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LEGISLATIVE COMMISSION ON MINNESOTA RESOURCES

1984 BIENNIAL REPORT TO THE LEGISLATURE

NOVEMBER 15, 1984

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Legislative Commission on Minnesota Resources

B-46 STATE CAPITOL

ST. PAUL, MINNESOTA 55155

(612) 296-2406



ROBERT E. HANSEN

EXECUTIVE DIRECTOR

November 15, 1984

Members of the Legislature:

The "1984 Report to the Legislature" is submitted as required under MS 86.11, Subdivision 5. This Report is a fulfillment of part of the Legislative Commission on Minnesota Resources (LCMR)'s responsibility to "provide the background necessary to evaluate programs proposed to preserve, develop and maintain the natural resources of this state." (MS86.02) Working cooperatively with the appropriate standing committees, the Commission will continue to identify and research emerging resource issues facing the state. The LCMR recommends appropriations from the natural resources account for innovative and/or accelerative programs. The Commission will continue to monitor and evaluate funding from the natural resources account and other programs as directed by the Legislature.

The Commission requested the advice of a wide range of organizations and individuals, including the appropriate standing committees, as to which resource issues present the most pressing problems to the state and which, therefore, deserve the special consideration of the Commission. The 1984 LCMR Issues Seminar at Itasca State Park produced lively and thoughtful discussion of pressing problems in major issue areas. After over 100 hours of hearings in the summer, the Commission adopted recommended appropriations from the Natural Resources Acceleration Account for consideration and adoption by the 1985 Legislature.

The Legislative Commission on Minnesota Resources is now, and will continue to be, an effective resource for the Legislature in dealing with emerging natural resource issues.

Sincerely,

Senator Clarence M. Purfeerst,
Chairman, Legislative Commission
on Minnesota Resources

/mlk

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LEGISLATIVE COMMISSION ON MINNESOTA RESOURCES

Present Members
Fall 1984

Representative Tony BennettShoreview
Representative Douglas W. CarlsonSandstone
Representative Phyllis KahnMinneapolis
Representative Henry Kalis.Walters
Senator Howard A. KnutsonBurnsville
Senator William Luther.Brooklyn Park
Senator Gene Merriam.Coon Rapids
Representative Lona MinneHibbing
Senator Roger D. Moe.Ada
Representative Willard MungerDuluth
Representative Fred C. NortonSt. Paul
Senator Clarence M. PurfeerstFaribault
Senator Earl W. RennekeLeSueur
Senator Gerald L. Willet.Park Rapids

OFFICERS

Senator Clarence M. Purfeerst Chairman
Representative Willard MungerVice Chairman
Senator Earl Renneke.Secretary

COMMITTEE CHAIRS

Senator Clarence M. PurfeerstExecutive
Senator Clarence M. PurfeerstGoals & Objectives
Senator Roger D. Moe.Special Issues
Representative Lona MinneMinerals
Representative Douglas Carlson.Recreation
Representative Willard MungerLand & Water
Senator Gerald WilletEnergy & Forestry

STAFF

Robert E. Hansen. Executive Director
John R. Velin Administrative Assistant
David G. Flipp. Program Analyst
Linda E. Clauson. Assistant to the Director
Mary Lou Kendle Secretary

LCMR Sub-Committee Assignments

Fall 1984

OFFICERS

Senator Clarence Purfeerst, Chairman
Rep. Willard Munger, Vice Chairman
Senator Earl Renneke, Secretary

EXECUTIVE COMMITTEE

Senator Clarence Purfeerst, Chairman
Rep. Willard Munger
Senator Earl Renneke
Rep. Doug Carlson
Senator Gene Merriam
Rep. Fred Norton

MINERALS COMMITTEE

Rep. Lona Minne, Chairman
Rep. Tony Bennett
Senator Howard Knutson
Rep. Phyllis Kahn
Senator Roger Moe
Senator Earl Renneke
Senator Gerald Willet

ENERGY & FORESTRY COMMITTEE

Senator Gerald Willet, Chairman
Senator Howard Knutson
Senator Gene Merriam
Rep. Henry Kalis
Rep. Willard Munger
Senator Clarence Purfeerst
Rep. Lona Minne

RECREATION COMMITTEE

Rep. Doug Carlson, Chairman
Rep. Tony Bennett
Rep. Phyllis Kahn
Senator William Luther
Senator Gene Merriam
Rep. Fred Norton
Senator Earl Renneke

GOALS & OBJECTIVES COMMITTEE

Senator Clarence Purfeerst, Chairman
Rep. Douglas Carlson
Rep. Phyllis Kahn
Senator William Luther
Senator Roger Moe
Rep. Willard Munger
Senator Earl Renneke

LAND & WATER COMMITTEE

Rep. Willard Munger, Chairman
Rep. Doug Carlson
Senator Gene Merriam
Rep. Henry Kalis
Rep. Fred Norton
Senator Clarence Purfeerst
Senator Gerald Willet

SPECIAL ISSUES COMMITTEE

Senator Roger Moe, Chairman
Rep. Tony Bennett
Senator Howard Knutson
Senator William Luther
Rep. Henry Kalis
Rep. Fred Norton
Rep. Lona Minne

Role of the Commission

The role of the Legislative Commission on Minnesota Resources (LCMR), is to implement the purpose of Minnesota Statutes, Chapter 86.02:

. . . to provide the Legislature with the background necessary to evaluate programs proposed to preserve, develop and maintain the natural resources of this state.

Thus, the Commission is an advisory, oversight and monitoring body for the Legislature. The LCMR acts as an information base for the Legislature regarding various resource programs. The Commission also has a role, implicit from the types of programs with which it is involved, to make inquiries and instigate action designed to examine potential innovative and/or accelerative approaches to State programs. The latter function has evolved from the basic orientation of the LCMR, expressed through its members, toward involvement with programs designed to meet future needs or to correct past program mistakes or shortfalls. The Commission focuses upon relatively new ideas and emerging natural resource issues, which are not otherwise to be considered as part of the regular budgets of State agencies.

The Commission is composed of fourteen Legislators: seven Senators appointed by the Senate Committee on Committees and seven Representatives appointed by the Speaker of the House. Vacancies which may occur do not affect the authority of the Commission. Members serve until a successor is appointed.

Funding Sources

The Commission performs a substantial part of its advisory role by recommending that certain programs be supported with appropriations. In most cases, it recommends that those appropriations be provided from the Natural Resources Account, which receives income from several sources. Eleven percent of the cigarette tax is deposited in the General Fund and specified by appropriations laws to support the Natural Resources Account. That amount was estimated to total approximately \$20 million for Fiscal Years 1986-87. The second income source consists of Federal reimbursements which are earned by expenditure of the State appropriations. The reimbursements are deposited in the Federal Reimbursement Account and support the appropriation recommendations. This source will account for approximately \$178,500 for Fiscal Years 1986-87. Additionally, the Commission reviews the State Park Development Account and recommends appropriation of that amount as part of the Natural

Resources Account. The current FY86-87 biennium figure is approximately \$1,333,400. Finally, certain amounts of past appropriations from the Natural Resources Account which will not be spent are added to the amount available for the next biennium. The total estimated for cancellations is \$205,600. The total of all four sources was rounded to \$22 million for FY86-87.

Each even numbered year, the Commission reviews the past programs supported by Natural Resource Appropriations, as well as existing State programs of Natural Resource management. The Commission invites various statewide organizations and individuals, including the appropriate standing committees, to suggest issue areas. The Commission then selects a number of issue areas for concentration and later recommends that certain programs in those issue areas be financed with Natural Resources Account appropriations. Before the LCMR recommends an appropriation for a program, every effort is made to insure that the suggested program is not a duplication of existing State agency programs nor merely a supplement to regular agency budgets.

Once the set of programs submitted by the LCMR to the Legislature is finally adopted in appropriation laws, the Commission implements its responsibility to closely monitor the programs in order to insure that the correct problems are addressed, in a manner consistent with the intention of the Legislature. The appropriation laws require the LCMR to review for approval a detailed work program submitted by the agencies which describes the proposed implementation of the program, before the actual implementation can begin. Thus, the LCMR has an opportunity to supervise closely the program once it is approved by the Legislature. The Commission also reviews, on a regular basis, semi-annual status reports submitted on each of the programs. In those cases where a program appears to be straying from Legislative intent or suffering from lack of direction or initiative, the Commission calls upon the State agency involved to rectify the problem.

Relationship with other Committees

The LCMR maintains an effective liaison relationship with the appropriate standing committees of the Legislature. This is accomplished in two ways. First, the membership of the Commission traditionally includes the Chair and/or key members of the Senate Finance and House Appropriations Committees, the Senate Natural Resources and Agriculture Committee and the House Committee on Environment and Natural Resources. In addition, the other members of the LCMR are also key members or chair one or more standing committees. Thus, the standing committees are informed of the actions and recommendations of the Commission through the direct participation of their Chair and members in the LCMR activities. Secondly, the staff of the LCMR maintains communication with the staff of those standing committees. Informal contacts by telephone and in person complement the

periodic formal communications. Frequently, one or more of the staff from the standing committees are invited to participate in discussions between the LCMR staff and the various organizations, agencies and persons interested in the Commission. The staff of the Finance, Appropriations and the Senate and House Committees on Natural Resources receive all the material and communications prepared by the LCMR staff at the same time as the LCMR members.

Commission Operations

The Commission holds meetings as required in order to complete its responsibility to develop advice for the Legislature regarding various resource issues. When the LCMR or one of its subcommittees holds a meeting, the liaison officers from the various agencies and departments, as well as the general public, are informed as far in advance as feasible. The meetings are held at the State Capitol or on the site of programs which have received Natural Resources Account funding, or which require on-site review for development of LCMR background information. The Commission or subcommittee Chair frequently request State agency officials to appear and present testimony and appropriate data regarding the subject matter at hand. The Commission also uses written correspondence with various agencies of the State and Federal Government. After receiving testimony, correspondence and by conducting its own intensive discussions, the Commission develops recommendations to the appropriate persons, agencies and Legislative committees. Essentially, there are three alternative recommendations available to the Commission regarding the various programs under review. The Commission may recommend that a particular program receive Natural Resources Account funding support. A second alternative might be to conclude that a particular program is appropriate and effective and to recommend that the program should therefore be financed through the regular budget of the appropriate agencies. The third alternative is for the Commission to review its own evaluation of a given program and recommend that the program be no longer conducted by the State.

The LCMR Process

The series of events outlined below serves as an excellent example of how the LCMR functions as a legislative overview agent, and how the Commission provides the Legislature with background in natural resource program areas.

During its 1977 Issues Seminar, members heard from several sources that the condition of the state's forests was less than desirable. A variety of problems surfaced: Too much old wood, too little reforestation, too few roads, not enough private forest management, and many more. When Commission members wondered aloud why the forest conditions seemed to be in decline, the answers were confusing, conflicting and unclear.

It became obvious that someone outside the existing structure of forest management and timber industry would be needed to sort out the problems and begin to define the solutions for the Legislature. The LCMR concluded that it was appropriate for the Commission to pursue the issues involved. A Forestry Sub-Committee began meeting to develop an approach.

In late 1977, with the advice of its Forestry Sub-Committee and with the concurrence of a citizen's advisory committee, the LCMR contracted for a preliminary appraisal of Minnesota forestry with the internationally recognized forestry consulting firm of Jaako Poyry, headquartered in Helsinki, Finland, with offices in ten other countries. The preliminary appraisal laid out plusses and minuses in both forest management and the timber and wood products industry. Using that report, the LCMR Sub-Committee on Forestry was charged to develop a broad based study proposal, select potential consultants and report to the Commission. The Forestry Committee used a small advisory committee extensively. The advisory committee represented the three major actors: Industry, Public Management and Academia.

During the balance of 1978 and early 1979, the Forestry Committee and its advisory committee worked out a study format. A review and selection process resulted in a contract with the George Banzhaf and Company of Milwaukee, Wisconsin. Under monthly Forestry Committee monitoring, Banzhaf researched the issues. In November 1980, Banzhaf delivered its report on time and within budget. The report lays out an analysis of forest problems and a viable range of alternative policy solutions. The LCMR accepted the report and paid the bill. The LCMR reviewed the Report and submitted it as LCMR findings to the 1981 Legislature.

During the 1981 Session, the Legislature established a joint House-Senate policy committee to review the LCMR work and recommend legislation. It was called the Joint Select Legislative Committee on Forestry (JSLCF). The JSLCF met during the summer and fall of 1981 and drafted the Forest Management Act of 1982. The Act was adopted by the 1982 Legislature.

Also during the 1981 Session, the LCMR took action on some of the preliminary findings in the Banzhaf report. The Commission recommended funding from the Natural Resources Account for Forest Information Systems, Statewide Forest Resource Plan, Fire Management Analysis, Private Forest Management Assistance, Detailed (Phase II) Forest Inventory, Pulpwood Weight Study and Forest Soils Specialist. Additionally, the 1981 Legislature appropriated increased money for reforestation of state forests and other intensification efforts.

The discussion above indicates clearly how LCMR serves the Legislature. Issue and problem identification and definition were followed by intensive study and recommended solutions. The Commission recommended appropriations for some solutions. As a matter of standing, agreed upon procedure, the Commission avoided any LCMR action on substantive policy matters, but instead delivered an organized and thoughtful analysis as a tool for the policy committees. The result to date is that solutions to many of the problems in forestry have been addressed with money and policy changes. The LCMR will continue to monitor progress in forestry through work program monitoring and periodic inquiry as necessary

Highlights of the Past Two Years

The LCMR recommendations for 1983 appropriations from the Natural Resource Account were adopted, after minor modifications, by the Legislature in the State Departments Act (ML 83,Ch.301,Sec.31).

The 1983 programs cover a wide range of resource issues. Below just a few of the programs are summarized. Complete work programs and six-month status reports are on file in the Legislative Reference Library. Since the report is written in the middle of the biennium, there are few if any final results.

The minerals potential evaluation project was designed to employ some new techniques to determine what mineral value might exist in various parts of the state. Some early progress resulted in a determination that there are interesting occurrences of some minerals not heretofore known. More work and probably some private sector exploration will be needed before the full value is known. The above progress was aided by the aeromagnetic survey which detects differences in the character of the earth from an airborne perspective. The survey helps narrow the search areas for further evaluation. Some groundtruth drilling is necessary to establish the meaning of the survey. The survey will pay large dividends as it extends over the areas of the state covered by glacial drift. The drift material covers the bedrock, so little or no information is currently available on the geology and possible mineral occurrences. The Commission also sponsored a program to research the potential for Minnesota minerals to contribute to nationally strategic mineral resources as well as a program to examine new and different routes for successfully processing taconite.

Several programs were initiated to detect possible pollution in various water resources. Old dump sites were selected and tested. Numerous community water supplies were also sampled. The Health and PCA programs were looking for organic chemicals which are not usually detected in routine sampling. PCA was able to head off some future problems by follow-up action in the surveys. Notable examples are the Andover and Long Prairie

areas, which as of this writing, have been designated for federal Super Fund clean-up assistance. Other programs assisted the knowledge of groundwater resources with new techniques as well as data collection and monitoring in the difficult southeastern Minnesota groundwater situation.

During the early summer of 1983, the Commission reviewed and approved detailed work programs for the appropriations. During mid and late summer the members toured a significant portion of the state. The purpose was to observe the results of past programs and to collect firsthand information on the nature of a wide variety of resource management problems. The LCMR customarily notifies local legislators of pending LCMR visits. In several cases, local Senators or Representatives joined the LCMR for part of the local tours and briefings. The experience and knowledge gained by these visits were quite helpful to the members especially the four Representatives appointed in winter of 1983.

That background experience also helped the members as they convened to review natural resources issues in June of 1984 at Itasca State Park for the Issues Seminar. The members reviewed the written views of over ninety individuals and agencies. Numerous panelists also discussed the issues with the members over the three-day seminar. Former Speaker of the House and former long-time LCMR member, Rod Searle, greatly assisted the LCMR by providing some overview comments about his observations of the various discussions. Beginning in July, the members then reviewed over 120 proposals for a total of over \$57 million. Over 100 hours of full LCMR hearings were required before the final selection and adoption of the 47 projects recommended for 1985 funding from the Natural Resources Account.

The next page shows the program titles for the LCMR 1985 appropriation recommendations. The following several pages show which programs the Commission felt would more appropriately be considered as part of the regular budgets of the agencies.

Please see Appendix "A" for the complete listing of 1963-83 programs.

LCMR - Natural Resource Acceleration recommendations for
the 1985-87 biennium FY86-87

DEPARTMENT OF NATURAL RESOURCES

Water Allocation & Management	\$1,600,000	
Carrying Capacity	100,000	
Groundwater Investigations & Data Automation	800,000	
Glacial Drift Geochemistry	200,000	
Mineral Potential: Hibbing Core Repository	150,000	
Comprehensive Planning for Fish & Wildlife Resource	200,000	
Scientific and Natural Areas Planning	90,000	
Accelerated Land Exchange & Improved Land Management	435,000	
State Park Development, Major Rehabilitation	2,160,000	
Water Access Acquisition/Development & Fishing Piers	800,000	
Forest Recreation	475,000	
Forestry Management Information Systems	400,000	
Volunteer Management Intensification	195,000	
		7,605,000

POLLUTION CONTROL AGENCY

Soil and Watershed Acidification	160,000	
Lake Improvement Grant Program	70,000	
A study of Septic Tank/Drainfield Systems	190,000	
Groundwater Monitoring Techniques	150,000	
Leaking Underground Storage Tank Study	200,000	
Mercury in Northern Minnesota	135,000	
Household Hazardous Waste Collection Pilot Project	200,000	
Municipal Solid Waste Incinerator Evaluation	350,000	
		1,455,000

DEPARTMENT OF ENERGY AND ECONOMIC DEVELOPMENT

Recreation Grants Program	4,000,000	
Biomass Energy Cash Crop Project	350,000	
Demonstration Project for Heat Extraction from Groundwater for Public Buildings	150,000	
		4,500,000

UNIVERSITY OF MINNESOTA

Development of Biological Approaches to Lake Restoration	140,000	
Effects of Copper Sulfate Treatment on Lakes	75,000	
Research on River & Lake Management	190,000	
Lanesboro Watershed Management Techniques	255,000	
Age, Residence Times and Recharge Rates of Groundwater	100,000	
Quantitative Estimation of Minerals	390,000	
Aeromagnetic Survey & Subsurface Geologic Mapping	800,000	
Analysis of Cost Structures for Blast Furnace Steel Making Using Minnesota Taconite	50,000	
Anaplasmosis: Reservoirs, Transmission and Control	100,000	
Soil Survey & Automation Equipment	2,450,000	
Computer Modeling of Contaminant Spreading	200,000	
Biotechnology Applications in Forestry	250,000	
Assessment of Forest Product Development Opportunities for Minnesota	200,000	
Underground Grain Storage for Minnesota	150,000	
Landfill Abatement Technology - Compost/Co-compost Education and Research	200,000	
		5,550,000

MINNESOTA HISTORICAL SOCIETY

Comprehensive Historic Preservation Planning	45,000	
Conservation of Historic Collections	100,000	
Environmental Oral History Series	100,000	
Historic Site Craft Program	100,000	
		345,000

DEPARTMENT OF HEALTH

Organic Chemicals Surveys	\$ 700,000	
Indoor Air Quality & Moisture Control in Buildings	200,000	
		900,000

DEPARTMENT OF AGRICULTURE

Evaluation of Soil and Water Conservation Information Assistance Programs	45,000	
Soil & Water Conservation Exhibit at FARMAMERICA	50,000	
		95,000

<u>LCMR ADMINISTRATION</u>	550,000	550,000
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<u>FEDERAL REIMBURSEMENT ACCOUNT</u>	1,000,000	1,000,000
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TOTAL \$22,000,000

Legislative Commission on Minnesota Resources

B.46 STATE CAPITOL

ST. PAUL, MINNESOTA 55155

(612) 296-2406



ROBERT E. HANSEN
EXECUTIVE DIRECTOR

September 4, 1984

The Honorable Rudy Perpich
Governor of Minnesota
Room 130, Capitol Building
St. Paul, Minnesota 55155

Dear Governor Perpich:

The Legislative Commission on Minnesota Resources (LCMR) has finalized its recommendations for Natural Resource Acceleration appropriations for the 1985-87 biennium. A copy of these recommendations is attached for your information.

It became apparent to the Commission during their review of the 120 proposals received that a number of them should be part of the requesting agencies regular operations. The LCMR wishes to bring these programs to your attention for consideration during your budget preparation. These programs are as follows:

Department of Natural Resources

Evaluation of Mosquito Control Activities, \$100,000

Minnesota Peatland Ecologic and Hydrological Study, \$190,000

Management Information Systems Project, \$1,720,000

Accelerated Land Exchange and Improved Land Management, \$160,000. For the conversion of two positions currently funded by LCMR to work in land sales, exchanges and leases.

Department of Corrections

Cooperative Land Management Program, \$132,500
(Cooperative project with the Department of Natural Resources)

State Planning Agency

Computerization of Wetlands Inventory, \$525,200

Microcomputers in Resource Management, \$200,000

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The Honorable Rudy Perpich
Page 2
September 4, 1984

Department of Agriculture

Agricultural Land Preservation and Conservation, \$435,500

Conservation Tillage Demonstration Program, \$304,000

We appreciate your consideration of this matter.

Sincerely,

Clarence M. Purfeerst

Senator Clarence M. Purfeerst,
Chairman, LCMR

CMP/mlk

cc: Senator Gerald L. Willet, Chairman, Senate Finance Committee
Rep. James Rice, Chairman, House Appropriations Committee
Senator Carl Kroening, Chairman, Senate State Dept. Committee
Rep. Phyllis Kahn, Chair, House State Dept. Committee
Beth Lehman
Dick Diercks
Doug Watnemo
Commissioner Jim Nichols, Agriculture
Orville Pung, Corrections
Members LCMR

Legislative Commission on Minnesota Resources

B-46 STATE CAPITOL

ST. PAUL, MINNESOTA 55155

(612) 296-2406



ROBERT E. HANSEN
EXECUTIVE DIRECTOR

September 5, 1984

Mr. C. Peter Magrath, President
University of Minnesota
202 Morrill Hall
100 Church Street S. E.
Minneapolis, Minnesota 55455

Dear Mr. Magrath:

At budget meetings on August 15 and 31st, 1984, the Legislative Commission on Minnesota Resources elected not to fund the top priority project submitted by the Mineral Resources Research Center. The project request was for \$562,000 to initiate a continuing program in Reduction Technology. A major reason for denying LCMR funding was that the project was considered to be part of the basic MRRC mission and should have continuing funding via the MRRC state special.

The Commission therefore adopted a recommendation that the Board of Regents include an additional \$562,000 in the 1985 University budget request for the Mineral Resources Research Center state special for this purpose.

This action is consistent with the LCMR function of identifying critical areas for seed funding in a wide range of resource issues and thereafter to encourage continuation via funding through regular institutional channels. The state has a critical need for the restoration of MRRC base line funding to support a continuing long-term minerals research effort at a programmatic level at least equivalent to that of the early 1970's, and our resolution contributes to this objective.

Your favorable consideration of this recommendation will be greatly appreciated and will receive our active support during the legislative session. We would also appreciate your early advise on the relevant actions taken at the September Regents' meeting.

Sincerely,

Handwritten signature of Clarence M. Purfeerst in cursive script.

Senator Clarence M. Purfeerst,
Chairman, LCMR

CMP/mlk

cc: Hon. Lauris D. Krenik, Chairman
Hon. Charles F. McGuiggan, Vice Chairman

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Mr. C. Peter Magrath, President
Page 2
September 5, 1984

cc: Hon. Duane Wilson, Secretary
Hon. Charles H. Casey
Hon. William B. Dosland
Hon. Willis K. Drake
Hon. Erwin L. Goldfine
Hon. Wally Hilke
Hon. David M. Lebedoff
Hon. Verne Long
Hon. Wenda W. Moore
Hon. David K. Roe
Hon. Mary T. Schertler
Rep. James Rice, Chrm. House Appropriations Committee
LCMR Commission Members:

Sen. Howard Knutson
Sen. William Luther
Sen. Gene Merriam
Sen. Roger D. Moe
Sen. Earl Renneke

Rep. Tony Bennett
Rep. Douglas Carlson
Rep. Henry Kalis
Rep. Lona Minne
Rep. Willard Munger
Rep. Fred C. Norton

Legislative Commission on Minnesota Resources

B-46 STATE CAPITOL

ST. PAUL, MINNESOTA 55155

(612) 296-2406



ROBERT E. HANSEN
EXECUTIVE DIRECTOR

September 4, 1984

Mr. C. Peter Magrath, President
University of Minnesota
202 Morrill Hall
100 Church Street S. E.
Minneapolis, Minnesota 55455

Dear Mr. Magrath:

The Legislative Commission on Minnesota Resources (LCMR) has finalized its recommendations for Natural Resource Acceleration funding for the 1985-87 biennium.

During our review of the 120 proposed projects it became apparent to the Commission that the Computer Models for Flood and Aquifer Problems proposal by the St. Anthony Falls Hydraulics Laboratory should be part of that agency's regular operation. The LCMR wishes to bring this program to your attention for consideration during your budget preparation.

We would appreciate being informed of the action taken concerning this project by the Regents at the September budget meeting.

Sincerely,

Clarence M. Purfeerst
ji

Senator Clarence M. Purfeerst,
Chairman, LCMR

CMP/mlk

cc: Hon. Lauris D. Krenik, Chairman
Hon. Charles F. McGuiggan, Vice Chairman
Hon. Duane Wilson, Secretary
Hon. Charles H. Casey
Hon. William B. Dosland
Hon. Willis K. Drake
Hon. Erwin L. Goldfine
Hon. Wally Hilke
Hon. David M. Lebedoff
Hon. Verne Long

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Mr. C. Peter Magrath, President
Page 2
September 4, 1984

cc: Hon. Wenda W. Moore
Hon. David K. Roe
Hon. Mary T. Schertler
Rep. James Rice, Chrm. House Appropriations Committee
LCMR Commission Members:

Sen. Howard Knutson
Sen. William Luther
Sen. Gene Merriam
Sen. Roger D. Moe
Sen. Earl Renneke

Rep. Tony Bennett
Rep. Douglas Carlson
Rep. Henry Kalis
Rep. Lona Minne
Rep. Willard Munger
Rep. Fred C. Norton

Legislative Commission on Minnesota Resources

B-46 STATE CAPITOL

ST. PAUL, MINNESOTA 55155

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ROBERT E. HANSEN
EXECUTIVE DIRECTOR

September 4, 1984

Mr. C. Peter Magrath, President
University of Minnesota
202 Morrill Hall
100 Church Street S. E.
Minneapolis, Minnesota 55455

Dear Mr. Magrath:

The Legislative Commission on Minnesota Resources (LCMR) has finalized its recommendations for Natural Resource Acceleration funding for the 1985-87 biennium.

During our review of the 120 proposed projects it became apparent to the Commission that the County Geologic Atlas proposal by the Minnesota Geologic Survey should be part of that agency's regular operation. The LCMR wishes to bring this program to your attention for consideration during your budget preparation.

We would appreciate being informed of the action taken concerning this project by the Regents at the September budget meeting.

Sincerely,

A handwritten signature in cursive script that reads "Clarence M. Purfeerst".

Senator Clarence M. Purfeerst,
Chairman, LCMR

CMP/mlk

cc: Hon. Lauris D. Krenik, Chairman
Hon. Charles F. McGuiggan, Vice Chairman
Hon. Duane Wilson, Secretary
Hon. Charles H. Casey
Hon. William B. Dosland
Hon. Willis K. Drake
Hon. Erwin L. Goldfine
Hon. Wally Hilke
Hon. David M. Lebedoff
Hon. Verne Long

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Mr. C. Peter Magrath, President

Page 2

September 4, 1984

cc: Hon. Wenda W. Moore
Hon. David K. Roe
Hon. Mary T. Schertler
Rep. James Rice, Chrm. House Appropriations Committee
LCMR Commission Members:

Sen. Howard Knutson

Sen. William Luther

Sen. Gene Merriam

Sen. Roger D. Moe

Sen. Earl Renneke

Rep. Tony Bennett

Rep. Douglas Carlson

Rep. Henry Kalis

Rep. Lona Minne

Rep. Willard Munger

Rep. Fred C. Norton

CUMULATIVE LIST OF LCMR FUNDED PROGRAMS
1963 - 1983

A-1

CUMULATIVE LIST OF LCMR PROJECTS 1963 TO 1983

Recreation	1963	1965	1967	1969	1971	1973	1975	1977	1979	1981	1983	TOTAL
State Park Acquisition	\$1,857,609	\$1,264,445	\$1,000,000	\$2,500,000	\$2,000,000	\$1,705,000	\$2,850,000					\$13,177,054
State Park Development	1,531,000	1,249,450	890,000	1,825,000	1,750,000	1,965,500	1,536,000	\$1,433,250	\$6,889,000	\$1,408,000	2,609,000	23,086,200
State Forest Campground Development	100,000										800,000	900,000
River Studies/Planning		50,000			100,000	100,000	300,000	455,000	455,000	116,000	325,000	2,101,000
State Park Planning		75,000			10,000		387,500	579,592	600,000	500,000	220,000	2,372,092
Local and Regional Park Grants		1,000,000	1,976,000	6,500,000	9,769,500	8,840,000	8,500,000	8,000,000	8,000,000	5,000,400	3,500,000	61,085,900
Local and Regional Planning Grants					14,700	60,000		90,000				164,700
Tourism Promotional Material and Programs		50,000	50,000	50,000	50,000	50,200						250,200
Economic Impacts of Tourism Development			50,000									50,000
Vegetative Management Research in State Parks			30,960	60,000	25,000							115,960
Landscape Arboretum Acquisition			30,000									30,000
Cedar Creek Acquisition			103,000	45,650								148,650
State Trail Acquisition			65,000			570,000	800,000					1,435,000
Resort Reservation and Facility Identification System				30,000	23,000							53,000
Project 80 Report				50,000	50,000							100,000
Planning of State Zoo				500,000								500,000
Mississippi River Metro Corridor and St. Croix River Studies					35,000							35,000
Voyageurs National Park Seminar, Peripheral Plan, Advisory Committee							\$120,000	\$35,000				\$ 155,000
Planning & Development of Bike Trails					\$30,000							30,000
Lower St. Croix River Acquisition						310,000						310,000
Interpretive Services Program DNR						134,800						134,800
Lower St. Croix Management Plan						40,000						40,000
Rivers Acquisition							325,000					325,000
Scientific & Natural Area Acquisition							100,000					100,000
Upper St. Croix Project							93,900	\$750,000				843,900
Outdoor Recreation Act Implementation							70,000	85,000	65,000	74,000		294,000
Statewide Comprehensive Outdoor Recreation Plan								330,000	50,000			380,000
Public Access Acquisition and Development									500,000	1,000,000	1,480,000	3,480,000
Great River Road Grant									400,000			400,000
Rainy River Navigation										88,000		88,000
Upper Mississippi Plan Implementation Grant										160,000		160,000
Parks Info System											150,000	150,000
TOTAL	\$3,988,609	\$3,688,895	\$4,194,960	\$11,560,650	\$11,857,200	\$13,895,500	\$14,997,400	11,722,842	\$16,959,000	\$8,546,400	\$9,084,000	\$112,495,456

CUMULATIVE LIST OF LCMR PROGRAMS 1963 TO 1983

<u>Soil and Water</u>	<u>1963</u>	<u>1965</u>	<u>1967</u>	<u>1969</u>	<u>1971</u>	<u>1973</u>	<u>1975</u>	<u>1977</u>	<u>1979</u>	<u>1981</u>	<u>1983</u>	<u>TOTAL</u>
Red River Basin Study	\$70,000	\$70,000	\$35,000									\$175,000
Hydrologic Research	150,000	150,000	150,000	\$150,000	\$150,000	\$150,000						900,000
Watershed Improvements	150,000											150,000
Aquatic Nuisance Control Research		30,000										30,000
Water Resources Planning			60,500	50,000				\$657,674	\$288,000	\$262,000		1,318,174
Limnological Research			50,000	75,000	50,000	35,000						210,000
Groundwater/Irrigation Studies				9,000	84,666	50,000						143,666
Eagle Lake Pollution Control Project					35,000			75,090				110,090
Dam Inventory, Assessment and Repair					30,000	100,000	\$60,000					190,000
Chisago Chain of Lakes Study					10,000							10,000
Abandoned Well Program						10,600	11,000					21,600
Study of Lake Shore Development Trends			87,400	50,600						238,000		376,000
Weather Gauge Program							15,000					15,000
Mississippi River Study							50,000					50,000
Sediment & Erosion Control Grant Program							300,000	501,000				801,000
Southeast Minnesota Groundwater Contamination						86,240		145,673	76,000	60,000	90,000	457,913
Lake Improvement Grants								1,385,626	1,286,300			2,671,926
Water Use Data System									82,000	67,000	137,200	286,200
Red River Floodwater Retention Grants									\$1,062,800	\$768,000		\$1,830,800
River Mile Index									137,400			137,400
Well Log Data Base									204,500			204,500
County Ditch Study										35,000		35,000
Lake Classification Study										110,900		110,900
Groundwater Mgt.											300,000	300,000
Soil & Watershed Acidification											186,000	186,000
Groundwater Analysis Near Dumps											145,000	145,000
Survey Organics in Monitor Wells											100,000	100,000
Survey of Organics in Community Water Supplies											130,000	130,000
Computer Analysis of Contaminant Spreading											180,000	180,000
Research on River & Lake Mgt.											140,000	140,000
TOTAL	\$370,000	\$250,000	\$382,900	\$334,600	\$359,666	\$431,840	\$436,000	\$2,765,063	\$3,137,000	\$1,540,900	\$1,408,200	\$11,416,169

CUMULATIVE LIST OF LCMR PROGRAMS 1963 TO 1983

<u>Natural Resource Information</u>	<u>1963</u>	<u>1965</u>	<u>1967</u>	<u>1969</u>	<u>1971</u>	<u>1973</u>	<u>1975</u>	<u>1977</u>	<u>1979</u>	<u>1981</u>	<u>1983</u>	<u>TOTAL</u>
Topographic Mapping	\$100,000	\$940,000	\$1,000,000	\$910,000	\$750,000	\$1,060,000		\$628,000				\$ 5,388,000
Soils Survey and Mapping		50,000	60,000	40,000	48,000	100,000	\$100,000	1,037,000	\$1,545,400	\$1,863,000	1,850,000	6,693,400
State Land Use Planning		275,000				380,000		5,000	150,000	130,000		940,000
Aerial Photo Plan and Maps							160,000		150,000			310,000
Generalized Forest Maps							8,000					8,000
Remote Sensing						25,000		10,000	70,000			105,000
Minnesota Land Management Information System								110,000	350,000	210,000	150,000	820,000
Automated Reference System									80,000	136,000		216,000
TOTAL	\$100,000	\$1,265,000	\$1,060,000	\$950,000	\$798,000	\$1,565,000	\$268,000	\$1,790,000	\$2,345,400	\$2,339,000	2,000,000	14,480,400

<u>Fish and Wildlife</u>	<u>1963</u>	<u>1965</u>	<u>1967</u>	<u>1969</u>	<u>1971</u>	<u>1973</u>	<u>1975</u>	<u>1977</u>	<u>1979</u>	<u>1981</u>	<u>1983</u>	<u>TOTAL</u>
Wildlife Land Acquisition	\$400,000	\$400,000	\$475,000	\$500,000	\$500,000		\$250,000					\$2,525,000
Wildlife Area Development	200,000		150,000	250,000	250,000							850,000
Spawning Area Acquisition	150,000	325,000	300,000	50,000	50,000	\$56,000						931,000
Spawning Area Development	100,000		50,000	50,000	75,000	50,000						325,000
Duck Depredation Study			25,000									25,000
Lake of the Wood/Rainy Lake Research				25,000								25,000
Operation Pheasant				200,000	200,000	260,000	75,000					735,000
Deer Yard Acquisition						34,000						34,000
Stream Improvement						50,000						50,000
Artificial Walleye Spawning Reefs						40,000						40,000
Game Lake Management/ Heron Lake							200,000					200,000
Wildlife Management Area Inventory									\$58,600	\$147,000		205,000
Natural Heritage/Scientific & Natural Area Program									69,800	175,000	81,000	325,800
Wildlife Management Area Planning							142,500	223,300	80,900			446,700
Survey of Aquatic Invertebrates											45,000	45,000
TOTAL	\$850,000	\$725,000	\$1,000,000	\$1,075,000	\$1,075,000	\$490,000	\$667,500	223,300	\$209,300	\$322,000	\$126,000	6,763,100

<u>Minerals</u>	<u>1963</u>	<u>1965</u>	<u>1967</u>	<u>1969</u>	<u>1971</u>	<u>1973</u>	<u>1975</u>	<u>1977</u>	<u>1979</u>	<u>1981</u>	<u>1983</u>	<u>TOTAL</u>
Geologic & Mineral Mapping	\$200,000	\$75,000	\$140,000	\$160,000	\$232,000			\$100,000				\$ 907,000
Copper Nickel Study						\$100,000	\$920,000	2,042,000	\$133,400			3,195,400
Iron Range Information Analysis								100,000	50,000			150,000
Mines Directory								25,000				25,000
Copper Nickel Process Technology								400,000				400,000
Aeromagnetic Mapping		75,000						200,000	750,000	\$818,000	693,000	2,536,000
Heavy Metals Release Study									37,500			37,500
Uranium Information									25,000			25,000
Minerals Directory									20,000			20,000
Direct Reduction Technology Evaluation									115,000		98,000	213,000
Test Drilling Equipment										50,000		50,000
Environmental Technology										488,000		488,000
Cement Project Equipment										250,000		250,000
Evaluation of Mineral Potentials											170,000	170,000
Strategic Minerals Research											530,000	530,000
TOTAL	\$200,000	\$150,000	\$140,000	\$160,000	\$232,000	\$100,000	\$920,000	\$2,867,000	\$1,130,900	\$1,606,000	1,491,000	8,996,900

<u>Energy</u>	<u>1963</u>	<u>1965</u>	<u>1967</u>	<u>1969</u>	<u>1971</u>	<u>1973</u>	<u>1975</u>	<u>1977</u>	<u>1979</u>	<u>1981</u>	<u>1983</u>	<u>TOTAL</u>
Energy Extraction from Solid Waste						\$90,000						90,000
Alternative Energy Grants								\$550,000				550,000
Peat Inventory								250,000	\$193,000			443,000
Solar Technical Assistance									193,200			193,200
Timber and Wood Residue									105,200			105,200
Hydropower Development and Coordination									10,000	\$228,000	100,000	338,000
Ice Airconditioning									85,000			85,000
Engineering Geology of Twin Cities									100,000			100,000
Underground Space Design									173,400		10,000	183,400
Peat and Biomass Energy										57,000	300,000	357,000
Wind Energy Monitoring										44,000		44,000
Bagley District Heating										355,000		355,000
Industrial Cogeneration Potential											77,000	77,000
Combustion Turbine Capacity										85,000		85,000
Energy Impact Analysis										75,000		75,000
Solar Performance Monitoring										146,000		146,000
S.W. State College Environmental Program					\$50,000	\$50,000						100,000
Assesment of Alternative Energy Business											179,000	179,000
TOTAL					\$50,000	\$140,000		\$800,000	\$859,800	\$1,067,000	589,000	3,505,800

CUMULATIVE LIST OF LCMR PROGRAMS 1963 TO 1983

<u>Forestry</u>	<u>1963</u>	<u>1965</u>	<u>1967</u>	<u>1969</u>	<u>1971</u>	<u>1973</u>	<u>1975</u>	<u>1977</u>	<u>1979</u>	<u>1981</u>	<u>1983</u>	<u>TOTAL</u>
State Forest Acquisition												
Memorial Hardwood	\$300,000	\$350,000	\$200,000	\$350,000	\$350,000	\$400,000	\$350,000					\$2,300,000
Forest Road Development	300,000	325,000	150,000	100,000	100,000	114,000						1,089,000
Tree Nursery Production	200,000											200,000
Tree Planting on State Lands	300,000	215,000	100,000	100,000	100,000							815,000
Aerial Photography	100,000		25,000		25,000							150,000
Memorial Hardwood Forest Study		25,000										25,000
Nursery Modification - Refrigeration							75,000					75,000
Private Forest Management and Grants									\$502,000	\$563,000		1,065,000
Fire Management Analysis									162,400	170,000	195,000	527,400
Forest Planning and Information System										710,000	689,000	1,399,000
Forest Inventory										734,000	450,000	1,184,000
Forest Soils Specialization										132,000		132,000
TOTAL	\$1,200,000	\$915,000	\$475,000	\$550,000	\$575,000	\$514,000	\$425,000		664,400	\$2,309,000	1,334,000	\$9,761,400

<u>History</u>	<u>1963</u>	<u>1965</u>	<u>1967</u>	<u>1969</u>	<u>1971</u>	<u>1973</u>	<u>1975</u>	<u>1977</u>	<u>1979</u>	<u>1981</u>	<u>1983</u>	<u>TOTAL</u>
Historic Sites Program	\$80,000	\$235,704	\$266,052	\$287,803	\$280,000	\$345,000	\$695,000					\$2,189,559
Paleontological Archaeologic Programs		93,500	88,000	88,000	45,600	45,600						360,700
Fort Snelling Restoration		200,000	265,000	322,000	682,500	1,071,500	1,325,000	\$250,000				4,116,000
Grand Mounds Interpretive Center						150,000						150,000
Interpretive Center Plan							100,000					100,000
Forest History Interpretive Center							200,000					200,000
Statewide Archaeologic Survey								250,000	\$150,000	\$59,200		459,200
Iron Range Interpretive Program				75,000								75,000
Iron Range Interpretive Center						500,000						500,000
Conservation of Historic Collections											100,000	100,000
TOTAL	\$80,000	\$529,204	\$619,052	\$772,803	\$1,008,100	\$2,112,100	\$2,320,000	\$500,000	\$150,000	\$59,200	\$100,000	\$8,250,459

General Programs	CUMULATIVE LIST OF LO GRAMS 1963 TO 1983											
	1963	1965	1967	1969	1971	1973	1975	1977	1979	1981	1983	TOTAL
LCMR Administration	\$150,000	\$100,000	\$125,000	\$100,000	\$150,000	\$150,000	\$299,750	\$360,000	\$449,800	\$414,000	\$462,500	\$2,761,050
Administration of Cigarette Tax Collections (Dept. of Tax)	55,000	51,000	59,069									165,069
Fed. Reim. Acct./Contingency	50,000*		250,000*	725,000*		1,000,000*	1,000,000*	1,000,000*	2,000,000*	350,000*	1,132,800*	7,507,800
Purchase of Equipment		100,000										100,000
Iron Range Municipalities Planning Study		16,100										16,100
Public Land Evaluation			50,000							476,000	400,000	926,000
Bemidji State Environmental Center					14,278							14,278
Science Museum					7,496							7,496
Environmental Library, Minneapolis						100,000						100,000
Minnesota Environmental Education Council						100,000						100,000
Minnesota Bicentennial Committee						200,000						200,000
Environmental Review Program						37,500						37,500
DNR Long Range Plan								331,000	347,600	276,000		954,600
Land Record System								80,000		249,000	50,000	379,000
Natural Resource Data Systems, DNR										303,000	600,000	903,000
Volunteer Management Intensification											195,000	195,000
TOTAL	\$255,000	\$267,100	\$484,069	\$825,000	\$171,774	\$1,587,500	\$1,299,750	\$1,771,000	2,797,400	\$2,068,000	\$2,840,300	\$14,366,893

* Not all amounts appropriated were utilized for programs

Natural Resources Information	SUMMARY BY RESOURCE AREA OF LCMR PROGRAMS 1963 - 1983											
	1963	1965	1967	1969	1971	1973	1975	1977	1979	1981	1983	TOTAL
Natural Resources Information	\$100,000	\$1,265,000	\$1,060,000	\$950,000	\$798,000	\$1,565,000	\$268,000	\$1,790,000	\$2,345,400	\$2,339,000	\$2,000,000	\$14,480,400
Soil and Water	370,000	250,000	382,900	334,600	359,666	431,840	436,000	2,765,063	3,137,000	1,540,900	1,408,200	11,416,169
Recreation	3,988,609	3,688,895	4,194,960	11,560,650	13,857,200	13,895,500	14,997,400	11,722,842	16,959,000	8,546,400	9,084,000	112,495,456
Forestry	1,200,000	915,000	475,000	550,000	575,000	514,000	425,000		664,400	2,309,000	1,334,000	8,961,400
Fish & Wildlife	850,000	725,000	1,000,000	1,075,000	1,075,000	490,000	667,500	223,300	209,300	322,000	126,000	6,763,100
History	80,000	529,204	619,052	772,803	1,008,100	2,112,100	2,320,000	500,000	150,000	59,200	100,000	8,250,459
Energy					50,000	140,000		800,000	859,800	1,067,000	589,000	3,505,800
Minerals	200,000	150,000	140,000	160,000	232,000	100,000	920,000	2,867,000	1,130,900	1,606,000	1,491,000	8,996,900
General	255,000	267,100	484,069	825,000	171,774	1,587,500	1,299,750	1,771,000	2,797,400	2,068,000	2,840,300	14,366,893
TOTAL	\$7,043,609	\$7,790,199	\$8,355,981	\$16,228,053	\$18,126,740	\$20,835,940	\$21,333,650	\$22,439,205	\$28,253,200	\$19,857,500	\$18,972,500	\$189,236,577

FEDERAL REIMBURSEMENT ACCOUNT (M.S 76.72)

	<u>Amount Appropriated</u>	<u>Program Funded</u>	
1983	1,132,800	S.P.A. ORA Review	58,500
		S.P.A. Soils Automation	70,000
		U of M Underground Space Center	39,000
		S.M.M. Omni Max Film	150,000
1981	350,000	W.P.B. Water Planning Bd.	195,000
		S.P.A. System for Water Info. Mgt.	30,000
		U of M, SAFHL Turbine Test Stand	100,000
		S.M.M. Omni Max Film Feasibility	25,000
1979	2,000,000	LCMR Timber Study	480,000
		WPB Water Planning Bd.	288,000
		MEA Hydropower	32,000
1977	1,000,000	U of M Underground Space Center	50,000
		LCMR Jaakko Poyry	50,000
		LCMR Public Land Impact Study	35,000
		DNR Framework Water Plan	58,000
		Energy Agency Hydrocarbons Pilot	
		Program	150,000
		Water Planning Board	52,000
		U of M Underground Space Center	26,000
		LCMR Forestry Study	50,000
		LCMR Public Land Impact Study	25,000
		The Nature Conservancy Heritage	130,000
		DNR Forest Management Info. System	49,315
		DNR Forest Inventory - BWCA	201,920
		Water Planning Board	59,860
1975	1,000,000	S.P.A. North Shore Rec. Assmt.	37,000
		W.R.C. Framework Water Plan	149,009
		DNR Long Range Plan	92,614
		DNR Winter Recreation Survey	80,000
		DNR Peat-power Plant Fuel	29,670
		MEA Energy Plantations	40,706
		MEA Biochemical & Eng. Conversion Sys.	55,754
		MEA Earth Sheltered Bldg. Design	53,870
		MEA Solar Demonstration	20,000
1973	1,000,000	State Pk., Forest & Historic Site Dev	788,803
1971	(1)	State Pk. & Historic Site Dev.	822,622
		State Pk., Trail & Historic Site Acq	905,015
1969	725,000(2)	Dam Rehab.	945,499
		State Pk, Acq & Dev.	455,633
1967	250,000	State Pk. & Historic Site Acq.	241,274
1965	(1)	State Pk. Forest & Historic Site Acq	258,557
1963	50,000	State Park Dev.	48,353

(1) Amount provided from federal reimbursements

(2) Addition amounts provided through federal reimbursements

FEDERAL AND LOCAL FUNDING INVOLVING LCMR PROGRAMS

RECREATION

Land and Water Conservation Fund	\$ 52,263,000
Housing and Urban Development	14,000,000
Urban Park and Recreation	1,100,000
Great River Road	3,150,000
Upper Great Lakes Regional Commission	500,000
Economic Development Administration	3,050,000
Soil Conservation Service	500,000
U. S. Army Corps of Engineers	2,000,000
Local	37,800,000

WATER

Environmental Protection Agency - Lake Improvement	5,200,000
Water Resources Council - Water Planning	1,200,000
Local	1,300,000

NATURAL RESOURCES INFORMATION

Soil Conservation Service - Soils Survey	9,200,000
Local	3,150,000

ENERGY

Department of Energy - Peat/Alternative Energy	1,700,000
National Science Foundation - Peat	150,000

MINERALS

U. S. Geologic Survey	150,000
Department of Energy	175,000
National Academy of Science - Seismic Profile	500,000

HISTORY

Department of the Interior	1,250,000
National Endowment for the Humanities	75,000

TOTAL	\$138,413,000
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These figures are approximations and are presented to provide an understanding of how LCMR appropriations have been used to leverage federal dollars for the benefit of Mn.

Total LCMR appropriations 1963-1983	\$189,236,000
Total federal and local funding involving LCMR programs	<u>138,413,000</u>
GRAND TOTAL	\$327,649,000