1	CHAPTER H.F /	/ S.F			
2	An act relating to natural resources; appropriating money from environment and natural resources trus fund.				
4	BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:				
5	Section 1. Appropriations				
6 7 8 9 10 11	The sums shown in the columns marked "Appropriations" are appropriated to the agencies and for the purposes specified in this act. The appropriations are from the environment and natural resources trust fund, or another named fund, and are available for the fiscal years indicated for each purpose. The figures "2017," "2018," and "2019" used in this act mean that the appropriations listed under them are available for the fiscal year ending June 30, 2017, June 30, 2018, or June 30, 2019, respectively. "The first year" is fiscal year 2018. "The second year" is fiscal year 2019. "The biennium" is fiscal years 2018 and 2019. Appropriations for fiscal year 2017 are available upon enactment.				
13 14 15			APPROPRIATIONS Available for the Year Ending June 30		
L3 L6		201	17	2018	2019
L7	Sec. 2. MINNESOTA RESOURCES				
18	Subdivision 1. Total Appropriation	\$ 8,428	\$,000	50,828,000	\$ -0-
19 20		Аррг 2017	ropriations by 2018	Fund 2019	
21 22	Environment and natural resources trust fund	8,428,000	50,828,000) -0-	
23 24 25 26 27 28	The amounts that may be spent for each purpose are specified in the following subdivisions. Appropriations for fiscal years 2018 and 2019 are available for two years beginning July 1, 2017 for fiscal 2018 appropriations and beginning July 1, 2018 for fiscal 2019 appropriations, unless otherwise stated in the appropriation. Any unencumbered balance remaining in the first year does not cancel and is available for the second year or until the end of the appropriation. Appropriations for fiscal year 2017 are available until June 30, 2018, unless otherwise stated in the appropriation.				
29	Subd. 2. Definition				
30 31 32	"Trust fund" means the Minnesota environment and natural resources trust fund established under Minnesota Constitution, article XI, section 14.				

Page 1 of 18 Agenda Items: 10-11

1 Subd. 3. Foundational Natural Resource Data and Information 4,729,000 8,472,000

2 (a) County Geologic Atlases - Continuation

- 3 \$4,729,000 in fiscal year 2017 is from the trust fund to the Board of Regents of the University of
- 4 Minnesota, Minnesota Geological Survey to continue acceleration of the production of county geologic

-0-

- 5 atlases for the purpose of sustainable management of surface water and groundwater resources. This
- 6 appropriation is to complete Part A of county geologic atlases, which focuses on the properties and
- 7 distribution of earth materials in order to define aquifer boundaries and the connection of aquifers to
- 8 the land surface and surface water resources. This appropriation is available until June 30, 2020, by
- 9 which time the project must be completed and final products delivered.

10 (b) Assessment of Public Benefits of Protecting Source Water

- 11 \$320,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 12 map and quantify source water risks, ecosystem service valuation of clean water and analyses of equity
- 13 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
- 15 completed and final products delivered.

16 (c) Preserving Minnesota Prairie Plant Diversity – Phase II

- 17 \$900,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 18 continue the collection and preservation of 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
- 21 which time the project must be completed and final products delivered.

22 (d) Minnesota Biological Survey - Continuation

- 23 \$2,900,000 the first year is from the trust fund to the commissioner of Natural Resources for
- 24 continuation of the Minnesota biological survey to provide a foundation for conserving biological
- 25 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.

28 (e) Minnesota Wildflowers Online Botanical Reference – Phase II

- 29 \$270,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 30 agreement with Minnesota Wildflowers Information to continue surveying and imaging of plant species
- 31 and publication of species profiles for a plant identification reference website available to the public and
- 32 land managers. Images acquired and information compiled using these funds are for purposes of public
- 33 information available on a website. If the organization is no longer able to maintain the website, the
- 34 organization shall work with the state and the University of Minnesota, Bell Museum of Natural History
- 35 to ensure the materials remain publicly available on the Web. This appropriation is available until June
- 36 30, 2020, by which time the project must be completed and final products delivered.

37 (f) Assessment of Microbes for Improving Wild Rice Restoration

- 38 \$334,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota,
- 39 Natural Resources Research Institute to evaluate the microbial communities and nutrients associated
- 40 with wild rice and competing vegetation, with the goal of enhancing restoration success to increase the
- 41 abundance of wild rice. This appropriation must be coordinated with the Minnesota Pollution Control
- 42 Agency wild rice sulfate standards development. This appropriation is available until June 30, 2020, by

Page 2 of 18 Agenda Items: 10-11

which time the project must be completed and final products delivered.

2 (g) Drainage Records Modernization Cost Share - Phase II

- 3 \$540,000 the first year is from the trust fund to the Board of Water and Soil Resources to facilitate
- 4 statewide modernization of public drainage records under Minnesota Statutes, chapter 103E, and
- 5 integrate new specifications into existing drainage records modernization guidelines through matching
- 6 cost-share grants to drainage authorities. This appropriation is available until June 30, 2020, by which
- 7 time the project must be completed and final products delivered.

8 (h) Groundwater Contamination Mapping

- 9 \$400,000 the first year is from the trust fund to the commissioner of the Pollution Control Agency to
- 10 develop a web-based interactive map of groundwater contamination to improve protection of
- 11 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.

13 (i) Landslide Susceptibility, Mapping, and Management Tools

- 14 \$500,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 15 create landslide susceptibility maps using a landslide inventory and quantitative analysis of LiDAR to
- 16 provide tools and data for mitigation and restoration to reduce impacts on water resources. This
- 17 appropriation is available until June 30, 2020, by which time the project must be completed and final
- 18 products delivered.

19 (j) Moose Calf Surveys and Monitoring

- \$348,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 21 assess the use of unmanned aerial vehicles in natural resource monitoring of moose populations to
- reduce impacts on moose and be more cost effective.

23 (k) Cedar Creek Natural Area Wolf Recolonization Assessment

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

29 (I) Effects of Wolves Predation on Beaver, Moose, and Deer

- 30 \$293,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 31 agreement with Voyageurs National Park to assess the effects of wolf predation on beaver, moose, and
- 32 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.

34 (m) Mapping Taxonomy and Environmental Toxicology of Minnesota Freshwater Sponges

- 35 \$258,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota,
- 36 Crookston to determine freshwater sponge distribution, identify and quantify accumulated
- 37 contaminants, and provide educational research opportunities to undergraduate students. This
- 38 appropriation is available until June 30, 2020, by which time the project must be completed and final

39 products delivered.

Page 3 of 18 Agenda Items: 10-11

1 (n) Analyzing Climate Data to Aid Local Planning Implementation Efforts

- 2 \$411,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 3 produce statewide-localized climate information to be used for long-term planning and implementation
- 4 of management strategies at the local level for natural resources, infrastructure, and human health. This
- 5 appropriation is available until June 30, 2020, by which time the project must be completed and final
- 6 products delivered.

7 (o) Develop Solar-Powered Robots for Weed Control in Agricultural Fields

- 8 \$600,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota,
- 9 West Central Research and Outreach Center, Morris to develop and test solar-powered robots to
- manage weeds in row crops and pastures as a means to reduce herbicide use. 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.

13 Subd. 4. Water Resources

-0-

3,175,000 -0-

- 14 (a) Assessment of Household Chemicals and Herbicides in Rivers and Lakes
- 15 \$236,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 16 quantify environmental levels of household chemical and herbicide ingredients and their potential to
- form toxic byproducts in rivers and lakes.

18 (b) Wastewater Nitrogen Removal Technology to Protect Water Quality

- 19 \$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
- 21 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.

23 (c) Rearing Native Mussels for Reintroduction and Expanding Water Quality Awareness

- 24 \$591,000 the first year is from the trust fund to the Minnesota Zoological Garden in cooperation with
- 25 the Minnesota Department of Natural Resources to accelerate the reintroduction of native mussels into
- 26 Minnesota rivers and streams through expanded mussel rearing, research, and state-wide educational
- 27 activities promoting mussel conservation and water quality. This appropriation is available until June 30,
- 28 2020, by which time the project must be completed and final products delivered.

29 (d) Water Quality Monitoring in Southeastern Minnesota Trout Streams

- 30 \$500,000 the first year is from the trust fund to the Board of Trustees of the Minnesota State Colleges
- 31 and Universities System, Winona State University to develop a system of biological monitoring for water
- 32 quality protection of trout streams in southeastern Minnesota. This appropriation is available until June
- 33 30, 2020, by which time the project must be completed and final products delivered.

34 (e) Reassessing Toxicity of Petrochemical Spills on Ground and Surface Waters

- 35 \$300,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 36 agreement with the University of St. Thomas to reassess long-term effects of oil spills through the
- 37 analysis of chemical parameters related to oil degradation and evaluate the impacts on aquatic species
- and ground and surface waters. This appropriation is available until June 30, 2021, by which time the
- 39 project must be completed and final products delivered.

Page 4 of 18 Agenda Items: 10-11

1 (f) Assessment of Water Quality for Reuse

- 2 \$148,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 3 collect and analyze pathogen data for evaluation of water reuse in order to maximize water reuse and
- 4 protect groundwater and surface water quality.

5 (g) Identification of Chemicals of Emerging Concern in Minnesota Fish

- 6 \$400,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 7 agreement with the Grand Portage Band of Lake Superior Chippewa to identify chemicals of emerging
- 8 concern and metals from fish, water, and sediments from approximately thirty waterbodies in
- 9 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.

11 (h) Techniques for Water Storage Estimates in Central Minnesota

- \$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
- 14 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
- 16 products delivered.

17 (i) Assessing Release of Mercury and Sulfur on Aquatic Communities

- 18 \$300,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 19 determine the effects of increased temperatures on the release of mercury and sulfur from Minnesota
- 20 peatlands to predict impacts on aquatic communities and fish health. This appropriation is available until
- 21 June 30, 2020, by which time the project must be completed and final products delivered.

22 Subd. 5. Environmental Education

-0- 4,521,000 -0-

23 (a) Connecting Youth to Minnesota Waterways through Outdoor Classrooms

- 24 \$1,200,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 25 agreement with Wilderness Inquiry to provide place based environmental education science water
- 26 experiences to approximately 20,000 middle and high school students. This appropriation is available
- 27 until June 30, 2020, by which time the project must be completed and final products delivered.

28 (b) Youth Convening Minnesota – Phase II

- 29 \$300,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 30 agreement with Climate Generation: A Will Steger Legacy to plan and conduct forums, workshops, and
- 31 trainings for youth on Minnesota's climate and its impact on natural resources. This appropriation is
- available until June 30, 2020, by which time the project must be completed and final products delivered.

33 (c) Increasing Diversity in Environmental Careers

- 34 \$1,487,000 the first year is from the trust fund to the commissioner of Natural Resources to encourage a
- 35 diversity of students to pursue careers in environment and natural resources through internships and
- 36 mentorships with Minnesota Department of Natural Resources, Minnesota Board of Water and Soil
- 37 Resources and the Minnesota Pollution Control Agency. This appropriation is available until June 30,
- 38 2022, by which time the project must be completed and final products delivered.

39 (d) Interactive Water Resource Programs for Planetariums in Minnesota

Page 5 of 18 Agenda Items: 10-11

- 1 \$500,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota,
- 2 Bell Museum of Natural History, to create an interactive planetarium program on water resources,
- 3 reaching approximately 400,000 citizens statewide through the Bell Museum Planetarium, Como
- 4 Planetarium, Saint Paul Public Schools, Mayo High School, Mankato East High School, Southwest
- 5 Minnesota State University, Minnesota State University-Moorhead, and University of Minnesota-Duluth.
- 6 This appropriation is available until June 30, 2022, by which time the project must be completed and
- 7 final products delivered.

8 (e) Expanding Raptor Center Online Education

- 9 \$270,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota,
- 10 Raptor Center to provide environmental education for approximately 15,000 middle schools 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.

14 (f) Local Planning and Implementation Efforts for Bird Habitat

- 15 \$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 sixty
- 17 communities and 400,000 citizens in bird habitat improvement through local planning and
- 18 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.

20 (g) Developing Youth Watershed Stewardship in Northwest Minnesota

- 21 \$121,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 22 agreement with the Headwaters Science Center to accelerate a multi-year environmental science club
- 23 for middle school students focused on water quality, watershed evaluation, and aquatic invasive species
- 24 in northwestern Minnesota. This appropriation is available until June 30, 2020, by which time the
- 25 project must be completed and final products delivered.

26 (h) Increasing Residential Environmental Learning Center Opportunities

- 27 \$130,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 28 agreement with the Audubon Center of the North Woods to provide scholarship opportunities for a
- 29 minimum of 1,000 students that are not currently served through other residential environmental
- 30 education learning centers. This appropriation is available until June 30, 2020, by which time the project
- 31 must be completed and final products delivered.

32 (i) Workshops and Outreach to Protect Raptors from Lead Poisoning

- 33 \$133,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota,
- 34 Raptor Center in cooperation with the Department of Natural Resources and other conservation
- 35 partners to provide hunters with outreach and workshops on alternatives to lead hunting ammunition,
- 36 including copper ammunition as an alternative and to promote voluntary selection of nontoxic
- 37 ammunition in order to protect raptors and other wildlife in Minnesota from accidental lead poisoning
- 38 caused by ingestion of ammunition fragments.

39

(j) Analysis of Thermally Modified Wood Nesting Boxes for Birds

- 40 \$100,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota
- 41 Natural Resources Research Institute to verify the performance and market readiness of bird nest boxes
- 42 made from thermally modified Minnesota ash wood, by placing the nest boxes in nature centers,

Page 6 of 18 Agenda Items: 10-11

- 1 environmental learning centers, and school forests statewide for testing, collecting pertinent bird
- 2 conservation data, and delivering related environmental education.

3 Subd. 6. Aquatic and Terrestrial Invasive Species

2,700,000 2,021,000 -0-

4 (a) Aquatic Invasive Species Research Center - Phase II

- 5 \$2,700,000 in fiscal year 2017 is from the trust fund to the Board of Regents of the University of
- 6 Minnesota to support the Minnesota Aquatic Invasive Species Research Center at the University of
- 7 Minnesota to find solutions to Minnesota's aquatic invasive species problems through research, control,
- 8 prevention, and early detection of existing and emerging aquatic invasive species threats. This
- 9 appropriation is available until June 30, 2021, by which time the project must be completed and final
- 10 products delivered.

11 (b) Emerald Ash Borer Biocontrol - Phase III

- \$729,000 the first year is from the trust fund to the commissioner of Agriculture in cooperation with the
- 13 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
- 16 completed and final products delivered.

17 (c) Invasive Bighead and Silver Carp and Native Fish Evaluation – Phase II

- 18 \$500,000 the first year is from the trust fund to the commissioner of Natural Resources to continue
- 19 invasive Bighead and Silver Carp monitoring in the Mississippi River and tributaries through advanced
- 20 acoustic telemetry and assess food chains to determine how native species might prevent invasive
- 21 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.

23 (d) Adapting Stream Barriers to Remove Common Carp

- 24 \$301,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 25 conduct field tests at existing barrier sites and laboratory experiments to adapt a technology to remove
- 26 common carp from streams during their spawning migrations in Minnesota.

27 (e) Tactical Invasive Plant Management Plan Development

- 28 \$296,000 the first year is from the trust fund to the commissioner of Agriculture in cooperation with the
- 29 Board of Regents of the University of Minnesota to develop regional priorities and an interagency action
- 30 plan for invasive plant management to protect and promote habitat and native species. This
- 31 appropriation is available until June 30, 2020, by which time the project must be completed and final
- 32 products delivered.

33 (f) Maximize Value of Water Impoundments to Wildlife

- 34 \$195,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 35 agreement with the National Audubon Society, Minnesota Office to control invasive hybrid cattails in
- 36 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.

38 Subd. 7. Air Quality, Climate Change, and Renewable Energy -0- 4,138,000 -0-

Page 7 of 18 Agenda Items: 10-11

1 (a) Solar Cells Manufacturing Research

- 2 \$388,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 3 develop inexpensive, high-efficiency solar energy by simple roll-to-roll advanced manufacturing
- 4 technology, using Perovskite, a new photovoltaic material. This appropriation is subject to Minnesota
- 5 Statutes, section 116P.10. This appropriation is available until June 30, 2020, by which time the project
- 6 must be completed and final products delivered.

7 (b) Community-Scale Energy Storage Guide for Renewable Energy

- 8 \$500,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 9 create a research-based energy storage guide for community-scale sites and implement three
- 10 geographically dispersed battery storage demonstration projects. This appropriation is available until
- 11 June 30, 2020, by which time the project must be completed and final products delivered.

12 (c) Extraction of Solar Thermal Energy in Minnesota

- 13 \$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.
- 16 This appropriation is available until June 30, 2020, by which time the project must be completed and
- 17 final products delivered.

18 (d) Assessment of Urban Air Pollution

- 19 \$700,000 the first year is from the trust fund to the commissioner of the Pollution Control Agency to
- 20 operate a network of 250 sensors at fifty sites to monitor pollutants, fine particles, ozone, nitrogen
- 21 oxides, sulfur dioxide, and carbon monoxide in each of the seven county metropolitan zip code areas for
- assessment of urban air pollution variability. This appropriation is available until June 30, 2020, by which
- 23 time the project must be completed and final products delivered.

24 (e) Generation, Storage, and Utilization of Solar Energy

- \$500,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota,
- 26 West Central Research and Outreach Center, Morris to develop and demonstrate an integrated facility
- 27 to generate electricity, shade dairy cattle, and provide energy storage and utilization from solar
- 28 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.

30 (f) District Heating with Renewable Biomass at Camp Ripley Training Center

- 31 \$1,000,000 the first year is from the trust fund to Department of Military Affairs to install a five million
- 32 BTU centralized biomass boiler system utilizing the forestry management at Camp Ripley. This
- appropriation must be matched by at least \$900,000 of non-state money and must be committed by
- 34 December 31, 2017.. This appropriation is available until June 30, 2020, by which time the project must
- 35 be completed and final products delivered.

36 (g) Geotargeted Distributed Clean Energy Initiative

- 37 \$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
- 39 community distributed clean energy investments as alternatives to utility capital investments for
- 40 transmission and distribution upgrades to meet forecasted electrical loads; and \$200,000 is to conduct
- 41 pilot programs using energy efficiency and other distributed energy resources to achieve forecasted
- 42 electric energy loads in communities and is contingent on a \$200,000 match of an equal or greater

Page 8 of 18 Agenda Items: 10-11

- 1 amount of nonstate money. This appropriation is available until June 30, 2020, by which time the project
- 2 must be completed and final products delivered.
- 3 Subd. 8. Methods to Protect, Restore, and Enhance Land, Water, -0- 10,808,000 -0-
- 4 and Habitat

5 (a) Optimizing the Nutrition of Roadside Plants for Pollinators

- 6 \$815,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota in
- 7 cooperation with the Minnesota departments of Agriculture, Natural Resources, and Transportation,
- 8 and the Board of Water and Soil Resources to produce site-specific recommendations for roadside
- 9 plantings in Minnesota to maximize the nutritional health of native bees and monarch butterflies that
- 10 rely on roadside habitat corridors. This appropriation is available until June 30, 2020, by which time the
- 11 project must be completed and final products delivered.

12 (b) Promoting Conservation Biocontrol of Beneficial Insects

- 13 \$400,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota to
- 14 research integrated pest management strategies including insecticide alternatives and over wintering
- habitat sites to conserve beneficial insects, including, bees, butterflies, and predator insects. This
- appropriation is available until June 30, 2020, by which time the project must be completed and final
- 17 products delivered.

18 (c) Evaluating the Use of Bison to Restore and Preserve Savanna Habitat

- 19 \$388,000 the first year is from the trust fund to the Board of Regents of the University of Minnesota,
- 20 Cedar Creek Ecosystem Science Reserve to research combined bison grazing and fire management
- 21 strategies to restore Minnesota's oak savanna ecosystems. This appropriation is available until June 30,
- 22 2020, by which time the project must be completed and final products delivered.

23 (d) State Park Pollinator Habitat Restoration

- 24 \$672,000 the first year is from the trust fund to the commissioner of Natural Resources to restore at
- 25 least 520 acres of Monarch butterfly and other native pollinator habitats in at least seven state parks in
- 26 the Minnesota Prairie Plan core areas and establish pollinator plantings and interpretive exhibits in at
- 27 least ten state parks. This appropriation is available until June 30, 2021, by which time the project must
- 28 be completed and final products delivered.

29 (e) Enhancing Spawning Habitat Restoration in Minnesota Lakes

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

35 (f) Prescribed Fire Management for Roadside Prairies

- 36 \$345,000 the first year is from the trust fund to the commissioner of Transportation to enhance the
- 37 prescribed fire program to manage roadsides to protect and increase biodiversity and pollinator habitat.
- 38 This appropriation is available until June 30, 2020, by which time the project must be completed and
- 39 final products delivered.

Page 9 of 18 Agenda Items: 10-11

1 (g) Minnesota Bee and Beneficial Species Habitat Restoration

- 2 \$732,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 3 agreement with Pheasants Forever in cooperation with the University of Minnesota and the Minnesota
- 4 Honey Bee Association to restore approximately 800-acres of permanently protected land to enhance
- 5 bee, butterfly, beneficial insect, and grassland bird habitats. This appropriation is available until June 30,
- 6 2021, by which time the project must be completed and final products delivered.

7 (h) Mississippi and Vermillion River Restoration of Prairie, Savanna, and Forest Habitat - Phase Ten

- 8 \$213,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 9 agreement with Friends of the Mississippi River for continued implementation of the Metro
- 10 Conservation Corridors partnership by improving at least 80-acres of habitat at approximately seven
- 11 sites along the Mississippi and Vermillion River corridors. Expenditures are limited to the identified
- 12 project corridor areas as defined in the work plan. A list of proposed restoration sites must be provided
- 13 as part of the required work plan. Plant and seed materials must follow the Board of Water and Soil
- 14 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.

16 (i) Community Stewardship to Restore Urban Natural Resources - Phase Ten

- 17 \$524,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 18 agreement with Great River Greening to work with volunteers for continued implementation of the
- 19 Metro Conservation Corridors partnership to restore approximately 250-acres of forest, prairie,
- 20 woodland, wetland, and shoreline throughout the greater Twin Cities metropolitan area. Expenditures
- 21 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
- 23 materials must follow the Board of Water and Soil Resources' native vegetation establishment and
- 24 enhancement guidelines. This appropriation is available until June 30, 2020, by which time the project
- 25 must be completed and final products delivered.

26 (j) Economic Assessment of Precision Conservation and Agriculture

- 27 \$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
- 29 utilizing return on investment analysis and identifying revenue negative acres on agricultural land to
- 30 assist farmers implementing conservation practices that will provide environmental and economic
- 31 benefits. This appropriation is available until June 30, 2020, by which time the project must be
- 32 completed and final products delivered.

33 (k) Mississippi River Habitat Restoration Planning at Halls Island

- 34 \$25,000 the first year is from the trust fund to the commissioner of Natural Resources for an agreement
- 35 with the Minneapolis Park and Recreation Board to develop a habitat restoration plan to guide the
- development, engineering, and construction of Halls Island in the Mississippi River. The plan must be
- 37 coordinated with the Department of Natural Resources and the U.S. Army Corps of Engineers. This
- 38 appropriation is available until June 30, 2022, by which time the project must be completed and final
- 39 products delivered.

40 I) Conservation Reserve Enhancement Program (CREP) Outreach and Implementation

- \$6,000,000 the first year is from the trust fund to the Board of Water and Soil Resources to fund staff at
- 42 soil and water conservation districts to assist landowners participating in the Federal Conservation
- 43 Reserve Enhancement Program. This appropriation is contingent upon the receipt of federal funds for

Page 10 of 18 Agenda Items: 10-11

- 1 implementation. This appropriation is available until June 30, 2020, by which time the project must be
- 2 completed and final products delivered.

3 Subd. 9. Land Acquisition, Habitat, and Recreation

999,000 16,358,000 -0-

4 (a) Metropolitan Regional Parks System Land Acquisition

- 5 \$1,500,000 the first year is from the trust fund to the Metropolitan Council for grants to acquire
- 6 approximately 197-acres of lands within the approved park boundaries of the metropolitan regional
- 7 park system. This appropriation may not be used to purchase habitable residential structures. A list of
- 8 proposed fee title acquisitions must be provided as part of the required work plan. This appropriation
- 9 must be matched by at least 40 percent of nonstate money that must be committed by December 31,
- 10 2017. This appropriation is available until June 30, 2020, by which time the project must be completed
- 11 and final products delivered.

12 (b) Scientific and Natural Areas Acquisition, Restoration, Citizen Science and Engagement

- 13 \$4,500,000 the first year is from the trust fund to the commissioner of Natural Resources to acquire at
- 14 least 250-acres of lands 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 1000-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
- 18 restoration activities. A list of proposed acquisitions and restorations must be provided as part of the
- 19 required work plan. Land acquired with this appropriation must be sufficiently improved to meet at least
- 20 minimum management standards, as determined by the commissioner of Natural Resources. When
- 21 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.

(c) Minnesota State Parks and State Trails Land Acquisition

- 24 \$1,500,000 the first year is from the trust fund to the commissioner of Natural Resources to acquire
- 25 approximately 373-acres from willing sellers for authorized state trails and critical parcels within the
- 26 statutory boundaries of state parks. State park land acquired with this appropriation must be sufficiently
- 27 improved to meet at least minimum management standards, as determined by the commissioner of
- 28 Natural Resources. A list of proposed acquisitions must be provided as part of the required work plan.
- 29 This appropriation is available until June 30, 2020, by which time the project must be completed and
- 30 final products delivered.

23

37

31 (d) Minnesota State Trails Acquisition, Development and Enhancement

- 32 \$999,000 in fiscal year 2017 and \$39,000 the first year are from the trust fund to the commissioner of
- 33 Natural Resources for state trail acquisition, development and enhancement in southern Minnesota. A
- 34 proposed list of trail projects on authorized state trails must be provided as part of the required work
- 35 plan. This appropriation is available until June 30, 2020, by which time the project must be completed
- 36 and final products delivered.

(e) Native Prairie Stewardship and Prairie Bank Easement Acquisition

- \$3,500,000 the first year is from the trust fund to the commissioner of Natural Resources to acquire
- 39 native prairie bank easements, in accordance with Minnesota Statute 84.96, on approximately 335-
- 40 acres, prepare baseline property assessments, restore, and enhance at least 570 acres of native prairie
- 41 sites and provide technical assistance to landowners. Of this amount, up to \$132,000 may be deposited
- 42 in a conservation easement stewardship account. Deposits into the conservation easement stewardship

Page 11 of 18 Agenda Items: 10-11

- 1 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.
- 3 This appropriation is available until June 30, 2020, by which time the project must be completed and
- 4 final products delivered.

5 (f) Leech Lake Acquisition

- 6 \$1,500,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 7 agreement with the Leech Lake Band of Ojibwe to acquire approximately 45 acres, including 0.67 miles
- 8 of shoreline of high quality aquatic and wildlife habitat at the historic meeting place between Henry
- 9 Schoolcraft and Anishinabe people. The land must be open to public use including hunting and fishing.
- 10 The Band must provide a commitment that land will not be put in a Federal trust through the Bureau of
- 11 Indian Affairs.

12 (g) Mesabi Trail Development

- 13 \$2,269,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 14 agreement with the St. Louis and Lake Counties Regional Railroad Authority for engineering and
- 15 construction of 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.

17 (h) Tower Trailhead Boat Landing and Habitat Improvement – Phase II

- 18 \$600,000 the first year is from the trust fund to the commissioner of Natural Resources for an
- 19 agreement with the City of Tower to construct a trailhead and boat landing and restore vegetative
- 20 habitat, on city owned property. Plant and seed materials must follow the Board of Water and Soil
- 21 Resources' native vegetation establishment and enhancement guidelines. This appropriation is available
- 22 until June 30, 2020, by which time the project must be completed and final products delivered.

(i) Land Acquisition for Voyageurs National Park Crane Lake Visitors Center

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

28

23

Page 12 of 18 Agenda Items: 10-11

- 1 Subd. 10. Administration and Contract Agreement Reimbursement -0- 1,335,000 -0-
- 2 (a) Contract Agreement Reimbursement
- 3 \$135,000 the first year is from the trust fund to the commissioner of natural resources, at the direction
- 4 of the Legislative-Citizen Commission on Minnesota Resources, for expenses incurred for contract
- 5 agreement reimbursement for the agreements specified in this section. The commissioner shall provide
- 6 documentation to the Legislative-Citizen Commission on Minnesota Resources on the expenditure of
- 7 these funds.
- 8 (b) Legislative-Citizen Commission on Minnesota Resources (LCCMR) Administration
- 9 \$1,200,000 the first year is from the trust fund to the Legislative-Citizen Commission on Minnesota
- 10 Resources for administration in fiscal years 2018 and 2019 as provided in Minnesota Statutes, section
- 11 116P.09, subdivision 5.

12



Page 13 of 18 Agenda Items: 10-11

Subd. 11. Availability of Appropriations

1

- 2 Money appropriated in this section may not be spent on activities unless they are directly related to and
- 3 necessary for a specific appropriation and are specified in the work plan approved by the Legislative-
- 4 Citizen Commission on Minnesota Resources. Money appropriated in this section must not be spent on
- 5 indirect costs or other institutional overhead charges that are not directly related to and necessary for a
- 6 specific appropriation. Costs that are directly related to and necessary for an appropriation, including
- financial services, human resources, information services, rent, and utilities, are eligible only if the costs
- 8 can be clearly justified and individually documented specific to the appropriation's purpose and would
- 9 not be generated by the recipient but for the receipt of the appropriation. No broad allocations for costs
- in either dollars or percentages are allowed. Unless otherwise provided, the amounts in this section are
- 11 available until June 30, 2019, when projects must be completed and final products delivered. For
- 12 acquisition of real property, the appropriations in this section are available for an additional fiscal year if
- 13 a binding contract for acquisition of the real property is entered into before the expiration date of the
- appropriation. If a project receives a federal grant, the time period of the appropriation is extended to
- 15 equal the federal grant period.

16 Subd. 12. Data Availability Requirements

- 17 Data collected by the projects funded under this section must conform to guidelines and standards
- adopted by MN.IT Services. Spatial data also must conform to additional guidelines and standards
- 19 designed to support data coordination and distribution that have been published by the Minnesota
- 20 Geospatial Information Office. Descriptions of spatial data must be prepared as specified in the state's
- 21 geographic metadata guideline and must be submitted to the Minnesota Geospatial Information Office.
- 22 All data must be accessible and free to the public unless made private under the Data Practices Act,
- 23 Minnesota Statutes, and chapter 13. To the extent practicable, summary data and results of projects
- 24 funded under this section should be readily accessible on the Internet and identified as having received
- 25 funding from the environment and natural resources trust fund.

26 Subd. 13. Project Requirements

- 27 (a) As a condition of accepting an appropriation under this section, an agency or entity receiving an
- 28 appropriation or a party to an agreement from an appropriation must comply with paragraphs (b) to (l)
- and Minnesota Statutes, chapter 116P, and must submit a work plan and annual or semiannual progress
- 30 reports in the form determined by the Legislative-Citizen Commission on Minnesota Resources for any
- 31 project funded in whole or in part with funds from the appropriation. Modifications to the approved
- 32 work plan and budget expenditures must be made through the amendment process established by the
- 33 Legislative-Citizen Commission on Minnesota Resources.
- 34 (b) A recipient of money appropriated in this section that conducts a restoration using funds
- 35 appropriated in this section must use native plant species according to the Board of Water and Soil
- 36 Resources' native vegetation establishment and enhancement guidelines and include an appropriate
- 37 diversity of native species selected to provide habitat for pollinators throughout the growing season as
- 38 required under Minnesota Statutes, section 84.973.
- 39 (c) For all restorations conducted with money appropriated under this section, a recipient must prepare
- 40 an ecological restoration and management plan that, to the degree practicable, is consistent with the

Page 14 of 18 Agenda Items: 10-11

- 1 highest quality conservation and ecological goals for the restoration site. Consideration should be given
- 2 to soil, geology, topography, and other relevant factors that would provide the best chance for long-
- 3 term success and durability of the restoration project. The plan must include the proposed timetable for
- 4 implementing the restoration, including site preparation, establishment of diverse plant species,
- 5 maintenance, and additional enhancement to establish the restoration; identify long-term maintenance
- 6 and management needs of the restoration and how the maintenance, management, and enhancement
- 7 will be financed; and take advantage of the best available science and include innovative techniques to
- 8 achieve the best restoration.
- 9 (d) An entity receiving an appropriation in this section for restoration activities must provide an initial
- 10 restoration evaluation at the completion of the appropriation and an evaluation three years beyond the
- 11 completion of the expenditure. Restorations must be evaluated relative to the stated goals and
- 12 standards in the restoration plan, current science, and, when applicable, the Board of Water and Soil
- 13 Resources' native vegetation establishment and enhancement guidelines. The evaluation must
- 14 determine whether the restorations are meeting planned goals, identify any problems with the
- implementation of the restorations, and, if necessary, give recommendations on improving restorations.
- 16 The evaluation must be focused on improving future restorations.
- 17 (e) All restoration and enhancement projects funded with money appropriated in this section must be
- 18 on land permanently protected by a conservation easement or public ownership.
- 19 (f) A recipient of money from an appropriation under this section must give consideration to contracting
- 20 with Conservation Corps Minnesota for contract restoration and enhancement services.
- 21 (g) All conservation easements acquired with money appropriated under this section must:
- 22 (1) be permanent;
- 23 (2) specify the parties to an easement in the easement;
- 24 (3) specify all of the provisions of an agreement that are permanent;
- 25 (4) be sent to the Legislative-Citizen Commission on Minnesota Resources in an electronic format at
- 26 least ten business days prior to closing;
- 27 (5) include a long-term monitoring and enforcement plan and funding for monitoring and enforcing the
- 28 easement agreement; and
- 29 (6) include requirements in the easement document to address specific groundwater and surface water
- 30 quality protection activities such as keeping water on the landscape, reducing nutrient and contaminant
- 31 loading, protecting groundwater, and not permitting artificial hydrological modifications.
- 32 (h) For any acquisition of lands or interest in lands, a recipient of money appropriated under this section
- 33 must not agree to pay more than 100 percent of the appraised value for a parcel of land using this
- money to complete the purchase, in part or in whole, except that up to ten percent above the appraised
- 35 value may be allowed to complete the purchase, in part or in whole, using this money if permission is
- received in advance of the purchase from the Legislative-Citizen Commission on Minnesota Resources.

Page 15 of 18 Agenda Items: 10-11

- 1 (i) For any acquisition of land or interest in land, a recipient of money appropriated under this section
- 2 must give priority to high-quality natural resources or conservation lands that provide natural buffers to
- 3 water resources.
- 4 (j) For new lands acquired with money appropriated under this section, a recipient must prepare an
- 5 ecological restoration and management plan in compliance with paragraph (c), including sufficient
- 6 funding for implementation unless the work plan addresses why a portion of the money is not necessary
- 7 to achieve a high-quality restoration.
- 8 (k) To ensure public accountability for the use of public funds, within 60 days of the transaction, a
- 9 recipient of money appropriated under this section must provide to the Legislative-Citizen Commission
- 10 on Minnesota Resources documentation of the selection process used to identify parcels acquired and
- 11 provide documentation of all related transaction costs, including but not limited to appraisals, legal fees,
- recording fees, commissions, other similar costs, and donations. This information must be provided for
- 13 all parties involved in the transaction. The recipient must also report to the Legislative-Citizen
- 14 Commission on Minnesota Resources any difference between the acquisition amount paid to the seller
- and the state-certified or state-reviewed appraisal, if a state-certified or state-reviewed appraisal was
- 16 conducted.
- 17 (I) A recipient of an appropriation from the trust fund under this section must acknowledge financial
- 18 support from the Minnesota environment and natural resources trust fund in project publications,
- 19 signage, and other public communications and outreach related to work completed using the
- 20 appropriation. Acknowledgment may occur, as appropriate, through use of the trust fund logo or
- 21 inclusion of language attributing support from the trust fund. Each direct recipient of money
- appropriated in this section, as well as each recipient of a grant awarded pursuant to this section, must
- 23 satisfy all reporting and other requirements incumbent upon constitutionally dedicated funding
- recipients as provided in Minnesota Statutes, section 3.303, subdivision 10, and chapter 116P.

25 Subd. 14. Payment Conditions and Capital Equipment Expenditures

- 26 (a) All agreements, grants, or contracts referred to in this section must be administered on a
- 27 reimbursement basis unless otherwise provided in this section. Notwithstanding Minnesota Statutes,
- section 16A.41, expenditures made on or after July 1, 2017, or the date the work plan is approved,
- 29 whichever is later, are eligible for reimbursement unless otherwise provided in this section. Periodic
- 30 payment must be made upon receiving documentation that the deliverable items articulated in the
- 31 approved work plan have been achieved, including partial achievements as evidenced by approved
- 32 progress reports. Reasonable amounts may be advanced to projects to accommodate cash flow needs
- 33 or match federal money. The advances must be approved as part of the work plan. No expenditures for
- 34 capital equipment are allowed unless expressly authorized in the project work plan.
- 35 (b) Single-source contracts as specified in the approved work plan are allowed.

36 Subd. 15. Purchase of Recycled and Recyclable Materials

- 37 A political subdivision, public or private corporation, or other entity that receives an appropriation under
- this section must use the appropriation in compliance with Minnesota Statutes, section 16C.0725,

Page 16 of 18 Agenda Items: 10-11

- 1 regarding purchase of recycled, repairable, and durable materials; and Minnesota Statutes, section
- 2 16C.073, regarding purchase and use of paper stock and printing.

3 Subd. 16. Energy Conservation and Sustainable Building Guidelines

- 4 A recipient to whom an appropriation is made under this section for a capital improvement project must
- 5 ensure that the project complies with the applicable energy conservation and sustainable building
- 6 guidelines and standards contained in law, including Minnesota Statutes, sections 16B.325, 216C.19, and
- 7 216C.20, and rules adopted under those sections. The recipient may use the energy planning, advocacy,
- 8 and State Energy Office units of the Department of Commerce to obtain information and technical
- 9 assistance on energy conservation and alternative energy development relating to the planning and
- 10 construction of the capital improvement project.

11 Subd. 17. Accessibility

- 12 Structural and nonstructural facilities must meet the design standards in the Americans with Disabilities
- 13 Act (ADA) accessibility guidelines.

14 Subd. 18. Carryforward; Extension

- 15 (a) The availability of the appropriations for the following projects are extended to June 30, 2018:
- 16 (1) Laws 2015, chapter 76, section 2, subdivision 10, Emerging Issues Account.
- 17 (b) The availability of the appropriations for the following projects are extended to June 30, 2019:
- 18 (1) Laws 2015, chapter 76, section 2, subdivision 8, paragraph (h), Improving Community Forests
- 19 Through Citizen Engagement; and
- 20 (2) Laws 2016, chapter 186, section 2, subdivision 9, paragraph (b), Minnesota Point Pine Forest
- 21 Scientific and Natural Area Acquisition.
- 22 Sec. x.
- 23 Minnesota Statutes 2014, section 116P.17, is amended to read:

24 116P.17 ACQUISITION OF LANDS OR INTEREST IN LANDS; COMMISSIONER APPROVAL.

25 Subdivision 1. Commissioner approval.

- 26 (a) A recipient of an appropriation from the trust fund who acquires an interest in real property must
- 27 receive written approval from the commissioner of natural resources prior to the acquisition, if the
- interest is acquired in whole or in part with the appropriation. A recipient must request the
- 29 commissioner's approval at least ten business days before the proposed acquisition. When a recipient
- 30 requests approval under this subdivision, the recipient must simultaneously submit the same
- 31 information to the commission. Conservation easements to be held by the Board of Water and Soil
- 32 Resources, acquisitions of land in the metropolitan regional recreation open space systems as defined

Page 17 of 18 Agenda Items: 10-11

1 2

3

4

5

6

7

8

under section 473.351, subdivision 1 with appropriations to the Metropolitan Council, and acquisitions specifically identified in appropriation laws are not subject to commissioner approval under this section.

- (b) The commissioner shall approve acquisitions under this section only when the interest in real property:
- (1) is identified as a high priority by the commissioner and meets the objectives and criteria identified in the applicable acquisition plan for the intended management status of the property; or
 - (2) is otherwise identified by the commissioner as a priority for state financing.



Page 18 of 18 Agenda Items: 10-11