

**SF 4043, 1st Engrossment - Senator Westrom****Environment & Natural Resources Trust Fund; FY2023 Appropriations**

|   |  | LCCMR Information |                                 |                  |               |                     |
|---|--|-------------------|---------------------------------|------------------|---------------|---------------------|
| subd  | Project Title  | Proposal ID       | Area Where Work Will Take Place | Amount Requested | Average Score | SF 4043 1E          |
| <b>Subd. 3 - Foundational Natural Resource Data and Information</b> |  |                   |                                 |                  |               | <b>\$ 5,491,000</b> |
| 3a  | Efficacy of Urban Archery Hunting to Manage Deer                           | 2022-031          | NW                              | \$ 329,000       | 61            | \$ 201,000          |
| 3b  | Improving Golden-Winged Warbler Conservation and Habitat Restoration       | 2022-043          | Central, NE, NW                 | \$ 197,000       | 76            | \$ 197,000          |
| 3c  | Strategic Framework to Guide Local Water Storage Implementation            | 2022-081          | Statewide                       | \$ 220,000       | 59            | \$ 200,000          |
| 3d  | Status of Minnesota Blueberries and Relatives                              | 2022-109          | NE                              | \$ 191,000       | 66            | \$ 191,000          |
| 3e  | Distribution and Movements of Fishers in Southern Minnesota                | 2022-122          | Central, Metro, SE, SW          | \$ 347,000       | 61            | \$ 212,000          |
| 3f  | Protecting Minnesota's Spruce-Fir Forests from Tree-Killing Budworm        | 2022-185          | Central, NE                     | \$ 189,000       | 77            | \$ 189,000          |
| 3g  | Restoration of Eastern Hemlock; Minnesota's Endangered Tree Species        | 2022-193          | Central, NE                     | \$ 199,000       | 74            | \$ 199,000          |
| 3h  | Maximizing Lowland Conifer Ecosystem Services: Phase 2                     | 2022-200          | Central, NE, NW                 | \$ 500,000       | 63            | \$ 315,000          |
| 3i  | Establishing a Center for Prion Research and Outreach                      | 2022-217          | Statewide                       | \$ 4,356,000     | 81            | \$ 3,000,000        |
| 3j  | Sweetening the Crop: Perennial Flax for Ecosystem Benefits                 | 2022-266          | Central, Metro, NW, SE, SW      | \$ 791,000       | 62            | \$ 490,000          |
| 3k  | Beavers, Trees and Climate - Increasing Floodplain Forest Resilience       | 2022-275          | Metro                           | \$ 430,000       | 69            | \$ 297,000          |
| <b>Subd. 4 - Water Resources</b>                                    |  |                   |                                 |                  |               | <b>\$ 3,744,000</b> |
| 4a  | Scaling a Market-Driven Water-Quality Solution for Row-Crop Farming        | 2022-046          | Central, SE                     | \$ 835,000       | 57            | \$ 476,000          |
| 4b  | Destruct Per/Polyfluoroalkyl Substances (PFAS) in Landfill Leachates       | 2022-049          | Statewide                       | \$ 200,000       | 77            | \$ 200,000          |
| 4c  | High Temperature Anaerobic Digestion of Sewage Sludge                      | 2022-087          | Statewide                       | \$ 302,000       | 69            | \$ 208,000          |
| 4d  | Mitigating Cyanobacterial Blooms and Toxins using Clay-Algae Flocculation  | 2022-099          | Statewide                       | \$ 366,000       | 72            | \$ 264,000          |
| 4e  | Changing Winters and Game Fish in Minnesota Lakes                          | 2022-103          | Statewide                       | \$ 267,000       | 71            | \$ 200,000          |
| 4f  | Rainy River Drivers of Lake-of-the-Woods Algal Blooms                      | 2022-116          | NE, NW                          | \$ 683,000       | 77            | \$ 526,000          |
| 4g  | Increased Intense Rain and Flooding in Minnesota's Watersheds              | 2022-166          | SE, SW                          | \$ 192,000       | 70            | \$ 192,000          |
| 4h  | Removing CECs from Stormwater with Biofiltration                           | 2022-218          | Metro                           | \$ 646,000       | 68            | \$ 439,000          |
| 4i  | Is the Tire Chemical 6PPDq Killing Minnesota's Fish?                       | 2022-224          | Statewide                       | \$ 491,000       | 72            | \$ 354,000          |
| 4j  | Mitigations Strategies for Agroplastic PFAS and Microplastic Contamination | 2022-251          | Statewide                       | \$ 169,000       | 72            | \$ 169,000          |

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| 4k   | Innovative Technology for PFAS Destruction in Drinking Water          | 2022-265          | SE                              | \$ 500,000       | 70            | \$ 350,000           |
| 4l   | Emerging PFAS Contaminant Mitigation using Hybrid Engineered Wetlands | 2022-286          | Statewide                       | \$ 501,000       | 73            | \$ 366,000           |
| <b>Subd. 5 - Environmental Education</b>   |   |                   |                                 |                  |               | <b>\$ 3,005,000</b>  |
| 5a   | Teacher Field School: Stewardship through Nature-Based Education      | 2022-026          | Statewide                       | \$ 500,000       | 62            | \$ 310,000           |
| 5b   | Increasing K-12 Student Learning to Develop Environmental Awareness   | 2022-029          | Statewide                       | \$ 1,800,000     | 76            | \$ 1,000,000         |
| 5c   | Expanding Access to Wildlife Learning Bird by Bird                    | 2022-066          | Metro                           | \$ 276,000       | 64            | \$ 200,000           |
| 5d   | Engaging a Diverse Public in Environmental Stewardship                | 2022-107          | Central, Metro, SE, SW          | \$ 200,000       | 62            | \$ 200,000           |
| 5e   | LCCMR Stories: Sharing Minnesota's Biggest Environmental Investment   | 2022-160          | Statewide                       | \$ 604,000       | 68            | \$ 200,000           |
| 5f   | Bugs Below Zero: Engaging Citizens in Winter Research                 | 2022-162          | Statewide                       | \$ 198,000       | 68            | \$ 198,000           |
| 5g   | ESTEP (Earth Science Teacher Education Project)                       | 2022-169          | Statewide                       | \$ 495,000       | 64            | \$ 317,000           |
| 5h   | YES! Students Take Action-Complete 80+Eco Projects                    | 2022-236          | Statewide                       | \$ 199,000       | 79            | \$ 199,000           |
| 5i   | Increasing Diversity in Environmental Careers                         | 2022-250          | Statewide                       | \$ 182,000       | 67            | \$ 182,000           |
| 5j   | Diversity and Access to Wildlife Related Opportunities                | 2022-279          | Statewide                       | \$ 199,000       | 70            | \$ 199,000           |
| <b>Subd. 6 - Aquatic and Terrestrial Invasive Species</b>                          |   |                   |                                 |                  |               | <b>\$ 4,174,000</b>  |
| 6a   | Minnesota Invasive Terrestrial Plants and Pests Center                | 2022-067          | Statewide                       | \$ 7,000,000     | 81            | \$ 4,000,000         |
| 6b   | Purple Loosestrife Biocontrol Citizen Science Program                 | 2022-089          | NE, SE                          | \$ 174,000       | 71            | \$ 174,000           |
| <b>Subd. 7 - Air Quality and Renewable Energy</b>                                  |   |                   |                                 |                  |               | <b>\$ 1,253,000</b>  |
| 7a   | Using Minnesota Timber to Mitigate Landfill Methane Emissions         | 2022-071          | Metro, NE                       | \$ 1,235,000     | 61            | \$ 753,000           |
| 7b   | Green Solar Cells from a Minnesota Natural Resource                   | 2022-180          | Statewide                       | \$ 756,000       | 73            | \$ 330,000           |
| 7c   | Morris GHG Emissions Inventory and Mitigation Strategies              | 2022-291          | Central                         | \$ 170,000       | 57            | \$ 170,000           |
| <b>Subd. 8 - Methods to Protect, Restore, and Enhance Land, Water, and Habitat</b> |   |                   |                                 |                  |               | <b>\$ 10,861,000</b> |
| 8a   | Minnesota's Volunteer Rare Plant Conservation Corps                   | 2022-006          | Statewide                       | \$ 859,000       | 60            | \$ 515,000           |
| 8b   | Conservation Corps Veterans Service Corps Program                     | 2022-034          | Statewide                       | \$ 1,504,000     | 93            | \$ 1,339,000         |
| 8c   | Conservation Cooperative for Working Lands                            | 2022-047          | Statewide                       | \$ 4,993,000     | 54            | \$ 750,000           |

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| 8d   | Root River Habitat Restoration Project                              | 2022-062          | SE                              | \$ 790,000       | 68            | \$ 537,000           |
| 8e   | Hastings Lake Rebecca Park Area                                     | 2022-065          | Metro                           | \$ 2,000,000     | 60            | \$ 1,200,000         |
| 8f   | River Habitat Restoration and Recreation in Melrose                 | 2022-142          | Central                         | \$ 1,105,000     | 52            | \$ 350,000           |
| 8g   | Restoring Forests and Savannas Using Silvopasture - Phase 2         | 2022-145          | Statewide                       | \$ 618,000       | 67            | \$ 414,000           |
| 8h   | Mitigating the Effects of Visitor Use Patterns                      | 2022-181          | NE                              | \$ 485,000       | 64            | \$ 310,000           |
| 8i   | PFAS Fungal-Woodchip Filtering System                               | 2022-188          | Statewide                       | \$ 189,000       | 71            | \$ 189,000           |
| 8j   | Phytoremediation for Extracting Deicing Salt                        | 2022-214          | Statewide                       | \$ 507,000       | 72            | \$ 365,000           |
| 8k   | Mustinka River Fish and Wildlife Habitat Corridor Rehabilitation    | 2022-221          | Central                         | \$ 3,025,000     | 89            | \$ 2,692,000         |
| 8l   | Bohemian Flats Savanna Restoration                                  | 2022-244          | Metro                           | \$ 286,000       | 61            | \$ 200,000           |
| 8m   | Watershed and Forest Restoration: What a Match!                     | 2022-260          | Central                         | \$ 3,728,000     | 78            | \$ 2,000,000         |
| <b>Subd. 9 - Land Acquisition, Habitat, and Recreation</b> |   |                   |                                 |                  |               | <b>\$ 26,646,000</b> |
| 9a   | Mesabi Trail: Wahlsten Road (CR 26) to Tower                        | 2022-005          | NE                              | \$ 1,980,000     | 66            | \$ 1,307,000         |
| 9b   | The Missing Link: Gull Lake Trail, Fairview Township                | 2022-008          | Central                         | \$ 2,362,000     | 59            | \$ 1,394,000         |
| 9c   | Pierz Park and Campground Expansion Project                         | 2022-027          | Central                         | \$ 200,000       | 56            | \$ 200,000           |
| 9d   | Redhead Mountain Bike Park  | 2022-038          | NE                              | \$ 1,977,000     | 65            | \$ 1,285,000         |
| 9e   | Environmental Learning Classroom with Trails                        | 2022-041          | NE                              | \$ 82,000        | 80            | \$ 82,000            |
| 9f   | Local Parks, Trails and Natural Areas Grant Programs                | 2022-057          | Statewide                       | \$ 4,000,000     | 85            | \$ 4,000,000         |
| 9g   | St. Louis River Re-Connect  | 2022-088          | NE                              | \$ 2,000,000     | 60            | \$ 1,200,000         |
| 9h   | Native Prairie Stewardship and Prairie Bank Easement Acquisition    | 2022-101          | Central, NW, SE, SW             | \$ 1,520,000     | 62            | \$ 500,000           |
| 9i   | Minnesota State Parks and State Trails Acquisitions                 | 2022-111          | Statewide                       | \$ 4,250,000     | 76            | \$ 1,600,000         |
| 9j   | Silver Bay Multi-Modal Trailhead Project                            | 2022-127          | NE                              | \$ 3,000,000     | 55            | \$ 1,650,000         |
| 9k   | Minnesota State Trails Development                                  | 2022-135          | Statewide                       | \$ 8,300,000     | 77            | \$ 6,022,000         |
| 9l   | Brookston Campground, Boat Launch and Outdoor Recreational Facility | 2022-140          | NE                              | \$ 925,000       | 49            | \$ 453,000           |
| 9m   | Silver Lake Trail Connection  | 2022-143          | NE                              | \$ 1,275,000     | 57            | \$ 727,000           |

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| 9n  | Preserving the Avon Hills with Reverse-Bidding Easements       | 2022-144          | Central                         | \$ 2,507,000     | 64            | \$ 1,604,000         |
| 9o  | Floodwood Campground Improvement Project                       | 2022-150          | NE                              | \$ 1,600,000     | 51            | \$ 816,000           |
| 9p  | SNA Habitat Restoration, Public Engagement, and Protection     | 2022-158          | Statewide                       | \$ 3,110,000     | 65            | \$ 1,000,000         |
| 9q  | Ranier Safe Harbor/Transient Dock Phase 2                      | 2022-165          | Statewide                       | \$ 2,100,000     | 53            | \$ 1,113,000         |
| 9r  | Prospector ATV Trails  | 2022-170          | NE                              | \$ 1,851,000     | 51            | \$ 944,000           |
| 9s  | City of Biwabik Recreation Area                                | 2022-253          | NE                              | \$ 1,414,000     | 53            | \$ 749,000           |
| <b>Subd. 10 - Additional Projects and Emerging Issues</b> |  |                   |                                 |                  |               | <b>\$ 15,575,000</b> |
| 10a   | Aggregate Resource Mapping                                     |                   |                                 |                  | NA            | \$ 500,000           |
| 10b   | Water Contamination Study; Leaded Gasoline Contamination       |                   |                                 |                  | NA            | \$ 200,000           |
| 10c   | Living Snow Fence Program                                      |                   |                                 |                  | NA            | \$ 500,000           |
| 10d   | Forest Data Inventory  |                   |                                 |                  | NA            | \$ 500,000           |
| 10e   | Conservation Reserve Program (CRP) State Incentives            |                   |                                 |                  | NA            | \$ 1,000,000         |
| 10f   | Ditch Improvements for Control of Water Levels                 |                   |                                 |                  | NA            | \$ 500,000           |
| 10g   | Pipeline Conservation Program                                  |                   |                                 |                  | NA            | \$ 500,000           |
| 10h   | Groundwater Storage and Recovery Database                      |                   |                                 |                  | NA            | \$ 421,000           |
| 10i   | DNR Drought Response - Replacement of Drought-Killed Seedlings |                   |                                 |                  | NA            | \$ 1,500,000         |
| 10j   | Rural and Farmstead Ring Levies                                |                   |                                 |                  | NA            | \$ 360,000           |
| 10k   | Replacing Failing Septic Systems to Protect Groundwater        |                   |                                 |                  | NA            | \$ 2,000,000         |
| 10l   | Healthy Soils Best Management Program                          |                   |                                 |                  | NA            | \$ 2,000,000         |
| 10m   | Forever Green  |                   |                                 |                  | NA            | \$ 2,000,000         |
| 10n   | Pig's Eye Landfill Task Force                                  |                   |                                 |                  | NA            | \$ 800,000           |
| 10o   | State Aquaculture Plan   |                   |                                 |                  | NA            | \$ 100,000           |
| 10p   | Noxious Weeds Prevention Grants                                |                   |                                 |                  | NA            | \$ 1,000,000         |
| 10q   | Developing Markets for Continuous Living Cover Crops           |                   |                                 |                  | NA            | \$ 500,000           |

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| 10r                              | Demonstration Project for Using Bioethanol in Diesel Engines to Reduce Greenhouse Gas Emissions |                   |                                 |                  | NA            | \$ 800,000           |
| 10s                              | Veterinary Disease Testing for Wild Cervidae  |                   |                                 |                  | NA            | \$ 150,000           |
| 10t                              | Emerging Issues Account   |                   | Statewide                       |                  | NA            | \$ 244,000           |
| <b>Subd. 11 - Administrative</b> |   |                   |                                 |                  |               | <b>\$ 132,000</b>    |
|                                  | ML 2022 Contract Agreement Reimbursement  | 2022-121          | Statewide                       | \$ 210,000       | 88            | \$ 132,000           |
| <b>Bill Total</b>                |   |                   |                                 |                  |               | <b>\$ 70,881,000</b> |