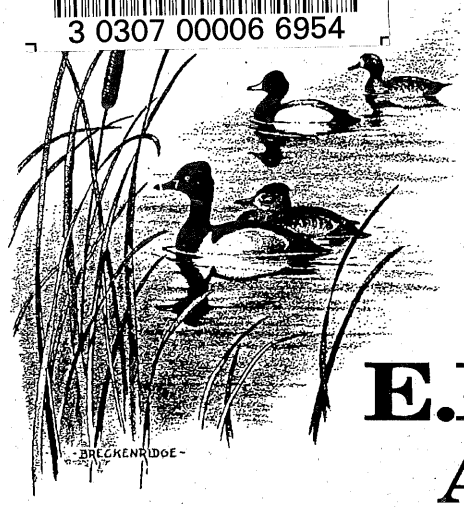


E.E.C. 2000:
A Study of Environmental Education Centers

As required by 1990 Laws of Minnesota; Chapter 610, Section 20, Article 1, Subdivision 7: "The commissioner in cooperation with other affected agencies and residential and nonresidential learning center directors shall develop a long-range plan for the development and program coordination of environmental learning centers statewide. The plan must focus on identifying programming needs, geographic areas to locate facilities, capital cost estimates for development and creation of a phased-in implementation strategy. The plan must be completed for presentation to the Legislature by January 1, 1992."

Part I

Prepared by:

Minnesota Department of Natural Resources
Office of Planning, under the guidance of the
Environmental Education Committee

January 1992

unding for this project approved by the Minnesota Legislature (LCMR Contingency Account, F.Y. 1991; M.L. 1991 apter 254, Sec. 14, Subd. 5(a) as recommended by the Legislative Commission on Minnesota Resources from the nnesota Environment and Natural Resources Trust Fund)."

STATE OF
MINNESOTA
DEPARTMENT OF NATURAL RESOURCES

500 LAFAYETTE ROAD, ST. PAUL, MINNESOTA 55155-4037

OFFICE OF THE
COMMISSIONER

DNR INFORMATION
(612) 296-6157

January 31, 1992

To Interested Parties:

Attached is *E.E.C. 2000: A Study of Environmental Education Centers* prepared by the Department of Natural Resources Office of Planning under the guidance of the Environmental Education Center Committee. This legislatively mandated study, was funded by the Minnesota Legislature as recommended by the Legislative Commission on Minnesota Resources. The product of a year-long effort by members of the environmental education community, environmental education administrators, interested members of the public, and state agency staff, the report presents recommendations for supporting field-based environmental education centers to the year 2000.

For further information about the study, its development, and study recommendations, please contact:

William H. Becker, LCMR Project Manager
Department of Natural Resources
500 Lafayette Road
St. Paul, Minnesota 55155-4010
(612) 296-3093

The Department of Natural Resources is asking for comments on the study recommendations by Friday, February 28, 1992. Written comments may be sent to the address listed above. Comments will be used as a part of the state-wide environmental education planning process currently being administered by the Office of Environmental Education, Department of Education.

For additional copies of the study, please contact Sandy DeFoe, Department of Natural Resources at (612) 296-0565. Thank you.

Sincerely,

Rodney W. Sando
Commissioner

E.E.C. 2000:
A Study of
Environmental Education Centers

Part I

Prepared by:

Minnesota Department of Natural Resources
Office of Planning, under the guidance of the
Environmental Education Committee

January 1992

"Funding for this project approved by the Minnesota Legislature (LCMR Contingency Account, F.Y. 1991; M.L. 1991 Chapter 254, Sec. 14, Subd. 5(a) as recommended by the Legislative Commission on Minnesota Resources from the Minnesota Environment and Natural Resources Trust Fund)."

ENVIRONMENTAL EDUCATION CENTER STUDY

Prepared by:

Minnesota Department of Natural Resources
Office of Planning, under the guidance of the
Environmental Education Committee
January 1992

[1]***Note: Parts II & III of the study are contained in a separate bound volume.***

A Note to the Reader:

For the purposes of this study, all facilities which offer environmental education services are called 'environmental education centers'. This study does not use the term 'environmental learning center' generically. Since some residential facilities are called 'environmental learning centers' the use of that term may confuse the reader when the discussion, for example, actually refers to a day-use center or other non-residential educational facility.

The committee responsible for this study's recommendations defines an Environmental Education Center as:

> *Any facility, other than public or private schools, that offers professional field-based environmental instruction, either full or part-time, including both residential and day-use facilities. The instruction offered is designed to increase understanding of ecological systems and of the complex interrelationships between people and nature. Environmental education centers provide experiences to assist citizens to increase their sensitivity and stewardship for the environment.*

Residential learning centers, nature centers, parks, zoos, camps, museums, and other specialty environmental educational facilities are included within the definition above.

Environmental Education Center Study Committee Members' Ratification of Study Recommendations

We the undersigned members of the Environmental Education Center Study Committee, do hereby ratify the foregoing report and recommendations as representing our best effort to address the mandates as expressed by the Minnesota Legislature in M.S. 1990 Chapter 610, Section 20, Article 1, Subdivision 7:

Mary E. Corcoran
Science Museum of Minnesota

Pat Hamilton
Science Museum of Minnesota

Steve Hage
Minnesota Zoo

Jack Pichotta
Wolf Ridge ELC

Eileen Kilpatrick
Minneapolis Park Board

Al Singer
Minneapolis Park Board

Lee Ann Landstrom
Eastman Nature Center

Bob Schwaderer
Long Lake Conservation Center

Mike Link
Northwoods Audubon Center

Siah St. Clair
Springbrook Nature Center

Kurt Marple
Camp Courage ELC

Kathleen Wallace
Department of Natural Resources,
Division of Parks and Recreation

Greg Munson
Quarry Hill Nature Center

Environmental Education Center Study

Executive Summary

Part I. *Committee Discussion of Facility Type, Recommendations & Rationale*

This portion of the study provides the committee's interpretation of environmental education center types and recommendations for legislative support for these facilities which is needed to provide quality environmental education in Minnesota. For the purposes of the study and recommendations, committee members placed environmental education centers into three major categories: 1) Day Use Centers (Nature Centers & Parks); 2) Museums, Zoos, & Special Emphasis Facilities; and, 3) Residential Facilities (Environmental Learning Centers & Camps). The general missions of these facility types, as well as their major markets, are discussed in Part I as well.

Committee members developed and agreed on six recommendations for legislative consideration:

1) **The state should support the development of an adequate number of environmental education centers to serve all Minnesota citizens.**

2) **All students should have access to an environmental education center as a part of their formal education.**

3) **The state should allocate $12 per student per year for environmental education center experiences from the current state school aid formula to schools.**

4) **The state should provide funding for phased-in capital development and improvement of environmental education facilities. (Request totals 83.76 million dollars phased in over four biennia - see Part I, page 11).**

5) **The state should establish a biennial $4 million programming grant program for environmental education centers.**

6) **The Department of Education should compile and maintain a directory of environmental education centers and distribute it to schools and other interested parties across the state.**

Part I of the study provides details and the rationale for each of the six recommendations above.

Parts II & III. Supporting Information

Committee members used four primary sources of information in addition to their expertise for developing study recommendations. One information source consists of data on the opinions of residents of Minnesota over 18 years old, teachers, and educational administrators about environmental education in Minnesota. These data, obtained through three surveys conducted by the Minnesota Center for Survey Research, will be used for other portions of the state-wide environmental education planning effort.

The other three sources of information were developed by the Department of Natural Resources Office of Planning. The first source was focus groups conducted with environmental education center providers. Focus group participants provided information about the history of environmental education centers, their strengths, and challenges for the future. The second source consists of information from a survey conducted of environmental education centers. Survey questions were designed to learn more about environmental education centers' missions, student capacities, clientele, and staff. The third source used in this study consists of information from a review of private foundation funding sources. This review looks at the role foundations play in funding environmental education initiatives.

A review of the supporting information indicates the rich variety of environmental education centers operating or proposed in Minnesota and the commitment Minnesota citizens have to promoting environmental education efforts across the state. The committee's recommendations are designed to further legislative support to complement that citizen effort.

Study Background

The 1990 Legislature mandated that the Minnesota Department of Natural Resources develop a long-range plan for the development and coordination of environmental education centers statewide. With funding provided by the Minnesota Legislature as recommended by the Legislative Commission on Minnesota Resources, the Department of Natural Resources developed a study and survey plan for environmental education centers.

A study committee composed of environmental education center administrators and state agency representatives oversaw all portions of the study's development. The recommendations contained in this study represent the consensus opinion of committee members. Surveys and data development, along with recommendation writing for the report, took place from February 1991 to January 1992.

Part I.

Committee Discussion of Facility Type, Recommendations & Rationale

ENVIRONMENTAL EDUCATION CENTER STUDY: *COMMITTEE DISCUSSION OF FACILITY TYPE, RECOMMENDATIONS & RATIONALE*

TABLE OF CONTENTS

COMMITTEE DISCUSSION OF FACILITY TYPE, RECOMMENDATIONS & RATIONALE

I. Background

This portion of the Environmental Education Study, part one, contains the committee's discussion about the various types of Environmental Education Centers, their primary markets, and their mission. This part of the study concludes with the committee's recommendations for legislative consideration and provides the rationale for each recommendation.

The Environmental Education Center Committee developed its recommendations over a three month period. The recommendations represent consensus among members of the group on workable and effective means to increase field-based environmental education opportunities for Minnesota residents. Each recommendation includes a discussion of the reasons for each request, based on survey data, focus group sessions, and other supporting study data. The rationale for recommendation #4, capital development and improvement requests, is contained in Section IV on page 13. In this section, the justification for capital requests is presented by each major facility category.

For the sake of process efficiency, it was impossible to have every facility type and administrator represented as a committee member. In developing their recommendations, committee members worked to represent all interests and facilities, not just their own. Committee members and their representatives attempted as much as possible to contact their fellow environmental education center operators and incorporate their views into this report.

To facilitate review of the recommendations, readers should familiarize themselves with the Appendices attached to Part I of this report. Appendix A displays criteria for a full service environmental education center. These criteria have been developed by the Minnesota Environmental Education Administrators Group. The reader may wish to review how the different types of environmental education centers (e.g., day-use, residential, camps, museums, zoos, special facilities) are grouped.

This chart is designed to give the reader a better understanding of the mix of field-based environmental education centers.

Appendix B shows a distribution of Minnesota's population based on the 1990 census. Appendix C contains a list of Environmental Education Center Market Segments (major markets for each specific type of environmental education center are described in Section II below). Appendix D depicts the trend in K-12 individuals as compared with other Minnesota residents through the year 2000. Appendix E depicts current and possible sites for day use facilities. Appendix F contains a copy of the Minnesota 1990 Environmental Education Act. The reader should refer to these Appendices when reviewing Section IV. Capital Development & Improvement Rationale & Recommendation Details (page 13). Parts II and III of this report, containing the supporting study data, should be reviewed as well. Appendix G contains a list of study committee members as well as DNR and other state agency staff who participated in the study.

II. Discussion of Facility Type, Mission & Markets

There are many varieties of environmental education centers. Despite the differences among facilities they share a common goal:

> *The mission of environmental education centers is to deliver outcome-based comprehensive environmental education to all Minnesota citizens.*

For the purposes of this study, committee members placed the various types of environmental education facilities into three primary categories: 1) Day-use (parks and nature centers); 2) Zoos, Museums, and Special Emphasis Facilities; and, 3) Residential Centers (environmental learning centers and camps). The full committee formed small groups to assess each category.

These small groups developed a facility-specific mission statement and identified their primary markets. With this information, study data, and professional expertise, small group participants developed recommendations and rationale for review by the entire committee. After several meetings during which recommendations were refined or changed, the full committee researched consensus on the recommendations for each facility type.

The following discussion of facility type, mission, and markets for each category is designed to give the reader a better understanding of the educational niche each type of center occupies and the means it uses to provide field-based environmental education.

A. Day Use (Parks & Nature Centers) Description

Description of Type

Day use nature centers and park facilities have been in some circumstances treated separately. After reviewing the survey findings and discussing recommendations, however, the committee found that this distinction was not useful for attempting to address current and future environmental education needs of Minnesota's citizens.

Throughout this study, "day use nature center" is the term applied to nature centers in populated areas. These facilities provide low-cost, accessible environmental education to large numbers of daily visitors, with the largest clientele being elementary school students. Nature centers provide expertise in environmental education and a natural setting.

Similarly, local, regional, state, and national parks have historically provided environmental education to large numbers of visitors. Some parks are located in heavily populated areas while others are located in more remote areas of the state. The clientele served has been largely defined by the availability of adequate facilities and staffing.

Parks and nature centers are more alike than different. Indeed, if a distinction needs to be made, it would be more accurate to define this distinction based upon primary clientele and their needs. For this reason, the day-use sub-committee has chosen to combine parks and nature centers into one group--day use centers--with two subdivisions: 1) Community-based day use centers; and, 2) Resource-based day use centers. (It should be noted that some day use centers may be both a community-based day use center and a resource-based day use center.)

Mission Statement

Community-Based Day Use Centers: The goal of community-based day use centers is to provide low-cost, locally accessible environmental education in a natural setting to large numbers of visitors, primarily from the local community and schools, in a manner which fosters increased understanding and appreciation of natural systems and the complex interrelationships between people and their environment. Community-based day use centers seek to accomplish this objective through diverse programs that encourage repeat visits.

Resource-Based Day Use Centers: The goal of resource-based day use centers is to provide low-cost, environmental education in a natural setting to large numbers of visitors from throughout the region, state, or nation, in a manner which encourages increased understanding and appreciation of natural systems and the complex interrelationships between people and their environment. Resource-based day use centers seek to accomplish this objective through the provision of environmental educational programs and information on Minnesota's outstanding natural resources and features and their relationship to people's activities in the past, present, and future.

Major Markets

The subcommittee found the major markets for day use nature centers to be as follows:

Community-Based Day Use Centers

Students (K-12)
Families
General Public
Youth Groups
Community (Education for youths and adults, with special emphasis on economically disadvantaged and racial minorities where appropriate).

Resource-Based Day Use Centers

General Public
Students (K-12)
Family
Youth Groups
Recreationists and Tourists

B. Museums, Zoos, and Special Emphasis Description

Description of Type

Museums, Zoos, and Special Emphasis Environmental Education Centers include facilities such as the Minnesota Zoo, Como Zoo, The Science Museum of Minnesota, The Bell Museum of Natural History, The Lake Superior Center, The Forest History Center in Grand Rapids, and The Raptor Center, to name a few. Activities that link these facilities into a common group include research, environmental science education, historical interpretation, recreational education, and display of interactive educational exhibits.

Mission Statement

Our facilities are devoted to environmental science education, hands-on experiences and scientific research. This mission is achieved through the curation of collections, and the development of programs, including both living and non-living interactive exhibits.

Major Markets

The subcommittee found the major markets of museums, zoos, and special emphasis facilities to be as follows:

K-12 Students
Families
General Public
Teachers
Youth Organizations

C. Residential Facility (Camps & ELCs) Description

Description of Type

Residential environmental education centers include facilities devoted to teaching K-post-secondary students. Additional programs offered include retreats, conferences, and educational opportunities for youth and special populations. Some facilities (ELCs) offer primarily environmental education related programs and activities while other facilities (camps) sometimes emphasize environmental education in addition to other activities. (For a list of facilities, see Part III, Section D). The common theme among these environmental education centers is that the clientele's educational experience typically includes at least one overnight stay.

Mission Statement

To provide residential facilities, professional staff and a broad natural resource base for extended (multi-day) field-based environmental education programs, which are experiential and in compliance with the guidelines embodied in the Minnesota 1990 Environmental Education Act.

Major Markets

The subcommittee found the major markets of residential facilities to be as follows:

Schools (K-12)
College Students/Interns
Youth (extra-school, camps, etc.)
Adult Workshops
Teachers (pre- & in-service)

III. Recommendations

Based upon survey data and committee discussion, the committee believes that the recommendations outlined in the study can meet the needs expressed by Minnesota residents and gain their support. The study's capital development and improvement plan

recommends a wide variety and geographic distribution of new and existing facilities which can provide very high quality environmental education experiences.

The committee believes that all portions of this integrated, well-balanced plan are critical and should be viewed as such by those legislators making the funding/implementation decisions for day use, residential, and special emphasis facilities.

The following recommendations, adopted by consensus, focus on legislative actions to enhance field-based environmental education centers' efforts in Minnesota:

1) **The state should support the development of an adequate number of environmental education centers to serve all Minnesota citizens.**

Rationale:

Both residential and day-use centers surveyed reported that lack of space prevented students from visiting their facilities. Residential and day-use centers annually turn down students due to lack of space and time. In addition, the data indicate that there is a need for environmental education centers representing certain geographic and demographic areas of the state (e.g., agricultural lands, prairies, and urban areas). There is a need for additional centers near schools.

The committee also recognizes significant existing efforts and commitments by local communities which represent both need and support for environmental education centers (e.g., Kettle River, Heron Lake, and the Forest Resource Center development efforts, etc.). In addition, the committee recognizes substantial existing investments in these efforts. These investments include money, donations of land, buildings, and community action.

To meet the goals of the 1990 Environmental Education Act it is important that an adequate number of field-based environmental education centers representing various types of ecological systems be available for student use across the state. In addition, approximately three fourths of Minnesota citizens are not school age children; these people need places to learn more about the environment as well. For example while 50% of all Minnesota adults used parks of all kinds for

environmental education, many parks do not have adequate facilities to provide environmental education experiences. The interest is there, but sufficient environmental education facilities for effective delivery are lacking. *When surveyed, a majority of Minnesota residents indicated a willingness to pay additional state income tax dollars to support environmental education.*

Costs:

Refer to recommendations #4 & #5 on pages 10 and 12 respectively.

2) All students should have access to an environmental education center as a part of their formal education.

Rationale:

The Minnesota Environmental Education Act of 1990 calls for life-long environmental learning opportunities for Minnesota residents. Environmental learning should begin at an early age. The state school system encourages this through its recent development of learner based outcomes for environmental education.

Formal education is currently the only method whereby the state can mandate environmental education. Environmental education centers, as field-based providers, have been and are becoming an integral part of many state school programs. Providing ready access to environmental education centers for students and adults is important to achieving the goals of the 1990 Act.

As supporting information in Part III of this study suggests, many Minnesota students do not have access to an environmental education center due to geographic, economic, and professional staffing constraints.

The EEC committee believes that the goals of the 1990 Environmental Education Act regarding students can most effectively be achieved through the partnership with classroom and field-based educational providers. Accordingly, the state should promote a policy of access for all students to an environmental education center.

Costs:

Refer to general recommendations #4 & #5 on pages 10 and 12 respectively.

3) The state should allocate $12 per student per year for environmental education center experiences from the current state school aid formula to schools.

Rationale:

The Minnesota Center for Survey Research data findings from surveys of teachers and school administrators indicate that lack of funds to pay transportation costs and center fees are major reasons teachers do not visit centers more often. Over 70% of teachers and school administrators said that money for fees and transportation costs would allow teachers to take students off school grounds for environmental education more often.

Field-based off-school site experiences are an important part of environmental education. In fact, the second of the seven outcome-based environmental educational goals developed by the Department of Education states:

> *Learners should be provided with experiences that will assist in the development of personal appreciation, sensitivity, and stewardship for the environment.*

Environmental education centers are an important element of the state's education system's effort to provide meaningful experiences, but teachers need the support to offer their students field-based experiences. Currently, no dollars are allocated from the school aid formula to assist teachers in providing environmental education. The MCSR survey of school administrators indicates that only 5 percent have budget-lines for environmental education activities. Yet the Legislature, through the 1990 Environmental Educational Act, has stated that environmental education is a priority.

Reallocation of school aids to local schools would help implement that priority. The $12.00 per student per year represents on average, one day's worth of the state

educational aid to local schools. Local schools would be able to use this money for transportation costs, site fees, or to pay other expenses related to environmental education centers. Local schools would have the opportunity to spend the money at the type of environmental education center of their choice.

Costs:

No additional costs; reallocation of current state school aid funding.

4) **The state should provide funding for phased-in capital development and improvement of environmental education facilities.**

Rationale:

Table One on page 11 titled *Environmental Education Center Capital Development Phased-In Implementation Plan* provides details on the recommended capital development and improvement funding levels through the 1998-99 biennium. The rationale for each funding amount requested is contained in *Section IV: Capital Development & Improvement Rationale & Recommendation Details.* The recommendations for capital development and improvements over the next four biennia represent the consensus of committee members on the level of funding necessary to provide an adequate system of environmental education centers for Minnesota citizens. The timeframe represents committee members agreement on what can be realistically achieved.

Overall, it is worth noting that over 80% of the teachers surveyed would like to take their students off the school grounds for environmental education experiences. Teachers cited three primary barriers to more off-ground trips: Money for transportation (76%); money for fees (71%); and, information about places to go (57%). The three major incentives for going off-grounds are: Hands-on laboratory experiences (59%) environmental-specialist guided tours (59%); and, field experiences (58%). These types of services are primary products of environmental education centers.

A review of foundations in Minnesota demonstrated that due to increases in foundation solicitation during the 1980's and

reduced foundation earnings, the private sector can not support the growth of new facilities to meet increased demand by the public or educational community. (See Part III, Section E for further discussion of foundations.)

Note that funding mechanisms including partial appropriations, matching funds, low-interest loans, grants and bonding are not specifically discussed. Committee members believe that vehicles for funding environmental education centers should be left to legislative discretion.

Cost:

Table One depicts the recommended state dollar expenditure of each funding request. Section IV. on page 13 describes each funding request in greater detail and provides the rationale for each.

EEC Study Group
General Recommendation #4

January 1992

Table One
Environmental Education Center
Capital Development Phased-In Implementation Plan
(dollars in millions)

Facility	Biennium 1992/93	1994/95	1996/97	1998/99	Total
Day Use [A]					
Metropolitan Community Based					
community/local	2.75	2.75	2.75	2.75	11.0
state park	1.10		1.10		2.2
Outstate Community Based					
community/local	2.75	2.75	2.75	2.75	11.0
state park	3.05	3.05	3.05	3.05	12.2
Outstate Resource Based					
state park	2.60	2.60	2.60	2.60	10.4
					46.8
Zoos, Museums & Special Emphasis					
Science Museum of Minnesota [B]	.21	?	?	?	.21
Lake Superior Center [C]	2.0	X	X	X	2.0
Renovation & Expansion Grants	1.0	1.0	1.0	1.0	4.0
Minnesota Zoo	.25	5.0			5.25
					11.46
Residential Facilities					
Phase I					
Construction of 1 new facility (Kettle River)	3.4				3.4
Expansion & safety measures (Long Lake, Deep Portage, Wolf Ridge)	7.2				7.2
Renovation (Mounds View North)	2.4				2.4
Phase II					
Feasibility	.25		.25		.5
Development		6.0		6.0	12.0
					25.5
	28.96	23.15	13.5	18.15	83.76

A These numbers were developed based on the possible sites listed in Appendix D; the distribution of funds between state and community facilities may change based on final site selection.

B Until the outcome of the facilities plan for which planning money is being sought is known, the Science Museum believes that it is premature to project an amount for construction of a new facility.

C The Lake Superior Center has indicated a need for $4 million in each of the 1994/95 and 1996/97 bienniums, but the study committee is not prepared to evaluate the Lake Superior Center recommendation.

5) The state should establish a biennial $4 million programming grant program for environmental education centers.

Rationale:

Environmental education centers need funding to develop displays, activity units/packages, exhibits, experiential programs, materials, and activities to enhance field-based educational activities across the state. Many of these programming activities and documents would be exportable to other environmental education centers and many would involve collaborative efforts among centers and private entities.

For example, these programming dollars could support computer-linked environmental education programs for networks of school districts as well as the development of coordinated environmental education programming throughout the state. New programs need to be developed as environmental issues emerge and our understanding of the environment changes. Programming grants would also support efforts to meet the field-based objectives of outcome-based education and support the Legislature's intent to provide life-long environmental education.

The committee recommends that 25 percent of the funds be dedicated to grants not to exceed $50,000 and that no one grant can exceed 25% of the monies available. While committee members believe that the method for distributing grant monies be left to legislative discretion, several options to consider include: 1) Formal LCMR grant proposals; 2) An Office of Environmental Education (OEE) administered program similar to the current OEE model curriculum development grants; and, 3) A program administered by an independent board overseen by a state agency (e.g., the recent LCMR funded collaborative water exhibit administered by the Science Museum of Minnesota).

Costs:

$4 million per biennium

6) The Department of Education should compile and maintain a directory of environmental education centers and distribute it to schools and other interested parties across the state.

Rationale:

Minnesota Center for Survey Research data show that 57 percent of teachers would take students off school grounds for an environmental education experience more often if they had more information on places to go. A directory of environmental education centers would assist teachers in reviewing options for non-formal environmental education to enhance their students' learning experiences.

The work on this environmental education study demonstrated the difficulty of providing a complete inventory of environmental education centers (refer to Part III, Section D of this report). Ongoing inventory efforts by the Department of Education would ensure that the list of centers is continuously updated thereby providing teachers with an accurate reference on the type of environmental education centers available. Ongoing inventory efforts would also improve the data base available to future planning and decision-making by the Office of Environmental Education.

Costs:

To be included as a part of the Office of Environmental Education annual operating budget.

IV. Capital Development & Improvement Rationale and Recommendation Details

This section discusses in detail each of the capital development and improvement funding recommendations outlined in the table above. The discussion follows the three facility categories earlier described in this report: 1) Day Use facilities; 2) Museums, Zoos, and Special Emphasis; and, 3) Residential facilities. *All of the facility-specific discussion that follows directly pertains to the dollar requests outlined in Table One on page 11.*

A. Day-Use (Parks, Nature Centers)

Recommendation Details

There should be a full-service, community-based, day-use center within one hour travel time to all Minnesota citizens; and in populated areas, at least one for every 100,000 individuals. Based on population figures and travel distances, it is estimated that there should be a minimum of 27 community-based, full-service day-use centers in the Twin cities metropolitan area and 28 in Greater Minnesota.

1a. The Twin Cities Metropolitan Area currently has 18 of the recommended 27 day use centers. Three of these facilities require major renovations while some of the others may need upgrading. At least nine new metropolitan day use centers are needed. It is recommended that priority be given to densely-populated areas with a high proportion of economically disadvantaged and racial minority populations (a minimum of six facilities).

1b. There are currently 8 of the recommended 28 Greater Minnesota day use facilities. Some need upgrades. At least 20 new Greater Minnesota day use facilities are needed.

1c. In addition, it is estimated that approximately 14 resource-based, day-use facilities are needed throughout the state to provide environmental education based upon Minnesota's unique and diverse high quality natural resources.

Rationale

The Minnesota Center for Survey Research's survey found that 81% of teachers want to take more field trips -- almost 60% wanted hands-on laboratory experiences, environmental specialist-guided tours, and/or field experiences.

A majority of teachers (69%) and residents (82%) will not drive more than 50 miles to a day use environmental

education center. Furthermore, most environmental education centers (70%) are turning people away. 50% of the general public indicated that they visit parks of some kind to learn about the environment. Accessibility and the need for the participants of environmental education programs to be able to relate these experiences to their everyday lives is critical to promoting increased environmental awareness and stewardship.

With the existence of only five full service and three less-than-full-service facilities in Greater Minnesota, most cities do not have a day use center nearby. Except for nearby state parks, residents of Albert Lea, Bemidji, Brainerd, Detroit Lakes, Duluth, Fergus Falls, Granite Falls, Hibbing/Virginia, Ortonville, Red Wing, Willmar, and Worthington must travel considerable distance to visit existing facilities. Committee members estimate that by implementing the recommended capital improvements, an additional 2.3 million adult and student visits can be accommodated. Please refer to Appendix D for a listing of existing and potential sites for day use environmental education centers.

Costs

It is recommended that $36.3 million be appropriated for upgrading and/or constructing 12 metropolitan and 21 Greater Minnesota full-service, community-based, day-use facilities. In addition, $10.5 million should be appropriated for 14 resource-based, day-use facilities. This money would be appropriated over four biennia. During each biennium, the community-based funds should be appropriated 1/3 Twin Cities metro and 2/3 Greater Minnesota to correct the existing imbalance in available facilities.

There has been a historic precedent for notable public/private partnerships with schools, local governments and private groups/foundations. It is recommended that partnership proposals be given funding priority.

B. Museums, Zoos, and Special Emphasis Facilities

Recommendation Details

The state should provide bonding monies for renovation and expansion of existing facilities and for the capital development of new facilities.

Rationale: General

In the statewide general population survey of environmental education, about 70% of respondents indicated that science/natural history museums and zoos are major or minor sources of environmental education and about 60% of respondents indicated that they were very or somewhat likely to go to these institutions to obtain additional environmental information. Science/natural history museums, zoos, and other comparable environmental education institutions play a major role in environmental education in Minnesota, yet in many instances their existing facilities and their present geographic distribution inhibit them from adequately serving the citizens of the state.

Rationale: Renovation/Expansion

Existing facilities, being heavily used resources for environmental education, are generally in need of expansion or repair. Classroom space is either antiquated or not available. Client demand has increased in a number of these existing facilities and additional classroom and educational program space is critically needed.

The Science Museum of Minnesota has made a major commitment to environmental education and research. One of the exhibit halls at the museum is devoted permanently to interpreting the changing environment of Minnesota. The museum's St. Croix Research Station coordinates environmental research projects from various governmental and academic institutions. The museum's Warner Nature Center, established in 1966, was the first of its kind to focus on environmental education for youth and families.

The Science Museum of Minnesota is a facility designed for 500,000 people, but has an annual attendance of close to one million people. The Science Museum of Minnesota has just completed the first phase of a strategic plan that concludes that its current facility not only needs space to meet visitor needs, but also lacks sufficient space for exhibits, museum personnel, and for the curation and storage of artifacts and objects.

The Bell Museum of Natural History, as a part of the University of Minnesota, has been providing environmental education to the people of Minnesota since the turn-of-the-century. The museum's urban location affords an opportunity for its programs to reach an inner-city audience. The move of the Museum's extensive research collections (legislatively-mandated for the state) to new facilities, provides opportunity for expansion of the Museum's public outreach services. Funds are needed to renovate the Museum's historic building to meet these growing needs.

The Lake Superior Zoo and Como Zoo both occupy older facilities that are unable to accommodate expanding audiences. In fact, neither have formal education spaces for use by school groups and teachers. These institutions increasingly are being looked upon to provide environmental education. Both facilities have plans to renovate older buildings for environmental education.

Rationale: New Facilities

Minnesota Center for Survey Research general population survey data indicate that 90% of respondents reported that they would be unwilling to travel more than 100 miles one way to visit these facilities. Large areas of Minnesota are beyond 100 miles of a science/natural history museum, zoo, or other comparable environmental education facility.

The environmental education survey indicates that these kinds of facilities serve as significant disseminators of environmental education and the institutions. The Duluth/Superior metropolitan area and the Arrowhead region have no major science or natural history museums. The Twin Cities are beyond the distance that nearly all respondents are willing to travel.

The Lake Superior Center through its hands-on exhibits and experiential programs already is becoming a major catalyst for informing local citizens and visitors about the environmental issues facing Lake Superior, the preeminent natural resource of northeastern Minnesota. As evidenced by a strong and growing capital campaign, the Lake Superior Center already has considerable private support in the business and philanthropic communities. The Center is an excellent opportunity for the creation of a public/private partnership to further advance environmental education in the Arrowhead region through the development of a new interpretive center.

The Minnesota Zoo includes environmental education as one of its cornerstones. The Minnesota Zoo has been encouraged by the Minnesota Legislature to expand its facility to include overnight capabilities. A residential complex was a component of the original Zoo design.

As a state agency, the Minnesota Zoo has a commitment to the citizens and school students of Minnesota. During the 1990-91 school year, over 100,000 students and teachers used the Zoo. Current student visits to the Zoo average less than three hours. An overnight facility would ensure intensive environmental education opportunities for teachers, students, and youth leaders from the metro and Greater Minnesota regions. Partnerships could be formed with other "field trip" and environmental education destinations such as the Science Museum of Minnesota and the Minnesota Historical Society to provide more comprehensive educational experiences from groups visiting the metro area.

Costs

The Science Museum of Minnesota requests $210,000 for planning costs to implement the second phase of it's strategic plan.

The Lake Superior Center requests $2 million for the 1992/93 biennium for development of new facilities.

The Minnesota Zoo requests $250,000 for a feasibility study for the 1992-93 biennium and $5,000,000 for a residential building for the 1994-95 biennium.

Committee members also recommend that the Legislature provide $1 million each biennium for planning, renovation, and expansion of other existing facilities.

C. Residential Centers (Camps and ELCs)

Recommendation Details

1) **The state should provide $13 million during the 1992/93 biennium to support facility completion at five residential environmental learning centers: Deep Portage, Kettle River, Long Lake, Mounds View North, and Wolf Ridge.**

2) **The state should provide $250,000 during the 1992/93 biennium and $250,000 during the 1996/97 biennium for planning and feasibility studies for four additional environmental learning centers.**

3) **The state should provide $6 million during the 1994/95 biennium and $6 million during the 1998/99 biennium to fund development of four new environmental learning centers based on the outcome on the feasibility studies described in point 2 above.**

Rationale: General

The state needs more residential environmental education programs throughout the state. The facility inventory survey indicates that the most recognized residential programs in the state turn people away for lack of space. When development and program support can be found, young programs grow quickly. For example, the Environmental Education Programs at Camp Courage and Deep Portage each have increased user groups by 20% annually during the last three years. There is a growing demand for residential-based environmental education programs.

Rationale: Phase I Funding Expansion & New Facilities

During the current school year (1991-92) more than 41,000 children from more than 500 schools will each experience from 48 to 72 consecutive hours at one of six residential centers. Two of the six are camps which have a primary mission other than environmental education. The $13 million funding request for FY 92/93 would double residential environmental education center student capacity.

Wolf Ridge is operating at capacity and has a waiting list of schools that want to occupy facilities proposed as a part of the Center's second capital development phase. More than 200 schools have contacted Wolf Ridge and determined that being on a waiting list is futile. Those 200 schools alone have the potential to fill the existing facilities. ($2.4 million request)

Long Lake is operating at capacity and regularly turns away schools. Long Lake's food service facility does not meet health and safety standards; nor is it accessible to people with disabilities. ($2.4 million request)

Mounds View North has a critical need to renovate its 55 year old facilities to conform to safety, handicapped access and health codes. Program expansion is difficult due to facility limitations. Continued programming at Mounds View North is constrained due to these facility limitations. The center's building program is justified by current and projected demands of client groups. ($2.4 million request)

Deep Portage is unable to meet demand for certain periods of the school year due to lack of adequate sleeping quarters. ($2.4 million request)

Kettle River has completed site and facility development plans. An independently conducted feasibility study showed that a near capacity number of schools will schedule use of the facility once completed. ($3.4 million request)

Rationale: Phase II Feasibility & Development of New Facilities

There is strong community support for development of residential environmental education centers across the state

(e.g., efforts to build the Forest Resource Center, Lanesboro; Heron Lake ELC in Jackson County; Prairie Woods ELC, Kandiyohi County; Agassiz ELC, Fertile, Minnesota; and, a residential facility at Whitewater State Park). These initiatives need state support to conduct thorough feasibility studies and planning efforts prior to additional public investment.

Upon completion of feasibility studies indicating additional need and community support, the committee recommends that the state provide funding for development of new residential centers. Geographical distribution and ecological representation are major criteria for the location of new centers. Priority sites for these facilities include the Minneapolis/St. Paul area, the hardwood forest, the prairie, and agricultural land.

Rationale: General (continued)

The $25.5 million investment in residential centers during the next four biennia will allow an additional 100,000 students to attend residential environmental learning centers each year. These students will experience a total of more than 3,200,000 hours of direct hands on environmental education. The direct local annual economic activity of nine full service residential learning centers will total more than $15 million.

Costs

$13 million for 1992/93 biennium for Wolf Ridge, Long Lake, Mounds View North, Deep Portage, and Kettle River.

$250,000 for each of the 1992/93 and 1996/97 biennia for feasibility and planning studies.

$6 million for each of the 1994/95 and 1998/99 biennia to fund development of four new residential facilities.

APPENDICES

This Criteria Developed by the Minnesota Environmental Education Administrators Group

Criteria for a Full Service Environmental Education Center

1. A formal Environmental Education mission statement with a strategic/long range plan.
2. Established public or non-profit status.
3. Qualified paid professional Environmental Education staff (at least one full time equivalent).
4. An ongoing Environmental Education (minimum 9 months/year) program consistent with the current Minn. Environmental Education plan.
5. A significant level of land and building resources (real property).
6. Separate and identifiable Environmental Education budget.

Museums, Zoos and Special Facilities

1. General public, families and K-12 students provide majority of visitors.
2. Facilities display living and nonliving science exhibits and programs.
3. Environmental education is incorporated into scientific research and educational recreations.

Day Use

Resource Based (e.g., parks)

1. Significant resource base in context of the administrative jurisdiction.
2. Enabling legislative mandate or city/county policy.
3. Quantifiable resource management efforts.
4. Clientele and accessibility.

Community Based (e.g., nature centers)

1. Clientele of all ages and multi cultural.
2. Serve as an Environmental Education resource.
3. Local community emphasis.
4. Frequent repeat visitation.
5. Strong ties with local schools.
6. Immediate accessibility - population proximity.

Residential

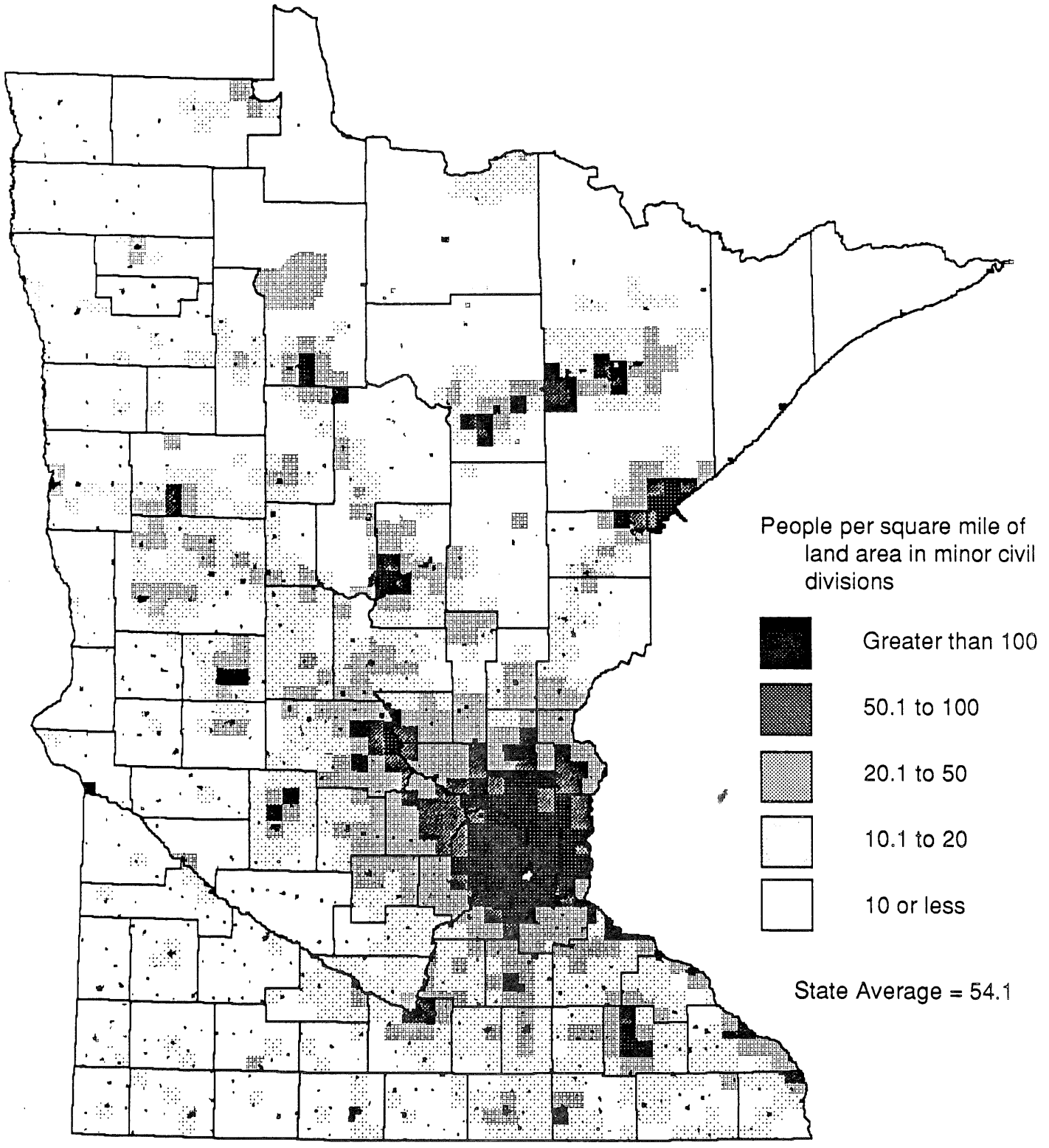
Camps

1. ACA accredited.
2. Facility licensed by the State Health Department.
3. Formal Environmental Education committee as a function of Board of Directors.
4. Qualified staff will include administration, instructors, food service and maintenance.
5. Accommodations must include structures for eating, sleeping and learning.
6. 1:25 ratio instructor to student.
7. Formalized training for seasonal and part-time teaching staff.

Environmental Learning Centers

1. NCA accredited.
2. 80% of school year program devoted to K-post secondary.
3. 80% of summer program devoted to environmental education.
4. 80% of budget is devoted to environmental education.
5. Accommodations must include structures for eating, sleeping and learning.
6. Qualified staff will include administration, instructors, food service and maintenance.
7. Full service environmental education instructional program.

Population Distribution, 1990



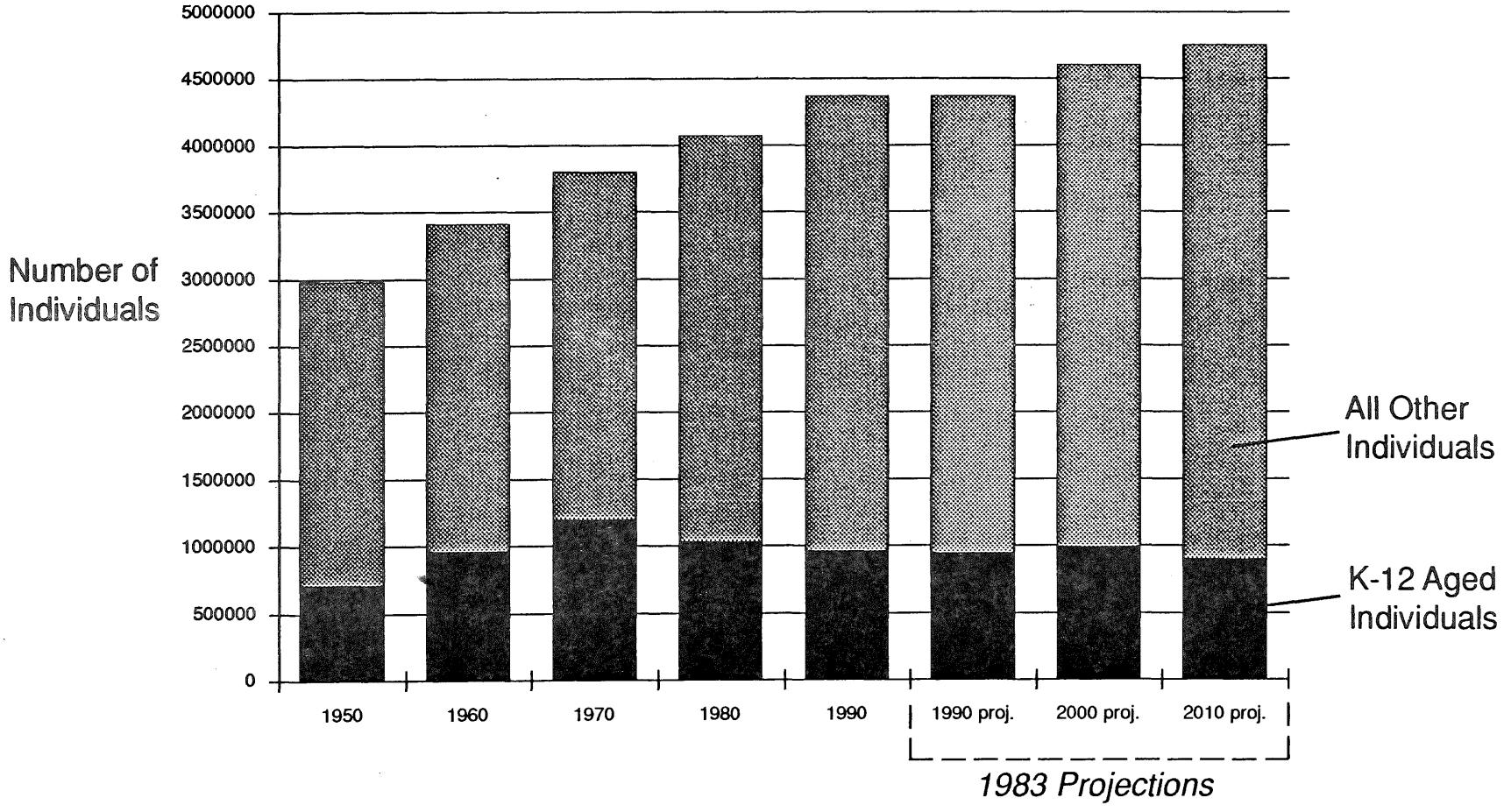
Source: U.S. Bureau of the Census, 1990.

Environmental Education Center Market Segments

1. Schools (public/private & parochial)
   - *A. Preschool-K*
   - *B. K-3*
   - *C. Intermediate 4-6*
   - *D. Middle School 5-8*
   - *E. Junior High 7-9*
   - *F. Senior High 10-12*
   - *G. Special Education*
   - *H. Gifted and Talented*
2. Inner-city
3. Multicultural/Racial Minorities (e.g. South East Asians, etc.)
4. Families
5. General Public (anyone)
6. Suburban Populations
7. Rural Populations
8. Youth Organizations (e.g. Scouts)
9. Teachers - Elementary
10. Colleges
11. College Students
12. Senior Citizens, Elder Hostels
13. Neighborhood Groups/Local Community Groups
14. Sporting Groups
15. Support for Adult Workshops (facility & some programs)
16. Youth at Risk
17. Elected Officials
18. American Indians
19. International Students
20. Scientists

21. Recreational Professionals
22. Agricultural Community
23. Intern Programs
24. Recovery Groups
25. Watershed Organizations
26. Civic Organizations
27. Recreation Specialties (e.g. cross country skier)
28. Environmental Organizations
29. Tourists/Tourism Operators
30. Parents of Children in Attendance
31. Business Community
32. Adult Community Education
33. Volunteers
34. Local Art Schools
35. Campers
36. Latch-Key Kids/After School Care Kids
37. Youth and Adult Care Facilities
38. Youth Community Education
39. Participants of Summer Youth Camps
40. Group Camps
41. Members
42. Pre-Service Teachers
43. Special Needs Population

Trend in Number of K-12 Aged Individuals Compared With Remainder of Minnesota Population



Sources: U.S. Bureau of the Census, 1950 to 1990 Census of Population.
Minnesota Population Projections: 1980-2010. State Demography Unit, Minnesota Department of Energy, Planing and Development, 1983.

DAY-USE SITES & POSSIBLE SITES

(* = major renovation of existing facility needed)

COMMUNITY-BASED FACILITIES IN THE SEVEN COUNTY METROPOLITAN AREA

I. CURRENT FULL SERVICE FACILITIES IN MINNEAPOLIS/ST. PAUL PROPER

None

II. CURRENT FULL SERVICE FACILITIES IN THE MINNEAPOLIS/ST. PAUL SUBURBAN AREA

1. Belwin Outdoor Education Lab - Afton (school district)
2. Carpenter Nature Center - Hastings (private)
3. Coon Rapids Dam - Coon Rapids (Hennepin Parks)
4. Dodge Nature Center - West St. Paul (private)
5. Eastman Nature Center - Osseo (Hennepin Parks)
6. Lowry Nature Center - Victoria (Hennepin Parks)
7. Maplewood Nature Center - City of Maplewood
8. Richardson Nature Center - Bloomington (Hennepin Parks)
9. Springbrook Nature Center - City of Fridley
10. Tamarack Nature Center - White Bear Lake (Ramsey County)
11. Warner Nature Center - Marine on St. Croix (SMM)
12. Westwood Hills Environmental Education Center - City of St. Louis Park
13. Wood Lake Nature Center - City of Richfield
14. Minnesota Valley National Wildlife Refuge (USF&WS) - Bloomington

III. CURRENT LIMITED SERVICE FACILITIES IN MINNEAPOLIS/ST. PAUL

1. Crosby Farm Park Nature Center - St. Paul
2. Pike Island Interpretive Center - Fort Snelling State Park

IV. CURRENT LIMITED SERVICE FACILITIES IN THE MINNEAPOLIS/ST. PAUL SUBURBAN AREA

1. French Regional Park - Plymouth (Hennepin Parks)
2. Harriet Alexander Nature Center - Roseville
3. Starring Lake Outdoor Center - Eden Prairie
4. William O'Brien State Park - Northern Washington County

V. POSSIBLE SITES FOR FULL SERVICE FACILITIES

A. Minneapolis/St. Paul

1. Como Park (adjacent to Zoo) - St. Paul
2. Crosby Farm Park - St. Paul
3. Fort Snelling State Park
4. Fuji Ya Building (renovate) - Central Minneapolis
5. Lilydale Park - St. Paul
6. Minnehaha Park - South Minneapolis
7. Wirth Park - North Minneapolis

POSSIBLE SITES FOR FULL SERVICE FACILITIES (continued)

B. Suburban Area

1. Afton State Park - Afton
2. Anderson Lakes - New site/building for Richardson Nature Center Bloomington (Hennepin Parks)
3. Baker Park - Maple Plain (Hennepin Parks)
4. Cleary Lake Park - Prior Lake (Hennepin Parks)
5. Joseph Wargo Nature Center - Lino Lakes (Anoka County)
6. Lebanon Hills - Eagan (Dakota County)
7. MN Valley Trail State Park - Scott County/Carver County,
8. William O'Brien State Park - Northern Washington County

COMMUNITY-BASED, OUTSTATE FACILITIES

I. CURRENT FULL-SERVICE FACILITIES

1. Hormel - Austin Area
2. Oxbow Park and Zoo - Byron Area
3. Quarry Hill - Rochester Area
4. Regional Science Center - Moorhead Area
5. River Bend - Faribault Area

II. CURRENT LIMITED SERVICE FACILITIES

1. Forest Resource Center - Lanesboro
2. Heritage Nature Center - St. Cloud
3. Itasca State Park
4. Lake Bemidji State Park - Bemidji
5. Lake Washington Nature Center - Mankato
6. Mille Lacs Kathio State Park
7. Myre-Big Island State Park - Albert Lea
8. Sibley State Park - Willmar
9. Whitewater State Park - Rochester/Winona
10. Wild River State Park

III. POSSIBLE COMMUNITY-BASED FULL SERVICE FACILITIES

(*NFS* = not full service now; *P* = currently proposed)

1. Albert Lea - Myre-Big Island State Park
2. Bemidji - Lake Bemidji State Park
3. Brainerd - Mille Lacs Kathio State Park
4. Detroit Lakes - Maplewood State Park or Glendalough State Park or Tamarac National Wildlife Refuge
5. Duluth - Hartley Nature Center *(P)* or University of Minnesota Duluth Outdoor Program
6. Fairmont Area
7. Grand Marais - Grand Portage State Park
8. Grand Rapids Area
9. Granite Falls - Lac Qui Parle
10. Grant County - Lawndale ELC *(P)*
11. Hibbing/Virginia - McCarthy Beach State Park
12. Hutchinson Area

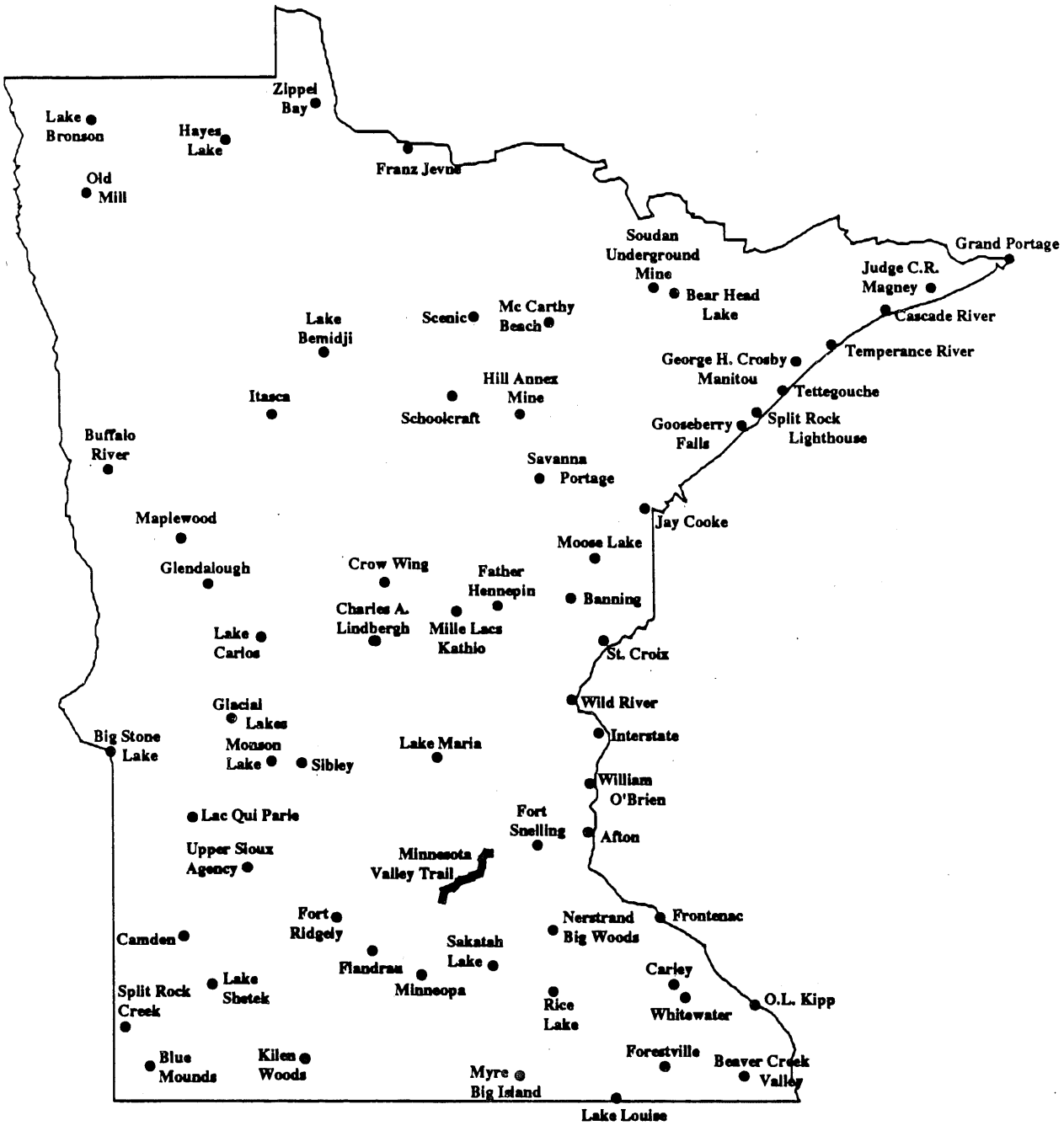
III. POSSIBLE COMMUNITY-BASED FULL SERVICE FACILITIES (continued)

13. Kandiyohi County - Prairie Woods ELC *(P)*
14. Lanesboro - Forest Resource Center *(NFS)*
15. Mankato - Lake Washington Nature Center *(NFS)* or Minneopa State Park
16. Marshall - Camden State Park
17. New Ulm - Flandrau State Park
18. Ortonville - Big Stone Lake State Park
19. Otter Tail County - Prairie Wetland Learning Center *(P)*
20. Red Wing - Learning Center or Frontenac State Park
21. St. Cloud - Heritage Nature Center *(NFS)*
22. Thief River Falls - Agassiz ELC *(P)*
23. Warroad - Zippel Bay State Park
24. Willmar - Sibley State Park
25. Winona - Upper Mississippi Learning Center *(P)* or Whitewater State Park
26. Worthington - Heron Lake ELC *(P)*
27. Wright County - Wright County Ney Memorial Park Reserve

RESOURCE-BASED, FULL-SERVICE FACILITY POSSIBILITIES

1. Blue Mound State Park
2. Cascade River State Park
3. Crow Wing State Park
4. Forestville State Park
5. Gooseberry State Park
6. Itasca State Park
7. Jay Cooke State Park
8. Lake Bronson State Park
9. Lake Carlos State Park
10. Lake Shetek State Park
11. Nerstrand Woods State Park
12. St. Croix State Park
13. Savanna Portage State Park
14. Tower-Soudan State Park
15. Wild River State Park

Minnesota State Parks



CHAPTER 126A

ENVIRONMENTAL EDUCATION

126A.01 ENVIRONMENTAL EDUCATION GOALS.

The environmental education program described in this chapter has these goals for the pupils and other citizens of this state:

(1) to understand ecological systems;

(2) to understand the cause and effect relationship between human attitudes and behavior and the environment;

(3) to be able to analyze, develop, and use problem-solving skills to understand the decision-making process of individuals, institutions, and nations regarding environmental issues;

(4) to be able to evaluate alternative responses to environmental issues before deciding on alternative courses of action;

(5) to understand the potential complementary nature of multiple uses of the environment;

(6) to provide experiences to assist citizens to increase their sensitivity and stewardship for the environment; and

(7) to provide the information citizens need to make informed decisions about actions to take on environmental issues.

History: *1990 c 595 s 1*

126A.02 OFFICE OF ENVIRONMENTAL EDUCATION.

Subdivision 1. **Director.** The director of environmental education is appointed by the commissioner of the state planning agency. The director may initiate, develop, implement, evaluate, and market informal environmental education programs; shall promote state government and private sector policy that is consistent with the environmental education programs established in section 126A.08; and may coordinate informal environmental education with the K-12 and post-secondary environmental education programs developed by the department of education and the state's post-secondary institutions.

Subd. 2. **Board members.** A 17-member board shall advise the director. The board is made up of the commissioners of the state planning agency; department of natural resources; the pollution control agency; the department of agriculture; the department of education; the chair of the board of water and soil resources; the executive director of the higher education coordinating board; the executive secretary of the board of teaching; the director of the extension service; and eight citizen members representing diverse interests appointed by the governor. The governor shall appoint one citizen member from each congressional district. The citizen members are subject to section 15.0575. Two of the citizen members appointed by the governor must be licensed teachers currently teaching in the K- 12 system. The governor shall annually designate a member to serve as chair for the next year.

History: *1990 c 595 s 2*

126A.03 STAFF.

The state planning agency shall provide staff and consultant support for the office of environmental education. The support must be based on an annual budget and work program developed by the director and certified to the commissioner of the state planning agency by the chair of the office's advisory board. The director may request staff support from any other agency of the executive branch as needed to execute the responsibilities of the director.

History: *1990 c 595 s 3*

126A.04 POWERS AND DUTIES.

Subdivision 1. **Planning.** The director may develop a plan and establish a continuing planning process to achieve the goals for environmental education. The director may integrate the environmental education plans, strategies, and policies developed by the department of education and post-secondary institutions when developing their planning process and plan.

Subd. 2. **Legislation.** The director may review proposed legislation and funding requests relating to informal environmental education for consistency with the plan. The director shall also develop with the department of education and post-secondary institutions a process for coordinating the development of K-12 and post-secondary environmental education legislation and funding requests with the plan.

Subd. 3. **Environmental education conference.** The director may conduct an environmental education conference every other year to bring together the environmental education community to identify future issues, ascertain needs, and set priorities and goals. The results of the conference may be used in revising the plan.

Subd. 4. **Advisory committees.** The director shall establish advisory committees and a process to receive input from committees and others on K-12, post-secondary, and informal environmental education programs and needs, priority issues, and target audiences.

Subd. 5. **Grants.** The director may apply for, receive, and allocate grants and other money for environmental education.

History: *1990 c 595 s 4*

126A.05 ENVIRONMENTAL EDUCATION COORDINATION PROCEDURES.

Subdivision 1. **Communication.** The director may establish and maintain methods of communication between environmental education producers, distributors, and consumers to encourage effective and timely programs.

Subd. 2. **Technical assistance.** The director may provide technical assistance to agencies and organizations for effective design and marketing of environmental education programs and for the writing of environmental education components in legislative proposals.

Subd. 3. **Marketing and publicity.** The director may provide marketing and publicity for environmental education programs of other agencies and organizations, within the priorities developed in the plan.

History: *1990 c 595 s 5*

126A.06 ENVIRONMENTAL EDUCATION RESOURCE CENTERS.

Subdivision 1. **Establishment.** The director may establish environmental education resource centers throughout the state as needed. The environmental education resource centers shall serve as a source of information and programs for citizens, provide ongoing contact with the public for feedback to the director on regional environmental education issues and priorities, and serve as distribution centers for environmental education programs.

Subd. 2. **Duties.** The resource centers shall:

(1) implement the programs and priorities of the office as defined in the plan;

(2) convey regional program priorities to the director;

(3) evaluate regional implementation of environmental education programs and report to the director on the evaluations;

(4) provide regional liaison and coordination for organizations, agencies, and individuals providing environmental education programs on particular issues;

(5) be a distribution and publicity center for agencies, environmental organizations, environmental learning center publications, programs, and services;

(6) be a central source of information for citizens interested in issues that are the responsibility of many agencies, boards, task forces, and organizations;

(7) provide technical assistance to local and state organizations and agencies on program design, promotion, and publicity to reach the chosen target audiences; and

(8) assist the educational cooperative service units by collecting and distributing environmental education teaching materials, displays, computer programs, resource person lists, and audio-visual aids, and provide assistance with teacher training workshops and programs on request.

History: *1990 c 595 s 6*

126A.07 RELATIONS WITH THE DEPARTMENT OF EDUCATION.

Subdivision 1. **Cooperation and support.** The director shall cooperate with and support the environmental education program developed by the state board of education and the department of education.

Subd. 2. **List.** The cooperation and support must include, but is not limited to, the items mentioned in the list in this subdivision.

(a) The director shall encourage all environmental education programs developed for pupils and other citizens to strive for achievement of the goals and the environmental learner outcomes developed by the department of education.

(b) The regional resource centers shall collect, house, promote, and circulate environmental education materials, displays, audio-visual aids, and computer materials for use by the educational cooperative service unit environmental education coordinators.

(c) The resource centers shall evaluate, promote, and distribute to educators materials produced by other agencies and organizations.

History: *1990 c 595 s 7*

126A.08 ESTABLISHMENT OF ENVIRONMENTAL EDUCATION PROGRAM; CHARACTERISTICS; IMPLEMENTATION; IN-SERVICE.

(a) The department of education shall assist in establishing environmental education programs in all public elementary and secondary schools.

(b) The environmental education program must be interdisciplinary, integrated into the curriculum, and outcome-based.

(c) The program must be implemented through the department of education's learner outcome, assessment and feedback, and instructional processes.

(d) The department of education shall assist school districts, education districts, and other education organizations to develop environmental education policies that maximize the environmental education in-service teacher training in educational cooperative service unit regional offices.

History: *1990 c 595 s 8*

126A.09 INTEGRATED CURRICULUM DEVELOPMENT MODELS.

The department of education shall develop curriculum integration models for a learner outcome-based environmental education program. The models must include:

(1) the specific environmental education and curriculum integration goals to be attained;

(2) the various options to achieve the goals;

(3) a hierarchy of learner outcomes composed of state learner goals; integrated learner outcomes; program learner outcomes; and course, unit, and lesson learner outcomes;

(4) mechanisms to communicate the models;

(5) an objective process to evaluate the progress to establish and implement a model integrated environmental education curriculum;

(6) alternatives to evaluate pupils' environmental education progress at the classroom level; and

(7) methods to assess pupils' environmental learning.

History: *1990 c 595 s 9*

126A.10 RESEARCH AND DEVELOPMENT SITES.

(a) Sites selected under Laws 1989, chapter 329, article 7, section 21, or other school district sites may be used to demonstrate how environmental education outcomes can be integrated into a comprehensive education curriculum.

(b) The department of education, in consultation with the director, shall assist the research and development sites to plan and implement integrated environmental education programs.

History: *1990 c 595 s 10*

126A.11 IN-SERVICE TEACHER TRAINING.

The department of education is responsible for in-service teacher training in environmental education.

History: *1990 c 595 s 11*

126A.12 REPORTING.

(a) Beginning June 30, 1992, the department of education shall submit a biennial report on its environmental education program to the legislature and the governor.

(b) The report must:

(1) describe the progress of environmental education learner outcome development and implementation in the public elementary and secondary schools;

(2) describe in-service involvement and assistance at the state and local level;

(3) evaluate the efforts of the research and development sites to implement integrated environmental learner outcome-based education; and

(4) contain an implementation plan to assist school districts in the establishment of an environmental education program in all public elementary and secondary schools.

History: *1990 c 595 s 12*

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