

2010 PROJECTS

MN Laws 2010, Chapter 362, Section 2 (beginning July 1, 2010)

Summary of appropriations and expected outcomes

NOTE: For all projects, contact us to obtain the most up-to-date work programs for current projects (project updates are required twice each year) or the final reports of completed projects.

The following documents are short abstracts for projects funded during the 2010 Legislative Session. The final date of completion for these projects is listed at the end of the abstract. When available, we have provided links to a project's web site. The sites linked to this page are not created, maintained, or endorsed by the LCCMR office or the Minnesota Legislature.

Subd. 3 Natural Resource Data and Information

Subd. 4 Land, Habitat, and Recreation

Subd. 5 Water Resources

Subd. 6 Aquatic and Terrestrial Invasive Species

Subd. 7 Renewable Energy

Subd. 8 Environmental Education

Subd. 3 Natural Resource Data and Information

- 3a County Geologic Atlases and Related Hydrogeologic Research
- 3b Updating the Minnesota Wetlands Inventory: Phase 2
- 3c Minnesota Breeding Bird Atlas
- 3d Integrated, Operational Bird Conservation Plan for Minnesota
- 3e Mitigating Pollinator Decline in Minnesota - **RESEARCH**
- 3f Science and Innovation from Soudan Underground Mine State Park - **RESEARCH**
- 3g Quantifying Carbon Burial in Wetlands - **RESEARCH**
- 3h Strategic Planning for Minnesota's Natural and Artificial Watersheds
- 3i Ecosystem Services in Agricultural Watersheds
- 3j Farmland Conservation in Minnesota
- 3k Identifying Critical Habitats for Moose in Northeastern Minnesota - **RESEARCH**

Subd. 4 Land, Habitat, and Recreation

- 4a Ecological Restoration Training Cooperative for Habitat Restoration
- 4b Scientific and Natural Areas and Native Prairie Restoration, Enhancement, and Acquisition
- 4c State Park Improvements
- 4d State Park Land Acquisition
- 4e Protection of Rare Granite Rock Outcrop Ecosystem
- 4f Minnesota's Habitat Conservation Partnership Supplemental
- 4g Metropolitan Conservation Corridors Supplemental
- 4h Conserving Sensitive and Priority Shorelands in Cass County
- 4i Reconnecting Fragmented Prairie Landscapes

Subd. 5 Water Resources

- 5a Understanding Sources of Aquatic Contaminants of Emerging Concern - **RESEARCH**
- 5b Managing Mineland Sulfate Release in Saint Louis River Basin - **RESEARCH**
- 5c Ecological Impacts of Effluent in Surface Waters and Fish - **RESEARCH**
- 5d Agricultural and Urban Runoff Water Quality Treatment Analysis
- 5e Assessing Septic System Discharge to Lakes - **RESEARCH**
- 5f Evaluation of Dioxins in Minnesota Lakes - **RESEARCH**
- 5g Assessment of Shallow Lake Management - **RESEARCH**
- 5h Assessing Cumulative Impacts of Shoreline Development - **RESEARCH**
- 5i Trout Stream Assessmentss - **RESEARCH**

Subd. 6 Aquatic and Terrestrial Invasive Species

- 6a Biological Control of European Buckthorn and Garlic Mustard - **RESEARCH**
- 6b Ecological and Hydrological Impacts of Emerald Ash Borer - **RESEARCH**
- 6c Healthy Forests to Resist Invasion - **RESEARCH**
- 6d Bioacoustic Traps for Management of Round Goby - **RESEARCH**

Subd. 7 Renewable Energy

- 7a Algae for Fuels Pilot Project
- 7b Sustainable Biofuels - **RESEARCH**
- 7c Linking Habitat Restoration to Bioenergy and Local Economies
- 7d Demonstrating Sustainable Energy Practices at Residential Environmental Learning Centers (RELCs)
- 7e Analysis of Options for Minnesota's Energy Independence - **GOVERNOR VETO**

Subd. 8 Environmental Education

- 8a Minnesota Conservation Apprenticeship Academy
- 8b Engaging Students in Environmental Stewardship through Adventure Learning
- 8c Connecting Youth with Nature
- 8d Urban Wilderness Youth Outdoor Education
- 8e Get Outside - Urban Woodland for Kids
- 8f Expanding Outdoor Classrooms at Minnesota Schools
- 8g Integrating Environmental and Outdoor Education in Grades 7-12
- 8h Project Get Outdoors
- 8i Fishing: Cross Cultural Gateway to Environmental Education
- 8j Minnesota WolfLink
- 8k Online Field Trip of Minnesota River

Funding Source:

Environment and Natural Resources Trust Fund (TF)

Subd. 3 Natural Resource Data and Information

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County Geologic Atlases and Related Hydrogeologic Research

Subd. 3a \$1,130,000

Dale Setterholm

MN Geological Survey
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\$1,130,000 is from the trust fund to the Board of Regents of the University of Minnesota for the Geologic Survey to initiate and continue the production of county geologic atlases, establish hydrologic properties necessary to water management, and investigate the use of geochemical data in water management. This appropriation represents a continuing effort to complete the county geologic atlases throughout the state. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

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Updating the Minnesota Wetlands Inventory: Phase 2

Subd. 3b \$1,100,000

Steve Kloiber

DNR
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St. Paul, MN 55155

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Web: http://www.dnr.state.mn.us/eco/wetlands/nwi_proj.html

\$1,100,000 is from the trust fund to the commissioner of natural resources to continue the update of wetland inventory maps for Minnesota. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

Minnesota Breeding Bird Atlas

Subd. 3c \$372,000

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PART 1 (\$211,000)

Mark Martell

Audubon Minnesota
2357 Ventura Dr, Ste 106
St. Paul, MN 55125

Phone: (651) 739-9332

Email: mmartell@audubon.org

Fax: (651) 731-1330

Web: <http://mnbbba.org/>

PART 2 (\$161,000)

Gerald Niemi

Natural Resources Research Institute (NRRI) - University of Minnesota
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Duluth, MN 55811

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\$372,000 is from the trust fund to continue development of a statewide survey of Minnesota breeding bird distribution and create related publications, including a book and online atlas with distribution maps and breeding status. Of this appropriation, \$211,000 is to the commissioner of natural resources for an agreement with Audubon Minnesota and \$161,000 is to the Board of Regents of the University of Minnesota for the Natural Resources Research Institute. The atlas must be available for downloading on the Internet free of charge.

Project due to be completed: 6/30/2012

Work Program - Part 1

Work Program - Part 2

Integrated, Operational Bird Conservation Plan for Minnesota

Subd. 3d \$151,000

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Lee Pfanmuller

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Fax: (651) 731-1330

Web: <http://mn.audubon.org/>

\$151,000 is from the trust fund to the commissioner of natural resources for an agreement with Audubon Minnesota to develop an integrated bird conservation plan targeting priority species and providing a framework for implementing coordinated, focused, and effective bird conservation throughout Minnesota.

Project due to be completed: 6/30/2012

Work Program

[Back to top of page](#)**Mitigating Pollinator Decline in Minnesota**

Subd. 3e \$297,000

Vera KrischikU of MN
1980 Folwell Ave, #219
St. Paul, MN 55108**Phone:** (612) 625-7044**Email:** krisc001@umn.edu**Fax:** (612) 625-5299

\$297,000 is from the trust fund to the Board of Regents of the University of Minnesota to assess the role of insecticides in pollinator health in order to help mitigate pollinator decline. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

Science and Innovation from Soudan Underground Mine State Park[Back to top of page](#)

Subd. 3f \$545,000

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1479 Gortner Ave
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\$545,000 is from the trust fund to the Board of Regents of the University of Minnesota to characterize unique microbes discovered in the Soudan Underground Mine State Park and investigate the potential application in bioenergy and bioremediation. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

Quantifying Carbon Burial in Wetlands[Back to top of page](#)

Subd. 3g \$144,000

James CotnerU of MN
100 Ecology, 1987 Upper Buford Cir, Dept. Ecology, Evolution and Behavior
St. Paul, MN 55108**Phone:** (612) 625-1706**Email:** cotne002@umn.edu**Fax:** (612) 624-6777

\$144,000 is from the trust fund to the Board of Regents of the University of Minnesota to determine the potential for carbon sequestration in Minnesota's shallow lakes and wetlands. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

Strategic Planning for Minnesota's Natural and Artificial Watersheds[Back to top of page](#)

Subd. 3h \$327,000

David Mulla

U of MN
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St. Paul, MN 55108

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\$327,000 is from the trust fund to the Board of Regents of the University of Minnesota to identify the interrelationship between artificial systems of drain tiles and ditches and natural watersheds to guide placement of buffers and stream bed restoration and modification.

Project due to be completed: 6/30/2012

Work Program

Ecosystem Services in Agricultural Watersheds

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Subd. 3i \$247,000

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Chippewa River Watershed Project
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\$247,000 is from the trust fund to the commissioner of natural resources for an agreement with the Chippewa River Watershed Project to develop local food and perennial biofuels markets coupled with conservation incentives to encourage farmers to diversify land cover in the Chippewa River Watershed supporting improvement to water quality and habitat. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

Farmland Conservation in Minnesota

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Subd. 3j \$100,000

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\$100,000 is from the trust fund to the commissioner of natural resources for an agreement with the Farmers Legal Action Group, Inc. to assess the implementation of applicable laws for preserving agricultural land and develop a comprehensive and systematic approach and policy tools to preserve agricultural lands.

Project due to be completed: 6/30/2012

Work Program

Identifying Critical Habitats for Moose in Northeastern Minnesota

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Subd. 3k \$507,000

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\$507,000 is from the trust fund to the Board of Regents of the University of Minnesota for the Natural Resources Research Institute to identify critical habitats for moose, develop best management habitat protection practices, and conduct educational outreach in cooperation with the Minnesota Zoo. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Subd. 4 Land, Habitat, and Recreation

Ecological Restoration Training Cooperative for Habitat Restoration
Subd. 4a \$550,000

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\$550,000 is from the trust fund to the Board of Regents of the University of Minnesota for improving ecological restoration success in Minnesota by developing and offering training programs for habitat restoration professionals. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Scientific and Natural Areas and Native Prairie Restoration, Enhancement, and Acquisition
Subd. 4b \$1,750,000

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\$1,750,000 is from the trust fund to the commissioner of natural resources to acquire lands with high quality native plant communities and rare features to be established as scientific and natural areas as provided in Minnesota Statutes, section 86A.05, subdivision 5, restore parts of scientific and natural areas, and provide assistance and incentives for native prairie landowners. A list of proposed acquisitions must be provided as part of the required work program. Land acquired with this appropriation must be sufficiently improved to meet at least minimum management standards as determined by the commissioner of natural resources. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

State Park Improvements[Back to top of page](#)

Subd. 4c \$814,000

Larry Peterson

DNR

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\$567,000 is from the trust fund to the commissioner of natural resources for state park capital improvements and natural resource restoration. Of this amount, \$250,000 is for solar energy installations in state parks and the remaining amount shall be used for park and campground restoration and improvements. Priority shall be for projects that address existing threats to public water resources. On July 1, 2010, the unobligated balance, estimated to be \$200,000, of the appropriation for clean energy resource teams and community wind energy rebates in Laws 2005, First Special Session chapter 1, article 2, section 11, subdivision 10, paragraph (a), as amended by Laws 2006, chapter 243, section 15, and extended by Laws 2009, chapter 143, section 2, subdivision 16, is transferred and added to this appropriation. On July 1, 2010, the \$47,000 appropriated in Laws 2009, chapter 143, section 2, subdivision 6, paragraph (f), for native plant biodiversity, invasive plant species, and invertebrates is transferred and added to this appropriation.

Project due to be completed: 6/30/2012

Work Program

State Park Land Acquisition[Back to top of page](#)

Subd. 4d \$1,750,000

Larry Peterson

DNR

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\$1,750,000 is from the trust fund to the commissioner of natural resources to acquire and preserve critical parcels within the statutory boundaries of state parks. 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 program.

Project due to be completed: 6/30/2012

Work Program

Protection of Rare Granite Rock Outcrop Ecosystem[Back to top of page](#)

Subd. 4e \$1,800,000

Thomas Kalahar

Renville SWCD

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\$1,800,000 is from the trust fund to the Board of Water and Soil Resources, in cooperation with the Renville Soil and Water Conservation District, to continue to acquire perpetual easements of unique granite rock outcrops, located in the Upper

Minnesota River Valley. \$418,000 of this appropriation is for fiscal year 2010 and is available the day following final enactment.

Project due to be completed: 6/30/2012

Work Program

Minnesota's Habitat Conservation Partnership Supplemental

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Subd. 4f \$1,344,000

Joe Pavelko

Pheasants Forever (on behalf of all partners)
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Web: <http://www.mnhabitatcorridors.org>

\$1,344,000 is added to Laws 2009, chapter 143, section 2, subdivision 4, paragraph (e), from the trust fund for the acceleration of agency programs and cooperative agreements. Of this appropriation, \$308,000 is to the commissioner of natural resources for agency programs and \$1,036,000 is for agreements as follows: \$425,000 with Ducks Unlimited, Inc.; \$50,000 with National Wild Turkey Federation; \$164,000 with the Nature Conservancy; \$102,000 with Minnesota Land Trust; \$200,000 with the Trust for Public Land; \$45,000 with Friends of Detroit Lakes Wetland Management District; and \$50,000 to the Leech Lake Band of Ojibwe to plan, restore, and acquire fragmented landscape corridors that connect areas of quality habitat to sustain fish, wildlife, and plants. The United States Department of Agriculture Natural Resources Conservation Service is an authorized cooperating partner in the appropriation. Expenditures are limited to the project corridor areas as defined in the work program. Land acquired with this appropriation must be sufficiently improved to meet at least minimum habitat and facility management standards as determined by the commissioner of natural resources. This appropriation may not be used for the purchase of residential structures, unless expressly approved in the work program. All conservation easements must be perpetual and have a natural resource management plan. Any land acquired in fee title by the commissioner of natural resources with money from this appropriation must be designated as an outdoor recreation unit under Minnesota Statutes, section 86A.07. The commissioner may similarly designate any lands acquired in less than fee title. A list of proposed restorations and fee title and easement acquisitions must be provided as part of the required work program. All funding for conservation easements must include a long-term stewardship plan and funding for monitoring and enforcing the agreement.

- 2d Shallow Lake Assessment and Management (DNR)
- 2f Shallow Lake Habitat Enhancement and Wild Rice Enhancement and Monitoring (Leech Lake Band of Ojibwe)
- 2h Fisheries Habitat Restoration (DNR)
- 2k Prairie Management (DNR)
- 2n Campaign for Conservation (The Nature Conservancy)
- 2o Working Lands Partnership (Friends of the Detroit Lakes Wetland Management District)
- 2p Bluffland Restoration (National Wild Turkey Federation)
- 3a Shoreland Protection Project (Minnesota Land Trust)
- 3c Shallow Lake Easements (Ducks Unlimited)
- 3d Wetlands Reserve Program (Ducks Unlimited / USDA NRCS)
- 4b Fisheries Land Acquisition (DNR)
- 4c Critical Lands Protection Program (Trust for Public Land)
- 4f Campaign for Conservation (The Nature Conservancy)

Project due to be completed: 6/30/2012

Overall HCP Work Program (For work programs of individual partner projects, click links directly above)

Metropolitan Conservation Corridors Supplemental

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Subd. 4g \$1,750,000

Sarah Strommen

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Web: <http://www.dnr.state.mn.us/metroconservationcorridors>

\$1,750,000 is added to Laws 2009, chapter 143, section 2, subdivision 4, paragraph (f), from the trust fund to the commissioner of natural resources for acceleration of agency programs and cooperative agreements. Of this appropriation, \$1,750,000 is for agreements as follows: \$890,000 with the Trust for Public Land; \$485,000 with Minnesota Land Trust; \$325,000 with Minnesota Valley National Wildlife Refuge Trust, Inc.; and \$50,000 with Friends of the Minnesota Valley for planning, restoring, and protecting important natural areas in the metropolitan area, as defined under Minnesota Statutes, section 473.121, subdivision 2, and portions of the surrounding counties, through grants, contracted services, technical assistance, conservation easements, and fee title acquisition. Land acquired with this appropriation must be sufficiently improved to meet at least minimum management standards as determined by the commissioner of natural resources. Expenditures are limited to the identified project corridor areas as defined in the work program. This appropriation may not be used for the purchase of residential structures, unless expressly approved in the work program. All conservation easements must be perpetual and have a natural resource management plan. Any land acquired in fee title by the commissioner of natural resources with money from this appropriation must be designated as an outdoor recreation unit under Minnesota Statutes, section 86A.07. The commissioner may similarly designate any lands acquired in less than fee title. A list of proposed restorations and fee title and easement acquisitions must be provided as part of the required work program. All funding for conservation easements must include a long-term stewardship plan and funding for monitoring and enforcing the agreement.

- 2.4 Lower Minnesota River Watershed Restoration & Enhancement Project (Friends of Minnesota Valley)
- 3.1 Critical Land Protection Program (Trust for Public Land)
- 3.2 Protect Significant Habitat by Acquiring Conservation Easements (Minnesota Land Trust)
- 3.3 Minnesota Valley National Wildlife Refuge Fee Title Acquisition (Minnesota Valley National Wildlife Refuge Trust)

Project due to be completed: 6/30/2012

Overall MeCC Work Program (For work programs of individual partner projects, click links directly above)

Conserving Sensitive and Priority Shorelands in Cass County

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Subd. 4h \$300,000

John Ringle

Cass County Environmental Services Department
 300 Minnesota Ave, Box 3000
 Walker, MN 56484

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\$300,000 is from the trust fund to the commissioner of natural resources for an agreement with Cass County to provide assistance for the donation of perpetual conservation easements to protect sensitive shoreland parcels for long-term protection of recreation, water quality, and critical habitat in north central Minnesota. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

Reconnecting Fragmented Prairie Landscapes

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Subd. 4i \$380,000

Steve Chaplin

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 1101 W River Pkwy, Ste 200
 Minneapolis, MN 55415

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\$380,000 is from the trust fund to the commissioner of natural resources for an agreement with the Nature Conservancy to develop prairie landscape design plans and monitoring protocol involving local landowners and businesses to guide conservation, restoration, and related economic development. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Subd. 5 Water Resources

Understanding Sources of Aquatic Contaminants of Emerging Concern

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Subd. 5a \$640,000

Deborah Swackhamer

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\$640,000 is from the trust fund to the Board of Regents of the University of Minnesota to identify chemical markers to characterize sources of endocrine disruptors and pharmaceuticals entering surface waters in the Zumbro River Watershed. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Managing Mineland Sulfate Release in Saint Louis River Basin

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Subd. 5b \$270,000

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\$270,000 is from the trust fund to the commissioner of natural resources to map current sulfate sources and assess treatment options to minimize potential impacts of mercury on fish and wildlife from sulfate releases in the St. Louis River Basin. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Ecological Impacts of Effluent in Surface Waters and Fish

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Subd. 5c \$340,000

Paige Novak

U of MN
122 Civil Engineering Bldg, 500 Pillsbury Dr SE
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\$340,000 is from the trust fund to the Board of Regents of the University of Minnesota in cooperation with St. Cloud State University to determine the chemical and biological fate of phytoestrogens in surface waters and the impacts on fish. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Agricultural and Urban Runoff Water Quality Treatment Analysis[Back to top of page](#)

Subd. 5d \$485,000

Craig Austinson

Blue Earth County Drainage Authority
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\$485,000 is from the trust fund to the Board of Water and Soil Resources for an agreement with the Blue Earth County Drainage Authority to reduce soil erosion, peak water flows, and nutrient loading through a demonstration model evaluating storage and treatment options in drainage systems in order to improve water quality. This appropriation is available until June 30, 2014, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2014
Work Program

Assessing Septic System Discharge to Lakes[Back to top of page](#)

Subd. 5e \$594,000

Richard Kiesling

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2280 Woodale Dr
Mounds View, MN 55112

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\$594,000 is from the trust fund to the commissioner of health for department activities and for an agreement with the United States Geologic Survey in cooperation with St. Cloud State University to develop quantitative data on septic system discharge of estrogenic and pharmaceutical compounds and assess septic and watershed influences on levels of contamination and biological responses in Minnesota lakes. The United States Geologic Survey is not subject to the requirements in Minnesota Statutes, section 116P.10. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Evaluation of Dioxins in Minnesota Lakes[Back to top of page](#)

Subd. 5f \$1,130,000

William Arnold

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\$264,000 is from the trust fund to the Board of Regents of the University of Minnesota to examine the concentration of dioxins in lake sediment and options to improve water quality in lakes.

Project due to be completed: 6/30/2012
Work Program

Assessment of Shallow Lake Management
Subd. 5g \$262,000

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\$262,000 is from the trust fund to the commissioner of natural resources to evaluate the major causes of deterioration of shallow lakes in Minnesota and evaluate results of current management efforts. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Assessing Cumulative Impacts of Shoreline Development
Subd. 5h \$300,000

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\$300,000 is from the trust fund to the Board of Regents of the University of Minnesota to evaluate near-shore, in-water habitat impacts from shoreline development activities to assist in the design and implementation of management practices protecting critical shorelands and aquatic habitat. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Trout Stream Assessments
Subd. 5i \$300,000

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\$300,000 is from the trust fund to the Board of Regents of the University of Minnesota to assess cold water aquatic insect abundance related to warming water temperatures as predictors of trout growth in southeastern Minnesota and assess options to minimize stream temperature changes. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Subd. 6 Aquatic and Terrestrial Invasive Species

Biological Control of European Buckthorn and Garlic Mustard

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Subd. 6a \$300,000

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\$300,000 is from the trust fund to the commissioner of natural resources in cooperation with the commissioner of agriculture to continue the development and implementation of biological control for European buckthorn and garlic mustard. This appropriation 14.2 is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Ecological and Hydrological Impacts of Emerald Ash Borer

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Subd. 6b \$636,000

Anthony D'Amato

U of MN
1530 Cleveland Avenue N
St. Paul, MN 55108

Phone: (612) 625-3733
Email: damato@umn.edu
Fax: (612) 625-5212

\$636,000 is from the trust fund to the Board of Regents of the University of Minnesota to assess the potential impacts of emerald ash borer on Minnesota's black ash forests and quantify potential impacts on native forest vegetation, invasive species spread, and hydrology. This appropriation is available until June 30, 2015, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2015
Work Program

Healthy Forests to Resist Invasion

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Subd. 6c \$359,000

Peter Reich

U of MN
1530 Cleveland Ave N
St. Paul, MN 55108

Phone: (612) 624-4270

Email: preich@umn.edu
Fax: (612) 625-5212

\$359,000 is from the trust fund to the Board of Regents of the University of Minnesota to assess the role of forest health management in resisting infestation of invasive species. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Bioacoustic Traps for Management of Round Goby
Subd. 6d \$175,000

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Allen Mensinger
U of MN - Duluth
1035 Kirby Dr
Duluth, MN 55812

Phone: (218) 726-7259
Email: amensing@d.umn.edu
Fax: (218) 726-8142

\$175,000 is from the trust fund to the Board of Regents of the University of Minnesota to evaluate bioacoustic technology specific to invasive round goby in Lake Superior as a method for early detection and population reduction. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Subd. 7 Renewable Energy

Algae for Fuels Pilot Project
Subd. 7a \$900,000

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Roger Ruan
U of MN
1390 Eckles Ave
St. Paul, MN 55108

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Email: ruanx001@umn.edu
Fax: (612) 624-3005

\$900,000 is from the trust fund to the Board of Regents of the University of Minnesota to demonstrate an innovative microalgae production system utilizing and treating sanitary wastewater to produce biofuels from algae. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013
Work Program

Sustainable Biofuels
Subd. 7b \$221,000

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David Tilman
Cedar Creek Ecosystem Science Reserve
100 Ecology, 1987 Upper Buford Circle
St. Paul, MN 55108

Phone: (612) 625-5740
Email: tilman@umn.edu

Fax: (612) 624-6777

\$221,000 is from the trust fund to the Board of Regents of the University of Minnesota to determine how fertilization and irrigation impact yields of grass monoculture and high diversity prairie biofuel crops, their storage of soil carbon, and susceptibility to invasion by exotic species. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

Linking Habitat Restoration to Bioenergy and Local Economies

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Subd. 7c \$600,000

Barb Spears

DNR

1200 Warner Rd

St. Paul, MN 55106

Phone: (651) 259-5849

Email: barb.spears@dnr.state.mn.us

Fax: (651) 772-7977

Web: http://mndnr.gov/eco/habitat_biomass.html

\$600,000 is from the trust fund to the commissioner of natural resources to restore high quality native habitats and expand market opportunities for utilizing postharvest restoration as a bioenergy source. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

Demonstrating Sustainable Energy Practices at Residential Environmental Learning Centers (RELCs)

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Subd. 7d \$1,500,000

MN COALITION OF RELCS

7d-1 (\$350,000)

Joe Deden

Eagle Bluff Environmental Learning Center

28097 Goodview Dr

Lanesboro, MN 55949

Phone: (507) 467-2437

Email: director@eagle-bluff.org

Fax: (507) 467-3583

7d-2 (\$206,000)

Bryan Wood

Audubon Center of the North Woods

P.O. Box 530

Sandstone, MN 55072

Phone: (320) 245-2648

Email: bwood@audubon-center.org

Fax: (320) 245-5272

7d-3 (\$212,000)

Dale Yerger

Deep Portage Learning Center

2197 Nature Center Drive NW

Hackensack, MN 564529

Phone: (218) 682-2325

Email: portage@uslink.net

Fax: (218) 682-3121

7d-4 (\$258,000)

Nick Temali

Laurentian Environmental Learning Center
8950 Peppard Road
Britt, MN 55710

Phone: (651) 621-7403

Email: nick.temali@moundsvIEWSchools.org

Fax: (651) 621-7405

7d-5 (\$240,000)

Todd Roggenkamp

Long Lake Conservation Center
28952 438th Lane
Palisade, MN 56469

Phone: (218) 768-4653

Email: todd@llcc.org

Fax: (218) 768-2309

7d-6 (\$234,000)

Kimberly Skyelander

Wolf Ridge Environmental Learning Center
6282 Cranberry Road
Finland, MN 55603

Phone: (218) 353-7414

Email: director@eagle-bluff.org

Fax: (218) 353-7762

\$1,500,000 is from the trust fund to the commissioner of natural resources for agreements as follows: \$206,000 with Audubon Center of the North Woods; \$212,000 with Deep Portage Learning Center; \$350,000 with Eagle Bluff Environmental Learning Center; \$258,000 with Laurentian Environmental Learning Center; \$240,000 with Long Lake Conservation Center; and \$234,000 with Wolf Ridge Environmental Learning Center to implement renewable energy, energy efficiency, and energy conservation practices at the facilities. Efforts will include dissemination of related energy education.

Project due to be completed: 6/30/2012

7d1-Work Program: Overall Project Coordination and Eagle Bluff Environmental Learning Center

7d2-Work Program: Audubon Center of the North Woods

7d3-Work Program: Deep Portage Learning Center

7d4-Work Program: Laurentian Environmental Learning Center

7d5-Work Program: Long Lake Conservation Center

7d6-Work Program: Wolf Ridge Environmental Learning Center

GOVERNOR VETO

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Analysis of Options for Minnesota's Energy Independence

Subd. 7e—\$143,000

Melisa Pollak

U of M
154 Hubert H. Humphrey Center 301 19th Ave. S.
Minneapolis, MN 55455

Phone:—

Email:—

Fax:—

\$143,000 is from the trust fund to the Board of Regents of the University of Minnesota for a life-cycle analysis of low carbon energy technologies available to implement in Minnesota.

Project due to be completed: 6/30/2012

Work Program

Subd. 8 Environmental Education

[Back to top of page](#)**Minnesota Conservation Apprenticeship Academy**

Subd. 8a \$368,000

Steve Woods

Board of Water and Soil Resources
520 Lafayette Rd N
St. Paul, MN 55155

Phone: (651) 297-7748**Email:** steve.woods@state.mn.us**Fax:** (651) 297-5615

\$368,000 is from the trust fund to the Board of Water and Soil Resources in cooperation with the Minnesota Conservation Corps or its successor to train and mentor future conservation professionals by providing apprenticeship service opportunities to soil and water conservation districts. This appropriation is available until June 30, 2013, by which time the project must be completed and the final products delivered.

Project due to be completed: 6/30/2012Work Program

[Back to top of page](#)**Engaging Students in Environmental Stewardship through Adventure Learning**

Subd. 8b \$250,000

Nicole Rom

Will Steger Foundation
2801 21st Avenue S, Ste 127
Minneapolis, MN 55407

Phone: (612) 278-7147**Email:** nicole@willstegerfoundation.org**Fax:** (612) 278-7101

\$250,000 is from the trust fund to the commissioner of natural resources for an agreement with the Will Steger Foundation to provide curriculum, teacher training, online learning, and grants to schools on investigating the connection between Minnesota's changing climate and the impacts on ecosystems and natural resources. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013Work Program

[Back to top of page](#)**Connecting Youth with Nature**

Subd. 8c \$160,000

Carrol Henderson

DNR
500 Lafayette Rd, Box 25
St. Paul, MN 55155

Phone: (651) 259-5104**Email:** carrol.henderson@dnr.state.mn.us**Fax:** (651) 296-1811**Web:** <http://www.dnr.state.mn.us/eco/nongame/projects/digitalbridge.html>

\$160,000 is from the trust fund to the commissioner of natural resources to hold teacher training workshops on the use of digital photography as a tool for learning about nature. The equipment must be provided from other funds.

Project due to be completed: 6/30/2012

Work Program

Urban Wilderness Youth Outdoor Education[Back to top of page](#)

Subd. 8d \$557,000

Greg Lais

Wilderness Inquiry
808 14th Avenue SE
Minneapolis, MN 55414

Phone: (612) 676-9409**Email:** greglais@wildernessinquiry.org**Fax:** (612) 676-9401

\$557,000 is from the trust fund to the commissioner of natural resources for an agreement with Wilderness Inquiry to provide an outdoor education and recreation program on the Mississippi River. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

Get Outside - Urban Woodland for Kids[Back to top of page](#)

Subd. 8e \$218,000

Don Ganje

City of Saint Paul, Dept of Parks and Recreation
50 W Kellogg Blvd, Ste 840
St. Paul, MN 55102

Phone: (651) 266-6425**Email:** don.ganje@ci.stpaul.mn.us**Fax:** (651) 292-7405

\$218,000 is from the trust fund to the commissioner of natural resources for an agreement with the city of St. Paul, Department of Parks and Recreation, to restore and develop an outdoor classroom for ecological education and historical interpretation at Como Regional Park in St. Paul. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

Expanding Outdoor Classrooms at Minnesota Schools[Back to top of page](#)

Subd. 8f \$300,000

Amy Kay Kerber

DNR
500 Lafayette Rd
St. Paul, MN 55155

Phone: (651) 259-5263**Email:** amykay.kerber@dnr.state.mn.us**Fax:** (651) 259-5272**Web:** <http://www.mndnr.gov/schoolforest>

\$300,000 is from the trust fund to the commissioner of natural resources to establish additional and enhance existing outdoor school forest and prairie classroom networks throughout Minnesota.

Project due to be completed: 6/30/2012

Work Program

[Back to top of page](#)**Integrated Environmental and Outdoor Education in Grades 7-12**

Subd. 8g \$300,000

Beth Aune

Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113-4266

Phone: (651) 582-8795**Email:** beth.aune@state.mn.us**Fax:** (651) 582-8876

\$300,000 is from the trust fund to the commissioner of education in cooperation with the commissioner of natural resources to train and support grade 7-12 teachers to integrate environmental and outdoor education into the instruction of academic standards.

Project due to be completed: 6/30/2012

Work Program

Project Get Outdoors

Subd. 8h \$15,000

[Back to top of page](#)**Sara Grover**

Project Get Outdoors, Inc.
Whitewater State Park, 19041 Hwy 74
Altura, MN 55910

Phone: (507) 951-5885**Email:** sara.grover@yahoo.com**Fax:** (507) 932-5938**Web:** <http://mnprojectgetoutdoors.org/>**Overall Project Outcomes and Results**

Project GO has developed a toolkit to help local communities design, implement, evaluate, and sustain free after-school and summer programs that introduce children to nearby public lands and outdoor activities and skills they can enjoy at these sites.

Through funds from the Minnesota Environment and Natural Resources Trust Fund, Project GO was able to assemble 50 Activity Backpacks and 32 Equipment Trunks for Project GO program leaders to use in their communities. Each program leader is issued a backpack to keep during their involvement with the Project GO program. The Activity Backpacks provide basic supplies to help leaders implement 100 or more different outdoor games, projects, and activities.

The Equipment Trunks focus on 16 different activities and are available for Project GO leaders to check out for free. These trunks are housed at Whitewater State Park for use in SE Minnesota and we anticipate the other set of 16 trunks will be housed out of Minneopa State Park for use by Project GO clubs in SW Minnesota.

At the time of this report, 14 backpacks have been issued. Equipment trunks are beginning to be checked out. Program leaders are excited to have these resources and so far, feedback has been very positive. The children are happy to have more diverse equipment and supplies to use while learning about the outdoors. We plan to evaluate the usefulness of these resources over the coming year via a program leader survey. One obstacle we are looking at is getting the equipment trunks to and from program sites that are farther from the storage site. We are hoping to develop a network of volunteer "runners" who would be reimbursed mileage for delivering and returning the equipment trunks when a GO site in a community such as Red Wing or Spring Grove desires to check out a trunk.

Project Results Use and Dissemination

The completed Activity Backpacks have already been issued to 14 sites. We will continue to help communities design Project GO programs that are unique as well as work with local staff at community organizations such as youth centers, school age child care programs, and other after school sites to introduce children in those programs to nature through our toolkit resources.

Since completing the assembly of the 50 Activity Backpacks and 32 Equipment Trunks, Project GO has formed a partnership with local public health and child care resource professionals to look at implementing our program into the

larger child care centers that serve school age children during the after school hours. We are currently piloting this at a child care center in Caledonia and looking to work with two child care centers in Rochester. We will train the school age room staff at these centers to use our backpacks at least once a week. As an incentive for them to use the backpacks and journal their experiences, Project GO will provide a person to come out to their site no more than once a month to lead a hands-on nature activity using one of the Equipment Trunks. This new approach with child care centers will allow us to serve many more children. Project GO will be presenting at an upcoming Focus on the Child conference in Rochester, sharing this information with child care providers from across the southern region.

A number of colleges and college professors in SE Minnesota have expressed enthusiasm to connect their students to service learning, internship, and practicum experiences with Project GO. We have found that college students bring great enthusiasm to the program which the children really enjoy and in exchange Project GO is able to provide real world learning experiences for these students.

We are already looking to secure additional funds to purchase more backpacks, as we anticipate the first 50 will be issued within a year. The US Fish & Wildlife Service Winona District is eager to help us acquire another batch of backpacks.

FINAL REPORT

Project completed: 11/16/2010

Fishing: Cross Cultural Gateway to Environmental Education

Subd. 8i \$155,000

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Ly Vang

Association for the Advancement of Hmong Women in MN
1101 N Snelling Ave
St. Paul, MN 55108

Phone: (651) 398-2917

Email: lyvangaahwm@yahoo.com

Fax: (651) 222-3599

\$155,000 is from the trust fund to the commissioner of natural resources for an agreement with the Association for the Advancement of Hmong Women in Minnesota to provide environmental information and teaching skills to and increase participation of Southeast Asian communities through the gateway of fishing skills. Information on mercury in fish advisories must be included as part of the educational outreach. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2013

Work Program

Minnesota WolfLink

Subd. 8j \$193,000

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Jerritt Johnston

International Wolf Center
1496 Highway 169
Ely, MN 55731

Phone: (218) 365-4695 x23

Email: jjohnston@wolf.org

Fax: (218) 365-3318

\$193,000 is from the trust fund to the commissioner of natural resources for an agreement with the International Wolf Center to develop interactive onsite and distance learning about wolves and their habitat. This appropriation is available until June 30, 2013, by which time the project must be completed and final products delivered.

Project due to be completed: 6/30/2012

Work Program

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Online Field Trip of Minnesota River

Subd. 8k \$124,000

Kimberly Musser

MN State University - Mankato
184 Trafton Science Center S
Mankato, MN 56001

Phone: (507) 389-5492**Email:** kimberly.musser@mnsu.edu**Fax:** (507) 389-5493

\$124,000 is from the trust fund to the commissioner of natural resources for an agreement with Minnesota State University - Mankato to develop online educational materials on the Minnesota River for schools and outreach centers.

Project due to be completed: 6/30/2012Work Program
