

**Chpt. 214 (HF 4425); Art 4 & 6 2018 Environment and Natural Resources Trust**

**Fund**

| Subd.  | ENRTF ID # | Project Title  | Organization                       | ENRTF    |             |
|--|------------|--|------------------------------------|----------|-------------|
|  |            |  |                                    | FY2018   | FY2019      |
| <b>Subd. 03 Foundational Natural Resource Data and Information</b> |            |  |                                    |          |             |
| 03a  | 001-A      | County Geologic Atlases - Part A   | U of MN - MN Geological Survey     |          | \$1,240,000 |
| 03b  | 003-A      | Providing Critical Water Quality Information for Lake Management   | U of MN                            |          | \$250,000   |
| 03c  | 004-A      | Minnesota Biodiversity Atlas - Phase 2   | U of MN                            |          | \$350,000   |
| 03d  | 006-A      | Peatland Forest Management   | U of MN                            |          | \$600,000   |
| 03e  | 013-A      | Assessing Natural Resource Benefits Provided by Lichens and Mosses   | U of MN                            |          | \$213,000   |
| 03f  | 014-A      | Develop a System to Assess Wildlife Health Threats in Minnesota  | U of MN                            |          | \$280,000   |
| 03g  | 016-A      | Conservation of Minnesota's Forest Birds of Management Concern   | U of MN - Duluth NRRI              |          | \$500,000   |
| 03h  | 018-A      | Mapping Avian Movement in Minnesota  | U of MN - Duluth NRRI              |          | \$200,000   |
| 03i  | 022-A      | Improve Trout Stream Management by Understanding Variable Winter Thermal Conditions                        | U of MN                            |          | \$400,000   |
| 03j  | 030-A      | Develop Sonar Data Mapping on Three Rivers to Assess Native Mussel Habitat Suitability                     | National Park Service              |          | \$200,000   |
| 03k  | 011-A      | Conserving Minnesota's Nine Species of Freshwater Turtles  | Minnesota Zoological Garden        |          | \$300,000   |
|  |            |  | <b>Subtotal:</b>                   | \$0      | \$4,533,000 |
| <b>Subd. 04 Water Resources</b>                                    |            |  |                                    |          |             |
| 04a  | 035-B      | Pilot Program to Optimize Local Mechanical and Pond Wastewater Treatment Plants                            | Minnesota Pollution Control Agency | \$89,000 | \$611,000   |
| 04b  | 034-B      | Assess and Develop Strategies to Remove Microscopic Plastic Particle Pollution from Minnesota Water Bodies | U of MN                            |          | \$300,000   |
| 04c  | 037-B      | Reduce Chlorides in Minnesota Waters by Evaluating Road Salt Alternatives and Pavement Innovations         | U of MN                            |          | \$400,000   |
| 04d  | 041-B      | Protect Water Quality with Efficient Removal of Contaminants in Storm Water Treatment Ponds                | St. Cloud State University         |          | \$325,000   |
| 04e  | 048-B      | Develop a Small and Inexpensive Community Drinking Water Purification System                               | U of MN                            |          | \$425,000   |
| 04f  | 054-B      | Evaluate Emerging Pathogens in Lakes, Rivers, and Tap Water to Keep Drinking Water Safe                    | U of MN                            |          | \$325,000   |
| 04g  | 064-B      | Characterize Unregulated Contaminants in Source Water and Drinking Water                                   | Minnesota Department of Health     |          | \$1,000,000 |
| 04h  | 039-B      | Mapping Antibiotic Resistance in Minnesota to Help Protect Environmental, Animal, and Human Health         | U of MN                            |          | \$750,000   |
| 04i  | 055-B      | Farmer-led Expansion of Alfalfa Production to Increase Water Protection                                    | U of MN                            |          | \$500,000   |

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|-------|------------|--|-------------------------------------|-----------------|--------------------|
|       |            |  |                                     | FY2018          | FY2019             |
| 04j   | 057-B      | Using Perennial Grain Crops in Wellhead Protection Areas to Protect Groundwater                                | Minnesota Department of Agriculture |                 | \$250,000          |
| 04k   | 094-B      | Implement a Pilot Storm Water Credit Trading System in the Shell Rock River Watershed to Improve Water Quality | Shell Rock River Watershed District |                 | \$300,000          |
| 4l    |            | Lake Alexandria Sanitary District Phosphorus Reduction   | BWSR                                |                 | \$600,000          |
|       |            |  | <b>Subtotal:</b>                    | <b>\$89,000</b> | <b>\$5,786,000</b> |

### Subd. 05 Environmental Education

|     |       |  |  |            |                    |
|-----|-------|--|--|------------|--------------------|
| 05a | 109-C | Prairie Sportsman Statewide Environmental Broadcasts and Videos  | Pioneer Public Television              |            | \$300,000          |
| 05b | 106-C | YES! Students Take on Minnesota Water Quality Challenge  | Prairie Woods Environ. Learning Center |            | \$213,000          |
| 05c | 112-C | Get Outdoors after School Training   | Project Get Outdoors Inc               |            | \$30,000           |
| 05d | 101-C | Connecting Students with Water Stewardship through Hands-on Learning                                       | Minnesota Trout Unlimited              |            | \$400,000          |
| 05e | 121-C | Expanding River Watch Program on the Minnesota River With High School Teams                                | Friends of the Minnesota Valley        |            | \$100,000          |
| 05f | 102-C | Pollinator Ambassadors Program for Gardens   | U of MN                                |            | \$250,000          |
| 05g | 118-C | Morris Prairie Pollinator Demonstration Area and Education   | U of MN                                |            | \$550,000          |
| 05h | 120-C | Expanding Nature Knowledge and Experience with New Interactive Exhibits at North Mississippi Regional Park | Minneapolis Parks and Recreation Board |            | \$500,000          |
| 05i | 127-C | Update International Wolf Center Exhibits  | International Wolf Center              |            | \$1,000,000        |
| 05j | 108-C | Expanding the State's Reuse Economy to Conserve Natural Resources  | ReUSE Minnesota                        |            | \$275,000          |
| 05k | 164-E | Expand Materials Reuse and Recycling Jobs Program  | The NetWork for Better Futures MN      |            | \$800,000          |
| 05l | 099-C | Increase Diversity in Environmental Careers to Serve Minnesota's Changing Demographics                     | MN DNR                                 |            | \$550,000          |
|     |       |  | <b>Subtotal:</b>                       | <b>\$0</b> | <b>\$4,968,000</b> |

### Subd. 06 Aquatic and Terrestrial Invasive Species

|     |       |  |   |            |                    |
|-----|-------|--|---|------------|--------------------|
| 06a | 132-D | Minnesota Invasive Terrestrial Plants and Pests Center - Phase 4                     | U of MN   |            | \$3,500,000        |
| 06b | 141-D | Palmer Amaranth Detection and Eradication Continuation                               | Minnesota Department of Agriculture               |            | \$431,000          |
| 06c | 152-D | Evaluate Control Methods for Invasive Hybrid Cattails                                | Voyageurs National Park                           |            | \$131,000          |
| 06d | 133-D | Developing RNA Interference to Control Zebra Mussels                                 | U.S. Geological Survey                            |            | \$500,000          |
| 06e | 134-D | Install and Evaluate an Invasive Carp Deterrent for Mississippi River Locks and Dams | U of MN   |            | \$998,000          |
| 06f | 139-D | Determining Risk of a Toxic Algal in Minnesota Lakes                                 | Science Museum of MN - St. Croix Research Station |            | \$200,000          |
|     |       |  | <b>Subtotal:</b>                                  | <b>\$0</b> | <b>\$5,760,000</b> |

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

|     |       |  |         |  |           |
|-----|-------|--|---------|--|-----------|
| 07a | 158-E | Develop Solar Window Concentrators for Electricity             | U of MN |  | \$350,000 |
| 07b | 159-E | Community-Scale Renewable Energy Storage System Demonstrations | U of MN |  | \$550,000 |

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|-------|------------|---|-----------------------------|--------|-------------|
|       |            |   |                             | FY2018 | FY2019      |
| 07c   | 160-E      | Develop Inexpensive Energy from Simple Roll-to-Roll Manufacturing | The University of Minnesota |        | \$300,000   |
|       |            |   | <b>Subtotal:</b>            | \$0    | \$1,200,000 |

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

|     |       |  |  |     |             |
|-----|-------|--|--|-----|-------------|
| 08a | 178-F | Nongame Wildlife Program Acceleration  | MN DNR   |     | \$220,000   |
| 08b | 195-F | Develop BioMulch to Replace Plastic Soil Covering in Vegetable and Fruit Production to Increase Yield and Reduce Waste | U of MN - Southwest Research and Outreach Center Lamberton |     | \$310,000   |
| 08c | 180-F | Develop Market-Based Alternatives for Perennial Crops to Benefit Water Quality and Wildlife                            | Science Museum of MN - St. Croix Research Station          |     | \$150,000   |
| 08d | 157-E | Agricultural Weed Control Using Autonomous Mowers  | U of MN - Morris   |     | \$750,000   |
| 08e | 182-F | Restoring Forests in Minnesota State Parks   | MN DNR   |     | \$250,000   |
| 08f | 189-F | Develop Timber Harvest Strategies to Minimize Soil Impacts to Maintain Healthy and Diverse Forests                     | U of MN  |     | \$200,000   |
| 08g | 186-F | Restoring Wetland Invertebrates to Revive Wildlife Habitat   | MN DNR   |     | \$400,000   |
| 08h | 179-F | Preserving and Restoring Minnesota's Native Orchids - Phase 2  | U of MN  |     | \$259,000   |
|     |       |  | <b>Subtotal:</b>   | \$0 | \$2,539,000 |

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

|     |       |   |   |     |              |
|-----|-------|---|---|-----|--------------|
| 09a | 201-G | Local Parks, Trails, and Natural Area Grants  | MN DNR  |     | \$2,000,000  |
| 09b | 205-G | Develop a Mesabi Trail Segment From County Road 88 to Ely                                   | St. Louis & Lake Counties Reg. Railroad Authority |     | \$600,000    |
| 09c | 207-G | Harmony State Trail Extension Land Acquisition  | City of Harmony                                   |     | \$235,000    |
| 09d | 208-G | Mississippi Blufflands State Trail - Red Wing Barn Bluff to Colvill Park Segment            | City of Red Wing                                  |     | \$550,000    |
| 09e | 212-G | Swedish Immigrant Regional Trail Segment within Interstate State Park                       | Chisago County Environmental Services             |     | \$2,254,000  |
| 09f | 209-G | Superior Hiking Trail Enhancement Plan  | Superior Hiking Trail Association                 |     | \$100,000    |
| 09g | 213-G | Protecting Mississippi River Headwaters Lands through a Local State and Federal Partnership | City of Baxter                                    |     | \$700,000    |
| 09h | 215-G | Protecting North-Central Minnesota Lakes  | Crow Wing SWCD                                    |     | \$750,000    |
| 09i | 203-G | Native Prairie Bank Easement Program  | MN DNR  |     | \$2,000,000  |
| 09j | 202-G | Minnesota State Trail Development   | MN DNR  |     | \$2,500,000  |
| 09k | 200-G | Minnesota State Parks and State Trails  | MN DNR  |     | \$2,500,000  |
| 09l | 199-G | Scientific and Natural Areas Program  | MN DNR  |     | \$3,250,000  |
|     |       |   | <b>Subtotal:</b>                                  | \$0 | \$17,439,000 |

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|---|------------|---|-------------------|----------|--------------|
|   |            |   |                   | FY2018   | FY2019       |
| <b>Subd. 10 Emerging Issues Acct</b>                      |            |   |                   |          |              |
| 10  |            | Emerging Issues Acct                        |                   |          | \$439,000    |
|   |            |   | Subtotal:         | \$0      | \$439,000    |
| <b>Subd. 12 Contract Agreement Reimbursement</b>          |            |   |                   |          |              |
| 10a   | 217-H      | Contract Agreement Reimbursement            | MN DNR            |          | \$135,000    |
|   |            |   | Subtotal:         | \$0      | \$135,000    |
|   |            |   | TOTAL BILL/ART.1: | \$89,000 | \$42,799,000 |
| <b>Art. 6 - Debt Service*</b>                             |            |   |                   |          |              |
|   |            | FY2019 Debt Service on appropriation bonds* | MMB               |          | \$2,940,000  |
|   |            |   | TOTAL ART.2:      | \$0      | \$2,940,000  |
| <b>TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND</b> |            |   |                   |          |              |
|   |            |   | TOTAL ENRTF:      | \$89,000 | \$45,739,000 |

| <b>Art. 6. Appropriation Bonds - ENRTF</b> |  |  |                      |     |              |
|--|--|--|----------------------|-----|--------------|
|  |  | <b>Department of Natural Resources</b>                 |                      |     |              |
| 05(1)                                      |  | Natural Resources Asset Preservation                   | DNR                  |     | \$3,419,000  |
| 05(2)                                      |  | Elk-River- Lake Orono Dredging                         | DNR                  |     | \$1,500,000  |
| 05(3)                                      |  | Seidl's Lake; South St. Paul; Storm water Improvements | DNR                  |     | \$781,000    |
|  |  |  | subtotal DNR         |     | \$5,700,000  |
|  |  | <b>Pollution Control Agency</b>                        |                      |     |              |
| 06(1)                                      |  | Anoka County - Closed Landfill                         | PCA                  |     | \$6,000,000  |
| 06(2)                                      |  | Lake Redwood Reclamation                               | PCA                  |     | \$7,300,000  |
|  |  |  | subtotal PCA         |     | \$13,300,000 |
|  |  | <b>Board of Water &amp; Soil Resources</b>             |                      |     |              |
| (07)                                       |  | Reinvest in Minnesota Program (CREP)                   | BWSR                 |     | \$10,000,000 |
|  |  |  | subtotal BWSR        |     | \$10,000,000 |
|  |  | <b>Public Facilities Authority</b>                     |                      |     |              |
| 08(1)                                      |  | State Match for Federal Grants                         | PFA                  |     | \$6,000,000  |
| 08(2)                                      |  | Water Infrastructure Funding Program                   | PFA                  |     | \$14,652,000 |
| 08(3)                                      |  | Point Source Implementation Grants                     | PFA                  |     | \$38,348,000 |
|  |  |  | subtotal PFA         |     | \$59,000,000 |
|  |  | <b>Metropolitan Council</b>                            |                      |     |              |
| (09)                                       |  | Metro Parks & Trails Capital Improvements              | Met Council          |     | \$10,000,000 |
|  |  |  | subtotal Met Council |     | \$10,000,000 |
|  |  |  | <b>Total Bonds</b>   | \$0 | \$98,000,000 |

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