

Subd. 3. Foundational Natural Resource Data and Information

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8,328,000

(a) Data Driven Pollinator Conservation Strategies (ID: 003-A - Daniel Cariveau, \$558,611)

\$520,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to improve understanding of the relationships and interactions between native bee pollinators and rare and declining plant species and determine optimal placement and species plantings for pollinator habitat in order to develop guidelines for planning, designing, and planting pollinator habitat. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(b) Native Bee Surveys in Minnesota Prairie and Forest Habitats (ID: 005-A – Crystal Boyd, \$707,364)

\$600,000 the second year is from the trust fund to the commissioner of natural resources to continue to assess the current status and distribution of native bee pollinators in Minnesota by expanding surveys into the prairie-forest border region and facilitating inter-agency collaboration and public outreach on pollinators. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(c) Prairie Butterfly Conservation, Research and Breeding - Phase 2 (ID: 009-A – Erik Runquist, \$608,750)

\$750,000 the second year is from the trust fund, of this amount \$421,000 is to the Minnesota Zoological Garden and \$329,000 is to commissioner of natural resources in collaboration with the United States Fish and Wildlife Service to continue efforts to prevent the extinction of imperiled native Minnesota butterfly species through breeding, research, field surveys, and potential reintroduction. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(d) A Statewide Monitoring Network for Changing Habitats in Minnesota (ID: 004-A – Bruce Carlson, \$645,821)

\$500,000 the second year is from the trust fund to the commissioner of natural resources to develop a consolidated statewide network of permanent habitat monitoring sites in prairies, forests, and wetlands to help guide and prioritize habitats for protection and management decisions in response to environmental change. The monitoring of plots will include the design and testing of methodologies to address the status of pollinators and pollination. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(e) Completing the National Wetland Inventory Update for Minnesota (ID: 001-A – Steve Kloiber, \$1,644,270)

\$1,500,000 the second year is from the trust fund to the commissioner of natural resources to complete the update and enhancement of wetland inventory maps for counties in central and northwestern Minnesota. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(f) Minnesota Vegetative Buffer Assessment and Prioritization to Protect Water Quality (ID: 002-A – David Mulla, \$170,421)

\$170,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop a GIS assessment of riparian vegetative buffers in seventy agricultural counties in Minnesota using aerial imagery and LiDAR terrain analysis.

(g) Assessment Tool for Understanding Vegetation Growth Impacts on Groundwater Recharge (ID: 011-A – Gene Hua Ng, \$212,964)

\$212,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop a statewide assessment tool to help understand the relationship between vegetation growth and impacts on groundwater recharge under changing land-use and climate. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(h) Sentinel Lakes Monitoring and Data Synthesis – Phase 3 (ID: 006-A – Melissa Trembl, \$401,623)

\$401,000 the second year is from the trust fund to the commissioner of natural resources for the third and final phase of a monitoring and multidisciplinary research effort on 25 sentinel lakes in Minnesota that will integrate and synthesize previously collected data in order to enhance understanding of how lakes respond to large-scale environmental stressors and provide for improved ability to predict and respond to lake changes for water and fisheries management. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(i) State Spring Inventory for Resource Management and Protection - Phase 2 (ID: 012-A – Jan Falteisek, \$518,499)

\$370,000 the second year is from the trust fund to the commissioner of natural resources to continue a systematic inventory of springs statewide to provide fundamental data needed to maintain spring flows and protect groundwater dependent resources. Increased outreach to the public and other entities must be conducted to assist in the identification, documentation, and publication of spring locations. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(j) Enhancing Understanding of the Minnesota River Aquatic Ecosystem (ID: 020-A – Jack Lauer, \$573,447)

\$500,000 the second year is from the trust fund to the commissioner of natural resources to accelerate collection of baseline data to enhance the understanding of the Minnesota River ecosystem, measure future impacts of changing climate and landscapes on the aquatic ecosystem, and guide future management efforts. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(k) Improving Brook Trout Stream Habitat through Beaver Management (ID: 016-A – Andrew Hafs, \$225,210)

\$225,000 the second year is from the trust fund to the Board of Trustees of the Minnesota State Colleges and Universities system for Bemidji State University to quantify how beaver activity influences habitat quality in streams for brook trout in northeastern Minnesota in order to improve current and future management practices. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(l) Evaluate Temperature, Streamflow, and Hydrogeology Impact on Brook Trout Habitat (ID: 023-A – Bob Tipping, \$119,858)

\$115,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Minnesota Geological Survey to evaluate links between southeastern Minnesota stream temperatures, trout habitat, and bedrock hydrogeology to improve trout stream management. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(m) Restoration of Elk to Northeastern Minnesota (ID: 007-A – James Forester, \$325,541)

\$300,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota in cooperation with the Fond du Lac Band and Rocky Mountain Elk Foundation to determine the habitat suitability and levels of public support for restoring elk to Northeastern Minnesota. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(n) Game and Non-Game Bird Pesticide Exposure (ID: 008-A – Julia Ponder, \$349,767)

\$349,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to evaluate the potential risk to game and non-game birds from exposure to neonicotinoid treated agricultural seeds. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(o) Evaluating Insecticide Exposure Risk for Grassland Wildlife on Public Lands (ID: 013-A – Nicole Davros, \$263,299)

\$250,000 the second year is from the trust fund to the commissioner of natural resources to evaluate exposure risks of grassland wildlife to soybean aphid insecticides to help guide grassland management in farmland regions of Minnesota for the protection of birds, beneficial insects, and other grassland wildlife. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(p) Development of Innovative Cost-Saving Methodology for Forest Inventory (ID: 014-A – Dennis Kepler, \$1,053,638)

\$1,000,000 the second year is from the trust fund to the commissioner of natural resources to develop and pilot a new and more cost effective methodology for an enhanced stand-based forest inventory with the goal of extending the methodology statewide. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(q) Evaluation of Forest Tree Retention Guidelines Pertaining to Wildlife (ID: 026-A – Gerald Niemi, \$232,310)

\$232,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Natural Resources Research Institute in Duluth to assess the effectiveness of the Minnesota Forest Resources Council tree retention guidelines in sustaining Minnesota’s wildlife populations by quantifying and evaluating the impacts on birds, small mammal, and amphibian diversity. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(r) Determine Impacts on Wildlife from Emerald Ash Borer Infection of Black Ash Forests (ID: 015-A – Gerald Niemi, \$334,218)

\$334,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Natural Resources Research Institute in Duluth to assess impacts of emerald ash borer and adaptive management on wildlife diversity in black ash forests and to develop recommendations to mitigate wildlife impacts. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

Subd. 4. Water Resources

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8,349,000

(a) Tracking and Preventing Harmful Algal Blooms (ID: 037-B - Daniel Engstrom \$764,300)

\$500,000 the second year is from the trust fund to the Science Museum of Minnesota for the St. Croix Watershed Research Station to identify species composition and timing of harmful algal blooms, understand the causes of bloom development in individual lakes, and determine how nutrients and climate interact to increase harmful algae outbreaks. This work must be done in cooperation with the University of Minnesota and the Minnesota Pollution Control Agency. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(b) Assessing the Increasing Harmful Algal Blooms in Minnesota Lakes (ID: 038-B - Miki Hondzo, \$395,249)

\$270,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Saint Anthony Falls Laboratory to investigate lake processes and meteorological conditions triggering algal blooms and toxin production, develop models for tracking blooms, and provide outreach on the prediction, detection, and impacts of mitigation of algal bloom events. This work must be done in cooperation with the St. Croix Watershed Station of the Science Museum of Minnesota and the Minnesota Pollution Control Agency. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(c) Restoring Native Mussels for Cleaner Streams and Lakes (ID: 036-B – Mike Davis, \$744,798)

\$600,000 the second year is from the trust fund to the commissioner of natural resources in cooperation with the Minnesota Zoo for a statewide mussel program to rear, restore, and re-establish native mussel species in streams and rivers. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(d) Assessing Technique for Eliminating Contaminants to Protect Native Fish and Mussels (ID: 053-B - Kristine Wammer, \$287,448)

\$287,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the University of St. Thomas to evaluate the use of ultraviolet treatment of wastewater to remove certain commonly detected wastewater contaminants in order to reduce their toxicity to native fish and mussels. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(e) Assessing Neonicotinoid Insecticide Effects on Aquatic and Soil Communities (ID: 035-B - William Arnold, \$412,000)

\$400,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to identify neonicotinoid insecticide breakdown components produced in water and plant leaves and assess their toxicity to soil and aquatic species and related biotic communities. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(f) Bacterial Assessment of Groundwater Supplies Used for Drinking Water (ID: 039-B - Raymond Hozalski, \$299,829)

\$299,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to characterize and analyze bacterial communities in Minnesota groundwater used as drinking water supplies and link the microbiological data to other water quality indicators for drinking water supply safety. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(g) Understanding Bedrock Fracture Flow to Improve Groundwater Quality (ID: 049-B - Anthony Runkel, \$183,627)

\$183,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Minnesota Geological Survey to use new techniques of borehole testing and rock fracture mapping in the Twin Cities metropolitan area to achieve a better understanding of groundwater flow through fractured bedrock in order to improve groundwater management. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(h) Protection of State's Confined Drinking Water Aquifers (ID: 050-B – Johnathan Bumgarner \$433,400)

\$433,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the United States Geologic Survey to continue to test methods of defining properties of confined drinking water aquifers in order to improve water management. This appropriation is not subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(i) Techniques for Water Storage Estimates in Central Minnesota (ID: 018-A – John Nieber, \$702,231)

\$250,000 the second 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 the integration of satellite monitoring and ground-based measurements in central Minnesota. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(j) Assessment of Surface Water Quality with Satellite Sensors (ID: 047-B - Jacques Finlay, \$458,000)

\$345,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for a statewide assessment of water quality using new satellite sensors for high frequency measurement of major water quality indicators in lakes and rivers.

(k) Development of Innovative Sensor Technologies for Water Monitoring (ID: 051-B - Tianhong Cui, \$508,878)

\$509,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop inexpensive and efficient sensitive sensors and wireless sensor networks for continuous monitoring of contaminants in lakes and rivers in Minnesota. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(l) Wastewater Treatment Process Control Improvements (ID: 040-B - Timothy LaPara, \$398,592)

\$398,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to characterize and quantify the nutrient-removing microorganisms used for municipal wastewater treatment to improve the process used to reduce total nitrogen discharge. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(m) Membrane-Based Process for Decentralized Drinking Water Production (ID: 043-B - Santiago Romero-Vargas Castrillón, \$191,304)

\$191,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop a low-energy use, membrane-based treatment technology to produce drinking water locally from surface waters by removing heavy metals and contaminants of emerging concern, including

pesticides and pharmaceuticals. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(n) Analyzing Alternative for Municipal Wastewater Treatment (*ID: 060-B - Scott Kyser, \$180,000*)
\$180,000 the second year is from the trust fund to the commissioner of the Minnesota Pollution Control Agency to analyze alternatives for improved treatment of sulfate and salty parameters at municipal wastewater plants to inform the development and implementation of the wild rice, sulfate, and other water quality standards. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(o) Understanding Impacts of Salt Usage on Minnesota Lakes, Rivers, and Groundwater (*ID: 044-B - John Gulliver, \$497,276*)
\$497,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to quantify the current water softening salt loads in Minnesota, assess alternative water softening materials and methods, and quantify the transport of de-icing and water softening salt through the soil. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(p) Reducing Salt and Metal Removal Costs with Microbes (*ID: 046-B - Daniel Bond, \$596,599*)
\$596,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to continue to research the potential of recently discovered microbes from Soudan Iron Mine in northern Minnesota for removal of salts and metals from ground and surface water resources. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(q) Engineered Biofilter for Sulfate and Metal Removal from Mine Waters (*ID: 054-B - Sebastian Behrens, \$439,817*)
\$440,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop an efficient, low-cost, biomass-derived adsorbent material for use in bioactive filters able to remove sulfate and metals from mining impacted waters. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(r) Developing Biosponge Technology for Removal of Nitrates from Minnesota Waters (*ID: 073-B - Lawrence Wackett, \$198,256*)
\$198,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to adapt and test an inexpensive biosponge technology for its effectiveness at removing nitrates from drinking water. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(s) Morrison County Performance Drainage and Hydrology Management (*ID: 042-B - Helen McLennan, \$261,000*)
\$209,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Morrison Soil and Water Conservation District to conduct an assessment of drainage infrastructure in order to develop hydrology restoration priorities and a county-wide performance drainage ordinance to address land use change impacts to the hydrogeology. This appropriation is

available until June 30, 2019, by which time the project must be completed and final products delivered.

(t) Agricultural and Urban Runoff Water Quality Treatment Analysis - Phase 2 (ID: 168-F - Craig Austinson, \$295,010)

\$110,000 the second is from the trust fund to the Board of Water and Soil Resources for an agreement with the Blue Earth County Drainage Authority to continue monitoring of a model demonstration for storage and treatment options in drainage systems designed to improve water quality by reducing soil erosion, peak water flows, and nutrient loading. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

(u) Surface Water Bacterial Treatment System Pilot Project (ID: 088-B - Brian Corcoran, \$991,600)

\$500,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Vadnais Lake Area Water Management Organization to reduce bacteria and nutrient loads to Vadnais Lake, a drinking water supply reservoir, through implementation and evaluation of a subsurface constructed wetland as a best management practice for potential statewide use. The Vadnais Lake Area Water Management Organization must consider contracting with the University of Minnesota Department of Civil, Environmental, and Geo-Engineering to evaluate the effectiveness of the pilot treatment system so that it maximizes benefits and can be replicated elsewhere. This appropriation is available until June 30, 2021, by which time the project must be completed and final products delivered.

(v) Assessing Effectiveness of Wetland Restorations for Improved Water Quality (ID: 045-B – Jacques Finlay, \$420,000)

\$420,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to quantify the environmental benefits of sediment removal and native plant communities in wetland restorations by measuring resulting reductions in nitrogen and phosphorus delivery to groundwater and surface water. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(w) Assessing Climate Change Effects on the Release of Mercury and Sulfur into Aquatic Ecosystems (ID: 070-B - Ed Nater, \$643,088)

\$300,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to determine the effects of increased temperatures on the release of mercury and sulfur from Minnesota peatlands in order to help predict impacts on aquatic ecosystems and fish health. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(x) Integrating Targeted Watershed Planning Tools with Citizen Involvement (ID: 083-B - Kimberly Musser, \$169,108)

\$169,000 the second year is from the trust fund to Minnesota State University, Mankato for the Mankato Water Resources Center to use GIS prioritization and modeling tools to develop pollution reduction strategies in five priority subwatersheds in the Le Sueur River Watershed and promote the implementation strategies through citizen involvement and outreach. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(y) Roseau Lake Watershed Targeted Water Quality Improvement (ID: 186-H - Henry Van Offelen Henry, \$135,250)

\$65,000 the second year is from the trust fund to the commissioner of natural resources to develop targeted water quality improvements for the Roseau Lake Watershed by coordinating with partner

agencies to identify the top priority field scale best management and conservation practices to implement in the region.

Subd. 5. Environmental Education

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2,562,000

(a) Minnesota Conservation Apprentice Academy (ID: 090-C - Jenny Gieseke, \$433,000)

\$433,000 the second year is from the trust fund to the Board of Water and Soil Resources in cooperation with Conservation Corps Minnesota and Iowa for the final phase of a program to train and mentor future conservation professionals by providing apprenticeship service opportunities with local soil and water conservation districts in Minnesota. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(b) School Forests Outdoor Classrooms (ID: 091-C - Amy Kay Kerber, \$766,563)

\$440,000 the second year is from the trust fund to the commissioner of natural resources in cooperation with the Conservation Corps Minnesota and Iowa to renovate and restore sixty school forests and train students, teachers, school district facility staff, and community volunteers to be long-term stewards of the school forests and provide education and service learning experiences at school forest sites. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(c) Youth-Led Sustainability Projects in 50 Minnesota Communities – Phase 3 (ID: 092-C - Shelli-Kae Foster, \$450,500)

\$400,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Prairie Woods Environmental Learning Center to expand the Youth Energy Summit (YES!) program statewide to complete more than two-hundred new youth-led climate change mitigation and adaptation projects in over fifty Minnesota communities.

(d) The New Prairie Sportsman Statewide Broadcast Video Project (ID: 101-C - Timothy Bakken, \$300,000)

\$300,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Pioneer Public Television to provide outreach on outdoor recreation, conservation, and natural resource issues, including water quality, wildlife habitat, and invasive species, through a series of interrelated public forums, educational and training based videos, and statewide broadcast television programs. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(e) Workshops and Outreach for Nontoxic Ammunition Alternatives (ID: 093-C - Julia Ponder, \$133,054)

\$133,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Raptor Center in cooperation with the Department of Natural Resources and other conservation partners to provide hunters with outreach and workshops on alternatives to lead hunting ammunition, including copper, and promote voluntary selection of nontoxic ammunition in order to protect raptors and other wildlife in Minnesota from accidental lead poisoning caused by ingestion of ammunition fragments left in the field.

(f) Wildlife and Habitat Conservation Education for Southwest Minnesota High Schools (ID: 096-C - Carol Strecker, \$147,400)

\$147,000 the second year is from the trust fund to the Minnesota Zoological Garden to engage high

school students in critical prairie wildlife and habitat conservation projects by using its unique animal collections and state-of-the-art technology to deliver hands-on learning in twelve southwestern Minnesota high schools.

(g) Standards-Based Dakota Indian Land Stewardship Education (ID: 094-C - Teresa Peterson, \$197,104) \$197,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Dakota Wicohan to enhance the capacity of approximately 1,250 students to be stewards of the land in Minnesota by learning about Dakota Indian values and environmental principles through a standards-based experiential multimedia curriculum.

(h) Wolf Management Education in the Classroom – Phase 2 (ID: 099-C - David Kline, \$240,012) \$240,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the International Wolf Center to expand the Wolves at our Door classroom education program to assist students in understanding wolves and associated management issues.

(i) Master Water Steward Program Expansion (ID: 112-C - Peggy Knapp, \$116,000) \$116,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the Freshwater Society to train community volunteers as master water stewards who will work with neighborhoods to install water management projects to preserve and restore water quality. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(j) Promoting Water Quality Stewardship through Student Mentoring and River Monitoring (ID: 105-C - Emily Deaver, \$39,490) \$39,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Southwest Minnesota State University to partner with area schools to deliver inquiry-based, hands-on learning and mentoring on water quality stewardship between university agriculture students and high school and middle school students.

(k) Analysis of Thermally Modified Wood Nesting Boxes for Birds (ID: 111-C - Ryan Hueffmeier, \$117,846) \$117,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Natural Resources Research Institute in Duluth to verify the performance and market readiness of bird nest boxes made from thermally modified Minnesota ash wood by placing them in nature centers, environmental learning centers, and school forests statewide for testing, collecting pertinent bird conservation data, and delivering related environmental education.

Subd. 6. Aquatic and Terrestrial Invasive Species -0- 5,860,000

(a) Minnesota Invasive Terrestrial Plants and Pests Center - Phase 3 (ID: 121-D - Dr. Robert Venette, \$5,000,000) \$3,750,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the Invasive Terrestrial Plants and Pests Center established in Minnesota Laws 2014, chapter 312, article 13, section 44, to conduct research to prevent, minimize, and mitigate the threats and impacts posed by terrestrial invasive plants, pathogens, and pests to the state's prairies, forests, wetlands, and agricultural resources. This appropriation is available until June 30, 2023, by which time the project must be completed and final products delivered.

(b) Developing a Membrane Filtration System to Treat Lake Superior Ballast Water (ID: 122-D - Santiago Romero-Vargas Castrillón, \$151,091)

\$151,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop a filtration system utilizing bioactive membrane technologies for use in treating Lake Superior ballast water to remove at least ninety percent of suspended pathogens, invasive species, and contaminants. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(c) Advancing Microbial Invasive Species Monitoring from Ballast Discharge (ID: 123-D - Randall Hicks, \$368,995)

\$368,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to identify bacteria in ship ballast water and St. Louis River Estuary sediments, assess the risks posed by invasive bacteria, and evaluate treatment techniques for their effectiveness at removing these bacteria from ballast water. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(d) Biological Control of White Nose Syndrome in Bats - Phase 2 (ID: 124-D - Christine Salomon, \$452,532)

\$452,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to continue research to identify, develop, and optimize biocontrol agents for white nose in bats by evaluating the biocontrol effectiveness of microbes collected at additional hibernacula throughout the state and conducting baseline characterization of the total bat microbiomes. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(e) Elimination of Target Invasive Plant Species - Phase 2 (ID: 128-D - Monika Chandler, \$752,100)

\$750,000 the second year is from the trust fund, of this amount \$511,000 is to the commissioner of agriculture and \$239,000 is to the Board of Regents of the University of Minnesota to train volunteers and professionals to find, control, and monitor targeted newly emergent invasive species. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(f) Dutch Elm Disease Resistance - Phase 2 (ID: 131-D - Robert Blanchette, \$330,187)

\$200,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to continue to identify and evaluate native Minnesota elms resistant to Dutch elm disease and begin propagating disease resistant specimens for field trial testing. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(g) Invasive Carp Management Research in Lake Nokomis Subwatershed (ID: 134-D - Adam Arvidson, \$189,936)

\$189,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the Minneapolis Park and Recreation Board to apply current invasive carp management research to an entire subwatershed and provide demonstration guidance for large-scale carp management. This appropriation is available until June 30, 2020, by which time the project must be completed and final products delivered.

Subd. 7. Air Quality, Climate Change, and Renewable Energy -0- 3,889,000

(a) Solar Cells Manufacturing Research (ID: 140-E - Tianhong Cui, \$388,762)

\$388,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop inexpensive, high-efficiency solar energy by simple roll-to-roll advanced manufacturing technology, using Perovskite a new photovoltaic material. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(b) Community Solar Garden Installation (ID: 153-E - Jason Edens, \$490,429)

\$490,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Rural Renewable Energy Alliance to install a 200 kilowatt community solar garden to provide for electrical distribution in Cass and Crow Wing Counties to assist households in the Minnesota Low-Income Housing Energy Assistance Program to meet their electrical energy needs and serve as a model for low-income energy assistance elsewhere in the state. This appropriation is not subject to Minnesota Statutes, section 116P.10.

(c) High Resolution Climate Projections to Aid Local Planning and Implementation Efforts (ID: 135-E - Peter Snyder, \$411,389)

\$411,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to produce statewide localized climate model projections to be used for long-term planning and implementation of adaptation strategies for natural resources, infrastructure, and human health at the local level. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(d) Geotargeted Distributed Clean Energy Initiative (ID: 144-E - Carl Nelson, \$1,850,000)

\$800,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the Center for Energy and Environment. Up to \$600,000 of this amount is for analysis of community distributed clean energy investments as alternatives to utility transmission and distribution upgrade capital investments to meet forecasted electrical loads. Up to \$200,000 is to conduct pilot programs using energy efficiency and other distributed energy resources to achieve forecasted electric energy load in communities and is contingent on a \$200,000 match of an equal or greater amount of non-state money. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(e) Waste Heat Recovery with Efficient Thermoelectric Energy Generators (ID: 151-E - Uwe Kortshagen, \$404,427)

\$400,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop thermoelectric energy generators using advanced, high-performance materials able to more efficiently capture waste heat and transform it into electricity. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(f) Hydrogen Fuel from Wind Produced Renewable Ammonia (ID: 141-E - Will Northrop, \$842,849)

\$400,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to develop a technical solution for converting wind produced ammonia to hydrogen through catalytic decomposition for use in reducing emissions from diesel engines and powering fuel cell vehicles. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(g) Utilization of Dairy Farm Wastewater for Sustainable Production (ID: 148-E - Bradley Heins,

\$1,451,125)

\$500,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the West Central Research and Outreach Center in Morris for development and evaluation of an integrated system to recycle and utilize nutrients in dairy wastewater from feedlots and milk processing to reduce nutrients from agricultural runoff and to provide outreach on adoption of new technologies. This appropriation is subject to Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(h) Solar Energy Utilization for Minnesota Swine Farms – Phase 2 (ID: 149-E - Lee Johnston, \$928,478)

\$500,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota for the West Central Research and Outreach Center in Morris to continue to develop and evaluate the utilization of solar photovoltaic systems at swine facilities to improve energy and economic performance, reduce fossil fuel usage and emissions, and optimize water usage. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

Subd. 8. Methods to Protect, Restore, and Enhance Land, Water, and Habitat -0- 4,515,000

(a) Bee Pollinator Habitat Enhancement - Phase 2 (ID: 155-F - Marla Spivak, \$387,085)

\$387,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to continue the assessment of the potential to supplement traditional turf grass by providing critical floral plant resources to enhance bee pollinator habitat. Plant materials and seeds must follow the Board of Water and Soil Resources native vegetation establishment and enhancement guidelines. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(b) Measuring Pollen and Seed Dispersal for Prairie Fragment Connectivity (ID: 162-F - Lauren Sullivan, \$556,000)

\$556,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to determine habitat connectivity between prairie fragments by measuring plant movement by dispersal of pollen and seeds to improve prairie restoration implementation. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(c) Establishment of Permanent Habitat Strips Within Row Crops (ID: 154-F - Shawn Schottler, \$179,400)

\$179,000 the second year is from the trust fund to the Science Museum of Minnesota for the St. Croix Watershed Research Station to research the viability of establishment of prairie forbs and alfalfa as permanent cover strips in the bare soil between selected rows of corn and soybeans as potential pollinator, monarch, and gamebird habitat. Monitoring of the native plant strips must evaluate the effects of pesticides from adjacent crops on pollinators, including determining if there is a reduction of pollinators that results in reduced setting of seeds on the native plants. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(d) Evaluate Prescribed Burning Techniques to Improve Habitat Management for Brushland Species (ID: 019-A – Rebecca Montgomery, \$267,623)

\$267,000 the second year is from the trust fund to the Board of Regents of the University of Minnesota to compare the effects on brushland habitat of conducting prescribed burning in spring, summer, and fall to provide improved management guidelines for wildlife habitat. This appropriation is available until

June 30, 2020, by which time the project must be completed and final products delivered.

(e) Controlling Reed Canary Grass to Regenerate Floodplain Forest (ID: 159-F - Tim Schlagenhaft, \$218,500)

\$218,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the Minnesota State Office of National Audubon Society, Incorporated to determine the most effective regeneration methods for restoration of floodplain forests in southeast Minnesota impacted by invasive reed canary grass. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(f) Forest Management for Mississippi River Drinking Water Protection (ID: 165-F - Melissa Barrick, \$350,000)

\$300,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Crow Wing Soil and Water Conservation District to pilot a water protection approach for the watershed through development of forest stewardship plans and targeted riparian forest restoration projects. Any expenditures from this appropriation spent on forest management plans or restoration must be for lands with a long-term contract commitment for forest conservation and must follow the Board of Water and Soil Resources native vegetation establishment and enhancement guidelines. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(g) Upland, Wetland, and Shoreline Restoration in Greater Metropolitan Area (ID: 166-F - Wiley Buck, \$509,000)

\$509,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Great River Greening to restore approximately 150 acres of forest, prairie, woodland, and wetland and 0.15 miles of shoreline throughout the greater Twin Cities metropolitan area using volunteers and to conduct restoration evaluation on previously restored parcels. A list of proposed restorations and evaluations must be provided as part of the required work plan. Plant and seed materials must follow the Board of Water and Soil Resources' native vegetation establishment and enhancement guidelines. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(h) Bluffland Restoration and Monitoring in Winona (ID: 169-F - Neal Mundahl, \$99,427)

\$99,000 the second year is from the trust fund to Winona State University to inventory, restore, and monitor the 40 acre Garvin Heights Natural Area in Winona and provide related public outreach and education. Plant and seed materials must follow the Board of Water and Soil Resources native vegetation establishment and enhancement guidelines. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(i) Champlin Mill Pond Shoreland Restoration (ID: 173-F - Todd Tuominen, \$2,000,000)

\$2,000,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the City of Champlin to restore the Champlin Mill Pond shoreline and adjacent habitat. Plant and seed materials must follow the Board of Water and Soil Resources native vegetation establishment and enhancement guidelines. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

Subd. 9. Land Acquisition, Habitat and Recreation

-0-

12,624,000

(a) State Parks and State Trails Land Acquisitions (ID: 174-G - Jennifer Christie, \$2,000,000)

\$2,445,000 the second year is from the trust fund to the commissioner of natural resources to acquire approximately 150 acres from willing sellers for authorized state trails and critical parcels within the statutory boundaries of state parks. Of this amount, at least \$445,000 must be used for state parks and trails in the Minnesota River Valley. State park land acquired with this appropriation must be sufficiently improved to meet at least minimum management standards, as determined by the commissioner of natural resources. A list of proposed acquisitions must be provided as part of the required work plan. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(b) Scientific and Natural Area Acquisition and Restoration (ID: 175-G - Peggy Booth, \$9,324,826)

\$4,000,000 the second year is from the trust fund to the commissioner of natural resources to acquire approximately 400 acres of lands with high-quality native plant communities and rare features from willing sellers to be established as scientific and natural areas as provided in Minnesota Statutes, section 86A.05, subdivision 5, and restore and improve approximately 750 acres of scientific and natural areas. Of this appropriation, at least \$1,300,000 is designated for restoration. A list of proposed acquisitions and restorations must be provided as part of the required work plan. Land acquired with this appropriation must be sufficiently improved to meet at least minimum management standards, as determined by the commissioner of natural resources.

(c) Minnesota Point Pine Forest Scientific and Natural Area Acquisition (ID: 179-G - Tom Werner, \$500,000)

\$500,000 the second year is from the trust fund to the commissioner of natural resources in cooperation with the Duluth Airport Authority to acquire approximately ten acres as an addition to the designated Minnesota Point Pine Forest Scientific and Natural Area located along the shores of Lake Superior in Duluth.

(d) Conservation Easements in the Avon Hills -- Phase 3 (ID: 177-G - Thomas Kroll, \$1,307,000)

\$1,300,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Saint John's University in cooperation with the Minnesota Land Trust to secure permanent conservation easements on approximately 500 acres of high quality habitat in Stearns County, prepare conservation management plans, and provide public outreach. A list of proposed easement acquisitions must be provided as part of the required work plan. An entity that acquires a conservation easement with appropriations from the trust fund must have a long-term stewardship plan for the easement and a fund established for monitoring and enforcing the agreement. Funding for the long-term monitoring and enforcement fund must come from non-state sources for easements acquired with this appropriation. The state has the authority to enforce requirements in the conservation easements on land acquired with this appropriation and the conservation easement document must state this authority and explicitly include requirements for water quality and quantity protection. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(e) Wilder Forest Acquisition (ID: 180-G - Hilary Otey Wold, \$6,320,000)

\$500,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with Washington County in cooperation with the Minnesota Food Association to partially acquire property in Washington County known as Wilder Forest to be used in organic agricultural

production and habitat conservation. Any lands to be acquired must be identified in an approved work plan and be publicly owned and open to public use. The County must evaluate and provide a long-term plan for the conservation of the Wilder Forest area to the Legislative-Citizen Commission on Minnesota Resources before the acquisition is completed. This appropriation is not subject to Minnesota Statutes, section 116P.10 and must be matched by at least an equal amount of non-state funds. is available

(f) Lincoln Pipestone Rural Water System Acquisition for Well Head Protection (ID: 181-G - Mark Johnson, \$2,500,000)

\$1,500,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the Lincoln Pipestone Rural Water System to acquire and restore lands designated under an approved well head protection plan. Lands acquired with this appropriation must be from willing sellers and be identified by the Department of Health as targeted vulnerable lands for well head protection. Land outside of the well head protection area may be acquired from willing sellers to facilitate Internal Revenue Code 1031 land exchanges for land within the wellhead protection area. M.S. 116P.15 land restrictions shall be on the lands put in to public ownership within the well head protection area through either direct purchase or land exchange. Lands must be restored into permanent vegetative cover but may be used for sustainable purposes of recreation and renewable energy if adequate protection of the drinking water aquifer is provided. A list of proposed acquisitions must be provided as part of the required work plan. Plant and seed materials must follow the Board of Water and Soil Resources native vegetation establishment and enhancement guidelines. Income derived from the lands acquired with funds appropriated under this paragraph is exempt from the requirements under 116P.10 if used for additional wellhead protection as provided under this paragraph until adequate wellhead protection has been achieved as determined by the commissioner of health. Any income earned after that must be returned to the Environment and Natural Resources Trust Fund. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(g) Mesabi Trail Segment from Highway 135 to the Town of Embarrass (ID: 178-G - Robert Manzoline, \$1,200,000)

\$1,200,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the St. Louis and Lake Counties Regional Railroad Authority for engineering and construction of segments of the Mesabi Trail, totaling approximately six miles between Highway 135 and the Town of Embarrass. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(h) Tower Historic Harbor Trail Connections (ID: 183-G - Linda Keith, \$1,430,000)

\$679,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the City of Tower to construct recreational trails along the harbor in Tower and to connect to the Mesabi Trail. This appropriation is available until June 30, 2019, by which time the project must be completed and final products delivered.

(i) Otter Tail River Recreational Trail Acquisition (ID: 182-G - Gordon Hydukovich, \$500,000)

\$500,000 the second year is from the trust fund to the commissioner of natural resources for an agreement with the City of Fergus Falls to acquire approximately 16 acres along the Otter Tail River for a recreational trail and park. This appropriation is contingent on at least an equal match of non-state money. Prior to the acquisition, a Phase 1 Environmental Assessment must be completed and the city must not accept any liability for previous contamination of lands acquired with this appropriation.

Subd. 10. Contract Agreement Reimbursement and Grants Management System -0- 210,000

(a) Contract Agreement Reimbursement (ID: 185-H - Amanda Graeber, \$135,000)

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

(b) Grants Management System

\$75,000 is from the trust fund to the Legislative-Citizen Commission on Minnesota Resources for upgrade and modernization of a project records management system.

Money appropriated in this section may not be spent on activities unless they are directly related to and necessary for a specific appropriation and are specified in the work plan approved by the Legislative-Citizen Commission on Minnesota Resources. Money appropriated in this section must not be spent on indirect costs or other institutional overhead charges that are not directly related to and necessary for a 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 can be clearly justified and individually documented specific to the appropriation's purpose and would 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 available until June 30, 2018, when projects must be completed and final products delivered. For acquisition of real property, the appropriations in this section are available for an additional fiscal year if a binding contract for acquisition of the real property is entered into before the original expiration date of the appropriation. If a project receives a federal grant, the time period of the appropriation is extended to equal the federal grant period.

Subd. 12. Data Availability Requirements

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 designed to support data coordination and distribution that have been published by the Minnesota Geospatial Information Office. Descriptions of spatial data must be prepared as specified in the state's geographic metadata guideline and must be submitted to the Minnesota Geospatial Information Office. All data must be accessible and free to the public unless made private under the Data Practices Act, Minnesota Statutes, chapter 13. To the extent practicable, summary data and results of projects funded under this section should be readily accessible on the Internet and identified as having received funding from the environment and natural resources trust fund.

Subd. 13. Project Requirements

(a) As a condition of accepting an appropriation under this section, an agency or entity receiving an 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 semiannual progress reports in the form determined by the Legislative-Citizen Commission on Minnesota Resources for any project funded in whole or in part with funds from the appropriation. Modifications to the approved work plan

and budget expenditures must be made through the amendment process established by the Legislative-Citizen Commission on Minnesota Resources.

(b) A recipient of money appropriated in this section that conducts a restoration using funds appropriated in this section must use native plant species according to the Board of Water and Soil Resources' native vegetation establishment and enhancement guidelines and include an appropriate diversity of native species selected to provide habitat for pollinators throughout the growing season as required under Minnesota Statutes, section 84.973.

(c) For all restorations conducted with money appropriated under this section, a recipient must prepare an ecological restoration and management plan that, to the degree practicable, is consistent with the highest quality conservation and ecological goals for the restoration site. Consideration should be given to soil, geology, topography, and other relevant factors that would provide the best chance for long-term success and durability of the restoration projects. The plan must include the proposed timetable for implementing the restoration, including site preparation, establishment of diverse plant species, maintenance, and additional enhancement to establish the restoration; identify long-term maintenance and management needs of the restoration and how the maintenance, management, and enhancement will be financed; and take advantage of the best available science and include innovative techniques to achieve the best restoration.

(d) An entity receiving an appropriation in this section for restoration activities must provide an initial restoration evaluation at the completion of the appropriation and an evaluation three years beyond the completion of the expenditure. Restorations must be evaluated relative to the stated goals and standards in the restoration plan, current science, and, when applicable, the Board of Water and Soil Resources' native vegetation establishment and enhancement guidelines. The evaluation must 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. The evaluation must be focused on improving future restorations.

(e) All restoration and enhancement projects funded with money appropriated in this section must be on land permanently protected by a conservation easement or public ownership.

(f) A recipient of money from an appropriation under this section must give consideration to contracting with Conservation Corps Minnesota for contract restoration and enhancement services.

(g) All conservation easements acquired with money appropriated under this section must:

(1) be permanent;

(2) specify the parties to an easement in the easement;

(3) specify all of the provisions of an agreement that are permanent;

(4) be sent to the Legislative-Citizen Commission on Minnesota Resources in an electronic format at least ten business days prior to closing;

(5) include a long-term monitoring and enforcement plan and funding for monitoring and enforcing the easement agreement; and

(6) include requirements in the easement document to address specific groundwater and surface water quality protection activities such as keeping water on the landscape, reducing nutrient and contaminant loading, protecting groundwater, and not permitting artificial hydrological modifications.

(h) For any acquisition of lands or interest in lands, a recipient of money appropriated under this section shall 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 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.

(i) For any acquisition of land or interest in land, a recipient of money appropriated under this section must give priority to high-quality natural resources or conservation lands that provide natural buffers to water resources.

(j) For new lands acquired with money appropriated under this section, a recipient must prepare an ecological restoration and management plan in compliance with paragraph (c), including sufficient funding for implementation unless the work plan addresses why a portion of the money is not necessary to achieve a high-quality restoration.

(k) To ensure public accountability for the use of public funds, within 60 days of the transaction, a recipient of money appropriated under this section must provide to the Legislative-Citizen Commission on Minnesota Resources documentation of the selection process used to identify parcels acquired and 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 all parties involved in the transaction. The recipient must also report to the Legislative-Citizen 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 conducted.

(l) A recipient of an appropriation from the trust fund under this section must acknowledge financial support from the Minnesota environment and natural resources trust fund in project publications, signage, and other public communications and outreach related to work completed using the appropriation. Acknowledgment may occur, as appropriate, through use of the trust fund logo or 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 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.

Subd. 14. Payment Conditions and Capital Equipment Expenditures

(a) All agreements, grants, or contracts referred to in this section must be administered on a reimbursement basis unless otherwise provided in this section. Notwithstanding Minnesota Statutes, section 16A.41, expenditures made on or after July 1, 2016, or the date the work plan is approved, whichever is later, are eligible for reimbursement unless otherwise provided in this section. Periodic

payment must be made upon receiving documentation that the deliverable items articulated in the approved work plan have been achieved, including partial achievements as evidenced by approved progress reports. Reasonable amounts may be advanced to projects to accommodate cash flow needs or match federal money. The advances must be approved as part of the work plan. No expenditures for capital equipment are allowed unless expressly authorized in the project work plan.

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

Subd. 15. Purchase of Recycled and Recyclable Materials

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

Subd. 16. Energy Conservation and Sustainable Building Guidelines

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

Subd. 17. Accessibility

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

Subd. 18. Carryforward; Extension

The availability of the appropriations for the following projects are extended to June 30, 2017:

(a) Laws 2013, chapter 52, section 2, subdivision 6, paragraph (c) Improving Emerald Ash Borer Detection Efficacy for Control, and

(b) Laws 2014, chapter 226, section 2, subdivision 10, paragraph (c), Legislative-Citizen Commission on Minnesota Resources (LCCMR) for upgrade and modernization of a project records management system.

Sec. 3. Minnesota Statutes 2015, section 116P.xx, is amended to read:

116P.xx DONATIONS

A recipient shall not accept a monetary donation or payment from an owner of land that is acquired in fee in whole or in part with an appropriation from the trust fund that exceeds the documented expenses that are directly related to and necessary for activities specified in the work plan approved by the Legislative-Citizen Commission on Minnesota Resources unless expressly approved by the Legislative-Citizen Commission on Minnesota Resources in the accomplishment plan. This subdivision does not apply to: (1) donations that are not connected with the acquisition transaction; or (2) bargain sales, as defined by Code of Federal Regulations, title 26, section 1.1011-2, and provided that the purchase price reimbursed by the state does not exceed the purchase price paid by the recipient.

116P.xx EASEMENT MONITORING AND ENFORCEMENT REQUIREMENTS

Money appropriated from the trust fund for easement monitoring and enforcement may be spent only on activities included in an easement monitoring and enforcement plan contained within the work plan. Money received for monitoring and enforcement, including earnings on the money received, shall be kept in a monitoring and enforcement fund held by the organization and dedicated to monitoring and enforcing conservation easements within Minnesota. Within 120 days after the close of the entity's fiscal year, an entity that has received an appropriation for easement monitoring and enforcement must provide an annual financial report to the Legislative-Citizen Commission on Minnesota Resources or its successor on the easement monitoring and enforcement fund as specified in the work plan. Money appropriated from the trust fund for monitoring and enforcement of easements and earnings on the money appropriated shall revert to the state if: (1) the easement transfers to the state; (2) the holder of the easement fails to file an annual report and then fails to cure that default within 30 days of notification of the default by the state; or (3) the holder of the easement fails to comply with the terms of the monitoring and enforcement plan contained within the work plan and fails to cure that default within 90 days of notification of the default by the state.