

MN DNR

500 Lafayette Rd

St. Paul, MN 55155

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Web: <http://www.dnr.state.mn.us>

**Appropriation Language**

\$550,000 the second year is from the trust fund to the commissioner of natural resources in cooperation with Conservation Corps Minnesota and Iowa to provide a college-to-work pathway for students of diversity to pursue natural resources careers through internships and mentorships with state agencies. This appropriation is available until June 30, 2023, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2023 [Work Plan](#)

**Subd. 06 Aquatic and Terrestrial Invasive Species**

**Minnesota Invasive Terrestrial Plants and Pests Center - Phase 4**

**Subd. 06a \$3,500,000 TF**

**Robert Venette**

U of MN - MITTPC

1992 Folwell Ave

St. Paul, MN 55108

Phone: (612) 301-1405

Email: [venet001@umn.edu](mailto:venet001@umn.edu)

**Appropriation Language**

\$3,500,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for high-priority research at the Invasive Terrestrial Plants and Pests Center to protect Minnesota's natural and agricultural resources from terrestrial invasive plants, pathogens, and pests as identified through the center's strategic prioritization process. This appropriation is available until June 30, 2023, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2023 [Work Plan](#)

**Palmer Amaranth Detection and Eradication Continuation**

**Subd. 06b \$431,000 TF**

**Monika Chandler**

Minnesota Department of Agriculture

625 Robert St N

St. Paul, MN 55155

Phone: (651) 201-6537

Email: [monika.chandler@state.mn.us](mailto:monika.chandler@state.mn.us)

**Appropriation Language**

\$431,000 the second year is from the trust fund to the commissioner of agriculture to continue to monitor, ground survey, and control Palmer amaranth primarily in conservation plantings and to develop and implement aerial-survey methods to prevent infestation and protect prairies, other natural areas, and agricultural crops.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Evaluate Control Methods for Invasive Hybrid Cattails**

**Subd. 06c \$131,000 TF**

**Steve Windels**

Voyageurs National Park

360 Hwy 11 E

International Falls, MN 56649

Phone: (218) 283-6692

Email: [steve\\_windels@nps.gov](mailto:steve_windels@nps.gov)

**Appropriation Language**

\$131,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Voyageurs National Park to evaluate the effectiveness of mechanical harvesting and managing muskrat populations to remove exotic hybrid cattails and restore fish and wildlife habitat in Minnesota wetlands. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Developing RNA Interference to Control Zebra Mussels**

**Subd. 06d \$500,000 TF**

**Christopher Merkes**

U.S. Geological Survey

2630 Fanta Reed Rd

La Crosse, WI 54603

Phone: (608) 781-6316

Email: [cmerkes@usgs.gov](mailto:cmerkes@usgs.gov)

Web: <https://www.usgs.gov/staff-profiles/chris-m-merkes>

**Appropriation Language**

\$500,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the United States Geological Survey to develop a genetic control tool that exploits the natural process of RNA silencing to specifically target and effectively control zebra mussels without affecting other species or causing other nontarget effects. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Install and Evaluate an Invasive Carp Deterrent for Mississippi River Locks and Dams**

**Subd. 06e \$998,000 TF**

**Peter Sorensen**

U of MN - AIS Center

1980 Folwell Ave

St. Paul, MN 55108

Phone: (612) 624-4997

Email: [soren003@umn.edu](mailto:soren003@umn.edu)

Web: <http://fwcb.cfans.umn.edu/sorensen/>

#### **Appropriation Language**

\$998,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota in cooperation with the United States Army Corps of Engineers and the United States Fish and Wildlife Service to install, evaluate, and optimize a system in Mississippi River locks and dams to deter passage of invasive carp without negatively impacting native fish and to evaluate the ability of predator fish in the pools above the locks and dams to consume young carp. The project must conduct a cost comparison of equipment purchase versus lease options and choose the most effective option. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

#### **Determining Risk of a Toxic Alga in Minnesota Lakes**

**Subd. 06f \$200,000 TF**

##### **Adam Heathcote**

Science Museum of Minnesota - St. Croix Research Station

16910 152nd Street N

Marine on St. Croix, MN 55047

Phone: (651) 433-5953

Email: [aheathcote@smm.org](mailto:aheathcote@smm.org)

Web: <https://www.smm.org/scwrs>

#### **Appropriation Language**

\$200,000 the second year is from the trust fund to the Science Museum of Minnesota for the St. Croix Watershed Research Station to determine the historical distribution, abundance, and toxicity of the invasive blue-green alga, *Cylindrospermopsis raciborskii*, in about 20 lakes across Minnesota and inform managers and the public about the alga's spread and health risks. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

#### **Subd. 07 Air Quality and Renewable Energy**

##### **Develop Solar Window Concentrators for Electricity**

**Subd. 07a \$350,000 TF**

##### **Uwe Kortshagen**

U of MN

111 Church St SE

Minneapolis, MN 55455

Phone: (612) 625-4028

Email: [kortshagen@umn.edu](mailto:kortshagen@umn.edu)

#### **Appropriation Language**

\$350,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop, evaluate, and optimize thin film silicon-based luminescent solar window concentrators in order to produce inexpensive, clean energy and reduce air pollution. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Demonstrations for Community-Scale Storage System for Renewable Energy**  
**Subd. 07b \$550,000 TF**

**Ellen Anderson**

U of MN - I on E  
1954 Buford Ave, 229 19th Avenue S  
Minneapolis, MN 55455  
Phone: (612) 625-1981  
Email: [ellena@umn.edu](mailto:ellena@umn.edu)

**Appropriation Language**

\$550,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to install, demonstrate, and evaluate three community-scale storage systems for renewable energy and develop a guidebook on storing renewable energy for statewide use. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Develop Inexpensive Energy from Simple Roll-to-Roll Manufacturing**  
**Subd. 07c \$300,000 TF**

**Tianhong Cui**

U of MN  
111 Church St SE  
Minneapolis, MN 55455  
Phone: (612) 626-1636  
Email: [tcui@me.umn.edu](mailto:tcui@me.umn.edu)

**Appropriation Language**

\$300,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop inexpensive, high-efficiency solar energy with simple roll-to-roll advanced manufacturing technology, using new materials such as perovskite to make solar cells. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Subd. 08 Methods to Protect or Restore Land, Water, and Habitat**

**Nongame Wildlife Program Acceleration**  
**Subd. 08a \$220,000 TF**

**Carrol Henderson**

MN DNR  
500 Lafayette Rd, Box 25  
St. Paul, MN 55155  
Phone: (651) 259-5104  
Email: [carrol.henderson@state.mn.us](mailto:carrol.henderson@state.mn.us)  
Web: <http://www.dnr.state.mn.us>

**Appropriation Language**

\$220,000 the second year is from the trust fund to the commissioner of natural resources to accelerate the nongame wildlife program including rare wildlife data collection, habitat management, collaborative land protection, conservation education, and a new emphasis on promoting nature tourism to benefit wildlife, visitors, and rural communities.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Develop BioMulch to Replace Plastic Soil Covering in Vegetable and Fruit Production to Increase Yield and Reduce Waste**

**Subd. 08b \$310,000 TF**

**Paulo Pagliari**

U of MN - Lamberton

23669 130th Street

Lamberton, MN 56152

Phone: (507) 752-5065

Email: [pagli005@umn.edu](mailto:pagli005@umn.edu)

**Appropriation Language**

\$310,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop and test the performance of biodegradable biomulch to increase yield, conserve water, suppress weeds and pests, add nutrients to the soil, and replace large amounts of nonrecyclable and nondegradable plastic used in vegetable and fruit production. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Develop Market-Based Alternatives for Perennial Crops to Benefit Water Quality and Wildlife**

**Subd. 08c \$150,000 TF**

**Shawn Schottler**

Science Museum of Minnesota

16910 152nd St N

Marine on St Croix, MN 55047

Phone: (651) 433-5953

Email: [schottler@smm.org](mailto:schottler@smm.org)

**Appropriation Language**

\$150,000 the second year is from the trust fund to the Science Museum of Minnesota for the St. Croix Watershed Research Station to design and evaluate at least six market-based scenarios for perennial cropping systems in Minnesota, including technological and economic feasibility, and estimate their potential to improve water quality and provide wildlife habitat. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Agricultural Weed Control Using Autonomous Mowers**

**Subd. 08d \$750,000 TF**

**Eric Buchanan**

U of MN - Morris

46352 State Hwy 329

Morris, MN 56267

Phone: (612) 624-8869

Email: [buch0123@morris.umn.edu](mailto:buch0123@morris.umn.edu)

Web: <http://renewables.morris.umn.edu/>

#### **Appropriation Language**

\$750,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the West Central Research and Outreach Center at Morris to design, integrate, and field-test new technology mowers to control weeds, reduce herbicide use, reduce energy costs, and improve native vegetation and forage quality on agricultural lands. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

#### **Restoring Forests in Minnesota State Parks**

**Subd. 08e \$250,000 TF**

##### **Edward Quinn**

MN DNR

500 Lafayette Rd, Box 39

St. Paul, MN 55155

Phone: (651) 259-5594

Email: [edward.quinn@state.mn.us](mailto:edward.quinn@state.mn.us)

Web: <http://www.dnr.state.mn.us/index.html>

#### **Appropriation Language**

\$250,000 the second year is from the trust fund to the commissioner of natural resources to restore at least 255 acres of high-quality forests in state parks such as Itasca, Jay Cooke, and Forestville Mystery Cave State Parks and Greenleaf Lake State Recreation Area. This appropriation is available until June 30, 2023, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2023 [Work Plan](#)

#### **Develop Strategies for Timber Harvest to Minimize Soil Impacts to Maintain Healthy and Diverse Forests**

**Subd. 08f \$200,000 TF**

##### **Robert Slesak**

U of MN

1530 Cleveland Ave N

St. Paul, MN 55108

Phone: (651) 603-6756

Email: [rasleasak@umn.edu](mailto:rasleasak@umn.edu)

Web: <https://www.forestry.umn.edu>

#### **Appropriation Language**

\$200,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop strategies and practical tools to minimize soil compaction and other impacts across a range of conditions during timber harvest to maintain timber availability, improve regeneration of diverse forests, and benefit wildlife habitat. This appropriation is available until June 30, 2022, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

**Restoring Wetland Invertebrates to Revive Wildlife Habitat**  
**Subd. 08g \$400,000 TF**

**Danelle Larson**

MN DNR

102 23rd Street NE

Bemidji, MN 56601

Phone: (507) 313-9897

Email: [danellelarson77@gmail.com](mailto:danellelarson77@gmail.com)

**Appropriation Language**

\$400,000 the second year is from the trust fund to the commissioner of natural resources to assess invertebrate amphipods in wetlands and explore stocking them as a valuable food source for ducks and other wildlife in the Prairie Pothole Region of the state. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Preserving Minnesota's Native Orchids - Phase 2**

**Subd. 08h \$259,000 TF**

**David Remucal**

U of MN - Landscape Arboretum

3675 Arboretum Dr

Chaska, MN 55318

Phone: (952) 443-1418

Email: [remu0005@umn.edu](mailto:remu0005@umn.edu)

Web: [www.arboretum.umn.edu](http://www.arboretum.umn.edu)

**Appropriation Language**

\$259,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Minnesota Landscape Arboretum to expand collection and preservation efforts to enable long-term conservation of at least 25 of the 48 native orchid species in Minnesota and to continue propagation and cultivation research. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Subd. 09 Land Acquisition, Habitat, and Recreation**

**Grants for Local Parks, Trails, and Natural Areas**

**Subd. 09a \$2,000,000 TF**

**Audrey Mularie**

MN DNR

500 Lafayette Rd

St. Paul, MN 55155

Phone: (651) 259-5549

Email: [audrey.mularie@state.mn.us](mailto:audrey.mularie@state.mn.us)

Web: <https://www.mndnr.gov>

**Appropriation Language**

\$2,000,000 the second year is from the trust fund to the commissioner of natural resources to solicit, rank, and fund competitive matching grants for local parks, trail connections, and natural and scenic areas under Minnesota Statutes, section 85.019. The appropriation is for local nature-based recreation and connections to regional and state natural areas and recreation facilities and does not include athletic facilities such as sport fields, courts, and playgrounds. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Develop Mesabi Trail Segment From County Road 88 to Ely**

**Subd. 09b \$600,000 TF**

**Bob Manzoline**

St. Louis & Lake Counties Regional Railroad Authority

111 Station Rd

Eveleth, MN 55734

Phone: (218) 744-2653

Email: [bmanzoline@rrauth.com](mailto:bmanzoline@rrauth.com)

**Appropriation Language**

\$600,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the St. Louis and Lake Counties Regional Railroad Authority for environmental assessment, permitting, right-of-way easements or other acquisition as needed, engineering, and construction of an approximately three-mile-long bituminous surface section of the Mesabi Trail between Ely and the intersection of Highway 169 and County Road 88. This appropriation is available until June 30, 2022, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

**Harmony State Trail Extension Land Acquisition**

**Subd. 09c \$235,000 TF**

**Jerome Illg**

City of Harmony

225 3rd Ave SW, PO Box 488

Harmony, MN 55939

Phone: (507) 886-8122

Email: [cityoffice@harmony.mn.us](mailto:cityoffice@harmony.mn.us)

Web: <http://www.harmony.mn.us>

**Appropriation Language**

\$235,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the city of Harmony to acquire fee title of about 16 parcels to allow for the approximate six-mile extension of the legislatively authorized state trail from Harmony south to the Iowa state border with a spur to Niagara Cave. The land must be transferred to the state after it has been purchased.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Mississippi Blufflands State Trail - Red Wing Barn Bluff to Colvill Park Segment**

**Subd. 09d \$550,000 TF**

**Jay Owens**

City of Red Wing

315 Fourth St W  
Red Wing, MN 55066  
Phone: (651) 385-3625  
Email: [jay.owens@ci.red-wing.mn.us](mailto:jay.owens@ci.red-wing.mn.us)  
Web: <http://www.red-wing.org>

**Appropriation Language**

\$550,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the city of Red Wing to be used with other funds to construct an approximate three-quarter-mile-long hard-surfaced segment of the Mississippi Blufflands State Trail along Red Wing's Mississippi River riverfront from Barn Bluff Regional Park to Colvill Park. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Swedish Immigrant Regional Trail Segment within Interstate State Park**  
**Subd. 09e \$2,254,000 TF**

**Laird Mork**  
Chisago County  
38694 Tanger Dr  
North Branch, MN 55056  
Phone: (612) 674-8919  
Email: [Laird.Mork@chisagocounty.us](mailto:Laird.Mork@chisagocounty.us)

**Appropriation Language**

\$2,254,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Chisago County Environmental Services to construct an approximate one-half-mile regional county trail segment within Interstate State Park from the end point of the existing trail at the park boundary to city hall including a trail bridge over the ravine and parking and trailhead improvements and to conduct a natural and cultural review to determine the feasibility and route of a future section of the trail through the park. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

**Enhancement Plan for Superior Hiking Trail**  
**Subd. 09f \$100,000 TF**

**Denny Caneff**  
Superior Hiking Trail Association  
731 Seventh Ave, PO Box 4  
Two Harbors, MN 55616  
Phone: (218) 834-2700  
Email: [hike@shta.org](mailto:hike@shta.org)  
Web: <http://www.shta.org>

**Appropriation Language**

\$100,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the Superior Hiking Trail Association to evaluate improvements to the 310-mile-long Superior Hiking Trail including routing, safety, water management, maintenance, and other environmental, recreational, and design issues and to develop an interactive trail-management system to capture efficiencies and best management practices.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Protecting Mississippi River Headwaters Lands through Local, State, and Federal Partnership**  
**Subd. 09g \$700,000 TF**

**Josh Doty**

City of Baxter  
13190 Memorywood Dr  
Baxter, MN 56425

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Web: <http://www.baxtermn.gov/>

**Appropriation Language**

\$700,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the city of Baxter, in cooperation with Brainerd Public Schools and the Camp Ripley Sentinel Landscape Program, to acquire about 200 acres of forested land on the upper Mississippi River adjacent to Mississippi River Overlook Park for multiple public benefits, including being an outdoor classroom for local schools. To be eligible for reimbursement, costs for real estate transactions must be specific to this acquisition and documented as required in subdivision 15, paragraph (k).

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Protecting North-Central Minnesota Lakes**

**Subd. 09h \$750,000 TF**

**Sheila Boldt**

Crow Wing Soil and Water Conservation District  
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Brainerd, MN 56401

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Web: <http://crowwingswcd.org/>

**Appropriation Language**

\$750,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the Crow Wing County Soil and Water Conservation District to increase watershed protection to maintain and improve water quality in lakes and rivers in Aitkin and Crow Wing Counties with about ten permanent RIM conservation easements and 12 forest stewardship plans and by implementing six best management practices. Of this amount, up to \$59,000 may be contributed to an easement stewardship account established under Minnesota Statutes, section 103B.103, as approved in the work plan.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

**Easement Program for Native Prairie Bank**

**Subd. 09i \$2,000,000 TF**

**Judy Schulte**

MN DNR  
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Redwood Falls, MN 56283

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Web: <http://www.dnr.state.mn.us/snas/index.html>

#### **Appropriation Language**

\$2,000,000 the second year is from the trust fund to the commissioner of natural resources to provide technical stewardship assistance to private landowners, restore and enhance about 270 acres of native prairie protected by easements in the native prairie bank, and acquire easements for the native prairie bank in accordance with Minnesota Statutes, section 84.96, on about 275 acres, including preparing initial baseline property assessments. Up to \$120,000 of this appropriation may be deposited in the natural resources conservation easement stewardship account, created in Minnesota Statutes, section 84.69, proportional to the number of easement acres acquired. A list of proposed easement acquisitions and restoration sites for the native prairie bank are required in the work plan. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

#### **Minnesota State Trail Development**

**Subd. 09j \$2,500,000 TF**

##### **Kent Skaar**

MN DNR

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#### **Appropriation Language**

\$2,500,000 the second year is from the trust fund to the commissioner of natural resources to expand high-priority recreational opportunities on Minnesota's state trails by developing new trail segments and rehabilitating, improving, and enhancing existing state trails. High-priority trail segments to develop and enhance include but are not limited to the Gateway, Gitchi Gami, Paul Bunyan, and Heartland State Trails. A proposed list of trail projects on legislatively authorized state trails is required in the work plan. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

#### **Minnesota State Trail Development**

**Subd. 09k \$2,500,000 TF**

##### **Kent Skaar**

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#### **Appropriation Language**

\$2,500,000 the second year is from the trust fund to the commissioner of natural resources to acquire about 163 acres of high-priority in holdings from willing sellers within the legislatively authorized boundaries of state parks and trails in order to protect Minnesota's natural heritage, enhance outdoor recreational opportunities, and improve the efficiency of public land management. Priorities include but are not limited to Tettegouche, Sibley, and Minneopa State Parks and the Goodhue Pioneer State Trail. A list of proposed acquisitions is required in the

work plan. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

#### **Scientific and Natural Areas Program**

**Subd. 09I \$3,250,000 TF**

##### **Ann Pierce**

MN DNR

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St. Paul, MN 55155

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Web: <http://www.mndnr.gov/snas>

#### **Appropriation Language**

\$3,250,000 the second year is from the trust fund to the commissioner of natural resources for the scientific and natural areas program. Of this amount, \$1,500,000 is for habitat restoration activities, \$500,000 is for scientific and natural areas public engagement and outreach, and \$1,250,000 is to acquire strategic high-quality lands that meet criteria for scientific and natural areas under Minnesota Statutes, section 86A.05, from willing sellers. A list of proposed acquisitions and restorations is required in the work plan. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

**Project due to be completed:** 6/30/2021 [Work Plan](#)

#### **Subd. 10 Emerging Issues Account**

##### **Emerging Issues Account**

**Subd. 10 \$439,000 TF**

##### **Becca Nash**

LCCMR

100 Rev Dr Martin Luther King Jr Blvd

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Web: <https://www.lccmr.leg.mn>

#### **Appropriation Language**

\$439,000 the second year is from the trust fund to an emerging issues account authorized in Minnesota Statutes, section 116P.08, subdivision 4, paragraph (d).

**Project due to be completed:** 6/30/2020

#### **Subd. 11 Wastewater Treatment Recommendation**

##### **Wastewater Treatment System Grants**

**Subd. 11 \$0 TF**

##### **Public Facilities Authority (PFA)**

#### **Appropriation Language**

Until June 30, 2021, the Legislative-Citizen Commission on Minnesota Resources must consider recommending up

to \$10,000,000 of the available money from the trust fund to match appropriations from the bond proceeds fund for wastewater infrastructure funding that exceed \$10,000,000 per year for expenditure by the Public Facilities Authority for wastewater treatment grants to home rule charter and statutory cities and towns with a population under 5,000. The grants must be issued under Minnesota Statutes, sections 446A.072 and 446A.073. The recommendations may include a technical assistance program for recipients eligible under this subdivision. The commission must work with the Public Facilities Authority in developing its recommendations. Any deadlines established by the commission for submission of proposals for the commission's fiscal year 2020 recommendations are waived until July 1, 2018, for proposals authorized under this subdivision.

**Project due to be completed:** N/A

#### **Wastewater Treatment System Grants**

**Subd. 11b \$0 TF**

#### **Public Facilities Authority (PFA)**

##### **Appropriation Language**

The commission must consider recommending up to five percent of the corpus of the trust fund for loans to the Public Facilities Authority to issue loans under Minnesota Statutes, section 446A.07, to home rule charter and statutory cities and towns with a population under 5,000.

**Project due to be completed:** N/A

#### **Subd. 12.Contract Agreement Reimbursement**

##### **Contract Agreement Reimbursement**

**Subd. 12 \$135,000 TF**

**Katherine Sherman-Hoehn**

MN DNR

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Web: <http://www.dnr.state.mn.us>

##### **Appropriation Language**

\$135,000 the second year is from the trust fund to the commissioner of natural resources, at the direction of the Legislative-Citizen Commission on Minnesota Resources, for expenses incurred for preparing and administering contracts for the agreements specified in this section. The commissioner must provide documentation to the Legislative-Citizen Commission on Minnesota Resources on the expenditure of these funds.

**Project due to be completed:** 6/30/2020 [Work Plan](#)

#### **MN Laws 2018, Chapter 214, Article 6, Section 4**

##### **FY2019 Debt Service on Appropriations Bonds**

**Subd. 04 \$2,940,000 TF**

#### **Minnesota Management and Budget (MMB)**

##### **Appropriation Language**

Up to \$2,940,000 is appropriated in fiscal year 2019 and up to \$7,840,000 is appropriated each fiscal year beginning in fiscal year 2020 and through fiscal year 2039, from the environment and natural resources trust fund

to the commissioner of management and budget to pay principal and interest on appropriation bonds issued under this section, as provided in Minnesota Statutes, section 16A.969, subdivision 7.

**Project due to be completed:** 6/30/2020

**MN Laws 2018, Chapter 214, Article 6, Section 4**

**Natural Resources Asset Preservation**

**Subd. 05-1 \$3,419,000 TF**

**David C. Johnson**

MN DNR

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Web: <http://www.dnr.state.mn.us>

**Appropriation Language**

For the renovation of state -owned facilities and recreational assets within units of the outdoor recreation system classified under Minnesota Statutes, section 86A.05, operated by the commissioner of natural resources to be spent in accordance with Minnesota Statutes, section 84.946. Notwithstanding Minnesota Statutes, section 84.946, the commissioner may use this appropriation to replace buildings if, considering the embedded energy in the building, that is the most energy-efficient and carbon reducing method of renovation.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

**Elk River - Lake Orono**

**Subd. 05-2 \$1,500,000 TF**

**Brandon Wisner**

City of Elk River

13065 Orono Pkwy

Elk River, MN 55330

Phone: (763) 635-1000

Email: [bwisner@elkrivermn.gov](mailto:bwisner@elkrivermn.gov)

Web: <https://www.elkrivermn.gov/1569/Lake-Orono-Restoration-and-Enhancement>

**Appropriation Language**

For a grant to the city of Elk River to Dredge Lake Orono.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

**South St. Paul - Seidl's Lake**

**Subd. 05-3 \$781,000 TF**

**Chris Hartzell**

City of South St. Paul

125 3rd Avenue North

South St. Paul, MN 55075

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Web: <https://www.southstpaul.org>

**Appropriation Language**

For a grant to the city of South St. Paul for capital improvements to improve the water quality of Seidl's Lake. The capital improvements include design, engineering, construction, and equipping of a storm water lift station to discharge excess storm water into the city of South St. Paul's storm sewer system to minimize the fluctuating water levels of the lake. This project would be implemented jointly by the cities of South St. Paul, Inver Grove Heights, and West St. Paul.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

**Anoka County-Waste Disposal Engineering (WDE) Closed Landfill Cleanup  
Subd. 06-1 \$6,000,000 TF****Jamie Wallerstedt**

Minnesota Pollution Control Agency  
520 Lafayette Road  
St. Paul, MN 55155

Phone: (651) 757-2094

Email: [Jamie.Wallerstedt@state.mn.us](mailto:Jamie.Wallerstedt@state.mn.us)

Web: <https://www.pca.state.mn.us/featured/cleaning-hazardous-waste-wde-landfill>

**Appropriation Language**

Notwithstanding Minnesota Statutes, section 116P.08, subdivision 2, to design and construct remedial systems, including cleanup and removal of a leaking hazardous waste pit and protection of groundwater, at the Waste Disposal Engineering site in Anoka County in accordance with the closed landfill program under Minnesota Statutes, sections 115B.39 to 115B.42.

**Project due to be completed:** 6/30/2019 [Work Plan](#)

**Lake Redwood Reclamation  
Subd. 06-2 \$7,300,000 TF****Kerry Netzke**

Redwood-Cottonwood Rivers Control Area (RCRCA)  
1424 E. College Drive, Suite 300  
Marshall, MN 56258

Phone: (507) 532-1325

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Web: <https://www.rcrca.com>

**Appropriation Language**

For a grant to the Redwood-Cottonwood Rivers Control Area, a joint powers entity, to predesign, design, construct, and equip the reservoir reclamation and enhancement of the 66-acre Lake Redwood Reservoir, to remove approximately 650,000 cubic yards of sediment and increase its depth from approximately 2.8 feet to 20 feet in order to secure renewable energy capacity of the hydroelectric dam which is impeded by lack of water capacity, reduce the flow of pollutants to the Minnesota River, and increase fish habitat and enhance recreational opportunities.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

**Reinvest in Minnesota (RIM) Reserve Program  
Subd. 07 \$7,300,000 TF****Dave Rickert**

Minnesota Board of Water and Soil Resources

520 Lafayette Road North  
St. Paul, MN 55155  
Phone: (651) 539-2569  
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Web: <https://www.bwsr.state.mn.us>

#### **Appropriation Language**

(a) To acquire conservation easements from landowners to preserve, restore, create, and enhance wetlands and associated uplands of prairie and grasslands, and restore and enhance rivers and streams, riparian lands, and associated uplands of prairie and grasslands in order to protect soil and water quality, support fish and wildlife habitat, reduce flood damage, and provide other public benefits. The provisions of Minnesota Statutes, section 103F.515, apply to this program.

(b) The board shall give priority to leveraging federal money by enrolling targeted new lands or enrolling environmentally sensitive lands that have expiring federal conservation agreements.

(c) The board is authorized to enter into new agreements and amend past agreements with landowners as required by Minnesota Statutes, section 103F.515, subdivision 5, to allow for restoration.

(d) Of this appropriation, up to five percent may be used for restoration, rehabilitation, and enhancement; and no more than \$1,000,000 may be used to acquire working lands easements.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

#### **Public Facilities Authority**

**Subd. 08 \$59,000,000 TF**

#### **Jeff Freeman**

Public Facilities Authority  
322 Minnesota Street, Suite W820  
St. Paul, MN 55101-1378  
Phone: (651) 259-7465  
Email: [jeff.freeman@state.mn.us](mailto:jeff.freeman@state.mn.us)  
Web: [mn.gov/pfa](http://mn.gov/pfa)

#### **Appropriation Language**

(1) State Match for Federal Grants - \$6,000,000

To match federal grants for the clean water revolving fund for wastewater treatment under Minnesota Statutes, section 446A.07. This appropriation must be used for qualified capital projects.

(2) Water Infrastructure Funding Program - \$14,652,000

For grants to eligible municipalities under the wastewater infrastructure funding program under Minnesota Statutes, section 446A.072, for wastewater projects listed on the Pollution Control Agency's project priority list in the fundable range under the clean water revolving fund program.

(3) Point Source Implementation Grants Program - \$38,348,000

For grants to eligible municipalities under the point source implementation grants program under Minnesota Statutes, section 446A.073. This appropriation must be used for qualified capital projects.

**Project due to be completed:** 6/30/2022 [Work Plan](#)

#### **Metropolitan Regional Parks and Trails Capital Improvements**

**Subd. 09 \$10,000,000 TF**

**Deb Jensen**

Metropolitan Council  
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Web: [www.metrocouncil.org/parks](http://www.metrocouncil.org/parks)

**Appropriation Language**

For the cost of improvements and betterments of a capital nature and acquisition by the council and local government units of regional recreational open-space lands in accordance with the council's policy plan as provided in Minnesota Statutes, section 473.147. This appropriation must not be used to purchase easements.

**Project due to be completed:** 6/30/2022