

SENATE  
STATE OF MINNESOTA  
NINETIETH SESSION

S.F. No. 2934

(SENATE AUTHORS: WESTROM, Ingebrigtsen, Dahms, Tomassoni and Dziedzic)

DATE	D-PG	OFFICIAL STATUS
03/05/2018	6265	Introduction and first reading
03/29/2018		Referred to Environment and Natural Resources Finance Comm report: To pass as amended and re-refer to Finance

1.1 A bill for an act

1.2 relating to natural resources; appropriating money from environment and natural

1.3 resources trust fund; correcting previous appropriations; modifying requirements

1.4 for receipt of fund money; amending Minnesota Statutes 2016, sections 116P.08,

1.5 subdivision 2; 116P.12, subdivision 1; Laws 2015, chapter 76, section 2, subdivision

1.6 9; Laws 2017, chapter 96, section 2, subdivision 8.

1.7 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.8 Section 1. APPROPRIATIONS.

1.9 The sums shown in the columns marked "Appropriations" are appropriated to the agencies

1.10 and for the purposes specified in this act. The appropriations are from the environment and

1.11 natural resources trust fund, or another named fund, and are available for the fiscal years

1.12 indicated for each purpose. The figures "2018" and "2019" used in this act mean that the

1.13 appropriations listed under them are available for the fiscal year ending June 30, 2018, or

1.14 June 30, 2019, respectively. "The first year" is fiscal year 2018. "The second year" is fiscal

1.15 year 2019. "The biennium" is fiscal years 2018 and 2019.

	<u>APPROPRIATIONS</u>	
	<u>Available for the Year</u>	
	<u>Ending June 30</u>	
	<u>2018</u>	<u>2019</u>

1.20 Sec. 2. MINNESOTA RESOURCES

1.21	<u>Subdivision 1. Total Appropriation</u>	<u>\$</u>	<u>-0-</u>	<u>\$</u>	<u>45,828,000</u>
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1.22 The amounts that may be spent for each

1.23 purpose are specified in the following

1.24 subdivisions. Appropriations are available for

2.1 two years beginning July 1, 2018, unless  
 2.2 otherwise stated in the appropriation. Any  
 2.3 unencumbered balance remaining in the first  
 2.4 year does not cancel and is available for the  
 2.5 second year or until the end of the  
 2.6 appropriation.

2.7 **Subd. 2. Definition**

2.8 "Trust fund" means the Minnesota  
 2.9 environment and natural resources trust fund  
 2.10 established under the Minnesota Constitution,  
 2.11 article XI, section 14.

2.12 **Subd. 3. Foundational Natural Resource Data**  
 2.13 **and Information**

-0-

7,293,000

2.14 **(a) County Geologic Atlases - Part A**

2.15 \$2,500,000 the second year is from the trust  
 2.16 fund to the Board of Regents of the University  
 2.17 of Minnesota, Minnesota Geological Survey,  
 2.18 to continue producing county geologic atlases  
 2.19 for the purpose of informed management of  
 2.20 surface water and groundwater resources. This  
 2.21 appropriation is to complete part A, which  
 2.22 focuses on the properties and distribution of  
 2.23 earth materials to define aquifer boundaries  
 2.24 and the connection of aquifers to the land  
 2.25 surface and surface water resources. This  
 2.26 appropriation is available until June 30, 2022,  
 2.27 by which time the project must be completed  
 2.28 and final products delivered.

2.29 **(b) County Geologic Atlases - Part B**

2.30 \$1,500,000 the second year is from the trust  
 2.31 fund to the commissioner of natural resources  
 2.32 to continue producing county geologic atlases  
 2.33 for the purpose of informed management of  
 2.34 surface water and groundwater resources for  
 2.35 drinking water and other purposes. This

3.1 appropriation is to complete part B, which  
3.2 uses the geologic formations mapped in part  
3.3 A of the county geologic atlas project to  
3.4 characterize the potential water yields of  
3.5 aquifers and their sensitivity to contamination.

3.6 This appropriation is available until June 30,  
3.7 2021, by which time the project must be  
3.8 completed and final products delivered.

3.9 **(c) Providing Critical Water-Quality**  
3.10 **Information for Lake Management**

3.11 \$250,000 the second year is from the trust  
3.12 fund to the Board of Regents of the University  
3.13 of Minnesota to develop a semiautomated  
3.14 system to acquire, process, and deliver new  
3.15 satellite-derived water-quality data in near real  
3.16 time on water clarity, algae, and turbidity for  
3.17 Minnesota lakes. This appropriation is  
3.18 available until June 30, 2021, by which time  
3.19 the project must be completed and final  
3.20 products delivered.

3.21 **(d) Minnesota Biodiversity Atlas - Phase 2**

3.22 \$350,000 the second year is from the trust  
3.23 fund to the Board of Regents of the University  
3.24 of Minnesota to expand the biodiversity atlas  
3.25 project by adding more than 800,000 records  
3.26 and images of Minnesota wildlife, plants, and  
3.27 fungi, including observations from state  
3.28 agencies and other museum collections, to  
3.29 enhance research, guide field surveys, and  
3.30 inform conservation planning. This  
3.31 appropriation is available until June 30, 2021,  
3.32 by which time the project must be completed  
3.33 and final products delivered.

3.34 **(e) Peatland Forest Management**

4.1 \$600,000 the second year is from the trust  
4.2 fund to the Board of Regents of the University  
4.3 of Minnesota to identify management actions  
4.4 to maximize benefits to wildlife, water quality,  
4.5 timber production, and native plant  
4.6 communities in peatland forests. This  
4.7 appropriation is available until June 30, 2022,  
4.8 by which time the project must be completed  
4.9 and final products delivered.

4.10 **(f) Assessing Natural Resource Benefits Provided**  
4.11 **by Lichens and Mosses**

4.12 \$213,000 the second year is from the trust  
4.13 fund to the Board of Regents of the University  
4.14 of Minnesota to survey, map, and analyze  
4.15 mosses and lichens across the state, including  
4.16 their moisture-retention capacity, effects on  
4.17 hydrology, and ability to filter airborne  
4.18 pollutants. This appropriation is available until  
4.19 June 30, 2021, by which time the project must  
4.20 be completed and final products delivered.

4.21 **(g) Develop a System to Assess Wildlife Health**  
4.22 **Threats in Minnesota**

4.23 \$280,000 the second year is from the trust  
4.24 fund to the Board of Regents of the University  
4.25 of Minnesota to develop a statewide  
4.26 information-management system that uses  
4.27 wildlife-rehabilitation data to identify  
4.28 emerging threats to wildlife health in  
4.29 Minnesota.

4.30 **(h) Conserving Minnesota's Forest Birds of**  
4.31 **Management Concern**

4.32 \$500,000 the second year is from the trust  
4.33 fund to the Board of Regents of the University  
4.34 of Minnesota for the Natural Resources  
4.35 Research Institute in Duluth to identify  
4.36 forest-management actions and guidelines to

5.1 conserve birds in Minnesota's forests. This  
5.2 appropriation is available until June 30, 2021,  
5.3 by which time the project must be completed  
5.4 and final products delivered.

5.5 **(i) Mapping Avian Movement in Minnesota**

5.6 \$200,000 the second year is from the trust  
5.7 fund to the Board of Regents of the University  
5.8 of Minnesota for the Natural Resources  
5.9 Research Institute in Duluth to pilot the  
5.10 establishment of a network of automated  
5.11 radio-telemetry stations to monitor bird  
5.12 migration and local movements and to develop  
5.13 strategic plans for using the infrastructure long  
5.14 term to monitor animal movement for  
5.15 conservation. This appropriation is available  
5.16 until June 30, 2021, by which time the project  
5.17 must be completed and final products  
5.18 delivered.

5.19 **(j) Improve Trout-Stream Management by**  
5.20 **Understanding Variable Winter Thermal**  
5.21 **Conditions**

5.22 \$400,000 the second year is from the trust  
5.23 fund to the Board of Regents of the University  
5.24 of Minnesota to identify how winter  
5.25 groundwater flows, air temperature, and  
5.26 streambed conditions affect insect productivity  
5.27 in order to guide restoration and management  
5.28 efforts in southeastern Minnesota trout  
5.29 streams. This appropriation is available until  
5.30 June 30, 2021, by which time the project must  
5.31 be completed and final products delivered.

5.32 **(k) Conserving Minnesota's Nine Species of**  
5.33 **Freshwater Turtles**

5.34 \$300,000 the second year is from the trust  
5.35 fund to the Minnesota Zoological Garden to  
5.36 improve the long-term viability of Minnesota's

6.1 imperiled turtle populations by researching  
 6.2 threats, identifying mitigation strategies,  
 6.3 implementing mechanisms to reduce threats  
 6.4 and mortality, and creating related outreach  
 6.5 and educational materials. This appropriation  
 6.6 is available until June 30, 2021, by which time  
 6.7 the project must be completed and final  
 6.8 products delivered.

6.9 **(l) Develop Sonar Data Mapping on Three**  
 6.10 **Rivers to Assess Suitability for Native Mussel**  
 6.11 **Habitat**

6.12 \$200,000 the second year is from the trust  
 6.13 fund to the commissioner of natural resources  
 6.14 for an agreement with the National Park  
 6.15 Service to create high-resolution sonar data  
 6.16 maps to identify critical native mussel habitat  
 6.17 for the designated Lower St. Croix National  
 6.18 Scenic Riverway and the Mississippi National  
 6.19 River and Recreation Area including part of  
 6.20 the Minnesota River.

6.21 Subd. 4. Water Resources -0- 5,275,000

6.22 **(a) Pilot Program to Optimize Local Mechanical**  
 6.23 **and Pond Wastewater-Treatment Plants**

6.24 \$700,000 the second year is from the trust  
 6.25 fund to the commissioner of the Minnesota  
 6.26 Pollution Control Agency, in partnership with  
 6.27 the Minnesota Rural Water Association and  
 6.28 the University of Minnesota's Technical  
 6.29 Assistance Program, to implement a pilot  
 6.30 program to optimize existing local mechanical  
 6.31 and pond wastewater-treatment systems to  
 6.32 increase nutrient removal and improve  
 6.33 efficiency without requiring costly upgrades.

6.34 **(b) Assess and Develop Strategies to Remove**  
 6.35 **Microscopic Plastic-Particle Pollution from**  
 6.36 **Minnesota Water Bodies**

7.1 \$300,000 the second year is from the trust  
7.2 fund to the Board of Regents of the University  
7.3 of Minnesota to assess, track, and develop  
7.4 methods to remove microscopic plastic  
7.5 particles that are dispersed and accumulating  
7.6 as pollution in Minnesota water bodies. This  
7.7 appropriation is subject to Minnesota Statutes,  
7.8 section 116P.10. This appropriation is  
7.9 available until June 30, 2021, by which time  
7.10 the project must be completed and final  
7.11 products delivered.

7.12 **(c) Reduce Chlorides in Minnesota Waters by**  
7.13 **Evaluating Road-Salt Alternatives and**  
7.14 **Pavement Innovations**

7.15 \$400,000 the second year is from the trust  
7.16 fund to the Board of Regents of the University  
7.17 of Minnesota to investigate road-salt  
7.18 alternatives and pavement innovations to  
7.19 reduce lake, stream, and groundwater  
7.20 degradation caused by road-salt chlorides. This  
7.21 appropriation is available until June 30, 2021,  
7.22 by which time the project must be completed  
7.23 and final products delivered.

7.24 **(d) Protect Water Quality with Efficient**  
7.25 **Removal of Contaminants in Treatment Ponds**  
7.26 **for Storm Water**

7.27 \$325,000 the second year is from the trust  
7.28 fund to the Board of Trustees of the Minnesota  
7.29 State Colleges and Universities system for St.  
7.30 Cloud State University to evaluate the  
7.31 effectiveness of best management practices in  
7.32 removing contaminants from storm water to  
7.33 safeguard aquatic habitats. This appropriation  
7.34 is available until June 30, 2021, by which time  
7.35 the project must be completed and final  
7.36 products delivered.

8.1 **(e) Develop Small and Inexpensive Purification**  
8.2 **System for Community Drinking Water**

8.3 \$425,000 the second year is from the trust  
8.4 fund to the Board of Regents of the University  
8.5 of Minnesota to develop a small and  
8.6 inexpensive purification-technology system  
8.7 for community drinking-water facilities to  
8.8 remove toxic contaminants, make water safe  
8.9 to drink, and improve drinking-water quality.  
8.10 This appropriation is subject to Minnesota  
8.11 Statutes, section 116P.10. This appropriation  
8.12 is available until June 30, 2021, by which time  
8.13 the project must be completed and final  
8.14 products delivered.

8.15 **(f) Evaluate Emerging Pathogens in Lakes,**  
8.16 **Rivers, and Tap Water to Keep Drinking Water**  
8.17 **Safe**

8.18 \$325,000 the second year is from the trust  
8.19 fund to the Board of Regents of the University  
8.20 of Minnesota to evaluate emerging pathogens  
8.21 including Legionella and mycobacteria to  
8.22 ensure that surface water used for drinking  
8.23 water and tap water is safe to drink. This  
8.24 appropriation is available until June 30, 2021,  
8.25 by which time the project must be completed  
8.26 and final products delivered.

8.27 **(g) Characterize Unregulated Contaminants in**  
8.28 **Source Water and Drinking Water**

8.29 \$1,000,000 the second year is from the trust  
8.30 fund to the commissioner of health to establish  
8.31 monitoring networks of public water-system  
8.32 wells and surface-water intakes to determine  
8.33 if contaminants persist after standard public  
8.34 water treatment. This appropriation is  
8.35 available until June 30, 2022, by which time



9.1 the project must be completed and final  
9.2 products delivered.

9.3 **(h) Mapping Antibiotic Resistance in Minnesota**  
9.4 **to Help Protect Environmental, Animal, and**  
9.5 **Human Health**

9.6 \$750,000 the second year is from the trust  
9.7 fund to the Board of Regents of the University  
9.8 of Minnesota to quantify and map antibiotic  
9.9 and antibiotic-resistance gene contamination  
9.10 in Minnesota waters and soils to identify  
9.11 locations in need of mitigation to protect  
9.12 environmental, animal, and human health. This  
9.13 appropriation is available until June 30, 2021,  
9.14 by which time the project must be completed  
9.15 and final products delivered.

9.16 **(i) Farmer-Led Expansion of Alfalfa Production**  
9.17 **to Increase Water Protection**

9.18 \$500,000 the second year is from the trust  
9.19 fund to the Board of Regents of the University  
9.20 of Minnesota to develop a farmer-led,  
9.21 market-based working-lands approach to  
9.22 increase water protection in agricultural areas  
9.23 by targeted expansion of alfalfa production  
9.24 and development of methods to convert alfalfa  
9.25 to high-value bioproducts. This appropriation  
9.26 is available until June 30, 2021, by which time  
9.27 the project must be completed and final  
9.28 products delivered.

9.29 **(j) Using Perennial Grain Crops in Wellhead**  
9.30 **Protection Areas to Protect Groundwater**

9.31 \$250,000 the second year is from the trust  
9.32 fund to the commissioner of agriculture to  
9.33 establish demonstration plots of Kernza, a new  
9.34 intermediate perennial grain crop, to evaluate  
9.35 the potential to profitably reduce nitrate  
9.36 contamination of groundwater in vulnerable

10.1 wellhead protection regions of Minnesota.

10.2 Any income generated as part of this

10.3 appropriation may be used to expand the

10.4 project.

10.5 **(k) Implement Pilot Credit-Trading System for**  
 10.6 **Storm Water in Shell Rock River Watershed to**  
 10.7 **Improve Water Quality**

10.8 \$300,000 the second year is from the trust

10.9 fund to the commissioner of natural resources

10.10 for an agreement with the Shell Rock River

10.11 Watershed District to develop and implement

10.12 a pilot water-quality credit-trading program

10.13 for storm water that provides voluntary and

10.14 cost-effective options to reduce pollution on

10.15 a watershed scale.

10.16 **Subd. 5. Technical Assistance, Outreach, and**  
 10.17 **Environmental Education**

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5,168,000

10.18 **(a) Prairie Sportsman Statewide Environmental**  
 10.19 **Broadcasts and Videos**

10.20 \$300,000 the second year is from the trust

10.21 fund to the commissioner of natural resources

10.22 for an agreement with Pioneer Public

10.23 Television to provide outreach on outdoor

10.24 recreation, conservation, and natural resource

10.25 issues, including water quality, wildlife

10.26 habitat, and invasive species, through a series

10.27 of interrelated educational and training videos

10.28 and statewide broadcast television programs.

10.29 **(b) YES! Students Take on Minnesota Water-**  
 10.30 **Quality Challenge**

10.31 \$213,000 the second year is from the trust

10.32 fund to the commissioner of natural resources

10.33 for an agreement with Prairie Woods

10.34 Environmental Learning Center to expand the

10.35 Youth Energy Summit (YES!) model to

10.36 improve local waterways by training and

11.1 mobilizing over 20 youth-led teams in  
11.2 Minnesota communities to complete 30 or  
11.3 more projects related to water quality  
11.4 including monitoring and reporting.

11.5 **(c) Get Outdoors After-School Training**

11.6 \$30,000 the second year is from the trust fund  
11.7 to the commissioner of natural resources for  
11.8 an agreement with Project Get Outdoors to  
11.9 train and equip youth leaders at out-of-school  
11.10 youth organizations across Minnesota with  
11.11 knowledge, skills, and resources to incorporate  
11.12 outdoor nature activities into after-school  
11.13 programs for at least 6,000 children, including  
11.14 those from underserved populations.

11.15 **(d) Connecting Students with Water**  
11.16 **Stewardship through Hands-on Learning**

11.17 \$400,000 the second year is from the trust  
11.18 fund to the commissioner of natural resources  
11.19 for an agreement with Minnesota Trout  
11.20 Unlimited to engage students in classroom and  
11.21 outdoor hands-on learning focused on water  
11.22 quality, groundwater, aquatic life, and  
11.23 watershed stewardship and providing youth  
11.24 and their families with fishing experiences.

11.25 This appropriation is available until June 30,  
11.26 2021, by which time the project must be  
11.27 completed and final products delivered.

11.28 **(e) Expanding River Watch Program on the**  
11.29 **Minnesota River With High School Teams**

11.30 \$100,000 the second year is from the trust  
11.31 fund to the commissioner of natural resources  
11.32 for an agreement with Friends of the  
11.33 Minnesota Valley to expand a River Watch  
11.34 program on the Minnesota River to recruit at  
11.35 least 15 additional teams of high school

12.1 students in monthly monitoring and reporting  
 12.2 of water quality.

12.3 **(f) Increase Diversity in Environmental Careers**  
 12.4 **to Serve Minnesota's Changing Demographics**

12.5 \$750,000 the second year is from the trust  
 12.6 fund to the commissioner of natural resources  
 12.7 in cooperation with Conservation Corps  
 12.8 Minnesota and Iowa to provide a  
 12.9 college-to-work pathway for students of  
 12.10 diversity to pursue natural resources careers  
 12.11 through internships and mentorships with state  
 12.12 agencies. This appropriation is available until  
 12.13 June 30, 2023, by which time the project must  
 12.14 be completed and final products delivered.

12.15 **(g) Pollinator Ambassadors Program for**  
 12.16 **Gardens**

12.17 \$250,000 the second year is from the trust  
 12.18 fund to the Board of Regents of the University  
 12.19 of Minnesota to increase knowledge of  
 12.20 pollinators in gardens and yards and improve  
 12.21 pollinator habitat by expanding outreach,  
 12.22 training, and tools for Minnesota communities  
 12.23 as part of the Pollinator Ambassadors program.  
 12.24 This appropriation is available until June 30,  
 12.25 2021, by which time the project must be  
 12.26 completed and final products delivered.

12.27 **(h) Morris Prairie Pollinator Demonstration**  
 12.28 **Area and Education**

12.29 \$550,000 the second year is from the trust  
 12.30 fund to the Board of Regents of the University  
 12.31 of Minnesota for the West Central Research  
 12.32 and Outreach Center at Morris to restore 17  
 12.33 acres of native prairie for pollinators and to  
 12.34 construct wayside shelters and kiosks along  
 12.35 an existing trail to provide information to  
 12.36 visitors on the importance of pollinators and

13.1 native prairie ecosystems. This appropriation  
13.2 is available until June 30, 2021, by which time  
13.3 the project must be completed and final  
13.4 products delivered.

13.5 **(i) Expanding Nature Knowledge and**  
13.6 **Experience with New Interactive Exhibits at**  
13.7 **North Mississippi Regional Park**

13.8 \$500,000 the second year is from the trust  
13.9 fund to the commissioner of natural resources  
13.10 for an agreement with the Minneapolis Park  
13.11 and Recreation Board to develop new  
13.12 interactive exhibits at North Mississippi  
13.13 Regional Park to encourage the approximately  
13.14 326,000 annual visitors to better understand  
13.15 and explore the river and surrounding natural  
13.16 area.

13.17 **(j) Update International Wolf Center Exhibits**

13.18 \$1,000,000 the second year is from the trust  
13.19 fund to the commissioner of natural resources  
13.20 for an agreement with the International Wolf  
13.21 Center to design, construct, and install new  
13.22 interactive educational exhibits to help  
13.23 Minnesotans understand coexistence with the  
13.24 state's wolf populations and ongoing wolf-  
13.25 management efforts.

13.26 **(k) Expanding the State's Reuse Economy to**  
13.27 **Conserve Natural Resources**

13.28 \$275,000 the second year is from the trust  
13.29 fund to the commissioner of natural resources  
13.30 for an agreement with ReUSE Minnesota to  
13.31 provide outreach and technical assistance to  
13.32 communities and small businesses to create  
13.33 and expand opportunities for reusing, renting,  
13.34 and repairing consumer goods as an alternative  
13.35 to using new materials so solid-waste disposal

14.1 and its impacts are measurably reduced and  
14.2 more local reuse jobs are created.

14.3 **(l) Expand Materials Reuse and Recycling Jobs**  
14.4 **Program**

14.5 \$665,000 the second year is from the trust  
14.6 fund to the commissioner of natural resources  
14.7 for an agreement with Better Futures  
14.8 Minnesota, in cooperation with the Northwest  
14.9 Indian Community Development Corporation,  
14.10 and \$135,000 the second year is from the trust  
14.11 fund to the Board of Regents of the University  
14.12 of Minnesota for the Natural Resources  
14.13 Research Institute in Duluth to expand  
14.14 building deconstruction and material-reuse  
14.15 practices and jobs in partnership with counties,  
14.16 tribes, and municipalities statewide and to  
14.17 document the environmental, health, and  
14.18 economic benefits of these practices.

14.19 **Subd. 6. Aquatic and Terrestrial Invasive Species** -0- 5,760,000

14.20 **(a) Minnesota Invasive Terrestrial Plants and**  
14.21 **Pests Center - Phase 4**

14.22 \$3,500,000 the second year is from the trust  
14.23 fund to the Board of Regents of the University  
14.24 of Minnesota for high-priority research at the  
14.25 Invasive Terrestrial Plants and Pests Center  
14.26 to protect Minnesota’s natural and agricultural  
14.27 resources from terrestrial invasive plants,  
14.28 pathogens, and pests as identified through the  
14.29 center's strategic prioritization process. This  
14.30 appropriation is available until June 30, 2023,  
14.31 by which time the project must be completed  
14.32 and final products delivered.

14.33 **(b) Palmer Amaranth Detection and Eradication**  
14.34 **Continuation**

14.35 \$431,000 the second year is from the trust  
14.36 fund to the commissioner of agriculture to

15.1 continue to monitor, ground survey, and  
15.2 control Palmer amaranth primarily in  
15.3 conservation plantings and to develop and  
15.4 implement aerial-survey methods to prevent  
15.5 infestation and protect prairies, other natural  
15.6 areas, and agricultural crops.

15.7 **(c) Evaluate Control Methods for Invasive**  
15.8 **Hybrid Cattails**

15.9 \$131,000 the second year is from the trust  
15.10 fund to the commissioner of natural resources  
15.11 for an agreement with Voyageurs National  
15.12 Park to evaluate the effectiveness of  
15.13 mechanical harvesting and managing muskrat  
15.14 populations to remove exotic hybrid cattails  
15.15 and restore fish and wildlife habitat in  
15.16 Minnesota wetlands. This appropriation is  
15.17 available until June 30, 2021, by which time  
15.18 the project must be completed and final  
15.19 products delivered.

15.20 **(d) Developing RNA Interference to Control**  
15.21 **Zebra Mussels**

15.22 \$500,000 the second year is from the trust  
15.23 fund to the commissioner of natural resources  
15.24 for an agreement with the United States  
15.25 Geological Survey to develop a genetic control  
15.26 tool that exploits the natural process of RNA  
15.27 silencing to specifically target and effectively  
15.28 control zebra mussels without affecting other  
15.29 species or causing other nontarget effects. This  
15.30 appropriation is available until June 30, 2021,  
15.31 by which time the project must be completed  
15.32 and final products delivered.

15.33 **(e) Install and Evaluate an Invasive Carp**  
15.34 **Deterrent for Mississippi River Locks and Dams**

15.35 \$998,000 the second year is from the trust  
15.36 fund to the Board of Regents of the University

16.1 of Minnesota in cooperation with the United  
 16.2 States Army Corps of Engineers and the  
 16.3 United States Fish and Wildlife Service to  
 16.4 install, evaluate, and optimize a system in  
 16.5 Mississippi River locks and dams to deter  
 16.6 passage of invasive carp without negatively  
 16.7 impacting native fish and to evaluate the  
 16.8 ability of predator fish in the pools above the  
 16.9 locks and dams to consume young carp. The  
 16.10 project must conduct a cost comparison of  
 16.11 equipment purchase versus lease options and  
 16.12 choose the most effective option. This  
 16.13 appropriation is available until June 30, 2021,  
 16.14 by which time the project must be completed  
 16.15 and final products delivered.

16.16 **(f) Determining Risk of Toxic Alga in Minnesota**  
 16.17 **Lakes**

16.18 \$200,000 the second year is from the trust  
 16.19 fund to the Science Museum of Minnesota for  
 16.20 the St. Croix Watershed Research Station to  
 16.21 determine the historical distribution,  
 16.22 abundance, and toxicity of the invasive  
 16.23 blue-green alga, *Cylindrospermopsis*  
 16.24 *raciborskii*, in about 20 lakes across Minnesota  
 16.25 and inform managers and the public about the  
 16.26 alga's spread and health risks. This  
 16.27 appropriation is available until June 30, 2021,  
 16.28 by which time the project must be completed  
 16.29 and final products delivered.

16.30 **Subd. 7. Air Quality and Renewable Energy**

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1,200,000

16.31 **(a) Develop Solar Window Concentrators for**  
 16.32 **Electricity**

16.33 \$350,000 the second year is from the trust  
 16.34 fund to the Board of Regents of the University  
 16.35 of Minnesota to develop, evaluate, and  
 16.36 optimize thin film silicon-based luminescent



17.1 solar window concentrators in order to  
 17.2 produce inexpensive, clean energy and reduce  
 17.3 air pollution. This appropriation is subject to  
 17.4 Minnesota Statutes, section 116P.10. This  
 17.5 appropriation is available until June 30, 2021,  
 17.6 by which time the project must be completed  
 17.7 and final products delivered.

17.8 **(b) Demonstrations for Community-Scale**  
 17.9 **Storage Systems for Renewable Energy**

17.10 \$550,000 the second year is from the trust  
 17.11 fund to the Board of Regents of the University  
 17.12 of Minnesota to install, demonstrate, and  
 17.13 evaluate three community-scale storage  
 17.14 systems for renewable energy and develop a  
 17.15 guidebook on storing renewable energy for  
 17.16 statewide use. This appropriation is available  
 17.17 until June 30, 2021, by which time the project  
 17.18 must be completed and final products  
 17.19 delivered.

17.20 **(c) Develop Inexpensive Energy from Simple**  
 17.21 **Roll-to-Roll Manufacturing**

17.22 \$300,000 the second year is from the trust  
 17.23 fund to the Board of Regents of the University  
 17.24 of Minnesota to develop inexpensive,  
 17.25 high-efficiency solar energy with simple  
 17.26 roll-to-roll advanced manufacturing  
 17.27 technology, using new materials such as  
 17.28 perovskite to make solar cells. This  
 17.29 appropriation is subject to Minnesota Statutes,  
 17.30 section 116P.10. This appropriation is  
 17.31 available until June 30, 2021, by which time  
 17.32 the project must be completed and final  
 17.33 products delivered.

17.34 **Subd. 8. Methods to Protect or Restore Land,**  
 17.35 **Water, and Habitat**

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3,119,000

17.36 **(a) Nongame Wildlife Program Acceleration**

18.1 \$1,000,000 the second year is from the trust  
18.2 fund to the commissioner of natural resources  
18.3 to accelerate the nongame wildlife program  
18.4 including rare wildlife data collection, habitat  
18.5 management, collaborative land protection,  
18.6 conservation education, and a new emphasis  
18.7 on promoting nature tourism to benefit  
18.8 wildlife, visitors, and rural communities.

18.9 **(b) Develop Biomulch to Replace Plastic Soil**  
18.10 **Covering in Vegetable and Fruit Production to**  
18.11 **Increase Yield and Reduce Waste**

18.12 \$310,000 the second year is from the trust  
18.13 fund to the Board of Regents of the University  
18.14 of Minnesota to develop and test the  
18.15 performance of biodegradable biomulch to  
18.16 increase yield, conserve water, suppress weeds  
18.17 and pests, add nutrients to the soil, and replace  
18.18 large amounts of nonrecyclable and  
18.19 nondegradable plastic used in vegetable and  
18.20 fruit production. This appropriation is  
18.21 available until June 30, 2021, by which time  
18.22 the project must be completed and final  
18.23 products delivered.

18.24 **(c) Develop Market-Based Alternatives for**  
18.25 **Perennial Crops to Benefit Water Quality and**  
18.26 **Wildlife**

18.27 \$150,000 the second year is from the trust  
18.28 fund to the Science Museum of Minnesota for  
18.29 the St. Croix Watershed Research Station to  
18.30 design and evaluate at least six market-based  
18.31 scenarios for perennial cropping systems in  
18.32 Minnesota, including technological and  
18.33 economic feasibility, and estimate their  
18.34 potential to improve water quality and provide  
18.35 wildlife habitat. This appropriation is available  
18.36 until June 30, 2021, by which time the project

19.1 must be completed and final products  
19.2 delivered.

19.3 **(d) Agricultural Weed Control Using**  
19.4 **Autonomous Mowers**

19.5 \$550,000 the second year is from the trust  
19.6 fund to the Board of Regents of the University  
19.7 of Minnesota for the West Central Research  
19.8 and Outreach Center at Morris to design,  
19.9 integrate, and field-test an autonomous pasture  
19.10 mower and solar charging station to control  
19.11 weeds, reduce herbicide use, reduce energy  
19.12 costs, and improve native vegetation and  
19.13 forage quality on agricultural lands. This  
19.14 appropriation is subject to Minnesota Statutes,  
19.15 section 116P.10. This appropriation is  
19.16 available until June 30, 2021, by which time  
19.17 the project must be completed and final  
19.18 products delivered.

19.19 **(e) Restoring Forests in Minnesota State Parks**

19.20 \$250,000 the second year is from the trust  
19.21 fund to the commissioner of natural resources  
19.22 to restore at least 255 acres of high-quality  
19.23 forests in state parks such as Itasca, Jay Cooke,  
19.24 and Forestville Mystery Cave State Parks and  
19.25 Greenleaf Lake State Recreation Area. This  
19.26 appropriation is available until June 30, 2023,  
19.27 by which time the project must be completed  
19.28 and final products delivered.

19.29 **(f) Develop Strategies for Timber Harvest to**  
19.30 **Minimize Soil Impacts to Maintain Healthy and**  
19.31 **Diverse Forests**

19.32 \$200,000 the second year is from the trust  
19.33 fund to the Board of Regents of the University  
19.34 of Minnesota to develop strategies and  
19.35 practical tools to minimize soil compaction  
19.36 and other impacts across a range of conditions

20.1 during timber harvest to maintain timber  
 20.2 availability, improve regeneration of diverse  
 20.3 forests, and benefit wildlife habitat. This  
 20.4 appropriation is available until June 30, 2022,  
 20.5 by which time the project must be completed  
 20.6 and final products delivered.

20.7 **(g) Restoring Wetland Invertebrates to Revive**  
 20.8 **Wildlife Habitat**

20.9 \$400,000 the second year is from the trust  
 20.10 fund to the commissioner of natural resources  
 20.11 to assess invertebrate amphipods in wetlands  
 20.12 and explore stocking them as a valuable food  
 20.13 source for ducks and other wildlife in the  
 20.14 Prairie Pothole Region of the state. This  
 20.15 appropriation is available until June 30, 2021,  
 20.16 by which time the project must be completed  
 20.17 and final products delivered.

20.18 **(h) Preserving Minnesota's Native Orchids -**  
 20.19 **Phase 2**

20.20 \$259,000 the second year is from the trust  
 20.21 fund to the Board of Regents of the University  
 20.22 of Minnesota for the Minnesota Landscape  
 20.23 Arboretum to expand collection and  
 20.24 preservation efforts to enable long-term  
 20.25 conservation of at least 25 of the 48 native  
 20.26 orchid species in Minnesota and to continue  
 20.27 propagation and cultivation research. This  
 20.28 appropriation is available until June 30, 2021,  
 20.29 by which time the project must be completed  
 20.30 and final products delivered.

20.31 **Subd. 9. Land Acquisition, Habitat, and**  
 20.32 **Recreation**

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17,439,000

20.33 **(a) Grants for Local Parks, Trails, and Natural**  
 20.34 **Areas**

20.35 \$2,000,000 the second year is from the trust  
 20.36 fund to the commissioner of natural resources

21.1 to solicit, rank, and fund competitive matching  
 21.2 grants for local parks, trail connections, and  
 21.3 natural and scenic areas under Minnesota  
 21.4 Statutes, section 85.019. The appropriation is  
 21.5 for local nature-based recreation and  
 21.6 connections to regional and state natural areas  
 21.7 and recreation facilities and does not include  
 21.8 athletic facilities such as sport fields, courts,  
 21.9 and playgrounds. This appropriation is  
 21.10 available until June 30, 2021, by which time  
 21.11 the project must be completed and final  
 21.12 products delivered.

21.13 **(b) Develop Mesabi Trail Segment From County**  
 21.14 **Road 88 to Ely**

21.15 \$600,000 the second year is from the trust  
 21.16 fund to the commissioner of natural resources  
 21.17 for an agreement with the St. Louis and Lake  
 21.18 Counties Regional Railroad Authority for  
 21.19 environmental assessment, permitting,  
 21.20 right-of-way easements or other acquisition  
 21.21 as needed, engineering, and construction of  
 21.22 an approximately three-mile-long bituminous  
 21.23 surface section of the Mesabi Trail between  
 21.24 Ely and the intersection of Highway 169 and  
 21.25 County Road 88. This appropriation is  
 21.26 available until June 30, 2022, by which time  
 21.27 the project must be completed and final  
 21.28 products delivered.

21.29 **(c) Harmony State Trail Extension Land**  
 21.30 **Acquisition**

21.31 \$235,000 the second year is from the trust  
 21.32 fund to the commissioner of natural resources  
 21.33 for an agreement with the city of Harmony to  
 21.34 acquire fee title of about 16 parcels to allow  
 21.35 for the approximate six-mile extension of the  
 21.36 legislatively authorized state trail from

22.1 Harmony south to the Iowa state border with  
22.2 a spur to Niagara Cave. The land must be  
22.3 transferred to the state after it has been  
22.4 purchased.

22.5 **(d) Mississippi Blufflands State Trail - Red Wing**  
22.6 **Barn Bluff to Colvill Park Segment**

22.7 \$550,000 the second year is from the trust  
22.8 fund to the commissioner of natural resources  
22.9 for an agreement with the city of Red Wing  
22.10 to be used with other funds to construct an  
22.11 approximate three-quarter-mile-long  
22.12 hard-surfaced segment of the Mississippi  
22.13 Blufflands State Trail along Red Wing's  
22.14 Mississippi River riverfront from Barn Bluff  
22.15 Regional Park to Colvill Park. This  
22.16 appropriation is available until June 30, 2021,  
22.17 by which time the project must be completed  
22.18 and final products delivered.

22.19 **(e) Swedish Immigrant Regional Trail Segment**  
22.20 **within Interstate State Park**

22.21 \$2,254,000 the second year is from the trust  
22.22 fund to the commissioner of natural resources  
22.23 for an agreement with Chisago County  
22.24 Environmental Services to construct an  
22.25 approximate one-half-mile regional county  
22.26 trail segment within Interstate State Park from  
22.27 the end point of the existing trail at the park  
22.28 boundary to city hall including a trail bridge  
22.29 over the ravine and parking and trailhead  
22.30 improvements and to conduct a natural and  
22.31 cultural review to determine the feasibility and  
22.32 route of a future section of the trail through  
22.33 the park. This appropriation is available until  
22.34 June 30, 2021, by which time the project must  
22.35 be completed and final products delivered.

22.36 **(f) Enhancement Plan for Superior Hiking Trail**

23.1 \$100,000 the second year is from the trust  
 23.2 fund to the commissioner of natural resources  
 23.3 for an agreement with the Superior Hiking  
 23.4 Trail Association to evaluate improvements  
 23.5 to the 310-mile-long Superior Hiking Trail  
 23.6 including routing, safety, water management,  
 23.7 maintenance, and other environmental,  
 23.8 recreational, and design issues and to develop  
 23.9 an interactive trail-management system to  
 23.10 capture efficiencies and best management  
 23.11 practices.

23.12 **(g) Protecting Mississippi River Headwaters**  
 23.13 **Lands through Local, State, and Federal**  
 23.14 **Partnership**

23.15 \$700,000 the second year is from the trust  
 23.16 fund to the commissioner of natural resources  
 23.17 for an agreement with the city of Baxter, in  
 23.18 cooperation with Brainerd Public Schools and  
 23.19 the Camp Ripley Sentinel Landscape Program,  
 23.20 to acquire about 200 acres of forested land on  
 23.21 the upper Mississippi River adjacent to  
 23.22 Mississippi River Overlook Park for multiple  
 23.23 public benefits, including being an outdoor  
 23.24 classroom for local schools. To be eligible for  
 23.25 reimbursement, costs for real estate  
 23.26 transactions must be specific to this acquisition  
 23.27 and documented as required in subdivision 15,  
 23.28 paragraph (k).

23.29 **(h) Protecting North-Central Minnesota Lakes**

23.30 \$750,000 the second year is from the trust  
 23.31 fund to the commissioner of natural resources  
 23.32 for an agreement with the Crow Wing County  
 23.33 Soil and Water Conservation District to  
 23.34 increase watershed protection to maintain and  
 23.35 improve water quality in lakes and rivers in  
 23.36 Aitkin and Crow Wing Counties with about

24.1 ten permanent RIM conservation easements  
24.2 and 12 forest stewardship plans and by  
24.3 implementing six best management practices.

24.4 **(i) Easement Program for Native Prairie Bank**

24.5 \$2,000,000 the second year is from the trust  
24.6 fund to the commissioner of natural resources  
24.7 to provide technical stewardship assistance to  
24.8 private landowners, restore and enhance about  
24.9 270 acres of native prairie protected by  
24.10 easements in the native prairie bank, and  
24.11 acquire easements for the native prairie bank  
24.12 in accordance with Minnesota Statutes, section  
24.13 84.96, on about 275 acres, including preparing  
24.14 initial baseline property assessments. About  
24.15 \$120,000 of this appropriation may be  
24.16 deposited in the natural resources conservation  
24.17 easement stewardship account, created in  
24.18 Minnesota Statutes, section 84.69, proportional  
24.19 to the number of easement acres acquired. A  
24.20 list of proposed easement acquisitions and  
24.21 restoration sites for the native prairie bank are  
24.22 required in the work plan. This appropriation  
24.23 is available until June 30, 2021, by which time  
24.24 the project must be completed and final  
24.25 products delivered.

24.26 **(j) Minnesota State Trail Development**

24.27 \$2,500,000 the second year is from the trust  
24.28 fund to the commissioner of natural resources  
24.29 to expand high-priority recreational  
24.30 opportunities on Minnesota's state trails by  
24.31 developing new trail segments and  
24.32 rehabilitating, improving, and enhancing  
24.33 existing state trails. High-priority trail  
24.34 segments to develop and enhance include but  
24.35 are not limited to the Gateway, Gitchi Gami,



25.1 Paul Bunyan, and Heartland State Trails. A  
25.2 proposed list of trail projects on legislatively  
25.3 authorized state trails is required in the work  
25.4 plan. This appropriation is available until June  
25.5 30, 2021, by which time the project must be  
25.6 completed and final products delivered.

25.7 **(k) Minnesota State Parks and State Trails**

25.8 \$2,500,000 the second year is from the trust  
25.9 fund to the commissioner of natural resources  
25.10 to acquire about 163 acres of high-priority  
25.11 inholdings from willing sellers within the  
25.12 legislatively authorized boundaries of state  
25.13 parks and trails in order to protect Minnesota's  
25.14 natural heritage, enhance outdoor recreational  
25.15 opportunities, and improve the efficiency of  
25.16 public land management. Priorities include  
25.17 but are not limited to Tettegouche, Sibley, and  
25.18 Minneopa State Parks and the Goodhue  
25.19 Pioneer State Trail. A list of proposed  
25.20 acquisitions is required in the work plan. This  
25.21 appropriation is available until June 30, 2021,  
25.22 by which time the project must be completed  
25.23 and final products delivered.

25.24 **(l) Scientific and Natural Areas Program**

25.25 \$3,250,000 the second year is from the trust  
25.26 fund to the commissioner of natural resources  
25.27 for the scientific and natural areas program.  
25.28 Of this amount, \$1,500,000 is for habitat  
25.29 restoration activities, \$500,000 is for scientific  
25.30 and natural areas public engagement and  
25.31 outreach, and \$1,250,000 is to acquire strategic  
25.32 high-quality lands that meet criteria for  
25.33 scientific and natural areas under Minnesota  
25.34 Statutes, section 86A.05, from willing sellers  
25.35 in southern Minnesota. For each acre acquired

26.1 with this appropriation, the Department of  
 26.2 Natural Resources must document that the  
 26.3 department has sold an acre of state land. If  
 26.4 these acquisition requirements cannot be met,  
 26.5 the appropriation may be used for scientific  
 26.6 and natural areas restoration. A list of  
 26.7 proposed acquisitions and restorations is  
 26.8 required in the work plan. This appropriation  
 26.9 is available until June 30, 2021, by which time  
 26.10 the project must be completed and final  
 26.11 products delivered.

26.12 **Subd. 10. Emerging Issues Account**

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439,000

26.13 \$439,000 the second year is from the trust  
 26.14 fund to an emerging issues account authorized  
 26.15 in Minnesota Statutes, section 116P.08,  
 26.16 subdivision 4, paragraph (d).

26.17 **Subd. 11. Wastewater Treatment**  
 26.18 **Recommendations**

26.19 **(a) Wastewater Treatment System Grants**

26.20 Until June 30, 2021, the Legislative-Citizen  
 26.21 Commission on Minnesota Resources must  
 26.22 consider recommending up to \$10,000,000 of  
 26.23 the available money from the trust fund to  
 26.24 match appropriations from the bond proceeds  
 26.25 fund for wastewater infrastructure funding that  
 26.26 exceed \$10,000,000 per year for expenditure  
 26.27 by the Public Facilities Authority for  
 26.28 wastewater treatment grants to home rule  
 26.29 charter and statutory cities and towns with a  
 26.30 population under 5,000. The grants must be  
 26.31 issued under Minnesota Statutes, sections  
 26.32 446A.072 and 446A.073. The  
 26.33 recommendations may include a technical  
 26.34 assistance program for recipients eligible  
 26.35 under this subdivision. The commission must

27.1 work with the Public Facilities Authority in  
 27.2 developing its recommendations.

27.3 **(b) Wastewater Treatment System Loans**

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

27.11 **(c) Work Program and Semiannual Progress**  
 27.12 **Report**

27.13 The work plan required under Minnesota  
 27.14 Statutes, section 116P.05, subdivision 2,  
 27.15 paragraph (b), must consist of lists showing  
 27.16 the fundable ranges for grants and loans  
 27.17 pursuant to this subdivision.

27.18 **Subd. 12. Contract Agreement Reimbursement** -0- 135,000

27.19 \$135,000 the second year is from the trust  
 27.20 fund to the commissioner of natural resources,  
 27.21 at the direction of the Legislative-Citizen  
 27.22 Commission on Minnesota Resources, for  
 27.23 expenses incurred for preparing and  
 27.24 administering contracts for the agreements  
 27.25 specified in this section. The commissioner  
 27.26 must provide documentation to the  
 27.27 Legislative-Citizen Commission on Minnesota  
 27.28 Resources on the expenditure of these funds.

27.29 **Subd. 13. Availability of Appropriations**

27.30 Money appropriated in this section may not  
 27.31 be spent on activities unless they are directly  
 27.32 related to and necessary for a specific  
 27.33 appropriation and are specified in the work  
 27.34 plan approved by the Legislative-Citizen  
 27.35 Commission on Minnesota Resources. Money

28.1 appropriated in this section must not be spent  
28.2 on indirect costs or other institutional overhead  
28.3 charges that are not directly related to and  
28.4 necessary for a specific appropriation. Costs  
28.5 that are directly related to and necessary for  
28.6 an appropriation, including financial services,  
28.7 human resources, information services, rent,  
28.8 and utilities, are eligible only if the costs can  
28.9 be clearly justified and individually  
28.10 documented specific to the appropriation's  
28.11 purpose and would not be generated by the  
28.12 recipient but for receipt of the appropriation.  
28.13 No broad allocations for costs in either dollars  
28.14 or percentages are allowed. Unless otherwise  
28.15 provided, the amounts in this section are  
28.16 available until June 30, 2020, when projects  
28.17 must be completed and final products  
28.18 delivered. For acquisition of real property, the  
28.19 appropriations in this section are available for  
28.20 an additional fiscal year if a binding contract  
28.21 for acquisition of the real property is entered  
28.22 into before the expiration date of the  
28.23 appropriation. If a project receives a federal  
28.24 grant, the period of the appropriation is  
28.25 extended to equal the federal grant period.  
28.26 **Subd. 14. Data Availability Requirements**  
28.27 Data collected by the projects funded under  
28.28 this section must conform to guidelines and  
28.29 standards adopted by the Office of MN.IT  
28.30 Services. Spatial data must also conform to  
28.31 additional guidelines and standards designed  
28.32 to support data coordination and distribution  
28.33 that have been published by the Minnesota  
28.34 Geospatial Information Office. Descriptions  
28.35 of spatial data must be prepared as specified  
28.36 in the state's geographic metadata guideline

29.1 and must be submitted to the Minnesota  
29.2 Geospatial Information Office. All data must  
29.3 be accessible and free to the public unless  
29.4 made private under the Data Practices Act,  
29.5 Minnesota Statutes, chapter 13. To the extent  
29.6 practicable, summary data and results of  
29.7 projects funded under this section should be  
29.8 readily accessible on the Internet and  
29.9 identified as having received funding from the  
29.10 environment and natural resources trust fund.

29.11 **Subd. 15. Project Requirements**

29.12 (a) As a condition of accepting an  
29.13 appropriation under this section, an agency or  
29.14 entity receiving an appropriation or a party to  
29.15 an agreement from an appropriation must  
29.16 comply with paragraphs (b) to (l) and  
29.17 Minnesota Statutes, chapter 116P, and must  
29.18 submit a work plan and annual or semiannual  
29.19 progress reports in the form determined by the  
29.20 Legislative-Citizen Commission on Minnesota  
29.21 Resources for any project funded in whole or  
29.22 in part with funds from the appropriation.

29.23 Modifications to the approved work plan and  
29.24 budget expenditures must be made through  
29.25 the amendment process established by the  
29.26 Legislative-Citizen Commission on Minnesota  
29.27 Resources.

29.28 (b) A recipient of money appropriated in this  
29.29 section that conducts a restoration using funds  
29.30 appropriated in this section must use native  
29.31 plant species according to the Board of Water  
29.32 and Soil Resources' native vegetation  
29.33 establishment and enhancement guidelines  
29.34 and include an appropriate diversity of native  
29.35 species selected to provide habitat for

30.1 pollinators throughout the growing season as  
30.2 required under Minnesota Statutes, section  
30.3 84.973.

30.4 (c) For all restorations conducted with money  
30.5 appropriated under this section, a recipient  
30.6 must prepare an ecological restoration and  
30.7 management plan that, to the degree  
30.8 practicable, is consistent with the  
30.9 highest-quality conservation and ecological  
30.10 goals for the restoration site. Consideration  
30.11 should be given to soil, geology, topography,  
30.12 and other relevant factors that would provide  
30.13 the best chance for long-term success and  
30.14 durability of the restoration project. The plan  
30.15 must include the proposed timetable for  
30.16 implementing the restoration, including site  
30.17 preparation, establishment of diverse plant  
30.18 species, maintenance, and additional  
30.19 enhancement to establish the restoration;  
30.20 identify long-term maintenance and  
30.21 management needs of the restoration and how  
30.22 the maintenance, management, and  
30.23 enhancement will be financed; and take  
30.24 advantage of the best-available science and  
30.25 include innovative techniques to achieve the  
30.26 best restoration.

30.27 (d) An entity receiving an appropriation in this  
30.28 section for restoration activities must provide  
30.29 an initial restoration evaluation at the  
30.30 completion of the appropriation and an  
30.31 evaluation three years after the completion of  
30.32 the expenditure. Restorations must be  
30.33 evaluated relative to the stated goals and  
30.34 standards in the restoration plan, current  
30.35 science, and, when applicable, the Board of

- 31.1 Water and Soil Resources' native vegetation  
31.2 establishment and enhancement guidelines.  
31.3 The evaluation must determine whether the  
31.4 restorations are meeting planned goals,  
31.5 identify any problems with implementing the  
31.6 restorations, and, if necessary, give  
31.7 recommendations on improving restorations.  
31.8 The evaluation must be focused on improving  
31.9 future restorations.
- 31.10 (e) All restoration and enhancement projects  
31.11 funded with money appropriated in this section  
31.12 must be on land permanently protected by a  
31.13 conservation easement or public ownership.
- 31.14 (f) A recipient of money from an appropriation  
31.15 under this section must give consideration to  
31.16 contracting with Conservation Corps  
31.17 Minnesota for contract restoration and  
31.18 enhancement services.
- 31.19 (g) All conservation easements acquired with  
31.20 money appropriated under this section must:
- 31.21 (1) be permanent;  
31.22 (2) specify the parties to an easement in the  
31.23 easement;  
31.24 (3) specify all the provisions of an agreement  
31.25 that are permanent;  
31.26 (4) be sent to the Legislative-Citizen  
31.27 Commission on Minnesota Resources in an  
31.28 electronic format at least ten business days  
31.29 before closing;  
31.30 (5) include a long-term monitoring and  
31.31 enforcement plan and funding for monitoring  
31.32 and enforcing the easement agreement; and

- 32.1 (6) include requirements in the easement  
32.2 document to protect the quantity and quality  
32.3 of groundwater and surface water through  
32.4 specific activities such as keeping water on  
32.5 the landscape, reducing nutrient and  
32.6 contaminant loading, and not permitting  
32.7 artificial hydrological modifications.
- 32.8 (h) For any acquisition of lands or interest in  
32.9 lands, a recipient of money appropriated under  
32.10 this section must not agree to pay more than  
32.11 100 percent of the appraised value for a parcel  
32.12 of land using this money to complete the  
32.13 purchase, in part or in whole, except that up  
32.14 to ten percent above the appraised value may  
32.15 be allowed to complete the purchase, in part  
32.16 or in whole, using this money if permission is  
32.17 received in advance of the purchase from the  
32.18 Legislative-Citizen Commission on Minnesota  
32.19 Resources.
- 32.20 (i) For any acquisition of land or interest in  
32.21 land, a recipient of money appropriated under  
32.22 this section must give priority to high-quality  
32.23 natural resources or conservation lands that  
32.24 provide natural buffers to water resources.
- 32.25 (j) For new lands acquired with money  
32.26 appropriated under this section, a recipient  
32.27 must prepare an ecological restoration and  
32.28 management plan in compliance with  
32.29 paragraph (c), including sufficient funding for  
32.30 implementation unless the work plan addresses  
32.31 why a portion of the money is not necessary  
32.32 to achieve a high-quality restoration.
- 32.33 (k) To ensure public accountability for using  
32.34 public funds, a recipient of money  
32.35 appropriated under this section must, within



33.1 60 days of the transaction, provide to the  
33.2 Legislative-Citizen Commission on Minnesota  
33.3 Resources documentation of the selection  
33.4 process used to identify parcels acquired and  
33.5 provide documentation of all related  
33.6 transaction costs, including but not limited to  
33.7 appraisals, legal fees, recording fees,  
33.8 commissions, other similar costs, and  
33.9 donations. This information must be provided  
33.10 for all parties involved in the transaction. The  
33.11 recipient must also report to the  
33.12 Legislative-Citizen Commission on Minnesota  
33.13 Resources any difference between the  
33.14 acquisition amount paid to the seller and the  
33.15 state-certified or state-reviewed appraisal, if  
33.16 a state-certified or state-reviewed appraisal  
33.17 was conducted.

33.18 (l) A recipient of an appropriation from the  
33.19 trust fund under this section must acknowledge  
33.20 financial support from the environment and  
33.21 natural resources trust fund in project  
33.22 publications, signage, and other public  
33.23 communications and outreach related to work  
33.24 completed using the appropriation.

33.25 Acknowledgment may occur, as appropriate,  
33.26 through use of the trust fund logo or inclusion  
33.27 of language attributing support from the trust  
33.28 fund. Each direct recipient of money  
33.29 appropriated in this section, as well as each  
33.30 recipient of a grant awarded pursuant to this  
33.31 section, must satisfy all reporting and other  
33.32 requirements incumbent upon constitutionally  
33.33 dedicated funding recipients as provided in  
33.34 Minnesota Statutes, section 3.303, subdivision  
33.35 10, and Minnesota Statutes, chapter 116P.

34.1 **Subd. 16. Payment Conditions and**  
34.2 **Capital-Equipment Expenditures**

34.3 (a) All agreements, grants, or contracts  
34.4 referred to in this section must be administered  
34.5 on a reimbursement basis unless otherwise  
34.6 provided in this section. Notwithstanding  
34.7 Minnesota Statutes, section 16A.41,  
34.8 expenditures made on or after July 1, 2018,  
34.9 or the date the work plan is approved,  
34.10 whichever is later, are eligible for  
34.11 reimbursement unless otherwise provided in  
34.12 this section. Periodic payments must be made  
34.13 upon receiving documentation that the  
34.14 deliverable items articulated in the approved  
34.15 work plan have been achieved, including  
34.16 partial achievements as evidenced by approved  
34.17 progress reports. Reasonable amounts may be  
34.18 advanced to projects to accommodate  
34.19 cash-flow needs or match federal money. The  
34.20 advances must be approved as part of the work  
34.21 plan. No expenditures for capital equipment  
34.22 are allowed unless expressly authorized in the  
34.23 project work plan.

34.24 (b) Single-source contracts as specified in the  
34.25 approved work plan are allowed.

34.26 **Subd. 17. Purchasing Recycled and Recyclable**  
34.27 **Materials**

34.28 A political subdivision, public or private  
34.29 corporation, or other entity that receives an  
34.30 appropriation under this section must use the  
34.31 appropriation in compliance with Minnesota  
34.32 Statutes, section 16C.0725, regarding  
34.33 purchasing recycled, repairable, and durable  
34.34 materials and Minnesota Statutes, section  
34.35 16C.073, regarding purchasing and using  
34.36 paper stock and printing.

35.1 **Subd. 18. Energy Conservation and Sustainable**  
35.2 **Building Guidelines**

35.3 A recipient to whom an appropriation is made  
35.4 under this section for a capital improvement  
35.5 project must ensure that the project complies  
35.6 with the applicable energy conservation and  
35.7 sustainable building guidelines and standards  
35.8 contained in law, including Minnesota  
35.9 Statutes, sections 16B.325, 216C.19, and  
35.10 216C.20, and rules adopted under those  
35.11 sections. The recipient may use the energy  
35.12 planning, advocacy, and State Energy Office  
35.13 units of the Department of Commerce to  
35.14 obtain information and technical assistance  
35.15 on energy conservation and alternative-energy  
35.16 development relating to planning and  
35.17 constructing the capital improvement project.

35.18 **Subd. 19. Accessibility**

35.19 Structural and nonstructural facilities must  
35.20 meet the design standards in the Americans  
35.21 with Disabilities Act (ADA) accessibility  
35.22 guidelines.

35.23 **Subd. 20. Carryforward; Extension**

35.24 (a) The availability of the appropriations for  
35.25 the following projects are extended to June  
35.26 30, 2019:

35.27 (1) Laws 2014, chapter 226, section 2,  
35.28 subdivision 6, paragraph (j), Dredged  
35.29 Sediment for Forest Restoration on  
35.30 Unproductive Minelands;

35.31 (2) Laws 2014, chapter 226, section 2,  
35.32 subdivision 7, paragraph (b), Metropolitan  
35.33 Regional Park System Acquisition, as  
35.34 extended by Laws 2017, chapter 96, section  
35.35 2, subdivision 18, paragraph (a), clause (5);

- 36.1 (3) Laws 2015, chapter 76, section 2,  
36.2 subdivision 3, paragraph (b), County Geologic  
36.3 Atlases - Part B;
- 36.4 (4) Laws 2015, chapter 76, section 2,  
36.5 subdivision 6, paragraph (c), Biological  
36.6 Control of Canada Thistle;
- 36.7 (5) Laws 2015, chapter 76, section 2,  
36.8 subdivision 6, paragraph (d), Preventing New  
36.9 Disease of Pines in Minnesota;
- 36.10 (6) Laws 2015, chapter 76, section 2,  
36.11 subdivision 9, paragraph (d), Native Prairie  
36.12 Stewardship and Prairie Bank Easement  
36.13 Acquisition;
- 36.14 (7) Laws 2015, chapter 76, section 2,  
36.15 subdivision 9, paragraph (g), Metro  
36.16 Conservation Corridors Phase VIII - Priority  
36.17 Expansion of Minnesota Valley National  
36.18 Wildlife Refuge;
- 36.19 (8) Laws 2015, chapter 76, section 2,  
36.20 subdivision 10, Emerging Issues Account; and
- 36.21 (9) Laws 2016, chapter 186, section 2,  
36.22 subdivision 9, paragraph (g), Otter Tail River  
36.23 Recreational Trail Acquisition.
- 36.24 (b) The availability of the appropriations for  
36.25 the following projects are extended to June  
36.26 30, 2020:
- 36.27 (1) Laws 2015, chapter 76, section 2,  
36.28 subdivision 9, paragraph (b), Metropolitan  
36.29 Regional Park System Land Acquisition -  
36.30 Phase IV;
- 36.31 (2) Laws 2016, chapter 186, section 2,  
36.32 subdivision 10, paragraph (b), Grants  
36.33 Management System; and

37.1 (3) Laws 2017, chapter 96, section 2,  
 37.2 subdivision 6, paragraph (d), Adapting Stream  
 37.3 Barriers to Remove Common Carp.

37.4 (c) The availability of the appropriation under  
 37.5 Laws 2017, chapter 96, section 2, subdivision  
 37.6 8, paragraph (l), Conservation Reserve  
 37.7 Enhancement Program (CREP), is extended  
 37.8 to June 30, 2022.

37.9 (d) The availability of the appropriation under  
 37.10 Laws 2017, chapter 96, section 2, subdivision  
 37.11 3, paragraph (n), Pollinator Research and  
 37.12 Outreach, is extended to June 30, 2023.

37.13 Sec. 3. Minnesota Statutes 2016, section 116P.08, subdivision 2, is amended to read:

37.14 Subd. 2. **Exceptions.** Money from the trust fund may not be spent for:

37.15 (1) purposes of environmental compensation and liability under chapter 115B and  
 37.16 response actions under chapter 115C;

37.17 (2) purposes of municipal water pollution control in municipalities with a population of  
 37.18 5,000 or more under the authority of chapters 115 and 116;

37.19 (3) costs associated with the decommissioning of nuclear power plants;

37.20 (4) hazardous waste disposal facilities;

37.21 (5) solid waste disposal facilities; or

37.22 (6) projects or purposes inconsistent with the strategic plan.

37.23 Sec. 4. Minnesota Statutes 2016, section 116P.12, subdivision 1, is amended to read:

37.24 Subdivision 1. **Loans authorized.** (a) If the principal of the trust fund equals or exceeds  
 37.25 \$200,000,000, the commission may vote to set aside up to five percent of the principal of  
 37.26 the trust fund for water system improvement loans. The purpose of water system improvement  
 37.27 loans is to offer below market rate interest loans to local units of government for the purposes  
 37.28 of water system improvements.

37.29 (b) The interest on a loan shall be calculated on the declining balance at a rate ~~four~~  
 37.30 ~~percentage points below~~ that is the greater of one percent or 50 percent of the secondary

38.1 market yield of one-year United States Treasury bills calculated according to section 549.09,  
38.2 subdivision 1, paragraph (c).

38.3 (c) An eligible project must prove that existing federal or state loans or grants have not  
38.4 been adequate.

38.5 (d) Payments on the principal and interest of loans under this section must be credited  
38.6 to the trust fund.

38.7 (e) Repayment of loans made under this section must be completed within 20 years.

38.8 (f) The Minnesota Public Facilities Authority must report to the commission each year  
38.9 on ~~the loan program~~ any loans made to the authority under this section.

38.10 Sec. 5. Laws 2015, chapter 76, section 2, subdivision 9, is amended to read:

38.11	<b>Subd. 9. Land Acquisition for Habitat and</b>		
38.12	<b>Recreation</b>	14,190,000	-0-

38.13 **(a) State Parks and Trails Land**

38.14 **Acquisitions**

38.15 \$1,500,000 the first year is from the trust fund  
38.16 to the commissioner of natural resources to  
38.17 acquire at least 335 acres for authorized state  
38.18 trails and critical parcels within the statutory  
38.19 boundaries of state parks. State park land  
38.20 acquired with this appropriation must be  
38.21 sufficiently improved to meet at least  
38.22 minimum management standards, as  
38.23 determined by the commissioner of natural  
38.24 resources. A list of proposed acquisitions must  
38.25 be provided as part of the required work plan.  
38.26 This appropriation is available until June 30,  
38.27 2018, by which time the project must be  
38.28 completed and final products delivered.

38.29 **(b) Metropolitan Regional Park System**

38.30 **Land Acquisition - Phase IV**

38.31 \$1,000,000 the first year is from the trust fund  
38.32 to the Metropolitan Council for grants to  
38.33 acquire at least 133 acres of lands within the

39.1 approved park unit boundaries of the  
39.2 metropolitan regional park system. This  
39.3 appropriation may not be used to purchase  
39.4 habitable residential structures. A list of  
39.5 proposed fee title and easement acquisitions  
39.6 must be provided as part of the required work  
39.7 plan. This appropriation must be matched by  
39.8 at least 40 percent of nonstate money that must  
39.9 be committed by December 31, 2015, or the  
39.10 appropriation cancels. This appropriation is  
39.11 available until June 30, 2018, by which time  
39.12 the project must be completed and final  
39.13 products delivered.

39.14 **(c) SNA Acquisition, Restoration,**  
39.15 **Enhancement, and Public Engagement**

39.16 \$4,000,000 the first year is from the trust fund  
39.17 to the commissioner of natural resources to  
39.18 acquire at least 350 acres of lands with  
39.19 high-quality native plant communities and rare  
39.20 features to be established as scientific and  
39.21 natural areas as provided in Minnesota  
39.22 Statutes, section 86A.05, subdivision 5, restore  
39.23 and improve at least 550 acres of scientific  
39.24 and natural areas, and provide technical  
39.25 assistance and outreach. A list of proposed  
39.26 acquisitions must be provided as part of the  
39.27 required work plan. Land acquired with this  
39.28 appropriation must be sufficiently improved  
39.29 to meet at least minimum management  
39.30 standards, as determined by the commissioner  
39.31 of natural resources. This appropriation is  
39.32 available until June 30, 2018, by which time  
39.33 the project must be completed and final  
39.34 products delivered.

40.1 **(d) Native Prairie Stewardship and Prairie**  
40.2 **Bank Easement Acquisition**  
40.3 \$3,325,000 the first year is from the trust fund  
40.4 to the commissioner of natural resources to  
40.5 acquire native prairie bank easements on at  
40.6 least 675 acres, prepare baseline property  
40.7 assessments, restore and enhance at least 1,000  
40.8 acres of native prairie sites, and provide  
40.9 technical assistance to landowners. Of this  
40.10 amount, up to ~~\$135,000~~ \$195,000 must be  
40.11 deposited in a conservation easement  
40.12 stewardship account. Deposits into the  
40.13 conservation easement stewardship account  
40.14 must be made upon closing on conservation  
40.15 easements or at a time otherwise approved in  
40.16 the work plan. A list of proposed easement  
40.17 acquisitions must be provided as part of the  
40.18 required work plan. This appropriation is  
40.19 available until June 30, 2018, by which time  
40.20 the project must be completed and final  
40.21 products delivered.

40.22 **(e) Metro Conservation Corridors - Phase**  
40.23 **VIII Coordination, Mapping, and**  
40.24 **Conservation Easements**  
40.25 \$515,000 the first year is from the trust fund  
40.26 to the commissioner of natural resources for  
40.27 an agreement with the Minnesota Land Trust  
40.28 for Phase VIII of the Metro Conservation  
40.29 Corridors partnership to provide coordination  
40.30 and mapping for the partnership and to acquire  
40.31 permanent conservation easements on at least  
40.32 120 acres of strategic ecological landscapes  
40.33 to protect priority natural areas in the  
40.34 metropolitan area, as defined under Minnesota  
40.35 Statutes, section 473.121, subdivision 2, and



41.1 portions of the surrounding counties. A list of  
41.2 proposed easement acquisitions must be  
41.3 provided as part of the required work plan.  
41.4 Land acquired with this appropriation must  
41.5 be sufficiently improved to meet at least  
41.6 minimum management standards, as  
41.7 determined by the commissioner of natural  
41.8 resources. Expenditures are limited to the  
41.9 identified project corridor areas as defined in  
41.10 the work plan. Up to \$40,000 may be used for  
41.11 coordination and mapping for the Metro  
41.12 Conservation Corridors. All conservation  
41.13 easements must be perpetual and have a  
41.14 natural resource management plan. A list of  
41.15 proposed easement acquisitions must be  
41.16 provided as part of the required work plan.  
41.17 This appropriation is available June 30, 2018,  
41.18 by which time the project must be completed  
41.19 and final products delivered.

41.20 **(f) Metro Conservation Corridors - Phase**  
41.21 **VIII Strategic Lands Protection**

41.22 \$750,000 the first year is from the trust fund  
41.23 to the commissioner of natural resources for  
41.24 an agreement with The Trust for Public Land  
41.25 for Phase VIII of the Metro Conservation  
41.26 Corridors partnership to acquire in fee at least  
41.27 35 acres of high-quality priority state and local  
41.28 natural areas in the metropolitan area, as  
41.29 defined under Minnesota Statutes, section  
41.30 473.121, subdivision 2, and portions of the  
41.31 surrounding counties. A list of proposed  
41.32 acquisitions must be provided as part of the  
41.33 required work plan. Land acquired with this  
41.34 appropriation must be sufficiently improved  
41.35 to meet at least minimum management

42.1 standards, as determined by the commissioner  
42.2 of natural resources. Expenditures are limited  
42.3 to the identified project corridor areas as  
42.4 defined in the work plan. This appropriation  
42.5 may not be used to purchase habitable  
42.6 residential structures, unless expressly  
42.7 approved in the work plan. A list of fee title  
42.8 acquisitions must be provided as part of the  
42.9 required work plan. This appropriation is  
42.10 available until June 30, 2018, by which time  
42.11 the project must be completed and final  
42.12 products delivered.

42.13 **(g) Metro Conservation Corridors - Phase**  
42.14 **VIII Priority Expansion of Minnesota**  
42.15 **Valley National Wildlife Refuge**

42.16 \$500,000 the first year is from the trust fund  
42.17 to the commissioner of natural resources for  
42.18 an agreement with the Minnesota Valley  
42.19 National Wildlife Refuge Trust, Inc. for Phase  
42.20 VIII of the Metro Conservation Corridors  
42.21 partnership to acquire in fee at least 100 acres  
42.22 of priority habitat for the Minnesota Valley  
42.23 National Wildlife Refuge in the metropolitan  
42.24 area, as defined under Minnesota Statutes,  
42.25 section 473.121, subdivision 2, and portions  
42.26 of the surrounding counties. A list of proposed  
42.27 acquisitions must be provided as part of the  
42.28 required work plan. Land acquired with this  
42.29 appropriation must be sufficiently improved  
42.30 to meet at least minimum management  
42.31 standards. Expenditures are limited to the  
42.32 identified project corridor areas as defined in  
42.33 the work plan. This appropriation may not be  
42.34 used to purchase habitable residential  
42.35 structures, unless expressly approved in the

43.1 work plan. This appropriation is available until  
43.2 June 30, 2018, by which time the project must  
43.3 be completed and final products delivered.

43.4 **(h) Metro Conservation Corridors - Phase**  
43.5 **VIII Wildlife Management Area**  
43.6 **Acquisition**

43.7 \$400,000 the first year is from the trust fund  
43.8 to the commissioner of natural resources for  
43.9 Phase VIII of the Metro Conservation  
43.10 Corridors partnership to acquire in fee at least  
43.11 82 acres along the lower reaches of the  
43.12 Vermillion River in Dakota County within the  
43.13 Gores Pool Wildlife Management Area. Land  
43.14 acquired with this appropriation must be  
43.15 sufficiently improved to meet at least  
43.16 minimum management standards. This  
43.17 appropriation may not be used to purchase  
43.18 habitable residential structures, unless  
43.19 expressly approved in the work plan. This  
43.20 appropriation is available until June 30, 2018,  
43.21 by which time the project must be completed  
43.22 and final products delivered.

43.23 **(i) Mesabi Trail Development Soudan to**  
43.24 **Ely - Phase II**

43.25 \$1,000,000 the first year is from the trust fund  
43.26 to the commissioner of natural resources for  
43.27 an agreement with the St. Louis and Lake  
43.28 Counties Regional Railroad Authority for the  
43.29 right-of-way acquisition, design, and  
43.30 construction of segments of the Mesabi Trail,  
43.31 totaling approximately seven miles between  
43.32 Soudan and Ely. This appropriation is  
43.33 available until June 30, 2018, by which time  
43.34 the project must be completed and final  
43.35 products delivered.

44.1 **(j) Multi-benefit Watershed Scale**

44.2 **Conservation on North Central Lakes**

44.3 \$950,000 the first year is from the trust fund  
44.4 to the Board of Water and Soil Resources to  
44.5 secure permanent conservation easements on  
44.6 at least 480 acres of high-quality habitat in  
44.7 Crow Wing and Cass Counties. Of this  
44.8 amount, up to \$65,000 must be deposited in a  
44.9 conservation easement stewardship account;  
44.10 and \$54,000 is for an agreement with the  
44.11 Leech Lake Area Watershed Foundation in  
44.12 cooperation with Crow Wing County Soil and  
44.13 Water Conservation District and Cass County  
44.14 Soil and Water Conservation District. Deposits  
44.15 into the conservation easement stewardship  
44.16 account must be made upon closing on  
44.17 conservation easements or at a time otherwise  
44.18 approved in the work plan. A list of proposed  
44.19 easement acquisitions must be provided as  
44.20 part of the required work plan. This  
44.21 appropriation is available until June 30, 2018,  
44.22 by which time the project must be completed  
44.23 and final products delivered.

44.24 **(k) Conservation Easement Assessment and**  
44.25 **Valuation System Development**

44.26 \$250,000 the first year is from the trust fund  
44.27 to the Board of Regents of the University of  
44.28 Minnesota to assess the effectiveness of  
44.29 existing conservation easements acquired  
44.30 through state expenditures at achieving their  
44.31 intended outcomes of public value and  
44.32 ecological benefits and to develop a  
44.33 standardized, objective conservation easement  
44.34 valuation system for guiding future state  
44.35 investments in conservation easements to

45.1 ensure the proposed environmental benefits  
 45.2 are being achieved in a cost-effective manner.  
 45.3 This appropriation is available until June 30,  
 45.4 2018, by which time the project must be  
 45.5 completed and final products delivered.

45.6 Sec. 6. Laws 2017, chapter 96, section 2, subdivision 8, is amended to read:

45.7 **Subd. 8. Methods to Protect**  
 45.8 **or Restore Land, Water, and**  
 45.9 **Habitat**

2,729,000

16,554,000

5,000,000

45.10 **(a) Optimizing the Nutrition of Roadside Plants**  
 45.11 **for Pollinators**

45.12 \$815,000 the first year is from the trust fund  
 45.13 to the Board of Regents of the University of  
 45.14 Minnesota in cooperation with the  
 45.15 Departments of Agriculture, Natural  
 45.16 Resources, and Transportation and the Board  
 45.17 of Water and Soil Resources to produce  
 45.18 site-specific recommendations for roadside  
 45.19 plantings in Minnesota to maximize the  
 45.20 nutritional health of native bees and monarch  
 45.21 butterflies that rely on roadside habitat  
 45.22 corridors. This appropriation is available until  
 45.23 June 30, 2020, by which time the project must  
 45.24 be completed and final products delivered.

45.25 **(b) Promoting Conservation Biocontrol of**  
 45.26 **Beneficial Insects**

45.27 \$400,000 the first year is from the trust fund  
 45.28 to the Board of Regents of the University of  
 45.29 Minnesota to research integrated pest  
 45.30 management strategies, including insecticide  
 45.31 alternatives, and overwintering habitat sites  
 45.32 to conserve beneficial insects, including bees,  
 45.33 butterflies, and predator insects. The integrated  
 45.34 pest management strategies will be used to  
 45.35 develop best management practices to increase  
 45.36 pollinator and beneficial insect diversity and

46.1 abundance in various restored habitats. This  
46.2 appropriation is available until June 30, 2020,  
46.3 by which time the project must be completed  
46.4 and final products delivered.

46.5 **(c) Evaluating the Use of Bison to Restore and**  
46.6 **Preserve Savanna Habitat**

46.7 \$388,000 the first year is from the trust fund  
46.8 to the Board of Regents of the University of  
46.9 Minnesota, Cedar Creek Ecosystem Science  
46.10 Reserve, to research combined bison grazing  
46.11 and fire management strategies to restore  
46.12 Minnesota's oak savanna ecosystems. This  
46.13 appropriation is available until June 30, 2020,  
46.14 by which time the project must be completed  
46.15 and final products delivered.

46.16 **(d) State Park Pollinator Habitat Restoration**

46.17 \$672,000 the first year is from the trust fund  
46.18 to the commissioner of natural resources to  
46.19 restore at least 520 acres of monarch butterfly  
46.20 and other native pollinator habitats in at least  
46.21 seven state parks in the Minnesota Prairie  
46.22 Conservation Plan core areas and establish  
46.23 pollinator plantings and interpretive exhibits  
46.24 in at least ten state parks. This appropriation  
46.25 is available until June 30, 2021, by which time  
46.26 the project must be completed and final  
46.27 products delivered.

46.28 **(e) Enhancing Spawning Habitat Restoration in**  
46.29 **Minnesota Lakes**

46.30 \$294,000 the first year is from the trust fund  
46.31 to the Board of Regents of the University of  
46.32 Minnesota, St. Anthony Falls Laboratory, in  
46.33 cooperation with the Department of Natural  
46.34 Resources to enhance efforts to increase  
46.35 natural reproduction of fish in Minnesota lakes  
46.36 by assessing wave energy impacts on

47.1 near-shore spawning habitat. This  
47.2 appropriation is available until June 30, 2020,  
47.3 by which time the project must be completed  
47.4 and final products delivered.

47.5 **(f) Prescribed-Fire Management for Roadside**  
47.6 **Prairies**

47.7 \$345,000 the first year is from the trust fund  
47.8 to the commissioner of transportation to  
47.9 enhance the prescribed-fire program to manage  
47.10 roadsides to protect and increase biodiversity  
47.11 and pollinator habitat. This appropriation is  
47.12 available until June 30, 2020, by which time  
47.13 the project must be completed and final  
47.14 products delivered.

47.15 **(g) Minnesota Bee and Beneficial Species Habitat**  
47.16 **Restoration**

47.17 \$732,000 the first year is from the trust fund  
47.18 to the commissioner of natural resources for  
47.19 an agreement with Pheasants Forever in  
47.20 cooperation with the University of Minnesota  
47.21 and the Minnesota Honey Producers  
47.22 Association to restore approximately 800 acres  
47.23 of permanently protected land to enhance bee,  
47.24 butterfly, beneficial insect, and grassland bird  
47.25 habitats. This appropriation is available until  
47.26 June 30, 2021, by which time the project must  
47.27 be completed and final products delivered.

47.28 **(h) Mississippi and Vermillion Rivers**  
47.29 **Restoration of Prairie, Savanna, and Forest**  
47.30 **Habitat - Phase X**

47.31 \$213,000 the first year is from the trust fund  
47.32 to the commissioner of natural resources for  
47.33 an agreement with Friends of the Mississippi  
47.34 River for continued implementation of the  
47.35 Metro Conservation Corridors partnership by  
47.36 improving at least 80 acres of habitat at  
47.37 approximately seven sites along the

48.1 Mississippi River and Vermillion River  
48.2 corridors. Expenditures are limited to the  
48.3 identified project corridor areas as defined in  
48.4 the work plan. A list of proposed restoration  
48.5 sites must be provided as part of the required  
48.6 work plan. Plant and seed materials must  
48.7 follow the Board of Water and Soil Resources'  
48.8 native vegetation establishment and  
48.9 enhancement guidelines. This appropriation  
48.10 is available until June 30, 2020, by which time  
48.11 the project must be completed and final  
48.12 products delivered.

48.13 **(i) Community Stewardship to Restore Urban**  
48.14 **Natural Resources - Phase X**

48.15 \$524,000 the first year is from the trust fund  
48.16 to the commissioner of natural resources for  
48.17 an agreement with Great River Greening to  
48.18 work with volunteers for continued  
48.19 implementation of the Metro Conservation  
48.20 Corridors partnership to restore approximately  
48.21 250 acres of forest, prairie, woodland, wetland,  
48.22 and shoreline throughout the greater Twin  
48.23 Cities metropolitan area. Expenditures are  
48.24 limited to the identified project corridor areas  
48.25 as defined in the work plan. A list of proposed  
48.26 restoration sites and evaluations must be  
48.27 provided as part of the required work plan.  
48.28 Plant and seed materials must follow the Board  
48.29 of Water and Soil Resources' native vegetation  
48.30 establishment and enhancement guidelines.  
48.31 This appropriation is available until June 30,  
48.32 2020, by which time the project must be  
48.33 completed and final products delivered.

48.34 **(j) Economic Assessment of Precision**  
48.35 **Conservation and Agriculture**



49.1 \$400,000 the first year is from the trust fund  
49.2 to the commissioner of natural resources for  
49.3 an agreement with Pheasants Forever to  
49.4 demonstrate a new approach to promote  
49.5 conservation practices utilizing  
49.6 return-on-investment analysis and identifying  
49.7 revenue-negative acres on agricultural land to  
49.8 assist farmers in implementing conservation  
49.9 practices that will provide environmental and  
49.10 economic benefits. This appropriation is  
49.11 available until June 30, 2020, by which time  
49.12 the project must be completed and final  
49.13 products delivered.

49.14 **(k) Conservation Reserve Enhancement**  
49.15 **Program (CREP) Outreach and Implementation**

49.16 \$6,000,000 the first year is from the trust fund  
49.17 to the Board of Water and Soil Resources to  
49.18 fund staff at soil and water conservation  
49.19 districts to assist landowners participating in  
49.20 the federal Conservation Reserve  
49.21 Enhancement Program. This appropriation is  
49.22 contingent upon receipt of federal funds for  
49.23 implementation. This appropriation is  
49.24 available until June 30, 2020, by which time  
49.25 the project must be completed and final  
49.26 products delivered.

49.27 **(l) Conservation Reserve Enhancement Program**  
49.28 **(CREP)**

49.29 \$2,729,000 in fiscal year 2017 and \$5,771,000  
49.30 the first year and \$5,000,000 the second year  
49.31 are from the trust fund to the Board of Water  
49.32 and Soil Resources to acquire permanent  
49.33 conservation easements and restore land under  
49.34 Minnesota Statutes, section 103F.515. Of this  
49.35 amount, up to \$2,184,000 is for establishing  
49.36 a monitoring and enforcement fund as

50.1 approved in the work plan and subject to  
50.2 Minnesota Statutes, section 103B.103. This  
50.3 work may be done in cooperation with the  
50.4 federal Conservation Reserve Enhancement  
50.5 Program. This appropriation is available until  
50.6 June 30, 2021, by which time the project must  
50.7 be completed and final products delivered.