

**1997 Project Abstract
For the Period Ending June 30,1999**

This appropriation is from the Future Resources Fund to the Commissioner of Natural Resources for an agreement with Ramsey County Parks and Recreation Department for a cooperative project including environmental learning centers, counties, and school districts to prepare, pilot, and disseminate information on successful implementation of the Minnesota Green Print Plan on Environmental Education.

PROJECT TITLE: Green Print Success - Partnering for Kids and the Environment
PROJECT MANAGER: Mary (Jody) Yungers
ORGANIZATION: Ramsey County Parks and Recreation Department
MAILING ADDRESS: 2015 North Van Dyke Street
Maplewood, MN 55109
TELEPHONE NUMBER: (612) 748-2500, ext. 344
FAX: (612) 748-2508
WEB SITE ADDRESS: N/A
LEGAL CITATION: ML 97, Ch. 216, Sec. 15, Subd. 13 (j).
APPROPRIATION AMOUNT: \$136,000

Statement of Objectives

The GreenPrint Success project partners teams of educators and environmental education specialists (naturalists) from five school districts and four nature centers to cooperatively develop and implement a curriculum adaptation and planning process that ties out-of-classroom studies more closely to the school districts' environmental education goals and the Minnesota State Graduation Standards. The teacher/naturalist teams will "identify and integrate common environmental education concepts/goals and outcomes for and between schools and environmental education centers".

The teacher/naturalist teams will 1) design and develop interactive inquiry-based units of instruction that meet the State Graduation Standards; 2) provide teachers with "user friendly" units of instruction designed to help teachers integrate environmental education into their curriculum; and 3) develop classroom resource trunks which assist teachers in preparing student prior to visiting the nature center.

Overall Project Results

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 approximately 3600 students to integrated environmental education programs that improves environmental literacy.

Project Results Use and Dissemination

An "Educators' Guide" was developed by participating teachers and naturalists to assist others in developing a program for environmental education; a video was produced to illustrate the program in action, and a web site has been developed to allow internet access for all teachers and naturalists to the "Educators' Guide". The dissemination committee has identified speaker/presenter teams of naturalists, teachers and students who will conduct five informational workshops throughout the state the fall of 1999.

DATE OF REPORT: July 1, 1999

JUL 01 1999
JUN 01 1999

LCMR FINAL WORK PROGRAM UPDATE REPORT:

DATE OF WORK PROGRAM APPROVAL:

PROJECT COMPLETION DATE: June 30, 1999

I. Project Title: Green Print Success - Partnering for Kids and the Environment
Project Manager: Mary (Jody) Yungers
Affiliation: Ramsey County Parks and Recreation Department
Mailing Address: 2015 North Van Dyke Street
Maplewood, MN 55109

Telephone Number: (612) 748-2500, ext. 344
Fax: (612) 748-2508
Web Site Address: N/A

Legal Citation: ML 97, Ch. 216, Sec. 15, Subd. 13 (j).

Appropriation Language:

This appropriation is from the Future Resources Fund to the Commissioner of Natural Resources for an agreement with Ramsey County Parks and Recreation Department for a cooperative project including environmental learning centers, counties, and school districts to prepare, pilot, and disseminate information on successful implementation of the Minnesota Green Print Plan on Environmental Education.

Total Biennial Project Budget: TOTAL PROJECT BUDGET **\$ 136,000**

\$ LCMR	\$136,000.00
\$ LCMR Amount Spent:	\$136,000.00
\$ LCMR Balance:	\$ 0.00

Status of Match Requirement: No match was required for legislative appropriation. In order to implement the full scope of the project, additional financial contributions will be necessary. Currently this project has received a Medtronic Challenge Grant in the amount of \$17,500 with the understanding the project committee would raise the matching \$17,500. In addition, this project has been awarded a \$5,000 Planning Grant from the Blandin Foundation. Further fundraising efforts will be made in order to support full implementation of the project.

WORK PROGRAM UPDATE AS OF APRIL 30, 1998:

In addition we have received a \$10,000 grant from H.B. Fuller, \$2,000 from Ramsey Soil and Water Conservation District and Eisenhower/Graduation Standards planning money from St. Paul School District #625, Mounds View School District #621, and White Bear Lake School District #624 in the amount of \$15,500. We have currently spent \$27,845 of grant contributions outside of LCMR.

WORK PROGRAM UPDATE AS OF DECEMBER 14, 1998:

We have received an additional \$5,000 from the Blandin Foundation and have additional grant fundraising to accomplish in the amount of \$40,000. We have currently spent \$ 40,143 of grant contributions outside of LCMR.

LCMR FINAL WORK PROGRAM UPDATE REPORT:

We have received an additional \$5,000 from the Blandin Foundation.

II. PROJECT SUMMARY AND RESULTS

A consortium of environmental learning centers and school districts has successfully piloted and implemented a project with the intent to identify and integrate common environmental education concepts/goals and outcomes for and between schools and environmental education centers. A cooperative model was developed whereby teams of naturalists and teachers contributed to the selection and development of environmental education units of instruction.

This project expands and further pilots the work of the EEC with the intent to share and disseminate the projects successful approach in implementation of the Minnesota Green Print Plan.

The EEC will:

- 1) Conduct monthly meetings, with consortium board members and teachers, in order to direct and manage project development and implementation.
- 2) Replicate and disseminate the success of the pilot project by utilizing the expertise of the first year pilot project teachers and naturalists to train and build new teacher teams. Expand the pilot project teams to include 54 teachers, 10 naturalists and a RELC.
- 3) Conduct teacher/naturalist training sessions on the cooperative planning model in an effort to educate teachers and naturalists on a three-tier inter-governmental approach to delivering environmental education which best utilizes the expertise of the staff and natural resources near and around schools and nature centers.
- 4) Design and develop interactive inquiry-based units of instruction that meet the State Graduation Standards.
- 5) Provide teachers with "user friendly" units of instruction designed to help teachers integrate environmental education into their curriculum.

- 6) Involve approximately 3,700 students, teachers and parents in hands-on, interdisciplinary environmental education activities at schools and day and residential nature centers which fosters inquiry-based learning, environmental awareness and stewardship.
- 7) Disseminate the Cooperative Planning Model results through statewide educational conferences, publications, and the SEEK network.
- 8) Develop an "Educators Guide for Cooperative Planning in Environmental Education" and disseminate statewide.

PROGRESS SUMMARY: N/A

IV. OUTLINE OF PROJECT RESULTS

Result 1: Expansion of EEC Pilot Project teams to include 54 teachers and 10 naturalists and one RELC

\$ LCMR Budget: \$108,000.00
\$ LCMR Amount Spent: \$108,000.00
\$ Budget Balance: \$ 0.00

Activity #1: The Environmental Education Consortium (EEC) will expand its current team of educators and environmental education specialists to include five school districts, four day use nature centers and one residential environmental learning center. Members of the EEC project team will include:

Environmental Education Centers

- Tamarack Nature Center, Ramsey County Parks and Recreation Department
- Wargo Nature Center, Anoka County Parks and Recreation Department
- Harriet Alexander Nature Center, Roseville Parks and Recreation Department

School Districts

- Mounds View School District (ISD 621)
- Roseville School District (ISD 623)
- White Bear School District (ISD 624)
- St. Paul School District (ISD 625)
- Centennial School District (ISD 12)

Residential Environmental Learning Center

- Laurentian, Mounds View School District (ISD 621)

Activity Time Line:	Year #1	July 1997 - September 1997
	Year #2	May 1998 - September 1998

\$ LCMR Budget: \$ 10,880

The EEC Committee will:

- Develop an informational packet to be used to solicit involvement and participation from additional teachers within the five school districts.
- Set up project informational meetings with prospective cooperative schools/teachers.
- Review and accept applications from interested teachers on EEC projects.
- Solicit commitment letters from participating organizations requesting permission for teachers and naturalists to participate in the project.
- Conduct teacher training on project philosophy and goals and objectives.

WORK PROGRAM UPDATE AS OF APRIL 30, 1998:

The Environmental Education Consortium (EEC) has formalized the project team to include five school districts, three day use nature centers and one residential environmental learning center. Teacher training has been provided on the project philosophy, goals and objectives. A mid-project evaluation was conducted in January 1998 which included participating teachers and naturalists.

WORK PROGRAM UPDATE AS OF DECEMBER 14, 1998:

The year end evaluation meeting was held in May of 1998. The evaluation involved first year pilot teachers and naturalists to discuss project successes and suggested changes for improvement. In addition there was a full discussion on the future sustainability and buy-in to the cooperative planning model.

A second year kick-off meeting was held in September of 1998. Year two of this project involves 17 teacher/naturalist teams who are developing and implementing integrated environmental education programs into their kindergarten through twelfth grade classrooms.

Activity #2: The EEC Committee will work cooperatively with the teacher/naturalist teams on program development.

Activity Time Line:	Year #1	August 1997 - March 1998
	Year #2	May 1998 - March 1999

\$ LCMR Budget: - \$ 10,680

The EEC Committee has:

- Conducted monthly meetings, with consortium board members and teachers, in order to direct and manage project development and implementation. (Teacher stipends will be awarded for planning committee participation).
- Utilized the expertise of participating teachers and naturalists in the development of interdisciplinary units of instruction which are designed to integrate environmental education into existing curriculum. (teacher/naturalist stipends will be awarded for program planning).

- Utilized the natural resources provided within and around schools, at nature centers and RELC's.
- Developed interactive inquiry-based programs that meet the State Graduation Standards.
- Purchased, designed and developed interactive educational trunks to be used as resource kits for teachers and naturalists for outreach and in-classroom programs. Kits will include an instructional manual with essential resources to conduct lessons, i.e., art projects, books, videos, natural artifacts games and hands-on materials.

WORK PROGRAM UPDATE AS OF APRIL 30, 1998:

The EEC Committee has partnered naturalist/teacher project teams which have developed fall and winter units of instruction which:

- Utilized the expertise of participating teachers and naturalists in the development of interdisciplinary units of instruction which are designed to integrate environmental education into existing curriculum.
- Utilized the natural resources provided within and around schools and at nature centers.
- Developed interactive inquiry-based programs that meet the State Graduation Standards.
- Utilized resource trunks designed to aid teachers and naturalists in further enhancement of the learning experience.

WORK PROGRAM UPDATE AS OF DECEMBER 14, 1998:

The EEC Committee has partnered naturalist/teacher project teams, which have developed 45 different fall, winter and spring units of instruction for K – 8 grades, tying to the state graduation standards.

LCMR FINAL WORK PROGRAM UPDATE REPORT:

Partnering naturalist/teacher teams have piloted and implemented 45 fall, winter and spring units of instruction.

Activity #3: The EEC Committee will work cooperatively with the teacher/naturalist teams on program implementation.

Activity Time Line:	Year #1	December 1997 - June 1998
	Year #2	September 1998 - June 1999
\$ LCMR Budget:	\$30,960	

The EEC Committee will:

- **Year #1 (September 1997 - June 1998)** The 18 suburban teachers who participated in Phase I of the EEC pilot project will be partnered with 18 new teachers from within the St. Paul School District to implement the environmental units-of-instruction to approximately 1296 students (36 classes x 36 students)

WORK PROGRAM UPDATE AS OF APRIL 30, 1998:

The EEC teacher/naturalist project teams have piloted the developed units of instruction for 17 classrooms, reaching approximate 600 students.

- **Year #2 (September 1998 - June 1999)** The newly trained teacher from year #1 of the project will be partnered with 18 new teachers from within the St. Paul and suburban school districts. The environmental units-of-instruction will be further piloted to approximately 1296 additional students.

The units-of-instruction will include:

- pre and post activities in the classroom or on school site; and
- a visit to school by naturalist (outreach); and
- a visit to the nature center.

LCMR FINAL WORK PROGRAM UPDATE REPORT:

This two year project piloted environmental education as an integrated subject, involving 121 teacher/classrooms and reaching over 3600 students in the metro area.

Activity #4: The Laurentian (RELC) will use the cooperative planning model (including the identified learner outcomes) to align their curriculum within the K - 8 model. They will also play a lead role in assisting the EEC in extending the model to include grades 9-12.

Activity Time Line:	Year #1	August 1997 - June 1998
	Year #2	August 1998 - June 1999

\$ LCMR Budget: \$ 26,880

The EEC Committee will:

- Develop a project team to work with the staff from Laurentian (RELC) and the Green Print Council to evaluate current K - 8 curriculum and programs offered by RELC's.
- The RELC project team (teachers and naturalists) will utilize the existing learner outcomes for grades K -8 and will extend the outcomes to meet the Secondary Education Graduation Standards.
- EEC naturalist/teacher teams will integrate the 3-tiered delivery model to include a unit-of-instruction which prepares the students for a residential environmental experience.

- The RELC units-of-instruction will be piloted to include four classrooms (approximately 160 students, teachers and parents) each year (1998 and 1999) . RELC pilot units-of-instruction will include a pre-visit to the schools, visit to nature center and a multiple day residential experience at Laurentian RELC.

WORK PROGRAM UPDATE AS OF APRIL 30, 1998:

The Laurentian (RELC) is currently working on developing an expanded unit for the fifth grade level to involve an overnight experience at the RELC. They are also working with a special project team to extend the established learner outcomes to include grades 9 - 12, which meet the secondary graduation standards.

WORK PROGRAM UPDATE AS OF DECEMBER 14, 1998:

The Laurentian (RELC) has developed and piloted curriculum for fifth grade students, which involves an overnight experience at the RELC. They have also developed learner outcomes and units of instruction for grades 9 - 12, with plans to pilot the curriculum in early spring of 1999.

LCMR FINAL WORK PROGRAM UPDATE REPORT:

Laurentian Environmental Learning Center (LELC) developed learner outcomes for grades 9-12 which build upon the EEC K -12 outcomes. All LELC curriculums have been revised to be aligned with the K-12 outcomes, GreenPrint Plan and state graduation standards (Profiles of Learning). LELC now has performance assessments for grades 5&6, 7& 8, along with a 9-12 grade performance package. These will be piloted in the 1999-2000 school year. In addition, LELC is incorporating within its programs the concept of the Environment as an Integrating Context. The high school performance package will be marketed statewide as a summer program.

Activity #5: Evaluation of Pilot Project

Activity Time Line:	Year #1	July 1997 - June 1998
	Year #2	July 1998 - June 1999

\$ LCMR Budget: \$ 28,600

EEC Committee will:

- Naturalist/teacher teams will meet periodically throughout the project to evaluate for project efficiency and ability to meet identified goals and objectives.
- A year-end evaluation will be conducted by participating teachers, naturalists and EEC Planning Committee on program effectiveness (May 1998 & 1999).
- The EEC Committee will also contract an independent evaluation of the project and distribute results to the Minnesota Department of Children, Families and Learning, Office of Environmental Assistance (OEA), Department of Natural Resources (DNR), GreenPrint Council and LCMR staff.

WORK PROGRAM UPDATE AS OF APRIL 30, 1998:

A formal mid-season evaluation was held on January 16, 1998. Each teacher/naturalist team showcased one of their units of instruction and received feedback from the other teachers and naturalists on suggested changes for program improvement. A training session was conducted on how to embed open, guided and challenge inquiry activities into their units of instruction.

WORK PROGRAM UPDATE AS OF DECEMBER 14, 1998:

The year-end evaluation meeting was held in May of 1998. The evaluation involved first year pilot teachers and naturalists to discuss project successes and suggested changes for improvement. In addition there was a full discussion on the future sustainability and buy-in to the cooperative planning model.

A second year kick-off meeting was held in September of 1998. A mid-season evaluation is scheduled for February 8, 1999. The emphasis of this meeting will be to discuss with participating naturalists and teachers the components of the educators planning guide and effective means to disseminate project results.

LCMR FINAL WORK PROGRAM UPDATE REPORT:

A second year mid-season evaluation was held February 8, 1999. The emphasis of this meeting was to discuss with participating naturalists and teachers the components of the educators planning guide and effective means to disseminate project results. Second year pilot teachers and naturalists also discussed project successes and suggested changes for improvement.

On May 24, 1999 the project Advisory Board conducted a final project evaluation retreat with participating naturalists and teachers. The project dissemination committee presented a draft copy of the "Educators Guide" for comments and suggestions. A large portion of the agenda was devoted toward continuation and sustainability of the project model.

Result 2: Disseminate Cooperative Planning Model results through statewide educational conferences, training sessions, publications and the Internet.

\$ LCMR Budget: \$ 28,000

\$ LCMR Amount Spent: \$ 28,000

\$ LCMR Balance: \$ 0

Activity #1: Development a statewide dissemination plan for project related results.

Activity Time Line:	Year #1	September 1997 - June 1998
	Year #2	July 1998 - June 1999

\$ LCMR Budget: \$ 23,000

EEC Committee will:

- A Dissemination Committee will be created with the purpose of working with classroom teachers, naturalists and resource staff to identify and establish a plan to disseminate project results (i.e., news releases, press releases, display boards, conference sessions, public speaking, etc.) throughout the state.
- Develop and disseminate an "Educator's Guide to Environmental Education Planning". The Educators Guide will be used as a presentation handout in our efforts to disseminate project results state-wide.
- A speaker/presenter team of naturalists, teachers and students will be identified and trained on how to conduct "Teacher/Naturalist Cooperative Planning" training sessions throughout the state.
- Identify statewide educational conferences and publications for dissemination of project results. The EEC will work with committee members, classroom teachers, naturalists and partnering schools, as well as staff of the Minnesota Department of Children, Families and Learning, GreenPrint Council, Office of Environmental Assistance (OEA) to identify the appropriate conferences and informational sessions for effective dissemination.

WORK PROGRAM UPDATE AS OF APRIL 30,1998:

The EEC Committee has or is going to be presenting information on the cooperative planning model and how it ties to the state graduation standards to:

November 1997 - Information Booth at MRPA Conference
January 1998 - Minnesota Science Teacher Association
May 1998 - Open House at Mounds View District Center
June 1998 - MAEE/MNA Conference
September 1998 - NRPA Conference
October 1998 - MEA Convention.

WORK PROGRAM UPDATE AS OF DECEMBER 14, 1998:

The EEC committee is in the process of developing the "Educator's Guide to Environmental Education Planning" which will be used as a dissemination tool.

LCMR FINAL WORK PROGRAM UPDATE REPORT:

The Project Advisory Committee has set up a project Dissemination Committee to plan and develop dissemination plan for project results. An "Educators Guide" is in draft form and is being distributed for comments and suggested changes. The Dissemination Committee will be conducting five (5) informational workshops throughout the state in the fall of 1999.

Project Advisory Committee has presented information on the Green Print project at state and regional conferences.

In addition, the EEC is currently working with an environmental film production company to create a five-minute film on the project. This will be used to help disseminate the project results.

Activity #2: Dissemination of Cooperative Planning Model via computer technology. (April 1999).

Activity Time Line:	Year #1	N/A
	Year #2	March 1999 - June 1999

\$ LCMR Budget: \$ 5,000

EEC Committee will:

- The EEC committee will develop an interactive HomePage on the Internet and link with the Statewide Environmental Education Network (S.E.E.K.). The HomePage will be a clearinghouse for project results including information on the cooperative planning model, identified learner outcomes by grade level and sample units-of-instructions.
- Partnering schools and nature centers will create the content of their section of the HomePage. The HomePage will also be used to promote other project related events.

WORK PROGRAM UPDATE AS OF APRIL 30, 1998:

Dissemination of Cooperative Planning Model via computer technology and the development of the "Educator Guide to Environmental Education Planning" will be done in 1999.

WORK PROGRAM UPDATE AS OF DECEMBER 14, 1998:

Dissemination of Cooperative Planning Model via computer technology and the development of the "Educator Guide to Environmental Education Planning" will be done in 1999.

LCMR FINAL WORK PROGRAM UPDATE REPORT:

The Dissemination Committee will develop a project Web Site that will be linked to the SEEK network. The project web site will include the "Educator Guide to Environmental Education Planning". It is anticipated that the Web site will be activated in the fall of 1999.

V. Dissemination: See Result #2

VI. CONTEXT:

A. Significance: This project accelerates implementation of the GreenPrint Plan through the improved delivery of environmental education to its primary target audience, K - 12 students. This project directly addresses the following strategies identified in the GreenPrint for the K - 12 audiences:

- *"Provide education programs in environmental education for current K - 12 teachers".*
- *"Develop and improve access to information and resources that will improve the ability of K - 12 teachers to provide environmental education to students".*
- *"Develop clear measurable goals and testable outcomes for K - 12 environmental education.*

- *"Encourage school districts to adopt a three-tier, out-of-classroom environmental education program using school/neighborhood, community and statewide sites.*

B. Time: The activities defined in year #1 and #2 of the project work program will be complete by June 30, 1999. It is anticipated that the teachers, naturalists and planning committee members involved in this project will continue to promote within their school districts and state-wide the importance of the cooperative planning model in the delivery of environmental education. A core group of planning committee members will remain as a resource to other schools and nature centers state-wide.

C. Budget Context:

	<u>July 1995 - June 1997</u>	<u>July 1997 - June 1999</u>	<u>July 1999 - June 2001</u>
	<u>Prior Expenditures on this Project</u>	<u>Proposed Expend. on this Project</u>	<u>Anticipated Future on this Project</u>
1. LCMR	\$ 0	\$ 136,000	\$ 0
2. Other State	\$ 0	\$ 0	\$ 0
3. Non State Cash	\$ 41,100	\$ 167,010	\$ 21,377
TOTAL	\$ 41,100	\$ 303,010	\$ 21,377

Budget:

Personnel/Contract Svcs.	\$ 41,880		\$ 104,198
Equipment	\$ 0		
Acquisition	\$ 0		
Development	\$ 0		
Other: Supplies	\$ 1,000	\$ 8,700	\$ 8,175
Transportation	\$ 23,000	\$ 15,300	\$ 9,500
Printing	\$ 10,000		\$ 1,106
Contract Services	\$ 13,000		\$ 0
Food/Lodging	\$ 7,280		\$ 9,665
Prog. Reimbursement	\$ 39,840		\$ 3,462
Total	\$ 136,000		\$ 136,106

Less Amount Over Grant Award \$ (106)

Total \$ 136,000

Match Grant Support \$ 34,500

Total Project Budget \$ 170,500

Dissemination Budget Balance

\$ 21,377

(to be implemented in fall/winter of 1999-2000)

VII. COOPERATION: Members of the EEC project team will include:

Environmental Education Centers

- Tamarack Nature Center, Ramsey County Parks and Recreation Department
- Wargo Nature Center, Anoka County Parks and Recreation Department
- Harriet Alexander Nature Center, Roseville Parks and Recreation Department

School Districts

- Mounds View School District (ISD 621)
- Roseville School District (ISD 623)
- White Bear School District (ISD 624)
- St. Paul School District (ISD 625)
- Centennial School District (ISD 12)

Residential Environmental Learning Center

- Laurentian, Mounds View School District (ISD 621)

We are currently working on establishing the specific amount of in-kind contributions from participating organizations. In-kind contribution will include designated Eisenhower Funds and naturalist staff time.

VIII. LOCATION: (See Attached Maps)

IX. Reporting Requirements: Periodic work program progress reports will be submitted not later than March 1998, August 1998 and January 1999. A final work program report and associated products will be submitted by June 30, 1999, or by the completion date as set in the appropriation.