For the FY 2018 and FY 2019 biennium (July 1, 2017 - June 30, 2019), approximately \$50.8 million was available each year (total = \$101,656,000) for funding from the Environment and Natural Resources Trust Fund (ENRTF). The Legislative-Citizen Commission on Minnesota Resources (LCCMR) selected 66 projects totaling \$45,828,000 to recommend to the 2018 Minnesota Legislature for funding from the ENRTF. The recommendations were the result of the LCCMR's 2018 Request for Proposal (RFP) process, in which 217 proposals requesting a total of approximately \$183 million were received and considered through a competitive, multi-stage evaluation process. The recommendations ranged from funding the full proposal and dollar amount requested to partial funding for specific proposal elements. On May 20, 2018 the legislature adopted 65 LCCMR recommendations, including three with reduced amounts, one with an increased amount, and two added appropriations. On May 30, 2018, 67 appropriations totaling \$45,828,000 were signed into law by the Governor as M.L. 2018, Chapter 214, for appropriations in FY18 (\$89,000) and FY19 (\$45,739,000). On March 5, 2019 M.L. 2019, Chapter 2, Article 1 was signed into law by the Governor repealing M.L. 2018, Chapter 214, Article 6, Section 4.

| Topic Area | FY2018 - FY2019 Trust Fund \$ | FY2018 Trust Fund \$ | FY2019 Trust Fund \$ | Percentage of Total Appropriation |
|--|-------------------------------------|----------------------------|----------------------------|--------------------------------------|
| Subd. 03 Foundational Natural Resource Data and Information | \$4,533,000 | \$0 | \$4,533,000 | 10.6% |
| 11 Appropriations | ¥ 1/555/555 | | ¥ .,555,555 | 20.070 |
| Subd. 04 Water Resources | \$5,875,000 | \$89,000 | \$5,786,000 | 13.7% |
| 12 Appropriations | \$3,073,000 | 703,000 | \$3,700,000 | 15.770 |
| Subd. 05 Technical Assistance, Outreach, and Environmental Education | \$4,968,000 | \$0 | \$4,968,000 | 11.6% |
| 12 Appropriations | 74,500,000 | γo | 74,300,000 | 11.0/0 |
| Subd. 06 Aquatic and Terrestrial Invasive Species | \$5,760,000 | \$0 | \$5,760,000 | 13.4% |
| 6 Appropriations | \$3,700,000 | ŞŪ | \$3,700,000 | 13.470 |
| Subd. 07 Air Quality and Renewable Energy | \$1,200,000 | \$0 | \$1,200,000 | 2.8% |
| 3 Appropriations | \$1,200,000 | ŞŪ | \$1,200,000 | 2.070 |
| Subd. 08 Methods to Protect or Restore Land, Water, and Habitat | \$2,539,000 | \$0 | \$2,539,000 | 5.9% |
| 8 Appropriations | \$2,559,000 | ŞŪ | \$2,339,000 | 3.370 |
| Subd. 09 Land Acquisition, Habitat, and Recreation | \$17,439,000 | \$0 | \$17,439,000 | 40.7% |
| 12 Appropriations | \$17,439,000 | ŞU | \$17,439,000 | 40.770 |
| Subd. 10 Emerging Issues Account | \$439,000 | \$0 | \$439,000 | 1.0% |
| 1 Appropriation | \$459,000 | ŞU | \$439,000 | 1.0% |
| Subd. 11 Wastewater Treatment Recommendations | \$0 | \$0 | \$0 | 0.0% |
| 0 Appropriations | ŞU | ŞU | ŞU | 0.0% |
| Subd. 12 Contract Agreement Reimbursement | \$12E 000 | \$0 | ¢12E 000 | 0.3% |
| 1 Appropriation | \$135,000 | \$0 | \$135,000 | 0.5% |
| REPEALED - Art. 6, Sec. 4, Subd. 4 ENRTF Appropriation Bonds and | | | | |
| Appropriations | \$ 2,940,000 | \$0 | \$0 | 0.0% |
| 1 Appropriation | | | | |
| TOTAL \$ APPROPRIATED | \$42,888,000 | \$89,000 | \$42,799,000 | 100.0% |

| Fund Source | \$ Appropriated |
|--|-----------------------|
| FY 2018 - Environment and Natural Resources Trust Fund (ENRTF) | \$89,000 |
| FY 2019 - Environment and Natural Resources Trust Fund (ENRTF) | \$45,739,000 |
| | Total \$ \$45,828,000 |

| | | | | al LCCMR | Total LCCMR Appropriated | - | Арр | I LCCMR \$ | | | Region of |
|-------|---|---|-------|--------------|--------------------------|---|-----|------------|-----------------------------------|----------------------------------|------------------|
| Subd. | Title | Summary | Appro | opriation \$ | FY2018 | | F | Y2019 | Organization | Project Manager | Impact* |
| | oundational Natural Resource Data and Informat | | | | Ι. | | | | | | |
| 03a | County Geologic Atlases - Part A | This project continues accelerated production of County Geologic Atlases to support informed management of water and mineral resources. This work is essential to sustainable management of water. | \$ | 1,240,000 | \$ | - | \$ | 1,240,000 | U of MN - MN Geological Survey | Dale Setterholm | Statewide |
| 03b | Providing Critical Water-Quality Information for Lake Management | Create a semi-automated system to acquire, process, and deliver new satellite derived water quality data (water clarity, algae, turbidity and color) for all Minnesota lakes ~biweekly and in near real-time. | \$ | 250,000 | \$ | - | \$ | 250,000 | U of MN | Jeffrey Peterson | Statewide |
| 03c | Minnesota Biodiversity Atlas - Phase 2 | We propose to double the size of a natural resource management tool, the Minnesota Biodiversity Atlas, by including state agency observations and specimen records from four additional museum collections. | \$ | 350,000 | \$ | - | \$ | 350,000 | U of MN | George Weiblen | Statewide |
| 03d | Peatland Forest Management | There are 3 million acres of peatland forests in Minnesota. This proposal will identify management actions that maximize ecosystem benefits of peatland forests, including wildlife, water, timber, and native plants. | \$ | 600,000 | \$ | - | \$ | 600,000 | U of MN | Marcella Windmuller- Campione | Regional |
| 03e | Assessing Natural Resource Benefits Provided by Lichens and Mosses | The proposed project aims to better understand the impacts that moss and lichens may have on water and pollution. | \$ | 213,000 | \$ | - | \$ | 213,000 | U of MN | Daniel Stanton | Statewide |
| 03f | Develop a System to Assess Wildlife Health Threats in Minnesota | This project will establish a surveillance system to monitor wildlife health in Minnesota through development of information management and analytical systems utilizing wildlife rehabilitation data. | \$ | 280,000 | \$ | - | \$ | 280,000 | U of MN | Kimberly VanderWaal | Statewide |
| 03g | Conserving Minnesota's Forest Birds of Management Concern | Identify forest management actions and guidelines that maximize breeding season productivity across breeding cycle (nesting through post-fledgling) for three bird species of conservation concern: Golden-winged Warbler, Veery, and American Woodcock. | \$ | 500,000 | \$ | - | \$ | 500,000 | U of MN - Duluth NRRI | Alesx Grinde | Regional |
| 03h | Mapping Avian Movement in Minnesota | Establish network of automated radiotelemetry stations to monitor bird migration and local movements of a threatened species, and develop strategic plans for long-term use of infrastructure to monitor animal movement. | \$ | 200,000 | \$ | - | \$ | 200,000 | U of MN - Duluth NRRI | Gerald Niemi | Statewide |
| 03i | Improve Trout-Stream Management by Understanding Variable Winter Thermal Conditions | Winter sport fishing for trout is a vibrant industry, but can be impacted by changing climate. We seek to understand how to conserve trout habitat, especially focusing on winter management. | \$ | 400,000 | \$ | - | \$ | 400,000 | U of MN | Leonard Ferrington | Regional |
| 03j | Develop Sonar Data Mapping on Three Rivers to Assess Suitability for Native Mussel Habitat | The acquisition of high-resolution sonar data provides important information essential for mapping mussel habitat while having ecological applications useful to resource managers and policy makers protecting Minnesota threatened/endangered native mussels. | \$ | 200,000 | \$ | - | \$ | 200,000 | National Park Service | Nancy Duncan | Metro |
| 03k | Conserving Minnesota's Nine Species of Freshwater Turtles | The Minnesota Zoo will improve the long-term viability of Minnesotas imperiled turtle populations by researching threats, implementing mechanisms to reduce mortality, and creating educational materials for use throughout the state. | \$ | 300,000 | \$ | - | \$ | 300,000 | Minnesota Zoological Garden | Seth Stapleton | Metro / Regional |

| Subd. | Title | Summary | Аррі | tal LCCMR ropriation \$ | Αį | otal LCCMR \$ opropriated FY2018 | Ap | al LCCMR \$ propriated FY2019 | Organization | Project Manager | Region of Impact* |
|-------|---|---|------|----------------------------|----|----------------------------------|----|-------------------------------------|---|----------------------|-------------------|
| | | Foundational Natural Resource Data and Information Subtotal = | \$ | 4,533,000 | Ş | - | Ş | 4,533,000 | | | |
| 04a | Nater Resources (12 Appropriations - Subtotal = \$! Pilot Program to Optimize Local Mechanical and Pond Wastewater-Treatment Plants | A pilot program of wastewater treatment optimization without costly facility upgrades. This will lead to cleaner lakes and rivers without needless costs, and achieve significantly better treatment results. | \$ | 700,000 | \$ | 89,000 | \$ | 611,000 | Minnesota Pollution Control Agency | Joel Peck | Statewide |
| 04b | Assess and Develop Strategies to Remove Microscopic Plastic-Particle Pollution from Minnesota Water Bodies | The objective of the present proposal is to assess and provide remedy to the urgent problem of microscopic plastic particles polluting water bodies in Minnesota. | \$ | 300,000 | \$ | - | \$ | 300,000 | U of MN | Filippo Coletti | Statewide |
| 04c | Reduce Chlorides in Minnesota Waters by Evaluating Road-Salt Alternatives and Pavement Innovations | We will investigate road salt alternatives and pavement innovations that will reduce or eliminate the flux of chloride from road salt into our lakes, streams and groundwater. | \$ | 400,000 | \$ | - | \$ | 400,000 | U of MN | John Gulliver | Statewide |
| 04d | Protect Water Quality with Efficient Removal of Contaminants in Treatment Ponds for Storm Water | Urban stormwaters contain biologically harmful contaminants of emerging concern whose abatement through best management practice ponds requires evaluation to safeguard habitats for aquatic species from mussels to birds. | \$ | 325,000 | \$ | - | \$ | 325,000 | St. Cloud State University | Heiko Schoenfuss | Statewide |
| 04e | Develop Small and Inexpensive Purification System for Community Drinking Water | This project is to develop a small cheap purification system for community drinking water facilities to remove toxic contaminants. The technology is highly efficient to improve current drinking water quality. | \$ | 425,000 | \$ | - | \$ | 425,000 | U of MN | Tianhong Cui | Statewide |
| 04f | Evaluate Emerging Pathogens in Lakes, Rivers, and Tap Water to Keep Drinking Water Safe | This research project will provide critical information regarding how to treat surface water (used by 25% of Minnesota's population) to prevent outbreaks of Legionnaires' disease and infections by Mycobacterium avium. | \$ | 325,000 | \$ | - | \$ | 325,000 | U of MN | Timothy LaPara | Statewide |
| 04g | Characterize Unregulated Contaminants in Source Water and Drinking Water | This project will characterize unregulated drinking water contaminants at wells and intakes (which pump from groundwater, lakes, rivers), and to examine if they persist after standard public water system treatment. | \$ | 1,000,000 | \$ | - | \$ | 1,000,000 | Minnesota Department of Health | Stephen Robertson | Statewide |
| 04h | Mapping Antibiotic Resistance in Minnesota to Help Protect Environmental, Animal, and Human Health | We will quantify and map antibiotic and antibiotic resistance gene contamination in Minnesota waters and soils and identify locations in need of mitigation to protect environmental, human, and animal health. | \$ | 750,000 | \$ | - | \$ | 750,000 | U of MN | Randall Singer | Statewide |
| 04i | Farmer-Led Expansion of Alfalfa Production to Increase Water Protection | We will develop a farmer-led, market-based working lands approach for protecting water by targeted expansion of alfalfa production, and enable farmers to take this approach by expanding markets for alfalfa. | \$ | 500,000 | \$ | - | \$ | 500,000 | U of MN | Nicholas Jordan | Regional |
| 04j | Using Perennial Grain Crops in Wellhead Protection Areas to Protect Groundwater | Establish and monitor 120 acres of intermediate wheatgrass (Kernza), a new perennial grain crop, in vulnerable wellhead protection regions of Minnesota to profitability reduce nitrate leaching to drinking water. | \$ | 250,000 | \$ | - | \$ | 250,000 | Minnesota Department of Agriculture | Margaret Wagner | Statewide |
| 04k | Implement a Pilot Credit-Trading System for Storm Water in Shell Rock River Watershed to Improve Water Quality | This project will develop and implement a model stormwater water quality credit trading framework. The purpose is to provide voluntary, cost effective, pollutant reductions on a watershed scale. | \$ | 300,000 | \$ | - | \$ | 300,000 | Shell Rock River Watershed District | Courtney Christensen | Regional |

| Subd. | Title | Summary | otal LCCMR propriation \$ | tal LCCMR \$ opropriated FY2018 | Ар | al LCCMR \$ propriated FY2019 | Organization | Project Manager | Region of Impact* |
|-------|--|---|------------------------------|---------------------------------|----|-------------------------------|---|-------------------|-------------------|
| 041 | Lake Agnes Treatment | n/a | \$ 600,000 | \$ - | \$ | 600,000 | Board of Water and Soil Resources | TBD | Statewide |
| | | Water Resources Subtotal = | \$ 5,875,000 | \$ 89,000 | \$ | 5,786,000 | | | |
| | | l Education (12 Appropriations - Subtotal = \$4,968,000) | | | | | | | |
| 05a | Prairie Sportsman Statewide Environmental Broadcasts and Videos | Produce, broadcast and share 26 science-based environmental programs, 26 "call to action" and 27 "outdoor lifestyle" videos that inspire and demonstrate how to protect and engage with Minnesota's natural resources. | \$ 300,000 | \$ - | \$ | 300,000 | Pioneer Public Television | Cindy Dorn | Statewide |
| 05b | YES! Students Take on Minnesota Water-Quality Challenge | Youth Energy Summit (YES!) expands its successful model to improve local waterways by mobilizing over 20 youth-led teams in Minnesota communities to complete water quality related projects, moni-toring and reporting. | \$ 213,000 | \$ - | \$ | 213,000 | Prairie Woods Environmental Learning Center | Shelli-Kae Foster | Statewide |
| 05c | Get Outdoors After-School Training | This project will equip out-of-school youth organizations across Minnesota with knowledge, skills and resources to incorporate outdoor nature activities into after-school programs and engage under-privileged children with the outdoors. | \$ 30,000 | \$ - | \$ | 30,000 | Project Get Outdoors Inc | Sara Holger | Statewide |
| 05d | Connecting Students with Water Stewardship through Hands-on Learning | Students will get outdoors for hands-on learning focused on water quality, groundwater, aquatic life, watershed health and their role as watershed stewards. Introductions to fishing and conservation will be offered. | 400,000 | \$ - | \$ | 400,000 | Minnesota Trout Unlimited | John Lenczewski | Statewide |
| 05e | Expanding River Watch Program on the Minnesota River With High School Teams | Continue and expand a River Watch program on the Minnesota River engaging teams of high school students in water quality monitoring and reporting the data to the MNPCA | \$ 100,000 | \$ - | \$ | 100,000 | Friends of the Minnesota Valley | Ted Suss | Regional |
| 05f | Pollinator Ambassadors Program for Gardens | The Pollinator Ambassadors for Urban Gardens project will enhance outreach capacity for pollinator education by creating an outreach toolkit and training educators and youth for engagement in native pollinator education. | \$ 250,000 | \$ - | \$ | 250,000 | U of MN | Elaine Evans | Statewide |
| 05g | Morris Prairie Pollinator Demonstration Area and Education | Project will restore and demonstrate a native prairie habitat in order to enhance the local ecosystem for beneficial pollinators as well as to offer educational opportunities. | \$ 550,000 | \$ - | \$ | 550,000 | U of MN | Steven Poppe | Regional |
| 05h | Expanding Nature Knowledge and Experience with New Interactive Exhibits at North Mississippi Regional Park | Compelling, new, interactive exhibits at North Mississippi Regional Park will spark curiosity, increase knowledge, change behavior, and inspire a diverse audience of 326,000 annual visitors to explore the outdoors. | \$ 500,000 | \$ 1 | \$ | 500,000 | Minneapolis Parks and Recreation Board | MaryLynn Pulscher | Metro |
| 05i | Update International Wolf Center Exhibits | Minnesotans need to understand the complexities of successful state-controlled management, conflict resolution, and co-existence with our 2,400 wolves. A new educational exhibit at the International Wolf Center will help. | \$ 1,000,000 | \$ - | \$ | 1,000,000 | International Wolf Center | David Kline | Metro |
| 05j | Expanding the State's Reuse Economy to Conserve Natural Resources | This project will focus on creating a much more robust reuse economy throughout the State resulting in reduced solid waste, less pollution, more jobs, and small business development. | \$ 275,000 | \$ - | \$ | 275,000 | ReUse Minnesota | Steve Thomas | Statewide |

| | | | | | T | otal LCCMR \$ | To | tal LCCMR \$ | | | |
|------------|---|---|----|---------------|----|---------------|-----|--------------|---|--------------------|-----------|
| | | | To | tal LCCMR | | Appropriated | | propriated | | | Region of |
| Subd. | Title | Summary | | ropriation \$ | | FY2018 | 7.1 | FY2019 | Organization | Project Manager | Impact* |
| 05k | Expand Materials Reuse and Recycling Jobs Program | This project will: expand strategies of the 2015 LCCMR grant; establish deconstruction and building material reuse as a practice statewide; document the environmental, health, and economic benefits of material reuse. | \$ | 800,000 | \$ | - | \$ | 800,000 | _ | Steve Thomas | Statewide |
| 051 | Increase Diversity in Environmental Careers to Serve Minnesota's Changing Demographics | This collaborative project creates a college to workforce pathway for under-represented students who are interested in pursuing Natural Resources careers by reducing barriers that inhibit successful educational attainment. | \$ | 550,000 | \$ | - | \$ | 550,000 | MN DNR | Denise Legato | Statewide |
| | | ical Assistance, Outreach, and Environmental Education Subtotal = | \$ | 4,968,000 | \$ | - | \$ | 4,968,000 | | | |
| Subd. 06 A | Aquatic and Terrestrial Invasive Species (6 Approp | · · · · · · · · · · · · · · · · · · · | | | | | | | | | |
| 06a | Minnesota Invasive Terrestrial Plants and Pests Center - Phase 4 | Funding is requested to accelerate high priority research that will protect Minnesotas wetlands, forests, prairies, and agricultural resources from terrestrial invasive plants, pests, and pathogens. | \$ | 3,500,000 | \$ | - | \$ | 3,500,000 | U of MN | Rob Venette | Statewide |
| 06b | Palmer Amaranth Detection and Eradication Continuation | Find and control Palmer amaranth in conservation plantings to prevent severe economic damage and protect prairies. | \$ | 431,000 | \$ | - | \$ | 431,000 | Minnesota Department of Agriculture | Monika Chandler | Statewide |
| 06c | Evaluate Control Methods for Invasive Hybrid Cattails | This project will evaluate the effectiveness of two methods to remove exotic hybrid cattail to restore fish and wildlife habitat in Minnesota wetlands. | \$ | 131,000 | \$ | - | \$ | 131,000 | Voyageurs National Park | Steve Windels | Regional |
| 06d | Developing RNA Interference to Control Zebra Mussels | We propose to develop a genetic control tool that exploits the natural process of RNA silencing to effectively control zebra mussels without affecting other species. | \$ | 500,000 | \$ | - | \$ | 500,000 | US Geological Survey | Christopher Merkes | Statewide |
| 06e | Install and Evaluate an Invasive Carp Deterrent for Mississippi River Locks and Dams | Promising new carp deterrent system is tested in the Mississippi River along with an existing deterrent and predators; 99% blockage is suggested and Fish and Wildlife Service is a partner. | \$ | 998,000 | \$ | - | \$ | 998,000 | U of MN | Peter Sorensen | Statewide |
| 06f | Determining Risk of a Toxic Alga in Minnesota Lakes | This project will determine the historical distribution, abundance, and toxicity of the invasive blue-green alga, Cylindrospermopsis raciborskii, in Minnesota lakes using a combination of paleolimnological and contemporary monitoring techniques | \$ | 200,000 | \$ | - | \$ | 200,000 | Science Museum of Minnesota | Adam Heathcote | Statewide |
| | | Aquatic and Terrestrial Invasive Species Subtotal = | \$ | 5,760,000 | \$ | - | \$ | 5,760,000 | | | |
| Subd. 07 A | Air Quality and Renewable Energy (3 Appropriation | ons - Subtotal = \$1,200,000) | | | | | | | | | |
| 07a | Develop Solar Window Concentrators for Electricity | Solar windows are a disruptive photovoltaic technology that virtually invisibly integrates with buildings. This renewable energy technology will increase photovoltaics adoption, reduce air pollution, and ameliorate climate change. | \$ | 350,000 | \$ | - | \$ | 350,000 | U of MN | Uwe Kortshagen | Statewide |
| 07b | Demonstrations for Community-Scale Storage System for Renewable Energy | Create user-friendly, research-based energy storage guide and decision tools (print and web-based) for community-scale sites with renewable energy and do three geographically dispersed battery storage demonstration projects, through broad stakeholder-expert engagement. | \$ | 550,000 | \$ | - | \$ | 550,000 | U of MN | Ellen Anderson | Statewide |

| Subd. | Title | Summary | tal LCCMR ropriation \$ | otal LCCMR \$ opropriated FY2018 | _ | tal LCCMR \$ ppropriated FY2019 | Organization | Project Manager | Region of Impact* |
|-------|--|--|----------------------------|----------------------------------|----|---------------------------------|----------------------------------|------------------|----------------------|
| 07c | Develop Inexpensive Energy from Simple Roll-to- Roll Manufacturing | This project is to develop cheap clean solar energy by simple roll-to-roll manufacturing. Perovskite is a new photovoltaic material, very economical while maintaining high power conversion efficiency. | \$ 300,000 | \$ - | \$ | 300,000 | U of MN | Tianhong Cui | Statewide |
| | | Air Quality and Renewable Energy Subtotal = | \$ 1,200,000 | \$ - | \$ | 1,200,000 | | | |
| 08a | Methods to Protect or Restore Land, Water, and Harman Nongame Wildlife Program Acceleration | This acceleration package will fulfill ENTRF goals including rare wildlife data collection and management, conservation education, collaborative land protection management, & new emphasis on | \$ 220,000 | \$ - | \$ | 220,000 | MN DNR | Carrol Henderson | Statewide |
| 08b | Develop BioMulch to Replace Plastic Soil Covering in Vegetable and Fruit Production to Increase Yield and Reduce Waste | nature tourism to benefit rural communities. A biodegradable product will be developed to replace non-degradable petroleum based plastic used in vegetable and fruit production. This project, if funded, will revolutionize horticulture | \$ 310,000 | \$ - | \$ | 310,000 | U of MN | Paulo Pagliari | Statewide |
| 08c | Develop Market-Based Alternatives for Perennial Crops to Benefit Water Quality and Wildlife | in Minnesota, and potentially worldwide. Design and evaluate 10 market-based scenarios for perennial cropping systems and their potential to improve water quality and provide wildlife habitat. Create awareness through thought-provoking videos, fact sheets, and presentations. | \$ 150,000 | \$ - | \$ | 150,000 | Science Museum of Minnesota | Shawn Schottler | Statewide |
| 08d | Agricultural Weed Control Using Autonomous Mowers | A robot, powered by solar energy, will be developed to control weeds on agricultural lands. We envision significant reductions in fossil-fuel and herbicide use while increasing local energy production. | \$ 750,000 | \$ - | \$ | 750,000 | U of MN - Morris | Mike Reese | Statewide |
| 08e | Restoring Forests in Minnesota State Parks | Restores 420 acres of high-quality forests at Itasca, Jay Cooke, Scenic, Forestville Mystery Cave and Wild River State Parks and Greenleaf Lake State Recreation Area. | \$ 250,000 | \$ - | \$ | 250,000 | MN DNR | Edward Quinn | Statewide |
| 08f | Develop Strategies for Timber Harvest to Minimize Soil Impacts to Maintain Healthy and Diverse Forests | Develop strategies and practical tools to identify conditions that minimize impacts to soil across a wide range of conditions to promote regeneration of diverse forests, wildlife habitat, and timber availability. | \$ 200,000 | \$ - | \$ | 200,000 | U of MN | Robert Slesak | Statewide |
| 08g | Restoring Wetland Invertebrates to Revive Wildlife Habitat | Amphipods are wetland invertebrates that are critical wildlife food and indicators of water quality. We will assess reasons they are missing from Prairie Potholes and unique methods to restore amphipods. | \$ 400,000 | \$ - | \$ | 400,000 | MN DNR | Danelle Larson | Statewide |
| 08h | Preserving Minnesota's Native Orchids - Phase 2 | Minnesota's 48 native orchids are at risk. The Minnesota Landscape Arboretum will expand conservation of species through propagation and banking and begin restoration planting research in the program's second phase. | \$ 259,000 | \$ - | \$ | 259,000 | U of MN - Landscape Arboretum | David Remucal | Statewide |
| | | lethods to Protect or Restore Land, Water, and Habitat Subtotal = | \$ 2,539,000 | \$ | \$ | 2,539,000 | | | |
| 09a | Land Acquisition, Habitat, and Recreation (12 Appr Grants for Local Parks, Trails, and Natural Areas | opriations - Subtotal = \$17,439,000) Provide approximately 25 matching grants for local parks, acquisition of locally significant natural areas and trails to connect people safety to desirable community locations and regional or state facilities. | \$ 2,000,000 | \$ - | \$ | 2,000,000 | MN DNR | Audrey Mularie | Statewide |

| | | | | | Tot | al LCCMR \$ | Tot | al LCCMR \$ | | | |
|-------|--|---|----|---------------|-----|-------------|-----|-------------|---|-------------------|-----------|
| | | | То | tal LCCMR | Арр | propriated | Ар | propriated | | | Region of |
| Subd. | Title | Summary | | ropriation \$ | | FY2018 | | FY2019 | Organization | Project Manager | Impact* |
| 09b | Develop Mesabi Trail Segment From County Road 88 to Ely | 3.5 mile long bituminous surface trail beginning at the intersection of Hwy 169 and County Road 88 to Ely. In Ely, connection will be made to existing Mesabi Trail. | \$ | 600,000 | \$ | - | \$ | 600,000 | St. Louis & Lake Counties Regional Railroad Authority | Bob Manzoline | Regional |
| 09c | Harmony State Trail Extension Land Acquisition | To acquire fee title to 16 parcels to allow for the extension of the state trail from Harmony south to the Iowa state boarder with a spur to Niagara Cave. | \$ | 235,000 | \$ | - | \$ | 235,000 | City of Harmony | Jerome Illg | Regional |
| 09d | Mississippi Blufflands State Trail - Red Wing Barn Bluff to Colvill Park Segment | Construction of an engineered and designed three-quarter mile segment of the Mississippi Blufflands State Trail along Red Wing's Mississippi River riverfront, from Barn Bluff Regional Park to Colvill Park. | \$ | 550,000 | \$ | - | \$ | 550,000 | City of Red Wing | Jay Owens | Regional |
| 09e | Swedish Immigrant Regional Trail Segment within Interstate State Park | Swedish Immigrant Regional Trail connection through Interstate Park to Taylors Falls City Hall. Build 180 bridge and trail segment A&B as illustrated. Segment C reviews and engineering only. | \$ | 2,254,000 | \$ | - | \$ | 2,254,000 | Chisago County Environmental Services | Laird Mork | Regional |
| 09f | Enhancement Plan for Superior Hiking Trail | Evaluate routing, safety, water management and other environmental and design issues of the Superior Hiking Trail and establish SHTA best practices methods for carrying out the resulting redesign plans. | \$ | 100,000 | \$ | - | \$ | 100,000 | Superior Hiking Trail Association | Denny Caneff | Regional |
| 09g | Protecting Mississippi River Headwaters Lands through Local, State, and Federal Partnership | A partnership among the City of Baxter, Brainerd Public Schools, Camp Ripley Sentinel Landscape program and The Conservation Fund will acquire 200 acres of riparian forest on the upper Mississippi River Headwaters. | \$ | 700,000 | \$ | - | \$ | 700,000 | City of Baxter | Josh Doty | Regional |
| 09h | Protecting North-Central Minnesota Lakes | This project will complete 18 permanent conservation easements, 30 forest management plans, and 20 best management practices (BMP) around Aitkin and Crow Wing Counties highest quality lakes. | \$ | 750,000 | \$ | - | \$ | 750,000 | Crow Wing Soil and Water Conservation District | Sheila Boldt | Regional |
| 09i | Easement Program for Native Prairie Bank | Native Prairie Bank will help landowners conserve native prairie though outreach to 10,000 landowners and practitioners, restoration and enhancement of 870 acres, and protection of 600 acres through conservation easements. | \$ | 2,000,000 | \$ | - | \$ | 2,000,000 | MN DNR | Judy Schulte | Statewide |
| 09j | Minnesota State Trail Development | This project is to focus on expanding recreational opportunities on Minnesotas State Trails through the development of new trail segments and/or the rehabilitation, improvement and enhancement of existing State Trails. | \$ | 2,500,000 | \$ | - | \$ | 2,500,000 | MN DNR | Kent Skaar | Statewide |
| 09k | Minnesota State Parks and State Trails | Minnesota State Parks and Trails land acquisition proposal is to acquire high priority parcels within legislatively authorized boundaries from willing sellers to protect Minnesota's environmental stewardship and enhance outdoor recreation. | \$ | 2,500,000 | \$ | - | \$ | 2,500,000 | MN DNR | Jennifer Christie | Statewide |
| 091 | Scientific and Natural Areas Program | Scientific and Natural Area (SNA) habitat restoration and improvements (1000+ acres), increased public involvement, and strategic acquisition (700+ acres) will conserve Minnesota's most unique and rare resources for everyone's benefit. | \$ | 3,250,000 | \$ | - | \$ | 3,250,000 | MN DNR | Ann Pierce | Statewide |
| | 1 | Land Acquisition, Habitat, and Recreation Subtotal = | \$ | 17,439,000 | \$ | - | \$ | 17,439,000 | | | L |

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|-------------|--|---|----------|-------------|----------------|----|-------------|----------------|--------------------|----------------------|
| | | | | | Total LCCMR \$ | | al LCCMR \$ | | | |
| | | | Tota | LCCMR | Appropriated | Ар | propriated | | | Region of |
| Subd. | Title | Summary | Appro | oriation \$ | FY2018 | | FY2019 | Organization | Project Manager | Impact* |
| Subd. 10 E | merging Issues Account (1 Appropriation - Subtot | al = \$439,000) | | | | | | | | |
| 10 | Emerging Issues Account | n/a | \$ | 439,000 | \$ - | \$ | 439,000 | LCCMR | Becca Nash | Statewide |
| | | Emerging Issues Account Subtotal = | \$ | 439,000 | \$ - | \$ | 439,000 | | | |
| Subd. 11 V | Wastewater Treatment Recommendations (0 Appr | opriations - Subtotal = \$0) | | | | | | | | |
| 11a | Wastewater Treatment System Grants | n/a | \$ | - | \$ - | \$ | - | LCCMR | Jeff Freeman | Statewide |
| 11b | Wastewater Treatment System Loans | n/a | \$ | - | \$ - | \$ | - | LCCMR | Jeff Freeman | Statewide |
| | | Wastewater Treatment Recommendations Subtotal = | \$ | - | \$ - | \$ | - | | | |
| Subd. 12 C | Contract Agreement Reimbursement (1 Appropriat | ion - Subtotal = \$135,000) | | | | | | | | |
| 12 | Contract Agreement Reimbursement | Provide continued contract management and customer service to | \$ | 135,000 | \$ - | \$ | 135,000 | MN DNR | Katherine Sherman- | Statewide |
| | | ENRTF pass-through appropriation recipients. Ensure funds are | | | | | | | Hoehn | |
| | | expended in compliance with appropriation law, state statute, | | | | | | | | |
| | | grants policies, and approved work plans. | | | | | | | | |
| | | B. arts ponoics) and approved work plans. | | | | | | | | |
| | | Contract Agreement Reimbursement Subtotal = | Ś | 135,000 | \$ - | Ś | 135,000 | | | |
| Art. 6, ENF | RTF Appropriation Bonds and Appropriations** (1 | Appropriation - Subtotal = \$2,940,000) | <u> </u> | | | | • | | | |
| Subd. 4 | REPEALED - FY2019 Debt Service on | n/a | \$ | 2,940,000 | \$ | \$ | 2,940,000 | Minnesota | TBD | Statewide |
| | Appropriations Bonds** | | | • | | | | Management and | | |
| | | | | | | | | Budget | | |
| | · | ENRTF Appropriation Bonds and Appropriations Subtotal = | \$ 2 | ,940,000 | \$ - | \$ | 2,940,000 | _ | | |
| | | Total \$ Appropriated = | \$ 42 | ,888,000 | \$ 89,000 | \$ | 42,799,000 | | | |

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

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