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Date of Report: November 1, 1999

Project Completion Date: June 30, 1999

LCMR WORK PROGRAM 1997

This project will sustain lake resources through the development of an inexpensive and easily transferable comprehensive lake planning process and increase the effectiveness and efficiency of public lake managers by training private land owners on the standards and purposes of public regulations.

I. PROJECT TITLE: SUSTAINABLE LAKES PLANS, Project Number B2

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Total Biennial Project Budget: LCMR: \$270,000
Balance 0

A. Legal Citation: ML1997 [Chap. 216], Sec [15], Subd. [6(f)]

Prop. Appropriation Language: Sustainable Lake Plan

This appropriation is from the trust fund to the University of Minnesota, Center for Urban and Regional Affairs, in cooperation with the Minnesota Lakes Association, to develop education programs and a comprehensive lake plan in each of the state's five lake regions.

B. Status of Match Requirement: none

II. PROJECT SUMMARY RESULTS

This project has contributed to sustaining lake resources through the development of an inexpensive and easily transferable comprehensive lake planning process and increased the effectiveness and efficiency of local and state lake managers by developing and making available through a guidebook and webpage a process of training lake association representatives on lake management regulations and have them teach and advise their lake neighbors. The project was directed by a steering committee made up of one representative of each pilot lake and members of the Minnesota Lakes Association Board of Directors and Advisory Committee. The technical advisory committee to the project is the Interagency Lakes

Coordinating Committee. The pilot lakes were selected by the project Advisory Committee using criteria supplied by the Interagency Lakes Coordinating Committee.

A.. Comprehensive Lake Plans

The Minnesota Lakes Association has developed five pilot lake comprehensive plans. From the five pilot plans a planning format package has been developed that other lakes can follow to develop additional new plans. The plans attempt to answer the key question: *What should each of the pilot lakes look like in two generations?* The plans are broad based and cover land use, water management, and water quality issues. The plans follow the sustainable development format developed through application in central Minnesota and required extensive participation of the host lake association, county COLAs and local water planning program. The five lakes selected cover a representative sample of the different problems and opportunities.

One lake from each of the following regions was selected:

Arrowhead	Deer Lake, Itasca County
North Central	Kabekona Lake, Hubbard County
Central	Cross/Whitefish Lake, Crow Wing County
West	Clitheral Lake, Ottertail County
Metro Fringe	Sugar Lake, Wright County

The plans are designed so lake associations working through the local government water planning process can continuously evaluate and update plans. By using the planning guidebook developed from the pilot lake plans other lakes can collect the data needed to develop additional plans.

B. Training of Lake Association Representatives

Lake association volunteer trainees (shoreland volunteers) serve the public interest through the sharing of information, knowledge, and skills so that we all become more effective stewards of our lake resources.

The program can be a partnership among state and local government agencies and governmental units, especially local planning and zoning, businesses, and citizens. The volunteers can receive extensive training and user-friendly information on shoreland best management practices, regulations and rationale for regulations, and administrative procedures affecting lakeshore property and the lake. The volunteers can serve as information resources in their lakeshed for the public and other landowners. Records of activities and contracts can be kept by the volunteers for continuing improvement of the program.

III. PROGRESS SUMMARY

A. Comprehensive Lake Plans

The five pilot lakes have been selected and a draft lake management plan outline prepared. The lake management plan outline has been developed from a national and international search for models combined with the central Minnesota and Manitoba Sustainable Development planning process.

The plan outline calls for data collection and analysis in two areas: physical resources, and user patterns and desires. The physical resource database has been assembled by a team from the Minnesota Department of Natural Resources, St. Thomas University, the Science Museum of Minnesota, and CURA staff. The resulting GIS databases for each lake are linked to ongoing state and local government

programs to assure ease of expansion to other lakes and updating the database. Databases of the five lakes and their surrounding watersheds are now operational. This part of the project has been moved to the MapLab of the Science Museum where it has been used as the pilot project to develop and make the MapLab operational. A spinoff from this effort will result in a program to be operational by January 1, 2000 to allow any lake watershed in the state to automatically reproduce a watershed atlas at the Science Museum at a fee of under \$1,000.00. The new MapLab coordinator is a graduate student trained on the Sustainable Lakes Project.

With encouragement of the steering committee, a major new data item was added to the project. A parcel database was created for each shoreland owner. Parcel maps have been completed for Kabakona, Clitheral, Sugar, and 1/2 of the Whitefish chain. A program to model parcels from 911 data has been written.

Information collection on user patterns and desires was developed by CURA and the Cooperative Park Studies Unit in the Forest Resources Department.

A survey instrument for each lake has been completed. Because each pilot lake is by design representing a different region of the state, some questions are specific to each lake. The participating lake association has final editorial control. The project has sent questionnaires to the shoreland residents of all five lakes. The overall return rate was greater than 50 percent and analysis of all five lakes has been completed. Detailed directions to modify this questionnaire for any lake are included in the planning guidebook.

The lake planning guidebook has been developed and is now in the process of being formatted for printing and inclusion on the MLA website. It will be provided in CD rom by Extension. The guidebook is being used by eight lake associations who are receiving funding from the Central Minnesota Foundation.

B. Training of Lake Association Representatives

Two products to facilitate training have been completed: 1) a lake education guidebook and 2) an online bibliography of lake management and planning resources (www.mnlake.org).

The initial intent of the project was to restart the Lake Advocate Program. It soon became apparent that many successful programs were spawned from lake advocates and were still operating. So rather than restart the Lake Advocate Program, we created a work group from all the programs and designed a new coordinated project. The work group has reached a consensus and designed the following program.

SHORELAND VOLUNTEER PROGRAM

Goal Statement: To improve shoreland management through a network of educated (trained?) volunteers.

Objectives/Guiding Principles

The Shoreland Volunteer Program will:

1. Have statewide coordination and consistency of curricula, materials, and goals.
2. Train volunteers to serve as leaders and catalysts for action.
3. Be locally driven with support from resource managers (state, federal, and local level).
4. Be self-sustaining locally, building a local network of experience and expertise.
5. Be based on natural resource goals, focusing on locally-identified issues and solutions.
6. Produce trained volunteers who stay involved for a certain period of time.

7. Have a stable source of funding.
8. Be inclusive of all partners that can strengthen the program.
9. Include appropriate assessment/evaluation at the state and local levels to determine whether the program is achieving its goals and objectives.
10. Consider opportunities such as targeting the program for special audiences (e.g. elected and appointed decision-makers, realtors, financial managers, contractors); expanding beyond the state; developing educational materials; charging for services. etc.

A final report has been completed. It includes detailed goals and objectives, coordinator job description, and detailed budget.

Organizational Structure

The program will be organized through MLA by a statewide coordinator, with support from technical and policy advisory committees. The MLA lake initiative proposes to continue the program. Both public and private funding sources are being solicited to carry this part of the work program forward.

The technical advisory committee will be the Interagency Lakes Coordinating Committee. The policy advisory committee will be the Minnesota Lakes Association.

Assessment/Evaluation

Appropriate evaluation of program success, changing needs, and new opportunities will be used to refine and improve the program. Program assessment has been conducted by a neutral, outside consultant to focus the program most effectively and help design a continuing assessment program. The results of the evaluation were used to assist in planning a comprehensive series of education programs that is funded through a special \$100,000 appropriation given to Agricultural Extension with BWSR oversight. The Sustainable Lake project coordinator has been included on the oversight committee of this education project. However, the Extension program has now been redefined and will produce a CD rom product containing education materials from the MLA website bibliography and other existing publications.

IV. OUTLINE OF PROJECT RESULTS

A. Comprehensive Lake Plans

Result 1:	Develop lake plan outline	July - Nov. 1997 (completed)
Result 2:	Selection of pilot lakes	March - Aug. 1997 (completed)
Result 3:	Develop lake plans	July 1997 - <u>Oct 99 (completed)</u>
Result 4:	Develop lake planning format package	Aug. 1998 - June 1999 (<u>completed</u>)

Budget:

	July 1995 - 1997 Prior expenditures on this project	July 1997 - 1999 expenditures on this project	July 1999 - 2001 Future expenditures on this project
LCMR	\$0	\$220,000	\$0
Other state	0	0	\$50,000 (local water planning)
Non-state cash	0	0	\$50,000 (MLA)
TOTAL	0	\$220,000	\$100,000

Budget overview information:

Result 1:	Develop lake plan outline	\$ 20,000
Result 2:	Selection of pilot lakes	5,000
Result 3:	Develop lake plans	150,000 (\$30,000 per lake)
Result 4:	Develop lake planning <u>guidebook</u> package	<u>45,000</u>
	TOTAL	\$220,000

Expenditures July 1, 1997 – June 30, 1999:

Result 1:	\$20,000	completed
Result 2:	5,000	completed
Result 3:	150,000	completed
Result 4:	45,000	completed
Balance:	0	

B. Training of Lake Association Representatives

Result 1:	Review and evaluate past programs and materials in cooperation with the Water Resources Research Center	July 1, 1997 – August 15, 1998
Result 2:	Adapt, combine, and create new products and training materials	June 30, 1998 - Dec. 31, 1998
Result 3:	Implementation to pilot lakes	July 1, 1998 - June 30, 1999
Result 4:	Evaluation, adjustment, and implementation	Jan. 1, 1998 - June 30, 1999

Budget:

	July 1995 - 1997 Prior expenditures on this project	July 1997 - 1999 expenditures on this project	July 1999 - 2001 Future expenditures on this project
LCMR	\$0	\$50,000	\$0
Other state	0	\$100,000	\$5,000
Non-state cash	0	0	\$20,000
TOTAL	0	\$150,000	\$25,000

A fee schedule is being contemplated to assure that this program will continue after 1999. Counties, lake associations, and COLAs will be contracted for financial assistance to assure continuity.

Budget overview information:

Other:	Result 1:	Review/evaluation	\$ 10,000
	Result 2:	Create new products	15,000
	Result 3:	Involvement program	12,500
	Result 4:	Evaluation & program expansion	<u>12,500</u>
		TOTAL	\$50,000

Expenditures July 1, 1997 – June 30, 1999:

Result 1:	\$10,000
Result 2:	15,000
Result 3:	<u>12,500</u>
Result 4:	<u>12,500</u>
Balance	0

V. DISSEMINATION

1. Internet web site.
2. Letters, phone calls, personal visits to county water plan coordinators, and other entities to extend invitation to participate.
3. Brochures and promotional information to lake associations, coalitions, watershed districts, etc. (principal document is the MLA newsletter)
4. MLA, COLA, constituencies
5. State agencies (BWSR - lead coordinator)
6. University of Minnesota Extension Service (CD rom in production)
7. Publishing of guidebook in both hard cover and available free on the MLA website

VI. CONTEXT

A. Significance

Outstate growth and most outdoor recreation activities are concentrated around Minnesota's lake resources. The first large LCMR-funded research project centered on Minnesota lakes and directly led to the passage of the Shoreland Management Act, one of the first major pieces of environmental legislation. Since this work was completed in 1970, the amount of lakeshore development has almost tripled and is continuing at a high rate. Because of major technological changes now evolving (computers, faxes, internet), our lake regions are fast becoming a new form of urban area. There is a strong need to plan and sustain these regions and properly educate the residents who live and visit them.

The Comprehensive Lake Plans create a framework within which major local infrastructure developments can follow, and help prioritize other public management efforts.

The education effort long term result will be to protect and enhance the quality of our lake resources by helping local landowners and other water resource users gain a better understanding of watersheds and land use regulations. The extensive training of volunteers helps them to supply information to reduce the complexity of watershed management and good stewardship and reduce the time public regulators spend on managing development proposals.

B. Time

Both lake plans and lake association volunteers will continue after June 30, 1999. The planning process will work through MLA and the local water planning program. Volunteers will continue under the coordination of MLA.

C. Budget Context

Past and future budgets are shown in section II - Project Summary and Results.

Budget History

Related Lake Plans	LCMR	
	1967 Lakeshore Study	\$90,000
	1975 Ramsey County Lake Management Plan (MLMIS research project match)	12,000
	1981 Lakeshore Update	270,000
	1991 Local GIS (international coalition)	120,000

Total Budget:

Personnel	\$70,000
Equipment	3,500
Consultants	150,000
Printing/products	30,000
Misc./travel	<u>16,500</u>
TOTAL	\$270,000

VII. COOPERATION

- Board of Water and Soil Resources: local water planning, wetlands
- Minnesota Department of Natural Resources: training, waters, fisheries, trails, and waterways, regulations
- Minnesota Pollution Control Agency: training, water quality information, Citizens Lake Monitoring Program, regulations
- Local planning and zoning entities (county, township, cities): training, local zoning information, wetlands
- Sheriff's Departments: boat and water safety
- COLAs and Lake Associations: support and continuity
- University of Minnesota Extension Service: educational information and BMPs
- Wisconsin Lake Association documents
- Ontario Lake Association documents

VIII. LOCATION

IX. REPORTING REQUIREMENTS