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Legislative Commission on Minnesota Resources

Biennial Report January 15, 2001

Pursuant to: M.S. 116P.09, Subd. 7

this document to the LCMR office: Room 65, State Office Building

LEGISLATIVE COMMISSION ON MINNESOTA RESOURCES 100 CONSTITUTION AVENUE/ROOM 65/SAINT PAUL, MINNESOTA 55155-1201 PHONE: 651/296-2406 TDD: 651/296-8896 OR 1-800-657-3550 RELAY: 651/297-5350 OR 1-800-627-3529 FAX: 651/296-1321 EMAIL: lcmr@commissions.leg.state.mn.us

John Velin, Director

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Governor Jesse Ventura Secretary of the Senate, Patrick E. Flahaven Chief Clerk of the House, Edward A. Burdick Chair Finance Committee, Senator Doug Johnson Chair Senate Environmental & Natural Resources, Senator Jane Krentz Chair Environmental & Agriculture Budget Division, Senator Len Price Chair Ways & Means, Representative Dave Bishop Chair Environment and Natural Resources, Representative Dennis Ozment Chair Environment and Natural Resources Finance, Representative Mark Holsten Legislative Reference Library (6 copies)

Dear Colleagues,

January 15, 2001

Transmitted herewith is the biennial report of the Legislative Commission on Minnesota Resources (LCMR) as required in MS 116P. On January 12, 2001, the members specifically adopted the new 2001 appropriation recommendations as well as a strategy to develop recommendations for items to be incorporated into the regular agency budgets.

We look forward to presenting this information and certainly encourage questions and discussion. Thank you for the opportunity to serve the Legislature in this capacity.

Sincerely,

Senator Leonard Price, Chair LCMR

> Senators: Leonard Price, Chair; Ellen Anderson, Dennis Frederickson, Jane Krentz, Bob Lessard, James Metzen, Martha Robertson, Jim Vickerman.

Representatives: Irv Anderson, Dave Bishop, Steve Dehler, Ron Erhardt, Mark Holsten, Mark Olson, Dennis Ozment, Tom Osthoff, Leslie Schumacher, Kathy Tingelstad,

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Pursuant to: M.S. 116P.09, Subd. 7

Commission Members

*SENATORS

Leonard Price, Chair; Ellen Anderson, Dennis Frederickson, Jerry Janezich, Jane Krentz, Gary Laidig, Bob Lessard, James Metzen, Martha Robertson, Jim Vickerman.

*REPRESENTATIVES

Irv Anderson, Dave Bishop, Steve Dehler, Ron Erhardt, Mark Holsten, Mark Olson, Tom Osthoff, Dennis Ozment, Leslie Schumacher, Kathy Tingelstad.

*Membership as of December, 2000.

LCMR Staff

John Velin, Director Dave Flipp, Susan Thornton, Yvonne Fritchie, Sandy Smith

Legislative Commission on Minnesota Resources Room 65, State Office Building, 100 Constitution Avenue, St. Paul, MN 55155

Phone: (651)296-2406 TDD: (651)296-9896 or 1-800-657-3550 Relay: (651)297-5353 or 1-800-627-3529 Fax: (651)296-1321 E-Mail: lcmr@commissions.leg.state.mn.us Web Address: www.commissions.leg.state.mn.us/lcmr/lcmr.htm

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Following the Strategic Plan:

- Environment and Natural Resources Trust Fund Constitutional Language amended November 3, 1998
- M.S. 116P The Minnesota Environment and Natural Resources Trust Fund (Trust Fund)
- M.S. 116P.13The Minnesota Future Resources Fund
- M.S. 116 Q.02 Great Lakes Protection Account
- Section 4.071, subdivision 2 Oil Overcharge

II. and III. Project Description: See Laws 1999 and Laws 1997

" a description of each project receiving money from the trust fund and Minnesota future resources fund during the preceding biennium; a summary of any research project completed in the preceding biennium..."

Laws 1999, Chapter 231, Section 16 Laws 1997, Chapter 216, Section 15

IV. Implementation

"recommendations to implement successful projects and programs into a state agency's standard operations..."

V. Recommendations

"to the extent known by the commission, descriptions of the projects anticipated to be supported by the trust fund and Minnesota future resources account during the next biennium..."

VI. Revenues and Distributions

"the source and amount of all revenues collected and distributed by the commission, including all administrative and other expenses..."

VII. Assets and Liabilities

" a description of the assets and liabilities of the trust fund and the Minnesota future resources fund..."

VIII. Findings

"any findings or recommendations that are deemed proper to assist the legislature in formulating legislation.."

IX. Gifts and Donations

"a list of all gifts and donations with a value over \$1,000..."

X. Environmental Spending Comparisons

" a comparison of the amounts spent by the state for environment and natural resources activities through the most recent fiscal year..."

XI. Compliance Audit

"a copy of the most recent compliance audit."

on Minnesota Resources

LCMR NEWSLETTER

IN THIS ISSUE NO. 12

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LCMR Members

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2001 LCMR Recommendation Process

56 natural resource and environmental projects totaling \$49 million will be recommended by the Legislative Commission on Minnesota Resources (LCMR) to the 2001 Legislature. Upon adoption by the Legislature and signature of the Governor, funding for these projects will begin in July 2001 and run through June 2003.

How are issues determined?

Site visits throughout the summer and early fall of 1999 began the process with LCMR members traveling throughout the state to speak directly with people in the field and learn about current natural resource issues.

A Metro area tour, in June 1999, included viewing a Scenic and Natural Area in Dayton, Mississippi River trail connections, Grey Cloud Island, oak wilt treatment sites; the Upper Harbor Terminal in Minneapolis, and the success of biological control on purple loosestrife exotic plants.

Members traveled to Farm Fest, located in Redwood Falls in August 1999 where a Regional Environment and Natural Resources Trust Fund Forum was held for the first time. While in the region members also visited the first acres enrolled in the Conservation Reserve Program and the Kasota Prairie, where a successful protection effort was led by local citizens.

At Rice Point Public Water Access in Duluth Harbor, members saw the effect of ship ballast introduced exotic species. Samples of round goby, ruffe, spiny water flea, and zebra mussel were displayed by Doug Jensen, from MN Sea Grant, U of M Duluth. Cody and Tom Krause, two local youth who love to fish the harbor, explained how fishing has changed drastically with the introduction of these species.

Other issues explored in the Northeast included:

- White Pine restoration
- Alternative septic treatments
- Environmental education at the Wolf RidgeEnvironmental Learning Center
- Land acquisition at Gold Rock Point
- Gitchi-Gami State Trail
- Superior Hiking Trail
- Safe Harbors, Silver Bay Partnership
- State Park Acquisition and Development

LCMR COMMISSION MEMBERS*

The LCMR members would like to express thanks to all who submitted proposals and for those who gave critical feedback and information during the planning and hearing process.

Senators

Len Price, Chair Ellen Anderson Dennis Frederickson Jerry Janezich Jane Krentz Gary Laidig Bob Lessard James Metzen Martha Robertson Jim Vickerman

Representatives

Irv Anderson Dave Bishop Steve Dehler Ron Erhardt Mark Holsten Mark Olson Tom Osthoff Dennis Ozment Leslie Schumacher Kathy Tingelstad On June 30, 1999 the Citizen Advisory Committee (CAC) finalized their areas of focus for the Environment and Natural Resources Trust Fund expenditures.

The CAC recommendations were presented for comment at four Public Natural Resource Forums. on the Environment and Natural Resources Trust Fund. The forums were conducted in St. Paul, Virginia, Rochester and Fergus Falls on September 13, 1999. LCMR members were seeking ideas and comments on strategies for the future spending priorities from organizations and the public. LCMR members and Staff, Citizen Advisory Committee members and over 120 citizen participants met to explore the question of what natural resource efforts should be supported by the Environment and Natural Resources Trust Fund. All sites were linked by Interactive TV, giving citizens a chance to hear concerns from across the state.

Individuals unable to attend were encouraged to send e-mails, letters or faxes expressing their opinions. The LCMR members used the advice from the citizen meetings and correspondences in their planning process.

Strategic Plan and

Request for Proposal Process

Itasca State Park was the site of the LCMR strategic planning session. The Citizen Advisory Committee draft strategic plan for the Trust Fund was discussed and played a significant role in the deliberations. With a vision to make large impacts in a few critical areas, the LCMR members emphasized the following strategies in the 2001 Request for Proposal:

• Improvement or Development of Recreational and Natural Systems

- Ecological Management
- Implementation of Research
- Protection and Restoration of Critical Habitat
- Environmental Education,

Response to Request for Proposal

The Request for Proposal was mailed to over

1999. An on-line version was also available at the LCMR web address.

Bemidji, St. Cloud, St. Paul, Duluth, Rochester, and Willmar were sites of the public proposal workshops held in January 2000. Reaching over 100 participants, the workshops were designed to give a brief overview of the LCMR process and request for proposal, answer questions on how to do a proposal, and provide feed back on how to develop ideas into proposals.

402 Proposals received by

February 1, 2000 Deadline

By the deadline of February 1, 2000 the LCMR had received 402 proposals, requesting \$424,298,116.

CAC Recommendations

In the Spring of 2000, 18 projects were recommended by the CAC to be considered for funding from the Environment and Natural Resources Trust Fund to the LCMR. The CAC also encouraged members to continue funding the Local Initiatives Grants Program. The CAC does not eliminate any proposal and is advisory to the LCMR.

Hearings

On June 6, 2000 the LCMR chose 107 proposals to be heard throughout the summer of 2000. With over \$182,305,000 requested dollars remaining the LCMR held hearings throughout June in St. Paul and Brainerd to narrow the proposals down to \$49 million.

Final Recommendations

The 56 projects that will be recommended to the 2001 Legislature were chosen on July 11-12, 2000 and December 5, 2000 after all the hearings were complete. The package reflects projects from all the strategies put forth by the LCMR. The commission recommended the proposal Restoring Minnesota's Fish and Wildlife Habitat Corridors for \$11,745,000, the largest dollar amount recommended on one project in the LCMR history. See side-bar for a summary of the project.

HABITAT CORRIDORS

A collaborative of public and non profit organizations are working together to restore and acquire fragmented landscape corridors that connect areas of quality habitat to sustain fish, wildlife, and plants.

The LCMR is recommending \$11,745,000 and the collaboration is matching that with \$8,342,000, for a total project of \$20,087,000.

Organizations include:

MN Waterfowl Assoc., U.S. Fish and Wildlife Service, MN Deer Hunter's Assoc, Ducks Unlimited, MN Dept. of Natural Resources, Bureau of Indian Affairs, Nat'l Wild Turkey Federation, MN Land Trust, The Nature Conservancy, Pheasants Forever, Trust for Pubic Land, U.S. Forest Service, Board of Water and Soil Resources, and the Natural Resources Conservation Services.

Project Outcomes:

Restoration and Management Programs Habitat development and restoration on over 78,820 acres of land. Lands include wetland habitat, shallow lakes, grasslands, and wild rice beds.

Conservation Easement Programs

Preserve over 9,200 acres of Minnesota's big woods forest, native prairie habitat, wetland habitats and WRP easements through conservation easements.

Habitat Acquisition Programs

Prairie habitat, riparian areas, and other wildlife habitat totally more than 4,500 acres will be protected by acquisition from willing sellers.

Mapping and Delineation

Prenare Mans identify corridors habitat dans

The total amount to be recommended by the LC	CMR to	Neighborhood Wilds Program	\$135,000
the 2001 legislature is \$49,351,000		DNR	
Administration \$1,115,000	965,000	 Recreation \$22,541,000	
	•	Metropolitan Regional Parks	\$5,645,000
	150,000	Acquisition, Rehabilitation and Developm	
		Metropolitan Council	
Fish and Wildlife Habitat \$18,280,000		Local Grants Initiative Program	\$4,005,000
	545,000	DNR	φ 1,000,000
Private Lands		Regional and Local Trail Grants	\$1,000,000
DNR		DNR	ψ1,000,000
	145,000	Outdoors for Everyone: Accessing	\$230,000
DNR		Recreational Trails and Facilities	<i>Ψ40</i> 0,000
	340,000	Wilderness Inquiry	
and Management			\$910,000
Minnesota Waterfowl Association		Water Recreation- Boat Access,	\$910,000
Biological Control of Eurasian	\$90,000	Fishing Piers and Shorefishing	
Watermilfoil and Purple Loosestrife-Continuati	ion	DNR	\$2,000,000
DNR		Grays Bay Lake Minnetonka Public	\$2,000,000
Restoring Minnesota's Fish and \$11,	745,000	Water Access	
Wildlife Habitat Corridors		City of Minnetonka	
MN Waterfowl Association		McQuade Public Access	\$500,000
Engineering Support for Public Lands	275,000	McQuade Joint Powers Board	
Waterfowl Projects		Preserving Grey Cloud Island as a	\$3,185,000
Ducks Unlimited, Inc.		Public Resource	
Metro Greenways \$2,	730,000	DNR	
DNR	•••	Land Acquisition at the Minnesota	\$730,000
Acquisition of Lands as Scientific and \$	455,000	Landscape Arboretum	
Natural Areas (SNA)		Minnesota Landscape Arboretum/ U of M	
DNR			
Big Rivers Partnership: Helping	910,000		rec
Communities to Restore Habitat	enne siste Transformer	FUNDING SOUR	
Great River Greening		MN Environment and Natu	ral Resourc
	910,000	Trust Fund \$34,620,000	• •
Creek's Last Private Land		• MN Future Resources Fund	\$14.641

Gateway Trail Bridge	\$530,000	Implementing Denitrification	\$230,000
DNR		Strategies for Minnesota's Contaminated Ad	quifers
State Trail Projects	\$910,000	U of M	•
DNR		Determination of Fecal Pollution	\$275,000
Gitchi Gami State Trail	\$910,000	Sources in Minnesota Watersheds	
DNR		U of M	
Forest History Center	\$90,000	Mississippi Headwaters Board	\$100,000
Interpretive Trail		Environmental Economic Assessments	
MN Historical Society		Mississippi Headwaters Board 🔳	
Mesabi Trail Facility	\$190,000	Land Use and Natural	
St. Louis & Lake Cty Reg. Rail Auth.		Resource Information \$1,690,000	
Regional Trailhead Building	\$135,000	Hydraulic Impacts of Quarries and	\$320,000
Itasca County Land Department		Gravel Pits	
Itasca County Fairground	\$45,000	DNR	
Conservation Building		GIS Management in Koochiching Co.	\$70,000
Itasca County Agricultural Association		Koochiching County	
Development and Rehabilitation of	\$910,000	Updating Outmoded Soil	\$500,000
Recreational Shooting Range Grants		Surveys-Continuation	
DNR		Board of Water and Soil Resources	
State Park and Recreation Area	\$616,000	Minnesota County Biological	\$800,000
Land Acquisition		Sarvey	
DNR		DNR	
		Agriculture and Natural	
Water Resources \$2,425,000		Resource Industries \$740,000	
Accelerated Implementation of Local	\$1,365,000	Evaluating Timber Harvesting and	\$200,000
Water Plan Grants		Forest Management Guidelines	
Board of Water and Soil Resources		U of M	
Alternative Storm Water System Grants	\$180,000	Agricultural Land Preservation	\$205,000
Metropolitan Council		Dept of AG/Dakota County	•
Green Infrastructure Design	\$275,000	Environmental Practices on Dairy Farms	\$245,000
Strategies in Washington, Ramsey and		Minnesota Milk Producers Association	•
Dakota Counties		Accelerated Technology Transfer for	\$90,000
U of M		Starch-Based Plastics	
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Improving Air Quality by Using	\$90,000	Burn, Plant and Learn: Restoring	\$230,000
Biodiesel in Generators	•	Upland Habitats	
U of M		Science Museum of Minnesota	
Environmental Education \$2,470,000	2	Connecting with Wildlife at the MN Zoo	\$230,000
Uncommon Ground: An Educational	\$455,000	Minnesota Zoo	teta ang bang bang Kabupatèn Kabupatèn K
Television Series		Project Green Start: Environmental	\$340,000
U of M - Institute for Sustainable Resources (INSR)	Education	
WaterScapes: Outdoor Non-Point	\$265,000	Minnesota Children's Museum	
Source Pollution Education		Raptor Propagation: Student Education	\$35,000
Science Museum of Minnesota		Stillwater Area High School	
Sustainable Inner City Communities	\$545,000	Hennepin Parks Farm Education	\$100,000
through Environmental Literacy		Suburban Hennepin Regional Park District	
Sabathani Community Center		Residential Environmental Education	\$90,000
Integrated Pest Management in Schools	\$180,000	for Youth	
Dept of AG		Courage Camps Residential Environmental I Center	_earning
RECOMMENDATION	S Env	vironmental Education: 5%	
AT A GLANCE	Energy:	Administration: 2%	
en en en en en en en "age annoren a en pa esta anno		$\langle \uparrow \uparrow \rangle$	
Percentage of total dollars being recommended to 2001 Legislature.			
recommended to 2001 Legislature.			
			h and Wildlife

Recreation: 45.5%

Habi tat

37%

Water Resources:

5%



CITIZEN ADVISORY COMMITTEE FOR THE TRUST FUND

The Citizen Advisory Committee is eleven citizen members appointed by the Governor to advise the LCMR on the Strategic Plan for expenditures on the Environment and Natural Resources Trust Fund.

The governor appoints at least one member from each congressional district and also the chair. (M.S. 116P.06)

Nancy Gibson, Chair; Kristin Eggerling,
Emily Fruchtman, Greta Hesse Gauthier,
Guy Glover, Ann Glumac, Jeffrey Johnson,
John Kvasnicka, William Oemichen,
Nancy M. Reynolds, Marvin Tinklenberg.
Membership as of December, 2000.

SAVE A TREE

Please send an e-mail to: lcmr@commissions.leg. state.mn.us if interested in receiving the newsletters and updates in electronic format.

This newsletter is also posted on the LCMR Web page. Address: www.commissions.leg.state. mn.us/lcmr/lcmr.htm

LCMR, along with the	on the LCMR pages:	continue to include an	CONIACI ,
entire Minnesota Legislature, successfully launched a new web design.	•The Environment and Natural Resources Trust Fund section.	updated LCMR meeting schedule, project abstracts from completed and current projects and	INFO
The content of the pages have not changed as much as the presentation.	• Look for more publications and reports found under LCMR Publications.	LCMR member contact information. LCMR web address:	LCMR STAFF: John Velin, Director Dave Flipp
The site is ADA compliant and the hopes are that with the redesign information is easier to retrieve for	• Project Manager Information. The pages include a Frequently asked Questions Section,	www.commissions.leg.state. mn.us/lcmr/lcmr.htm Send us an e-mail if you have any questions or	Susan Thornton Yvonne Fritchie Sandy Smith
everyone. There are a few new	templates for workprogram reports and budget pages.	comments on the redesign.	Information from this Newsletter may be

Legislative Commission on Minnesota Resources 100 Constitution Avenue Room 65, State Office Building St. Paul, MN 55155 First Class Mail U.S. Postage Paid Permit No. 171 St. Paul, MN

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Any suggestions or questions can be addressed to: LCMR Room 65, State Office Building, 100 Constitution Avenue, St. Paul, MN 55155 Phone: (651)296-2406 TDD: (651)296-9896 1-800-657-3550 Relay: (651)297-5353 or 1-800-627-3529 Fax: (651)296-1321

copied and distributed to others. This publication

can be made available in alternate formats, such as large print or cassette

tape, upon request.

Web Address: www.commissions.leg.state. mn.us/lcmr/lcmr.htm

E-mail:

I. Strategic Plan

" a copy of the current strategic plan…"

Following the Strategic Plan:

• Environment and Natural Resources Trust Fund Constitutional Language amended November 3, 1998 (p.1)

• M.S. 116P The Minnesota Environment and Natural Resources Trust Fund (Trust Fund) (p.2)

• M.S. 116P.13The Minnesota Future Resources Fund (p.13)

• M.S. 116 Q.02 Great Lakes Protection Account (p.14)

• Section 4.071, subdivision 2 Oil Overcharge (p.15)

Legislative Commission on Minnesota Resources

Request for Proposal for Funding Beginning July 2001

Open to Everyone

Project Implementation

jects are intended for a two-year duration (July 2001 to June 2003), however, LCMR will consider rununig sources.

Minnesota Environment and Natural Resource Trust Fund (Trust Fund)

Minnesota Future Resources Fund

Great Lakes Protection Account

Total Amount Available \$44 Million

Applications must be received at the LCMR office or postmarked by February 1, 2000.

The LCMR will be accepting proposals for projects in 5 priority areas:

Improvement or Development of Recreational and Natural Systems

Ecological Management

Implementation of Research

Protection and Restoration of Critical Habitat

Environmental Education

November, 1999



LCMR COMMISSION MEMBERS

SENATORS: Leonard Price, Chair Dennis Frederickson Jerry Janezich Jane Krentz Gary Laidig Bob Lessard James Metzen Martha Robertson Jim Vickerman

REPRESENTATIVES:

Irv Anderson Dave Bishop Steve Dehler Ron Erhardt Mark Holsten Mark Olson Dennis Ozment Tom Osthoff Leslie Schumacher Kathy Tingelstad

CITIZEN ADVISORY COMMITTEE FOR THE TRUST FUND Nancy Gibson, Chair Emily Fruchtman Greta Hesse Gauthier Guy Glover Ann Glumac Jeffrey Johnson John Kvasnicka William Oemichen Nancy M. Reynolds

Marchine The March and

The spirit and intent of LCMR is to provide access to EVERYONE who has ideas for innovation and acceleration in environment and natural resource issues, tempered by the Adopted Funding Priorities and having a distinctive public benefit.

No grant-making or lobbying assistance is necessary for success. The LCMR staff will assist all proposers in their proposal development.

REQUEST FOR PROPOSAL FOR FUNDING BEGINNING JULY 2001 <u>NEED ASSISTANCE?</u> <u>ELIGIBILITY:</u>

LCMR staff are available by phone, e-mail, or by appointment and will also conduct proposal workshops in various locations throughout the state December 7-8, 1999 and January 5-11, 2000. See page 10 for workshop locations.

Any changes or additions to the workshop schedule will be posted on our web page:

www.commissions.leg.state.mn.us/ lcmr/lcmr.htm

Phone:(651)296-2406 Fax:(651) 296-1321 TDD: (651)296-9896 or 1-800-657-3550 Relay:(651)297-5353 or 1-800-627-3529 E-mail: Icmr@commissions.leg.state.mn.us Application is open to all provided there is a demonstrated public benefit. The LCMR is an ADA/ equal opportunity employer.

DEADLINE FOR SUBMISSION:

Received or <u>postmarked</u> no later than February 1, 2000. *Proposals sent by e-mail or fax cannot be accepted*.

SUBMIT TO:

Legislative Commission on Minnesota Resources Room 65, State Office Building 100 Constitution Avenue St. Paul, MN 55155

THE PROPOSAL SHOULD ADDRESS ONE OR MORE OF THE FIVE PRIORITIES: IMPROVEMENT OR DEVELOPMENT OF RECREATIONAL AND NATURAL SYSTEMS:

Issue: Increased demand on our parks and trails is jeopardizing the integrity of natural systems and recreational facilities.

Funding Priority: Improve, develop or acquire* state, regional, metro, local parks, recreation areas and trails with an emphasis on connecting recreational systems.

Projects qualifying for the Local Grants Initiative Program, State and Metro Parks, Recreation Areas and Trails MUST apply to those programs. See page 5 for details.

D ECOLOGICAL MANAGEMENT :

Issue: Minnesota's natural resources are threatened by inappropriate and unsustainable use.

Funding Priority: Accelerate farming, forestry, tourism, and mining practices that protect the environment, human health and area economic vitality, and that enhance fish and wildlife habitat.

□ IMPLEMENTATION OF RESEARCH:

Issue: The environment is not benefiting fully from the existing wealth of research and information, resulting in inefficient use of funds and expertise.

Funding Priority: Increase utilization and application of environmental and/or natural resource research and information to address natural resource or human health concerns.

□ PROTECTION AND RESTORATION OF CRITICAL HABITAT:

Issue: The health, diversity and survivability of our native fish, animals, insects, and plant species are threatened by landscape fragmentation, indifferent land use policies, and pollution.

Funding Priority: Identify, acquire*, protect, and restore habitat corridors and other critical habitat of sufficient quality and quantity to promote the survival of plants and wildlife. This includes the enhancement of hunting and fishing.

D ENVIRONMENTAL EDUCATION:

Issue: Understanding of and appreciation for the environment needs to be developed through lifelong learning.

Funding Priority: Implement environmental education activities consistent with the Greenprint Statewide Plan for Environmental Education in Minnesota, with an emphasis on local government officials and community groups. The priority is for implementation of noncapital programmatic activities carried out through partnerships. This includes hunting and fishing interests.

*Acquisition may include conservation easements and purchase/transfer of development rights

LOCAL GRANTS INITIATIVE PROGRAM:

The LCMR is recommending at least \$8.5 million to the matching grants program in the Department of Natural Resources (DNR) for Local Grants Initiatives for the following types of projects:

- D NATURAL AND SCENIC AREA GRANT PROGRAM
- OUTDOOR RECREATION GRANT PROGRAM
- LOCAL TRAIL CONNECTIONS GRANT PROGRAM
- REGIONAL TRAIL GRANT PROGRAM
- ENVIRONMENTAL PARTNERSHIPS PROGRAM
- CONSERVATION PARTNERS PROGRAM

Proposals eligible for funding through the Local Grants Initiative. Program will not be considered directly by the LCMR.

DO NOT SUBMIT PROPOSALS TO THE LCMR, SUBMIT DIRECTLY TO THE LOCAL GRANTS INITIATIVE PROGRAM.

For further information about the Local Grants Initiative Program and submitting a proposal contact :

Local Grants Initiative Program, DNR Office of Management and Budget Services 500 Lafayette Road, Box 10 St. Paul, MN 55155-4010 Phone: (651)296-1567 e-mail: wayne.sames@dnr.state.mn.us

STATE AND METRO PARKS, RECREATION AREAS AND TRAILS:

State and Metro regional park, recreation area and trail needs for acceleration of acquisition, development, rehabilitation and enhancement as described in MS 116P.02, Subd. 5 (includes in the definition of natural resources, the state recreation system and the metro regional recreation system).

Projects eligible for funding through the Metro Parks and Open Space program will only be considered as part of the Metro Council and Parks Open Space Commission Capital Improvement Program. The LCMR intends to recommend money to support the State and Metro Parks, Recreation Areas and Trails program during the bioppium beginning July 2001 Funding Priorities are reviewed and adopted every two years.

The priorities are for projects to begin July 2001.

<u>PRIORITY:</u> The order of the Funding Priorities does not reflect any other prioritization.

Although other proposals may be considered, adopted priorities will be given first consideration.

<u>FUNDING SOURCE:</u> \$44 Million Available

The priorities apply to all funding sources.

Proposers are requested to respond to a funding priority area not a funding source.

REINVEST IN MINNESOTA: RIM related activities are eligible and may be recommended for funding by the LCMR. Only proposals received by the deadline in the proper format specified in this RFP will qualify for consideration.

SUBMISSION REQUIREMENTS: 3 ITEMS

Project title should be clearly marked on each page.

PROPOSAL

Send 3 copies of proposal (maximum of three 8 $1/2 \times 11$ sheets - single sided).

The proposal must be in the format explained on pages 7-8 and is limited to three single sided pages.

Minimum font-type size is 12. This page is typeset on 12 points.

The proposal format is designed to provide concise information. It begins with a brief project summary and statement of results, followed by a description of specific project results and budgets associated with completion of the activities of the project.

J PROJECT MANAGER QUALIFICATIONS

Description of qualifications and responsibilities of Project Manager as pertains to project proposal (one copy, one page single sided).

One $8 1/2 \times 11$ sheet, should be easy to duplicate. Be specific to the project. Maps should be clearly legible, with enough orientation to bring a reader to a quick understanding of the location of project within the region and state.

TEMPLATE AND SAMPLE PROPOSAL

A template of the proposal format and a sample proposal are available on the LCMR web page at www.commissions.leg.state.mn.us/lcmr/lcmr.htm Maximum length: Three 8 1/2 x 11 sheets single sided. The proposal is composed of the following sections: (Italics are instructions and not to be repeated in the proposal.)

LCMR Proposal 2001 (repeat this phrase in the upper left hand corner) Title: (limit 8 words) -repeat on each page submitted, including submissions of qualifications and map.

Total Biennial Project Budget: (requested) \$

Funding Priority: (state the title of the priority responding to, e.g. Ecological Management)

Project Manager: (One name only. Note: list team members under IV. C. Project Partners) Affiliation:

Mailing Address:

Telephone Number: *(be sure to provide a reliable contact name and phone number in case of questions)* E-Mail: *(if available*)

Fax: *(if available*)

Web Address: (if available)

Location: (Where will the work impact? Be as specific as possible e.g. county, city, township, stream or lake name, etc.)

I. PROJECT SUMMARY AND RESULTS:

Be specific. Provide a clear, concise summary of the proposed project and its results. The summary is limited to 30 words and must be a free standing summation of the project. It is important that the summary be able to stand on its own as a description of the proposal because it will be used with the project title as the project description during the proposal review.

II. DESCRIPTION OF PROJECT RESULTS:

Break the project into discrete results. Be specific. For example, indicate miles of trail acquired and developed, acres impacted, number of people reached. Indicate the budget for each result. Assign a lump sum cost (budget) to each discrete result you propose.

FOR EXAMPLE:

Result 1 " Title of Activity" with description of activity

Result 2 " Title of Activity" with description of activity

Result 3 "*Title of Activity" with description of activity*

Further break down that result budget number into these categories: Personnel (who is getting paid to do what, % for the project period):\$ Equipment (what equipment – a general description and cost):\$ Development (improvement to the land or building):\$ Acquisition (how many acres, budget):\$

III. TOTAL PROJECT REQUEST BUDGET:

All Results: Personnel:\$ All Results: Equipment:\$ All Results: Development:\$ All Results: Acquisition:\$ All Results: Other: \$ TOTAL BUDGET: \$

IV. PAST, PRESENT AND FUTURE SPENDING: What other money (and its source) will be spent on the proposed project?

A. Past Spending: *Specifically list money spent previously on the project, cash or inkind.*

B. Current and Future Spending:

What additional money will be spent on the project during the funding period, cash or inkind? What additional money is anticipated to be spent after the project completion, cash or inkind?

C. Project Partners:

If the project has cooperators (project team), list names and agency/entity affiliate.

Specifically state the percent time spent on the project and the money which will be contributed, cash or inkind from the project partners during the project. What additional money is anticipated to be spent after the project completion, cash or inkind?

D. Time:

If the proposed project will exceed two years, explain the additional time and funding requirements.

LCMR members will review all of the proposals for consideration. No proposals will be eliminated by the staff. LCMR staff will sort all proposals by Funding Priority Area and rank them according to the criteria for use by the LCMR members during their initial selection process.

In addition to the weighted criteria, consideration will be

given to proposals demonstrating the leveraging of nonstate project money toward implementation and an ability to meet more than one priority

LEVERAGING

2 (23)

Leveraging is encouraged and will be reviewed as part of the Past, Present and Future Spending section of the proposals.

MULTIPLE PRIORITIES Meeting multiple strategies is encouraged and will bé considered in revaluating proposals

RE RE RE

Project Managers and partners must be accountable and able to complete project objectives.

Trust Fund expenditures must conform to the Trust Fund law (MS 116P.08).

The following criteria will be applied as one part of the proposal evaluation and recommendation process. The total potential score for each criterion is written in parentheses. All points will be awarded on a sliding scale. Critéria will be applied as one of the screening tools by LCMR members in selecting projects for a hearing.

Total maximum points = 50

□ FOCUS OF SUSTAINABILITY

The LCMR is interested in projects that promote a sustainable approach. To be sustainable, a project should be compatible. with the natural system and balance the benefits to the environment, the community, and the economy. (Up to10)

ADDRESSES FUNDING PRIORITY

(Up to 9) listed on page 5.

RESULTS

Provide for a critical assessment of the project and clear, demonstrated results. (Up to 9)

PARTNERSHIPS

Demonstrates a cooperative and coordinated approach including the sharing of costs and/or workload. (Up to 9)

STATEWIDE SIGNIFICANCE Ο

(Up to 7)

DISSEMINATION

Provides data, reports, materials, etc. to the public and other potential users in a readily useable form. (Up to 3)

INFORMATION BASE

Provides a significant, demonstrated addition to the public environmental and natural resource information base. (Up to 3)

LCMR staff are available to assist proposers and answer any questions or review draft proposals. The format is designed to be simple and does NOT require professional grantsmaking assistance or lobbying efforts.

LCMR staff will conduct six informational proposal workshops for people who intend to respond to the LCMR Request for Proposals. It is not necessary to attend a workshop, and if you cannot attend a workshop, staff can assist you by phone, e-mail, fax or by appointment.

Phone: (651)296-2406 Fax: (651)296-1321 e-mail:

Icmr@commissions.leg.state.mn.us

If you have special needs that may necessitate accommodations at the meeting, please call Yvonn'e Fritchie at (651)296-2406 or e-mail at Icmr@commissions.leg.state.mn.us

See our web page for more details at www.commissions.leg.state.mn.us/lcmr/ lcmr.htm

For staff planning purposes RSVP as to which workshop you are likely to attend. Please bring a rough draft of your proposal to the workshop.

BEMIDJI TUESDAY, DECEMBER 7, 1999 7 PM - 9 PM Crying Wolf Room Lower Hobson Union Bemidji State University 1500 Birchmont Drive N.E. *ST. CLOUD* WEDNESDAY, DECEMBER 8, 1999 2 PM - 4 PM City Council Chambers 400 2nd Street South St. Cloud, MN 56301

ST. PAUL

WEDNESDAY, JANUARY 5, 2000 1 PM - 3 PM State Office Building, Room 5 100 Constitution Avenue St. Paul, MN 55155

DULUTH

THURSDAY, JANUARY 6, 2000 2 PM -4 PM City Hall 330 City Hall 411 West First Street Duluth, MN 55802

ROCHESTER

MONDAY, JANUARY 10, 2000 1 PM – 3 PM Coffman Center Rochester Community and Technical College Room 206-208 851 30th Avenue SE Rochester, MN 55904

WILLMAR TUESDAY, JANUARY 11, 2000 2 PM - 4 PM

Conference Center Ridgewater College, Willmar Campus 2101 15th Avenue NW

÷	August	<u>1999</u>	August	AUGUST 1, 2000: FINAL LCMR RECOMMENDATIONS
		SUMMER AND FALL 1999: RESOURCE EVALUATION AND SITE VISITS		FINAL LUMR RECOMMENDATIONS
•	September	AUGUST AND SEPTEMBER 1999: PUBLIC NATURAL RESOURCE FORUMS, FORUMS HELD IN REDWOOD FALLS, ST PAUL, VIRGINIA, ROCHESTER AND	September	FALL 2000: WORK PROGRAMS DUE TO LCMR ON RECOMMENDED PROJECTS
	October	FERGUS FALLS	October	FALL 2000: RESEARCH PROJECTS PEER REVIEW
	November	NOVEMBER 1999: REQUEST FOR PROPOSAL ISSUED	November	
	December	DECEMBER 7-8: PROPOSAL DEVELOPMENT WORKSHOPS	December	2001
•	January	2000 JANUARY 5-11, 2000: PROPOSAL DEVELOPMENT WORKSHOPS	January	2001 JANUARY 2001: LCMR RECOMMENDATIONS PRESENTED TO THE LEGISLATURE
	February	FEBRUARY 1, 2000: PROPOSALS DUE	February	JANUARY-MAY 2001: LEGISLATIVE REVIEW AND APPROPRIATION
•	March	FEBRUARY-MAY, 2000: PROJECT RANKING AND OUTSIDE REVIEW	March	
	April	APRIL 2000: CITIZEN ADVISORY COMMITTEE REVIEW	April	
•	May	SPRING-SUMMER 2000: LCMR SELECTION FOR FURTHER CONSIDERATION. A LIMITED NUMBER OF PROPOSALS WILL BE CHOSEN FOR	May	MAY 2001: FINAL LEGISLATIVE ACTION ON PROPOSALS
•	June	HEARINGS. ALL PROPOSERS WILL BE NOTIFIED (FIRST CUT)	June	JUNE 2001: WORK PROGRAMS ADOPTED BY LCMR
	1	JUNE- JULY 2000: LCMR HEARINGS ON PROPOSALS	July	JULY 2001-JUNE 2003: PROJECT IMPLEMENTATION

PROJECT IMPLEMENTATION

Projects are intended for a two-year duration (July 2001 to June 2003), however, LCMR will consider requests for multiple biennium funding. No expenditures will be allowed after June 30, 2003 unless requested and approved by specific law.

TOTAL AMOUNT AVAILABLE

\$44 Million, estimated as of October 1999.

FUNDING SOURCES

Minnesota Future Resources Fund (MS 116P.13), estimated amount available \$14 Million

Minnesota Environment and Natural Resource Trust Fund (Trust Fund) (MS 116P.08), estimated amount available \$30 Million

Great Lakes Protection Account (MS 116Q.02), estimated amount available \$200,000

ELIGIBLE COSTS

Eligible costs are those costs <u>directly</u> incurred by the Recipient that are <u>solely related</u> to and necessary for producing the work products described in the approved Work Program during the appropriation period. Any cost not defined as an eligible cost or not included in the approved Work Program or formally approved in writing by the State will not be paid from State funds. All dollars are awarded on a reimbursement basis, unless specifically authorized.

Eligible costs may include the following:

- Expenditures incurred only after the effective date in the approved work program. No expenditures will be allowed after June 30, 2003 unless approved by specific law.
 Advertising costs solely for (a) Recruitment of personnel; (b) Solicitation of bids; (c)
 - Other purposes specifically provided for in the proposal,
- 3. Capital expenditures for facilities, equipment and other capital assets. Equipment expenditures of \$3500 per unit or more, must be specifically listed in proposal within the description of project results budget.
- 4. Communication costs incurred for telephone calls, postage, & similar services.
- 5. Materials & supplies and incoming freight charges for them.
- 6. Publication & printing costs (including the processes of composition, plate-making, press work, & binding, and the end products produced) necessary for contract administration; work products production; and progress reports relating to work program accomplishments.
- 7. Educational program expenses such as conferences, seminars, books, materials and supplies; directly applicable to the project.
- Transportation and travel expenses such as lodging, meals, and mileage of personnel involved in the Project in the same manner and in no greater amount than provided for in the current "Commissioner's Plan" promulgated by the Commissioner of Employee Relations; found at http://www.doer.state.mn.us/lr-cmrpl/chptr-15.htm.
 Wages and expenses of salaried Recipient employees if specified.
- 10. Fringe benefit costs of Recipient's employees if specified.
- 10. Infige benefit costs of Recipient's employees it specified.

NONELIGIBLE COSTS

Noneligible costs for reimbursement means all costs not defined as eligible costs, including but not limited to the following:

- 1. Indirect Costs
- 2. Any costs incurred before the project is authorized to begin, July 1, 2001 or work program approval, whichever is the later
- 3. Fund raising
- 4. Taxes, except sales tax on goods and services
- 5. Insurance, except title insurance
- 6. Attorney fees; except for acquisition and clearing title to land
- 7. Loans, grants, or subsidies to persons or entities for development
- 8. Bad debts or contingency funds
- 9. Interest
- 10. Lobbyists
- 11. Political contributions
- 12. Investment Management Fees
- 13. Memberships
- 14. Public utilities such as water, sewage, electricity
- 15. Maintenance and repairs incurred for upkeep of property unless specifically authorized.
- 16. Administrative expenses such as accounting and budgeting.
- 17. Out of State Travel of project personnel and/or consultants unless specifically authorized.
- 18. Directors or Officers salary unless expressly approved in the Work Program together with a plan of activities and actual work products.
- 19. For State employees; Salaries and benefits unless in the unclassified service or expressly approved in the work program.

In addition, all projects are subject to the following requirements located at: http://www.commissions.leg.state.mn.us/lcmr/lcmr.htm

Accessibility Data Availability Purchase of Recycled and Recyclable Material Requirements Energy Conservation Land Acquisition LCMR STAFF: John Velin, Director Dave Flipp, Susan Thornton, Mary Lou Kendle, Yvonne Fritchie

Information from this RFP may be copied and distributed to others. This publication can be made available in alternate formats, such as large print or cassette tape, upon request.

Any suggestions or questions can be addressed to:

LCMR

Room 65, State Office Building, 100 Constitution Avenue, St. Paul, MN 55155

Phone (651)296-2406 FDD (651)296-9896 or 1-800-657-3550 Relay: (651)297-5353 or 1-800-627-3529 Fax: (651)296-1321

E-Mail 🖓

icnn@commissions.leg.state.mn.us

LCMR 100 Constitution Avenue Room 65, State Office Building St. Paul, MN 55155



For a more complete review of the LCMR activities go to:

www.commissions.leg.state.mn.us/lcmr/ lcmr.htm

□ Who is the LCMR

Funding Sources

Trust Fund Constitutional Amendment

Trust Fund law MS 116P

□ Summary of Past Projects

List of 1991-1999 Funded Projects and Abstracts

□ 1999-2000 Schedule

a Additional Proposal Information



Sec. 14. ENVIRONMENT AND NATURAL RESOURCES FUND.

A permanent environment and natural resources trust fund is established in the state treasury. Loans may be made of up to five percent of the principal of the fund for water system improvements as provided by law. The assets of the fund shall be appropriated by law for the public purpose of protection, conservation, preservation, and enhancement of the state's air, water, land, fish, wildlife, and other natural resources. The amount appropriated each year of a biennium, commencing on July 1 in each odd-numbered year and ending on and including June 30 in the next odd-numbered year, may be up to 5-1/2 percent of the market value of the fund on June 30 one year before the start of the biennium. Not less than 40 percent of the net proceeds from any state-operated lottery must be credited to the fund until the year 2025. [Adopted, November 8, 1988; Amended, November 6, 1990; November 3, 1998]

Minnesota Statutes 1999, Chapter 116P.

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116P.01 Findings.

The legislature finds that all Minnesotans share the responsibility to ensure wise stewardship of the state's environment and natural resources for the benefit of current citizens and future generations. Proper management of the state's environment and natural resources includes and requires foresight, planning, and long-term activities that allow the state to preserve its high quality environment and provides for wise use of its natural resources. The legislature also finds that to undertake such activities properly, a long-term, consistent, and stable source of funding must be provided.

HIST: 1988 c 690 art 1 s 5

116P.02 Definitions.

Subdivision 1. Applicability. The definitions in this section apply to sections 116P.01 to 116P.13.

Subd. 2. Advisory committee. "Advisory committee" means the advisory committee created in section 116P.06.

Subd. 3. Board. "Board" means the state board of investment.

Subd. 4. Commission. "Commission" means the legislative commission on Minnesota resources.

Subd. 5. Natural resources. "Natural resources" includes the outdoor recreation system under section 86A.04 and regional recreation open space systems as defined under section 473.351, subdivision 1.

Subd. 6. Trust fund. "Trust fund" means the Minnesota environment and natural resources trust fund established under Minnesota Constitution, article XI, section 14.

HIST: 1988 c 690 art 1 s 6; 1989 c 335 art 1 s 269

116P.03 Trust fund not to supplant existing funding.

(a) The trust fund may not be used as a substitute for traditional sources of funding environmental and natural resources activities, but the trust fund shall supplement the traditional sources, including those sources used to support the criteria in section 116P.08, subdivision 1. The trust fund must be used primarily to support activities whose benefits become available only over an extended period of time.

(b) The commission must determine the amount of the state budget spent from traditional sources to fund environmental and natural resources activities before and after the trust fund is established and include a comparison of the amount in the report under section 116P.09, subdivision 7.

HIST: 1988 c 690 art 1 s 7

116P.04 Trust fund account.

Subdivision 1. Establishment of account and investment. A Minnesota environment and natural resources trust fund, under article XI, section 14, of the Minnesota Constitution, is established as an account in the state treasury. The commissioner of finance shall credit to the trust fund the amounts authorized under this section and section 116P.10. The state board of investment shall ensure that trust fund money is invested under section 11A.24. All money earned by the trust fund must be credited to the trust fund. The principal of the trust fund and any unexpended earnings must be invested and reinvested by the state board of investment.

Subd. 2. Repealed, 1990 c 610 art 1 s 59

Subd. 3. Revenue. Nothing in sections 116P.01 to 116P.12 limits the source of contributions to the trust fund.

Subd. 4. Gifts and donations. Gifts and donations, including land or interests in land, may be made to the trust fund. Noncash gifts and donations must be disposed of for cash as soon as the board prudently can maximize the value of the gift or donation. Gifts and donations of marketable securities may be held or be disposed of for cash at the option of the board. The cash receipts of gifts and donations of cash or capital assets and marketable securities disposed of for cash must be credited immediately to the principal of the trust fund. The value of marketable securities at the time the gift or donation is made must be credited to the principal of the trust fund and any earnings from the marketable securities are earnings of the trust fund.

Subd. 5. Audits required. The legislative auditor shall audit trust fund expenditures to ensure that the money is spent for the purposes provided in the commission's budget plan.

HIST: 1988 c 690 art 1 s 8; 1990 c 610 art 1 s 44; 1991 c 343 s 1

116P.05 Legislative commission on Minnesota resources.

Subdivision 1. Membership. (a) A legislative commission on Minnesota resources of 20 members is created, consisting of the chairs of the house and senate committees on <u>environment and natural resources</u> or designees appointed for the terms of the chairs, the chairs of the house and senate committees on <u>environment and natural resources finance</u> or designees appointed for the terms of the chairs, the chairs of the house ways and means and senate finance committees or designees appointed for the terms of the chairs, seven members of the senate appointed by the subcommittee on committees of the committee on rules and administration, and seven members of the house appointed by the speaker.

At least three members from the senate and three members from the house must be from the minority caucus. Members are entitled to reimbursement for per diem expenses plus travel expenses incurred in the services of the commission.

(b) Members shall appoint a chair who shall preside and convene meetings as often as necessary to conduct duties prescribed by this chapter.

(c) Members shall serve on the commission until their successors are appointed.

(d) Vacancies occurring on the commission shall not affect the authority of the remaining members of the commission to carry out their duties, and vacancies shall be filled in the same manner under paragraph (a).

Subd. 2. Duties. (a) The commission shall recommend a budget plan for expenditures from the environment and natural resources trust fund and shall adopt a strategic plan as provided in section 116P.08.

(b) The commission shall recommend expenditures to the legislature from the Minnesota future resources fund under section 116P.13.

(c) It is a condition of acceptance of the appropriations made from the Minnesota future resources fund, Minnesota environment and natural resources trust fund, and oil overcharge money under section 4.071, subdivision 2, that the agency or entity receiving the appropriation must submit a work program and semiannual progress reports in the form determined by the legislative commission on Minnesota resources. None of the money provided may be spent unless the commission has approved the pertinent work program.

(d) The peer review panel created under section 116P.08 must also review, comment, and report to the commission on research proposals applying for an appropriation from the Minnesota resources fund and from oil overcharge money under section 4.071, subdivision 2.

(e) The commission may adopt operating procedures to fulfill its duties under sections 116P.01 to 116P.13.

HIST: 1988 c 690 art 1 s 9; 1989 c 335 art 1 s 269; 1990 c 594 art 1 s 56; 1991 c 254 art 2 s 39; 1991 c 343 s 2; 1993 c 4 s 15; 1994 c 580 s 1; 1997 c 202 art 2 s 36

116P.06 Advisory committee.

Subdivision 1. Membership. (a) An advisory committee of 11 citizen members shall be appointed by the governor to advise the legislative commission on Minnesota resources on project proposals to receive funding from the trust fund and the development of budget and strategic plans. The governor shall appoint at least one member from each congressional district. The governor shall appoint the chair.

(b) The governor's appointees must be confirmed with the advice and consent of the senate. The membership terms, compensation, removal, and filling of vacancies for citizen members of the advisory committee are governed by section 15.0575.

Subd. 2. Duties. (a) The advisory committee shall:

(1) prepare and submit to the commission a draft strategic plan to guide expenditures from the trust fund;

(2) review the reinvest in Minnesota program during development of the draft strategic plan;

(3) gather input from the resources congress during development of the draft strategic plan;

(4) advise the commission on project proposals to receive funding from the trust fund; and

(5) advise the commission on development of the budget plan.

(b) The advisory committee may review all project proposals for funding and may make recommendations to the commission on whether the projects:

(1) meet the standards and funding categories set forth in sections 116P.01 to 116P.12;

(2) duplicate existing federal, state, or local projects being conducted within the state; and

(3) are consistent with the most recent strategic plan adopted by the commission.

HIST: 1988 c 690 art 1 s 10; 1989 c 335 art 1 s 269; 1991 c 254 art 2 s 40; 1991 c 343 s 3

* NOTE: See section 15.059, subdivision 5a, for expiration *of environment and natural resources trust fund advisory *committee.

116P.07 Resources congress.

The commission must convene a resources congress at least once every biennium and shall develop procedures for the congress. The congress must be open to all interested individuals. The purpose of the congress is to collect public input necessary to allow the commission, with the advice of the advisory committee, to develop a strategic plan to guide expenditures from the trust fund. The congress also may be convened to receive and review reports on trust fund projects. The congress shall also review the reinvest in Minnesota program.

HIST: 1988 c 690 art 1 s 11; 1991 c 254 art 2 s 41; 1991 c 343 s 4

116P.08 Trust fund expenditures; exceptions; plans.

Subdivision 1. Expenditures. Money in the trust fund may be spent only for:

(1) the reinvest in Minnesota program as provided in section 84.95, subdivision 2;

(2) research that contributes to increasing the effectiveness of protecting or managing the state's environment or natural resources;

(3) collection and analysis of information that assists in developing the state's environmental and natural resources policies;

(4) enhancement of public education, awareness, and understanding necessary for the protection, conservation, restoration, and enhancement of air, land, water, forests, fish, wildlife, and other natural resources;

(5) capital projects for the preservation and protection of unique natural resources;

(6) activities that preserve or enhance fish, wildlife, land, air, water, and other natural resources that otherwise may be substantially impaired or destroyed in any area of the state;

(7) administrative and investment expenses incurred by the state board of investment in investing deposits to the trust fund; and

(8) administrative expenses subject to the limits in section 116P.09.

Subd. 2. Exceptions. Money from the trust fund may not be spent for:

(1) purposes of environmental compensation and liability under chapter 115B and response actions under chapter 115C;

(2) purposes of municipal water pollution control under the authority of chapters 115 and 116, including combined sewer overflow under section 116.162;

(3) costs associated with the decommissioning of nuclear power plants;

(4) hazardous waste disposal facilities;

(5) solid waste disposal facilities; or

(6) projects or purposes inconsistent with the strategic plan.

Subd. 3. Strategic plan required. (a) The commission shall adopt a strategic plan for making expenditures from the trust fund, including identifying the priority areas for funding for the next six years. The strategic plan must be updated every two years. The plan is advisory only. The commission shall submit the plan, as a recommendation, to the house of representatives appropriations and senate finance committees by January 1 of each odd-numbered year.

(b) The commission may accept or modify the draft of the strategic plan submitted to it by the advisory committee before voting on the plan's adoption.

Subd. 4. Budget plan. (a) Funding may be provided only for those projects that meet the categories established in subdivision 1.

(b) Projects submitted to the commission for funding may be referred to the advisory committee for recommendation.

(c) The commission must adopt a budget plan to make expenditures from the trust fund for the purposes provided in subdivision 1. The budget plan must be submitted to the governor for inclusion in the biennial budget and supplemental budget submitted to the legislature.

(d) Money in the trust fund may not be spent except under an appropriation by law.

Subd. 5. Public meetings. All advisory committee and commission meetings must be open to the public. The commission shall attempt to meet at least once in each of the state's congressional districts during each biennium.

Subd. 6. Peer review. (a) Research proposals must include a stated purpose, timeline, potential outcomes, and an explanation of the need for the research. All research proposals must be reviewed by a peer review panel before receiving an appropriation.

(b) In conducting research proposal reviews, the peer review panel shall:

(1) comment on the methodology proposed and whether it can be expected to yield appropriate and useful information and data;

(2) comment on the need for the research and about similar
existing information available, if any; and

(3) report to the commission and advisory committee on clauses (1) and (2).

(c) The peer review panel also must review completed research proposals that have received an appropriation and comment and report upon whether the project reached the intended goals.

Subd. 7. Peer review panel membership. (a) The peer review panel must consist of at least five members who are knowledgeable in general research methods in the areas of environment and natural resources. Not more than two members of the panel may be employees of state agencies in Minnesota.

(b) The commission shall select a chair every two years who shall be responsible for convening meetings of the panel as often as is necessary to fulfill its duties as prescribed in this section. Compensation of panel members is governed by section 15.059, subdivision 3.

HIST: 1988 c 690 art 1 s 12; 1989 c 335 art 1 s 178; 1991 c 254 art 2 s 42,43; 1991 c 343 s 5,6; 1994 c 580 s 2,3

116P.09 Administration.

Subdivision 1. Administrative authority. The commission may appoint legal and other personnel and consultants necessary to carry out functions and duties of the commission. Permanent employees shall be in the unclassified service. In addition, the commission may request staff assistance and data from any other agency of state government as needed for the execution of the responsibilities of the commission and advisory committee and an agency must promptly furnish it.

Subd. 2. Liaison officers. The commission shall request each department or agency head of all state agencies with a direct interest and responsibility in any phase of environment and natural resources to appoint, and the latter shall appoint for the agency, a liaison officer who shall work closely with the commission and its staff.

Subd. 3. Appraisal and evaluation. The commission shall obtain and appraise information available through private organizations and groups, utilizing to the fullest extent possible studies, data, and reports previously prepared or currently in progress by public agencies, private organizations, groups, and others, concerning future trends in the protection, conservation, preservation, and enhancement of the state's air, water, land, forests, fish, wildlife, native vegetation, and other natural resources. Any data compiled by the commission shall be made available to any standing or interim committee of the legislature upon the request of the chair of the respective committee. Subd. 4. Personnel. Persons who are employed by a state agency to work on a project and are paid by an appropriation from the trust fund or Minnesota future resources fund are in the unclassified civil service, and their continued employment is contingent upon the availability of money from the appropriation. When the appropriation has been spent, their positions must be canceled and the approved complement of the agency reduced accordingly. Part-time employment of persons for a project is authorized. The use of classified employees is authorized when approved as part of the work program required by section 116P.05, subdivision 2, paragraph (c).

Subd. 5. Administrative expense. The administrative expenses of the commission shall be paid from the various funds administered by the commission as follows:

(1) Through June 30, 1993, the administrative expenses of the commission and the advisory committee shall be paid from the Minnesota future resources fund. After that time, the prorated expenses related to administration of the trust fund shall be paid from the earnings of the trust fund.

(2) After June 30, 1993, the prorated expenses related to administration of the trust fund may not exceed an amount equal to four percent of the projected earnings of the trust fund for the biennium.

Subd. 6. Conflict of interest. A commission member, advisory committee member, peer review panelist, or an employee of the commission may not participate in or vote on a decision of the commission, advisory committee, or peer review panel relating to an organization in which the member, panelist, or employee has either a direct or indirect personal financial interest. While serving on the legislative commission, advisory committee, or peer review panel, or being an employee of the commission, a person shall avoid any potential conflict of interest.

Subd. 7. Report required. The commission shall, by January 15 of each odd-numbered year, submit a report to the governor, the chairs of the house appropriations and senate finance committees, and the chairs of the house and senate committees on environment and natural resources. Copies of the report must be available to the public. The report must include:

(1) a copy of the current strategic plan;

(2) a description of each project receiving money from the trust fund and Minnesota future resources fund during the preceding biennium;

(3) a summary of any research project completed in the preceding biennium;

(4) recommendations to implement successful projects and programs into a state agency's standard operations;

(5) to the extent known by the commission, descriptions of the projects anticipated to be supported by the trust fund and Minnesota future resources account during the next biennium;

(6) the source and amount of all revenues collected and distributed by the commission, including all administrative and other expenses;

(7) a description of the assets and liabilities of the trust fund and the Minnesota future resources fund;

(8) any findings or recommendations that are deemed proper to assist the legislature in formulating legislation;

(9) a list of all gifts and donations with a value over \$1,000;

(10) a comparison of the amounts spent by the state for environment and natural resources activities through the most recent fiscal year; and

(11) a copy of the most recent compliance audit.

HIST: 1988 c 690 art 1 s 13; 1991 c 254 art 2 s 44-46; 1991 c 343 s 7-10; 1994 c 580 s 4

.116P.10 Royalties, copyrights, patents.

This section applies to projects supported by the trust fund, the Minnesota future resources fund, and the oil overcharge money referred to in section 4.071, subdivision 2, each of which is referred to in this section as a "fund." The fund owns and shall take title to the percentage of a royalty, copyright, or patent resulting from a project supported by the fund equal to the percentage of the project's total funding provided by the fund. Cash receipts resulting from a royalty, copyright, or patent, or the sale of the fund's rights to a royalty, copyright, or patent, must be credited immediately to the principal of the fund. Before a project is included in the budget plan, the commission may vote to relinquish the ownership or rights to a royalty, copyright, or patent resulting from a project supported by the fund to the project's proposer when the amount of the original grant or loan, plus interest, has been repaid to the fund.

HIST: 1988 c 690 art 1 s 14; 1993 c 172 s 79

116P.11 Availability of funds for disbursement.

(a) The amount biennially available from the trust fund for the budget plan developed by the commission consists of the earnings generated from the trust fund. Earnings generated from the trust fund shall equal the amount of interest on debt securities and dividends on equity securities. Gains and losses arising from the sale of securities shall be apportioned as

follows:

(1) if the sale of securities results in a net gain during a fiscal year, the gain shall be apportioned in equal installments over the next ten fiscal years to offset net losses in those years. If any portion of an installment is not needed to recover subsequent losses identified in paragraph (b), it shall be added to the principal of the fund; and

(2) if the sale of securities results in a net loss during a fiscal year, the net loss shall be recovered from the gains in paragraph (a) apportioned to that fiscal year. If such gains are insufficient, any remaining net loss shall be recovered from interest and dividend income in equal installments over the following ten fiscal years.

(b) For funding projects until fiscal year 1997, the following additional amounts are available from the trust fund for the budget plans developed by the commission:

(1) for the 1991-1993 biennium, up to 25 percent of the revenue deposited in the trust fund in fiscal years 1990 and 1991;

(2) for the 1993-1995 biennium, up to 20 percent of the revenue deposited in the trust fund in fiscal year 1992 and up to 15 percent of the revenue deposited in the fund in fiscal year 1993;

(3) for the 1993-1995 biennium, up to 25 percent of the revenue deposited in the trust fund in fiscal years 1994 and 1995, to be expended only for capital investments in parks and trails; and

(4) for the 1995-1997 biennium, up to 25 percent of the revenue deposited in the fund in fiscal year 1996, to be expended only for capital investments in parks and trails.

(c) Any appropriated funds not encumbered in the biennium in which they are appropriated cancel and must be credited to the principal of the trust fund.

HIST: 1988 c 690 art 1 s 15; 1990 c 594 art 1 s 57; 1990 c 612 s 14; 1992 c 513 art 2 s 27; 1992 c 539 s 10; 1993 c 300 s 10; 1994 c 580 s 5; 1995 c 220 s 111

116P.12 Water system improvement loan program.

Subdivision 1. Loans authorized. (a) If the principal of the trust fund equals or exceeds \$200,000,000, the commission may vote to set aside up to five percent of the principal of the trust fund for water system improvement loans. The purpose of water system improvement loans is to offer below market rate interest loans to local units of government for the purposes of water system improvements.

(b) The interest on a loan shall be calculated on the declining balance at a rate four percentage points below the secondary market yield of one-year United States treasury bills calculated according to section 549.09, subdivision 1, paragraph (c).

(c) An eligible project must prove that existing federal or state loans or grants have not been adequate.

(d) Payments on the principal and interest of loans under this section must be credited to the trust fund.

(e) Repayment of loans made under this section must be completed within 20 years.

(f) The Minnesota public facilities authority must report to the commission each year on the loan program under this section.

Subd. 2. Application and administration. (a) The commission must adopt a procedure for the issuance of the water system improvement loans by the public facilities authority.

(b) The commission also must ensure that the loans are administered according to its fiduciary standards and requirements.

HIST: 1988 c 690 art 1 s 16

116P.13 Minnesota future resources fund.

Subdivision 1. Revenue sources. The money in the Minnesota future resources fund consists of revenue credited under section 297F.10, subdivision 1, paragraph (b), clause (1).

Subd. 2. Interest. The interest attributable to the investment of the Minnesota future resources fund must be credited to the fund.

Subd. 3. Revenue purposes. Revenue in the Minnesota future resources fund may be spent for purposes of natural resources acceleration and outdoor recreation, including but not limited to the development, maintenance, and operation of the state outdoor recreation system under chapter 86A and regional recreation open space systems as defined under section 473.351, subdivision 1.

HIST: 1988 c 690 art 1 s 17; 1989 c 335 art 1 s 179; 1997 c 106 art 2 s 4

116P.13 Minnesota future resources fund.

Subdivision 1. **Revenue sources**. The money in the Minnesota future resources fund consists of revenue credited under section 297F.10, subdivision 1, paragraph (b), clause (1).

Subd. 2. Interest. The interest attributable to the investment of the Minnesota future resources fund must be credited to the fund.

Subd. 3. **Revenue purposes.** Revenue in the Minnesota future resources fund may be spent for purposes of natural resources acceleration and outdoor recreation, including but not limited to the development, maintenance, and operation of the state outdoor recreation system under chapter 86A and regional recreation open space systems as defined under section <u>473.351</u>, subdivision 1.

HIST: 1988 c 690 art 1 s 17; 1989 c 335 art 1 s 179; 1997 c 106 art 2 s 4

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116Q.02 State receipts from the fund.

Subdivision 1. Great Lakes protection account. Any money received by the state from the Great Lakes protection fund, whether in the form of annual earnings or otherwise, must be deposited in the state treasury and credited to a special Great Lakes protection account. Money in the account must be spent only as specifically appropriated by law for protecting water quality in the Great Lakes. Approved purposes include, but are not limited to, supplementing in a stable and predictable manner state and federal commitments to Great Lakes water quality programs by providing grants to finance projects that advance the goals of the regional Great Lakes toxic substances control agreement and the binational Great Lakes water quality agreement.

Subd. 2. LCMR review. The legislature intends not to appropriate money from the Great Lakes protection account until projects have been reviewed and recommended by the legislative commission on Minnesota resources. A work plan must be prepared for each project for review by the commission. The commission must recommend specific projects to the legislature.

HIST: 1990 c 594 art 1 s 59

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4.071 Oil overcharge money.

Subdivision 1. Appropriation required. "Oil overcharge money" means money received by the state as a result of litigation or settlements of alleged violations of federal petroleum pricing regulations. Oil overcharge money may not be spent until it is specifically appropriated by law.

Subd. 2. Minnesota resources projects. The legislature intends to appropriate one-half of the oil overcharge money for projects that have been reviewed and recommended by the legislative commission on Minnesota resources. A work plan must be prepared for each proposed project for review by the commission. The commission must recommend specific projects to the legislature.

Subd. 3. Repealed, 1998 c 273 s 15

HIST: 1988 c 686 art 1 s 36; 1988 c 690 s 1; 1989 c 335 art 1 s 269; 1990 c 568 art 2 s 1; 1994 c 483 s 1

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Description

" a description of each project receiving money from the trust fund and Minnesota future resources fund during the preceding biennium; a summary of any research project completed in the preceding biennium..."

The following documents are short abstracts for projects funded during the 1999- 2001 biennium. The abstracts describe the general proposed accomplishments of each project as well as providing selected specific details, such as amount of land impacted, species studied, number of school children reached, or products produced. Research projects have been marked as such in the description. Full workprograms are available at the LCMR Office Room 65, State Office Building. The abstracts are current as of 12/1/00. Subd. 3 Administration LCMR Administration

Subd. 4 Recreation

4(a) Local Initiatives Grants Program

4(b) Mesabi Trail Land Acquisition and Development-Continuation

4(c) Kabetogama to Ash River Community Trail System

4(d) Mesabi Trail Connection

4(e) Dakota County Bikeway Mapping

4(f) Mississippi Riverfront Trail and Access

4(g) Management and Restoration of Natural Plant

Communities on State Trails

- 4(h) Gitchi-Gami State Trail
- 4(i) State Park and Recreation Area Acquisition,
- Development, Betterment, and Rehabilitation

4(j) Ft. Snelling State Park-Upper Bluff Implementation-Continuation

4(k) Interpretive Boat Tours of Hill Annex Mine State Park

4(1) Metropolitan Regional Parks Acquisition, Rehabilitation and Development

4(m) Como Park Maintenance*

4(n) Luce Line Trail Connection through Wirth Park

Subd. 5 Historic

5(a) Using National Register Properties to Interpret Minnesota History

- 5(b) Historic Site Land Acquisition
- 5(c) Gibbs Farm Museum Interpretation
- 5(d) Traverse des Sioux Site Development
- 5(e) Old Wadena Historic Site Development

Subd. 6 Water Quality

6(a) On-site Sewage Treatment Alternatives- Performance, Outreach and Demonstration-Continuation

6(b) Identification of Sediment Sources in Agricultural Watersheds

6(c) Accelerated State-Wide Local Water Plan Implementation

6(d) Tracking Sources of Fecal Pollution Using DNA Techniques

6(e) Groundwater Flow in the Prairie du Chien Aquifer

6(f) Lake Minnetonka Citizens Monitoring and Education Network

6(g) Erosion Impacts on the Cannon Valley Big Woods 6(h) City of the Lakes Flood Mitigation and and Flow Stream Protection

Subd. 7 Agriculture and Natural Resource Based Ind

7(a) Green Forest Certification Project

7(b) Accelerated Transfer of New Forest-Research Findings

7(c) Minnesota Wildlife Tourism Initiative

7(d) Integrated Prairie Management

7(e) Improved Agricultural Systems Overlying Sensitive

7(g) Minnesota River Basin Initiative: Local Leadership

7(h) Commercial Fertilizer Plant of Livestock Solid Waste Processing

7(i) Preservation of Native Wild Rice Resource

7(j) Wild Rice Management Planning

7(k) Mesabi Iron Range, Water and Mineral Resource Planning

7(l) Sustainable Aquaculture Development in Minnesota

7(m) Sustainable Farming Systems-Continuation

7(n) Economic Analysis of Agriculture for Multiple Benefits

7(o) Non-Wood Agricultural Fibers and Industrial Hemp for Pulp and Paper Manufacture

7(p) Sustainable Livestock Systems

7(q) Forest Wildlife Biologist for Ruffed Grouse

7(r) Organic Farming Training Project

7(s) Construction and Demolition Waste Abatement Demonstration Project

Subd. 8 Urbanization Impacts

8(a) Resources for Redevelopment: A Community Property Investigation Program

8(b) Tools and Training for Community-Based Planning

8(c) Protecting Dakota County Farmland and Natural Areas

8(d) Urban Corridor Design

8(e) Conservation-Based Development Program

8(f) Chisago Lakes Outlet Channel Project

8(g) Blufflands Implementation

Subd. 9 Innovations in Energy and Transportation

9(a) Ice Arena Design for Efficiency and Air Quality-Continuation

9(b) Promoting High Efficiency Cogeneration

9(c) Evaluate Biodiesel Made from Waste Fats and Oils

Subd. 10 Decisionmaking Tools

10(a) Goodhue County Natural Resources Inventory and Management Plan

10(b) Public Access to Mineral Knowledge

10(c) Updating Outmoded Soil Surveys-Continuation

10(e) Minnesota Environmentally Preferable Chemicals Project

10(f) GIS Utilization of Historic Timberland Survey Records 10(g) By-Products Application to Agricultural, Mineland and Forest Soils

10(h) Winter Severity Index for Deer

Subd. 11 Environmental Education

11(a) Uncommon Ground: An Educational Television Series

- 11(b) Karst Education for Southeastern Minnesota
- 11(c) Minnesota Wolf Public Education

11(d) Bear Center

11(e) Accessible Outdoor Recreation

11(f) Science Outreach and Integrated Learning on Soil

11(g) Teacher Training in Interdisciplinary Environmental Education

11(j) Twin Cities Environmental Service Learning-Continuation

11(k) Minnesota Whitetail Deer Resource Center Exhibits 11(l) Sustainability Forums

11(m) Minnesota River Watershed Ecology and History Exhibit

11(o) Aquaculture, Hydoponics, and Greenhouse Research Lab

Subd. 12 Benchmarks and Indicators

12(a) Measuring Children's Exposures to Environmental Health Hazards

12(b) Minnesota County Biological Survey-Continuation

12(c) Environmental Indicators Initiative - Continuation

12(d) Dakota County Wetland Health Monitoring Program

12(e) Predicting Water and Forest Resources Health and Sustainability

12(f) Potential for Infant Risk from Nitrate Contamination

12(g) Assessing Lake Superior Waters Off the North Shore

12(h) Minnesota's Forest Bird Diversity Initiative-Continuation

12(i) Farm Ponds as Critical Habitats for Native Amphibians

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Subd. 13 Critical Lands or Habitats

13(a) Sustainable Woodlands and Prairies on Private Lands-Continuation

13(b) National Prairie Passage-Linking Isolated Prairie Preserves

13(c) Greening the Metro Mississippi-Minnesota River Valleys

13(d) Restoring the Greater Prairie Chicken to Southwestern Minnesota

13(e) The Prairie Heritage Fund -Continuation

13(f) Public Boat Access and Fishing Piers

13(g) Arboretum Land Acquisition and Wetlands

Restoration-Continuation

13(h) Native Prairie Prescribed Burns*

13(i) Implement the Chisago and Washington Counties

Green Corridor Project-Continuation

13(j) RIM Shoreland Stabilization

13(k) Enhancing Canada Goose Hunting Opportunities for Recreation and Management Purposes

13(1) Nongame Wildlife Match Account*

13(m) Wildlife Habitat Acquisition and Development - Chub Lake*

Subd. 14 Native Species Planting

14(a) Minnesota ReLeaf Matching Grant Program-Continuation

14(b) Landscaping for Wildlife and Nonpoint Source Pollution Prevention

14(c) Lakescaping for Wildlife and Water Quality Initiative 14(d) Development and Assessment of Oak Wilt Biological

Subd. 15 Native Fish

15(a) Mussel Resource Survey15(b) Freshwater Mussel Resources in the St. Croix River

Subd. 16 Exotic Species

16(a) Biological Control of Eurasian Watermilfoil and Purple Loosestrife-Continuation

16(b) Evaluate establishment, impact of leafy spurge biocontrol agents

16(c) Restoring Native Vegetation in Parks and Nature Centers

Sec. 3 Additional Appropriations

Sec. 3 FY 99 ML 1997 Subd. 4(b) Metropolitan Regional Park System Sec. 3 FY 99 ML 97 Subd. 4(a) State Park and Recreation

Area Acquisition

Section. 15 Transportation

Sec. Savage Fen- LCMR Oversight Only

*Appropriation added by the 1999 Legislature to the LCMR Recommendations

SUBD. 4 RECREATION

LOCAL INITIATIVE GRANTS PROGRAM

4(a) \$5,117,000 FRF/TF Wayne Sames Department of Natural Resources DNR, Office of Planning Box 10, 500 Lafayette Rd. St. Paul, MN 55155-4010 Phone: (651) 296-1567 Fax: (651) 296-6047 E-mail: wayne.sames@dnr.state.mn.us

This appropriation is to provide matching grants to local governments or private organizations for various projects related to local parks, natural and scenic areas, local trail connection projects, regional trail projects, environmental partnership projects and conservation partners projects. Project proposals for all of these programs are evaluated and ranked on a competitive basis, with grants being awarded to the highest-ranking projects. Six distinct grant programs provide matching grants to local governments and/or private organizations for acquisition, development, renovation, enhancement, research and education associated with parks and trails, natural and scenic areas, natural habitat, and other environmental projects. These programs are: 1) local park grant program; 2) natural and scenic area grant program; 3) cooperative trail grant program; 4) onservation partners grant program; 5) environmental partnerships grant program; and

Natural Resources Trust Fund (TF) and the Minnesota Future Resources Fund (FRF). Appropriation available until June 30, 2002.

MESABI TRAIL LAND ACQUISITION AND DEVELOPMENT- CONTINUATION 4(b) \$ 1,000,000 FRF/ Match

A(b) \$ 1,000,000 FKF/ Match
Robert Manzoline
St. Louis and Lake Counties Regional Railroad Authority
Northland Office Center
307 S. First St. So.
Room 113
Virginia, MN 55792
Phone: (218) 749-0697
Fax: (218) 749-0698
Web Address: http://www.mesabitrail.com/frames/main.html

This appropriation is for the continuation of the Mesabi Trail project. Construction of the trail began in 1994 and is anticipated to be completed in the year 2004. This biennium portion is to acquire and develop 37 miles of the Mesabi Trail. There are five segments that make up the 37 miles: 1) A 6mile segment from the City of Taconite to the City of Calumet; 2) An 8-mile segment from the City of Calumet to the City of Nashwauk; 3) A 5-mile segment from the City of McKinley to the City of Biwabik; 4) A 9-mile segment from the Giants Ridge area to the City of Embarrass; and 5) A 6-mile segment from Mt. Iron to the City of Kinney. The project is also set up to procure design and engineering for trailheads and enhancements. The State of MN, Department of Highway Bicycle Design Standards will be used for trail design. The trail is being developed for multiple user groups in most areas. This appropriation must matched by at least \$1,000,000 of nonstate money. Appropriation available until June 30, 2002.

KABETOGAMA/ ASH RIVER COMMUNITY TRAIL SYSTEM

4(c) \$100,000 FRF/Match Steven J. Maass National Park Service/ Kabetogama Lake Association 9714 Gappa Road Lake Kabetogama, MN 56669 Phone: (218) 875-2111 or (218) 875- 3803 Fax: (218) 875-2114

This appropriation is for trail construction linking Lake Kabetogama, Ash River, and Voyageurs National Park. This trail system will connect the two gateway communities. It will consist of 23.5 miles of hiking trails, 3.1 miles of biking trails, and 19.6 miles of cross country skiing trails. Four trailhead parking areas will be constructed as well. The project will also include the installation of wayside exhibits and informational bulletin boards along the entire trail system. This appropriation must be matched by at least \$100,000 of nonstate money. Appropriation available until June 30, 2002.

Curt Anttila East Range Powers Board P.O. Box 127 Aurora, MN 55705 Phone: (218) 229-3671 Fax: (218) 229-3561 E-mail: erpb@the-bridge.net

This appropriation is to develop trail connections to the Mesabi Trail with the communities of Aurora, Hoyt Lakes, and White. The project will develop and surface 2.25 miles of new multiuse trail, primarily along existing abandoned mining haul roads. The project will also surface .85 miles of trail constructed in 1997 in the City of Aurora. This trail connection will provide a direct link to the city of Biwabik and the Giants Ridge Golf and Ski Resort. It will have an all-weather 10' wide bituminous surface and be constructed to conform to current state and federal accessibility standards. This appropriation must be matched by at least \$80,000 of nonstate money. Appropriation available until June 30, 2002.

DAKOTA COUNTY BIKEWAY MAPPING

4(e) \$15,000 FRF Jack Ditmore Dakota County Physical Development Division Western Service Center 14955 Galaxy Avenue Apple Valley, MN 55124 Phone: (612) 891-7007 Fax: (612) 891-7031 E-mail: jack.ditmore@co.dakota.mn.us Web Address: http://www.co.dakota.mn.us/planning

This project was completed Summer 2000. A cost share agreement was funded integrating the digital elevation information in the Dakota county geographic information system database with trail and bikeway routes, and develop maps displaying trail difficulty ratings for trail and bikeway users. Specific results of the project included: 1) development of a classification system for trails by degree of difficulty, measured in terms of slope and length of slope; 2) Integration of digital information in the Dakota County Geographic Information System with existing and pending bicycle and trail routes in Dakota County and the determination of slope characteristics for all trail segments; 3) Application of the selected classification system to the findings of the slope characteristic analysis and preparation of bikeway and trail maps for Dakota county that display difficulty ratings for trail and bikeway users, using GIS mapping technology; 4) Documentation of the methodology and the transferability of the technology; and 5) Distribution of approximately 4,000 bikeway and regional trail maps and 1,000 park trail maps.

MISSISSIPPI RIVERFRONT TRAIL AND ACCESS 4(f) \$155,000 FRF/ Match

Hastings, MN 55033 Phone: (651) 437-4127 Fax: (651) 437-7082

This appropriation is for the acquisition and restoration of the public access area in the City of Hastings and to complete the connecting riverfront trail from the public access to lock and dam number two adjacent to Lake Rebecca. The trail connection will complete a fifteen-mile trail loop around the City of Hastings. This project will have two main results: 1) Acquisition of the riverfront property which will ensure that the Mississippi River and St. Croix River boat access and riverfront trail will remain open to the public; and 2) Restoration of the Koch Refining tank farm property to a scenic and natural area which will preserve the area for public use. Within this area, a three-acre section would be used by the Corps of Engineers for dredge disposal and beneficial use, accessible for reuse by the City and the public. This appropriation must by matched by at least \$155,000 of nonstate money.

MANAGEMENT AND RESTORATION OF NATURAL PLANT COMMUNITIES ON STATE TRAILS

4(g) \$150,000 TF Angela Anderson Department of Natural Resources Box 52, 500 Lafayette Road St. Paul, MN 55155-4052 Phone: (651) 296-6768 Fax: (651) 296-5475 E-mail: angela.anderson@dnr.state.mn.us

This appropriation is to fund the management and restoration of the natural and plant communities along Minnesota State Trails. The three areas of this project are restoration and reestablishment, improvement through management, and the development of interpretive exhibits. Regarding restoration and re-establishment: 1) Harmony Preston Valley State Trailrestoration of seven acres of hayfield/ pasture as part of the trail right-of-way; 2) Shooting Star State Trail- restoration of an abandoned gravel pit, 10-12 acres with 4 acres of water surface to serve as a trail rest area and fishing opportunity; 3) Luce Line State Trail- removal of common buckthorn on 1 mile of trail and replanting with native plants; and 4) Glacial Lakes State Trail Addition-restoration of 10 acres of additional trail right-of-way to native grasses and forbs. Regarding improvement through management: 1) Willard Munger State Trail- contract to do prescribed burning of prairie remnants, approximately 35 acres; 2) Gateway Segment of the Willard Munger State Trail- contract to do prescribed burns on 8 acres of gravel prairie remnants within the right-of way, and 6 acres of private adjacent land; and 3) Exotic plant species control statewide- this work will focus on right-of-way areas which have been identified and prioritized by the natural communities survey. Regarding the development of interpretive exhibits,

4(h) \$550,000 TF John Strohkirch State Park Development and Acquisitions 500 Lafayette Road St. Paul, MN 55155-4039 Phone: (651) 296-8289 Fax: (651) 296-6532 or (651) 297-1157 E-mail: john.strohkirch@dnr.state.mn.us

This appropriation is for the construction of the Gitchi-Gami State Trail (approximately 3 1/2 miles long) through Split Rock State Park. The project must submit grant requests for supplemental funding for federal TEA-21 money in eligible categories and report the results to the Legislative Commission on Minnesota Rresources. All segments of the trail must become part of the state trail system. Appropriation available until June 30, 2002.

STATE PARK AND RECREATION AREA ACQUISITION, DEVELOPMENT, BETTERMENT, AND REHABILITATION

4(i) \$1,000,000 TF John Strohkirch State Park Development and Acquisitions 500 Lafayette Road St. Paul, MN 55155-4039 Phone: (651) 296-8289 Fax: (651) 296-6532 of (651) 297-1157 E-mail: john.strohkirch@dnr.state.mn.us

This appropriation is for state park and recreation area acquisition, development, rehabilitation, and resource management. This project includes the major rehabilitation and development of state parks and recreation area buildings, structures and utility systems and the rehabilitation and betterment of non-building facilities such as trails, roads, campgrounds and resources. The project will also acquire lands within the boundaries of state park and recreation areas from willing sellers. The completion of the Forestville Visitor Center and the rehabilitation of the Banning State Park Sewer System is the third aspect of the project. Appropriation available until June 30, 2002.

Sec. 17. ADDITIONAL APPROPRIATIONS The following amounts are appropriated in fiscal year 1999 from the Minnesota Environment and Natural Resources Trust Fund referred to in Minnesota Statutes, section 116P.02, subdivision 6. \$496,000 in fiscal year 1999 is added to the appropriation in Laws 1997, chapter 216, section 15, subdivision 4, paragraph (a), clause (1), for state park and recreation area acquisition. \$495,000 in fiscal year 1999 is added to the appropriation in Laws 1997, chapter 216, section 15, subdivision 4, paragraph (b), metropolitan regional park system.

FORT SNELLING STATE PARK / UPPER BLUFF

Minnesota Department of Natural Resources 1200 Warner Road St. Paul, MN 55106 Phone: (651) 772-7994 Fax: (651) 772-7977 E-mail: bill.weir@dnr.state.mn.us

This appropriation is a continuation of the development of the Upper Bluff area of Ft. Snelling State Park. The Reuse Study (conceptual utilization plan) done with appropriated funds from the 1997-99 biennium. The 1999 project will take the Reuse Study into the implementation stage. The specific results of the project will be: 1) Establish a project management team to guide the realization of the recommendations outlined in the Reuse study and develop the implementation strategy; 2) Develop a master plan for site and buildings, including infrastructure upgrading; and 3) Market the site to potential tenants and stakeholders. Written reports, plans, and promotional material will be prepared throughout the project implementation period and will be make available to the general public and to potential partners.

INTERPRETIVE BOAT TOURS OF HILL ANNEX MINE STATE PARK

4(k) \$60,000 TF John Strohkirch State Park Development and Acquisitions 500 Lafayette Road St. Paul, MN 55155-4039 Phone: (651) 296-8289 Fax: (651) 296-6532 of (651) 297-1157 E-mail: john.strohkirch@dnr.state.mn.us

This appropriation will fund the addition of interpretive boat excursion tours of the abandoned Hill Annex Mine Pits. The project includes the purchase of a craft and getting the craft properly equipped, certified, and licensed. A docking site with a loading and unloading area will be developed along with associated parking. Alternative energy sources for the boat will be investigated.

METROPOLITAN REGIONAL PARKS ACQUISITION, REHABILITATION AND DEVELOPMENT 4(1) \$2,000,000 TF Arne Stefferud Metropolitan Council Mears Park Centre 230 East Fifth Street St. Paul, MN 55101-1634 Phone: (651) 602-1360 Fax: (651) 602-1404 E-mail: arne.stefferud@metc.state.mn.us

This appropriation is for the acquisition, development, and

financing the highest priority acquisition, redevelopment and development projects in the Metropolitan Council's regional parks CIP (capital improvement program). The results of the project will include the collection and digitization of all local, regional, state, and federal parks and all off-road trails with connecting on-road routes for the metropolitan area and produce a printed map that is available to the public. The subgrants will fund the following: 1) Acquisition of land in Hyland-Bush-Anderson Lakes Park Reserve; 2) Complete restoration of Harriet Island Regional Park Pavilion and Site Restoration; 3) Service area enhancements, septic system replacement, construction of caretakers garage and campground utility sites at Baylor Regional Park; 4) Partial funding of bike/pedestrian trail rehabilitation, street modifications, and signage at Lake of the Isles portion of the Minneapolis Chain of Lakes Regional Park; 5) Completion of roads, trails, beach and picnic area in Rice Creek Chain of Lakes Regional Park; 6) Continuation of subgrade correction and paving of park road at Lake Minnewashta Regional Park; 7) Relocation/expansion of boat launch in Lake Byllesby Regional Park; 8) Construction of 1.6 miles of Scott County Regional Trail to Sioux Community; 9) Partial funding for the Mill Ruins historic/interpretive area in Central Mississippi Riverfront Regional Park; and 10) New trail construction, parking improvements and restoration of oak savannah and prairie at Battle Creek Regional Park. Appropriation available until June 30, 2002.

Sec. 17. ADDITIONAL APPROPRIATIONS The following amounts are appropriated in fiscal year 1999 from the Minnesota environment and natural resources trust fund referred to in Minnesota Statutes, section 116P.02, subdivision 6. \$496,000 in fiscal year 1999 is added to the appropriation in Laws 1997, chapter 216, section 15, subdivision 4, paragraph (a), clause (1), for state park and recreation area acquisition. \$495,000 in fiscal year 1999 is added to the appropriation in Laws 1997, chapter 216, section 15, subdivision 4, paragraph (b), metropolitan regional park system.

COMO PARK CAMPUS MAINTENANCE

4(m) \$500,000 FRF Victor L. Camp St. Paul's Como Zoo Division of Parks and Recreation City o f St. Paul 1250 Kaufman Drive St. Paul, MN 55103 Phone: (651) 487-8202 Fax: (651) 487-8204 E-Mail: vic.camp@ci.stpaul.mn.us Appropriation added by the 1999 Legislature to the LCMR Recommendations.

This appropriation is for the maintenance and repair of live plant and animal exhibits for the zoo and the conservatory at the Como Park campus. The project will repair, restore, or perimeter fence; 2) replacing the façade on front of Conservatory; 3) installation of emergency generator and wiring in Primate facility; 4) repairing and restoring the heating system; 5) repairing and resurfacing the zoo pathway system; and 6) replacing the polycarbonate on the Conservatory Growing Range, Dormant House, and Bonsai Room.

LUCE LINE TRAIL CONNECTION THROUGH WIRTH PARK

4(n) \$300,000 FRF/ Match Larry Peterson Minneapolis Park and Recreation Board 400 South Fourth Suite 200, Grain Exchange Minneapolis, MN 55415 Phone: (612) 661-4813 Fax: (612) 661-4777 E-mail: larry.peterson@ci.minneapolis.mn.us

This appropriation will fund the completion of the construction of a bicycle and pedestrian trail link through Wirth Park to connect the Minneapolis Regional Trail System with the Luce Line State Trail. The project has three results: 1) Design and engineering of bike and pedestrian trail links. This will provide the consultant services and administrative costs associated with the development of the contract documents; 2) Testing and survey. This includes topographic and soil survey work required by the design consultants; and 3) Trail construction. This includes grading, drainage, bituminous and concrete paving, fencing and landscaping. This connection will create one of the longest trails in the state from Hutchinson to Minneapolis. It will also enable pedestrians and cyclists to access trails in Hennepin, Anoka and Dakota counties. This appropriation must be matched by at least \$300,000 of nonstate money. Appropriation available until June 30, 2002.

SUBD. 5 HISTORIC

USING NATIONAL REGISTER PROPERTIES TO INTERPRET MINNESOTA HISTORY 5(a) \$90,000 FRF John F. Lauber Minnesota Historical Society 345 Kellogg Blvd. W. St. Paul, MN 55102-1906 Phone: (651) 296-5434 Fax: (651) 282-2374 E-mail: john.lauber@mnhs.org Web Page Address: www.mnhs.org

This appropriation is to create interactive; mini-documentaries in Internet format using the National Register properties to interpret selected themes in Minnesota history. There are four results from this project: 1) Historic theme selection. A Intensive research on each of the four to six final topics. Each property will be documented with photos, maps or drawings. They will also prepare narrative scripts for each theme, compile bibliographies and select the images that will be included in each documentary; 3) Website development. This includes the design and production of the online documentaries that will be accessed through the Minnesota Historical Society website; and 4) Marketing and distribution. The documentaries will be introduced to libraries and schools statewide with a direct mail piece. Other means of publicity will be made by working with other state agencies and non-profit organizations.

HISTORIC SITE LAND ACQUISITION

5(b) \$175,000 TF John Crippen Minnesota Historical Society 345 Kellogg Blvd. W. St. Paul, MN 55102-1906 Phone: (651) 296-3979 Fax: (651) 296-8404 E-mail: john.crippen@mnhs.org Web Page Address: www.mnhs.org

This appropriation is to fund the purchase of land from willing sellers adjacent to the Lower Sioux Agency, Jeffers Petroglyphs, and Oliver Kelly Farm sites to protect the historic resources. At Jeffers Petroglyphs, up to 120 acres are under consideration for purchase on the east and west sides of the site. The land to the east will connect the site to the Little Cottonwood River, while the land on the west contains more of the exposed quartzite, carvings, and virgin prairie that characterized the main site. At the Lower Sioux Agency, up to 33 acres are under consideration for purchase at the site of the Redwood Ferry. This acquisition would add the north side of the river to the existing site. At the Oliver Kelly Farm, up to 50 acres are under consideration just north of the site between the Mississippi River and U.S. Highway 10. This will provide a buffer between the working 19th century farm and the development along the Highway 10 corridor. Appropriation available until June 30, 2002.

GIBBS FARM MUSEUM INTERPRETATION

5(c) \$150,000 FRF Priscilla Farnham Ramsey County Historical Society 323 Landmark Center 75 West 5th Street St. Paul, MN 55102 Phone: (651) 222-0701 Fax: (651) 223-8539 E-mail: admin@rchs.com Web Page Address: www.rchs.com

This appropriation is to build and furnish replica structures of historic lifestyles and land use of the Dakota and pioneers.

TRAVERSE des SIOUX SITE DEVELOPMENT 5(d) \$250,000 TF Thomas Ellig Minnesota Historical Society Lower Sioux Agency Route 1, Box 125 Morton, MN 56270 Phone: (507) 697-6321 Fax: (507) 697-6310 E-mail: thomas.ellig@mnhs.org Web Page Address: www.mnhs.org

This appropriation is to improve public access to the state historic site Traverse des Sioux site in Nicollet County. The project will build a low-maintenance, sign-interpreted trail system, new access roads, a picnic area, and visitor amenities. Specific results of the project include: 1) Archaeological investigation. Project archaeologists will conduct work to explore what is in the ground before it is disturbed; 2) Architectural and engineering specifications. A landscape artist will be hired to prepare construction documents for the access roads, visitor amenities, trails and site landscaping; 3) Site preparation. This includes the removal of grass, brush, trees, etc. to prepare for building the trails; 4) Trail construction. The trail will begin near the Nicollet County Historical Societys museum building and go through the old Traverse des Sioux townsite, to the river crossing and the location of the 1851 Treaty signing. The trail will be ADA compliant, and will have a limestone aggregate surface; 5) Prairie restoration. The current intrusive plants will be replaced with prairie grasses and flowers that were once found in the area. The restoration will be over an area of about thirty acres; 6) Visitor amenities. This includes improvement of existing amenities as well as the development of additional sites. A small shelter will be built at the north end of the site to provide protection for visitors and an interpretive kiosk. A well will also be upgraded to provide drinking water; 7) Interpretive research and design. This area will begin immediately and continue through most of the project's development. It will be used to inform decisions along the way; 8) Interpretive markers and kiosks. The kiosks will be used to orient visitors and give them history of the site. The markers will be placed along the paths to tell the story of the site.

OLD WADENA HISTORIC SITE DEVELOPMENT

5(e) \$25,000 FRF/ Match Sandra Opheim Wah De Nah Historic and Environmental Learning Project 200 1st Street Staples, MN 55479 Phone: (218) 894-1930 Fax: (218) 894-3045

This appropriation will fund the development of a footbridge, an archaeological survey, and an educational program. The of land to be determined after thorough research and desired areas are determined for development. The educational programs will be developed for community members of all ages. The educational focus will include environment, history, and arts programs. This appropriation must be matched by at least \$6,000 of nonstate money.

SUBD. 6 WATER QUALITY

ON-SITE SEWAGE TREATMENT ALTERNATIVES: PERFORMANCE, OUTREACH & DEMONSTRATION- CONTINUATION

6(a) \$550,000 TF Mark Wespetal Minnesota Pollution Control Agency- Water Quality Division 520 Lafayette Road St. Paul, MN 55155-4198 Phone: (651) 296-9322 Fax: (651) 282-6247 E-mail: mark.wespetal@pca.state.mn.us Web address:www.bae.umn.edu/septic

RESEARCH PROJECT

This appropriation is to monitor previously built test sites for pathogen removal and other parameters as indicators of treatment efficiency, determine maintenance needs and system longevity and pursue the establishment of cooperative demonstration projects. This project incorporates three new systems at NERCC. An intended outcome is to have one or two affordable ISTS (Individual Sewage Treatment Systems) that can be confidently recommended for N-removal in geologically sensitive areasin Minnesota and in areas where the desired lot size is between 1 and 3 acres. Another intended outcome is to have one or two effective ISTS that can be installed and maintained in areas with seasonally high water tables at a cost that is lower than conventional mound systems. The project has three specific results: 1) Coordinate the establishment of demonstration wastewater sites in 5 regions of the state and evaluate the performance of existing residential alternative technologies; 2) Monitoring of alternative technologies at research sites for pathogen, solids and nutrient removal; and 3) Evaluation of additional methods to improve nitrogen and pathogen removal using constructed wetlands. As a result of this project, a fourth result will also happen. The agency will be conducting an outreach and extension campaign to transfer information to the private sector and to other public agencies. This aspect is funded within the agency and is not specifically part of the LCMR project, but is an important outcome of the project.

IDENTIFICATION OF SEDIMENT SOURCES IN AGRICULTURAL WATERSHEDS

6(b) \$350,000 TF/ Match Daniel Engstrom

Phone: (651) 433-5953 Fax: (651) 433-5924 E-mail: engstrom@smm.org

RESEARCH PROJECT

This appropriation is to quantify the contribution of streambank erosion versus overland erosion sources to riverine suspended sediment concentrations. The project has two main results, the development of a management tool and the demonstration of a fingerprinting tool by looking at the occurence of tracers such as radioisotopes, metals and mineralogy. For the management tool, the project will develop a new technique to separate and quantify the sources contributing to suspended sediment in Minnesota's agricultural watersheds. For the fingerprinting tool, this project will apply this new technique to a tributary of the Minnesota River, the Sand Creek Watershed, which is an area of 277 square miles.

ACCELERATED STATE-WIDE LOCAL WATER PLAN IMPLEMENTATION

6(c) \$1,000,000 FRF/ Match Doug Thomas MN Board of Water and Soil Resources One West Water Street, Suite 200 St. Paul, MN 55107 Phone: (651) 297-5617 Fax: (651) 297-5615 E-mail: doug.thomas@bwsr.state.mn.us

This appropriation is to accelerate the local water planning challenge grant program, to assist in the implementation of high priority activities in comprehensive water management plans. In addition to the funding of the grant program the following projects are specified for funding: \$140,000 is to St. Louis County to inventory and evaluate existing sewage treatment systems. \$75,000 is to the Whitefish Area Property Owners Association in cooperation with Crow Wing County to inspect all lakeshore properties on the Whitefish Chain of Lakes for conformance with septic system requirements. \$50,000 is to Chisago County to develop sustainable wastewater treatment alternatives, which must be matched by at least \$30,000 of nonstate money.

TRACKING SOURCES OF FECAL POLLUTION USING DNA TECHNIQUES

6(d) \$300,000 TF Michael J. Sadowsky University of Minnesota Department of Soil, Water and Climate 1991 Upper Buford Circle, 439 Borlaug Hall St. Paul, MN 55108 Phone: (612) 624-2706 Fax: (612) 625- 6725 E-mail: Sadowsky@soils.umn.edu

RESEARCH PROJECT

project will examine a large number of fecal coliform bacteria isolated from known sources and a minimum of four watershed area exceeding the water quality standard for fecal coliform bacteria. The sites will include both urban and rural watersheds with contributions from both point and nonpoint sources of fecal pollution.

GROUNDWATER FLOW IN THE PRAIRIE DE CHIEN AQUIFER

6(e) \$110,000 TF Anthony C. Runkel University of Minnesota, Minnesota Geological Survey 2642 University Ave. W. St. Paul, MN 55114-1057 Phone: (612) 627-4780 ext. 222 Fax: (612) 627-4778 E-mail: runke001@maroon.tc.umn.edu Web Page Address: http://geolab.geo.umn.edu/mgs

RESEARCH PROJECT

This appropriation is to characterize groundwater flow within the Prairie du Chien Formation. The project will combine several hydrogeologic investigative techniques. Four test holes, each about 500 feet deep, will be drilled completely through the Prairie de Chien Aquifer. Borehole geophysical techniques, water chemistry analyses, and hydraulic measurements in these and existing boreholes will be used to determine hydrogeologic properties of the Prairie du Chien from near-surface to depth at individual sites. In addition, exposed karst features such as sinkholes, fractures, springs, and dissolution features will be described and mapped.

LAKE MINNETONKA CITIZENS MONITORING AND EDUCATION NETWORK

6(f) 40,000 FRF/ Match Dick Osgood Lake Minnetonka Association 22035 Stratford Place Shorewood, MN 55331 Phone: (612) 470-4449 Fax: (612) 470-4449 E-mail: DickOsgood@aol.com

This appropriation is to begin volunteer network training and education for a comprehensive monitoring program. The program consists of three elements- volunteer network training, volunteer monitoring, and an education program. The network will be organized by three major areas of the lake and include approximately 40 bays. Volunteers will be trained to perform monitoring and education functions. They will collect physical, chemical and biological information. A data management and reporting plan will be prepared. An education needs analysis specifically for the Lake Minnetonka community will be conducted to determine the audience, the education needs and

EROSION IMPACTS ON THE CANNON VALLEY BIG WOODS

6(g) \$150,000 TF Brad Carlson Big Woods Project U of M Extension, 320 NW 3rd Street, Suite 7 Faribault, MN 55021 Phone: (507) 332-6165 E-mail: bcarlson@umn.edu

RESEARCH PROJECT

This appropriation is to determine the historical and future effects of land practices on soil erosion levels and develop land management tools in the big woods ecosystem in Rice County. This project will have three main results: 1) Estimation of the amount of post settlement erosion that has occurred on upland landscapes and the amount of post-settlement alluvium and glacial sediments retained in stream valleys in the Cannon Valley Big Woods. This will be done by a general survey of stream bank erosion in 3 to 5 minor watersheds. 2) Estimation of areas susceptible to overlap soil erosion based on terrain analysis of digital elevation models, and digital soil survey data. The final product will be a series of digital maps depicting the erosion potential for the entire Big Woods Project Area. 3) Determination of the dynamic effect of tile drainage on soil moisture storage and potential surface runoff, and the potential contribution of tile line outlets to increased peak stream flow volumes by comparing tiled and non-tiled fields. This portion of the project will document the seasonal influence of tile drainage on soil water content, with implications towards the effect of drainage on runoff and potential erosion.

CITY OF LAKES FLOOD MITIGATION AND FLOW STREAM PROTECTION

6(h) \$500,000 FRF/ Match Jeffrey T. Lee Minneapolis Park and Recreation Board 3800 Bryant Ave. South Minneapolis, MN 55409 Phone: (612) 370-4900 or (612) 313-7765 Fax: (612) 370-4831 E-mail: jeffrey.t.lee@ci.minneapolis.mn.us

This appropriation is to complete construction of the gravity flow stream connection between Lake Calhoun and Lake Harriet to improve lakewater quality and equalize water levels in the chain of lakes. The system will use the natural force of gravity to regulate 721 acres of lake surface area as part of a 6850-acre watershed system. It is also to fund flood mitigation, shoreland stabilization, design and engineering, and wetland replacement at Lake of the Isles. This appropriation must be met by at least \$550,000 nonstate money.

GREEN FOREST CERTIFICATION PROJECT

7(a) \$150,000 TF Philip Guillery Institute for Agriculture and Trade Policy 2105 1st Ave. South Minneapolis, MN 55404 Phone: (612) 870-3456 Fax: (612) 870-4846 E-mail: pguillery@iatp.org

This appropriation is to certify foresters and to evaluate private forest lands for green certification. This project will build on the successful certification of the Aitkin County forests managed by Aitkin County Land Department and the Minnesota DNR by offering the same type of forest certification to private landowners and wood product manufacturers. The primary result of this project will be the certification of 100,000 acres of non-industrial private forests. Another result of the project will be the chain-of-custody certification of 10 sawmills or secondary wood product manufacturers. The third result of this project is the development and dissemination of information on green certification to Minnesota's public through meetings, web sites, brochures and mailings.

ACCELERATED TRANSFER OF NEW FOREST-RESEARCH FINDINGS

7(b) \$115,000 TF Barbara Coffin Sustainable Forests Education Cooperative- Institute for Sustainable Natural Resources College of Natural Resources- University of Minnesota 250 NRAB, 2003 Upper Buford Circle St. Paul, MN 55108 Phone: (612) 624-4986 Fax: (612) 624-4986 Fax: (612) 624-8701 E-mail: bcoffin@forestry.umn.edu Web Address: http://www.cnr.umn.edu/ISNR/

This appropriation is to accelerate educational programming by the sustainable forest education cooperative on the practical application of landscape-level analysis in site-level forest management. Six to eight workshops, forums or discussion groups will be offered that focus on practical site-level management within a landscape context. There will be a regional conference organized for the fall of 2000 or winter 2001. A booklet that graphically illustrates practical applications of landscape-level analysis in forest management practices will be published and disseminated.

MINNESOTA WILDLIFE TOURISM INITIATIVE

7(c) \$250,000 TF Carrol Henderson Department of Natural Resources- Section of Wildlife DNR, Box 7, Section of Wildlife Fax: (651) 297-4961 E-mail: carrol.henderson@dnr.state.mn.us Web Page Address: www.exploreminnesota.com

This appropriation is to develop, implement and evaluate this project focusing on wildlife tourism as a sustainable industry in Minnesota. This project is designed to provide economic benefits to local communities and hospitality industry businesses through stimulating wildlife tourism including emphasis on off-peak seasons and in rural areas not generally attractive for other tourism. There will be a total of 18 wildlife tourism workshops that will be carried out for an estimated total of 450 people. There will be 18 wildlife tourism field trips that will be carried out for an estimated 450 people. A 20-minute slide program will be developed. Signs that read "Wildlife Viewing Site" will be printed and posted on public highways to identify featured locations. Handouts, maps and brochures will also be printed. Lastly, a layer of wildlife tourism information will be added to a GIS-based program that is being developed for state wildlife management areas.

INTEGRATED PRAIRIE MANAGEMENT

7(d) \$350,000 TF W. Daniel Svedarsky Northwest Experiment Station University of Minnesota Crookston, MN 56716 Phone: (218) 281-8129 Fax: (218) 281-8603 E-mail: dsvedars@mail.crk.umn.edu

RESEARCH PROJECT

This appropriation is for a cooperative project for an aggregate resource inventory on public lands, prairie restoration and research, and stewardship plans for management options. This project is made up of two subprojects. The first is the examination of the challenges of conserving prairie in the Felton Prairie Complex of Clay County, which covers more than 10,000 acres, specifically where it overlies valuable aggregate resources. This subproject will include aggregate inventory, prairie restoration and gravel pit reclamation, and integrated stewardship planning. The inventory will be based on approximately 50 deep holes that will be drilled to obtain a more detained knowledge of the aggregate resource. Included in the restoration and reclamation, a viewing site will also be developed to provide a place for the public to safely view Felton Prairie and adjacent gravel mining activities. Regarding the planning portion of the subproject, a site-specific stewardship plan will be developed for approximately 2,000 acres of public land within the Felton Prairie Complex with special emphasis on the 800 acres which may contain both prairie and gravel. The second part of the project will research management effects of fire and grazing on prairie vegetation and grassland birds

Appropriation available until June 30, 2002.

IMPROVED AGRICULTURAL SYSTEMS OVERLYING SENSITIVE AQUIFERS IN SOUTHWESTERN MINNESOTA

7(e) \$200,000 FRF Bruce Montgomery Minnesota Department of Agriculture 90 W. Plato Blvd. St. Paul, MN 55107 Phone: (651) 297-7178 Fax: (651) 296-7386 E-mail: Bruce.Montgomery@state.mn.us

RESEARCH PROJECT

This appropriation is to provide technical support, research, systems evaluation, and advisory teams to protect sensitive alluvial aquifers threatened by nitrate contamination in Southwest Minnesota. This project will hire a full-time nutrient management specialist to provide technical assistance, develop nutrient management plans and coordinate accelerated educational programs integrating all phases of affiliated research. The project will also determine the effectiveness of "phytofiltration". Impacted groundwater will be irrigated onto perennial forages with the overall goal of improving water quality upstream of several selected municipal wells. Finally, researchers will validate existing nitrogen loss computer simulation models.

DIVERSIFYING AGRICULTURE FOR ENVIRONMENTAL, ECONOMIC, AND SOCIAL BENEFITS

7(f) \$400,000 TF Craig Sheaffer Department of Agronomy and Plant Genetics University of Minnesota 411 Borlaug Hall, 1991 U. Buford Circle St. Paul, MN 55108 Phone: (612) 625-7224 Fax: (612) 625-1268 E-mail: Sheaf001@maroon.tc.umn.edu

RESEARCH PROJECT

This appropriation is to research new plant material and crop management systems for diversification. On-farm and Experiment Station research will be conducted to develop new plant materials and diversifying cropping systems to solve agricultural production problems, improve environmental quality for people and wildlife, and diversity rural economies. Three innovative plant systems for diversification will be developed and evaluated: 1) cover crops in small grains, corn, and soybean production to suppress weeds, recycle nutrients, replace synthetic N addition, decrease soil erosion, increase wildlife habitat and reduce the incidence of scab in wheat; 2) agroforestry crop (hazelnut) for highly-erodible and riparian land to reduce wind and water erosion while providing an

MINNESOTA RIVER BASIN INITIATIVE: LOCAL LEADERSHIP

LEADERSHIP 7(g) \$300,000 TF Stephen C. Hansen Minnesota River Basis Joint Powers Board 125 Charles Avenue St. Paul, MN 55103 Phone: (612) 361-6590 Fax: (612) 361-6594 E-mail: shansen@co.carver.mn.us Web Page Address: mrbdc@mankato.msus.edu

This appropriation is for landscape planning and demonstration, and restoration and management projects for the Minnesota River on a cost-share basis. The project will develop watershed teams within each major watershed and implement high priority projects. The specific results will include: 1) The development of watershed-based teams to guide the implementation of land use practices and policies; 2) Broaden each county's Comprehensive Local Water Plan and support the counties and local watershed groups in merging those plans and others into comprehensive watershed plans as required by regulation; 3) Offer technical assistance to watershed-based groups to assist in the design and planning of projects, implementation of these projects and the development of the organizational structure necessary to achieve a sustainable planning and project effort; 4) Assist in funding alternative land management practices; and 5) Share and distribute data retrieved as a result of the watershed planning and project implementation efforts using the Minnesota River Basin Data Center and each county's database. All demonstration projects will be established according to the existing Board of Water and Soil Resources matching criteria of 75:25 (project \$: local \$) with the State share not to exceed 75%.

COMMERCIAL FERTILIZER PLANT FOR LIVESTOCK SOLID WASTE PROCESSING

7(h) \$400,000 FRF/ Match Kazem Oskoui AquaCare International, Inc. P.O. Box 593 Morris, MN 56267 Phone: (612) 425-7496 Fax: (612) 425-7235 E-Mail: oskouike@wcec.com Web Page Address: www.aquacare international.com

This appropriation is to establish a commercial grade fertilizer plant that will enhance and process animal wastewater solids through micronization technology. The project will lease buildings and land necessary for staging, processing and storage. A facility design will be developed and built that will house the equipment for the micronization process. Processing the project will market the processed fertilizer to potential users. This appropriation must be matched by at least \$425,000 of non-state money. As a condition of receiving this appropriation, AquaCare International, Inc. must agree to pay to the state a royalty of two percent of gross revenues accruing to AquaCare International, Inc. from this application of micronization technology. Receipts from the royalty must be credited to the fund.

WITHDRAWN: PRESERVATION OF NATIVE WILD RICE RESOURCES

7(i) \$200,000 FRF/ Match Shirley Nordrum Leech Lake Reservation 6530 Hwy. 2 Cass Lake, MN 56633 Phone: (218) 335-7400 Fax: (218) 335-7430 E-mail: lldrm@mail.paulbunyan.net

RESEARCH PROJECT

This appropriation was to analyze critical factors in different northern wild rice habitats and determine methods to preserve the natural diversity of wild rice. The project canceled on December 31, 1999.

WILD RICE MANAGEMENT PLANNING

7(j) \$200,000 FRF/ Match Chris Holm Bois Forte Band of Chippewa Department of Natural Resources 5344 Lakeshore Drive P.O. Box 16 Nett Lake, MN 55772 Phone: (218) 757-3261 Fax: (218) 757-3261 Fax: (218) 757-3607 E-mail: cholm@rangenet.com Web Page Address: http://www.boisforte.com

RESEARCH PROJECT

This appropriation is to develop databases and management plans for northern wild rice lakes. The project has three components: 1) Design and implementation of programs for collection of field survey and monitoring data from wild rice lakes in northern Minnesota; 2) Using collected information to evaluate the current ecological status of and pollution impact to selected wild rice lakes; and 3) Revision and expansion of an existing GIS data base for Minnesota rice lakes. This appropriation must be met by at least \$20,000 of non-state money.

MESABI IRON RANGE, WATER AND MINERAL RESOURCE PLANNING 7(k) \$650,000 TF

Frank Ongaro

Phone: (218) 258-3216 Fax: (218) 258-3217 E-mail: rams@uslink.net

RESEARCH PROJECT

This appropriation will do four things. First, it will map the bedrock surface and glacial drift thickness from well logs and borehole data. Second, this data will be compiled and interpreted. When combined with surface elevation data, the information will provide the first comprehensive look at the primary boundaries of surface aquifers on the western half of the Mesabi Iron Range. This is information needed to understand the water balance for flooding, low flows, and mine pit water levels necessary for future water management decisions on the Range. The third aspect of the project is a detailed hydrogeologic study of the Canisteo Mine. Potential outflow solutions and slope stability of high pit walls will be addressed. The fourth result of the project is an analysis of abandoned stockpiles containing materials, which may be suitable for use by the aggregate industry. The project will determine surface, mineral and stockpile ownership and material composition within two project areas, comprising a total of approximately 6,000 acres. Appropriation available until June 30, 2002.

SUSTAINABLE AQUACULTURE DEVELOPMENT IN MINNESOTA

7(1) \$185,000 FRF Ying Ji Minnesota Department of Agriculture 90 W. Plato Blvd. St. Paul, MN 55107 Phone: (651) 296-5081 Fax: (651) 296-6890 E-mail: ying.ji@state.mn.us Web Page Address: http://www.mda.state.mn.us

This appropriation is to develop, demonstrate, and evaluate prototypes of aquaponic systems that operate in an urban environment and use a combination of aquacultural and hydroponic techniques to produce fish and plants for human consumption. This is a two-part project. The first part is the demonstration of aquaponics production of fish and vegetables in an urban community setting. The results of the first part of the project include: prototype design and demonstration of healthy food production in an urban environment, opportunities for community gardening and community involvement in fish and vegetable production, and a fresh source of fish and vegetable supply year round. (Note: the first part of this project described above was withdrawn in Summer 2000) The second part of the project will apply and demonstrate the most current ozonation technology for water conditioning and treatment in large recirculating aquaculture systems. The results of the second part include application and demonstration of ozonation technology, assessment of effectiveness in water quality

of the gross revenues from this application of ozonation technology. Receipts form the royalty must be credited to the fund. Appropriation available until June 30, 2002.

SUSTAINABLE FARMING SYSTEMS-CONTINUATION

7(m) \$350,000 FRF Helene Murray Minnesota Institute for Sustainable Agriculture University of Minnesota 411 Borlaug Hall St. Paul, MN 55108 Phone: (612) 625-0220 Fax: (612) 625-1268 E-mail: murra021@tc.umn.edu Web Page Address: http://www.misa.umn.edu

This appropriation is for on-farm and experiment station research, documentation and dissemination of information on alternative farm practices in order to integrate recent scientific advances, improve farm efficiencies, promote profitability, and to enhance environmental quality. The project will have three main results: 1) Partnerships to deliver research and outreach programs. This includes farmers, researchers, landowners, private sector representatives, agency personnel, community members and non-profit organizations. These partners will plan, implement and deliver cooperative research and educational programs on sustainable farming systems. 2) Research projects on sustainable farming systems. This research will come from 8 existing research sites where monitoring equipment has been installed. 3) Outreach programs for approximately 700 farmers through a minimum of 20 field days, workshops and written materials.

ECONOMIC ANALYSIS OF AGRICULTURE FOR MULTIPLE BENEFITS

7(n) \$200,000 FRF Mara Krinke Land Stewardship Project 3203 Cedar Avenue South Mpls, MN 55407 Phone: (612) 722-6377 Fax: (612) 722-6474 E-mail: mkrinke@landstewardshipproject.org Web Page Address: http://www.landstewardshipproject.org

This appropriation is to evaluate economic and environmental benefits from current and future agricultural production. The project will measure the environmental and social benefits from current and future agricultural production systems in two watersheds in Minnesota. A Core Working Group will be assembled with members chosen to represent a range of specialties and perspectives. Local watershed advisory councils and a group of technical advisors will be assembled as well. The project will have the following results: 1) Characterization benefits; and 4) Analyzation and interpretation of the Data Report and Product Report.

NON-WOOD AGRICULTURE FIBERS AND INDUSTRIAL HEMP FOR PULP AND PAPER MANUFACTURE 7(o) \$200,000 FRF Ulrike Tschirner, Jim Bowyer University of Minnesota, Department of Wood and Paper Science Kaufer Laboratory 2004 Folwell Avenue St. Paul, MN 55108 Phone: (651) 624-8798 (Tschirner) (651) 624-4291 (Bowyer) Fax: (651) 625-6286 E-mail: utschirn@forestry.umn.edu Jbowyer@forestry.umn.edu

This appropriation is to investigate the feasibility of various agricultural pulp markets in the development of small-scale pulp mills in the agricultural regions of the state. The project will include technical development of the processes, pilot plant production of pulp and paper from ag-fibers and a detailed engineering study determining economic feasibility and possible locations for potential mills. The project will also develop scientifically based information regarding technical, economic, and environmental aspects of large-scale production of hemp, and use of this material as a raw material for making paper. The industrial hemp study will result in a comprehensive report that details and summarizes research findings from around the world, provides a technical and economic assessment of the potential for industrial hemp production and use in Minnesota, and outlines the environmental implications of a hemp oriented fiber production system.

SUSTAINABLE LIVESTOCK SYSTEMS

7(p) \$350,000 FRF Dennis Johnson West Central Research and Outreach Center University of Minnesota Box 471 Morris, MN 56267 Phone: (320) 589-1711 E-mail: dairydgj@cda.mrs.umn.edu

This appropriation is for on-farm research and education programs to support small- to moderate-scale farms through whole farm planning and monitoring of forage-based livestock systems. This project builds on the experience the Chippewa River Whole Farm Planning and Monitoring Team gained in the Sustainable Farming Systems Project. The results of this project will be: 1) expanding the scope of the Chippewa River Whole Farm Planning and Monitoring team to include farms sessions. 2) Research targeted to small- to moderate-sized livestock farms. 3) Outreach programs. A minimum of 300 people will be reached through various means. There will also be written and video material dissemination and a demonstration video made on the use of farm monitoring techniques.

FOREST WILDLIFE BIOLOGIST FOR RUFFED GROUSE

7(q) \$1,000,000 FRF/ Match Dan Dessecker Ruffed Grouse Society P.O. Box 2 Rice Lake, WI 54868 Phone: (715) 234-8302 Fax: (715) 234-5051 E-mail: rgsdess@chibardun.net

This appropriation is to fund a position and related costs for a forest wildlife biologist employed by the Ruffed Grouse society that will provide technical assistance to public and private landowners for improved ruffed grouse habitat and related forest wildlife conservation. The specific results of the project are: 1) Establish an endowment to fund a Forest Wildlife Biologist position in Minnesota; 2) Staff the endowed Forest Wildlife Biologist position; and 3) Coordinate and deliver programs and products to promote forest wildlife conservation. This appropriation must be matched by at least \$1,000,000 of non-state money.

The Wildlife Biologist position established through this project will operate in perpetuity. A 2-year report of accomplishments will be submitted by June 30, 2001; biennial reports will be submitted every two years thereafter through June 30, 2007.

ORGANIC FARMING TRAINING PROJECT

7(r) \$350,000 TF Jan O'Donnell Minnesota Food Association 1916 2nd. Ave. South Minneapolis, MN 55403 Phone: (612) 872-3297 Fax: (612) 870-0729 E-mail: odonn014@tc.umn.edu Web Page Address: www.organic.org

This appropriation is to recruit and train new immigrant and conventional farmers in sustainable and organic methods utilizing a mentoring approach. This comprehensive training/ mentoring program will support conventional and new immigrant farmers in converting from conventional/traditional farming methods to sustainable and organic production practices. The ultimate goal of the project is to revitalize the economic well being of rural Minnesota through existing or new farm populations. The project will include a combination and 50 new immigrants. The project will also develop and implement the training processes and tools, including an organic training manual and individualized farm management plans for each participant. Training and mentoring relationships will be established with existing farmers. There will also be field days and workshops regarding the project. Lastly, the project will identify resources, markets and organizational structures needed for long term economic success for program participants, as well as identify and implement strategies to address those needs. This project will serve as a pilot for other new and existing farmers who want to convert to sustainable or organic methods.

CONSTRUCTION AND DEMOLITION WASTE ABATEMENT DEMONSTRATION PROJECT

7(s) \$250,000 FRF Robert Alf The Green Institute 2216 E. Lake Street Minneapolis, MN 55404 Phone: (612) 728-9388 Fax: (612) 724-2288 E-mail: bobalf@reusecenter.org Web Page Address: www.greeninstitute.org

This appropriation is to field test building salvage strategies, expand markets for salvaged materials, and create a community-based enterprise model. The project will test several different strategies for the thorough salvage of both residential and commercial buildings scheduled for demolition or substantial renovation. Descriptions and evaluative criteria will be developed of at least three project models. The project will also expand the markets for resale of salvaged materials from deconstruction projects at the ReUse Center, through on-site sales, with contractors, at a warehouse site and generally through education, promotion and outreach. The project will also develop systems and strategies for the most cost-effective deconstruction methods and materials marketing.

SUBD. 8 URBANIZATION IMPACTS

RESOURCES FOR REDEVELOPMENT: A COMMUNITY PROPERTY INVESTIGATION PROGRAM

8(a) \$100,000 FRF Michael Welch Minnesota Environment Initiative 219 North Second Street, Suite 201 Minneapolis, MN 55401-1453 Phone: (612) 334-3388 Fax: (612) 334-3093 E-mail: mwelch@mn-ei.org Web Page Address: www.mn-ei.org consultants to perform soil and water testing and analysis at the selected brownfield sites. The project will then enroll projects in the MPCA VIC (Voluntary Investigation and Cleanup Unit). VIC will recommend appropriate investigation and cleanup actions that may result in determination letters from the agency. The benefits of community based brownfield redevelopment will be demonstrated through compilation and dissemination of favorable outcomes.

TOOLS AND TRAINING FOR COMMUNITY-BASED PLANNING

8(b) \$450,000 TF
Deborah R. Pile
Minnesota Planning
Centennial Building
658 Cedar Street
St. Paul, MN 55155
Phone: (651) 297-2375
Fax: (651) 296-3698
E-mail: deb.pile@mnplan.state.mn.us
Web Page Address: www.mnplan.state.mn.us

This appropriation is to develop software, data, and training for local government planning for delivery of state geographic information systems data and models for social and environmental decision making. This project will develop and deliver easy-to-use geographic information system tools, existing data and training to assist communities as they work to envision and choose their futures. The project has three main results: 1) GIS software enhancement and development, which involves enhancing EPPL7/EPIC so that it is fully functional in a windows environment; 2) Decision-analysis tool development and data packaging which covers designing and developing decision-analysis models and assembling and packaging statewide data for local planning; and 3) Outreach and training which will ensure that the tools and training respond to the needs of local governments and that local level practitioners receive the training and materials to use the tools for maximum benefit in local planning.

PROTECTING DAKOTA COUNTY FARMLAND AND NATURAL AREAS

8(c) \$200,000 TF/ Match Kurt Chatfield Physical Development Division Dakota County Western Service Center 14955 Galaxie Avenue Apple Valley, MN 55124 Phone: (952) 891-7030 Fax: (952) 891-7031 E-mail: kurt.chatfield@co.dakota.mn.us Web Page Address: www.co.dakota.mn.us permanently protect high value familiand and hatdraf areas in Dakota county. The plan will be a long-term, multijurisdictional strategy that will be developed through extensive citizen participation. The plan will prioritize lands to be protected based on community desires and risk of development and will use a classification system that categorizes lands by function. This project will also conduct a financing options survey which will poll Dakota County residents to determine public perceptions and interest in public financing options for Purchase of Development Rights, Transfer of Development Rights, and fee title acquisition of farmland, natural areas, and open space. The result will be the protection of 300-500 acres of land through donated conservation easements.

URBAN CORRIDOR DESIGN

8(d) \$400,000 FRF
Mary Vogel
Department of Landscape Architecture
College of Architecture and Landscape Architecture
University of Minnesota
110 Architecture and Landscape Architecture
89 Church Street S.E.
Minneapolis, MN 55455
Phone: (612) 626-7417
Fax: (612) 626-7424
E-mail: vogel001@maroon.tc.umn.edu

This appropriation is to develop sustainability designs for selected urban corridors. The project will develop a practical guide that can be used by officials and citizens to avoid degrading the environment and incurring future mitigation costs by making environmentally friendly planning decisions when considering infrastructure projects. Infrastructure types will be drawn that illustrate the design. Also, infrastructure types that are commonly used across various geographic scales by cities, small town, suburbs, and counties in Minnesota will be selected for study. The project has six specific results: the identification of prototypical infrastructure types, a precedent study done in the design studio, an investigation of sustainability strategies, the identification of barriers to implementation of strategies, the development of selected designs, and the production of the user-friendly publication in printed and digital format.

CONSERVATION-BASED DEVELOPMENT PROGRAM

8(e) \$150,000 TF/ Match Kris William Larson Minnesota Land Trust 2356 University Avenue West, Suite 400 St. Paul, MN 55114 Phone: (651) 647-9590 Fax: (651) 647-9769 E-mail: klarson@mnland.org Web Page Address: www.mnland.org that enhance the natural, rural landscape. This project will inform and educate approximately 400 development professionals, local government officials and staff, and landowners regarding the benefits of open space conservation in developing areas. The project will design and pursue the approval of at least four model conservation-based development projects, and will secure conservation easements on the preserved open space. This appropriation must be matched by at least \$65,000 of nonstate money.

CHISAGO LAKES OUTLET CHANNEL PROJECT

8(f) \$40,000 FRF/ Match Mic Dahlberg Chisago County Public Works 313 N. Main St. Room 400 Center City, MN 55012-9663 Phone: (651) 213-0708 Fax: (651) 213-0772

This appropriation is to complete the final construction phase of the outlet channel at Chisago Lakes. This project is known as the Chisago Lakes Emergency Outlet System. This will provide an adequate outlet for the lakes and decrease potential high water damage, and other flooding problems. Following the completion of the outlet and channel construction, the project will restore the wetland areas by reseeding the area with wetland seed mixes. The project will also provide engineering documents and construction support so that the outlet channel can operate responsibly. This appropriation must be matched by at least \$50,000 of nonstate money.

BLUFFLANDS IMPLEMENTATION

8(g) \$33,000 FRF Todd H. Bram Winona County Planning 171 West 3rd Street Winona, MN 55987 Phone: (507) 457-6335 Fax: (507) 454-9377 E-mail: tbram@nt1.co.winona.mn.us

This appropriation is to implement land protection recommendations in the blufflands design manual. This project consists of an on-the-ground revitalization of Dakota's town center. The primary focus is the development of the Dakota Town Square at the scenic main intersection of the small river community. A city owned vacant lot with a view of the Mississippi River will be developed into landscaped public green space to accommodate community uses and also provide a starting point and interpretive information for the Apple Blossom Drive Scenic Byway. Other results include landscaping and maintenance improvements at the community's scenic overlook, entrance sign, and the Dakota Community Center. In addition, a 50% matching grant will be available (not required) to renovate the exterior of one of

SUBD.9 INNOVATIONS IN ENERGY AND TRANSPORTATION

ICE ARENA DESIGN FOR EFFICIENCY AND AIR QUALITY-CONTINUATION

9(a) \$100,000 FRF Russell Landry Center for Energy and Environment 211 North 1st Street, Suite 455 Minneapolis, MN 55401 Phone: (612) 335-5863 Fax: (612) 335-5888 E-mail: rlandry@mncee.org

This appropriation is to continue the enhancement of energy efficiency and improve the indoor air quality in new and existing ice arenas in Minnesota. The project will provide significant environmental benefits by reducing the amount of carbon dioxide and other pollutants produced by electric generation and heating fuel use. The project will build upon previous efforts by providing technical assistance to individual arenas. Technical assistance will be provided to 15 arenas in the form of site-specific engineering analyses, recommendations, bid specifications and limited construction oversight for selected improvements. Promotion of the benefits of energy and air quality improvements statewide will be included in this project as well. This will be done by documenting the energy savings of previous retrofit projects in the form of case studies that will then be used as promotional tools in presentations and mailings to arena designers, owners and managers.

PROMOTING HIGH EFFICIENCY COGENERATION

9(b) \$100,000 FRF Suzanne Steinhauer Minnesota Environmental Quality Board 3rd Floor Centennial Bldg. 658 Cedar Street St. Paul, MN 55155 Phone: (651) 296-2878 e-mail: suzanne steinhauer@mnplan.state.mn.us Web Page Address: www.mnplan.state.mn.us

This appropriation is to develop a statewide inventory of potential cogeneration sites and a regulatory guidance manual. Currently, up to 70 % of the energy used at a conventional power plant is wasted up smokestacks or in cooling towers or ponds. Cogeneration recovers this waste energy from power plants and uses it for heating, cooling, or industrial processes. This process not only improves overall energy efficiency, it can lead to direct reductions of regional emissions of greenhouse gases and other air pollutants as well. This project will inventory the cogeneration sites, which will identify and describe as many of the state's existing large thermal energy and the guidance manual are intended primarily to provide valuable information to power developers, but both products will be useful to other interested groups as well.

EVALUATE BIODIESEL MADE FROM WASTE FATS AND OILS

9(c) \$125,000 TF/ Match Mike Youngerberg Minnesota Soybean Growers Association 360 Pierce Ave., Suite 110 N. Mankato, MN 56003 Phone: (888) 896-9678 Fax: (507) 388-6751 Fax: mike@soybean.mankato.mn.us Web Page Address: www.mnsoybean.org

RESEARCH PROJECT

This appropriation is to fund the production of a diesel fuel from soybeans and waste cooking oils and greases, for laboratory evaluation of the fuel for particulates and engine power, and for trial in light-duty vehicles. Biodiesel is a clean burning fuel made from renewable resources. Biodiesel made from waste cooking oils and greases can reduce the load on wastewater treatment facilities. Biodiesel made only from soybean oil is expensive. By combining soybean oil with recycled fats and oils, it would be possible to make a biodiesel that is competitive with petroleum diesel fuel. The fuel that will be developed during this project will be made from a blend of waste grease/ cooking oils and soybean oil that is suited to the Minnesota climate. The fuel will be blended with petroleum diesel to make B20, and this will be evaluated in an engine emission laboratory to determine its effect on emissions and engine power. The B20 will be evaluated in several dieselpowered vehicles for one year to determine if it is practical to use in Minnesota. The project will also conduct a economic study of the viability of using waste grease for producing fuel. This appropriation must be matched by at least \$50,000 of nonstate money.

SUBD. 10 DECISIONMAKING TOOLS

GOODHUE COUNTY NATURAL RESOURCES INVENTORY AND MANAGEMENT PLAN

10(a) \$75,000 FRF/ Match Michael A. Wozniak Goodhue County Land Use Management P.O. Box 408 Red Wing, MN 55066 Phone: (651) 385-3146 Fax: (651) 385-3106 E-mail: mike.wozniak@co.goodhue.mn.us Web Page Address: www.goodhue.mn.us

This appropriation is to inventory, evaluate, and describe

banks and field work. The information gathered in the inventory will be evaluated for the presence of natural communities. After land is evaluated, it will be classified and qualitatively assessed using Minnesota DNR's Natural Heritage Program methodology. The county-wide GIS mapping and database will be created for all natural communities discovered in the inventory. The natural communities will be assigned qualitative rankings and assigned management units. The project will also develop a county wide natural resource management plan, including a model city and township ordinance. For each designated management unit, a set of management recommendations will be provided suggesting alternatives and strategies. All information gathered from this project will be presented in a County-wide Natural Resource Forum. This appropriation must be matched by at least \$50,000 of nonstate money.

PUBLIC ACCESS TO MINERAL KNOWLEDGE

10(b) \$100,000 FRF
David Dahl
Minnesota Department Natural Resources- Mineral Division
1525 Third Avenue East
Hibbing, MN 55746
Phone: (218) 262-7322
Fax: (218) 262-7328
E-mail: dave.dahl@dnr.state.mn.us
Web Page Address: www.dnr.state.mn.us

This appropriation is to accelerate the automation of historic mineral exploration information and to make the database accessible and searchable. The project will accelerate putting mineral exploration information that has been acquired by the State of Minnesota from private mineral exploration companies over the past 100 years, into a more useable form and make it widely available for future exploration, for environmental research, and for public access. The project will have two specific results: 1) Production of directories of digital images of maps and other mineral exploration documents, and a digital index and catalogue for searching the digital documents; and 2) Web-based access to the products of result #1.

UPDATING OUTMODED SOIL SURVEYS – CONTINUATION

10(c) \$500,000 TF/ Match Greg Larson Board of Water and Soil Resources 1 West Water Street, Suite 200 St. Paul, MN 55107 Phone: (651) 296-0882 Fax: (651) 297-5615 E-Mail: greg.larson@bwsr.state.mn.us

This appropriation is for the first biennium of a four biennia project to accelerate a statewide program to begin to update and digitize soil surveys in up to twenty-five counties. The interpretations and a soil database are available for managing agriculture, forestry, urbanizing lands, recreation, and wildlife. The project will focus on southeastern Minnesota. Other counties will be undertaken as time and funding permits. Participating counties must provide a cost-share.

MINNESOTA ENVIRONMENTALLY PREFERABLE CHEMICALS PROJECT

10(e) \$150,000 TF/ Match Katherine Mullen Institute for Self-Reliance 1313 5th Street SE Minneapolis, MN 55414 Phone: (612) 379-3815 Fax: (612) 379-3920 E-Mail: kmullen@ilsr.org Web Page Address: www.ilsr.org/

The Minnesota Environmentally Preferable Chemicals Project created a network of over 3000 Minnesota businesses, unions, commodity organizations, and technical assistance groups that have the potential to aid the shift from the use and manufacture of petrochemical-based products to alternative, environmentally preferable biobased chemical products. Members received information on the benefits of using biochemicals, including a 20-page report entitled "Lubricants from Vegetable Oil" which looks at vegetable oil-based industrial and automotive lubricants and their application in a range of industry sectors, and an 8-page fact sheet called "Biobased Chemicals Benefit the Workplace" addressing worker safety and cost issues associated with using chemical products. ILSR staff also created a web page on the use, advantages, and availability of biochemicals, and provided information on specific biobased chemical products, technology advances, and policy developments in the program's quarterly newsletter ("The Carbohydrate Economy"), electronic bulletin, and main web site. Staff gave presentations on the use of biobased products at various industry meetings. Work was overseen by a steering committee established at the beginning of the project.

GIS UTILIZATION OF HISTORIC TIMBERLAND SURVEY RECORDS

10(f) \$120,000 FRF Robert Horton Minnesota Historical Society 345 Kellogg Blvd. W. St. Paul, MN 55102 Phone: (651) 215-5866 Fax: (651) 296-9961 E-Mail: robert.horton@mnhs.org Web Page Address: www.mnhs.org

This appropriation is to digitize and distribute historic timberland survey records in geographic information systems

Converting the information to a standardized GIS data set allows for the effective and efficient use of the surveys. The plats will first be optically scanned, then geo-referenced and made available as TIFF images. Next, plats will be digitized and attribute information will be encoded. Finally, the appraisals of timber resources and their condition will be entered into a database linked to the scanned images and digitized features by location identifiers. The completed products will be made available to the cooperating organizations, other government agencies and the general public.

BY-PRODUCTS APPLICATION TO AGRICULTURAL, MINELAND AND FOREST SOILS

10(g) \$350,000 TF/ Match Carl Rosen U of M 1991 Upper Buford Circle Duluth, MN 55806 Phone: (612) 625-8114 Fax: (612) 624-2218 E-Mail: crosen@soils.umn.edu Web Address: www.wlssd.duluth.mn.us

RESEARCH PROJECT

This appropriation is to the Western Lake Superior Sanitation District (WLSSD) to create a Northeast Minnesota consortium of public utilities, wood-products and mining industries to research environmentally sound co-applications for industrial and municipal by-products for agriculture, forestry and mineland reclamation. This project will research the byproducts from municipalities and the wood products industry, namely municipal biosolids, wood ash and paper mill residuals. The first stage of work involves an evaluation of the by-products available, both for quality and quantity. Field trials will be conducted using by-products applications tailored to the specific solid and crop needs in the three industrial areas. The field trials will be monitored and evaluated for a number of parameters depending on the use. The information gained in this project will be disseminated through field days, meetings, and written materials. The appropriation must be matched by at least \$21,000 of nonstate money.

WINTER SEVERITY INDEX FOR DEER

10(h) \$60,000/ Match Dr. Mark S. Lenarz Forest Wildlife Populations and Research Group MN DNR 1201 East Highway 2 Grand Rapids, MN 55744 Phone: (218) 327-4432 Fax: (218) 327-4181 E-Mail: mark.lenarz@dnr.state.mn.us

RESEARCH PROJECT

can predict the nutritional condition of deer, week by week, throughout a severe winter. Deer will be live-trapped and blood samples will be taken to assess body composition. Detailed measurements of ambient temperature and snow depth and density will be assessed throughout the study area. Analyses of this data will clarify the relationship between weather and deer condition and ultimately should provide a method to predict deer condition from weather variables. The project will also develop educational materials that explain how deer conditions affect deer survival, and the utility of using a new winter severity index to trigger emergency deer feeding. This appropriation must be matched by at least \$5,000 of nonstate money, and at least \$30,000 in-kind match. Appropriation available until June 30, 2002.

SUBD. 11 ENVIRONMENTAL EDUCATION

UNCOMMON GROUND: AN EDUCATIONAL TELEVISION SERIES

11(a) \$400,000TF
Barbara Coffin
Institute for Sustainable Natural Resources
College of Natural Resources, University of Minnesota
250 NRAB, 2330 Upper Buford Circle
St. Paul, MN 55108
Phone: (612) 624-4986
Fax: (612) 624-8701
E-mail: bcoffin@forestry.umn.edu
Web Page Address: www.cnr.umn.edu/ISNR

This appropriation is to fund the production of a televised series of natural landscapes chronicling two centuries of change in Minnesota. The series is entitled "Uncommon Ground" and is a 4-part televised history of Minnesota's natural landscapes told in four one-hour segments. The story will be told from the point of view of the landscape: its post-glacial origins, through its near destruction at the turn of the century, to the conflicts of today over its restoration, protection and proper use. The series is meant to provide important historical context necessary to understand today's natural resource conflicts and the ambitious landscape-scale efforts underway today that seek to restore the land's heritage. The programs will be disseminated through a variety of venues including: 1) the general public through Twin Cities Public Television. 2) Minnesota's middle school system through the Minnesota History Center's "Northern Lights" education outreach program, and 3) natural resource professionals, college students, policymakers, and interested citizens through University Extension. The project will also develop companion educational materials to go along with the series.

KARST EDUCATION FOR SOUTHEASTERN MINNESOTA

Winona State University Winona, MN 55987-5838 Phone: (507) 457-5223 Fax: (507) 457-5681 E-mail: bhoffman@vax2.winona.msus.edu

This appropriation is to develop teacher training workshops, educational materials, and exhibits demonstrating the connections between land use and ground water contamination in southeastern Minnesota's karst landscape. The project team will develop and construct self-contained karst curriculum units using the "Learning Trunk" concept. These trunks will include curriculum guides, classroom and fieldwork activities, videos, karst artifacts, posters, karst resource lists, maps and field guides to illustrate the connections between land use and drinking water quality. The project will also develop karst educational exhibits and create karst links to existing electronic environmental directories. There will be three workshops targeted for 75 upper elementary and middle school teachers throughout the region to introduce them to concepts of land use impacts on ground water in karst areas and to familiarize them with the learning trunks and exhibits.

MINNESOTA WOLF PUBLIC EDUCATION

11(c) \$100,000 TF/ Match
Walter M. Medwid
International Wolf Center
5930 Brooklyn Blvd.
Minneapolis, MN 55429
Phone: (612) 560-7374
Fax: (612) 560-7368
E-Mail: wmedwid@wolf.org
Web Page Address: www.wolf.org

This appropriation is to develop educational curriculum, conduct at least five teacher training workshops and develop a traveling exhibit on wolves to address the current Minnesota wolf management debate. The curriculum will be developed with the voices of DNR, livestock/farming interests, deer hunters, environmental groups and other stakeholders to ensure coverage of differing perspectives on wolves. The workshops will be focused on new resources to bring the wolf and the issues surrounding it into the classroom with an emphasis on graduation standards and consistent with the GreenPrint Statewide Plan for Environmental Education in Minnesota. The travelling exhibit will focus on fact, natural history, and ecology of wolves as they relate to current management debate issues. This appropriation must be matched by at least \$15,500 of nonstate money.

BEAR CENTER

11(d) \$20,000 FRF Wayne Sames Minnesota DNR Local Grants Program 500 Lafayette Road E-mail: wayne.sames@dnr.state.mn.us

This appropriation is to fund the development of a business plan, marketing study, facility predesign, and exhibit design for a Bear Center in Minnesota. On January 19, 2000 LCMR members awarded the \$20,000 to Northome, Minnesota.

ACCESSIBLE OUTDOOR RECREATION

11(e) \$400,000 TF Greg Lais Wilderness Inquiry 1313 Fifth Street, SE, Box 84 Minneapolis, MN 55414 Phone: (612) 379-3858 Fax: (612) 378-5972 E-mail: greglais@wildernessinquiry.org Web Page Address: www.wildernessinquiry.org

This appropriation is to survey facilities in at least 50 state recreation units for the Minnesota guide to universal access, develop assessments of inclusion in recreation and environmental education activities, and provide opportunities for participation for people with disabilities. A comprehensive review of initiatives focusing on inclusion and creating a clearinghouse of information, which connects those initiatives, will be conducted. The project will identify and recruit up to 20 Minnesota experts in environmental education, outdoor recreation, and outdoor education to participate in focus groups to identify critical issues relative to inclusion of people with disabilities in outdoor activities. The survey database will be 75-100 outdoor service providers. The results of this survey will be disseminated at conferences, on the Wilderness Inquiry website to the survey respondents and to the consultants. The second main result of the project is to provide inclusive outdoor opportunities for 15,000 Minnesotans. The project will work with the organizers of community-based outdoor celebrations to make the events more accessible to and inclusive of people with disabilities. This includes training government officials involved in the events, in inclusion and disability awareness tailored especially to their public role. Appropriation available until June 30, 2002.

SCIENCE OUTREACH AND INTEGRATED LEARNING ON SOIL

11(f) \$250,000 TF/ Match
Patrick Hamilton
Science Museum of Minnesota
30 E. 10th Street
St. Paul, MN 55101
Phone: (651) 221-4761
Fax: (651) 221-4514
E-Mail: hamilton@smm.org
Web Page Address: www.smm.org/

This appropriation is to develop a SOILS Experiment Center

Experiment Center will be a 1,400-square foot greenhouse, laboratory, exhibit, and classroom space. The facility will reflect knowledge about sustainable building design, construction, and operation. It will house exhibits about soil science and soil health as well as information about the St. Croix Watershed Research Station's work on fingerprinting sediment sources in agricultural watersheds. The test plots will highlight ways in which people personally can protect and improve the health of their soils. With both the SOILS Experiment Center and the test plots, 8th grade students will be trained to serve as interpreters as part of the Science Museum's existing Lab Partners program. This appropriation must be matched by at least \$100,000 of nonstate money. Appropriation available until June 30, 2002.

TEACHER TRAINING IN INTERDISCIPLINARY ENVIRONMENAL EDUCATION

11(g) \$60,000 TF Clarissa Ellis Audubon Center of the North Woods Box 530 Sandstone, MN 55072 Phone: (320) 245-2648 Fax: (320) 245-5272 E-mail: audubon1@ecent.com Web Page Address: www.audubon-center.com

This appropriation is to train K-12 teachers in environmental techniques. The project will provide one week of training, onsite at Audubon Center of the North Woods, to a total of 200 K-12 teachers. There will be four to six training sessions between July, 1999 and September, 2000. The teachers will learn a variety of hands-on and multidisciplinary approaches to environmental education through their particular subject matter. The teachers will also learn strategies for reaching the graduation standards and design of performance packages. Each of these 200 teachers will reach at least 30 students per year for a minimum of 6,000 students annually.

DEVELOPMENT AND REHABILITATION OF RECREATIONAL SHOOTING RANGES

11(h) \$350,000 FRF/ Match Chuck Niska Minnesota DNR Division of Enforcement- Safety Training Unit Camp Ripley, P.O. Box 148 Little Falls, MN 56.45-0148 Phone: (320) 616-2504 Fax: (320) 616-2517 E-Mail: chuck.niska@dnr.state.mn.us

This appropriation is to provide cost-share grants to local recreational shooting clubs for the purpose of developing or rehabilitating shooting sports facilities for public use. Ensuring public use of these facilities is part of the terms and conditions Half of the funding will be earmarked for new constructions and the other half will be used to rehabilitate existing facilities. In addition to the required work program, grants may not be approved until grant proposals to be funded have been submitted to the Legislative Commission on Minnesota Resources and the commission has approved the grants or allowed 60 days to pass.

YOUTH OUTDOOR ENVIRONMENTAL EDUCATION PROGRAM

11(i) \$125,000 FRF Scot Zellmer Dakota County 8500 127th Street East Hastings, MN 55033 Phone: (651) 438-4660 Fax: (651) 437-4560 E-mail: scot.zellmer@co.dakota.mn.us Web Page Address: www.co.dakota.mn.us\parks

This appropriation is to develop youth-at-risk environmental education programs. The programs will focus on increasing self-esteem, building trust, developing leadership skills, and improving teamwork and communication skills. It will consist of several elements: creation of a team challenge/ropes course, outdoor recreation activities that require teamwork, leadership, and communication skills, and outdoor recreation activities designed to build self-esteem through learning new skills. The project also includes the marketing and promotion of the program.

TWIN CITIES ENVIRONMENTAL SERVICE LEARNING- CONTINUATION

11(j) \$40,000 TF/Match
Kathy Kinzig
Eco Education
275 E. Fourth Street, #821
St. Paul, MN 55101
Phone: (651) 222-7691
Fax: (651) 222-3425
E-Mail: ecoed@minn.net
Web Page Address: www.blacktop.com/ecoeducation

This appropriation is to provide training and matching grants for student service environmental learning projects. Approximately 40 classrooms over two years will complete community needs assessments, and design/ implement environmental conservation projects to address those needs. The project staff will provide classroom visits as needed to facilitate activities and provide on-going consultation with students and teachers to help tie out-of-classroom experiences to curriculum goals and coordinate all aspects of the minigrants. The minigrants will be disbursed to student groups wishing to carry out environmental service learning projects during the grant period. The project staff will help coordinate

WITHDRAWN: MINNESOTA WHITETAIL DEER RESOURCE CENTER EXHIBITS

11(k) \$400,000 FRF/ Match Joe Wood Minnesota Deer Hunters Association 2820 South Highway 169 P.O. Box 5123 Grand Rapids, MN 55744-5123 Phone: (218) 327-1103 Fax: (218) 327-1349 E-Mail: mdha@uslink.net Web Page Address: www.up-north.com/mndeerhunters

This appropriation was to construct exhibits on white-tailed deer in Minnesota. The project cancelled on December 31, 1999.

SUSTAINABILITY FORUMS

11(1) \$200,000 TF Barbara Toren Izaak Walton League of America Minnesota Division 805 Park Ave Mahtomedi, MN 55115 Phone: (651) 426-2531 Fax: (651) 407-0882 E-Mail: toren@visi.com

This appropriation is to conduct forums for the public and local units of government on sustainability and communitybased planning objectives. The project will use the experience and expertise of the Izaak Walton League's national Sustainability Education Project to promote community sustainability and community-based planning in Minnesota. There will be four local community based forums conducted for the public and local units of government. Each of these four forums will consist of three workshops, which will be four to six hours each. Evaluations will be made to assess the workshops for educational value and ability to promote community-based follow up. The follow-up support, provided by the project staff, will Include technical advice, help in identifying and seeking funding for community-based projects, and other participant-identified needs.

MINNESOTA RIVER WATERSHED ECOLOGY AND HISTORY EXHIBITS

11(m) \$90,000 FRF Lon Berberich / Larry Granger Joseph R. Brown Heritage Society P.O. Box 433 Henderson, MN 56044 Phone: (507) 248-3234 Fax: (507) 248-3235 E-mail: jrb@mnic.net Web Page Address: www.jrb.org result in the design, development and installation of an approximate 280 sq. ft. topographic model of the Minnesota River Watershed that through the use of a multi-media system will use colored maps and audio text to describe and present the ecological and cultural stories of the Minnesota River Watershed. This hands-on exhibit will be accessible by visitors at its location in the Joseph R. Brown Minnesota River Center in Henderson, Minnesota. In addition, an educational curriculum relating to the exhibit will be prepared for K-12 educational systems and made available to teachers and students before visitation.

AQUACULTURE, HYDOPONICS, AND GREENHOUSE RESEARCH LAB

11(o) \$100,000 FRF Jeff Lindeman Chisago Lakes High School 14900 Olinda Trail Lindstrom, MN 55045 Phone: (651) 213-2500 Fax: (651) 213-2550 E-mail: isd2144.jml@norsol.com

This appropriation is to design and construct a greenhouse, hydroponics, and aqaculture facility to support an outdoor living classroom. The project will construct a 24' x 60' exolite greenhouse to house a 950-gallon polyethylene tank. The greenhouse will provide the environmental requirements for herb, tree, fruit, vegetable, agroforestry, and horticultural plants. The aquaculture tank will be able to support and raise approximately 1,000 pounds of fish. The growing beds in the greenhouse will be fed by the aquaculture tanks' fish waste via a gravity flow system from the aquaculure tank into the growing beds. This system works symbiotically in that the plants that are grown will provide the biofilter to flush out waste, and the fish will provide the fertilizer needed to grow plants in a greenhouse. This system will also provide an educational tool for students and if successful, will be used as the pilot site for other educational facilities to view and provide technical information to bring aquaponics to use by other students and communities.

SUBD. 12 BENCHMARKS AND INDICATORS

MEASURING CHILDREN'S EXPOSURE TO ENVIRONMENTAL HEALTH HAZARDS

12(a) \$500,000 TF Ken Sexton, ScD. School of Public Health University of Minnesota Box 807 UMHC 420 Delaware Street SE Minneapolis, MN 55455

RESEARCH PROJECT

This appropriation is to augment a federal study of exposure of children to multiple environmental hazards, to evaluate comparative health risks, and to design intervention strategies. The overall goal is to measure children's exposure to important environmental chemicals including pesticides, metals, and solvents, in order to create benchmarks, which allow assessment of the status and trends in environmental hazards. This will be the first to establish baseline exposure information for children and will allow realistic assessment of children's cumulative health risks from exposure to multiple environmental chemicals. The environmental hazards in and around the residences of 100 school children will be monitored. The project includes development and dissemination of the information obtained so that the findings are understandable and useful to families, schools, and public health professionals.

MINNESOTA COUNTY BIOLOGICAL SURVEY-CONTINUATION

12(b) \$1,600,000 TF Carmen Converse Department of Natural Resources Box 25, 500 Lafayette Road St. Paul, MN 55155 Phone: (651) 296-9782 Fax: (651) 296-1811 E-Mail: carmen.converse@dnr.state.mn.us Web Page Address: www.dnr.state.mn.us

This appropriation is to fund the seventh biennium of a twelve biennia project to accelerate the survey that identifies significant natural areas and systematically collects and interprets data on the distribution and ecology of natural communities, rare plants, and animals. The survey began in 1987 in response to the need to determine the status of biological diversity in Minnesota. Field surveys that began in the previous biennium will be completed by August 1999 in nine counties bordering the Minnesota River. Surveys will also be completed in at least four of the seven counties that make up most of the Mille Lacs Uplands and Glacial Lake Superior Plain ecological subsections. These are Benton, Mille Lacs, Kanabec and Pine Counties. Surveys will begin and are proposed for completion in the remaining unsurveyed portions of the Red River Prairie subsection which includes portions of Becker and Ottertail and all of Stevens and Grant Counties. Surveys will also begin in the northern portion of the Minnesota River Prairie subsection and portions of the Hardwood Hills subsection, which includes Douglas, Kandiyohi, McLeod, Meeker, and Pope Counties. Lastly, surveys will begin in Itasca County and in the North Shore subsection, which includes portions of St. Louis, Cook and Lake Counties. The survey is due to be completed by 2011.

ENVIRONMENTAL INDICATORS INITIATIVE-CONTINUATION

500 Lafayette Road, Box 10 St. Paul, MN 55155 Phone: (651) 297-7879 Fax: (651) 296-6047 E-Mail: keith.wendt@dnr.state.mn.us Web Page Address: www.dnr.state.mn.us/eii/eii.htm

This appropriation is for the third and final biennium to complete a set of statewide environmental indicators that will assist public understanding of Minnesota environmental health and the effectiveness of sustainable development efforts. The project concludes the environmental indicator selection process initiated in the FY96-97 biennium. A coordinated set of approximately 60 indicators for statewide reporting and a larger menu of indicators that provide more specific information on local, watershed, or regional environmental conditions for agricultural areas, forests, lakes, prairies, rivers and streams, wetlands, urban and developed areas, and air and groundwater will be completed with this project. The project staff will provide technical and logistical assistance to a network of citizen-led environmental monitoring efforts and to statewide and regional resource assessment efforts. Internet-based tools will be developed to coordinate the activities of network members and widely disseminate indicator information. The project will also produce "state-of-the-environment" reports tailored to the need of local, regional, and statewide efforts in 1) evaluating environmental conditions, 2) measuring progress towards sustainability goals, and 3) evaluating the effectiveness of environmental and natural resource programs. Lastly, the project will promote the use of indicators in agency goal setting and program evaluation via training and consultation during strategic planning and budgeting activities.

DAKOTA COUNTY WETLAND HEALTH MONITORING PROGRAM

12(d) \$160,000 TF Charlotte R. Shover Dakota County Environmental Education Program 4100 220th Street West, Suite 101 Farmington, MN 55024 Phone: (651) 480-7734 Fax: (651) 463-8002 E-Mail: cshover@extension.imn.edu Web Page: www.extension.umn.edu/county/dakota/ Edprog.html

This appropriation is to evaluate wetland health through citizen volunteers, develop wetland biodiversity projects in urban areas, and conduct public education. The biological data gathered by the citizen volunteers is based on protocol and metrics developed by the Minnesota Pollution Control Agency. Eight to eleven cities will establish citizen teams and select an educator to serve as the team leader. Each citizen team will monitor at least four wetlands. The project will provide technical wetland experts to provide quality assurance and control for the teams, to analyze the data collected by the teams, practices on at least six wetlands. The public education effort includes a field day for students, a teacher workshop, an insert in local community newspapers of cooperating cities, and purchase of resource materials for participants and county.

PREDICTING WATER AND FOREST RESOURCES HEALTH AND SUSTAINABILITY

12(e) \$300,000 TF JoAnn M. Hanowski Natural Resources Research Institute 5013 Miller Trunk Highway Duluth, MN 55811 Phone: (218) 720-4311 Fax: (218) 720-9412 E-Mail: jhanowsk@sage.nrri.umn.edu Web Page Address: www.nrri.umn.edu/

RESEARCH PROJECT

This appropriation is to assess ecosystem health and use indicators to develop models that incorporated landscape composition change. The objective of the project is to compile existing or create new indicators of biodiversity, soil productivity and water quality and to incorporate these metrics into a decision support model that will predict forest and aquatic ecosystem health and sustainability under a variety of management scenarios. Ecosystem health will be quantified by an index and this index compared to a range of indices calculated for the historical condition of the landscape undergoing a natural disturbance regime. Existing data for specific biota will be identified and compiled for three regions of Minnesota.

The project proposes to integrate tools such as geographic information systems, satellite image analysis, multivariate statistical methods, and simulation models to create a management tool. Together the environmental and organism data will be used to test existing indicators and develop new indicators where necessary. The final product(s) will be a workable decision making system that can be used by a variety of land planning agencies, industrial groups, and private citizens.

POTENTIAL FOR INFANT RISK FROM NITRATE CONTAMINATION

12(f) \$200,000 FRF Rita B. Messing Minnesota Department of Health Division of Environmental Health P.O. Box 64975 St. Paul, MN 55164-0975 Phone: (651) 215-0924 Fax: (651) 215-0975 E-Mail: rita.messing@health.state.mn.us

RESEARCH PROJECT

This appropriation is to study nitrate and bacteria contaminated

households. Included in this result is the writing of a detailed protocol including criteria for selection of participant households, selection of households for visits, database design, design of forms for recording data, scheduling participants, correspondence, and data entry. Also included is writing a training manual for field researchers. Field measurements on wells will be made and site maps will be made which document the position of the wellhead with respect to sources of contamination; 2) Administration of household survey questionnaires. This questionnaire will be designed to determine the composition of exposed households and the potential at risk population, the length of exposure, prevalence of breast-feeding, bottle-feeding from tap water, bottle-feeding from other water supplies, and known occurrence of "blue baby syndrome" in members of the household; 3) Analysis of drinking water and survey questionnaire results. This will be completed using appropriate statistical techniques and GIS. The results will be distributed to health professionals, planners, local government officials, and risk managers.

ASSESSING LAKE SUPERIOR WATERS OFF THE NORTH SHORE

12(g) \$400,000 TF
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Duluth, MN 55812
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E-Mail: tcj@d.umn.edu
Web Page Address: www.d.umn.edu/cse/llo.html

RESEARCH PROJECT

This appropriation is to fund a pilot program to establish benchmark data for Lake Superior. The project will establish this data on the phytoplankton communities, nutrient and trace element chemistry, and temperature and currents in western Lake Superior based on a timeseries of measurements at selected stations along the north shore of Lake Superior from Duluth to Split Rock. A database of water chemistry, plankton composition and abundance, and thermal structure and current velocities, as well as an archive of water, plankton and sediment samples, will be established at the Large Lake Observatory and made available to the public. This will provide an innovative and cost-effective monitoring program to assess key environmental parameters. Appropriation available until June 30, 2002.

MINNESOTA'S FOREST BIRD DIVERSITY INITIATIVE- CONTINUATION

12(h) \$350,000 TF/ Match Lee Pfannmuller DNR- Division of Fish and Wildlife Box 25, DNR Building 500 Lafayette Road E-Mail: lee.pfannmuller@dnr.state.mn.us Web Page Address: www.nrri.umn.edu/nrri/land bio.html

RESEARCH PROJECT

This appropriation is for the fifth biennium of a six-biennium project to establish benchmarks for using birds as ecological indicators of forest health. The goal of the project is to develop landscape management tools to maintain Minnesota's diversity of forest birds. One product of the project will be a forest bird planning tool, or model, that allows forest managers to assess and predict bird species distribution and abundance across forest landscapes in relation to forest age and composition. Specific results of this segment of the project are: 1) Monitor forest bird population trends. This includes a statistical analysis of population trends using project data collected since FY92. This analysis will be compared to broad statewide trends as depicted by the federal Breeding Bird Survey. 2) Conduct a large-scale field application of the forest bird-planning tool. The test will be designed to assess the modeling approach at a larger spatial scale and to incorporate existing and alternative forest management plans into the simulations. 3) Prepare and deliver educational materials and application tools. This aspect will include an appropriate interface that allows forest managers to readily understand and utilize the Initiative's predictive model in their forest management planning efforts. This will also include expanding the availability of information on the Internet. This appropriation must be matched by at least \$80,000 of nonstate money. Appropriation available until June 30, 2002.

FARM PONDS AS CRITICAL HABITATS FOR NATIVE AMPHIBIANS

12(i) \$250,000 TF/ Match Melinda G. Knutson USGS/ Biological Resources Division Upper Midwest Environmental Sciences Center 2630 Fanta Reed Rd. La Crosse, WI 54603 Phone: (608) 781-6216 Fax: (608) 783-6066 E-Mail: melinda_knutson@usgs.gov Web Page Address: www.umesc.er.usgs.gov/

RESEARCH PROJECT

This appropriation is to study management practices that sustain healthy populations of amphibians in southeastern Minnesota farm ponds and to recommend monitoring methods suitable for testing amphibian habitat quality. Farm ponds will be selected which are subject to different types of farm management practices, including ungrazed grassland, grazed grassland, and row crops. In these ponds, project staff will collect information on amphibian populations, diversity, productivity, presence/absence of deformities, as well as water quality, concentration of soluble nutrients and agricultural pesticides, pond size and depth, presence/absence of fish, and will then recommend monitoring methods suitable for testing amphibian habitat quality. The project will also develop guidelines for private landowners and state and federal agencies seeking to maximize both wildlife habitat and agricultural production on land adjacent to farm ponds. This appropriation must be matched be at least \$200,000 of nonstate money. Appropriation available until June 30, 2002.

IMPROVED FUNGUS COLLECTION AND DATABASE

12(j) \$70,000 TF David J. McLaughlin Herbarium-University of Minnesota 220 Biological Sciences Center 1445 Gortner Ave St. Paul, MN 55108-1095 Phone: (612) 625-5736 Fax: (612) 625-1738 E-Mail: davem@puccini.crl.umn.edu

This appropriation is to consolidate and preserve fungus specimen collections and computerize the data for use in agriculture, forestry, and recreation management. A centralized database for the fungi of Minnesota will be produced as a result of consolidation of the two U of M fungal collections. This database will provide information on the distribution, ecology, and history of the fungi of the state. After the collections are consolidated and computerized, a summary analysis will be run. The information obtained will be linked to an existing website for vascular plants.

SUBD. 13 CRITICAL LANDS OR HABITATS

SUSTAINABLE WOODLANDS AND PRAIRIES ON PRIVATE LANDS- CONTINUATION

13(a) \$450,000 TF Tom Kroll MN DNR E-Mail: Tom.Kroll@dnr.state.mn.us

Web Page: http://willow.ncfes.umn.edu/woodstew/wdstew.htm

This appropriation is to develop stewardship plans for private landowners and implement natural resource projects by providing matching money to private landowners. This will accelerate care, respect and use of privately owned forests, wetlands, brushlands, and prairies by educating and motivating the landowners. The project will use approved, private-sector professionals to develop sustainable, ecosystem-based land stewardship plans around landowner goals and land capability. Each plan requires a field inventory of the resources and adds to the overall information base. These Woodland Stewardship plans will be prepared for 350 landowners covering 35,000 acres of forests and wetlands. This program will be expanded to the prairie ecosystem as a pilot project. The project will Appropriation available until June 30, 2002.

NATIONAL PRAIRIE PASSAGE- LINKING ISOLATED PRAIRIE PRESERVES

13(b) \$150,000 TF/ Match Robert Jacobson MN/DOT 3485 Hadley Avenue North Oakdale, MN 55128 Phone: (651) 779-5087 Fax: (651) 779-5019 E-Mail: robert.jacobson@dot.state.mn.us rjacobson58@earthlink.net Web Page: www.dot.state.mn.us/engserv/environment/

This appropriation is to link the isolated tallgrass prairie preserves with corridors of prairie. The National Prairie Passage is intended to be a scenic byway that combines aspects of ecotourism with natural resource protection and enhancement at a national level. This project will be an ongoing effort at the Minnesota Department of ransportation to identify and protect these prairie remnants and promote ecotourism in the corridor. This project will serve as a model for other states to follow as they pursue funding for the Prairie Passage in their respective states. Initial linkages will be started at three locations in Minnesota with the final product being a contiguous connection between preserves being formed and buffers being established to protect existing prairies. Other results include development of a National Prairie Passage sign, development of marketing materials and brochures, and restoration to enhance the entrances to several State Parks that contain high quality prairies. Interpretive kiosks and/or signs will be developed for these entrance areas. Roadsides leading into the state parks will be restored to native prairie and if necessary some restoration will be performed in the parks themselves to create buffers to protect the prairie remnants. Planting along roadsides will be the starting points of linkages to other nearby prairies. This appropriation must be met by at least \$600,000 of nonstate money.

GREENING THE METRO MISSISSIPPI-MINNESOTA RIVER VALLEYS

13(c) \$800,000 TF/ Match
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E-Mail: rbuffler@greatrivergreening.org
Web Address: http://www.greatrivergreening.org/

This project will implement private and public habitat restoration projects on 1,500 acres in the metro Mississippi/ Minnesota River valleys. The restoration work will involve

restoration process will begin with development of a restoration and management plan. After identifying gaps in existing inventories, cooperators will inventory approximately 5,000 additional acres. Management plans will overlay biological information on a Geographical Information System. Project ecologists will work with public and private landowners to select suitable restoration sites, devise long-term strategies, write management plans, and offer technical assistance. Cooperators will develop criteria to share restoration funds. They will also select restoration sites ranked by ecological, social, and financial factors. The project will develop a system for reporting and improving the results of restoration and management efforts. This will include development of a web page. This appropriation must be matched by at least \$374,000 of nonstate money and cost sharing is required for projects on private lands. Appropriation available until June 30, 2002.

RESTORING THE GREATER PRAIRIE CHICKEN TO SOUTHWESTERN MINNESOTA

13(d) \$60,000 TF Brian Winter The Minnesota Prairie Chicken Society Box 25, 500 Lafayette Road St. Paul, MN 55155-4025 Phone: (651) 296-5359 Fax: (651) 296-1811

This appropriation is to restore the greater prairie chicken to the appropriate habitat. The restoration area is the Minnesota River Prairie Landscape Area, including the Lac Qui Parle State Wildlife Management Area, the Big Stone National Wildlife Refuge, and two important Nature Conservancy Preserves. This will be accomplished by trapping and transporting the wild prairie chickens from northwestern Minnesota. 150 of the chickens will be fitted with radio transmitters. The results of this project will be the establishment of at least 5 prairie chicken booming grounds in the project area.

THE PRAIRIE HERITAGE FUND

13(e) \$500,000 TF/ Match Matt Holland Pheasants Forever, Inc. 2101 Ridgewood Dr. NW Alexandria, MN 56308 Phone: (320) 763-6103 Fax: (320) 763-6103 E-Mail: ringneck@tds.net

This appropriation is to acquire and develop land for prairie grasslands and wetlands to be donated to the public. The project will have the following results: 1) Development of promotional materials and application procedure packets. 2) Dissemination of the Prairie Heritage Fund brochure and information packet. 3) Acquisition of remnant prairie grasslands and wetlands. 4) money.

PUBLIC BOAT ACCESS AND FISHING PIERS 13(f) \$1,310,000 TF/FRF Michael T. Markell Trails and Waterways Unit Department of Natural Resources 500 Lafayette Road St. Paul, MN 55155-4052 Phone: (651) 296-6413 Fax: (651) 297-5475 E-Mail: mike.markell@dnr.state.mn.us

This appropriation is to fund increased access to lakes and rivers statewide through the provision of public boat access, fishing piers, and shoreline access. The access includes fishing piers and boat and shoreline access, and will provide fishing opportunities with or without a boat. The project includes land acquisition for nine sites. Acquisitions will be based on willing sellers and availability of land suitable for boat access. Emphasis will be placed on sites in the metropolitan area due to the high demand for boating and fishing. The project also includes development of boat access sites, fishing piers, and shoreline access. Construction includes ten fishing piers, three shore fishing sites, and one public boat access. Appropriation available until June 30, 2002.

ARBORETUM LAND ACQUISITION AND WETLAND RESTORATION – CONTINUATION

13(g) \$700,000 TF/ Match
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Web Page Address: www.arboretum.umn.edu

This appropriation is for the third biennium of the project and is for land acquisition. The Land Acquisition Plan focuses on land within the roadway system surrounding the Arboretum's core, which nearly matches the watershed. Controlling the lands within these boundaries prevents development, protects the water quality and the native plant habitat, and keeps noise, water, and air pollution at a minimum. The priority of this work program is to acquire approximately 40 acres of land within the Arboretum boundary before completing the Spring Peeper Meadow wetland restoration. The Spring Peeper Meadow is the only known biodiverse sedge meadow reestablishment in the U.S.. This appropriation must be matched by at least \$700,000 of nonstate money.

NATIVE PRAIRIE PRESCRIBED BURNS 13(h) \$400,000 TF Fergus Falls, MN 56537
Phone: (218) 739-7497
Fax: (218) 739-7601
E-Mail: peter.buessler@dnr.state.mn.us
Appropriation added by the 1999 Legislature to the LCMR Recommendations.

This appropriation is for prescribed burns of native prairie on state wildlife lands. This project significantly increases prescribed burning in three targeted prairie areas: Kittson County Tallgrass Aspen Parkland, Glacial Lake Agassiz Beach Ridges, and the Lac Qui Parle area. Area Wildlife offices in each of these areas will be provided seasonal personnel and crews, specialized equipment, and support. These will be provided to prepare fire management plans, establish fire breaks, work with landowners, carry out burns, and assist in tree removal, mowing, and other grassland management activities to maximize habitat benefits of the burn effort. The project will conduct burns on 12,000 acres in Kittson County, 9,000 acres in the Beach Ridges, and 3,000 acres in the Lac Qui Parle area.

IMPLEMENT THE CHISAGO AND WASHINGTON COUNTIES GREEN CORRIDOR PROJECT-CONTINUATION

13(i) \$400,000 TF/ Match Matthew Mega 1000 Friends of Minnesota 370 Selby Avenue, Suite 300 St. Paul, MN 55102 Phone: (651) 312-1000 Fax: (651) 312-0012 E-Mail: mmega@mtn.org Web Page Address: www.1000FOM.org

This appropriation is to fund land protection activities. The project is designed to begin implementation of the Green Corridor plan in Chisago and Washington Counties. Cost share grants to local governments will help protect 85-300 acres of natural area, farmland, and other open spaces primarily through the Purchase of Development Rights (PDR) and other appropriate techniques. This project builds on significant work done under the FY97 workprogram to begin implementing the Green Corridor, permanently protecting land and setting up long-term land protection programs in Chisago and Washington Counties to continue these efforts for years to come. The FY99 project will finalize drafts from the FY97 project, conduct public hearings, implement the ordinances and enroll landowners in the new programs. The project will also develop a public education campaign that will seek the participation of stakeholders in finalizing the programs, promoting the programs to landowners, and encourage landowner participation. This appropriation must be matched by at least \$300,000 of nonstate money.

Linda Erickson-Eastwood Dirk Peterson Department of Natural Resources Box 12, 500 Lafayette Road St. Paul, MN 55155 Phone: (651) 296-0791 (L.E.) (651) 296-0789 (D.P.) Fax: (651) 296-4916 E-Mail: linda.erickson-eastwood@dnr.state.mn.us dirk.peterson@dnr.state.mn.us

This appropriation is to complete the high priority bank stabilization on Lake Winnibigoshish and to begin similar work on Lac Qui Parle Lake. The program exists to improve fisheries habitat in warm water streams and lakes. Project activities may include lake aeration, improvement of spawning area, bank stabilization, fish barriers, and warm water stream improvement. The stream improvement may involve a number of activities including bank stabilization, channel restoration, and addition of instream cover. These activities improve fish populations and provide additional angling opportunities. This appropriation must by matched by at least \$56,000 of nonstate money. Appropriation available until June 30, 2002.

ENHANCING CANADA GOOSE HUNTING OPPORTUNITIES FOR RECREATION AND MANAGEMENT PURPOSES

13(k) \$340,000 FRF Ray Norrgard Minnesota Department of Natural Resources, Wildlife Box 7, 500 Lafayette Road St. Paul, MN 55155-4007 Phone: (651) 296-0701 Fax: (651) 297-4961 e-mail: ray.norrgard@dnr.state.mn.us

This appropriation is to work with waterfowl conservation organizations to secure leases for goose forage areas and to increase public goose hunting opportunities. The project addresses the growing number of Canada Geese and the lack of suitable sites for public hunting. It provides acreage, easements, blinds, and education resulting in improved management, participation, and harvests. The project will acquire a minimum of 80 two-year leases on private farmlands in specific areas to provide goose foraging sites and public hunting blinds. Approximately 150 public blinds will be constructed in suitable areas near refuge boundaries, wildlife management areas, or other goose concentration sites. The project will also collaborate, plan, and participate with the cities, counties, park systems, etc., for controlled hunts of nuisance geese inhabiting otherwise prohibited hunting areas. Information showing hunting areas and blind locations will be created and made available for distribution. There will be direct hunter education seminars and a public awareness plan will be created.

Carrol Henderson Section of Wildlife Minnesota Department of Natural Resources Box 7, 500 Lafayette Road St. Paul, MN 55155 Phone: (651) 296-0700 Fax: (651) 297-4961 E-Mail: carrol.henderson@dnr.state.mn.us Web Page Address: www.dnr.state.mn.us Appropriation added by the 1999 Legislature to the LCMR Recommendations

This appropriation is for the purpose of nongame wildlife management. This program has been in existence since 1977 in the Department of Natural Resources, and is organized to promote the conservation of biological diversity and management of natural communities. This particular funding is split among the six nongame regions, nongame research, and nongame operations for a wide variety of field surveys and habitat management projects, research and conservation education projects. The specific results are:

1) Statewide bald eagle breeding pair census;

2) Region 1/ Northwest Minnesota Nongame Management,

3) Region 2/ Northeast Minnesota Nongame Management;

4) Region 3/ Central Minnesota Nongame Management;

5) Region 4/ Southwest Minnesota Nongame Management;

6) Region 5/ Southeast Minnesota Nongame Management;

7) Region 6/ Metro Twin Cities Nongame Management;

8) Nongame Research; and

9) Nongame Operations/ Project WILD.

WILDLIFE HABITAT ACQUISITION AND DEVELOPMENT – CHUB LAKE

13(m) \$300,000 TF/ Match
Alan Singer
Minnesota Department of Natural Resources
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Appropriation added by the 1999 Legislature to the LCMR
Recommendations

This appropriation is to acquire and protect land and to make capital improvements in the Chub Lake natural area. The project will acquire and improve a 192-acre natural area comprised of high quality oak forest, planted grasslands, lakeshore, wetlands and the outlet for Chub Creek. The improvements would include ecological restoration. The appropriation must be matched by at least \$300,000 of nonstate money. Appropriation available until June 30, 2002.

MINNESOTA RELEAF MATCHING GRANT PROGRAM - CONTINUATION

14(a) \$850,000 TF/FRF
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This appropriation is for the fourth biennium of this tree planting and preservation project. An initial amount of the appropriation is for tree replacement in the cities of St. Peter and Comfrey. Part of the funding is for 70-100 matching grants to local communities to protect native oak forests from oak wilt and to provide technical assistance and cost sharing with communities for tree planting and community forestry assessments. A statewide publicity and application process will be developed and implemented for this matching grant portion. The project will also develop at least 9 publications on developing a project, caring for trees, trees native to Minnesota, and how to best achieve environmental benefits. Approximately 30 or more education presentations will be given as well.

LANDSCAPING FOR WILDLIFE AND NONPOINT SOURCE POLLUTION PREVENTION

14(b) \$150,000 TF/ Match Shelley Shreffler Saint Paul Neighborhood Energy Consortium 624 Selby Avenue St. Paul, MN 55104 Phone: (651) 221-4462 Fax: (651) 221-9831 E-Mail: shelleys@spnec.org

This appropriation is to work with urban and suburban communities to expand native species planting through residential landscaping and cooperative neighborhood plans. This project will expand native habitats in the east metro area to invite wildlife and reduce nonpoint source pollution through residential landscaping and cooperative neighborhood projects using workshops and public education that promotes action. The project will provide 16-18 introductory workshops, 16-18 follow-up landscaping workshops, 15-20 professionally designed cluster landscapes, and low-cost planting material. The project will also provide public education activities that will teach residents the importance of landscaping and how it directly impacts wildlife and the water quality of area lakes, streams and rivers. Approximately 130,000 households will be reached through community newspapers, city newsletters, and organizational newsletters. The activities must include participant cost sharing. The appropriation also must be matched by at least \$24,000 of nonstate money.
Carrol Henderson Section of Wildlife, MN DNR Box 7, 500 Lafayette Road St. Paul, MN 55155 Phone: (651) 292-0700 Fax: (651) 297-4961 E-Mail: carrol.henderson@dnr.state.mn.us

This appropriation is to promote lakescaping for wildlife and water quality. The project will provide a series of workshops where homeowners and members of lake associations can learn more about the approach of natural landscaping. The workshops will also help accelerate the delivery of the information in a book entitled "Lakescaping for Wildlife and Water Quality" which was published in 1999 by the Nongame Wildlife Program in the Section of Wildlife, Minnesota Department of Natural Resources. This book and the workshops will provide homeowners with shoreland property, useful information on how to naturalize their property in a way that will enhance wildlife habitat and contribute to improved water quality in the lake. The project will cost-share on selected properties for installation of lakescaping projects as demonstration sites that will provide on-the-ground experience with lakescaping and provide important case studies for future reference. The project will also create a statewide lakescaping registry program that will help reward and encourage participating homeowners.

DEVELOPMENT AND ASSESSMENT OF OAK WILD BIOLOGICAL CONTROL TECHNOLOGIES -CONTINUATION

14(d) \$200,000 TF Dr. Jennifer Juzwik Department of Plant Pathology University of Minnesota 495 Borlaug Hall St. Paul, MN 55108 Phone: (6121) 649-5114 Fax: (612) 625-9728 E-Mail: juzwi001@tc.umn.edu Web Page Address: www.plpa.agri.umn.edu/

RESEARCH PROJECT

This appropriation is to evaluate biocontrol efficacy, spore mat production, and root graft barrier guidelines for oak wilt. There are four research and development projects that are designed to mitigate inevitable impacts of urbanization on oak wilt spread through improved management practices and technologies. There is a fungal biological control agent that will be examined. A principal species of sap beetles associated with overland transmission of the oak wilt fungus will be investigated. The project will also create a model to predict the critical time of spore mat production. Lastly, root graft guidelines for line placement in residential setting will be established. 14(e) \$200,000 FF
Cynthia Schwie
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This appropriation is to inventory and restore native species, and to plan for critical greenways and natural area habitat. The project will provide a complete vegetation inventory of the Mississippi River bluffs in St. Paul along Mississippi River Boulevard. This will include land cover type mapping and exotic/invasive species surveys. The project will also select areas and treat them to control the high priority exotic/invasive species derived from the inventory. These and other selected areas will be planted with native vegetation. The project will devise a management plan to maintain these native species. Lastly, citizens will be involved in controlling the exotic species and installing native plantings. The project will recruit, train and manage volunteers to assist with control and planting for five seasons. Appropriation available until June 30, 2002.

SUBD. 15 NATIVE FISH

MUSSEL RESOURCE SURVEY

15(a) \$400,000 TF Mike Davis MN DNR 1801 South Oak St. Lake City, MN 55981 Phone: (651) 345-3331 Fax: (651) 345-3975 E-Mail: mike.davis@dnr.state.mn.us Web Page Address: www.dnr.state.mn.us

This appropriation is for the first biennium of a three-biennium project to survey mussels statewide for resource management. Rivers to be surveyed will be identified by compiling all recent and historical mussel survey information. Poorly surveyed streams will be compared with the historical range of rare mussel species to identify streams with a high probability of supporting these species. Identification of these priority streams will also reflect the existence of threats to the stream health and historical mussel abundance. Priority streams will be surveyed by field crews using a three-step survey protocol which includes: using other sources, conducting qualitative surveys at selected sites by wading, snorkeling and scuba diving, and conducting quantitative surveys at a subset of sites with high mussel density by inventorying all mussels within a timed search period. Approximately 18-20 rivers will be surveyed during this biennium.

15(b) \$58,000 1F Daniel J. Hornbach Mark Hove Macalester College Dept. of Biology 1600 Grand Ave. St. Paul, MN 55105 Phone: (651) 696-6101 Fax: (651) 696-6443 E-Mail: Hornbach@macalester.edu Web Page Address: www.macalester.edu/~hornbach

RESEARCH PROJECT

This appropriation is to continue refugia studies and assess populations for freshwater mussels. The results of this project will improve the management and conservation of freshwater mussels by: 1) continuing a mussel relocation and refugia study begun in 1997 in association with the University of Minnesota, and 2) by continuing a monitoring program of freshwater mussel resources in the St. Croix River begun in 1990. The continued monitoring of the refuge project will provide information on the long-term impact of mussel relocations and thus provide insight into the efficacy of this conservation measure. The project will return to two relocation areas setup in 1997. At each of these sites, mussels that have been marked will be recovered to assess growth and survivorship. The project will also return to seven locations on the St. Croix River where past quantitative samples have been done. At each of these sites, at least 100 samples of the substrate will be taken and all of the mussels will be removed by sieving. All of these mussels will be measured and identified. From these measurements, population density, community diversity and age-structure of the mussel populations can be identified.

SUBD. 16 EXOTIC SPECIES

BIOLOGICAL CONTROL OF EURASIAN WATERMILFOIL AND PURPLE LOOSESTRIFE – CONTINUATION

16(a) \$150,000 TF Luke C. Skinner Division of Fish and Wildlife- MN DNR Box 25, 500 Lafayette Road St. Paul, MN 55155-4025 Phone: (651) 297-3763 Fax: (651) 296-1811 E-Mail: luke.skinner@dnr.state.mn.us

RESEARCH PROJECT

This appropriation is for the fourth biennium of a five-biennium project to develop and implement biological controls for Eurasian water milfoil and purple loosestrife, two exotic aquatic plants that are degrading Minnesota's aquatic resources statewide. Researchers of the project will assess the relative importance of factors affecting successful biological control researchers will introduce of augment weevils into field plots to test the role of fish predation. They will also conduct experiments to determine the effects of plant quality of weevil development and the role of plant competition in the continued suppression of the water milfoil. The project will also study the impact of insect biocontrol agents on purple loosestrife. A small portion of the study will focus on further development of the plant pathogens as a biological control agent for purple loosestrife as well. Appropriation available until June 30, 2002.

EVALUATE ESTABLISHMENT, IMPACT OF LEAFY SPURGE BIOCONTROL AGENTS

16(b) \$140,000 TF
Dr. Dharma D. Sreenivasam
Minnesota Department of Agriculture
90 W. Plato Blvd.
St. Paul, MN 55107-2094
Phone: (651) 296-1350
Fax: (651) 2967-3631
E-Mail: dharma.sreenivasam@state.mn.us

This appropriation is to study flea beetles introduced to control leafy spurge by site characterization and assessment for biological control. Leafy spurge infests close to 5 million acres of land in at least 29 states. This invasive perennial weed overruns and destroys grazing land for livestock, degrades wildlife habitat and wildlife-associated recreation, decreases rangeland plant diversity, and reduces land values. This project will delineate the five types of flea beetles introduced against leafy spurge since 1989 by site characterization and success of beetle establishment. The project will also explore biological control potential to predict the success of future release sites. The five species will provide a clear picture of the range of conditions for survival and reproduction. The study will focus on 20 established sites in Minnesota. Appropriation available until June 30, 2002.

RESTORING NATIVE VEGETATION IN PARKS AND NATURE CENTERS 16(c) \$260,000 FRF Craig R. Andresen St. Paul Audubon Society 2013 Walnut Ave. NW New Brighton, Minnesota 55112 Phone: (651) 636-3462 Fax: (651) 639-8097

E-Mail: cmandresen@uswest.net

This appropriation is to restore natural vegetation at community nature centers and parks. This will include at least 747 acres at five nature centers and three parks. The project will reduce exotic vegetation using best management practices. Restoration activities will include prescribed burns, cutting of invasive woody vegetation, herbicides, biological controls, weeding and reseeding. Enhancement plantings will be conducted where

SECTION 15

SAVAGE FEN- LCMR OVERSIGHT ONLY (required by 1999 Legislature) Section 15 \$200,000 General Fund

David Hutton, P.E. Director of Public Works City of Savage 6000 McColl Drive Savage, MN 55378 Phone: (612) 882-2660 Fax: (612) 882-2656 E-Mail: huttond@ci.savage.mn.us

This appropriation is for engineering and environmental studies relating to the extension of Scott County state-aid highway No. 27 in the vicinity of the Savage Fen Wetlands complex. This will evaluate the need for and alternatives to the extension of Scott CSAH 27 northward from CSAH 16 (McColl Drive) to TH 13. The project will evaluate the need for the extension by completing a Transportation Analysis. Detailed travel forecasts will be prepared for the study area using the most current socioeconomic planning data and refining the existing model networks. Forecasts will be prepared for each of the five options considered in this study. Traffic options and benefit/cost analyses will also be conducted. The project will also include a comparative evaluation of the five alternatives. Key environmental impact data will be assessed for each of the alternatives. This will provide a basis for choosing one alignment optionas the preferred alternative for the extension of CSAH 27 if the need for the extension is demonstrated by the transportation analysis.

Description

" a description of each project receiving money from the trust fund and Minnesota future resources fund during the preceding biennium; a summary of any research project completed in the preceding biennium..."

The following documents are short abstracts for projects funded during the 1997-1999 biennium. The abstracts describe the general accomplishments of each project as well as providing selected specific details, such as amount of land impacted, species studied, number of school children reached, or products produced. Research projects have been marked as such in the description. Full workprograms are available at the LCMR Office Room 65, State Office Building. The abstracts are current as of 12/1/00.



Subd. 4 Recreation

4(a) State Park & Recreation Area Acquisition, Development, Betterment & Rehab. 4(b) Matemalitan Regional Park System

4(b) Metropolitan Regional Park System

4(c) Local Initiatives Grants Program

4(d) Border to Border Trail Study *

Subd. 5 Historic Sites

5(a) Ft. Snelling State Park - Upper Bluff Utilization and AYH Hostel5(b) Protecting Rural Historic Landscapes in High

Development Areas

5(c) Jeffers Petroglyphs Environmental Assessment and Prairie Restoration

5(d) Development of Birch Coulee State Historic Site

5(e) White Oak Learning Center Environmental Awareness through History

5(f) Historical and Cultural Museum on Vermilion Lake Indian Reservation

5(g) Native American Perspective of the Historic North Shore

5(h) Soudan Underground Physics Laboratory Expansion

Subd. 6 Water Resources

6(a) On-Site Sewage Treatment Alternatives and Technology Transfer: Research

6(b) Nitrate Education and Testing

6(c) Snake River Watershed BMP's

6(d) Evaluation of Watershed-Based Watershed District Management

6(e) Red River Valley Planning and Management

6(f) Sustainable Lake Plans

6(g) Lakeshore Restoration - Minneapolis Chain of Lakes

6(h) Atmospheric and Nonpoint Pollution Trends in

Minnesota Lakes: Research

Subd. 7 Agricultural Practices

7(a) Biological Control of Agricultural Pests: Research7(b) Crop Management to Minimize Pesticide Inputs:Research

7(c) Sustainable Farming Systems

7(d) Prairie-Grassland Landscapes

7(e) Reducing Minnesota River Pollution from Lacustrine Soils: Research

7(f) Mercury Manometers *

Subd. 8 Pollution Prevention

8(a) Toxic Emissions from Fire Training8(b) Pollution Prevention Training Program for Industrial Employees

Subd. 9 Impacts on Natural Resources

9(a) Grants to Local Governments to Assist Natural Resource Decision-Making9(b) Evaluation of Urban Growth Economic and

9(d) New Models for Land-Use Planning

9(e) North Minneapolis Upper River Master Plan

9(f) Preventing Stormwater Runoff Problems through Watershed Land Design

9(g) Miller Creek Watershed Management

9(h) Trout Habitat Preservation Using Alternative

Watershed Management Practices *

Subd. 10 Decision-Making Tools

10(a) Comparative Risks of Multiple Chemical Exposures 10(b) Metropolitan Area Groundwater Model

10(c) Wolf Management Plan

10(d) Minnesota River Basin Natural Resource Data 10(e) Land Use Development and Natural Resource Protection Model

10(f) Statewide Digital Soil Database - Phase 1

10(g) Fillmore County Soils Survey Update

Subd. 11 Public Access to Natural Resource Data

11(a) Foundations to Integrated Access to Environmental Information

11(b) Public Access to Archaeological Knowledge

Subd. 12 Sustainable Development Activities

12(a) Sustainable Development Assistance for

Municipalities through Electric Utilities

12(b) Renewable Energy Demonstration and Education in State Parks

12(c) Alfalfa Biomass Production :Research

12(d) Sustainable Development of Wind Energy on Family Farms

12(e) Connecting People and Places through Yellow Bikes 12(f) Sustainable Gardening for Minnesota Homes and Communities

12(g) Economics for Lasting Progress

12(h) Soy-Based Diesel Fuel Study *

Subd. 13 Environmental Education

13(a) School Nature Area Project (SNAP)

13(b) Watershed Science: Integrated Research and Education Program: Research

13(c) Minnesota Frog Watch

13(d) Environmental Service Learning Projects in

Minneapolis Schools

13(e) Partners in Accessible Recreation and Environmental Responsibility

13(f) Environmental Service Learning

13(g) State Wolf Management: Electronically Moderating the Public Discussion

13(h) Catch and Release

13(i) Electronic Environmental Education Raptor Network 13(i) Greenprint Success

13(k) St. Paul & Mpls. Regional Park Urban Interpretation Program *

Continuation: Research

14(c) Water Quality Indicators of Endocrine Disrupting Chemicals: Research

14(d) Stream Habitat Protection: Continuation

14(e) Wetland Ecosystems Monitoring

14(f) Loons: Indicators of Mercury in the Environment: Research

14(g) Training and Research Vessel for Lake Superior

Subd. 15 Native Fisheries

15(a) Improved Decisions for Walleye Stocking and Special Regulations: Research

15(b) Minnesota Rare Mussel Conservation: Research

Subd. 16 Land Acquisition in High Growth Areas

16(a) Sand Dunes State Forest Acquisition

16(b) Arboretum Land Acquisition

Subd. 17 Critical Lands or Habitats

17(a) Sustainable Woodlands on Private Lands

17(b) Cannon River Watershed: Integrated Management

- 17(c) Peatland Restoration
- 17(d) Prairie Heritage Fund
- 17(e) Phalen Area Wetland Restoration, Phase II
- 17(f) Point Douglas Bluffland Acquisition
- 17(g) Minnesota Point Protection
- 17(h) Savannah Restoration for Sharptail Grouse
- 17(i) RIM Critical Habitat Acquisition and Enhancement

17(j) RIM - Wildlife Habitat Stewardship

- 17(k) Scientific and Natural Area Acquisition
- 17(1) RIM Wildlife Habitat Acquisition
- 17(m) RIM Accelerate Fisheries Acquisition
- 17(n) Minnesota County Biological Survey Continuation
- 17(o) Fishing Pier and Public Shore Access
- 17(p) Public Boat Access

17(q) Fisheries Statewide Hatchery Rehabilitation

Subd. 18 Wildlife or Trail Corridors

18(a) Mesabi Trail Land Acquisition and Development

18(b) Chippewa County Regional Trail

Subd. 19 Native Species Planting

19(a) Minnesota Releaf Tree Planting and Preservation Grant Program

19(b) Restoring White Pine in the Minnesota Landscape: Research

19(c) Oak Savannah Restoration in St. Paul Regional Parks * 19(d) Prairie and Oak Savannah Restoration

Subd. 20 Exotic Species

20(a) Ballast Water Technology Demonstration for Exotic Species Control: Research 20(b) Biological Control of Eurasian Watermilfoil & Purple

Loosestrife - Continuation: Research

SUBD. 4 RECREATION

STATE PARK AND RECREATION AREA ACQUISITION, DEVELOPMENT, BETTERMENT AND REHABILITATION

4(a) \$3,500,000 TF John Strohkirch DNR Box 39, 500 Lafayette Road St. Paul, MN 55155 Phone: 651/296-8289 Fax: 651/297-1157

This project includes the major rehabilitation and development of state park and recreation area buildings, structures and utility systems and the rehabilitation and betterment of non-building facilities such as trails, roads, campgrounds and resources. This also includes the acquisition of lands within the boundaries of state park and recreation areas from willing sellers.

Results of this appropriation to date include: 1) Acquisition of over 1000 acres of land within legislatively authorized state park boundaries 2) Replacement of the Old Mill State Park contact station 3) Construction of a new visitor center at Lake Bronson State Park 4) Restoration of a sewer system in Gooseberry State Park 5) Rehabilitation of a road within Mille Lacs Kathio State Park.

METROPOLITAN REGIONAL PARK SYSTEM

4(b) \$3,500,000 TF Arne Stefferud Metropolitan Council Mears Park Centre, 230 E. Fifth St. Paul MN 55101-1634 Phone:651/602-1360 Fax: 651/291-6550 E-mail: arne.stefferud@metc.state.mn.us

This appropriation finances the acquisition of approximately 90-150 acres of land for the Metropolitan Regional Park System. Portions of two regional parks will be redeveloped, while portions of three regional parks, one park reserve, and one regional trail will be developed. Results of this program are pending completion of the project.

LOCAL INITIATIVES GRANTS PROGRAM

4(c) \$2,900,000 FRF Wayne Sames DNR Fax: 612/296-6047 E-mail: wayne.sames@dnr.state.mn.us

This project accelerates the Local Initiatives Grants Program at the DNR. Every year the Department of Natural Resources solicits grant proposals from local governments for local parks, natural and scenic areas and cooperative trail projects. The Conservation Partners and the Environmental partners grant programs provide small grants to private organizations for fish and wildlife or native plant habitat related projects. Project proposals for all of these programs are evaluated and ranked on a competitive basis, with grants being awarded to the highest-ranking projects.

Six distinct grant programs provide matching grants to local governments and/or private organizations for acquisition, development, renovation, enhancement, research and education associated with parks and trails, natural and scenic areas, natural habitat, and other environmental projects. These programs are:

- 1) local park grant program: 21 projects, \$600,000
- 2) natural and scenic area grant program :7 projects, \$600,000
- 3) cooperative trail grant program: 5 projects, \$200,000
- 4) conservation partners grant program :63 projects, \$600,000
- 5) environmental partnerships grant program: 33 projects, \$200,000

6) regional trail initiative grant program :3 projects, \$700,000

BORDER TO BORDER TRAIL STUDY

4(d) \$100,000 FRF
Dennis Asmussen
DNR
500 Lafayette Road
St. Paul, MN 55155
Phone: 612/296-4822
Fax: 612/297-5475
Appropriation added by the 1997 Legislature to the LCMR
Recommendations

This study provides various tools for planners, policy makers and elected officials to evaluate trail projects. It has 1.) documented the size, distribution, potential for growth, desires and needs of Minnesota's motorized and non-motorized trail users, and present status of Minnesota's abandoned railroad grades, and has 2.) produced a statewide inventory and map of long-distance off-road trails as well as an integrated inventory of current local, regional and federal trail proposals. The study has produced a database containing 287 records of abandoned railway lines with 193 (3936 miles) being mapped in GIS coverage. A total of 18,846 miles of trails have been mapped so far by GIS with 972 records providing information on each trail. This final report has been distributed statewide to trail advocacy groups, local government units, legislators, select state and federal offices, and others concerned with the development of trails.

UTILIZATION AND AYH HOSTEL

5(a) \$250,000 FRF Nonstate Match \$20,000 Bill Weir DNR 500 Lafayette Road St. Paul MN 55155 Phone:612/772-7994 Fax:612/297-1157 E-mail: bill.weir@dnr.state.mn.us

Tom Pfannensstiel Historic Sites Dept. MN Historical Society Fort Snelling History Center St. Paul, MN 55111 Jon Ridge Hostelling International 125 SE Main St, #235 Minneapolis, MN 55414

The goal of this project is to provide for a complete evaluation of buildings in the Upper Bluff Area at Fort Snelling State Park, identify one building for an AYH hostel, create the design and construction documents for future renovation and identify future cooperators for development of other buildings and property.

Infrastructure analysis and a general environmental assessment of the site's 28 buildings were completed in 1998. Thirty organizations and individuals with interests in the site have been interviewed to arrive at a recommendation for reuse. A building adjacent to Fort Snelling was selected for hostel use and a predesign study with environmental assessment has been completed. Agreements have been made to transfer remaining LCMR funds to the Minnesota Historical Society which will encumber responsibilities for the AYH portion of the project.

PROTECTING RURAL HISTORIC LANDSCAPES IN HIGH DEVELOPMENT AREAS

5(b) \$80,000 TF Britta Bloomberg MN Historical Society 345 Kellogg Blvd. W. St. Paul, MN 55155 Phone:651/296-5471 Fax:651/282-2374 E-mail: britta.bloomberg@mnhs.org Results located at web address: http://www.mnhs.org

This project surveyed and documented two areas with historic agricultural landscapes within the St. Cloud-Twin Cities-Rochester growth corridor, developed a management plan for protection of these landscapes, and conducted workshops with local and state land use planning agencies to explore ways to A registration form with 193 sources was completed for the Nansen Agricultural Historic District and integrated into the SHPO statewide inventory. Digital data layers were prepared for use in future GIS analysis of the project area. Workshops and open houses attracted 170 citizens and resulted in two planning documents with recommendations for educational, incentive, and management actions for the Nansen area and planning for historic landscape statewide.

JEFFERS PETROGLYPHS ENVIRONMENTAL ASSESSMENT AND PRAIRIE RESTORATION

5(c) \$125,000, FRF
Robert Clouse
MN Historical Society
345 Kellogg Blvd. W.
St. Paul, MN 55155
Phone: 612/726-1171
Fax: 612/725-2429
E-mail: clous002@maroon.tc.umn.edu
Results located at web Address: http://www.umn.edu/marp/

The goal of this project is to provide quantitative and qualitative data about environmental conditions at the Jeffers Petroglyphs site (a state historic site located in Cottonwood County) and finish the restoration of native prairie at the site. An assessment of the site has been completed detailing the existing conditions. The need for an environmental monitoring system was established in 1997. The foundation for an environmental monitoring station has been completed and trails and boardwalks have been installed to limit damage by visitors. A prairie survey has been completed and the initial stages of restoration have begun.

DEVELOPMENT OF BIRCH COULEE STATE HISTORIC SITE

5(d) \$253,000 TF Wayne Cavadini MN Historical Society 345 Kellogg Blvd. St. Paul, MN 55155 Phone: 651/297-7451 Fax: 651/297-3343 E-mail: wayne.cavadini@mnhs.org

Birch Coulee is the site of a major battle in the United States-Dakota Conflict of 1862, resulting in approximately 60 casualties. The project improved public access to and interpretation of this state historic site. Improvements include $\frac{3}{4}$ to 1 mile of interpretive trails, an interpretive kiosk and thirteen interpretive markers, a picnic area, portable restrooms, and water availability. The site was regraded to remove contemporary trails and restore the site to the condition it was in during the time of the battle. These improvements will serve the approximately 3000 people who visit the site yearly.

HISTORY

5(e) \$120,000 FRF Raymon Nyberg White Oak Society, Inc 33155 State Highway 6 Deer River MN 56636-0306 Phone:(218) 246-9393 t Fax:(218) 246-9393 E-mail: whiteoak@paulbunyan.net Results located at web address: http://www.whiteoak.org

This project utilized the reconstructed White Oak historical site (a historic representation of an 18th century fur trading post located near Deer River) as the location for an educational facility that fosters learning about environmental issues within ongoing multi-cultural, historical and social contexts. The project produced a curriculum and guide incorporating a wide mix of components for use in a variety of educational programs and settings. The project provided educational programming to nearly 2500 K-12 students through a one-day program. Emphasis was also placed on other mixed age (youth-adult) programs (on- and off-site) that served 3,300 persons. The curriculum was given to the Minnesota Department of Families, Education, and Children for use in other educational programs.

HISTORICAL AND CULTURAL MUSEUM ON VERMILION LAKE INDIAN RESERVATION

5(f) \$100,000 FRF Nonstate Match \$100,000 David Danz Bois Forte Reservation Box 16 Nett Lake MN 55772 Phone: 218/757-3261 Fax: 218/757-3312

This project provides matching funds for a total project budget of \$1,477,290 to construct a 6,241 square foot historical museum and heritage center that stresses a multi-cultural perspective on the early development of northern Minnesota. Located adjacent to a historic gold mine and fur post site on Lake Vermilion, the museum will be a center for interpretation and education on the history and culture of the Bois Forte Band of Chippewa Indians, with special attention given to the historical interaction of the Native Americans and Europeans in northern Minnesota. Interpretation, preservation, and possible restoration of the gold mine and fur post sites will also be carried out separate from this project but complimentary to it. The museum will be open to the general public, with special programs made available to area schools and educational organizations. Facility opening is scheduled for May 2001.

NATIVE AMERICAN PERSPECTIVE OF THE

Norman Deschampe, Chair Grand Portage Reservation Tribal Council Terri Port Wright Executive Director, Sugarloaf Interpretive Center Association 244 Marks Road Esko, MN 55733 Phone: (218) 879-4334 Fax: (218) 879-4334 Fax: (218) 879-4371 e-mail: tport@duluth.infi.net Web address: http://www.nrri.umn.edu/cwe/gis/pastproj/sugar/ sugarloaf.html

The goal of this project was to provide an in-depth interpretive study of the day-to-day lives and practices of Native Americans on the North Shore of Lake Superior prior to European settlement. Three products resulted from the project: 1) A summary brochure highlighting the stories revealed in the oral history interviews 2) An annotated bibliography that identifies the primary sources on the Grand Portage Band 3) book that includes approximately 175 stories from 30 elders about the Grand Portage Band history.

SOUDAN UNDERGROUND PHYSICS LABORATORY EXPANSION

5(h) \$400,000, FRF Marvin Marshak Uof M 116 Church Street S.E. Minneapolis MN 55455 Phone:612/624-6062 Fax:612/624-4578 E-mail: marshak@mnhep2.hep.umn.edu

This project will protect, enhance, reuse and interpret the Soudan Mine, a National Historic Site located in Soudan Underground Mine State Park in northern St. Louis County. This project includes the construction of a new deep underground physics laboratory and facilities for scientific interpretation for park visitors. The design for a new physics laboratory has been completed. This laboratory will assist in experiments relating to the creation and eventual destiny of the universe. Renovations allowing for the protection, enhancement, and reuse of historic mining equipment have been completed. Enhancements have also been completed allowing for use of the mine as a bat hibernaculum.

SUBD. 6 WATER RESOURCES

ON-SITE SEWAGE TREATMENT ALTERNATIVES AND TECHNOLOGY TRANSFER 6(a) \$500,000, FRF Gretchen Sabel MPCA 520 Lafayette Road St. Paul, MN 55155

RESEARCH PROJECT

This study builds on a project funded during FY96 and FY97 (ML95 Chap. 220 Sec. 19 Subd. 5(k)). It will test and demonstrate feasible and effective alternative Individual Sewage Treatment Systems (ISTS) that 1) reduce nitrogen to acceptable levels, 2) adequately treat sewage above seasonally high water tables, and 3) remove pathogens. Assay procedures have been developed and seven field-scale experiments (near Duluth and Mankato) have been carried out to investigate the efficiency of ISTSs in removing pathogenic bacteria from outflows. Wetlands were found to remove over 99.6% of culturable Salmonella within 40 days during the summer with diminished results during winter months. Peat filters were found to be the most effective in removing Salmonella followed by sand filters and constructed wetlands. Methodologies for monitoring virus removal are currently under development. An additional bienium of funding began in FY 00. Laws 1999, Chapter 231, Section 16, Subd. 6(a) On-site Sewage Treatment Alternatives- Performance, Outreach and Demonstration -Continuation.

NITRATE EDUCATION AND TESTING

6(b) \$150,000 TF Nonstate Match \$50,000 Bruce Montgomery MN Dept of Agriculture 90 W. Plato Blvd. St. Paul, MN 55155 Phone: 651/297-7178 Fax:651/297-2271 E-mail: bruce.montgomery@state.mn.us Results located at web address: http://www.mda.state.mn.us

This appropriation was designed to accelerate knowledge of nitrate levels in private drinking water supplies through development of water testing clinics and education programs for rural well owners. Over 14,000 drinking water samples have been tested and 254 clinics conducted throughout the state under the program. Approximately 10% of the samples tested were found to exceed the drinking water standard of 10 mg/L nitrate-nitrogen. A voluntary survey (8000 respondents) was used to collect information on the characteristics of wells, distances from point and non-point sources, water treatment, and water-testing history. Approximately 15% of the sand point wells, 35% of all hand dug wells, and 8% of drilled wells exceeded the standard. Age of well also correlated with higher nitrate levels with wells aged 0-10, 11-20, 21-50, and older than 50 years being 6, 8, 12, and 26% above the standard respectively.

SNAKE RIVER WATERSHED BMP'S

6(c) \$100,000 TF Lynda Peterson Snake River Watershed Management Board Fax: 320/679-4692 Results located at web address: http:// www.Lap@mn.nrcs.usda.gov

This goal of this project was to accelerate implementation of action items of the 1996 Snake River Watershed Management Plan, to apply Best Management Practices (BMP), and to facilitate decision making which affects water quality through utilization of the Snake River Watershed Management Board (SNWMB) Geographic Information System (GIS). Two sets of weight scales were purchased to assist farmers in measuring the amount of manure that they are applying to fields in order to reduce the amount of excess nutrients entering lakes and streams. A ten year long surface water-monitoring program was instituted to complement project implementation efforts with a long-term database. Funding was provided for the protection of 4125 feet of streambank and lakeshore on high priority lakes and rivers. Funding was also provided for pollution abatement systems with reported improvements in one feedlot located along a high priority creek within the watershed.

EVALUATION OF WATERSHED-BASED WATERSHED DISTRICT MANAGEMENT

6(d) \$150,000, FRF Nonstate Match \$75,000 Kathryn Draeger MN Association of Watershed Districts 3848 Westbury Drive St. Paul MN 55123 Phone: 612/224-8488 Fax: 612/228-1969 E-mail: draeg001@tc.umn.edu Results located at web address: http://www.mnwatershed.org

This project was designed to determine the role of Minnesota watershed districts in addressing water quality issues, address water quality issues in areas where there are no organized watershed districts, and promote watershed identity and water quality training to the citizens of Minnesota. Three voluntary watershed organizations were found to be more effective than watershed management organizations in managing water quality. All successful organizations had common characteristics including infrastructure, access to water quality information and monitoring, and interest in citizen participation. Recommendations include building on the existing organizations, making the most of state and localempowered organizations, utilizing voluntary organizations, and periodic evaluation of watershed effectiveness organizations. This program has resulted in the production of reports available on the MN Association of Watershed Districts (MAWD) website and at all watershed organizations and MAWD offices. A video on starting watershed organizations was produced as well as two training sessions on watershed evaluation in 1998 and 1999.

b(e) \$375,000 FF
Nolan Baratono
MPCA
520 Lafayettte Rd.
St. Paul, MN 55155
Phone: 651/296-7359
Fax: 651/297-8683
E-mail: Nolan.Baratono@state.mn.us
Results located at web address: http://www.pca.state.mn.us

This project was designed to promote local action and interagency cooperation to develop holistic land and water management strategies in the Red River Basin. A basin-wide planning organization was created representing international, federal, state, provincial, and local interests in the basin. A sediment source study was initiated in conjunction with the USGS and University of Minnesota to develop research methodologies appropriate to the Basin. Lab work studying the sources of sediment and sediment transfer in the Wild Rice River was initiated. Minnesota agency coordination was enhanced through the formation of a Basin Interagency Team (BWSR, DNR, MDH, and PCA), assistance with Flood Damage Reduction Mediation, and development of a water quality plan for the Minnesota portion of the Basin.

SUSTAINABLE LAKE PLANS

6(f) \$270,000 TF George Orning CURA, U of M 30 HHH Center, 301 - 19th Ave. S. Minneapolis MN 55455 Phone: 612/625-0081 Fax: 612/626-0273 E-mail: prolake@uslink.com Results located at web address: http://www.mnlakesassn.org

This project was instituted to sustain lake resources through the development of an inexpensive and easily transferable comprehensive lake planning process. Five pilot lakes have been selected throughout the state and a draft lake management plan outline has been developed. The plan calls for data collection and analysis in the areas of physical resources and user patterns and desires. To this end, GIS databases for the five lakes have been developed and a survey instrument for each lake has been completed and sent out to shoreland residents. To facilitate the training of Lake Association Representatives, a lake education guidebook and an online bibliography of lake management and planning resources have been developed (www.mnlake.org). A lake advocate work group has been formed and has designed a shoreland volunteer program. Program assessment has been conducted by a consultant. Results of the assessment are being used to plan a 6(g) \$300,000 TF Nonstate Match \$150,000 Jeff Lee Minneapolis Park and Recreation Board 3800 Bryant Ave. S. Minneapolis MN 55409-1029 Phone: 612/370-4900 Fax: 612/370-4831 E-mail: jefftlee@juno.com

Shoreline areas of Lakes Calhoun, Harriet, Isles and Cedar that have been severely impacted by heavy visitor use or erosion have been restored so as to permit continued recreational use while mitigating negative environmental impacts. Shoreline restoration work on Lakes Harriet and Calhoun has been completed with 1315 and 2300 lineal feet being restored respectively. Site preparation work has been initiated for Lake of the Isles with planting being completed at three different sites. Site survey work has been completed for Cedar Lake.

ATMOSPHERIC AND NONPOINT POLLUTION TRENDS IN MINNESOTA LAKES

6(h) \$325,000 TF Edward Swain MPCA 520 Lafayette Rd. St. Paul, MN 55155 Phone: 651/296-7800 Fax: 651/297-8701 E-mail: edward.swain@pca.state.mn.us

RESEARCH PROJECT

This project documents geographic and historic trends in a) lake eutrophication and b) inputs of toxic metals and organic pollutants. Fifty-five lakes have been sampled to accurately characterize trophic status, to provide a status model, and allow for the interpretation of landuse data and fish contamination patterns. These lakes have been cored and analyzed for metals and organic pollutants. Maps of land use patterns, non-point sources, watershed sources, of pollutants and atmospheric deposition of pollutants have been prepared.

SUBD. 7 AGRICULTURAL PRACTICES

BIOLOGICAL CONTROL OF AGRICULTURAL PESTS

7(a) \$200,000 TF David Ragsdale University of MN 219 Hodson Hall, 1980 Folwell Ave. St. Paul MN 55108 Phone: 612/624-3636 Fax: 612/625-5299 E-mail: ragsd001@maroon.tc.umn.edu

RESEARCH PROJECT

The goal of this research was to reduce reliance upon chemical control of key pest species in agricultural production systems by developing biologically based methods of pest control. Several parasites of filth flies have been identified and are being investigated as potential candidates for pest control. Research on the interference of potato fungicides with parasitic fungi that kill aphids has shown that all commonly used fungicides adversely impact several species of beneficial fungi. Genetically engineered cover crops are being developed that will act in suppressing weed growth but can be eliminated through application of a non-toxic chemical. In addition, the application of a bacteria-derived chemical (Spinosad) was found to be effective in controlling three species of caterpillar and the cabbage looper that are pests in cabbage. In addition, application of Spinosad at half the maximal rate was effective in larval pest control while still conserving more beneficial insect predators and parasites.

CROP MANAGEMENT TO MINIMIZE PESTICIDE INPUTS

7(b) \$300,000 TF Linda Kinkel University of MN 495 Borlaugh Hall, 1991 Upper Buford Cir. St. Paul MN 55108 Phone: (612)625-0277 Fax: (612)625-9728 E-mail: lindak@puccini.crl.umn.edu

RESEARCH PROJECT

This project determined the utility of novel, non-pesticidal management strategies for diverse crops in Minnesota. Three plant species, when planted as green manure crops, showed potential to enhance natural soil suppression of pathogens by enrichment of indigenous pathogen antagonists. Organic mulching methods in strawberries were found to have detrimental effects on disease management while manipulation of dike vegetation was found to be effective in managing diseases of wild rice. Screening of 2000 bacterial isolates found no species to be effective in inhibiting soybean cyst nematodes.

SUSTAINABLE FARMING SYSTEMS

7(c) \$560,000 TF Helene Murray University of MN 411 Borlaug Hall St. Paul MN 55108 Phone: (612)625-0220 Fax: (612)625-1268 E-mail: murra021@tc.umn.edu Web Address: http://www.misa.umn.edu

This project provides a comprehensive program of complementary on-farm and experiment station research,

owners, private sector representatives, agency personel, community members, and non-profit organizations has been developed that has planned, implemented, and delivered cooperative research and demonstration projects on sustainable farming systems in the southeast, southwest and west central regions of Minnesota. Runoff and erosion samples have been collected at eight project locations and analyzed for sediment and nutrient content. Results will be used to estimate the environmental impacts of individual sites. Economic indicators have been developed to assess the economic benefits of conservation land practices. Forty-seven outreach events have impacted nearly 2500 farmers and agricultural professionals.

PRAIRIE-GRASSLAND LANDSCAPES

7(d) \$350,000 TF Peter Buesseler MN DNR, SNA program 1221 E. Fir Ave. Fergus Falls, MN 56537 Phone: (218) 739-7497 Fax: (218) 739-7601 E-mail: peter.buesseler@dnr.state.mn.us

This appropriation has provided a cooperative project for an aggregate resource inventory on public lands, prairie restoration and research, and stewardship plans for management options. As of June 1999, a total of 23 workshops, demonstration projects, community education activities, and training opportunities were held to improve grassland ecosystem stewardship activities in the Glacial Lake Agassiz Interbeach Area. Information resources have been developed in the form of displays, books, and other educational materials. A biomass/energy feasibility study has been initiated to investigate the production of ethanol from native prairie species. A GIS project has been set up to assist in the development of a comprehensive watershed plan for the Pembina River Basin. Two projects have been set up to accelerate the planting of native grass species on CRP acreage.

REDUCING MINNESOTA RIVER POLLUTION FROM LACUSTRINE SOILS

7(e) \$250,000, FRF Mary Hanks MN Department of Agriculture 90 Plato Blvd. St. Paul, MN 55107 Phone:(651)296-1277 E-mail: mary.hanks@state.mn.us Results located at web Address: http://farmwater.coafes.umn.edu

RESEARCH PROJECT

A major strategy recommended to reduce potential sedimentation from lacustrine soils is to increase the practice of conservation tillage on those soils. This research and and nitrogen losses into surface tiles were low. Maximum annual runoff (28.0 mm) was less than 5% of annual precipitation. The maximum 3-yr cumulative pollutant losses were 138 kg/hectare (ha) sediment, 20 kg/ha COD, 363 kg/ha total phosphorous, 205 kg/ha dissolved molybdate reactive phosphorous, 1.3 kg/ha dissolved inorganic nitrogen, and 1.1 kg/ha nitrate-nitrogen. Ponding reduced sediment losses and associate particulate phosphorous and COD losses. Maintaining surface residue cover above 10% (no till-chisel system) reduced pollutant losses in surface runoff compared to conventional system (chisel-moldboard) 2-8 times. Using a crop residue system, soybean yield was reduced 0.1 mg/ha though this small yield reduction is not economically significant. There were no tillage effects on corn yield.

MERCURY MANOMETERS

7(f) \$250,000 FRF Sandra J. Dunn Dept of Ag 90 W. Plato Blvd. St. Paul, MN 55107 Phone: (651) 297-2133 Fax: (651) 297-5176

Results located at web address: http://www.mda.state.mn.us Appropriation added by the 1997 Legislature to the LCMR Recommendations

Mercury is extremely toxic to humans and animals. The goal of this project is to remove mercury manometers from dairy farms and replace them with safer bourdon tube vacuum gauges. Mercury will be subsequently removed and recycled. Dairy farms having mercury manometers will be identified and placed on a list for eventual manometer replacement. To date, 995 dairy farms have been identified as having mercury manometers (each manometer contains about one pound of mercury) and 223 mercury manometers have been replaced and disposed of thus removing a highly toxic element from potential release into the environment. Appropriation available until June 30, 2001.

SUBD. 8 POLLUTION PREVENTION

TOXIC EMISSIONS FROM FIRE TRAINING

8(a) \$65,000 TF Kirby Kiefer FIRE/EMS Center-Metropolitan State Univ. 1450 Energy Park Dr., Suite 100B St. Paul MN 55108-5218 Phone: (651)649-5412 Fax: (651)649-5409 E-mail: kkiefer@fire center.tec.mn.us

This project identified and quantified airborne emissions from fire department structural fire training exercises. The project estimated that there were 292 fire service-training exercises 7,875,000 pounds, Carbon Monoxide 262,500 pounds, Water 3,937,500 pounds, Hydrocarbons 105,000 pounds, Particulates 262,500 pounds, Nitrogen Oxides 15,700 pounds. Analysis disclosed that all target substances were below acceptable atmospheric thresholds. This study advocates the use of hotter fires in training exercises to reduce visible smoke and other pollutants at ground level. Furthermore, removal of electrical switches and thermostats would reduce sources of mercury from the site.

POLLUTION PREVENTION TRAINING PROGRAM FOR INDUSTRIAL EMPLOYEES

8(b) \$200,000, FRF
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This project developed educational materials for training industrial employees to play a positive role fostering pollution prevention in Minnesota. The University of Minnesota School of Public Health and Regions Hospital worked cooperatively to produce the following results: A) Developed a curriculum for workers on environmental issues, with a special emphasis on pollution prevention. Using the Delphi process, project staff and cooperating groups worked with stakeholder representatives to develop curricula for 8-hour workshops and more intensive three-day training, as outlined in Results B and C below. B) Trained 68 employees around Minnesota in one-day workshops based on the 8-hour curriculum developed in Results A. C) Trained 15 employees as pollution advocated by providing intensive study based on the three-day curriculum developed in Result A. After completing the course, advocates returned to their work with the goal of completing a pollution prevention project. Training grants were set aside for employees that needed funding for release time for their jobs. D) Despite the offer of further technical assistance, no trainee in the three-day course has reported working on a pollution prevention project, despite follow-up contact. A final questionnaire and interview of each trainee attending the threeday program will be conducted in November-December, 2000. E) Program evaluation consistently indicated a high level of satisfaction with the one-day and three-day courses. Final evaluation of the effectiveness of the three-day training, and subsequent pollution prevention initiatives in the work place, is in progress.

SUBD. 9 IMPACTS ON NATURAL RESOURCES

GRANTS TO LOCAL GOVERNMENTS TO ASSIST NATURAL RESOURCE DECISION-MAKING

One West Water St. St. Paul MN 55107 Phone: 612/296-0879 Fax: 612/297-5615 E-mail: jim.birkholz@bwsr.state.mn.us

The objective of the project is to enhance the ability of local governments to make natural resource decisions (such as land use, zoning and permitting) that are appropriate to the natural resources of their communities.

Six projects were funded:

1. Olmsted County/City of Rochester (\$40,500)—Groundwater Recharge Management Areas—Mapped groundwater recharge and discharge areas, prepared design models and planning and zoning controls to protect groundwater resources.

2. Beltrami Soil and Water Conservation District (\$25,000)— Integration of natural resources information for use by the four townships surrounding the City of Bemidji and training in its use was accomplished by this project.

3. Douglas County (\$37,500)—GIS mapping of lakeshore bluffs, wetlands and sensitive areas was accomplished, local staff and officials trained in its use in plat approval process and changes to local ordinances are underway.

4. Scott Soil and Water Conservation District (\$10,000)— Created a team of county and soil and water conservation district professionals—Development in Review Team or "DIRT" to address issues and concerns of individuals planning to develop land in Scott County. All proposers of development have the opportunity to meet simultaneously with all the staff to work through all natural resource issues related to their development proposals.

5. City of Savage (\$21,380)—Completed and adopted a Comprehensive Wetland Protection and Management Program for all jurisdictional wetlands in the city.

6. Rock County (\$5,725)—Included natural resource information and set goals for management and protection of natural resources in Rock County as part of the County's update of its "Land Management Plan".

Project Results Use and Dissemination:

1. Planning and zoning tool used in evaluating and permitting all development in the Rochester area.

2. Four townships now use standard set of natural resource information to guide all planning and zoning decisions.

3. Sensitive areas given special consideration for all platting done around 20 major county lakes. One county staff GIS specialist added as ongoing county position.

4. Forty one developments given comprehensive natural resources review and assistance to be continued as permanent program. Project won a National Association of Counties award.

5. City now operates from a solid base of information to make wetlands impact decisions under a plan approved by the BWSR and other natural resource agencies.

withstand challenges.

EVALUATION OF URBAN GROWTH ECONOMIC AND ENVIRONMENTAL COSTS AND BENEFITS

9(b) \$275,000, FRF
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46 E. 4th St., Suite 1106
St. Paul MN 55101
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E-mail: hamilton@me3.org
Results located at web address: http://www.me3.org

This project evaluated the infrastructure costs, land use impacts, transportation impacts, environmental impacts, and social impacts of two growth scenarios for the Twin Cities metropolitan area between 1995 and 2020: Smart Growth (housing density and land use policies that accommodate growth while protecting natural resources) and Sprawl scenarios (single-family detached developments and low densities). Findings indicate that Smart Growth would require 87,000 fewer acres for new development at a density of 5.5 units per acre (vs. 2.1 in Sprawl scenario). Smart growth would result in 33,000 new households vs. 7,500 in the sprawl scenario while protecting environmentally sensitive areas and providing more opportunities to use public transport. One thousand final reports were produced and distributed to policy makers, government officials, builders and developers, environmental groups, the Metropolitan Council, and other interested parties. The full report is available on the web site http://www.me3.org

REINVENTING THE AGRICULTURAL LAND PRESERVATION PROGRAM

9(c) \$100,000, FRF Nonstate Match \$100,000 Robert Patton MN Dept of Ag 90 W. Plato Blvd. St. Paul, MN 55155 Phone: 612/296-5226 Fax: 612/297-7678 E-mail: bob.patton@state.mn.us Web Address: http://www.mda.state.mn.us

This project was designed to evaluate the effectiveness of Minnesota's agricultural land preservation programs, make recommendations for necessary statutory amendments and programmatic improvements to increase program effectiveness, and identify and quantify fiscal impacts of "rural sprawl." This evaluation concluded that that the Minnesota Agricultural Land Preservation Program should be refocused and strengthened to serve areas of the state with the highest need; that the solvency of the funding system for the statewide program and development rights should be investigated and pursued. The study confirms previous studies showing that new residential development is more advantageous when in occurs within established urbanized areas than when it occurs in outlying undeveloped rural areas.

NEW MODELS FOR LAND-USE PLANNING

9(d) \$530,000 TF Michael Pressman 1000 Friends of Minnesota 370 Selby Ave., Suite 300 St. Paul, MN 55102 Phone: 651/312-1000 Fax: 651/312-0012

This program provides a new, environmentally sound landuse planning approach for city and county planners based on adapting Holistic Resource Management concepts and principles for decision-making, visioning, and goal setting. This project provides for the development of new models for land-use planning in Washington and Chisago Counties, two of the fastest growing counties in Minnesota. An inventory, plan, and maps for a permanently protected green corridor in Chisago and Washington Counties have been developed. Draft Purchase of Development Rights (PDR) ordinance for Washington County and a Transfer of Development Rights Conceptual plan for Chisago County have been developed as well as a TDR/PDR feasibility analysis for the City of Afton. Research on open space financing options was carried out for local governments. Acreage totaling 531 acres was protected by the Minnesota Land Trust. Educational materials were created and distributed along with 110 meetings that reached nearly 4,000 people.

NORTH MINNEAPOLIS UPPER RIVER MASTER PLAN

9(e) \$300,000, FRF Nonstate Match \$100,000 Judd Rietkerk Minneapolis Park and Recreation Board 200 Grain Exchange, 400 S. 4th St. Minneapolis MN 55415-1400 Phone: (612)661-4824 Fax: (612)661-4777 Web Address: www.ci.minneapolis.mn.us/citywork/ planning/ index.html

The Mississippi corridor from Plymouth Avenue to the Minneapolis city limits were studied and a master plan developed addressing greenspace and trail development, riverbank restoration, and stimulation of river-oriented land uses. Connections to adjacent neighborhoods and parks, as well as the potential relocation of inappropriate functions currently located along the river, were also explored. were then prepared and presented for public input and comment. Public input opportunities included eight large public open houses, over 30 small group discussion sessions, a comment call-in line, a website, the dissemination of six newsletters to a mailing list of over 1,000, and the placement of public comment workbooks at locations within the study area. Additional presentations were made to public officials and meetings sponsored by other interested organizations. Through this public input process, together with an extensive economic benefit analysis of each concept, a single preferred option was selected. Recommendations were also set forth for phasing, funding sources, and the establishment of a development corporation for implementation.

Public and agency involvement in the preparation of the final plan was extensive and in itself had a significant educational component. The final Master Plan report, entitled Above the Falls, has been published and disseminated to readily-accessible locations, such as libraries and community centers, for public inspection. The report also appears on the City of Minneapolis Website at www.ci.minneapolis.mn.us/citywork/planning/ index.html. Implementation of the plan will follow through hearings and adoption by the Minneapolis Planning Commission and City Council, application for Regional Park status for the park components of the plan, formation of the recommended development corporation, and fund-raising. Further public input will occur through many of these activities and as specific components of the plan approach implementation.

PREVENTING STORMWATER RUNOFF PROBLEMS THROUGH WATERSHED LAND DESIGN

9(f) \$280,000, FRF Mary Vogel University of MN - Department of Landscape Architecture 125 Architecture Building, 89 Church St. S.E. Minneapolis MN 55455 Phone: 612/626-7417 Fax: 612/625-7525 E-mail: vogel001@maroon.tc.umn.edu Web Address: http://www.cala.umn.edu

The goal of this project was to 1) promote transformation of the current rural land development process and design patterns aimed at preventing flooding and storm water runoff quality degradation and 2) preserve habitat biodiversity and traditional land design patterns through the development of new watershed-based, environmentally sensitive land design model codes and design guides. A model cluster code has been developed and tested. Potential changes to statutes and laws that might be useful in supplementing remedies offered by better subdivision regulations have been identified. Illustrative design guides have been prepared to instruct users in the appropriate design and review of new subdivisions to meet model standards and code language requirements. David F. Zentner Miller Creek Joint Powers Board Chair 650 U.S. Bank Place Duluth, MN 55802 Phone: (218) 727-7437 Fax: (218) 727-1770 e-mail address: zentner@computerpro.com

This project focuses on activities necessary for the restoration and preservation of Miller Creek and brook trout habitat (a watershed running through Duluth and Hermantown). A bridge known to encourage bank erosion was removed in 1998. Bids will soon be taken for the construction of an in-stream sediment trap on the creek. A series of temperature and conductivity monitors have been installed to identify sources of heated runoff and nutrient levels in the stream. A stream water quality monitoring and temperature impact model is near completion. Additional results are pending completion of this project.

TROUT HABITAT PRESERVATION USING ALTERNATIVE WATERSHED MANAGEMENT PRACTICES

9(h) \$250,000, FRF Anthony R. DeMars Emmons and Olivier Resources 3825 Lake Elmo Ave. N. Lake Elmo, MN 55402 Phone: (651) 770-8448 Fax: (651) 770-2552 Appropriation added by the 1997 Legislature to the LCMR Recommendations

The objective of the project is to protect the lower reaches of Browns Creek, a DNR Designated Trout Stream. A feasibility study has been concluded summarizing the physical/biological conditions of the area, hydrologic/hydraulic modeling, and potential environmental impacts of the project. Project planning has been completed. Results from construction are pending completion of the project but will include the creation of a system of interconnected wetlands, infiltration ponds and vegetated overflow swales.

SUBD. 10 DECISION-MAKING TOOLS

COMPARATIVE RISKS OF MULTIPLE CHEMICAL EXPOSURES

10(a) \$150,000, FRF Pamela Shubat MN Dept of Health 121 East 7th Place, Suite 220 St. Paul, MN 55155 Phone: (651)215-0976 Fax: (651)215-0975

This project interprets what the results of a comparative risk analysis of the Minnesota Children's Pesticide Exposure Study (MCPES) data mean to human health. The report includes: 1) a summary of the methods used for exposure estimation, toxicity evaluation, and risk calculation; 2) the results of health risk assessment for individual chemicals and for multiple chemicals, using several approaches for combining exposure or risk; and 3) a discussion of the limitations of the analysis and what can be learned from the study. The objective of the MCPES were to: 1) evaluate children's exposures to environmental contaminants, both individually and in combinations; 2) evaluate the relative significance of exposure pathways (i.e. ingestion, inhalation) for children; and 3) compare health risk posed by the chemicals studies. The goal of the MDH's comparative risk analysis was to provide decision-makers with information necessary to establish policy and set priorities for directing resources to reduce children's exposure to environmental contaminants. LCMR support expanded the number of chemicals that could be measured and compared, thereby allowing risks from pesticides to be put into perspective. Full report titled: "Comparative Risks for Multiple Chemical Exposure" is available from the Minnesota Department of Health.

METROPOLITAN AREA GROUNDWATER MODEL

10(b) \$300,000 TF Andrew Streitz MPCA 520 Lafayette Road St. Paul, MN 55155 Phone: (651)296-7791 Fax: (651)296-9707 E-mail: andrew.streitz@pca.state.mn.us Results located at web address: http://www.pca.state.mn.us/ water/groundwater/metromodel.html

This project is an additional appropriation to improve and refine the metropolitan groundwater model (Metro model) begun during the 1995-97 biennium (ML95 Chap. 220 Sec. 19 Subd. 8(g).) Geologic and hydrogeologic databases have been assembled and developed to support the Metro Model. Databases and maps have been distributed through CD-ROM and Internet to government scientists and private consultants. The Metro Model has been used in modeling Superfund and tank leak sites.

11/03/00: Project Update:

Metro Model staff are pleased to announce that major revisions and additions have been made to the Metro Model website. The changes make this site much more useful to metropolitan area groundwater scientists. It has been revised and updated to provide a simple, but complete menu of resources that can be downloaded under three categories: "Project Reports", "Model Files", and "Database Files and Maps", all of which lead to links that readily permit downloads of Metro Model

WOLF MANAGEMENT PLAN

10(c) \$100,000, FRF Michael DonCarlos DNR Box 7, 500 Lafayette Road St. Paul, MN 55155 Phone: (651)297-3208 Fax: (651)297-4961

This project prepared a biologically sound and socially acceptable management plan for Minnesota wolves, with extensive public involvement, for implementation when Minnesota wolves are removed from the federal Endangered Species list. A series of 12 public information meetings were held around the state to gauge public concerns. A wolf round table was also convened on eight different days and consisted of representatives from a variety of agencies and interest groups. A package of consensus recommendations was determined and turned over to the DNR for incorporation into the state's wolf management plan. Wolf population survey data has been collected with data analysis in progress. A final wolf management plan has been completed.

MINNESOTA RIVER BASIN NATURAL RESOURCE DATA

10(d) \$250,000 TF Nonstate Match \$100,000 Henry Quade MN River Basin Joint Powers Bd (MRBJPB) MSU 70, P.O. Box 8400 Mankato MN 56002-8400 Phone: (507)389-5492 Fax: (507)389-5492 Fax: (507)389-5493 E-mail: water@vax1.mankato.msus.edu Results located at web address: http://mrbdc.mankato.msus.edu

The Minnesota River Basin Natural Resource Data Project has developed a centralized resource center to assist environmental managers in the acquisition of data for the 1208 minor watersheds within the 37 counties of the Minnesota River Basin. This resource will provide up-to-date information for decision making and future watershed planning in the Minnesota River Basin. Access to information about the Minnesota River is provided through the Minnesota River Basin Data Center website. GIS coverages have been made available for the 12 major watersheds of the basin. Each major watershed contains 26 ARC/INFO coverages; 26 ArcView shape files; 26 data dictionaries, and 26 metadata documents. The database is used to provide and update local, state, and federal watershed summaries. One feature of the database has been used to create the web pages including 1,183 minor watershed summaries, 1,183 local inventories, 11 state inventories, 11 federal inventories, and 27 contact directories.

LAND USE DEVELOPMENT AND NATURAL RESOURCE PROTECTION MODEL 10(e) \$400,000 TF Nonstate Match \$88,000 Eric Sorensen City of Winona P.O. Box 378 Winona MN 55987 Phone: 507/457-8234 Fax: 506/457-8212 E-mail: esorense@cityhall.luminet.net

This project provides GIS capabilities to the City of Winona for natural and semi-natural areas within and surrounding Winona (33,000 acres). The GIS consists of three user-friendly models. The Land Use Development and Natural Resource Protection model (LUDANPro) is used to assess proposed developments looking at infrastructure issues and high value issues (viewshed and appearance of area bluffs). Winona Property Inquiry (WinPropinq) allows for quick retrieval of property-related records. Emergency Routing (EmeRt) can be used in optimal routing of emergency vehicles. A pamphlet describing the system's capabilities is being distributed to all Minnesota cities and counties.

STATEWIDE DIGITAL SOIL DATABASE-PHASE 1

10(f) \$145,000, FRF Greg Larson BWSR 1 West Water St., Suite 200 St. Paul MN 55107 Phone: (651)296-0882 Fax: (651)297-5615 E-Mail: greg.larson@bwsr.state.mn.us

This project researched the most cost-effective methods to produce a modern GIS digital database from county soil surveys in the 42 counties with category 2 maps. This involved the exploration of various techniques for converting category 2 soil surveys into a product suitable for digitizing. To test these various methods, soil surveys for Becker County were digitized this biennium. Soil scientists and GIS specialists at the University of Minnesota and the Natural Resources Conservation Service checked results from this work. The quality review verified that the method produces a digital data product that meets national map accuracy standards.

FILLMORE COUNTY SOILS SURVEY UPDATE

10(g) \$65,000 TF Nonstate Match \$130,000 Kevin Scheidecker BWSR 900 Washington Street Preston MN 55965-9511 Phone: (507)765-3879 of updating the Fillmore County Soil Survey. Development of a legend is progressing with completion of a summary of the 15-20 major map units. Production mapping of the area will soon begin at a scale of 1:12,000. Soils will be examined to depths of at least 80 inches and soil boundaries will be compiled on an orthophotographic basemap.

SUBD. 11 PUBLIC ACCESS TO NATURAL RESOURCE DATA

FOUNDATIONS TO INTEGRATED ACCESS TO ENVIRONMENTAL INFORMATION

11(a) \$650,000 FRF
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Department of Natural Resources
500 Lafayette Road N
St. Paul, MN 55155
Phone: (651) 296-1305
Fax: (651) 297-4946
E-mail: colleen.mlecoch@dnr.state.mn.us
Results located at web address: web address: http://bridges.state.mn.us/

This project funds long-range planning for a collaborative effort among natural resource agencies to design, develop, and test a solution to provide integrated electronic access to environmental and natural resource data. The natural resource information needs of Minnesota residents have been assessed through a survey. A list of electronic resources have been catalogued, half of which have been tagged for search purposes. A search engine has been selected and implemented to facilitate data and information searches across participating agency resources.

PUBLIC ACCESS TO ARCHAEOLOGICAL KNOWLEDGE

11(b) \$200,000 FRF Beth Nodland and Rhoda R. Gilman Institute for MN Archaeology (IMA) 287 E. 6th St., Suite 260 Minneapolis MN 55101 Phone: (651) 848-0095 Fax: (651) 848-0096 E-mail: ima@imnarch.org Results located at web address: http://www.imnarch.org

The goal of this project is to enhance and distribute a body of unpublished and unavailable regional archaeological information that has been assembled over the last twenty years in Minnesota. "Enhancing Public Access to Archaeological Knowledge" focused on three areas of Minnesota along the Mississippi River: the Headwaters region, the Twin Cities metropolitan area, and the Red Wing locality. This project launched a unique public resource that presents archeological societies and students working on research projects.

SUBD. 12 SUSTAINABLE DEVELOPMENT ACTIVITIES

SUSTAINABLE DEVELOPMENT ASSISTANCE FOR MUNICIPALITIES THROUGH ELECTRIC UTILITIES

12(a) \$240,000, FRF
Nonstate Match \$250,000
Jack Kegel
MN Municipal Utilities Association
12805 Highway 55, Suite 212
Plymouth MN 55441-3859
Phone: 612/551-1230
Fax: 612/551-0459
E-mail: jkegel@mmua.org
Results located at web address: http://www.mmua.org

This project assists municipal utilities in planning and implementing sustainable renewable energy and energy efficiency projects. Two projects have been developed with Marshall Municipal Utilities: the Managed Lighting Retrofit Program and the Air Conditioning Rebate and Design Program. Moorhead has been identified as a case study site to look at the steps required to bring wind generation to small communities. Other projects will involve the evaluation of dispersed generation and load management techniques to control rising purchased power costs and the development of a renewables training center to train workers in service skills required in the renewables industry.

RENEWABLE ENERGY DEMONSTRATION AND EDUCATION IN STATE PARKS

12(b) \$230,000 TF/OOC Richard Szydlowski Center for Energy & Environment 211 N. 1st St., Suite 445 Minneapolis MN 55401 Phone: (612)335-5862 Fax: (612)335-5888 E-mail: rszydlowski@mncee.org Results located at web address: http://www.mncee.org

This project demonstrates cost-effective applications of renewable energy technologies in state parks. The focus is on technologies that are commercially available and have been successfully implemented as part of demonstration projects in other public spaces, including photovoltaics, wind generators, alternative fuel vehicles, and passive solar systems, as well as energy efficient technologies. A total of 44 renewable energy applications have been assessed in 20 different state parks. Six applications are currently in operation including PV powered pumps, lights, an electric fence, and a toilet ventilation fan. Signs and other educational materials are being designed 12(c) \$200,000, FRF John Moncrief Uof M 162 Borlaug Hall, St. Paul MN 55108 Phone: 612/625-2771 Fax: 507/642-3178 E-mail: moncrief@soils.umn.edu

RESEARCH PROJECT

This project evaluates the environmental impacts and benefits of alfalfa production for electrical power generation. Research shows that alfalfa fields managed under aggressive soil conservation practices generate 1.6 times more runoff than similarly managed corn-soybean fields but produces half the sediment. Alfalfa was found to release more biological-oxygen demanding materials, bioavailable phosphorous, and ammonium nitrogen to snowmelt runoff. Chemical analysis indicates that carbon is a major component of alfalfa fly ash and that the ash could serve as a potential source of potassium for use in potassium-deficient soils and as a limiting agent for acid soils.

SUSTAINABLE DEVELOPMENT OF WIND ENERGY ON FAMILY FARMS

12(d) \$200,000, FRF
Lisa Daniels
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E-mail: srclisad@mtn.org
Results located at web address: http://www.windustry.com

With this appropriation, the Sustainable Resources Center (SRC) provided information and technical assistance encouraging economically viable wind energy development in small dispersed cluster projects through orderly and sustainable community development practices. The program sponsored a series of planned events such as a wind energy festival that produced very good turnouts. Several town meetings were also held that reached 400 farmers and rural landowners in spring of 1999 to provide information on wind rights and negotiating wind easement contracts with wind developers.

CONNECTING PEOPLE AND PLACES THROUGH YELLOW BIKES

12(e) \$95,000, FRF Laurie Lundy Yellow Bike Coalition 1101 Cedarview Dr. Minneapolis MN 55405 Phone: 612/377-9522 This appropriation funded a project to The Yellow Bike Coalition to expand and develop a bicycle recycling and transportation program in Minneapolis, St. Paul, and Houston County. At the completion of the project, 645 bikes were deployed in the metro area. Another 600+ were broken down for useable parts thus saving these bikes from the landfills. A total of 189 bikes were deployed from 17 metro hubs while 245 bikes were given to groups and individuals. Another 177 bikes were loaned to eight groups. The program has attracted interest from the City of Minneapolis which has provided for funding to provide bikes in low-income neighborhoods.

SUSTAINABLE GARDENING FOR MINNESOTA HOMES AND COMMUNITIES

12(f) \$400,000, FRF Sue Gunderson Sustainable Resources Center 1916-2nd Ave. So. Minneapolis MN 55403 Phone: 612/872-3283 Fax: 612/870-0729 E-mail: ulsrc@aol.com

With this appropriation, the Sustainable Resources Center (SRC), Minnesota State Horticultural Society (MSHS), and the Duluth Community Garden Program cooperated to provide information and technical assistance to encourage ecologicallysound home landscape plantings and maintenance, beautification, and reclamation of lands through community gardening and sustainable community development. The program provided 1,700 people with the opportunity to learn about environmentally safe landscaping, consult with landscaping professionals, and visit designed plantings of Minnesota species. Technical advice was provided to 598 community gardens along with 18,900 seed packets and \$400,000 of in-kind plant donations. 110 public events were held on a variety of topics. Newsletters from the cooperating organizations were sent out to over 3,100 households. The groups held several events to connect urban food consumers with farmers using sustainable methods.

ECONOMICS FOR LASTING PROGRESS

12(g) \$250,000, FRF
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Results located at web address: http://www.mnplan.state.mn.us

The purpose of the "Economics for Lasting Progress" project is to determine if current measures of economic activity provide no less than the economic, environmental, and community systems of a place, the project investigates the Genuine Progress Indicator (GPI) as an alternative to the Gross Domestic Product (GDP) and Gross State Product (GSP) and develop a Minnesota-specific GPI for use by Minnesota policy makers and citizens. A literature review on indicators and performance measures and a review of state measures of GSP have been completed. A total of 209 candidate GPI indicators have been identified and are being assessed.

SOY-BASED DIESEL FUEL STUDY

12(h) \$83,000, FRF Ralph Groschen Mn Dept of Ag 90 W. Plato Blvd. St. Paul, MN 55155 Phone: (651)297-2223 Fax: (651)296-6890

Results located at web address: http://www.mda.state.mn.us Appropriation added by the 1997 Legislature to the LCMR Recommendations

In order to make biodiesel fuel commercially viable, year-round tests with significant mileage must be conducted in cold climates to prove that adverse weather conditions will not affect soy-based diesel fuel or engines and to prove that biodiesel will function year-round in cold climate states. This project includes four biodiesel-fueled vehicles and two petroleumfueled vehicles as controls, operating for approximately 16 months. Arrangements have been made with Hennepin County and the University of Minnesota Center for Diesel Research to cooperate in the study and provide equipment and training. During the course of the study, no differences in vehicle performance have been noted.

A successful field trial of B-20 (a blend of 20% biodiesel with 80% petrodiesel fuel) was conducted in Hennepin County, MN from December 1998-April 2000. B20 was used in four road maintenance trucks for 17 months, spanning two winters. The goal of the project was to determine if it is practical to transport, store and transfer B20 during performance, or on the vehicle's fuel systems.

A fuel additive was used to improve the cold flow properties of the B20 used during the demonstration. Fuel samples were taken as needed. The trucks were monitored for their fuel consumption and miles driven. Oil samples were taken at about 5,000-mile intervals, and the oil analyzed for wear metals and dilution by the fuel. Each truck's fuel system was examined at the beginning and end of the project to determine if the B20 had any effect on the truck's fuel system.

B20 with the fuel additive had cold flow properties comparable to a winter blend diesel fuel. There were no problems in storing or transforming the biodiesel during the demonstration. About fuel. The oil samples revealed that no unusual engine wear or fuel dilution was occurring. There were no observable effects on the trucks fuel system, and the truck operators could not discern any change in vehicle performance.

SUBD. 13 ENVIRONMENTAL EDUCATION

SCHOOL NATURE AREA PROJECT (SNAP)

13(a) \$250,000 TF Gary Deason St. Olaf College 1520 St. Olaf Ave. Northfield MN 55057-Phone: (507)646-3908 Fax: (507)646-3930 E-mail: deason@stolaf.edu Results located at web address: http://www.stolaf.edu/other/ snap/index.html

This appropriation enabled the School Nature Area Project (SNAP) to create partnerships between higher education institutions in three Minnesota biomes and K-12 schools in each of these regions. The partnerships employed resources of the colleges and universities to educate teachers about regional ecology and native species enhancement as the teachers plan and develop their own school nature areas. The program supported the development of 29 school projects (5,672 students) involving native plantings or other wildlife habitat enhancement. 31 additional projects have been awarded for 1999-2000. Three regional eco-demonstration sites were established on college campuses as models for restoration projects. Eleven separate teacher workshop events were also supported which provide training to 300 teachers on the development of school nature areas.

WATERSHED SCIENCE: INTEGRATED RESEARCH AND EDUCATION PROGRAM

13(b) \$500,000, FRF
Patrick Hamilton
Science Museum of Minnesota (SMM)
30 E. 10th St.
St. Paul MN 55101
Phone: (651)221-4761
Fax: (651)221-4777
E-mail: hamilton@sci.mus.mn.us
Results located at web address: http://www.smm.org

RESEARCH PROJECT

The Science Museum of Minnesota (SMM) has developed a watershed science program that integrates research and public education. A monitor station network has been set up on Valley Creek and its tributaries and over 300 water samples have been taken and analyzed. GIS analysis of the watershed is complete and watershed and groundwater models have been developed to assess the impact of urbanization on the hydrology

Educational collaborations have been set up with two area high schools.

MINNESOTA FROG WATCH

13(c) \$300,000 TF Tracy Fredin Hamline University 1536 Hewitt Ave. St. Paul MN 55104 Phone: (651)523-3105 Fax: (651)523-2987 E-mail: tfredin@gw.hamline.edu Results located at web address: cgee.hamline.edu/frogs/

The Minnesota Frog Watch project combined statewide monitoring of frogs as indicators of environmental health with a statewide, multi-media, and interdisciplinary environmental education project for youth and families in formal and nonformal education settings. Over 26,000 newsletters, monitoring surveys, and posters have been distributed to over 120,000 people and institutions statewide. Over 4000 copies of two different educator activity guides and 25 resource learning kits have been distributed impacting over 125,000 students. An award-winning website was designed and visted 250,000 times. Events and exhibits throughout the state have impacted over 500,000 people. Over one hundred individuals were trained for the Minnesota Frog and Toad Survey. Almost 300 reports of malformed frogs were collected and passed on to the MPCA.

ENVIRONMENTAL SERVICE LEARNING PROJECTS IN MINNEAPOLIS SCHOOLS

13(d) \$100,000, FRF
Kathy Kinzig
Eco Education
275 E. 4th St., #821
St. Paul MN 55101
Phone: (651)222-7691
Fax: (651)222-3425
E-mail: ecoed@minn.net
Results located at web address: http://www.blacktop.com/
ecoeducation

Teachers, students, and administrators at up to 20 Minneapolis schools will partner with Eco Education to carry out environmental service learning projects in the schools' neighborhoods. A total of 32 teachers (combined classes of 890 students) from 12 schools have been trained in the methods of environmental service learning. Eleven minigrants were granted to student groups wanting to start projects. These projects ranged from planting trees and gardens to air quality testing. A manual for integrating environmental service learning has been reviewed and will be made available to school districts throughout the state. The program has been assessed by the Wilder Research Center and has resulted in improvements in the manual to better assess what the students are getting from the program. 13(e) \$550,000 TF Greg Lais Wilderness Inquiry 1313 Fifth St. S.E., Box 84 Minneapolis MN 55414 Phone: (612)379-3858 Fax: (612)379-5972 E-mail: glais@aol.com Results located at web address: http:// www.wildernessinguiry.org

With this appropriation, Wilderness Inquiry worked cooperatively with over 3,500 students, parents, and teachers in 6-12 Minnesota school districts to provide program development assistance in both environmental education and inclusive education for students of all abilities, with an emphasis on serving students with disabilities and people of color. The program provided inclusive environmental classroom instruction for 2,113 elementary students in nine school districts and intensive leadership training to 375 high school students. It also involved 2,916 individuals in workshops, weekend adventures, and extended trips. Sixteen service projects in nine school districts were initiated.

ENVIRONMENTAL SERVICE LEARNING

13(f) \$100,000 TF Larry Johnson Stowe Environmental Elementary School 715 - 101st Ave. West Duluth MN 55808 Phone: (218)626-2731 Fax: (218)626-1969 Results located at web address: http://www.cp.duluth.mn.us/~stowe

This project represents a partnership of schools, communities, and agencies working to create a model of environmental service learning based upon the application of environmental education principles. Through this partnership, a team of elementary classroom educators, students, cooperating agencies, community members and project staff worked together to implement service learning projects that incorporate principles and concepts found in the GreenPrint for Minnesota. The program has involved 600 students and 22 educators. Partnerships were formed between 10 agencies (city, state, federal, private, citizen, and higher education) to create an avenue for service to the environment and community and provide resources for integrating environmental education into the classroom. A guide was created outlining the process that the Stowe Environmental Elementary School followed to integrate environmental education with service to the environment and community.

STATE WOLF MANAGEMENT: ELECTRONICALLY MODERATING THE PUBLIC DISCUSSION

International Wolf Center 1396 Highway 169 Ely MN 55731 Phone: 218/365-4695 ext.23 Fax: 218/365-3318 E-mail: asstdir@wolf.org Results located at web address: http://www.wolf.org

This project has enabled the International Wolf Center (IWC) to provide a public electronic forum for moderating debate on wolf management as well as the information necessary to ground the debate in fact. An electronic bulletin board has been created with about 1,600 postings added so far. A website has also been created that currently averages about 7,000 visitors per week. Quarterly issues of International Wolf have been put on the website along with documents of the Minnesota wolf management plan, news articles about the wolf management debate, and wolf management maps.

CATCH AND RELEASE

13(h) \$20,000, FRF Nonstate Match \$10,000 Richard Schaak Rainy Lake Sportfishing Club P.O. Box 888 International Falls MN 56649 Phone: (218)283-2074 Fax: (218)285-3641

The Rainy Lake Sportfishing Club (RLSFC) has been working to improve the quality of fishing on Rainy Lake since 1984, including the improvement of habitat by increasing the awareness of people using the lake of the importance of such programs as "Catch and Release." This appropriation enabled the RLSFC to accelerate this program over two years. A variety of "Catch and Release" promotional materials (3000 hats and 400 rulers) have been developed and distributed to sportsmen.

ELECTRONIC ENVIRONMENTAL EDUCATION RAPTOR NETWORK 13(i) \$222,000 TF Mark Martell University of MN Raptor Center 1920 Fitch Ave St. Paul MN 55108 Phone: (651)624-9790 Fax: (651)624-9790 Fax: (651)624-8740 E-mail: marte006@tc.umn.edu Results located at web address: http:// www.raptor.cvm.umn.edu/raptor/meeen/meeenhp.html

This project allows students from all parts of Minnesota to participate in the satellite-monitored radio tracking of Eagles. Minnesota Osprey's were found wintering in various nations of Central and South America. Swainson's Hawks were found wintering in Argentina. Much of the educational efforts were focused on the web with six areas on the website devoted to education. Classroom materials were also made available to supplement website information.

GREENPRINT SUCCESS

13(j) \$136,000, FRF
Jody Yungers
Ramsey County Parks and Recreation Department
2015 N. VanDyke St.
Maplewood, MN 55109
Phone: (612)/777-1707
Fax: (612)777-6519
Appropriation added by the 1997 Legislature to the LCMR
Recommendations

This project represents a cooperative effort between environmental learning centers, counties, and school districts to prepare, pilot, and disseminate information on successful implementation of the Minnesota GreenPrint Plan on Environmental Education. Partnering naturalist/teacher teams developed and implemented 45 fall, winter, and spring environmental education units of instruction that align to the state graduation standards. The project has included 121 teachers/classrooms from five school districts, introducing 3,600 students to integrated environmental education programs that improve environmental literacy. An educator's guide and website was developed by participating teachers and naturalists to assist others in developing a program for environmental education. A video was also made to illustrate the program in action.

ST. PAUL AND MINNEAPOLIS REGIONAL PARK URBAN INTERPRETATION PROGRAM

13(k) \$200,000, FRF
Judy Barr
St. Paul Parks and Recreation
25 W 4th Street, Suite 300
St. Paul MN 55102
Phone: (651)266-6416
Fax: (651)292-7311
Appropriation added by the 1997 Legislature to the LCMR
Recommendations

This project was designed to provide inexpensive and accessible environmental opportunities for school and youth groups and visitors from the twin cities metropolitan area, the state, and beyond. Environmental education opportunities in Como, Crosby, Lilydale, Chain of Lakes, Minnehaha, and Wirth Regional Parks have been expanded by this program through the development of youth interpreter programs and guidebooks for the six regional parks. Interpretive signs for the six parks have been designed and distributed.

ENVIRONMENTAL INDICATORS INITIATIVE-CONTINUATION

14(a) \$250,000 TF Keith Wendt DNR Box 10, 500 Lafayette Road St. Paul, MN 55155 Phone: (651)297-7879 Fax: (651)296-6047 E-mail: keith.wendt@dnr.state.mn.us Web Address: http://www.dnr.state.mn.us/eii/

Second biennium of proposed three biennia project

This project continues the statewide environmental indicator development process initiated in the 1995-1997 biennium. The overall goal of the Environmental Indicators Initiative (EII) was to create the first statewide framework to select and monitor an integrated set of environmental indicators capable of assessing and communicating Minnesota's health status and trends. A series of publications collectively titled "Developing Environmental Indicators for Minnesota" have been developed or are nearing completion. A two-day workshop was held focusing on agricultural systems in the prairie parkland ecoregion. Attendees came from a variety of non-profit and state and local organizations. A number of partnerships have been developed to share technical information through pilot projects.

MINNESOTA'S FOREST BIRD DIVERSITY INITIATIVE - CONTINUATION

14(b) \$350,000 TF Lee Pfannmuller DNR Box 25, 500 Lafayette Road St. Paul, MN 55155 Phone: (651)296-0783 Fax: (651)296-1811 E-mail: lee.pfannmuller@dnr.state.mn.us Web Address: http://www.nrri.umn.edu/mnbirds/default.htm

RESEARCH PROJECT

The goal of Minnesota's Forest Bird Diversity Initiative was to develop landscape management tools to maintain Minnesota's rich diversity of forest birds. Bird population data were gathered and entered into a data base from over 1,200 sampling points in four major study regions: St. Croix River Valley, Chippewa National Forest, Superior Minnesota, and southeastern Minnesota. Trends have been completed for this last period with over 63% of species increasing in abundance. Thirty-five species declined in abundance in at least one region with 54% of these increasing in another region. A bird habitatmodeling program has been developed to predict the abundance of species. Initial results are promising with predictions of most species being within confidence intervals of the relative

WATER QUALITY INDICATORS OF ENDOCRINE DISRUPTING CHEMICALS

14(c) \$250,000 TF Judy Helgen MPCA 520 Lafayette Road St. Paul MN 55155 Phone: (651)296-7240 Fax: (651)297-8683 E-mail: judy.helgen@pca.state.mn.us

RESEARCH PROJECT

MPCA initiated the LCMR proposal to work on water quality indicators of endocrine disruption because there was evidence of hormonal disruption in fish below wastewater treatment plants in England and the U.S. In 1996, work was published giving evidence of endocrine disruption in fish located below the Minneapolis St. Paul Metropolitan Wastewater Treatment Plant (Folmar et al, 1996). For this project, MPCA partnered with the US Geological Survey (USGS) and MN Department of Natural Resources (DNR) to assess fish in several stream sites located below and above wastewater treatment facilities in Minnesota. Four biological characteristics of endocrine disruption were tested in male and female carp (Cyprinus carpio) as indications of endocrine disruption: 1) elevated concentrations of the yolk protein vitellogenin; 2) high or low plasma concentrations of the sex steroid hormones; 3) low gonado-somatic index; and 4) abnormal histopathology of the gonads. Sites were located upstream and downstream of wastewater treatment facilities in seven streams and downstream only in eight streams. The biological characteristics in male and female carp indicate the presence of endocrine disrupting agents in many of the sites that were sampled. In some cases, there were more indicators of endocrine disrupting agents found in the upstream than in the downstream location below the wastewater treatment plant. In other paired sites, the opposite was true. This study indicates the presence of endocrine active agents downstream of wastewater treatment plants and at sites draining primarily agricultural land. Full details of this work are found in the report published by the USGS and on the USGS web site (Lee et al, 2000) at http://mn.water.usgs.gov/wrd/pubs/00-4202.pdf

A smaller effort of this work looked for evidence of endocrine disruption in adult male northern leopard frogs (*Rana pipiens*). MPCA partnered with Dr. Brent Palmer of University of Kentucky to analyse the serum for the yolk protein vitellogenin and to analyze the gonads for evidence of endocrine disruption, such as effects on stage of sperm development. Frogs were collected from nine sites in seven counties in MN. All wetlands had varying frequencies of malformed juvenile frogs. Dr. Palmer found no indication of endocrine disruption in the blood VTG levels, nor in the structures on the gonads of the adult male frogs. MPCA also partnered with Dr. Blinda McClelland of University of Texas to see if there were morphological effects

found no evidence of inhibition or malformation of the larynx in the adult male frogs. There appeared to be no positive indicators of endocrine disruption in the normal adult male frogs that were tested. Work recently reported in the literature by other scientists suggests there may be evidence of endocrine disruption in juvenile malformed frogs when compared with normal juveniles (Sower et al, 2000).

STREAM HABITAT PROTECTION - CONTINUATION

14(d) \$225,000 TF Ian Chisholm DNR Box 25, 500 Lafayette St. Paul, MN 55155 Phone: (651)296-0781 Fax: (651)296-1811 E-mail: ian.chisholm@dnr.state.mn.us

This program was designed to help protect stream resources by establishing a watershed-level stream habitat database and develop the tools to set protected flows based on habitat diversity and ecosystem integrity. Hydraulic information on ten watersheds throughout the state have been collected at three flow levels and matched with habitat suitability models in seven watersheds to determine the change in biological habitat with changes in stream flow. Information on another three watershed sites (Kettle, Rum, and Snake Rivers) is currently being collected. Protected flow recommendations have been summarized with information on hydrology, current use, and implications of the protected flows to users.

WETLAND ECOSYSTEMS MONITORING

14(e) \$160,000, FRF Susan Galatowitsch University of MN Dept. of Landscape Architecture 305 Alderman Hall St. Paul MN 55108 Phone: (651)624-3242 Fax: (651)624-4941 E-mail: galat001@maroon.tc.umn.edu

RESEARCH PROJECT

This study examined the extent that revegetation stimulates overall ecosystem recovery in restored wetlands. It also examined how the habits and expectations of those responsible for restoring and maintaining wetlands and of the neighboring public affect ecosystem recovery. Revegetation success of planted sites ranged from 25-64% based on planted species observed the year following planting with floristic diversity of planted sites being greater than unplanted sites. Revegation and species diversity were found to be dependent upon a number of factors including temperature, proximity to road salt, and water level fluctuations. Reports are available on request. 14(f) \$230,000, TF Francesca Cuthbert University of MN Department of Fisheries and Wildlife 200 Hodson Hall St. Paul MN 55108 Phone: (612)624-1756 Fax: (612)625-5299 E-mail: cuthb001@maroon.tc.umn.edu Results located at web address: http://www.consbio.umn.edu/ loon

RESEARCH PROJECT

The goals of this study were to 1) determine mercury levels in adult and juvenile Common Loons captured in MN lakes 2) investigate relationships between mercury levels in loons and prey-sized fish 3) examine relationships between mercury levels in loons and loon chick behavior and 4) build a spatial database integrated our data with other appropriate state database that contain information pertinent to mercury reduction in Minnesota aquatic ecosystems. Adult (93) and juvenile (64) loons captured and banded in lake in MN and WI. Blood and feather samples were collected for analysis of total mercury content. Approximately 7% of adult loons and 1% of juvenile loons captured in MN had a blood and/or feather mercury concentration exceeding threshold levels associated with reproductive, behavioral or physiological effects reported in other studies. Strong linear relationships were found between mercury measured in prey-sized fish and in blood of adult loons and chicks. We observed loon chick behavior at 20 study lakes in MN and WI for approximately 355 hours. Common loon chicks were most susceptible to variation in behavior related to elevated mercury exposure within the first 12 days after hatching and when they were >40 days old. Databases were compiled and GIS applications created to show distributions of Common Loons presence and reproduction, mercury levels in blood and feathers of Common Loons, mercury levels in game fish, and physical and chemical lake characteristics.

TRAINING AND RESEARCH VESSEL FOR LAKE SUPERIOR

14(g) \$250,000, TF/GLPA Nonstate Match \$250,000 Thomas Johnson University of MN- Duluth University of Minnesota Large Lakes Observatory Duluth, MN 55812 Phone: (218)726-8128 Fax: (218)726-6979 E-mail: tcj@d.umn.edu Web Address: http://www.d.umn.edu/llo/#Inst&Fac

This appropriation enabled the Large Lake Observatory of the University of Minnesota to acquire, modify and operate the F/

Capacity Reduction Initiative. This boat has been modified to meet the special needs of education and research activities of the Large Lakes Observatory and the Lake Superior Center. The F/V FAIRTRY was purchased and re-named the F/V BLUE HERON. The boat has been subsequently renovated and outfitted for interior lab space and deck equipment. The F/V BLUE HERON is now operating on Lake Superior.

SUBD. 15 NATIVE FISHERIES

IMPROVED DECISIONS FOR WALLEYE STOCKING AND SPECIAL REGULATIONS

15(a) \$245,000, FRF
Ira Adelman
UofM 1980 Folwell Ave.
St. Paul MN 55108-6124
Phone: (651)624-4228
Fax: (651)625-5299
E-mail: ira@fw.umn.edu
Results located at web address: http://www.fw.umn.edu/

RESEARCH PROJECT

The goal of this project was to complete the validation of a computer model to predict the effect of stocking activities and harvest regulations on future walleye population structures. The user interface of the model has been improved to allow for the prediction of short term effects of harvest regulations and stocking changes. Display options have been improved to allow for the display of two consecutive simulations with different simulation environments. The model has also been modified to allow for its use with larger populations. Model validation with field tests is currently under investigation. The draft user manual for the model has been produced and will soon be placed on a website.

MINNESOTA RARE MUSSEL CONSERVATION

15(b) \$91,000, TF Mark Hove University of MN 1980 Folwell Ave. St. Paul MN 55108-Phone: (612)624-3019 Fax: (612)625-5299 E-mail: mh@fw.umn.edu Results located at web address: http://www.fw.umn.edu/ personnel/staff/Hove/Freshwater.Mollusk.Collection

RESEARCH PROJECT

This project was designed to improve native freshwater mussel conservation and water resource management. The feasibility of relocating native mussels to a refuge on the St. Croix River separate from zebra mussels or possible human influences was investigated. It was found that relocation had no significant impact on mussel growth. In addition, a study was carried out investigating the host requirements of mussel larvae. Suitable program also surveyed the diversity of fish and mussel cooccurrence. Ten mussel species and 42 fish species were identified in the Big Fork River drainage and 8 mussel species and 38 fish species in the Little Fork River watershed. In addition, several observations of new mussel species were made for the first time.

SUBD. 16 LAND ACQUISITION IN HIGH GROWTH AREAS

SAND DUNES STATE FOREST ACQUISITION

16(a) \$400,000, TF Steve Simmer DNR Division of Forestry 500 Lafayette Rd St. Paul, MN 55155 Phone: (651)297-3508 Fax: (651)689-7120 E-mail: steve.simmer@dnr.state.mn.us

Residential development in and around the Sand Dunes State Forest has increased dramatically. This project has resulted in the acquisition of a substantial portion of the current 700 acres of private land within the state forest considered for potential purchase. A 160-acre parcel has been purchased from one owner within the Sand Dunes State Forest in Sherburne County. A plan will be developed for the tract including 1.) Preservation of rare plants and animals, 2.) Recreation, 3.) Wildlife, 4.) Watershed, 5.) Forest management activities.

ARBORETUM LAND ACQUISITION

16(b) \$450,000, TF
Nonstate Match \$450,000
Peter Olin
University of Minnesota
3675 Arboretum Dr., Box 39
Chanhassen MN 55317
Phone: (612)443-2882
Fax: (612)443-2521
E-mail: olin002@maroon.tc.umn.edu
Results located at web address: http://www.arboretum.umn.edu

This project is part of a long-term strategy to acquire lands within the Arboretum's watershed for ecological protection and also provides the opportunity to develop public models for restoration of native Minnesota landscapes in the future. On March 2, 1999, the Arboretum purchased 60 acres of adjacent land with negotiations pending on an additional 90 acres. Control of these lands will assist in protecting water quality, native plant habitat, controlling noise and air pollution, and preserving the ambience of the visitor experience.

SUSTAINABLE WOODLANDS ON PRIVATE LANDS

17(a) \$875,000, FRF Terry Weber and Tom Kroll MN Forestry Association PO box 496 Grand Rapids MN 55744 Phone: (218) 326-3000 Fax: (218) 326-3224 E-mail: tom.kroll@dnr.state.mn.us

The purpose of this project was to develop sustainable, ecosystem-based Woodland Stewardship plans for private landowners and implement natural resources projects by providing matching funds to landowners. Developed around landowner goals and land capability, the plans offer alternatives to meet both landowner and landscape objectives. As of June 2000, over 115,000 acres of plans had been completed as a direct result of this funding. A training session was held to educate consultants (70 in attendance) in the business of landowner forestry assistance. As a result, the pool of professional plan preparers rose from about 15 to over 30 firms and organizations.

The proposal also supported plan implementation. Some examples of the activities completed include the planting of nearly 1.8 million seedlings as a direct result of this funding. Much of that planting was also designed for habitat improvement. An electronic database outlining all of the accomplishments is available.

Landowners paid at least 50% of the cost of implementation. All told \$498,000 in matching funds were raised.

CANNON RIVER WATERSHED: INTEGRATED MANAGEMENT 17(b) \$350,000, FRF Allene Moesler Cannon River Watershed Partnership P.O. Box 501 Faribault MN 55009 Phone: (507)332-0488 Fax: (507)332-0513

This project is designed to implement integrated management activities in the Cannon River Watershed. Cleanup efforts have begun in several areas of the watershed. Funds have been offered for feasibility studies of cluster septic systems and three septic system workshops have been held. A total of 722 feet of lakeshore restoration has been initiated at Fox Lake. A plan for the Cannon River Wilderness Area and River Bend Nature Center has been developed and implemented with controlled burns, plantings, and public access structures being built. Cooperative efforts with Soil and Water Conservation Districts have resulted in nutrient management plans covering over improvements.

PEATLAND RESTORATION 17(c) \$275,000, FRF Kurt Johnson NRRI 5013 Miller Truck Hwy. Duluth MN 55811-1442 Phone: (218)720-4268 Fax: (218)720-9410 E-mail: kjohnson@sage.nrri.umn.edu

The goal of this project was to promote reestablishment of diverse, sustainable peatland ecosystems on harvested peatland sites, through accelerated development of cost effective, reliable peatland restoration techniques. This project resulted in the compilation of a peatland restoration bibliography with over 200 references. Approximately 1,200 linear feet of boardwalks were constructed at three demonstration-scale peatland restoration research sites. Water table wells, rain gauges, and soil tensiometers were installed at each site to monitor environmental conditions. The project has resulted in the publication of 6 technical reports, an international symposium, and a guided tour of research sites.

PRAIRIE HERITAGE FUND

17(d) \$500,000, TF Nonstate Match \$500,000 Dave Nomsen or Matt Holland Pheasants Forever, Inc 2101 Ridgewood Dr. NW Alexandria MN 56308 Phone: (320)763-6103 Fax: (320)763-6103

The goals of this project are the acquisition and development of prairie grasslands and wetlands for donation to the public. Three regional information meetings with Pheasants Forever Chapters and other conservation partners have been held to disseminate information on the fund. To date 2,200 total acres have been acquired with matching partner dollars and will be restored to native prairie conditions.

PHALEN WETLAND RESTORATION: PHASE II

17(e) \$600,000, TF Allan Torstenson City of Saint Paul 1100 City Hall Annex St. Paul MN 55102 Phone: (651)266-6579 Fax: (651)228-3314 E-mail: allan.torstenson@stpaul.gov

The Phalen Wetland Restoration Project, Phase II (Ames Lake) has restored about nine acres of an obsolete, largely vacant

Soon after, ground water filled the site. Wetland was removed. Soon after, ground water filled the site. Wetland soils were replaced and the area was seeded with a cover crop of oats. Planting of native species will begin in Spring of 2000. The Ames Lake wetland will restore the site's natural storm water cleaning function, reduce non-point source pollution, and enhance wildlife habitat and storm water detention. The project will also expand our understanding of how to achieve biodiversity in restored wetlands, and provide an environmental education resource.

POINT DOUGLAS BLUFFLAND ACQUISITION

17(f) \$125,000, FRF
Jim Fitzpatrick
Carpenter St. Croix Valley Nature Center
12805 St. Croix Trail So.
Hastings MN 55033
Phone: (612)437-4359
Fax: (612)438-2908
E-mail: jmfitzptrk@aol.com

This appropriation funded the process of appraisal, negotiation and complete purchase of two different parcels of bluffland consisting of approximately 12 acres in the Mississippi and St. Croix Rivers near Hastings. Funds were returned due to the inability of the organization to acquire the property with the funds available.

MINNESOTA POINT PROTECTION

17(g) \$75,000, FRF
Kinnan Stauber
Park Point Community Club
4139 Lake Avenue South
Duluth MN 55802-2404
Phone:(218)-722-6255
Results located at web address: http://www.parkpoint.org

The objective of this project is to protect a unique ecosystem at Minnesota Point in Duluth, which includes a 45-acre stand of old growth white and red pine forest, a bird sanctuary, beach dunes and other habitats from partial destruction by the Duluth Airport Authority. This project resulted in the replanting of grass, shrubs, and trees on the project area. A large section has been fenced off to prevent erosion from visitors while another 17.6 acres have been transferred to a neighboring state scientific and natural area (SNA). An additional 7-acre parcel has been preserved at a wetland area. A management plan and erosion study has been completed.

SAVANNA RESTORATION FOR SHARPTAIL GROUSE

17(h) \$30,000, FRF
James Slade
MN Sharp-tailed Grouse Society
920C Butler Sq., 100 N. 6th St.
Minneapolis MN 55403

The dramatic drop in populations of Sharp-tailed Grouse can be attributed to the loss of habitats they require, such as brushlands, savannas and similar open-country. This project focuses on two of these plant communities which have traditionally supported Sharp-tailed Grouse: Jack Pine Barrens; and Northern Conifer Scrublands. Lands that could potentially serve as Sharp-tailed Grouse habitat have been identified and inventoried.

RIM - CRITICAL HABITAT ACQUISITION AND ENHANCEMENT

17(i) \$630,000, TF Kim Hennings DNR 500 Lafayette Road St. Paul, MN 55155 Phone: (651)297-2823 Fax: (651)297-4961 E-mail: kim.hennings@dnr.state.mn.us

This program was designed to provide opportunities for private individuals, groups, and businesses to help fund the acquisition or improvement of critical fish, wildlife, and native plant habitats. State funds in the Minnesota Critical Habitat Private Sector Matching account (CHM) were matched dollar-fordollar by restricted and unrestricted contributions of land easements or cash to the program. This project generated \$630,000 in private donations to the State that included cash and land donations as well as contributions from the Nongame Checkoff Program. These donations were used to fund 7 critical habitat land purchase and development projects over 190 acres throughout the state. Funds were also used on 8 Nongame preservation and research projects.

RIM - WILDLIFE HABITAT STEWARDSHIP

17(j) \$400,000, TF Richard Carlson DNR Box 7, 500 Lafayette Road St. Paul, MN 55155 Phone: (651)296-0705 Fax: (651)297-4961 E-mail: dick.carlson@dnr.state.mn.us

This stewardship program provides opportunities to accelerate the development, improvement, and enhancement of wildlife lands, wildlife habitat, natural communities, and natural ecosystems on State Wildlife Management Areas (WMA) and other state lands. Over 14,000 acres of field in state WMAs (210 sites) have been subjected to burns to rejuvenate grasses while reducing woody plant and weed problems. Over 31,000 acres of forest and brushland at 51 sites have been burned to reestablish viable brushland communities. 17(k) \$200,000, TF Bob Djupstrom DNR 500 Lafayette Road St. Paul, MN 55155 Phone: (651)297-2357 Fax: (651)297-4961 E-mail: bob.djupstrom@dnr.state.mn.us

The Department of Natural Resources has developed a longrange plan for Scientific and Natural Areas (SNA) acquisition designation and management. The program's goal is to preserve and perpetuate the ecological diversity of Minnesota's natural heritage for scientific study, education, and nature observation. To adequately protect Minnesota's critical resource "elements" the SNA long-range plan calls for the protection of five sites for plant communities and three sites for rare species in each ecological region of the State. This appropriation has been used for the acquisition of a 1,356acre oak forest complex, identified by the County Biological Survey, located in Morrison County.

RIM - WILDLIFE HABITAT ACQUISITION 17(1) \$500,000, TF Kim Hennings DNR 500 Lafayette Road St. Paul, MN 55155 Phone: (651)297-2823 Fax: (651)297-4961

E-mail: kim.hennings@dnr.state.mn.us

The purpose of this project was to accelerate acquisition of North American Waterfowl Management Plan (NAWMP) wetlands and associated uplands on a cost share basis and wildlife habitat in areas of high population growth. This appropriation was used to acquire approximately 350 acres of critical habitat that benefit wildlife populations. Approximately \$300,000 of this appropriation was used to purchase wetlands and associated uplands (approximately 265 acres) while the remaining \$200,000 was used to purchase a new 132 acre wildlife management area near Rochester, Minnesota, thus providing additional opportunities for the public close to a major metropolitan area.

RIM - ACCELERATE FISHERIES ACQUISITION

17(m) \$567,000, TF Linda Erickson-Eastwood DNR 500 Lafayette Road St. Paul, MN 55155 Phone: (651)296-0791 Fax: (651)297-4916 E-mail: linda.erickson-eastwood@dnr.state.mn.us following projects were completed:

Project Name, County, Acres/ Miles

 \bullet Ahrensfield Creek AMA (Parcel 5 and 6) , Winona Co, ,

30.1 acres/ 1.89 miles

•Flowage Lake (Parcel 1), Aitkin Co. ,23.2acres/ .27 miles

• Upper Mission Lk AMA (Parcel 1), Crow Wing Co., 2.6 acres/.12 miles

•Long Creek AMA (Parcel 8), Wabasha Co., 23.4 acres/ 1.46 miles

•Pine Creek FMA (Parcel 11), Winona Co., 14 acres/.88 miles

•Miller Creek FMA (Parcel 9), Wabasha Co., .6 acres/.03 miles

•Spring Creek FMA (Parcel 7), GoodhueCo., 4.3 acres/ .27miles

TOTAL: 98.2 acres/ 4.92 miles

MINNESOTA COUNTY BIOLOGICAL SURVEY - CONTINUATION

17(n) \$1,200,000, TF Carmen Converse DNR Box 25, 500 Lafayette Road St. Paul, MN 55155 Phone: (651)296-9782 Fax: (651)297-1811 E-mail: carmen.converse@dnr.state.mn.us Results located at web address: http://www.dnr.state.mn.us/ fish and wildlife/mcbs.html

Sixth biennium of a proposed twelve biennium project. The Minnesota County Biological Survey (MCBS) is a systematic survey of rare biological features that began in 1987 in response to the need to determine the status of biological diversity in Minnesota. The goal of the MCBS is to identify significant natural areas and to collect and interpret data on the distribution and ecology of rare plants, rare animals and natural communities. Since July 1, 1997, MCBS has completed surveys in a total of 35 counties. New records of 1358 locations of rare features were added to the Rare Features Database to total 10,292 new records since the program began. This includes several species not previously recorded in the state. Results of the survey have been made available in two maps, a notebook, two reports, and two articles.

FISHING PIER AND PUBLIC SHORE ACCESS

17(0) \$355,000, TF Michael Markell DNR 500 Lafayette Road St. Paul, MN 55155 Phone: (651)296-6413 to lakes and river statewide. Access includes fishing piers and shoreline access, and will provide fishing opportunities with or without a boat. This appropriation has resulted in the construction of nine fishing piers and three fishing access sites.

PUBLIC BOAT ACCESS

17(p) \$350,000, TF Michael Markell DNR 500 Lafayette Road St. Paul, MN 55155 Phone: (651)296-6413 Fax: (651)297-5475 E-mail: mike.markell@dnr.state.mn.us

This program provides the public with access to lakes and rivers statewide. Access includes boat access and will provide fishing opportunities with or without a boat. The program installed 16 fishing piers and 3 shore fishing access sites. Two public boat access sites have been constructed at Lake of the Woods (Warroad) and Pelican Lake (Orr).

RIM - FISHERIES STATEWIDE HATCHERY REHABILITATION

17(q) \$400,000, TF Linda Erickson-Eastwood DNR 500 Lafayette Road St. Paul, MN 55155 Phone: (651)296-0791 Fax: (651)297-4916 E-mail: linda.erickson-eastwood@dnr.state.mn.us

The goal of this project was to improve and maintain statewide facilities for fish culture, rearing, and holding. Improvements have been made to eight fish hatcheries throughout the state. Improvements included new waste management systems, access to hatcheries, new water supply and drainage systems, rehabilitation of a rearing pond, and structural repairs on site buildings. The sites were:

- Waterville Hatchery
- Peterson Hatchery
- Lanesboro Hatchery
- Crystal Spring Hatchery
- Walker Lake Hatchery

SUBD. 18 WILDLIFE OR TRAIL CORRIDORS

MESABI TRAIL LAND ACQUISITION AND DEVELOPMENT

18(a) \$600,000, FRF Nonstate Match \$600,000 Bob Manzoline Fax: (218)749-0097 Fax: (218)749-7123 http://www.mesabitrail.com/frames/main.html

This appropriation was the third biennium of a project to develop and acquire segments of the Mesabi Trail in St. Louis and Lake Counties. 700 acres of land (200 parcels) were purchased between Nashwauk and Marble. A total of 21.5 miles of bituminous surfaced trail has been funded under this appropriation. Major connections include an 8-mile segment between Chisholm-Buhl and Kinney, a 7-mile segment between Virginia and Gilbert, a 1-mile segment connecting Tower with the City of Soudan and the Soudan State Park, a 1.5- mile segment connecting the city of Ely's International Wolf Center to Miners Lake site and the State of MN Taconite Trail, a 4mile segment between Hibbing and Leetonia township.

CHIPPEWA COUNTY REGIONAL TRAIL

18(b) \$400,000, FRF Nonstate Match \$226,000 Steve Jones City of Montevideo 103 Canton Ave. Montevideo MN 56265 Phone: (320)269-5528 Fax: (320)269-9340 e-mail address: steve@minnmail.com

Overall, this project will develop approximately 9.8 additional miles (four of six segments) of the Chippewa County Regional Trail System in the City of Montevideo. During this biennium, approximately 5.3 additional miles of the 16.2-mile Chippewa County Regional Trail have been constructed and two final core segments have been added to the system. Trail wayside improvements and enhancements to a historic depot have also been completed. The Chippewa County Trail System is being promoted as a model for planning because of its high degree of coordination between regional and local cooperators.

SUBD. 19 NATIVE SPECIES PLANTING

MINNESOTA RELEAF TREE PLANTING AND PRESERVATION GRANT PROGRAM 19(a) \$300,000, FRF Peggy Sand DNR 1200 Warner Road St. Paul, MN 55155 Phone: (651)772-7562 Fax: (651)772-7599 E-mail: peggy.sand@dnr.state.mn.us

130 grants to communities were matched by more than 2:1 to plant over 7,000 predominantly native trees, treat 237 Oak Wilt infection centers and protect 760 acres of community an estimated 65 workshops and hands on field training sessions were conducted, reaching some 1,800 volunteers and community staff. These include two statewide and one NE regional Minnesota Greening Conferences, presented in Cooperation with the Minnesota State Horticultural Society, MnDOT and the U of M Landscape Arboretum, attended by 465 greening enthusiasts and nearly 200 Extension-trained Tree Care Advisor / Master Gardeners statewide.

RESTORING WHITE PINE IN THE MINNESOTA LANDSCAPE

19(b) \$120,000, TF Klaus Puettmann University of MN Forest Resources Dept., 115 Green Hall St. Paul MN 55108 Phone: (612)625-3733 Fax: (612)625-5212 E-mail: kpuettma@forestry.umn.edu Results located at web address: http://www.cnr.umn.edu/FR/ people/facstaff/puettman/index.html

RESEARCH PROJECT

The goal of this study was to investigate factors limiting the advance regeneration of white pine. This project investigated the effects of overstory, mid-story, and understory vegetation as they alter the environment and compete with white pine seedlings for light and water. The first measurements have been made and are being supplied to natural resource managers for use in providing suitable growing conditions for white pine. Secondly, the project investigated criteria that natural resource managers can use to prepare advanced regeneration for the removal or death of overstory trees and to decide whether a stand is suitable for release. Three sites have been set up to measure the effects of seedling size, growing conditions, and overstory effects on seedling's ability to respond to release.

OAK SAVANNA RESTORATION IN ST. PAUL REGIONAL PARKS

19(c) \$200,000, TF Ed Olsen City of Saint Paul, Division of Parks and Recreation 1224 N. Lexington Parkway St. Paul MN 55103 Phone: (651)488-7291 Fax: (651)488-8261 Appropriation added by the 1997 Legislature to the LCMR Recommendations

The goal of this project was the restoration of oak savanna ecosystem to a portion of the river bluff in Indian Mounds Regional Park, a portion of Battle Creek Regional Park, and a portion of Phalen Regional Park. Removal of buckthorn and replanting of the sites with native species will be initiated.

PRAIRIE AND OAK SAVANNA RESTORATION

19(d) \$50,000, FRF Craig Andresen St. Paul Audubon Society 2013 Walnut Ave. NW New Brighton MN 55112 Phone: (651)636-3462 Fax: (651)639-8097 E-mail: 71642,30@compuserve.com

Fort Snelling State Park and Miesville Ravine Park Reserve of Dakota County each contain remnants of prairie and oak savanna along south to west facing bluffs. The intent of the project was to remove the invasive exotic and native woody species that are competing with the historic vegetation. New management techniques have been tested including the completion of the first prescribed burns in three different oak communities. A total of 75 acres have been managed thus far at Fort Snelling State Park and another 36 acres at Miesville Ravine.

SUBD. 20 EXOTIC SPECIES

BALLAST WATER TECHNOLOGY DEMONSTRATION FOR EXOTIC SPECIES CONTROL

20(a) \$250,000, FRF Jay Rendall DNR 500 Lafayette Road St. Paul, MN 55155 Phone: 612/297-1464 Fax: 612/297-7272 E-mail: jay.rendall@dnr.state.mn.us

RESEARCH PROJECT

The goal of this demonstration project is to test, evaluate, and refine promising innovative techniques for preventing the introduction and dispersal of exotic species in Lake Superior from ballast water of commercial vessels. Research on a ballast water filtration system has been completed. Research indicates that automatic backwash ballast filtration should be practical for shipboard application. The 50-micron screen was shown to be operationally feasible. A 25-micron filter was less efficient operationally and required design improvements but was more advantageous in biological control. Secondary treatments were found to be potentially necessary to supplement primary treatment. This project is a partnership between the DNR, Northeast-Midwest Institute, and the Seaway Port Authority.

CONTINUATION

20(b) \$150,000 TF Luke Skinner DNR Box 25, 500 Lafayette Road St. Paul, MN 55155 Phone: (651)297-8021 Fax: (651)296-1811 E-mail: luke.skinner@dnr.state.mn.us

RESEARCH PROJECT

The purpose of this project was to develop and implement biological controls for Eurasian watermilfoil, (Myriophyllum spicatum) and purple loosestrife (Lythrum salicaria) two exotic aquatic plants that are degrading Minnesota's aquatic resources statewide. This project studied the effects of a predatory weevil species on exotic plants and found that the quantity of exotic plants as a percent of total plant biomass declined with increased weevil populations at some sites. Low weevil densities found at some sites indicate that additional research is needed to identify factors that limit weevil populations. Hybolius, a weevil and potential control agent of purple loosestrife, is being reared in the laboratory for release into the environment.

CONTROL OF NOXIOUS WEEDS IN NATIVE WILD RICE

20(c) \$100,000, FRF Nonstate Match \$100,000 Chris Holm Bois Forte Reservation 5344 Lake Shore Dr., P.O. Box 16 Nett Lake MN 55772 Phone: (218)757-3261 Fax: (218)757-3312

RESEARCH PROJECT

Project not completed and funds returned. The objective of this study is to define the magnitude of impact of an indigenous aquatic weevil (Euhrychiopsis lecontei) on the growth of wild rice (Zizania aquatica) and on competing vegetation present in Nett Lake, a 7369-acre wild rice lake. A species list of all existing macrophytes in Nett Lake has been compiled along with plant density information stratified by water depth and sediment composition. Rearing and growth chambers for weevil test specimens have been acquired and equipment for weevil feeding and study has been installed at a Bois Forte laboratory.

IV. Implementation

"recommendations to implement successful projects and programs into a state agency's standard operations..."

RECOMMENDATIONS: The LCMR will be revising the Strategic Plan for expenditures in the fall of 2001. At that time, this recommendation will be reviewed to reflect the assessment of recently completed projects. Incorporation into the strategic planning process and overview of Minnesota's natural resources and environmental needs will also enable a more timely review by the state agencies for possible submission of these recommendations into the executive budget process.

Administration

	inistration osal Title	Affiliation	FINAL \$ RECOMMEND		
03 (a)	Legislative Commission on Minnesota Resources	LCMR	965,000		
03 (b)	Pass Through Administration	DNR, Office of Managemen and Budget Services	t 150,000		
		Total Administrat	ion: 1,115,000		
<u>Fish</u>	Fish and Wildlife Habitat				
Propo	osal Title	Affiliation	FINAL \$ RECOMMEND		
04(a)	Forest and Prairie Stewardship of Private Lands	DNR	545,000		
04(b)	State Fish Hatchery Rehabilitation	DNR	145,000		
04(c)	Enhancing Canada Goose Hunting and Management	Minnesota Waterfowl Association	340,000		
04(d)	Biological Control of Eurasian Watermilfoil and Purple Loosestrife-Continuation	DNR -	90,000		
04(e)	Restoring Minnesota's Fish and Wildlife Habitat Corridors	MN Waterfowl Association	11,745,000		
04(f)	Engineering Support for Public Lands Waterfowl Projects	Ducks Unlimited, Inc.	275,000		
04(g)	Metro Greenways	DNR	- 2,730,000		
04(h)	Acquisition of Lands as Scientific and Natural Areas	DNR	455,000		
04(i)	Big Rivers Partnership: Helping Communities to Restore Habitat	Great River Greening	910,000		
04(j)	Acquisition and Restoration of Eagle Creek's Last Private Land	City of Savage	910,000		
04(k)	Neighborhood Wilds Program	DNR	135,000		
		Total Fish and Wildlife Hab	itat: 18,280,000		
Recreation					
Propo	osal Title	Affiliation	FINAL \$ RECOMMEND		
05(a)	Metropolitan Regional Parks Acquisition, Rehabilitation and Development	Metropolitan Council	5,645,000		
05(b)	Local Grants Initiative Program Outdoor Recreation Grants	DNR	4,005,000		

Proposal Title		Affiliation	FINAL \$ RECOMMEND		
05(c)	Regional and Local Trail Grants	DNR	1,000,000		
05(d)	Outdoors for Everyone: Accessing Recreational Trails and Facilities	Wilderness Inquiry	230,000		
05(e)	Water Recreation:Boat Access, Fishing Piers and Shorefishing	DNR	910,000		
05(f)	Grays Bay, Lake Minnetonka Public Water Access	City of Minnetonka	2,000,000		
05(g)	McQuade Public Access	McQuade Joint Powers Boa	rd 500,000		
05(h)	Preserving Grey Cloud Island as a Public Resource	DNR	3,185,000		
05(i)	Land Acquisition at the Minnesota Landscape Arboretum	Minnesota Landscape Arboretum/ U of M	730,000		
05(j)	Gateway Trail Bridge	DNR	530,000		
05(k)	State Trail Projects	DNR	910,000		
05(I)	Gitchi Gami State Trail	DNR	910,000		
05(m)	Forest History Center Interpretive Trail	MHS	90,000		
05(n)	Mesabi Trail Facility	St. Louis & Lake Ctny Reg. Rail Auth.	190,000		
05(o)	Regional Trailhead Building	Itasca County Land Department	135,000		
05(p)	Itasca County Fairground Conservation Building	Itasca County Agricultural Association	45,000		
05(q)	Development and Rehabilitation of Recreational Shooting Ranges	DNR	910,000		
05(r)	State Park & Recreation Area Land Acquisition	DNR	616,000		
		Total Recreati	on: 22,541,000		
Water Resources					
Proposal Title		Affiliation	FINAL \$ RECOMMEND		
06(a)	Accelerated Implementation of Local Water Plans	Board of Water and Soil Resources	1,365,000		
06(b)	Alternative Storm Water Systems	Metropolitan Council	180,000		

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Proposal Title		Affiliation	FINAL \$ RECOM	VIEND
06(c)	Green Infrastructure Design Strategies in Washington, Ramsey and Dakota Counties	U of M	275,0	000
06(d)	Implementing Denitrification Strategies for Minnesota's Contaminated Aquifers	U of M	230,0	000
06(e)	Determination of Fecal Pollution Sources in Minnesota Watersheds	U of M	275,0	000
06(f)	Mississippi Headwaters Board Environmental Economic Assessments	Mississippi Headwaters Bo	ard 100,0	000
		Total Water Resour	ces: 2,425,	000
	I Use and Natural Resource Info	Affiliation	FINAL \$ RECOMN	VIEND
07(a)	Hydraulic Impacts of Quarries and Gravel Pits	DNR	320,0	000
07(b)	GIS Management in Koochiching County	Koochiching County	70,0	000
07(c)	Updating Outmoded Soil Surveys- Continuation	Board of Water and Soil Resources	500,0	000
07(d)	County Biological Survey-Continuation	DNR	800,0	000
	Total Land	Use and Natural Resource I	nfo: 1,690,0	000
Agric	culture and Natural Resource Indu	stries		
Proposal Title		Affiliation	FINAL \$ RECOMM	/END
08(a)	Evaluating Timber Harvesting and Forest Management Guidelines	U of M	200,0	000
08(b)	Agricultural Land Preservation	Dept of AG/Dakota County	205,0	000
08(c)	Environmental Practices on Dairy Farms	Minnesota Milk Producers Association	245,0	000
08(d)	Accelerated Technology Transfer for Starch- Based Plastics	U of M	90,0	000
	Total Agriculture an	d Natural Resource Indust	ries: 740,0	000
Energ	gy			
Propo	osal Title	Affiliation	FINAL \$ RECOMM	/IEND
09	Using Biodiesel in Generators	U of M	90,0	000
		Total Ene	rgy: 90,(000

Proposal Title		Affiliation	FINAL \$ RECOMMEND
10(a) Uncommon Gr Television Seri	ound: An Educational es	U of M - Institute for Sustainable Resources (IN	455,000 SR)
10(b) WaterScapes: Pollution Educa	Outdoor Non-Point Source ation	Science Museum of Minnes	sota 265,000
• •	ner- City Communities nmental Literacy	Sabathani Community Cen	ter 545,000
10(d) Integrated Pest	t Management in Schools	Dept of AG	180,000
10(e) Burn, Plant and Habitats	Learn: Restoring Upland	Science Museum of Minnes	sota 230,000
10(f) Connecting wit Zoo	h Wildlife at the Minnesota	Minnesota Zoo	230,000
10(g) Project Green S Education	Start: Environmental	Minnesota Children's Muse	um 340,000
10(h) Raptor Propaga	ation: Student Education	Stillwater Area High School	35,000
10(i) Hennepin Park	s Farm Education	Suburban Hennepin Regior Park District	nal 100,000
10(j) Residential Env Youth	vironmental Education for	Camp Courage	90,000
		Total Environmental Educat	tion: 2,470,000

LCMR TOTAL RECOMMENDATION: 49,351,000




JAN 132001

1	A bill for an act
2 3 4 5 6 7	relating to appropriations; appropriating money for environmental and natural resources purposes from the Minnesota future resources fund, the environment and natural resources trust fund, and the special revenue fund; proposing coding for new law in Minnesota Statutes, chapter 116P.
8	BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:
9	Section 1. [ENVIRONMENT AND NATURAL RESOURCES APPROPRIATIONS.]
10	The sums shown in the columns marked "APPROPRIATIONS" are
11	appropriated from the named fund to the agencies and for the
12	purposes specified in this act, to be available for the fiscal
13	years indicated for each purpose.
14 15 16 17	APPROPRIATIONS Available for the Year Ending June 30 2002 2003
18	Sec. 2. MINNESOTA RESOURCES
19 20	Subdivision 1. Total 32,041,000 17,310,000
21	Summary by Fund
22 23	Minnesota Future Resources Fund 14,641,000
24 25 26	Environment and Natural Resources Trust Fund 17,310,000 17,310,000
27 28 29	Oil Overcharge Money in the Special Revenue Fund 90,000
30 31 32	Appropriations from the Minnesota future resources fund and oil overcharge money in the special revenue

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1 2	fund are available for (the biennium.	either year of		
3 4 5 6 7 8	For appropriations from and natural resources to unencumbered balance ren first year does not can available for the second biennium.	rust fund, any maining in the cel and is	t	
9 10 11 12	Unless otherwise provide in this section are avai June 30, 2003, when pro- completed and final pro-	ilable until jects must be		
13	Subd. 2. Definitions			
14 15 16 17	(a) "Future resources for Minnesota future resource referred to in Minnesota section 116P.13.	ces fund		
18 19 20 21	(b) "Trust fund" means f environment and natural fund referred to in Minn section 116P.02, subdiv:	resources trus nesota Statutes		
22 23 24	(c) "Oil overcharge mone money referred to in Min Statutes, section 4.071	nnesota	•	
25	Subd. 3. Administration	n	722,000	393,000
26	Summary by	y Fund		
27 28	Future Resources Fund	329,000	-0-	
29	Trust Fund	393,000	393,000	
30 31	(a) Legislative Commiss Resources	ion on Minnesot	a	
32 33 34 35 36 37 38	\$289,000 of this appropriate future resources for the future resources for the first year and \$338 year are from the trust administration as provide Statutes, section 116P.0 5.	nd and \$338,000 ,000 the second fund for ded in Minnesot) l :a	
39	(b) Contract Administra	tion		
40 41 42 43 44 45 46 47 48	\$40,000 of this appropriate future resources furthe future resources furthe first year and \$55,000 year are from the trust commissioner of natural contract administration assigned to the commissioner section. This appropriate available until June 30	nd and \$55,000 000 the second fund to the resources for activities ioner in this ation is		,
49 50	Subd. 4. Fish and Wild Habitat	life	10,042,000	8,238,000
51	Summary by	y Fund		
51 52 53	Summary by Future Resources Fund 1	y Fund		

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2 (a) Forest and Prairie Stewardship of3 Private Lands

\$272,000 the first year and \$273,000 4 the second year are from the trust fund 5 6 to the commissioner of natural 7 resources, in cooperation with the 8 Minnesota Forestry Association and the 9 Nature Conservancy, to develop 10 stewardship plans for private prairie 11 and forested lands and to implement 12 natural resource projects by providing 13 matching money on a one-to-one basis to 14 private landowners. This appropriation 15 is available until June 30, 2004, at 16 which time the project must be 17 completed and final products delivered, 18 unless an earlier date is specified in 19 the work program.

20 (b) State Fish Hatchery Rehabilitation

\$145,000 is from the future resources fund to the commissioner of natural resources to accelerate hatchery rehabilitation.

25 (c) Enhancing Canada Goose26 Hunting and Management

27 \$340,000 is from the future resources 28 fund to the commissioner of natural 29 resources for an agreement with the 30 Minnesota Waterfowl Association to 31 acquire leases on private farmlands for 32 foraging sites and public hunting 33 opportunities and to provide technical 34 assistance to local units of government in developing controlled hunts for 35 36 nuisance geese.

37 (d) Biological Control of
38 Eurasian Water Milfoil and
39 Purple Loosestrife - Continuation

40 \$45,000 the first year and \$45,000 the 41 second year are from the trust fund to 42 the commissioner of natural resources for the fifth biennium of a five 43 44 biennia project to develop and 45 implement biological controls for 46 Eurasian water milfoil and purple 47 loosestrife. This appropriation is available until June 30, 2004, at which 48 49 time the project must be completed and 50 final products delivered, unless an 51 earlier date is specified in the work 52 program.

53 (e) Restoring Minnesota's54 Fish and Wildlife Habitat55 Corridors

\$5,873,000 the first year and
\$5,872,000 the second year are from the
trust fund to the commissioner of
natural resources for acceleration of
agency programs and cooperative
agreements with Minnesota Waterfowl

1 Association, Minnesota Deer Hunters 2 Association, Ducks Unlimited, Inc., 3 National Wild Turkey Federation, 4 Pheasants Forever, The Nature 5 Conservancy, Minnesota Land Trust, 6 Trust for Public Land, U.S. Fish and 7 Wildlife Service, Bureau of Indian 8 Affairs, Natural Resources Conservation 9 Service, and the U.S. Forest Service to 10 restore and acquire fragmented 11 landscape corridors that connect areas of quality habitat to sustain fish, 12 13 wildlife, and plants. \$352,000 is for 14 program coordination, corridor 15 identification, and mapping. 16 \$3,343,000 is for restoration and 17 management activities in wildlife 18 management areas, wetland habitat, 19 lakes, wild rice beds, grasslands, and 20 fisheries habitat. \$2,650,000 is for 21 conservation easement programs on 22 riparian areas, big woods forests, 23 native prairies, and wetlands. 24 \$5,400,000 is for habitat acquisition 25 activities on prairies, riparian areas, 26 and other fish and wildlife habitat 27 corridors. As part of the required 28 work program, criteria and priorities 29 for planned acquisition and restoration 30 activities must be submitted to the 31 legislative commission on Minnesota 32 resources for review and approval. 33 Land acquired with this appropriation 34 must be sufficiently improved to meet 35 at least minimum management standards 36 as determined by the commissioner of 37 natural resources. Any land acquired 38 in fee title by the commissioner of 39 natural resources with money from this 40 appropriation must be designated: 41 (1) as an outdoor recreation unit under 42 Minnesota Statutes, section 86A.07; or

43 (2) as provided in Minnesota Statutes,
44 sections 89.018, subdivision 2,
45 paragraph (a); 97A.101; 97A.125;
46 97C.001; and 97C.11.

The commissioner may so designate any
lands acquired in less than fee title.
This appropriation is available until
June 30, 2004, at which time the
project must be completed and final
products delivered, unless an earlier
date is specified in the work program.

54 (f) Engineering Support for55 Public Lands Waterfowl56 Projects

\$275,000 is from the future resources
fund to the commissioner of natural
resources for an agreement with Ducks
Unlimited, Inc., to provide survey and
engineering support to natural
resources agencies for waterfowl
projects on public lands.

64 (a) Metro Greenways

3 trust fund to the commissioner of Δ natural resources for the metro 5 greenways program for planning, 6 improving, and protecting important 7 natural areas in the metropolitan 8 region through grants, contracted 9 services, conservation easements, and 10 fee acquisition. Land acquired with this appropriation must be sufficiently 11 improved to meet at least minimum 12 13 management standards as determined by 14 the commissioner of natural resources. 15 This appropriation is available until 16 June 30, 2004, at which time the 17 project must be completed and final 18 products delivered, unless an earlier 19 date is specified in the work program.

20 (h) Acquisition of Lands as 21 Scientific and Natural Areas

22 \$227,000 the first year and \$228,000 23 the second year are from the trust fund to the commissioner of natural 24 25 resources to acquire land with natural 26 features of statewide significance in 27 the scientific and natural area program 28 long-range plan and to improve land 29 acquired with this appropriation. Land 30 acquired with this appropriation must 31 be sufficiently improved to meet at 32 least minimum management standards as 33 determined by the commissioner of 34 natural resources.

35 (i) Big Rivers Partnership:36 Helping Communities to Restore37 Habitat

38 \$455,000 the first year and \$455,000 39 the second year are from the trust fund 40 to the commissioner of natural 41 resources for an agreement with Great 42 River Greening to implement private and 43 public habitat projects on a cost-share 44 basis in the Mississippi and Minnesota 45 River valleys. This appropriation is available until June 30, 2004, at which 46 time the project must be completed and 47 48 final products delivered, unless an 49 earlier date is specified in the work 50 program.

51 (j) Acquisition of 52 Eagle Creek's Last Private Land

53 \$910,000 is from the future resources 54 fund to the commissioner of natural 55 resources for an agreement with the 56 city of Savage to acquire a buffer 57 strip along Eagle Creek for transfer 58 and dedication as an aquatic management 59 area. Land acquired with this 60 appropriation must be sufficiently 61 improved to meet at least minimum 62 management standards as determined by 63 the commissioner of natural resources.

64 (k) Neighborhood Wilds

2 \$135,000 is from the future resources fund to the commissioner of natural 3 4 resources for the neighborhood wilds 5 program to assist neighborhoods 6 adjacent to public lands and natural 7 areas in restoration and management of 8 habitat through demonstration projects. 15,364,000 7,177,000 9 Subd. 5. Recreation 10 Summary by Fund 11 Future Resources 12 Fund 8,187,000 -0-13 Trust Fund 7,177,000 7,177,000 14 (a) Metropolitan Regional 15 Parks Acquisition, 16 Rehabilitation, and Development 17 \$2,823,000 the first and \$2,822,000 the 18 second year are from the trust fund to 19 the commissioner of natural resources 20 for an agreement with the metropolitan 21 council for subgrants for acquisition, 22 development, and rehabilitation in the 23 metropolitan regional park system, 24 consistent with the metropolitan 25 council regional recreation open space capital improvement plan. This 26 27 appropriation may not be used for the 28 purchase of residential structures. 29 This appropriation may be used to 30 reimburse implementing agencies for 31 acquisition of nonresidential property 32 as expressly approved in the work 33 program. This appropriation is 34 available until June 30, 2004, at which 35 time the project must be completed and 36 final products delivered, unless an 37 earlier date is specified in the work 38 program. 39 (b) Local Grants Initiative: 40 Program Outdoor Recreation 41 Grants 42 \$1,372,000 the first year and 43 \$1,372,000 the second year are from the 44 trust fund and \$1,261,000 is from the 45 future resources fund to the 46 commissioner of natural resources for 47 matching grants: 48 (1) for regional parks outside the 49 metropolitan area as defined in 50 Minnesota Statutes, section 473.121; 51 (2) for local parks, outdoor recreation 52 areas, and natural and scenic areas 53 under Minnesota Statutes, section 54 85.019; 55 (3) for statewide conservation partners 56 grants of up to \$20,000 each to 57 encourage private organizations and

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local governments to cost-share

Program

3 (4) for environmental partnerships
4 program grants of up to \$20,000 each
5 for environmental service projects and
6 related education activities through
7 public and private partnerships.

8 Grants under clause (1) may provide up
9 to 60 percent of the nonfederal share
10 of the project cost. Grants under
11 clauses (2) to (4) may provide up to 50
12 percent of the nonfederal share of the
13 project cost.

14 The commission will monitor the grants 15 for approximate balance over extended 16 periods of time between the 17 metropolitan area, under Minnesota Statutes, section 473.121, subdivision 18 19 2, and the nonmetropolitan area through 20 work program oversight and periodic 21 allocation decisions. For the purposes of this paragraph, the match must be a 22 23 nonstate contribution, but may be 24 either cash or qualifying in kind. 25 Recipients may receive funding for more 26 than one project in any given grant 27 period. This appropriation is 28 available until June 30, 2004, at which 29 time the project must be completed and 30 final products delivered.

31 (c) Regional and Local Trail 32 Grants

33 \$1,000,000 is from the future resources 34 fund to the commissioner of natural 35 resources for matching trail grants on 36 a one-to-one basis to local units of 37 government, under Minnesota Statutes, 38 section 85.019, for trail linkages 39 between communities, trails, and parks, 40 and for locally funded trails of 41 regional significance outside the 42 metropolitan area, under Minnesota 43 Statutes, section 473.12. If a project 44 financed under this program receives a 45 federal grant, the availability of the 46 financing from this subdivision for 47 that project is extended to equal the 48 period of the federal grant.

49 (d) Outdoors for Everyone:50 Accessing Recreational Trails51 and Facilities

52 \$115,000 the first year and \$115,000 53 the second year are from the trust fund 54 to the commissioner of natural 55 resources for an agreement with 56 Wilderness Inquiry to provide technical 57 assistance to local units of government 58 for development of publicly funded 59 trails and outdoor recreation 60 facilities to ensure that federal standards for accessibility for persons 61 62 with disabilities are met.

63 (e) Water Recreation: Boat

1 Access, Fishing Piers, and 2 Chernofiching

2 Shorefishing

\$455,000 the first year and \$455,000 3 Δ the second year are from the trust fund 5 to the commissioner of natural 6 resources to acquire and develop public 7 water access sites statewide, to 8 construct shorefishing and pier sites, 9 and to restore shorelands at public 10 accesses. This appropriation is 11 available until June 30, 2004, at which 12 time the project must be completed and 13 final products delivered, unless an 14 earlier date is specified in the work 15 program.

16 (f) Grays Bay, Lake 17 Minnetonka Public Water 18 Access

\$2,000,000 is from the future resources
fund to the commissioner of natural
resources to acquire, in cooperation
with the city of Minnetonka,
approximately five acres for a multiuse
water access site on Grays Bay, Lake
Minnetonka.

26 (g) McQuade Public Access

\$500,000 is from the future resources fund to the commissioner of natural resources to develop a public access for Lake Superior in cooperation with the McQuade Joint Powers Board, U.S. Army Corps of Engineers, and local units of government.

34 (h) Preserving Grey Cloud35 Island as a Public Resource

\$1,592,000 the first and \$1,593,000 the
second year are from the trust fund to
the commissioner of natural resources
to acquire land on Grey Cloud Island in
Washington county.

41 (i) Land Acquisition at the42 Minnesota Landscape Arboretum

43 \$365,000 the first year and \$365,000 44 the second year are from the trust fund to the University of Minnesota for an 45 46 agreement with the University of 47 Minnesota Landscape Arboretum 48 Foundation for the fourth biennium to 49 acquire in-holdings of the Minnesota 50 Landscape Arboretum. This 51 appropriation must be matched by at 52 least \$730,000 of nonstate money. This 53 appropriation is available until June 54 30, 2004, at which time the project 55 must be completed and final products 56 delivered, unless an earlier date is 57 specified in the work program.

58 (j) Gateway Trail Bridge

59 \$530,000 is from the future resources

3 (k) State Trail Projects

4 \$910,000 is from the future resources fund to the commissioner of natural 5 6 resources to provide matching funds for 7 state trail projects eligible to 8 receive federal TEA-21 funds. If a 9 project financed under this program 10 receives a federal grant, the availability of the financing from this 11 12 subdivision for that project is 13 extended to equal the period of the 14 federal grant.

15 (1) Gitchi-Gami State Trail

16 \$455,000 the first year and \$455,000 17 the second year are from the trust fund 18 to the commissioner of natural 19 resources, in cooperation with the 20 Gitchi-Gami Trail Association, for the 21 second biennium to acquire and develop 22 approximately four miles of the Gitchi-23 Gami state trail between Gooseberry 24 Falls state park and the Split Rock 25 river. As a condition of this 26 appropriation, the commissioner must 27 apply for federal TEA-21 funds for 28 funding of this portion of the trail, 29 and must report back to the legislative 30 commission on Minnesota resources prior 31 to any expenditure. This appropriation 32 is available until June 30, 2004, at 33 which time the project must be 34 completed and final products delivered, unless an earlier date is specified in 35 36 the work program.

37 (m) Forest History Center38 Interpretive Trail

\$90,000 is from the future resources
fund to the Minnesota historical
society to design and upgrade trails at
the Forest History Center in Grand
Rapids.

44 (n) Mesabi Trail Facility

\$190,000 is from the future resources
fund to the commissioner of natural
resources for an agreement with the St.
Louis and Lake Counties Regional Rail
Authority for the authority to acquire
land and design a Mesabi trail center
building.

52 (o) Regional Trailhead 53 Building

54 \$135,000 is from the future resources 55 fund to the commissioner of natural 56 resources for an agreement with the 57 Itasca county land department to 58 complete construction of a trailhead 59 building at Itasca county fairgrounds 60 to serve regional trail users.

1 (p) Itasca County Fairground 2 Conservation Building 2 \$45,000 is from the future resources Δ fund to the commissioner of natural 5 resources for an agreement with the 6 Itasca County Agricultural Association 7 to renovate a 1934 WPA log building at 8 the Itasca county fairgrounds as an 9 environmental learning facility, and to 10 develop curricula and exhibits on lakes 11 and fishing. 12 (q) Development and 13 Rehabilitation of Recreational 14 Shooting Ranges 15 \$910,000 is from the future resources 16 fund to the commissioner of natural 17 resources to provide cost-share grants 18 on a one-to-one basis to local 19 recreational shooting clubs for the 20 purpose of developing or rehabilitating shooting sports facilities for public 21 22 use. Recipient facilities must be open 23 to the general public at reasonable 24 times and for a reasonable fee on a 25 walk-in basis. 26 (r) State Park and 27 Recreation Area Acquisition 28 \$616,000 is from the future resources 29 fund to the commissioner of natural 30 resources for acquisition of 31 in-holdings for state park and 32 recreation areas. Land acquired with 33 this appropriation must be sufficiently 34 improved to meet at least minimum 35 management standards as determined by 36 the commissioner of natural resources. 37 Subd. 6. Water Resources 2,310,000 38 Summary by Fund 39 Future Resources 40 Fund 2,195,000 -0-Trust Fund 115,000 115,000 41 42 (a) Accelerated 43 Implementation of Local 44 Water Plans 45 \$1,365,000 is from the future resources 46 fund to the board of water and soil 47 resources to accelerate the local water 48 planning challenge grant program under 49 Minnesota Statutes, section 103B.3361, 50 through the implementation of high-51 priority activities in comprehensive 52 water management plans on a one-to-one 53 match basis of cash or interest in land 54 and for a program reporting system. (b) Alternative Storm Water 55 56 Systems

57 \$180,000 is from the future resources

115,000

3 incentives in metropolitan council 4 grants to communities and land developers for alternative storm water 5 6 conveyance systems that minimize the runoff quantity and improve runoff 7 8 quality. Funds will assist in the 9 design, construction, and monitoring of 10 at least seven alternative storm water conveyance systems to the standard curb 11 12 and gutter design. 13 (c) Green Infrastructure 14 Design Strategies in 15 Washington, Ramsey, and 16 Dakota Counties \$275,000 is from the future resources 17 18 fund to the University of Minnesota to 19 develop green infrastructure design 20 strategies for incorporation into 21 public works projects. 22 (d) Denitrification Strategies for 23 Minnesota's Contaminated Aquifers 24 \$115,000 the first year and \$115,000 the second year are from the trust fund 25 26 to the University of Minnesota to 27 assess denitrification technology to 28 remediate nitrate-contaminated 29 groundwater. This appropriation is 30 available until June 30, 2004, at which 31 time the project must be completed and 32 final products delivered, unless an 33 earlier date is specified in the work 34 program. 35 (e) Determination of Fecal 36 Pollution Sources in Minnesota 37 Watersheds 38 \$275,000 is from the future resources 39 fund to the University of Minnesota for 40 the second biennium to determine 41 sources of fecal pollution in three 42 impacted watersheds utilizing DNA 43 fingerprinting techniques, and evaluate the efficacy of implemented and 44 45 proposed abatement procedures to 46 remediate fecal contamination. 47 (f) Mississippi Headwaters 48 Board: Environmental Economic 49 Assessments 50 \$100,000 is from the future resources 51 fund to the commissioner of natural 52 resources for an agreement with the 53 Mississippi Headwaters Board to 54 accelerate the river watch watershed 55 monitoring program and integrate 56 economic and water data analysis into 57 decision-making tools for landowners 58 and local units of government. 59 Subd. 7. Land Use and Natural Resource Information 60

880,000

810,000

1 Future Resources 2 Fund 70,000 -0-810,000 810,000 3 Trust Fund (a) Hydraulic Impacts of 4 5 Quarries and Gravel Pits \$160,000 the first year and \$160,000 6 7 the second year are from the trust fund 8 to the commissioner of natural 9 resources to research and evaluate the impact of aggregate extraction on 10 11 groundwater quality and quantity. This 12 appropriation is available until June 13 30, 2004, at which time the project 14 must be completed and final products delivered, unless an earlier date is 15 specified in the work program. 16 17 (b) GIS Management in 18 Koochiching County 19 \$70,000 is from the future resources 20 fund to t 21 resources 22 Koochich: 23 parcel-ba 24 Koochich: 25 natural 1 26 (c) Updat 27 Surveys -28 \$250,000 29 the second 30 to the bo 31 resources 32 three bid 33 statewide 34 digitize 35 southeast 36 Participa 37 cost shar 38 available 39 time the 40 final pro 41 earlier o 42 program. 43 (d) Minne 44 Survey -45 \$400,000 46 the seco 47 to the co 48 resources 49 12 bienn 50 survey th 51 natural 52 collects 53 distribu 54 communit

55 Subd. 8. 56 Natural

Euture Decourses

E O

the commissioner of natural s for an agreement with ing county to develop ased GIS capability for ing county for land use, resource, and fiscal data.	
ting Outmoded Soil - Continuation	
the first year and \$250,000 nd year are from the trust fund oard of water and soil s for the second biennium of a ennia project to accelerate a e program to update and outmoded soil surveys in four t Minnesota counties. ating counties must provide a re. This appropriation is e until June 30, 2004, at which project must be completed and oducts delivered, unless an date is specified in the work	
esota County Biological Continuation	
the first year and \$400,000 nd year are from the trust fund ommissioner of natural s for the eighth biennium of a ia project to accelerate the hat identifies significant areas and systematically and interprets data on the tion and ecology of natural ies, rare plants, and animals.	
Agriculture and Resource Industries	637,000

2 (a) Evaluating Timber 3 Harvesting and Forest Management 4 Guidelines 5 \$200,000 is from the future resources 6 fund to the University of Minnesota, in 7 cooperation with the Minnesota forest 8 resources council, to initiate an 9 evaluation of the effectiveness of 10 forest management timber harvesting guidelines for riparian areas. This is 11 12 the first biennium of a five biennia 13 project. This appropriation is 14 available until June 30, 2004, at which 15 time the project must be completed and 16 final products delivered, unless an 17 earlier date is specified in the work 18 program. 19 (b) Agricultural Land 20 Preservation Ł 21 \$102,000 the first year and \$103,000 22 the second year are from the trust fund 23 to the commissioner of agriculture in 24 cooperation with Dakota county for educational materials, training, and 25 26 workshops on agricultural land use 27 planning tools. 28 (c) Environmental Practices 29 on Dairy Farms 30 \$245,000 is from the future resources 31 fund to the commissioner of natural 32 resources for an agreement with 33 Minnesota Milk Producers Association to 34 assist dairy producers in complying 35 with environmental quality regulations. 36 (d) Accelerated Technology 37 Transfer for Starch-Based 38 Plastics 39 \$90,000 is from the future resources 40 fund to the University of Minnesota to 41 produce and market biodegradable, 42 starch-based plastic. Subd. 9. Energy 90,000 -0-43 44 Summary by Fund 45 Oil Overcharge 90,000 -0-46 Money 47 Improving Air Quality by 48 Using Biodiesel in 49 Generators 50 \$90,000 is from the oil overcharge 51 money to the commissioner of 52 administration for an agreement with the University of Minnesota to evaluate 53 the use of biodiesel fuel in diesel 54

powered generators and associated 56 impacts of emissions on air quality.

55

 1
 Suba. 10. Environmental Education
 1,996,000

 2
 Summary by Fund

 3
 Future Resources

 4
 Fund
 1,520,000

 5
 Trust Fund
 476,000
 474,000

6 (a) Uncommon Ground: An7 Educational Television Series

8 \$228,000 the first year and \$227,000
9 the second year are from the trust fund
10 to the University of Minnesota for the
11 second biennium of a two biennia
12 project to complete production of a
13 multipart televised film series of the
14 history of Minnesota's natural
15 landscapes.

16 (b) WaterScapes: Outdoor 17 Nonpoint Source Pollution 18 Education

19 \$133,000 the first year and \$132,000 20 the second year are from the trust fund 21 to the Science Museum of Minnesota to 22 create outdoor exhibits about urban and 23 rural runoff and contamination and that 24 demonstrate methods to improve water 25 quality. This appropriation must be 26 matched by at least \$265,000 of 27 nonstate contributions, cash or in 28 kind. This appropriation is available 29 until June 30, 2004, at which time the 30 project must be completed and final 31 products delivered, unless an earlier 32 date is specified in the work program.

33 (c) Sustainable Inner-City
34 Communities Through Environmental
35 Literacy

\$545,000 is from the future resources
fund to the commissioner of natural
resources for an agreement with
Sabathani Community Center for
collaborative community environmental
education and youth outreach.

42 (d) Integrated Pest43 Management in Schools

\$180,000 is from the future resources
fund to the commissioner of agriculture
to implement integrated pest management
(IPM) practices in Minnesota K-12
schools.

49 (e) Burn, Plant, and Learn: 50 Restoring Upland Habitats

\$115,000 the first year and \$115,000 the second year are from the trust fund to the Science Museum of Minnesota for acquisition of approximately eight acres of property adjacent to the St. Croix watershed research station and for training programs, technical 30, 2004, at which time the project
must be completed and final products
delivered, unless an earlier date is
specified in the work program.

7 (f) Connecting with Wildlife8 at the Minnesota Zoo

9 \$230,000 is from the future resources
10 fund to the Minnesota Zoo to design and
11 develop interpretive environmental
12 educational displays for trail exhibit
13 areas.

14 (g) Project Green Start: 15 Environmental Education

\$340,000 is from the future resources
fund to the commissioner of natural
resources for an agreement with the
Minnesota Children's Museum to
construct habitat exhibits for
environmental education activities.

22 (h) Raptor Propagation:23 Student Education

\$35,000 is from the future resources
fund to the commissioner of natural
resources for an agreement with
Stillwater Area High School to build a
captive breeding facility for raptors
and develop associated education
activities.

31 (i) Hennepin Parks Farm 32 Education

33 \$100,000 is from the future resources fund to the commissioner of natural 34 35 resources for an agreement with 36 suburban Hennepin regional park 37 district to develop and implement a 38 coordinated farm education program at 39 Gale's Woods Special Recreation Area 40 and North Mississippi Regional Park.

41 (j) Residential Environmental 42 Education for Youth

\$90,000 is from the future resources
fund to the commissioner of natural
resources for an agreement with Camp
Courage for student scholarships and
marketing for the residential
environmental education program.

49 Subd. 11. Data Availability 50 Requirements

51 (a) During the biennium ending June 30, 52 2003, the data collected by the 53 projects funded under this section that 54 have common value for natural resource 55 planning and management must conform to 56 information architecture as defined in 57 guidelines and standards adopted by the 58 office of technology. Spatial data 59 must conform with geographic

1 information system guidelines and 2 standards adopted by the Minnesota 3 Geographic Data Clearinghouse at the 4 Land Management Information Center. 5 These data must be made accessible and 6 free to the public unless made private 7 under the Data Practices Act, Minnesota 8 Statutes, chapter 13.

9 (b) To the extent practicable, summary
10 data and results of projects funded
11 under this section should be readily
12 accessible on the Internet.

13 (c) As part of project expenditures,
14 recipients of land acquisition
15 appropriations must provide the
16 information necessary to update public
17 recreation information maps to the
18 department of natural resources in the
19 specified form.

20 Subd. 12. Project Requirements

21 It is a condition of acceptance of the 22 appropriations in this section that any 23 agency or entity receiving the 24 appropriation must comply with 25 Minnesota Statutes, chapter 116P.

26 Subd. 13. Match Requirements

Unless specifically authorized,
appropriations in this section that
must be matched and for which the match
has not been committed by December 31,
2001, are canceled, and in-kind
contributions may not be counted as
matching funds.

34 Subd. 14. Payment Conditions35 and Capital Equipment Expenditures

36 All agreements, grants, or contracts 37 referred to in this section must be 38 administered on a reimbursement basis. 39 Notwithstanding Minnesota Statutes, 40 section 16A.41, expenditures made on or after July 1, 2001, or the date the 41 42 work program is approved, whichever is 43 later, are eligible for reimbursement. 44 Payment must be made upon receiving 45 documentation that project-eligible 46 reimbursable amounts have been 47 expended, except that reasonable 48 amounts may be advanced to projects in 49 order to accommodate cash-flow needs. 50 The advances must be approved as part 51 of the work program. No expenditures 52 for capital equipment are allowed 53 unless expressly authorized in the 54 project work program.

55 Subd. 15. Purchase of Recycled 56 and Recyclable Materials

57 A political subdivision, public or 58 private corporation, or other entity 59 that receives an appropriation in this 60 section must use the appropriation in and durable materials, the purchase of
uncoated paper stock, and the use of
soy-based ink, the same as if it were a
state agency.

7 Subd. 16. Energy Conservation

8 A recipient to whom an appropriation is 9 made in this section for a capital 10 improvement project shall ensure that 11 the project complies with the 12 applicable energy conservation 13 standards contained in law, including 14 Minnesota Statutes, sections 216C.19 to 15 216C.21, and rules adopted thereunder.

16 The recipient may use the energy planning and intervention and energy 17 18 technologies units of the department of 19 public service to obtain information 20 and technical assistance on energy 21 conservation and alternative energy 22 development relating to the planning 23 and construction of the capital 24 improvement project.

25 Subd. 17. Accessibility

26 New structures must be shown to meet 27 the design standards in the Americans 28 with Disability Act Accessibility 29 Guidelines. Nonstructural facilities 30 such as trails, campgrounds, picnic 31 areas, parking, play areas, water 32 sources, and the access routes to these 33 features should be shown to be designed 34 using guidelines in the Recommendations 35 for Accessibility Guidelines: 36 Recreational Facilities and Outdoor

37 Developed Areas.

38 Subd. 18. Carryforward

39 (a) The availability of the 40 appropriations for the following 41 projects is extended to June 30, 2002: 42 Laws 1999, chapter 231, section 16, 43 subdivision 4, paragraph (m), Como Park 44 campus maintenance; subdivision 6, 45 paragraph (b), identification of 46 sediment sources in agricultural 47 watersheds; subdivision 7, paragraph 48 (h), commercial fertilizer plant for 49 livestock solid waste processing, and 50 paragraph (j), wild rice management 51 planning; subdivision 8, paragraph (b), 52 tools and training for community-based 53 planning; subdivision 10, paragraph 54 (q), by-products application to 55 agricultural, mine land, and forest 56 soils; subdivision 11, paragraph (c), 57 Minnesota wolf public education; 58 subdivision 12, paragraph (d), Dakota 59 county wetland health monitoring 60 program, paragraph (e), predicting 61 water and forest resources health and 62 sustainability, and paragraph (f), 63 potential for infant risk from nitrate 64 concentration; and subdivision 13,

1 paragraph (g), arborecum ranu acquisition and wetlands restoration -2 3 continuation. 4 (b) The availability of the 5 appropriations for the following 6 projects is extended to June 30, 2004: 7 Laws 1999, chapter 231, section 16, subdivision 4, paragraph (b), Mesabi 8 9 trail land acquisition and development -10 continuation; and subdivision 11, paragraph (f), science outreach and 11 12 integrated learning on soil. 13 (c) The availability of the 14 appropriation in Laws 1999, chapter 15 231, section 16, subdivision 8, paragraph (a), resources for 16 17 redevelopment: a community property 18 investigation program, is extended to 19 June 30, 2002, for additional sites. 20 (d) The availability of the 21 appropriation in Laws 1999, chapter 22 231, section 16, subdivision 9, 23 paragraph (c), evaluate biodiesel made from waste fats and oils, is extended 24 25 to June 30, 2002, for trial in 26 heavy-duty vehicles. 27 Sec. 3. [116P.15] [LAND ACQUISITION RESTRICTIONS.] 28 Subdivision 1. [SCOPE.] A recipient of an appropriation 29 from the trust fund or the Minnesota future resources fund who 30 acquires an interest in real property with the appropriation 31 must comply with this section. For the purposes of this 32 section, "interest in real property" includes, but is not 33 limited to, an easement or fee title to property. 34 Subd. 2. [RESTRICTIONS; MODIFICATION PROCEDURE.] (a) An 35 interest in real property acquired with an appropriation from 36 the trust fund or the Minnesota future resources fund must be 37 used in perpetuity or for the specific term of an easement 38 interest for the purpose for which the appropriation was made. 39 (b) A recipient of funding who acquires an interest in real 40 property subject to this section may not alter the intended use 41 of such interest in real property or convey any interest in the 42 real property without the prior review and approval of the 43 commission. The commission shall establish procedures to review requests from recipients to alter the use of or convey an 44 45 interest in real property. These procedures shall allow for the

46 replacement of the interest in real property with another

2	certified by the commissioner of natural resources, to the
3	interest being replaced; and
4	(2) the interest is in a reasonably equivalent location,
5	has a reasonably equivalent usefulness compared to the interest
6	being replaced.
7	(c) An interest in real property acquired with an
8	appropriation from the trust fund or the Minnesota future
9	resources fund to be held by an entity other than this state
. 10	shall include the following restrictive covenant on the
11	conveyance instrument used to acquire the real property
12	interests:
13	"The above described property shall be administered in
. 14	accordance with the terms, conditions, and purposes of the grant
15	agreement or work program controlling the acquisition of the
16	property. The property, or any portion of the property, shall
17	not be sold, transferred, pledged, or otherwise disposed of or
18	further encumbered without obtaining the prior written approval
19	of the legislative commission on Minnesota resources. If the
20	holder of the property fails to comply with the terms and
21	conditions of the grant agreement or work program, ownership of
22	the property shall revert to this state."

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and Distributions

"the source and amount of all revenues collected and distributed by the commission, including all administrative and other expenses..."

Funding Source Statutory Reference:

Environment and Natural Resources Trust Fund	MS 116P.08
Minnesota Future Resources Fund	MS 116P.13
Oil Overcharge Money	MS 4.071
Great Lakes Protection Account	MS 116Q.02





-- Oil Overcharge Money

-O-Great Lakes Protection Account

Appropriations from Revenue Sources available to the LCMR for Funding Recommendations

Appropriation Year	Environment and Natural Resources Trust Fund	Future Resources Fund	Oil Overcharge Money	Great Lakes Protection Account	Totals
1991	14,960,000	16,534,000	3,500,000		34,994,000
Ch 254 Art. 1 Sec.14	-	44,000,000	0.040.000		14 07 4 000
1993 Ch 174 Sec. 14	24,600,000	14,662,000	2,012,000		41,274,000
1994	1,346,000	1,404,000			2,750,000
Ch 632 Art. 2 Sec. 6					
1995	18,019,000	15,083,000	2,055,000	130,000	35,287,000
Ch 229 Sec. 19, 20, 1996 Ch 407 Sec. 8	1,630,000	3,258,000			4,888,000
1997	22,270,000	14,668,000	150,000	120,000	37,208,000
Ch 216 Sec. 15 1999	26,010,000	16,040,000		200,000	42,250,000
Ch 231, Sec. 16					
2001	34,620,000	14,641,000		90,000	49,351,000
	143,455,000	96,290,000	7,717,000	540,000	248,002,000

Appropriations for LCMR Administrative Expenses

Statutory reference MS 116P.09

The amounts shown here are part of the total appropriation above

Appropriations for administrative expenses of LCMR for the appropriation period above total 1.95%

	Environment and	Future	
Appropriation	Natural Resources	Resources	Year
Year	Trust Fund	Fund	Total
1991		850,000	850,000
1993	270,000	425,000	695,000
1995	394,000	308,000	702,000
1997	472,000	304,000	776,000
1999	567,000	333,000	900,000
2001	676,000	289,000	965,000
Total	2,379,000	2,509,000	4,888,000

VII. Assets and Liabilities

"a description of the assets and liabilities of the trust fund and the Minnesota future resources fund…"

The following documents were supplied by the State Board of Investment, and the Department of Finance.

The Environmental Trust Fund was established in 1988 by the Minnesota Legislature to provide a long-term, consistent and stable source of funding for activities that protect and enhance the environment. On June 30, 2000, the market value of the Fund was \$315 million.

By statute, the State Board of Investment (SBI) invests the assets of the Environmental Trust Fund. The Legislature funds environmental projects from a portion of the market value of the Fund.

Investment Objective

The Environmental Trust Fund's investment objective is long-term growth in order to produce a growing level of spending within the constraints of maintaining adequate portfolio quality and liquidity.

Investment Constraints

In November 1998, Minnesota voters passed a constitutional amendment that continues through 2025. The amendment mandates that 40 percent of the net proceeds from the state lottery be credited to the Fund.

The amendment provides for spending 5.5 percent of the Fund's market value annually, beginning fiscal year 2000. The amendment also eliminates the accounting restrictions on capital gains and losses and the provision that the principal must remain inviolate.

Asset Allocation

During fiscal year 1994, the SBI introduced equities into the portfolio and moved to a targeted 50% allocation to domestic common stocks and 50% to bonds. This allocation was maintained through fiscal year 1999. After the constitutional amendment was adopted, SBI staff worked with the Legislative Commission on Minnesota Resources to establish an asset allocation policy that is consistent with the Commission's goals for spending and growth of the Fund.

The SBI approved a 70% stock and 30% fixed income asset allocation which was implemented July 1, 1999. The new allocation positions the Fund for the best long-term growth potential while meeting the objective of the Fund to produce a growing level of spending.

Figure 37 presents the actual asset mix of the Environmental Trust Fund at the end of fiscal year 2000. The current long term asset allocation targets for the Fund are:

Domestic Stocks	70%
Domestic Bonds	28
Cash	2

Investment Management

SBI staff manage all assets of the Environmental Trust Fund. Given the unique constraints of the Fund, along with its relatively small size, management by SBI staff is considered to be the most cost effective at this time.

Stock Segment

The stock segment of the Fund is passively managed to track the performance of the S&P 500.

Figure 37. Environmental Trust Fund Asset Mix as of June 30, 2000



Note: Percentages may differ slightly due to rounding of values.

Bond Segment

The bond segment is actively managed to add incremental value through sector, security and yield curve decisions and its performance is measured against the Lehman Brothers Aggregate Bond Index.

Investment Performance

During the Fiscal Year, the *stock* segment accomplished its objective of closely tracking the return of the S&P 500 benchmark, returning 0.2 percentage point more than the S&P 500. By investing all of the stocks in the benchmark at their index weighting, the segment attempts to track the benchmark return on a monthly and annual basis. The portfolio is periodically rebalanced to minimize trading costs while still maintaining an acceptable tracking error relative to the benchmark.

The *bond* segment outperformed its benchmark by 0.1 percentage point due to the sector weightings held and the duration of the portfolio versus the Lehman Aggregate.

Overall, the Environmental Trust Fund provided a return of 6.6% for fiscal year 2000, underperforming its composite index by 0.1 percentage point. The fund experienced modest outperformance over the last three and five years due to the incremental value added by both the stock and bond segments. Performance results are presented in Figure 38.

Spendable Income

Spendable income generated by the Fund follows:

Fiscal Year	Millions
1995	\$5.2
1996	\$6.0
1997	\$6.8
1998	\$8.8
1999	\$9.7
2000	\$12.7

Figure 38. Environmental Trust Fund Performance FY 1996-2000



* Weighted 50% S&P 500, 48% Lehman Aggregate, and 2% 3 Month T-Bills through June 1999. Weighted 70% S&P 500, 28% Lehman Aggregate, and 2% 3 month T-Bill beginning July 1, 1999.

STATE OF MINNESOTA



· · · · · · · · · · · · · · · · · · ·	ENVIRONME AND NATUR RESOURCE TRUST	AL
ASSETS		
Cash and Cash Equivalents	\$ 15,68	19
Investments	307,61	4
Accounts Receivable	,	2
Interfund Receivables	4.17	-
Accrued Investment/Interest Income		
		ju U
Federal Aid Receivable		-
Inventories	••••	
Loans and Notes Receivable		-
Securities Lending Collateral		-
Total Assets	\$ 328,57	6
LIABILITIES AND FUND BALANCES		

Liabilities.		
Accounts Payable	\$	1,851
Interfund Payables		-
Due to Component Units		704
Deferred Revenue		-
Compensated Absences Payable		92 [.]
Securities Lending Collateral	<u></u>	
Total Liabilities	\$	2,647
Fund Balances:		
Reserved Fund Balances:		
Reserved for Encumbrances	\$	3,185
Reserved for Inventory		-
Reserved for Long-Term Receivables		· -
Reserved for Local Governments		-
Reserved for Deferred Compensation Benefits		
Reserved for Trust Principal		304,998
Total Reserved Fund Balances	\$	308,183
Unreserved Fund Balances:		
Designated for Fund Purposes Undesignated	\$	17,746
· ·		
Total Fund Balances	\$	325,929

EXPENDABLE TRUST FUNDS COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES YEAR ENDED JUNE 30, 2000 (IN THOUSANDS)

	ENVIRONMENT AND NATURAL RESOURCES TRUST	
Net Revenues:		
Unemployment Taxes		-
Mining Taxes		-
Tobacco Settlement		-
Federal Revenues		· -
Investment/Interest Income		20,808
Gifts and Donations		
Deferred Compensation Contributions	••••	-
Securities Lending Income		-
Other Revenues		11
Net Revenues	\$	20,819
Evenendituree		
Expenditures:		
Current:	•	·
Protection of Persons and Property		-
Transportation		-
Resource Management		2,874
Economic and Manpower Development		60
Education		-
Health and Social Services		-
General Government	••••	378
Borrower Rebates		- '
Management Fees	••••	
Total Current Expenditures	\$	3,312
Capital Outlay	••••	1,145
Grants and Subsidies	•••••	3,389
Deferred Compensation Withdrawals		-
Total Expenditures	\$	7,846
Excess of Revenues Over (Under) Expenditures	\$	12,973
Other Financing Sources (Uses):	•	
Operating Transfers-In	\$	23,518
Operating Transfers-Out		-
Transfers-Out to Component Units		(4,900)
Net Other Financing Sources (Uses)	\$	18,618
Excess of Revenues and Other Sources Over		
(Under) Expenditures and Other Uses	\$	31,591
(Under/ Expenditation and Other Obes	¥	01,001
Fund Balances, Beginning, as Reported	\$	4,817
Change in Fund Structure	••••	289,521

NATURAL RESOURCES FUNDS COMBINING BALANCE SHEET JUNE 30, 2000 (IN THOUSANDS)

	MINNESOTA RESOURCES	
ASSETS		
Cash and Cash Equivalents Accounts Receivable	\$	3,203 1,626
Interfund Receivables Federal Aid Receivable	·	- · -
Securities Lending Collateral		
- Total Assets	\$	4,829
LIABILITIES AND FUND BALANCES Liabilities:		
Accounts Payable	\$	2,361
Due to Component Units Securities Lending Collateral		237
Total Liabilities	\$	2,598
Fund Balances: Reserved Fund Balances:		
Reserved for Encumbrances	\$	2,231
Total Reserved Fund Balances	\$	2,231
Unreserved Fund Balances: Designated for Appropriation Carryover	\$	-
Undesignated	a	-
Total Unreserved Fund Balances	\$	-
Total Fund Balances	\$	2,231
Total Liabilities and Fund Balances	\$	4,829

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NATURAL RESOURCES FUNDS COMBINING STATEMENT OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES YEAR ENDED JUNE 30, 2000 (IN THOUSANDS)

,	MINNESOTA RESOURCES	
Net Revenues: Tobacco Taxes	\$	8,554
Federal Revenues		-
Licenses and Fees		- 205
Other Revenues		205
Net Revenues	\$	8,793
Expenditures:		
Current:		
Resource Management	\$	809
Economic and Manpower Development		249
Health and Social Services		66
General Government		184
Total Current Expenditures	\$	1,308
Capital Outlay		-
Grants and Subsidies		6,948
Total Expenditures	\$	8,256
Excess of Revenues Over (Under) Expenditures	\$	537
Other Financing Sources (Uses):		
Operating Transfers-In	\$	-
Operating Transfers to Debt Service		· -
Transfers-Out to Component Units		(1,966)
Net Other Financing Sources (Uses)	\$	(1,966)
Excess of Revenues and Other Sources Over	•	(4.400)
(Under) Expenditures and Other Uses	\$	(1,429)
Fund Balances, Beginning	·····	3,660
Fund Balances, Ending	\$	2,231
· -		

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NATURAL RESOURCES FUNDS COMBINING SCHEDULE OF REVENUES, EXPENDITURES AND CHANGES IN FUND BALANCES - BUDGET AND ACTUAL BUDGETARY BASIS YEAR ENDED JUNE 30, 2000 (IN THOUSANDS)

	M	MINNESOTA RESOURCES					
B	BUDGET ACTUAL		F		VA FAV	VARIANCE AVORABLE IFAVORABLE)	
¢		¢		¢			
φ	7 158	Ð	7 295	φ	- 137		
	7,100		1,200				
	198		205		7		
	-		34		34		
\$	7,356	\$	7,534	\$	178		
. \$	4,770	\$	4,686	\$	84		
	1,558		1,558		-		
	699		699		-		
	66		66		-		
	201		201				
<u>\$</u>	7,294	.\$	7,210	\$	84		
<u>\$</u>	62	\$	324	\$	262		
\$	-	\$	-	\$	-		
•	-	•	· _	•	-		
	(1,966)		(1,966)	, 	-		
\$	(1,966)	\$	(1,966)	\$	-		
	(4.004)	•	(4.0.00)	~			
\$		\$	• • •	\$	262		
	(309)				1,827		
_		<u></u>	1,021	·····	1,027		
\$	(309)	\$	1,518	\$	1,827		
\$	(2,213)	\$	(124)	\$	2,089		
		~		<u></u>	·····		
\$	(2,213)	\$	(124)	\$	2,089		
	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	BUDGET \$ 7,158 198 198 \$ 7,356 \$ 7,356 \$ 7,356 \$ 7,356 \$ 7,356 \$ 7,294 \$ 66 201 \$ 7,294 \$ 62 \$ (1,966) \$ (1,966) \$ (1,966) \$ (1,904) (309) \$ (309) \$ (2,213) \$	BUDGET A \$ - \$ 7,158 - \$ 198 - - \$ 7,356 \$ \$ 7,356 \$ \$ 7,356 \$ \$ 7,356 \$ \$ 7,356 \$ \$ 7,356 \$ \$ - \$ \$ 7,356 \$ \$ - \$ \$ 7,356 \$ \$ - \$ \$ 7,356 \$ \$ 7,294 \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - \$ \$ - - \$ - - \$ - - \$ - - \$ - <td>$\begin{array}{c c c c c c c c c c c c c c c c c c c$</td> <td>BUDGET ACTUAL (UNFA) \$ - \$ - \$ 7,158 7,295 - \$ 198 205 - 34 <math>\$ 7,356 \$ 7,534 \$ <math>\$ 1,558 1,558 \$ \$ <math>\$ 1,558 1,558 \$ \$ <math>\$ 201 201 \$ \$ <math>\$ 7,294 \$ 7,210 \$ <math>\$ (1,966) (1,966) \$ \$ $\$ (1,966) \$ (1,966) \$ \$</math></math></math></math></math></math></math></math></math></math></math></math></td>	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	BUDGET ACTUAL (UNFA) \$ - \$ - \$ 7,158 7,295 - \$ 198 205 - 34 $$ 7,356 $ 7,534 $ $ 7,356 $ 7,534 $ $ 7,356 $ 7,534 $ $ 7,356 $ 7,534 $ $ 7,356 $ 7,534 $ $ 7,356 $ 7,534 $ $ 7,356 $ 7,534 $ $ 1,558 1,558 $ $ $ 1,558 1,558 $ $ $ 201 201 $ $ $ 7,294 $ 7,210 $ $ (1,966) (1,966) $ $ $ (1,966) $ (1,966) $ $ $		

VIII. Findings

"any findings or recommendations that are deemed proper to assist the legislature in formulating legislation.."

from the trust fund or the Minnesota future resources fund who acquires an interest in real property with the appropriation must comply with this section. For the purposes of this section, "interest in real property" includes, but is not limited to, an easement or fee title to property.

Subd. 2. RESTRICTIONS; MODIFICATION PROCEDURE. (a) An interest in real property acquired with an appropriation from the trust fund or the Minnesota future resources fund must be used in perpetuity or for the specific term of an easement interest for the purpose for which the appropriation was made.

(b) A recipient of funding who acquires an interest in real property subject to this section may not alter the intended use of such interest in real property or convey any interest in the real property without the prior review and approval of the commission. The commission shall establish procedures to review requests from recipients to alter the use of or convey an interest in real property. These procedures shall allow for the replacement of the interest in real property with another interest in real property meeting the following criteria:

(1) the interest is at least equal in fair market value, as certified by the commissioner of natural resources, to the interest being replaced; and

(2) the interest is in a reasonably equivalent location, has a reasonably equivalent usefulness compared to the interest being replaced.

(c) An interest in real property acquired with an appropriation from the trust fund or the Minnesota future resources fund to be held by an entity other than this state shall include the following restrictive covenant on the conveyance instrument used to acquire the real property interests:

"The above described property shall be administered in accordance with the terms, conditions, and purposes of the grant agreement or work program controlling the acquisition of the property. The property, or any portion of the property, shall not be sold, transferred, pledged, or otherwise disposed of or further encumbered without obtaining the prior written approval of the legislative commission on Minnesota resources. If the holder of the property fails to comply with the terms and conditions of the grant agreement or work program, ownership of the property shall revert to this state."

IX. Gifts and Donations

"a list of all gifts and donations with a value over \$1,000..."

A donation of \$2,236.76 was received by the Environment and Natural Resources Trust Fund Coalition to the Environment and Natural Resources Trust Fund on February 19, 1999.

Spending Comparisons

" a comparison of the amounts spent by the state for environment and natural resources activities through the most recent fiscal year..."

TOUSE KESEARCH :

Revised: November 2000

Information Brief

John Helland, Legislative Analyst 651-296-5039

Environmental Funding in the 1990s

This information brief graphically depicts state appropriations for the major environment and natural resources-related agencies. The agencies are traditionally funded under the jurisdiction and recommendations of the House Environment and Natural Resources Finance Committee. It includes bonding dollars and appropriations to agencies recommended by the Legislative Commission on Minnesota Resources. *Inflationary factors during this period reduced the buying power of dollars appropriated for agencies each year, as shown on the page 9 table and page 10 line graphs.*

Peter Skwira, House Fiscal Analyst, and Yvonne Fritchie, of the Legislative Commission on Minnesota Resources, provided important data for this report.

Contents

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Agency Appropriations	. 2
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Appropriations in Dollar Amounts Graphically	10
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2000 Environmental Appropriations	11
Bonding Dollars over the Past Decade	12

This publication can be made available in alternative formats upon request. Please call 651-296-6753 (voice); or the Minnesota State Relay Service at 1-800-627-3529 (TTY) for assistance. Many House Research Department publications are also available on the Internet at: www.house.leg.state.mn.us/hrd/hrd.htm.

Agency Appropriations

These graphs through page 7 include all general, federal, and special funds.

Board of Water and Soil Resources (BWSR)

The board of 17 local government officials, citizens, and state agency representatives coordinates the water and soil resources management activities of local units of government through educational activities, approval of local plans, and administration of state grants and cost-sharing contracts.



House Research Graphics

Department of Natural Resources (DNR)

The department coordinates management of public lands and waters through various programs to conserve the state's natural resources.



House Research Graphics

Pollution Control Agency (PCA)

The agency has a commissioner and a nine-member citizen board to administer the laws protecting the environment. The commissioner serves as chair of the citizen board.



Office of Environmental Assistance (OEA) replaced the Office of Waste Management in 1994

The office administers the Minnesota Waste Management Act and identifies and recommends policy positions on current and evolving critical waste issues facing Minnesota.



House Research Graphics



Office of Waste Management
Minnesota Zoological Board

The 30-member board acquires, constructs, equips, operates, and maintains the Minnesota Zoological Garden.



House Research Graphics

Science Museum of Minnesota

Provides educational opportunities on science and the environment to state residents.



Minnesota-Wisconsin Boundary Area Commission

The interstate commission is composed of five members from each state appointed by their respective governors. The commission recommends, reviews, and correlates studies for the use of lands and waters which form the common boundaries of the two states, especially the St. Croix and Mississippi Rivers.



Minnesota Academy of Science

The Minnesota Academy of Science promotes interest in and appreciation of science among the citizens of Minnesota by encouraging and facilitating excellence in science and science education at all levels.



Citizens' Council on Voyageurs National Park*

The 17-member board researches matters related to the establishment and operation of Voyageurs National Park and makes recommendations to the U.S. National Park Service and other concerned federal and state agencies.



^{*} The 1999 appropriation was vetoed by the governor, and the council is no longer operating.

Comparison of Agency Funding: 1990 to 1999

1990 Environmental Funding to Major Agencies



1999 Environmental Funding to Major Agencies



Appropriations in Actual and Inflation-Adjusted Dollars^{*}

The table below shows the difference in actual dollars appropriated and constant dollars after adjusting for inflation, and includes the percentage increases over the decade for each agency. The next page shows these dollar figures graphically. Although appropriations for each agency increased over the decade, the inflation factor reduced buying power of these dollars over the same period to 78 percent of their nominal value. This is reflected in the percentage changes in the last row of this table and the graphs on page 10. While the actual funding increased significantly, the increase in the inflation adjusted funding is considerably less.

Adjusting Actual Amounts for Price Inflation Using the Consumer Price Index (in thousands)

	BLS/CPI**	P	CA	(Office	EA of Waste gement)	DNR		BWSR	
	Annual	Actual dollars	Constant dollars	Actual dollars	Constant dollars	Actual dollars	Constant dollars	Actual dollars	Constant dollars
1990	127.4	\$41,264	\$41,264	\$10,486	\$10,486	\$138,105	\$138,105	\$5,948	\$5,948
1991	132.4	36,404	35,029	21,547	20,733	145,693	140,191	8,119	7,812
1992	136.1	50,110	46,907	20,643	19,323	150,118	140,522	8,595	8,046
1993	140.0	48,048	43,724	20,482	18,639	169,620	154,354	8,942	8,137
1994	144.0	53,204	47,071	20,289	17,950	158,709	140,413	12,158	10,756
1995	148.4	58,939	50,599	21,113	18,125	168,941	145,034	13,988	12,009
1996	153.0	63,035	52,488	20,739	17,269	173,287	144,293	14,715	12,253
1997	156.7	56,562	45,986	20,638	16,779	179,496	145,934	15,348	12,478
1998	159.3	63,827	51,046	20,872	16,692	195,009	155,958	16,651	13,317
1999	162.7	56,928	44,577	20,900	16,365	196,744	154,058	16,196	12,682
% increase 1990-1999		38%	9%	99%	56%	42%	16%	270%	213%

^{*} Bonding dollars are not included here; see page 12.

^{**} Bureau of Labor Statistics/Consumer Price Index inflation factor

DNR Appropriations



OEA Appropriations

\$25 Actual dollars \$20 1990 Inflation-adjusted dollars \$15 \$10 \$ 5 \$ 0 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999

PCA Appropriations

Dollars (millions)

Dollars (millions)



BWSR Appropriations



LCMR Funding to Environmental Agencies

The Legislative Commission on Minnesota Resources (LCMR) makes funding recommendations on environment and natural resources projects from various sources to the full legislature for funding. The main sources are the Environment and Natural Resources Trust Fund, funded by a percentage of lottery dollars, and the Minnesota Resources Fund, funded by cigarette tax dollars. Amounts shown in the following table are direct appropriations from these funds to selected state agencies. These amounts are included in the preceding tables and graphs.

	DNR	PCA	OEA	BWSR	Science Museum	MN/WI Boundary Area Commission
1990					Ivruseum	Area Commission
1991	\$8,154	\$2,502			\$400	\$360
1992						
1993	19,014	1,100			810	
1994	2,500					
1995	11,390	1,700	700		750	
1996	2,417	151		15		-
1997	10,577	1,750		145	500	
1998			-			
1999	9,176	550		500	600	

LCMR Funding to Environmental Agencies 1990-1999

(in thousands)

2000 Environmental Appropriations

A limited amount of funding for some agencies was appropriated during the "off-budget" 2000 session.

DNR	РСА	BWSR		
\$25,055,000*	\$307,000	\$3,150,000		
* This number includes general fund dollars, the game and fish fee increase, and the DNR's share of the lottery in-lieu-of sales tax dollars.				

Bonding Dollars over the Past Decade

Capital improvement (bonding) dollars fluctuated greatly for environment and natural resources agencies over the past decade from an environmental project low of \$2.625 million in 1995 to a high of \$197.6 million in 1998. Because of this, the amounts are shown below and separated from the preceding graphs.

DNR	РСА	BWSR	OEA/OWM	Public Facilities Authority*	Total
\$11,682	\$13,050	\$2,000	\$1,250	\$7,500	\$35,482
58,917	23,401	0	9,800	13,400	105,518
1,875	750	0	0	0	2,625
39,676	3,500	3,000	14,750	22,100	83,026
4,000	7,400	0	0	7,000	18,400
130,251	0	3,500	19,800	44,050	197,601
19,000	0	2,375	3,000	22,700	47,000
36,000	0	2,200	23,800	33,212	95,212
	\$11,682 58,917 1,875 39,676 4,000 130,251 19,000	\$11,682 \$13,050 \$8,917 23,401 1,875 750 39,676 3,500 4,000 7,400 130,251 0 19,000 0	DNR PCA BWSR \$11,682 \$13,050 \$2,000 58,917 23,401 0 1,875 750 0 39,676 3,500 3,000 4,000 7,400 0 130,251 0 3,500 19,000 0 2,375	DNR PCA BWSR OEA/OWM \$11,682 \$13,050 \$2,000 \$1,250 58,917 23,401 0 9,800 1,875 750 0 0 39,676 3,500 3,000 14,750 4,000 7,400 0 0 130,251 0 3,500 19,800 19,000 0 2,375 3,000	Authority* $\$11,682$ $\$13,050$ $\$2,000$ $\$1,250$ $\$7,500$ $58,917$ $23,401$ 0 $9,800$ $13,400$ $1,875$ 750 000 $39,676$ $3,500$ $3,000$ $14,750$ $22,100$ $4,000$ $7,400$ 00 $7,000$ $130,251$ 0 $3,500$ $19,800$ $44,050$ $19,000$ 0 $2,375$ $3,000$ $22,700$

Capital Improvement

(in thousands)

* The numbers for the Public Facilities Authority reflect only dollars for water treatment loans and grants.

Compliance Audit

"a copy of the most recent compliance audit."

FAX: 651/296-1321 EMAIL: lcmr@commissions.leg.state.mn.us

John Velin, Director

November 7, 2000

Representative Dan McElroy, Chair and Members Legislative Audit Commission 437 State Office Building St. Paul, MN 55155

RE: October 27, 2000 Audit of Environment and Natural Resources Trust Fund

Dear Mr. Chair:

Once again the Legislative Auditor and staff have performed admirably in the face of uncertainty. They found some expenditures questionable and raised the issues accordingly. I congratulate you and them for such diligence.

For past audits, when the results were substantive, we responded early and worked hard at adjusting our procedures, often in consultation with the audit staff. In this case, many of the problems pointed out have already been addressed through interim changes to LCMR procedures and or clarification made to program managers. In one instance money incorrectly paid has already been properly accounted for and in another, the adjustment will be complete this fall.

One major consideration affects the mindset as we review the findings: "The Request for Proposals" lays out the basic ground rules for conducting the 1997 projects. It was adopted in late fall 1995 and the funding recommendations were deliberated in summer 1996. The specific work programs for each project were drafted in fall 1996 and finalized in spring 1997. Up to 5 years have passed. The LCMR and its staff have, since then, conducted not one but two additional rounds of proposal review (summer 1998 and summer 2000). During each of those two rounds, we have made significant changes to LCMR procedures, many of which are a direct result of past findings from the Legislative Auditor.

In Chapter 2 - University of Minnesota

Finding 1A. Ineligible Costs / "The Sustainable Farming System Project".

Response 1A. One non-profit, Land Stewardship Project (LSP), was a direct contractor to the University for specific work in project coordination. A different non-profit, Sustainable Farming Association (SFA), was also a direct contractor with the University, but to perform different work, namely outreach activities. In one instance, LSP was selected by SFA to do a piece of the SFA work. In effect LSP was both a direct contractor and a subcontractor. The different work is clearly laid out in the work program. There was no overlap and LSP was not double paid.

Senators: Leonard Price, Chair; Ellen Anderson, Dennis Frederickson, Jerry Janezich, Jane Krentz, Gary Laidig, Bob Lessard, James Metzen, Martha Robertson, Jim Vickerman.

Representatives: Irv Anderson, Dave Bishop, Steve Dehler, Ron Erhardt, Mark Holsten,

Finding 3. Equipment purchased after the project period. I Concur. DNR should pay the Trust Fund the amount in question and has already begun the process this fall.

Finding 4. Monitoring a subrecipient (pass through).

Response 4 A. First, we instituted several changes for the 1999 appropriations that will reduce or eliminate the errors.

Second, for the 2001 appropriations LCMR recommendations include financial support so DNR can adequately monitor all the pass through appropriations. This will ensure a uniform method and focus accountability into one area. We can then work with one unit and catch the full range of problems, INCLUDING the reimbursement based upon a level of itemization sufficient to determine if the expenses were eligible and other procedures typical of internal auditing.

Finding 4. Related to Table 3-2.

Response 4 B. Some of the **titles of the accounting categories** used by the sub recipient would lead one to believe the expenses looked ineligible. However, analysis of the actual expenditures shows the items were in fact applicable and eligible rent was not automatically excluded, but general administrative overhead was not allowed.

For the 2001 appropriations, LCMR will not allow space rent as an eligible expense, period.

Response 4 B. Administration overhead. Again, the title of the accounting records misleads. Analysis of the purpose of the expenditure shows the staff paid for did in fact work directly as project participants on the project. In some cases they play dual roles, as general administrators and deliverers of service. Their accounting shows their time allocated to the project. This does not excuse the method of simply passing through the money. Project managers have been advised repeatedly to contract with their sub contractors using the same terms and conditions that apply to the main state contract.

For 2001 appropriations all recipients will be instructed to use the same contract for subcontractors as is used by the state.

Response 3. Building repairs. The records show the accounting title would imply one thing while the actual work was project specific and therefore eligible.

In Conclusion, DNR has determined the eligibility of the expenses. DNR has internally changed policy to ensure that project expenditures are reviewed and found acceptable prior to issuing payment. LCMR plans to provide DNR with money and guidance in order to ensure appropriate and consistent project administration and expended.

Sincerely,

John Ullan

John Velin J:\SHARE\WORKFILE\AUDITS\Aud response 97-99 Fall 2000.doc

Senators: Leonard Price, Chair; Ellen Anderson, Dennis Frederickson, Jerry Janezich, Jane Krentz, Gary Laidig, Bob Lessard, James Metzen, Martha Robertson, Jim Vickerman.

Representatives: Irv Anderson, Dave Bishop, Steve Dehler, Ron Erhardt, Mark Holsten,

as the basis, unless some other approach is presented as more practical. This requirement will be stated in writing to all project managers.

Finding 1C. Ineligible Costs / "Crop Management to Minimize Pesticide Inputs Project". Response 1C. Prior out of state travel approval (\$1,929 out of \$300,000). Travel was clearly anticipated in the work program. If the out of state travel had been articulated and explained in the work program, it would have been approved, as it was in other work programs. The University apparently erred in not heeding the verbal advice of the LCMR staff. The project returned over \$2200 to the state after completion.

In the future, beginning with the 2001 appropriations, we will require applicants to state the basis for travel related reimbursement and allow either the Commissioner's Plan or the existing University Plan as the basis, unless some other approach is presented as more practical. This requirement will be stated in writing to all project managers and they will be encouraged to show it in the work program. And, out of state travel will be spelled out in the work program or else not allowed.

Finding 1 D. Supplies

Response 1 D. Supply expense of \$1684.00 in the last three days of the biennium. The project expenditures have created a future benefit beyond the biennium. As stated in the work program, the research plots established with this money will be used into the future. The project budget totals \$300,000, which included supplies. This late expenditure is not out of line with expectations, especially because the material purchased will produce direct benefits beyond the biennium of support. Supplies were purchased within the biennial time frame allowed.

I recommend no further action

Finding 1 F. Approval for budget variances.

Response 1 F. The written instructions for work programs clearly state the need to seek and obtain a work program amendment before implementing significant changes to spending plans. The University erred seriously by making such a large change without prior approval.

In the future, beginning with the 2001 appropriations, we will underscore the need for appropriate and timely amendments to work programs. Since the University receives direct appropriations, we will have to monitor their spending accounts closely enough to detect upward trends. We will also use another technique. We will ask the Department of Finance to withhold up to 20% of the total amount directly appropriated to the U of M until all the written and fiscal reports are complete and submitted. Then if there are any situations similar to the above, the cash difference remains with the state treasury. This technique might also encourage more timely reporting, both written and fiscal, as referenced in the next finding.

Finding 2. Timely Reporting. Response 1. See note above.

Senators: Leonard Price, Chair; Ellen Anderson, Dennis Frederickson, Jerry Janezich, Jane Krentz, Gary Laidig, Bob Lessard, James Metzen, Martha Robertson, Jim Vickerman.

Representatives: Irv Anderson, Dave Bishop, Steve Dehler, Ron Erhardt, Mark Holsten,



STATE OF MINNESOTA

Financial-Related Audit

Environment and Natural Resources Trust Fund Two Fiscal Years Ended June 30, 1999



Financial Audit Division

The Office of the Legislative Auditor (OLA) is a professional, nonpartisan office in the legislative branch of Minnesota State government. Its principal responsibility is to audit and evaluate the agencies and programs of state government (the State Auditor audits local governments).

OLA's Financial Audit Division annually audits the state's financial statements and, on a rotating schedule, audits agencies in the executive and judicial branches of state government, three metropolitan agencies, and several "semi-state" organizations. The division also investigates allegations that state resources have been used inappropriately.

The division has a staff of approximately fifty auditors, most of whom are CPAs. The division conducts audits in accordance with standards established by the American Institute of Certified Public Accountants and the Comptroller General of the United States.

Consistent with OLA's mission, the Financial Audit Division works to:

- Promote Accountability,
- Strengthen Legislative Oversight, and
- Support Good Financial Management.

Through its Program Evaluation Division, OLA conducts several evaluations each year and one best practices review. OLA is under the direction of the Legislative Auditor, who is appointed for a six-year term by the Legislative Audit Commission (LAC). The LAC is a bipartisan commission of Representatives and Senators. It annually, selects topics for the Program Evaluation Division, but is generally not involved in scheduling financial audits.

All findings, conclusions, and recommendations in reports issued by the Office of the Legislative Auditor are solely the responsibility of the office and may not reflect the views of the LAC, its individual members, or other members of the Minnesota Legislature.

This document can be made available in

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All OLA reports are available at our Web Site: <u>http://www.auditor.leg.state.mn.us</u>

If you have comments about our work, or you want to suggest an audit, investigation, evaluation, or best practices review, please contact us at 651-296-4708 or by e-mail at <u>auditor@state.mn.us</u>

OFFICE OF THE LEGISLATIVE AUDITOR STATE OF MINNESOTA • James Nobles, Legislative Auditor

Representative Dan McElroy, Chair Legislative Audit Commission

Members of the Legislative Audit Commission

Senator Leonard Price, Chair Legislative Commission on Minnesota Resources

Mr. John Velin, Director Legislative Commission on Minnesota Resources

Mr. Allen Garber, Commissioner Department of Natural Resources

Mr. Mark Yudof, President University of Minnesota

We have audited selected appropriations made from the Environment and Natural Resources Trust Fund for the period July 1, 1997, through June 30, 1999, as further explained in Chapter 1. Our audit scope included selected projects administered by the Department of Natural Resources and the University of Minnesota.

We have conducted our audit in accordance with generally accepted auditing standards and Government Auditing Standards, as issued by the Comptroller General of the United States. These standards require that we obtain an understanding of management controls relevant to the audit. These standards also require that we design the audit to provide reasonable assurance that the Department of Natural Resources and the University of Minnesota complied with the provisions of laws, regulations, contracts, and grants significant to the audit. The management of the Department of Natural Resources and the University of Minnesota are responsible for establishing and maintaining the internal control structure and to comply with applicable laws, regulations, contracts, and grants.

This report is intended for the information of the Legislative Audit Commission, the Legislative Commission on Minnesota Resources, management of the Department of Natural Resources, and management of the University of Minnesota. This restriction in not intended to limit the distribution of this report, which was released as a public document on October 13, 2000.

Janun K.

James R. Nobles Legislative Auditor

End of Fieldwork: June 23, 2000 Report Signed On: October 9, 2000

Claudia J. Gudvangen, CPA Deputy Legislative Auditor

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Audit Participation

The following members of the Office of the Legislative Auditor prepared this report:

Claudia Gudvangen, CPA Cecile Ferkul, CPA, CISA Jack Hirschfeld, CPA Anthony Toscano Tory Monson Patrick Phillips, CPA Deputy Legislative Auditor Audit Manager Auditor-In-Charge (U of M) Auditor-In-Charge (DNR) Auditor (DNR) Auditor (U of M)

Exit Conference

We discussed the results of the audit with the following staff:

University of Minnesota: Mike Volna Joan Donaldson Sue Paulson Bev Durgan Helene Murray Frank Pfleger Linda Kinkel Laurie Brand Department of Natural Resources: Steve Morse Peggy Adelmann Bill Becker

Interim Controller Director, Sponsored Financial Reporting Supervisor, Sponsored Financial Reporting Associate Dean for Research and Outreach Principle Investigator, Agronomy Department Head, Plant Pathology Principle Investigator, Plant Pathology Supervisor, Plant Pathology

name

Deputy Commissioner Chief Financial Officer LCMR Liaison

Report Summary

The Environment and Natural Resources Trust Fund was established in 1988 to use investment earnings from net lottery proceeds for the protection, conservation, preservation, and enhancement of the state's air, water, land, fish, wildlife, and other natural resources. The Legislative Commission on Minnesota Resources (LCMR), consisting of 20 members of the Legislature, oversees the distribution of the trust fund monies. For fiscal years 1998 and 1999, the Legislature appropriated the majority of trust fund monies for projects conducted by the University of Minnesota and the Department of Natural Resources. The Department of Natural Resources was the pass-through agent for many of the non-state projects.

Key Findings and Recommendations

- The University of Minnesota used approximately \$21,000 for project costs that may not have been eligible for reimbursement from the trust fund. The university also did not timely submit final project and expenditure reports. We recommended that the university work with LCMR to determine whether the costs charged to these projects were eligible for reimbursement. We also recommended that the university submit required project reports in a timely manner. (Findings 1 and 2, pages 9 and 10)
- The Department of Natural Resources (DNR) purchased equipment totaling \$6,296 after the end date of a project. We recommended that DNR reimburse the Environment and Natural Resources Trust Fund for this expenditure. (Finding 3, page 12)
- DNR personnel did not adequately administer one of the LCMR grants. DNR inappropriately paid the grant to a subrecipient on a pro rata basis rather than paying the subrecipient on a reimbursement basis. DNR personnel did not review project costs to determine that the subrecipient used the funds for eligible costs. The subrecipient may need to repay about \$69,000 for ineligible costs. We recommended that DNR review the subrecipient's project costs, determine the eligibility of the costs, and request repayment for those costs found to be ineligible. (Finding 4, page 12)

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Chapter 1. Introduction

An amendment to the state constitution in 1988 established the Environment and Natural Resources Trust Fund. Article XI, Sec. 14 of the Constitution of the State of Minnesota, as amended again in November 1990, provides, in part:

The principal of the environment and natural resources trust fund must be perpetual and inviolate forever, except appropriations may be made from up to 25 percent of the annual revenues deposited in the fund until fiscal year 1997 and loans may be made of up to five percent of the principal of the fund for water system improvements as provided by law . . .The net earnings from the fund shall be appropriated in a manner prescribed by law for the public purpose of protection, conservation, preservation, and enhancement of the state's air, water, land, fish, wildlife, and other natural resources. Not less than 40 percent of the net proceeds from any state-operated lottery must be credited to the fund until the year 2001.

The state's constitution was again amended in November 1998 to limit the amount available for appropriation each biennium at 5¹/₂ percent of the fund's market value.

The Minnesota State Lottery deposited net lottery proceeds to the trust fund each month. The State Board of Investment invested trust fund money as required by statutory provisions. Investment income was available for expenditure. The Legislature authorized expenditures of varying percentages of revenues within the constitutional limitation.

Table 1-1 shows the trust fund corpus financial activity for fiscal years 1998 and 1999.

Table 1-1Environment and Natural Resources Trust Fund - Nonexpendable Trust FundSummary of Financial ActivityFiscal Years 1998 and 1999

	1998	1999
Beginning Fund Balance	\$185,644,000	\$ 243,882,000
Lottery Proceeds	24,708,000	23,210,000
Investment Income	39,132,000	33,944,000
Transfers Out to Expendable Trust Fund	(7,065,000)	(11,578,000)
Funds Returned from Expendable Trust Fund	1,463,000	63,000
Ending Fund Balance	<u>\$243,882,000</u>	<u>\$289,521,000</u>

Note: Constitutional and statutory provisions allow for the transfer of trust fund earnings to the Expendable Trust Fund (see Table 1-3) for expenditure in accordance with appropriation restrictions. Any appropriated funds not encumbered in the biennium for which they were appropriated canceled and were transferred back to the trust fund corpus. Additional funds returned from the fiscal years 1998 and 1999 appropriations would be credited to fiscal year 2000.

Source: State of Minnesota Comprehensive Annual Financial Reports and supporting accounting records.

During our annual audits of the state's financial statements, we verified the propriety of revenue deposited to the trust fund. We performed tests of investment income at the State Board of Investment and verified the proper distribution of lottery proceeds to the trust fund and the appropriate allocation of revenues between fund corpus and expendable balance.

Legislative Commission on Minnesota Resources

The Legislative Commission on Minnesota Resources (LCMR) oversees the distribution of the trust fund monies. The LCMR, consisting of 20 members of the Legislature, solicits and reviews project applications and makes recommendations to the Legislature to fund projects. In addition, it adopts a six-year strategic plan identifying priority areas for funding. LCMR employs staff to assist in its responsibilities. Mr. John Velin serves as LCMR director.

The Legislature intended that the trust fund supplement traditional sources of funding for environmental and natural resource activities. Minn. Stat. Section 116P.08 identifies the types of projects and administrative costs that can use trust fund monies. Section 116P.11 defines the amount available for expenditure each biennium.

The LCMR's main responsibilities were to identify project areas, solicit project proposals, evaluate project proposals, and make recommendations to the Legislature. The LCMR issued a request for proposal (RFP) for projects to be funded in the 1998-1999 biennium. The RFP contained the project funding intentions and a list of potential project areas. The LCMR made the RFP available to the public via newsletters, forums and meetings, and through its website. The LCMR also had a mailing list of approximately 3,500 interested parties.

The LCMR staff sorted over 400 proposals by project area and ranked the individual projects. Some proposals came from state agencies and others came from non-state entities. A Citizens Advisory Committee performed an initial review of the projects to determine which projects best met the LCMR objectives. A peer review panel of experts also conducted a separate review to determine the potential success and impact of proposed projects. In some cases, the LCMR also requested additional information and appearances by some project managers.

LCMR recommended specific projects to the Legislature in a biennial budget plan for fiscal years 1998-1999. The Legislature gave final approval for 51 projects. The Legislature appropriated funds for each approved project. If a project was administered by a non-state entity, the Legislature appropriated funds to a state entity that passed-through the funds to the non-state entity. The Department of Natural Resources was the pass-through agent for many of the non-state projects.

Table 1-2 shows trust fund appropriations for the 1998-1999 biennium.

Table 1-2Environment and Natural Resources Trust FundFiscal Years 1998 and 1999 Appropriations

<u>Department</u>	Number of Projects	Appropriation Amount
Natural Resources	29	\$ 17,012,000
University of Minnesota	10	2,573,000
Pollution Control Agency	4	1,250,000
Historical Society	. 2	333,000
Agriculture	1	150,000
MnSCU	2	315,000
Board of Water and Soil Resources	2	165,000
LCMR Administration	N/A	472,000
Totals	<u>50</u>	<u>\$22,270,000</u>
ce: Laws of Minnesota for 1997.		

State agencies receiving trust fund appropriations were responsible for administering approved projects and, if applicable, monitoring appropriations that flowed-through to other entities. As a condition of acceptance of trust fund appropriations, agencies and other entities submitted a work program and semiannual progress reports to LCMR. A statutory provision required that the LCMR approve the work program before an agency could spend trust fund appropriations....

Source

Table 1-3 shows financial activity for the expendable portion of the trust fund for fiscal years 1998 and 1999.

Table 1-3 Environment and Natural Resources Trust Fund Expendable Trust Fund Summary of Financial Activity

	Fiscal Year 1998	Fiscal Year 1999
Beginning Fund Balance	\$8,847,000	\$3,930,000
Revenue and Other Sources:		
Transfers In from Nonexpendable Trust Fund	7,065,000	11,578,000
Investment Income	398,000	202,000
Other Revenues	4,000	0
Total Revenues and Other Sources	<u>\$ 7,467,000</u>	<u>\$11,780,000</u>
Expenditures and Transfers Out:		
Current Expenditures	\$ 3,078,000	\$ 3,707,000
Capital Outlay	1,993,000	2,507,000
Pass-Through Appropriations	1,377,000	3,527,000
Transfers to Component Units	4,473,000	<u> 1,089,000</u>
Total Expenditures and Transfers Out	\$10,921,000	\$10,830,000
Funds Returned to the Nonexpendable Trust Fund	1,463,000	63,000
Ending Fund Balance	<u>\$_3,930,000</u>	<u>\$_4,817,000</u>

Note: Following constitutional and statutory provisions, transfers were made from the trust fund corpus for expenditures in accordance with appropriation restrictions. Any appropriated funds not encumbered in the biennium for which they were appropriated cancel and were returned to the Nonexpendable Trust Fund. The Ending Fund Balance at June 30, 2000, will either be used to reimburse projects for final project costs, returned to the non-expendable Environment and Natural Resources Trust Fund for reappropriation, or in limited instances, carried forward to fiscal year 2000 for projects with extended end dates.

Source: State of Minnesota Comprehensive Annual Financial Reports and supporting accounting records.

In the following chapters, we discuss the results of our audit work performed at the University of Minnesota and the Department of Natural Resources. As explained in those chapters, we found instances where recipients may have used trust fund monies inappropriately. The LCMR lessened the risk that funds would be used inappropriately by making the following improvements in their grant process:

- Some of the exceptions noted resulted from noncompliance with LCMR's verbal policies. For example, LCMR staff stated to the auditors that they required prior approval of any out-of-state travel. The LCMR included this requirement in written policies for the fiscal year 2002/2003 appropriations, making it easier for recipients to understand the program guidelines and comply with them.
- Other questions arose about whether certain costs were eligible for reimbursement from the Trust Fund. Although the LCMR generally prohibited the recovery of indirect costs, in some cases it did allow similar costs. For example, LCMR did not usually allow rent and administrative overhead (typical indirect costs) but made exceptions if recipients could define these costs as direct project costs. For its 2002/2003 appropriations, the LCMR will prohibit any reimbursements for rent.

Chapter 2. University of Minnesota

Chapter Conclusions

The University of Minnesota may have charged some ineligible costs to the LCMR project appropriations. The university did not timely submit some final reports for the projects.

The University of Minnesota received \$2,573,000 from the Environment and Natural Resources Trust Fund for ten projects during the 1998-1999 biennium. The procedures for the university obtaining and accounting for these appropriations involved several steps. The university submitted applications for projects addressing areas listed in the LCMR Request for Proposal. Once LCMR approved the projects, the university established a separate budget on its accounting system for each project.

The university assigned each project manager the responsibility to monitor project progress and costs charged against the appropriation. The university also was to submit work plans periodically to the LCMR advising them of the status of the projects and current expenditure amounts, with a final work plan due on June 30, 1999.

We reviewed two projects: Sustainable Farming Systems and Crop Management to Minimize Pesticide Inputs. The appropriations for these two projects totaled \$860,000.

- The objective of the "Sustainable Farming System" project was to develop a comprehensive program to educate and demonstrate the economic and environmental effects of sustainable farming systems. The project involved farm-based data collection and research. The LCMR appropriation for this project was \$560,000. The university established contracts with three non-profit entities and an individual to coordinate and assist team members in completing project objectives. The LCMR continued this project with a new appropriation for the 2000-2001 biennium.
- The "Crop Management to Minimize Pesticide Inputs" project's objective was to develop non-pesticide management strategies for pest control for crops. The LCMR appropriation for this project was \$300,000. This project contributed to the development of non-pesticide management strategies for significant agricultural pests.

Table 2-1 provides a summary of the expenditures charged to these projects.

Table 2-1LCMR Appropriations to the University of MinnesotaFiscal Years 1998 and 1999

<u>\$560,000</u>	
<u>\$000,000</u>	\$300,000
\$ 99,244 321,473 70,721 · 7,677	\$197,361 0 66,729 7,191
<u>58,627</u> <u>\$557,742</u>	<u>26,497</u> \$297,778
	\$ 99,244 321,473 70,721 · 7,677 <u>58,627</u>

Note 1: The university returned \$2,258 to LCMR from the appropriation for the Sustainable Farming Systems project. The university had not returned \$2,222 for the Crop Management project as of June 30, 2000.

Source: University of Minnesota accounting-records.

Audit Objective and Methodology

Our review focused on the following objective:

• Did the University of Minnesota's expenditures of trust fund appropriations comply with statutory provisions and other significant finance-related legal provisions and occur within the authorized period?

To answer this question, we made inquiries of university staff to gain an understanding of the internal control structure over project expenditures. We analyzed expenditures to determine the proper recording of project expenditures, reviewed source documentation supporting expenditures, and tested expenditures to ensure proper amounts were charged to the individual projects. We also reviewed expenditures to determine if the university complied with applicable legal provisions.

Conclusions

The University of Minnesota may have charged some ineligible costs to the project appropriations. The university did not timely submit final reports for the projects.

1. The University of Minnesota may have charged some ineligible costs to two projects funded by the Environment and Natural Resources Trust Fund.

Our review of project expenditures identified various costs that may not be eligible for reimbursement from the Trust Fund:

Sustainable Farming System Project

- The university paid one non-profit entity more than the contract amount. The university's contract with the entity agreed to payment of \$140,000 for various project services, including outreach services. The contract anticipated that the entity's duties would involve coordination and cooperation with the other non-profits working on the project. The university paid the non-profit entity \$134,933. The non-profit entity also received an additional \$19,361 of project funds through one of the other non-profit entities. The total amount of project funds the non-profit received exceeded the contract amount by \$14,294. We question whether the work provided through the other non-profit entity was distinctly different than the work anticipated under the original contract.
- The university paid one of the subcontractors more than the contract amount, and inadvertently charged some costs to the subsequent project appropriation. The original contract with the consultant was for \$9,300. Payments to the consultant totaled \$9,537, resulting in a \$237 overpayment. Also, the university amended the contract with the consultant to allow the consultant to work beyond the June 30, 1999 project end date because the university expanded the scope of the contract and the consultant required additional time to perform "economic analysis for 1998". The university inadvertently charged \$2,805 for this additional work to the fiscal year 2000-2001 LCMR appropriation. The university corrected this error in July 2000 by charging the costs to another funding source.

Crop Management to Minimize Pesticide Inputs Project

- The university did not obtain prior approval from the LCMR when it incurred airfare and other intercontinental travel costs totaling \$1,929. Although there is no written requirement, LCMR staff told the auditors that they required prior approval for out-of-state travel.
- The university purchased \$1,684 of supplies from June 28 through June 30, 1999. It is unlikely that the university used these supplies prior to June 30, 1999, which was the end date of the project.
- The university paid \$31 for the review of a student thesis that had no direct benefit to the project.

The university also did not request approval for a budgetary change in the Crop Management to Minimize Pesticide Inputs project. The university budgeted \$68,090 for supplies and expenses. Actual expenditures for this budget category totaled \$73,919 - a nine percent increase over budget. LCMR required prior approval for any significant budget variances.

Recommendations

- The university should work with the LCMR to determine whether the costs charged to these projects are eligible for reimbursement.
- The university should obtain prior approval for significant budgetary changes.

2. The University of Minnesota did not submit final project reports in a timely manner.

The University of Minnesota did not timely submit final expenditure and work program reports to the LCMR. The university's Notice of Grant or Contract Award Letter required the project managers to submit work plans on certain dates throughout the project period and final work program reports by June 30, 1999. It also stated that the university's Department of Sponsored Financial Reporting would provide final cumulative expenditure reports. The university timely submitted the work plan reports during the project period, but did not submit the final work program and cumulative expenditure reports in a timely manner.

The university did not submit the final work program report for the Sustainable Farming project until March 30, 2000, nine months after the end date of the project. The university did not submit the cumulative expenditure report showing total expenditures for the program until April 17, 2000. The cumulative expenditure report indicated that the university had not spent all of the \$560,000 appropriation on the project and owed LCMR a refund of \$2,258. (See Table 2-1.) The university returned the unspent trust funds to the state in June 2000.

The university also had not submitted the final cumulative expenditure report for the Crop Management project to the LCMR as of June 2000, a year after the end of the project. We had to request this report from the university during the audit. We reviewed the report and determined that the university had not spent all of the \$300,000 appropriation and owed LCMR a refund of \$2,222. The LCMR was not aware that it was due a refund.

The university should timely submit reports. The timely submission of required reports would permit the LCMR to review the results of the project sooner.

Recommendation

• The University of Minnesota should submit the required reports to the LCMR in a timely manner.

Chapter 3. Department of Natural Resources

Chapter Conclusions

Except for the instance where it purchased equipment after the project period, the Department of Natural Resources' expenditures of trust fund appropriations complied with statutory provisions and other significant finance-related legal provisions and within the authorized period.

The Department of Natural Resources did not provide sufficient oversight for one subrecipient of trust fund monies.

The Department of Natural Resources (DNR) received 29 appropriations totaling \$17,012,000 from the Environment Trust Fund for the 1998–1999 biennium. In some cases, LCMR appropriated the funds to DNR for the agency to do the project itself. In other cases, DNR was the pass-through agency responsible for monitoring the project and making payments to the subrecipients. We tested seven projects with appropriations totaling \$10,547,000. Expenditures for these projects through June 30, 1999, totaled \$10,408,513. Table 3-1 identifies the projects we tested.

Table 3-1 Environment Trust Fund Appropriations DNR Appropriations Tested

	Appropriation	_
Project	Amount	Туре
State Park and Recreation Area Acquisition,	\$3,500,000	Direct
Development, Betterment, and Rehabilitation		
Minnesota County Biological Survey	1,200,000	Direct
RIM-Accelerate Fisheries Acquisition	567,000	Direct
RIM-Critical Habitat Acquisition and Enhancement	630,000	Direct
Metropolitan Regional Park System	3,500,000	Pass-through
Partners in Accessible Recreation and	550,000	Pass-through
Environment Responsibility		
Phalen Area Wetland Restoration-Phase II	600,000	Pass-through
Source: Minnesota Accounting and Procurement System.		

Audit Objectives and Methodology

Our review focused on the following objectives:

- Did DNR's expenditures comply with significant finance-related legal provisions and occur within the authorized period?
- Did DNR provide sufficient oversight of subrecipients to determine compliance with agreement provisions?

To answer these questions, we made inquiries of DNR staff to gain an understanding of the internal control structure over project expenditures. We tested expenditures made by DNR from direct appropriations the agency received to ensure that DNR complied with applicable finance-related legal provisions. We also tested expenditures made by the agency on pass-through appropriations to determine whether DNR was effectively monitoring subrecipients to ensure compliance with finance-related legal provisions.

Conclusion

Except for the instance where it purchased equipment after the project period, the Department of Natural Resources' expenditures of trust fund appropriations complied with statutory provisions and other significant finance-related legal provisions and within the authorized period.

The Department of Natural Resources did not provide sufficient oversight for one subrecipient of trust fund monies.

3. DNR purchased equipment after the end date of a project.

DNR used \$6,296 of a trust fund appropriation to purchase equipment after the end date of the Critical Habitat Acquisition and Enhancement project. DNR purchased equipment in August 1999, although the appropriation for the project ended on June 30, 1999. The appropriation law and the approved work program for the project indicated that the project was to completed by June 30, 1999. LCMR does not allow recipients to incur expenditures after the end of the project except with an LCMR approved extension. DNR did not receive an extension for this project.

Recommendation

• DNR should reimburse the Environment and Natural Resources Trust Fund \$6,296 for the expenditures made after the project end date.

4. The Department of Natural Resources did not adequately monitor a subrecipient.

The Department of Natural Resources did not adequately monitor a pass-through appropriation to the subrecipient who conducted the Partners in Accessible Recreation and Environment

Responsibility project. The subrecipient was a non-profit organization that educates the public about wilderness experiences. The subrecipient's project focused on expanding wilderness experiences for handicapped people. The subrecipient received \$550,000 from the trust fund to provide outreach seminars. The subrecipient worked with another non-profit organization to provide the project services.

The subrecipient based its original work plan budget on a percentage of its operating costs. It estimated that the project would require 14 percent of its resources, so it budgeted 14 percent of various operating costs for the project. The subrecipient did not inform the LCMR that it had estimated its budget in this way. The request for proposal (RFP) and the project agreement both stated that "Eligible costs shall be those costs directly incurred by the recipient in the actual conduct of the project, that are solely related to and necessary for the completion of the project." The subrecipient supported its use of the funds by claiming the same percentage against actual operating costs, stating that this project's duties were so interrelated with its other educational efforts that it could not isolate costs specifically associated with the project. While determining project costs as a percentage of operating costs may be the best way to claim reimbursement in some cases, LCMR required prior notice of this method.

DNR did not discover that the subrecipient had not based its invoices on actual costs because the department paid the appropriation to the subrecipient in eight quarterly payments of \$68,750. DNR's contract with the subrecipient required that it provide DNR with evidence that it had satisfactorily completed a portion of the deliverable product and that it claimed reimbursement for the related expenses. DNR stated that it was in contact with the subrecipient about the progress of the project. However, the quarterly invoices did not itemize the costs incurred to date. DNR did not request further support for the payments and could not, based on the invoice, determine whether the subrecipient had incurred costs and whether those costs were allowable under the agreement.

The support for project costs that the subrecipient provided our auditors showed that some of the allocated costs were not eligible for reimbursement under the agreement. For example, the subrecipient allocated \$12,591 for rent, an administrative overhead type of expense that LCMR does not usually allow. The subrecipient's recap of its expenditures also overstated its payments to the other non-profit organization by \$34,375. The subrecipient stated that it had still appropriately spent all the funds because its actual program costs had been higher than the 14 percent they used in the allocation.

Similarly to the way that it received funds from DNR, the subrecipient passed \$275,000 through to the other non-profit organization in eight equal payments and did not determine whether the organization's costs were eligible for reimbursement. The other non-profit organization provided the auditors with support for its expenditures. The documents included ineligible costs of \$42,830 described as administration overhead and \$5,670 of building repair and maintenance. The other non-profit organization also had not spent \$278 of the \$275,000 it had received from the subrecipient.

Table 3-2 itemizes ineligible costs that the subrecipient and the other non-profit organization included as project costs.

Table 3-2LCMR Appropriation to SubrecipientPotential Ineligible Costs

Subrecipient's Total Project Costs		\$576,828
Less Costs Not Eligible for Reimbursement Subrecipient - Rent Allocation Subrecipient - Extra Payment to Other Non-Profit Other Non-Profit - Administrative Overhead Other Non-Profit - Building Repair and Maintenance Other Non-Profit - Unspent Funds	\$12,591 34,375 42,830 5,670 278	
Total Potential Ineligible Costs		95,744
Eligible Project Costs Total Appropriation Potential Project Overpayment		\$481,084 <u>550,000</u> \$_68,916
	1. Sec. 1. Sec	

Source: Records provided by subrecipient and the other nonprofit organization.

When DNR passes funds through to a subrecipient, it has the responsibility to monitor, on the state's behalf, the progress of the project and the appropriateness of project expenditures. DNR should have only reimbursed the subrecipient for costs incurred directly for the benefit of the project and should have ensured that funds passed through to the other non-profit also met LCMR requirements.

Recommendations

- DNR should determine the extent of ineligible costs charged to this project and seek reimbursement from the subrecipient.
- DNR should establish a process to review actual costs for propriety prior to making payments to subrecipients.

Most Recent Audit

Legislative Audit Report 97-49, issued in September 1997, covered the period from July 1, 1993 through February 28, 1997. The scope of the audit included selected Environment and Natural Resources Trust Fund appropriations for fiscal years 1994 through 1996. The auditors tested project activity at the Department of Natural Resources, the Department of Children, Families & Learning, the Office of Environmental Assistance, and the Pollution Control Agency.

The report included three written issues. Two of the issues related to indirect costs that the Science Museum of Minnesota charged to projects through the Department of Children, Families & Learning. The third issue concerned rent that the Pollution Control Agency charged to a project. As we recommended, the Science Museum of Minnesota and the Pollution Control Agency worked with the LCMR to determine the propriety of the costs-charged to the projects.

State of Minnesota Audit Follow-Up Process

The Department of Finance, on behalf of the Governor, maintains a quarterly process for following up on issues cited in financial audit reports issued by the Legislative Auditor. The process consists of an exchange of written correspondence that documents the status of audit findings. The follow-up process continues until Finance is satisfied that the issues have been resolved. It covers entities headed by gubernatorial appointees, including most state agencies, boards, commissions, and Minnesota state colleges and universities. It is not applied to audits of the University of Minnesota, any quasi-state organizations, such as the metropolitan agencies, or the State Agricultural Society, the state constitutional officers, or the judicial branch.

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1300 South Second Street, Suite 266 Minneapolis, MN 55454

612-624-4367 Fax: 612-625-9841

October 4, 2000

James Nobles Legislative Auditor Office of the Legislative Auditor Centennial Office Building 658 Cedar Street St. Paul, Minnesota 55155

Re: Environment and Natural Resources Trust Fund Audit

Dear Mr. Nobles:

Thank you for the opportunity to respond to the Office of Legislative Auditor's report on Environment and Natural Resources Trust Fund projects. We are pleased to provide you with the following responses to the audit findings and recommendations.

* * *

Finding #1 - The University of Minnesota may have charged some ineligible costs to two projects funded by the Environment and Natural Resources Trust Fund.

<u>Recommendations</u>

• The university should work with the LCMR to determine whether the costs charged to these projects are eligible for reimbursement.

University of Minnesota Response:

Sustainable Farming System project:

- The contract payments to the non-profit entity were for the outreach and teambuilding components of the project. The workplan approved by the LCMR stated that funds may need to be reallocated between organizations if necessary to successfully accomplish the objectives. The costs noted in the audit finding represent those reallocations. The project directly benefited from the costs.
- As noted in the finding, the University mistakenly charged some project costs to another LCMR appropriation. The University subsequently corrected the mistake,



and the Sustainable Farming System project was reimbursed from other University (non-LCMR) funds.

Crop Management project:

- As noted in the audit finding, the LCMR does not have a written policy requiring pre-approval of out-of-state travel. The finding is based on an LCMR practice that was communicated to the University by the OLA auditors at the time of the audit. Because no written policy exists and the University was unaware of the LCMR's practice, and the costs directly benefited the project, we believe that these costs are allowable to the project. To prevent this from happening in the future the University will work with the LCMR to identify the situations in which prior approval is required, and communicate them to other faculty who manage LCMR projects.
- All supplies and expenses charged against the LCMR grant were purchased during the timeframe of the grant. The University believes these costs were allowable and were incurred for the benefit of the project. The supplies purchased during the last several days were used to perform additional testing to substantiate and validate the results obtained in testing performed during the earlier stages of the LCMR project.
- The questioned cost of \$31 was for expenses associated with the visit of one of the project's Principal Investigators, who is located at the University's Grand Rapids Research-and Outreach Center, to the Saint Paul campus to discuss the LCMR research effort with campus personnel.

The University will work with the LCMR to provide assurance that the expenditures of the Environment and Natural Resources Trust Fund were in compliance with the approved workplans and the applicable statutory provisions.

• The university should obtain prior approval for significant budgetary changes.

University of Minnesota response:

The University of Minnesota does not have a written requirement from the LCMR regarding budget variances or restrictions on rebudgeting. In the absence of such documentation, the University used a standard of 10% per agency category as a guide, which is consistent with many federal agencies' requirements. The University will work with the LCMR to further define the level at which prior approval is required and implement appropriate processes to ensure compliance.

Finding #2 - The University of Minnesota did not submit final project reports in a timely manner.

Recommendation

• The University of Minnesota should submit the required reports to the LCMR in a timely manner.

University of Minnesota response:

The University of Minnesota agrees that the final expenditure reports were not submitted according to the terms of the agreement. In order to ensure future compliance, the Department of Sponsored Financial Reporting has centralized the financial reporting responsibility for all LCMR projects with a single individual and has redirected resources to provide additional oversight of the process. These, along with other process improvements the University is currently implementing within the department, will ensure compliance with agency reporting requirements and will also ensure that the LCMR is made aware of refunds in a timely manner.

* * *

We look forward to working with LCMR staff to address the recommendations and our responses. If you have any questions, please do not hesitate to contact me.

Sincerely,

Mitul D. Value

Michael D. Volna, CPA Interim Controller

 Cc: Beverly Durgan, Associate Dean for Research & Outreach, College of Agricultural, Food and Environmental Sciences
Helene Murray, Coordinator, Minnesota Institute for Sustainable Agriculture Linda Kinkel, Associate Professor, Department of Plant Pathology Joan Donaldson, Director, Sponsored Financial Reporting This page intentionally left blank.



Minnesota Department of Natural Resources

OFFICE OF THE COMMISSIONER 500 Lafayette Road St. Paul, Minnesota 55155-4037

September 27, 2000

Mr. James R. Nobles Office of the Legislative Auditor 1st Floor Centennial Building 658 Cedar St. St. Paul, MN 55155

Dear Mr. Nobles:

Thank you for the opportunity to respond to the audit of the Department of Natural Resources' (DNR) appropriations from the Environmental and Natural Resources Trust Fund for the period of July 1, 1997 through June 30, 1999. We appreciate the professional manner in which your staff conducted this audit. We have taken steps to rectify any errors and improve our processes where recommended.

You provide one recommendation on appropriations expended directly by DNR. You provide two recommendations regarding a pass through grant administered by DNR. These recommendations are listed below, followed by a short description of the situation and our actions to address the recommendations.

Regarding appropriations expended directly by DNR:

Recommendation:

DNR should reimburse the Environmental and Natural Resources Trust Fund \$6,296 for the expenditures made after the project end date.

This recommendation is in regard to an equipment purchase made by the non-game program in an account established for a project in the approved work program for the Critical Habitat Match program. The expenditure in question was a purchase of an all-terrain vehicle necessary for our Karner blue butterfly research and management. In this case, the purchase was erroneously coded to this account by a temporary employee. We agree that this expenditure should have been coded to another account and are taking steps to repay the trust fund.

Regarding pass through grants administered by DNR:

The following two issues arose in the examination of an appropriation to DNR for a grant to a subrecipient to conduct the project titled Partners in Accessible Recreation and Environmental Responsibility. Since there are no funds provided by LCMR to administer pass through grants, DNR

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assigns these to various program leaders in the divisions and bureaus. These duties amount to an unfunded mandate and are added to an employees full time duties. The current recommendation from the LCMR to the 2001 legislature includes funds for management of pass through grants. This will improve pass through grant administration by ensuring a standardized approach, improving communication with LCMR staff, and allocating sufficient staff time for proper administration. This is the most important long term step to address the two recommendations below.

Recommendation:

DNR should establish a process to review actual costs for propriety prior to making payments to subrecipients.

This grant was assigned to an employee who had administered LCMR pass through grants to the recipient since 1991. The original LCMR grants were administered on a deliverable basis, not a reimbursable basis. A deliverable basis requires examination of results, not expenditures. For grants following 1991, LCMR changed the basis for payment from a deliverable basis to reimbursement for expenses incurred. A reimbursable basis requires examination of results and expenditures. This change was not clearly understood by the DNR administrator or the recipient. We have notified both and all payments are now made on a reimbursable basis and supported by documentation of actual costs incurred as well as results achieved.

Recommendation:

DNR should determine the extent of ineligible costs charged to this project and seek reimbursement from the subrecipient

Upon learning of the problem of failing to make payments on a reimbursable basis to this recipient, the DNR immediately sought proof of all actual acceptable expenses. DNR requested and received the assistance of LCMR staff to help explain LCMR pass through grant requirements and to judge the acceptability of the proof provided. Following two months of discussions and review of expenditures we received the attached letter from the recipient addressed to Steve Morse (Deputy Commissioner, DNR). Having jointly reviewed this letter with LCMR staff, we conclude that the recipient's expenditures support the payments made by DNR. Therefore, we will not request reimbursement from the subrecipient. They earned what they were paid.

We believe that these steps have resolved the recommendations. Thank you for your fine work.

Sincerely,

Jale

Allen Garber Commissioner

Attachments available upon request.

FN: H:\cg092600 Audit of Env. & NR Trust Fund.wpd