

1993 Project Abstract

FOR THE PERIOD ENDING JUNE 30, 1995

This project was supported by MN Future Resources Fund.

JUN 30 1995

TITLE: An Outdoor Classroom To Improve Rural Environmental Education
PROGRAM MANAGER: Wayne Feder
ORGANIZATION: Faribault County Environmental Learning Center, Inc.
LEGAL CITATION: M.L. 93, Ch. 172, Sec. 14, Subd. 7(o)
APPROP. AMOUNT: \$60,000

STATEMENT OF OBJECTIVES

To develop an outdoor environmental classroom, to develop educational activities, and to measure the outcomes.

OVERALL PROJECT RESULTS

An outdoor environmental learning center was developed with special emphasis placed on Faribault County soils and the natural vegetation which produced them. Development of this site involved over 600 Faribault County youth, especially in planting trees and prairie seeds. Similar numbers of youth will use the site regularly. Educational packets for students ranging in age from kindergarten through senior high school were developed for use with the Faribault County Environmental Learning Center. Because changes in the environment occur so slowly, it is significant that we have taken baseline measurements that can be used to monitor those changes over time. We accomplished our goal of producing a learning center to provide a relevant environmental education program for Faribault County.

PROJECT RESULTS USE AND DISSEMINATION

The most important result of our project is the completion of the Environmental Learning Center site. Even though the site needs time to mature before some of the projects can be used, the maturing process itself will also provide a learning experience. TV and newspaper coverage of the involvement of the science classes provided area wide coverage and awareness. The educational packets developed were given to and discussed with appropriate staff. A meeting was held with Heron Lake Environmental Learning Center, Inc. staff to share project information.

JUL 11 1995

Date of Report: July 1, 1995
LCMR Final Work Program Update Report

I. Project Title: AN OUTDOOR CLASSROOM TO IMPROVE RURAL ENVIRONMENTAL EDUCATION

Program Manager: Wayne Feder
Agency Affiliation: Faribault County Environmental Learning Center, Inc.
Address: Rt. 1, Box 41 Blue Earth, MN 56013
Phone: (507) 526-3049

A. Legal Citation: M.L. 93 Chpt.172, Sect.14,Subd.7(0)

Total Biennial LCMR Budget: \$60,000
Balance: \$8,597.05

This appropriation is from the future resources fund to the commissioner of education for a contract with the Faribault county environmental learning center, inc. in cooperation with area 4-H, communities and schools, for an outdoor classroom project using native Minnesota vegetation to train instructors, educate youth and community members, and evaluate changes in environmental awareness.

B. LMIC Compatible Data Language: N/A

C. Status of Match Requirement: N/A

II. Narrative: This project will provide a relevant environmental education program for rural citizens. Special emphasis will be placed on Faribault County soils and the natural vegetation systems which produced them. The project will develop an environmental learning site, educational packets for group leaders and teachers, and evaluate changes in environmental awareness.

III. Statement of Objectives: The objectives are A. Development of an outdoor environmental classroom, B. Development of educational activities, and C. Measurement of outcomes.

IV. Objectives:

A. Title of Objective: Development of an outdoor environmental classroom.

A.1. Narrative: This part of the project will complete the purchase of an outdoor classroom site and involve Faribault County youth in its planning and development. With the help of the Faribault County Soil Conservaton Service, a detailed baseline study of the soil will be completed. Local native vegetation will be used to establish wetlands, upland and floodplain forests, a prairie,

and an oak savanna ecosystem. A parking area and handicapped accessible trails will complete this objective.

A.2. Procedures: The balance will be paid to complete the purchase of the outdoor classroom site. A site coordinator will be hired to oversee planning and implementing this objective. Blue Earth Area High School ecology classes and the Faribault County Soil Conservation Service will conduct a detailed baseline study of present soil conditions. A driveway and circular parking area with center berm will be graded and surfaced. Volunteer construction companies will grade and shape a wetland. With the help of area 4-H, scouts, high school and elementary students, and the local service organizations, native Faribault County tree seedlings and saplings will be planted and established. Some larger trees will be planted by a professional tree mover. Seeds for the wetland, prairie, and oak savanna will be purchased, planted, and established. A sign will be constructed and handicapped accessible trails will be developed.

A.3. Budget:
a. Amount budgeted: \$40,000
b. Balance: \$1,792.60 June 30, 1995

A.4. Timeline:

	7/93	1/94	6/94	1/95	6/95
Land purchase		xx			
Baseline soil survey	xxxxx				
Driveway & parking area		xxxx			
Wetland graded		xxxx			
Wetland & prairie planted			xxxx		xxx
Native trees planted			xxxxxx	xxx	
Trees moved			xxx		xxx
Sign constructed			xxx		xxx
Trails developed				xxxxxxxx	

A.5. Status: (July 1, 1994) Baseline soil survey was completed by SCS volunteers. Chemicals were applied to control weeds. Land purchase was not completed as contract was not received from Department of Education until Nov., 1993. (July 1, 1994) Land purchase was completed. Driveway and parking area was put in. U.S. Fish & Wildlife service surveyed wetland area and will grade wetland this summer. Prairie was planted by students. (Jan 1, 1995) Wetland was graded by U.S. Fish & Wildlife Service. Native trees were tagged, moved, and planted by students from BEA school. Kiosk construction was dropped from project because of inability to protect from vandalism and was replaced with a sign. Prairie planting was mowed several times and trees were watered. Additional wetland seeds will be needed to replant the graded area. \$10,000 from Objective B was transferred to Objective A because expenses in Objective A exceeded our estimates. A more complete network of trails will enhance the use of the learning center for educational purposes and provide permanent divisions for the comparison of controlled burns. (June 30, 1995) The Faribault County Environmental Learning Center was developed as planned. The Faribault County Environmental Learning Center Inc. members, as well as local educators and their students, are committed to the long term maintenance required to make this site successful. Faribault county citizens, and especially the many students involved in developing this site, can feel a sense of ownership in their learning center.

A.6. Benefits: A community developed outdoor classroom will increase awareness of rural environmental problems and develop interest and knowledge needed to solve these problems.

B. Title of Objective: Development of educational activities.

- B.1. Narrative: A group of educators will plan and develop environmental education packets which can easily be used by 4-H and scout leaders, community ed and classroom teachers, and other interested organizations; develop displays for the kiosk; and familiarize potential leaders with the outdoor classroom and its use.
- B.2. Procedures: The program manager will hire a group of educators. This group will first review literature and visit environmental learning centers. They will then develop self contained learning packets and kiosk displays describing the sites's natural areas and the general ecology of Faribault County. Meetings and seminars will be held to familiarize educators with the learning

site and the use of the developed activities.

B.3. Budget:	a. Amount budgeted: \$18,000			
	b. Balance: \$5,155.16			June 30, 1995
B.4. Timeline:				
	7/93	1/94	6/94	1/95 6/95
Literature review	xxx			
Visit sites	xxx			
Develop educational packets	xxx		xxx	
Work with educators	xxxxxxxxx	xxxxxxxxxxx		

B.5. Status: (Jan 1, 1994) Four educators reviewed literature, visited sites, and developed educational packets. (July 1, 1994) Educators have completed fifteen packets for elementary, junior high, and senior high students and are continuing to develop more. (Jan 1, 1995) A computer program to be used by students in the classroom was developed. First version is completed and work continues on the program. \$10,000 was moved from objectibe B to objective A. Progress on the learning packets has proceeded at a faster rate than we had anticipated. Another two or three weeks by our educators will complete this objective. (June 30, 1995) Learning materials were developed as planned. Due to the time it will take the site to mature, many of the learning activities will have to be placed on hold during this time. The educators who developed the packets are committed to seeing that the activities are implemented as each part of the learning center develops.

B.6. Benefits: Well developed activity packets and displays will help all educators feel comfortable in teaching environmental science and will insure that the outdoor classroom is used to its fullest potential.

C. Title of Objective: Measurement of outcomes.

- C.1. Narrative: An educator will develop and administer a pretest and a post test to a representative sample of users. Results will be reported to appropriate education and extension groups. A summary of the project will be produced and made available to any interested persons or organizations.
- C.2. Procedures: A pretest which assesses present ideas and interests about environmental

science will be administered to different age levels of scouting, 4-H, school, and community groups. A post test will be administered to measure changes in community attitudes and interests. Test results will be analyzed and made available for publication. A summary of the steps taken to develop the outdoor classroom and learning packets will be made available for distribution.

C.3. Budget:

- a. Amount budgeted: \$2,000
- b. Balance: \$1649.29 June 30, 1995

C.4. Timeline:

	7/93	1/94	6/94	1/95	6/95
Develop pretest	xxxx				
Administer pretest		xxxxxxx			
Develop post test			xxx		
Administer post test				xxx	
Publish results					xxxx

C.5. Status: (Jan 1, 1994) Pretest was developed by four educators. (July 1, 1994) Pretest was administered to students. (June 30, 1995) Results from the pre-test and post-test showed some significant positive learning changes, especially in the age groups actively involved in the project development. It will require continued long term testing to accurately measure the impact of having an environmental learning center available. During the study, Blue Earth Area Schools went from year long courses to semester courses and moved to a new school building. Both of these changes may have skewed the short term test results.

C.6. Benefits: School and community groups can benefit from information learned in measurement of outcomes.

V. Evaluation: Completion of the site as outlined in Objective A will indicate the success of the development phase. A finished product of educational packets and the test results obtained in Objective C will be measurement of the effectiveness of the outdoor classroom as an educational tool.

VI. Context:

A. Preservation of Minnesota’s natural resources depends upon educating communities. Currently, South Central Minnesota offers limited opportunities for adults and youth to learn about Minnesota’s native environment. With each generation, preservation of our soil is becoming more critical. With each generation, the memory that these soils were produced by natural systems is being lost. In the areas of the state with deep black soils, almost all of the natural systems which produced the soil have been destroyed. We must understand and appreciate where soils come from if we are soing to solve these unique agricultural problems.

B. Environmental education is presently mandated by the state of Minnesota for all students K-12. Due to lack of funds and instructional time, it is often difficult for schools to implement this mandate. This project will offer access to environmental education for all citizens of Faribault County.

C. The idea for an environmental outdoor classroom was initially proposed by a concerned group of Faribault County citizens. This group has raised \$14,000 in donations from companies, private individuals, church organizations, service clubs, and fund raisers. This was used as the down payment on the proposed site. Individuals, companies, and organizations have also pledged materials, labor, equipment, and expertise valued at \$15,000 for site development.

VII. Qualifications:

- 1. Program Manager:
 - a. Mr. Wayne Feder has a B.S. in Biological Science and Chemistry from Mankato State University. He has twenty two years of teaching experience in high school biology, field biology, and ecology. He was the project director for a CETA project which developed a four acre outdoor classroom and nature trail system in Woodbury, Mn. As owner of a seed company, Mr. Feder has vast experience in working with native vegetation.
 - b. Biology instructor at Blue Earth Area High School, Blue Earth, Minnesota. President of Faribault County Environmental Learning Center, Inc..

VIII. Reporting Requirements:

Semiannual status reports will be submitted no later than Jan. 1, 1994, July 1, 1994, Jan. 1, 1995 and a final status report by June 30,1995.