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ABSTRACT

This pamphlet is designed to provide guidelines which will enable formal and community educational systems to make better use of the total learning environment, including natural, man-made, and human resources and to further the concept of harmony between man and the environment. The guidelines were drawn up in response to the increasing environmental deterioration and growing need for an environmentally knowledgeable public. Environmental education is viewed as one solution, a life-long process which will, through every aspect of formal and nonformal education, help each citizen develop a positive philosophy and life style toward the environment. The guide includes such topics as recommendations for implementing an environmental education curriculum, educational responsibilities of schools, colleges, vocational training institutes, and state departments of education, resource agencies, community responsibilities, and proposed educational facilities. Discussion topics, suggestions for implementation, and tables are included.  
(Author/TK)

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**PLANNING GUIDELINES  
FOR  
ENVIRONMENTAL EDUCATION**

U.S. DEPARTMENT OF HEALTH  
EDUCATION & WELFARE  
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**Objective:**

To provide guidelines which will enable formal and community educational systems to make better use of the total learning environment (including natural, manmade and human resources) to further the concept of harmony between man and the environment.

Alaska Department of Education  
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Commissioner

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March, 1972

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**PLANNING GUIDELINES FOR ENVIRONMENTAL EDUCATION**

**Marshall L. Lind  
Commissioner of Education**

**Office of Public Information and Publications  
Alaska Department of Education  
March 1972**

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## INTRODUCTION

Many of man's individual and collective actions are adversely affecting the quality of life for present and future generations. If society is to react in a positive way to prevent further environmental deterioration, the public must be equipped to analyze the factors which cause the problem and be motivated to take preventive and corrective action.

Nationwide concern for the wise management of the Alaskan environment has resulted in public controversy over issues involving forest, oil and mineral industries. Future Alaskan programs of land planning and zoning will be carefully scrutinized by the public and resource-oriented agencies and industries. A statewide environmental education program would facilitate communication between these groups, foster a better understanding of issues and alternatives and serve as an example of Alaska's capability and willingness to solve her own environmental problems.

Although Alaska has a small population relative to her land base, most of the state's citizens live in population centers. The mounting numbers of people attracted to the state by its natural environment and opportunities for resource development have intensified problems of city planning, housing shortages, air pollution and inadequate facilities for sewage and solid waste disposal. Greater public awareness, understanding and motivation are needed to successfully confront and prevent urban blight.

The cultural and economic well-being of many Alaskans is tied to the health of our marine fisheries which are presently threatened by: pollution, over harvest, destruction of spawning streams and accumulations in food chains of persistent pesticides and industrial toxins such as mercury. Similar problems related to human impact are beginning to influence wildlife populations. These problems will increase as the state's growing population becomes more mobile and as resources are developed, unless education succeeds in altering the public's conduct towards the environment so that wise development and use of resources becomes the established pattern.

The tourist industry is directly influenced by environmental problems of cities, resource-based industries, and recreational impact on wildlands, forests, wildlife and fisheries. If tourism is to be maintained as a major Alaskan industry, every citizen must be inspired to feel personally responsible for maintaining the cultural, environmental and historical qualities which draw people from around the world.

Despite the environmental problems mentioned above, Alaska is in a more advantageous position than many states to successfully confront and solve these. A small population, large resource base and a growing concern for environmental problems lend reassurance to the hope that the state will be successful in protecting the right of present and future generations to live in a healthy environment. To accomplish this Alaska needs a statewide educational approach which focuses on the community and local environment and emphasizes the role of the individual in working toward the solution of environmental problems that affect our well-being.

We need an approach that enables Alaskans to discover their interdependency with, and responsibility for, their total environment. Such a program must help citizens of varying cultural and racial backgrounds develop mutual respect and understanding needed to work together toward the perpetual maintenance of a quality environment.

Guidelines for environmental education in the state must be flexible and evolutionary. It should build upon the experiences, successes and failures of those exceptional teachers, agency personnel and citizens who have already enriched the school curricula and enhanced community awareness through the use of the total environment as a teaching vehicle.

## ENVIRONMENTAL EDUCATION: A DEFINITION

Environmental education is a multi-disciplinary approach to the study of man's relationships with his fellowman in his natural and man-made surroundings, including the relation of population, pollution, resource allocation and depletion, conservation, transportation, technology and urban and rural planning to the total human environment.

Instruction is based on broad ecological concepts taught through inquiry and issue-oriented methods, and illustrated with local examples.

It strives to produce a citizenry that understands ecological principles and environmental problems, can rationally evaluate options for preventing and solving them and is motivated to work for their solution.

Environmental education must be a life-long process which will, through every aspect of formal and non-formal education, help each citizen develop a philosophy and life style which is in harmony with the concept of man as a participant with, rather than a master of, nature.

## RECOMMENDATIONS FOR IMPLEMENTING A TOTAL ENVIRONMENTAL EDUCATION CURRICULUM

*All citizens should work to help:*

- 1) Incorporate a well-developed series of instructional units and activities which span the curriculum, to enable the presentation of environmental experiences at every grade level and to capitalize on the cumulative effects of the program.
- 2) Integrate and correlate environmental studies with the existing curriculum in a manner that will enable students to see the interdisciplinary nature of ecological problems. Environmental studies are intrinsic to all subject areas, and learning becomes interdisciplinary where the major concepts and desired outcomes associated with various subjects blend together into a meaningful pattern.
- 3) Recognize individual differences in local needs and environments. This implies that no one set of activities should be considered sacred, rather material should be presented in different ways depending on the background, needs and aspirations of the students and the training and interests of the teacher.
- 4) Stress flexibility in scheduling to provide more time for lengthy studies and field trips, with consideration given to allowing students to have a meaningful role in schedule planning and selection.
- 5) Involve students in the total learning environment including urban, natural and suburban settings to demonstrate ecological relationships between man and his environment. Focus on the local environment should not result in neglect of regional, national and international environmental issues.
- 6) Focus on contemporary issues and involve students in experiences which will enhance their ability and desire to participate in the democratic decision-making process.
- 7) Provide opportunities for students to collect and record data based on their own observations, and provide opportunities for individual interpretation of that data.
- 8) Involve dynamic methods of inquiry. Students are motivated by the excitement of discovering for one's self, and develop skills and attitudes through personal experiences, when the learning process in school involves the inquiry approach. This approach appears to be more effective in developing problem-solving skills than the traditional method of presenting facts.
- 9) Identify community citizens as instructional aides. All citizens have a contribution to make to the educational process; schools and communities need to make greater use of these resources.
- 10) Work for an individualized system in which the student is actually involved in planning his education and evaluating his efforts.

The effectiveness of any environmental education program will be evidenced by the positive changes in the individual's behavior toward his environment, as well as by the accompanying changes in his philosophy and attitudes.

## PROPOSED RESPONSIBILITIES OF EDUCATIONAL INSTITUTIONS

To define its role in a statewide environmental education program, each educational institution should:

- a. assess its commitment to furthering such a program,
- b. evaluate the effectiveness of its current programs in changing people's attitudes and behavior, particularly teacher education programs,
- c. survey those resources available to it for future programs,
- d. identify opportunities to cooperate with other groups to achieve a coordinated statewide effort.

### *Local School Districts Should:*

- 1) In the early elementary grades, give emphasis to increasing the child's *awareness* of environmental problems and *appreciation* of nature through a curriculum which leads him to discover the more evident relationships between man and nature, and physically involves him with many aspects of his local environment, with major emphasis on extending application of basic skills to real sensory materials. During later elementary grade levels, more stress should be placed on increasing the child's *understanding* of the biological and social causes of environmental problems and encouraging the development of values which lead him to accept *responsibility* for maintaining the quality of his environment.
- 2) At the secondary level, enhance the awareness, concern, knowledge and motivation initiated in elementary school. Emphasis should be given to generating a more sophisticated understanding of: ecological systems; social, philosophical, economic and political aspects of environmental problems; various remedial options and the implications of these options for man. A student upon graduating should be capable of evaluating in a rational manner the effects of individual and collective actions on the environment. He should have developed values which reflect the goal of man in harmony with his environment. He should be committed to work for constructive action to maintain a healthy environment.
- 3) Work with local Citizen Environmental Education Task Forces.
- 4) Cooperate with local teams of resource people and educators in providing weekend workshops, inservice training days, conferences, etc., for teachers, students, supervisors, administrators and community participants.
- 5) Consider the use of local citizens as instructional aides in outdoor environmental studies and demonstrations.
- 6) Consider hiring an Environmental Education Coordinator.
- 7) Consider the need for acquiring extended school sites to be used as outdoor laboratories by classes during school hours. Make full use of present sites for extended study.



- 8) Encourage the landscaping of developed school sites with native vegetation and the preservation of existing native vegetation on sites in the process of being developed.
- 9) Encourage the increased use of institution facilities for nonformal education, such as seminars, briefings for businessmen and community leaders, public forums and exhibits, informational programs, etc.
- 10) Consider summer activities involving students in the observation and care of the environment.

*Colleges and Universities Should:*

- 1) Re-examine their existing statements of educational objectives to insure that the concept of harmony between man and the environment is in some way expressed as an essential goal.
- 2) Establish a Faculty-Student Committee on Environmental Education whose purpose will be to:
  - a. Evaluate their institution's commitment to a flexible interdisciplinary, inquiry and issue-oriented approach to learning; inventory its present undergraduate curriculum opportunities in environmental education and recommend desirable modifications and additions.

Undergraduate training opportunities in environmental studies should be available to all students in teacher education. Teachers will not be equipped to employ the total environmental approach to education if they are indoctrinated in the traditional manner with predigested conclusive information. University education courses must relate environmental studies to the individual's subject area through inquiry and issue-oriented methods which involve him with problem-solving situations in man-made and natural environments.
  - b. Assess graduate level programs of professional preparation concerning the need for courses on various aspects of the human environment.
  - c. Develop guidelines in cooperation with the State Department of Education for establishing a graduate program in environmental education and consider the need for expanding present graduate teacher training opportunities in environmental education through more evening, community college and summer school classes.
- 3) In evaluating teacher preparedness in environmental education, consider:
  - a. Providing training via the same inquiry and issue-oriented methods that they will later need to use to help students initiate inductive environmental investigations.
  - b. Gaining background in basic environmental studies such as general and human ecology
  - c. Providing experiences with indoor techniques of simulating contemporary, decision-making problems related to environmental planning.

- d. Providing experiences in leading children through problem-solving activities in a variety of environments.
- e. Developing knowledge of potential types of community sites suitable for outdoor investigations.
- f. Developing in teachers the ability to organize and implement environmental education programs at their own grade or subject level on school grounds, outdoor laboratories, field trips and overnight experiences.
- g. Consider teacher training which includes study of the man-made environment and its effect on the learning process.

*Community Colleges and Vocational Training Institutions Should:*

- 1) Re-examine their existing statements of educational objectives to insure that the concept of harmony between man and the environment is in some way expressed as an essential goal.
- 2) Consider the need for offering environmental studies related to:
  - a. training of prospective teachers,
  - b. inservice teacher training,
  - c. liberal arts education,
  - d. career opportunities in environmental occupational training,
  - e. coverage of new pollution control laws now pertinent to most business and industry,
  - f. adult-oriented surveys of environmental issues,
  - g. ecological life styles.
- 3) Cooperate with the community in providing public environmental education programs which make use of local citizens who are involved in environmental affairs.
- 4) Community colleges should develop programs for environmental techniques. All possible occupations in environmental control should be considered and appropriate training programs implemented.

*The State Department of Education Should:*

- 1) Serve as a central coordinating body for environmental education through the Commissioner of Education, who is kept informed by the State Advisory Committee on Environmental Education and by an Environmental Education Specialist from the State Department of Education.

- 2) Maintain at least one permanent position for an Environmental Education Specialist.
- 3) Initiate the formation of local Citizen Environmental Education Task Forces in each borough and unincorporated area.
- 4) Cooperate with school districts, community colleges and resource agency personnel in providing local workshops and accredited courses for teachers, school administrators, agency people, college students and the community.
- 5) Investigate the need for requiring a college course in Environmental Education for teacher certification.
- 6) Develop guidelines for required minimum competencies for district level Environmental Education Coordinators.
- 7) Develop guidelines with colleges and universities for establishing graduate programs in Environmental Education.

## PROPOSED EDUCATION RESPONSIBILITIES OF FEDERAL, STATE AND LOCAL RESOURCE AGENCIES

### *State, Federal and Local Agencies Should:*

- 1) Assess their efforts to inform and educate the community and schools about their own ecological problems.
- 2) Coordinate their efforts with those of educational agencies to provide materials and personnel to community environmental education programs.
- 3) Assess the need for expanding their publication of educational materials that provide data related to their particular environmental problems.
- 4) Co-sponsor environmental education training workshops for agency personnel.
- 5) Make their lands and facilities available to communities and schools for environmental education purposes.

### *Libraries:*

- 1) Cooperate with state and federal resource agencies in gathering research publications and literature on the Alaskan, national and worldwide environment into a central library facility to enhance public and student access to data on environmental problems.
- 2) Augment the state supply of library books, magazines and literature on environmental issues.
- 3) Develop files of materials and resources on local environmental problems.
- 4) Develop a traveling exhibit which can be mailed from school to school (especially good for rural schools).
- 5) Make a film having to do with the uniqueness of Alaska's environment and its needs.

### *Museums:*

- 1) Cooperate with community environmental education programs through the contribution of facilities and materials.
- 2) Investigate the need to augment existing on-site and traveling exhibits which focus on man's relationships with the environment.
- 3) Have a specialist travel with the exhibit to the larger communities. This could be given publicity in advance and a specialist could talk to local groups, appear on radio, television, etc.
- 4) One exhibit should be held in reserve to be available to special conferences; i.e., businessmen's conventions, etc.

## PROPOSED EDUCATIONAL RESPONSIBILITIES OF THE COMMUNITY

Citizen Environmental Education Task Forces comprised of individuals from all sectors of the community should work to enhance the public's participation in environmental education. Below are a few of the many types of commitments the public can make to a community-wide program.

**Local educators, Interested Citizens and Civic Organizations**—Gather together existing instructional materials pertinent to local cultural and environmental conditions. The development of new materials could be initiated through local case studies and demonstration projects, with the goal to eventually provide a well developed series of environmental education instructional units and activities commencing with preschool and continuing through adult education.

**News Media**—Cover existing and proposed environmental education programs and contribute to informing the general public about critical environmental problems and possible solutions.

**Civic Groups**—Sponsor evening forums on local issues with speakers recruited from the ranks of local government, business, resource agencies, schools, colleges and other civic organizations. Raise funds for facilities.

**Conservation Groups**—Organize tours of the local region to acquaint citizens with the environmental challenges and opportunities within their communities.

**Labor and Industry**—Encourage, through the Chamber of Commerce, greater participation of the commercial sector in local seminars and cooperation in the provision of urban and industrial field trip sites.

**Professional Organizations**—(Lawyers, architects, bankers, doctors, foresters, etc.). Define the responsibilities of the profession in helping to maintain a healthy environment and develop a professional environmental code of ethics.

Conduct seminars, briefings and training sessions to increase the awareness of members concerning their individual professional responsibility to the environment and to enhance their ability to contribute to community-wide environmental education.

**Municipal Resource and Planning Commissions**—Aid in the inventory and acquisition of natural and urban areas for a network of extended classroom sites. To make plans for all development available to the general public and schools.

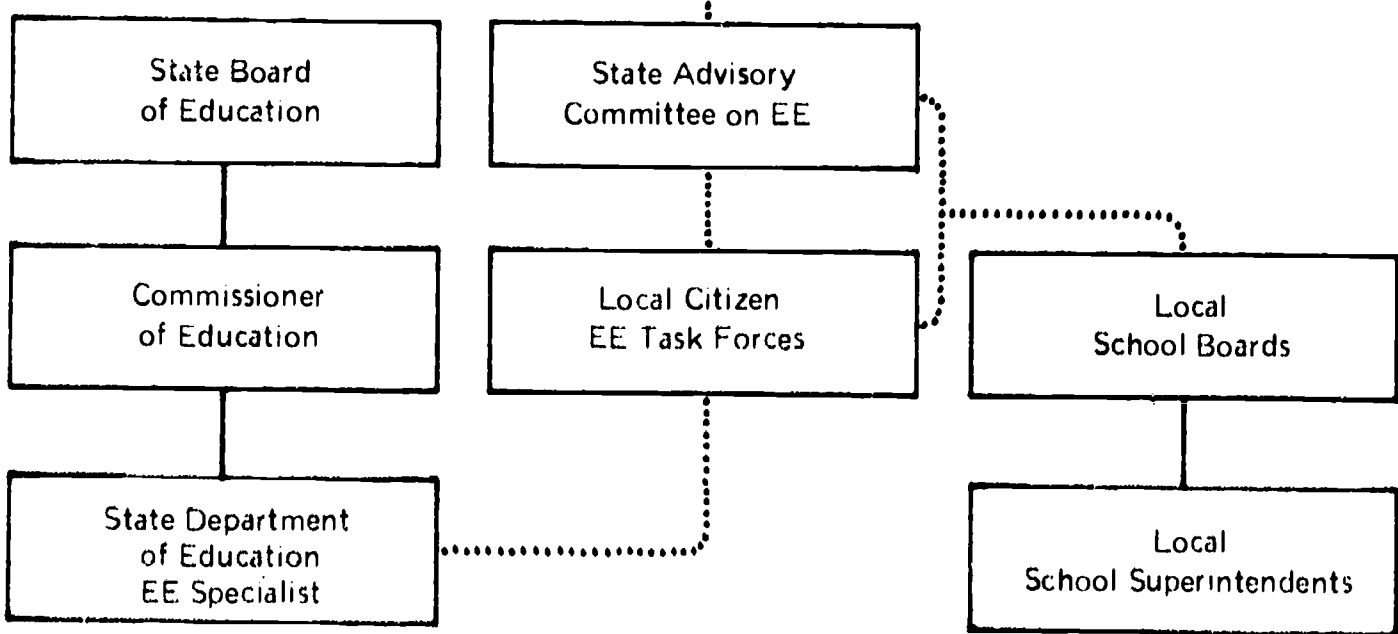
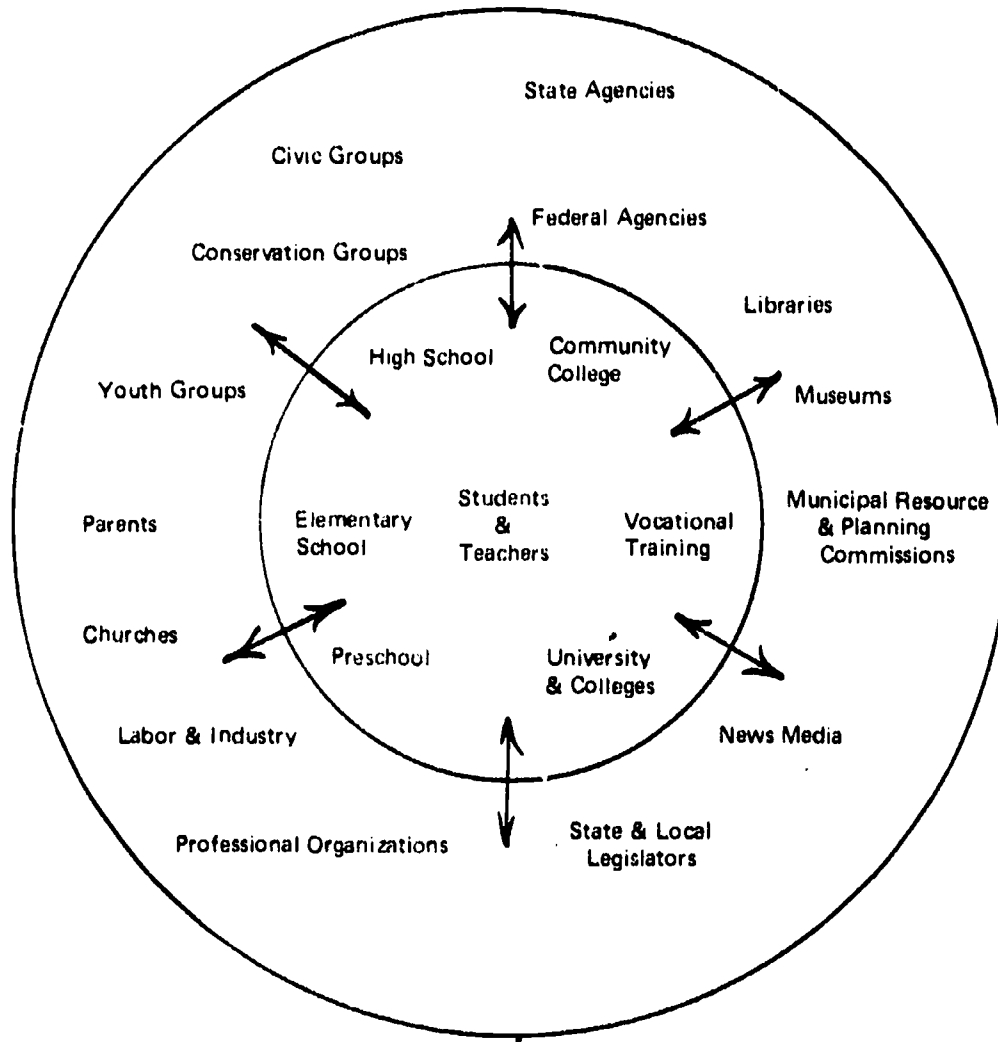
**Students**—Participate in the preparation of TV, radio and newspaper environmental education media.

Encourage their Student Council to sponsor a student-operated paperback bookstore featuring environmental literature.

Form a student environmental action group and organize projects; i.e., recycling, litter, etc.

Request that the Governor call for a statewide meeting of high school and junior high delegates for a conference on Youth and the Environment.

Contribute to the formation of a local environmental education center and donate time to staff it.



## STATE ADVISORY COMMITTEE ON ENVIRONMENTAL EDUCATION

The Advisory Committee on Environmental Education should be established with its primary mission to advise the Commissioner of Education on implementing a statewide environmental education program of action.

It would serve the Commissioner of Education by gathering information, reviewing Education Department efforts in environmental education, reviewing school district activities as reported by borough Environmental Education Task Forces and recommending action based on the guidelines and other data resulting from its deliberations.

This committee should consist of ten members, to be appointed by the Commissioner of Education for one- to three-year terms. The members should be selected, whenever possible, from local Environmental Education Task Forces.

Five members would be appointed from such groups as:

- State Agencies
- Federal Agencies
- Alaska Colleges and Universities
- Alaska School Superintendents Association
- School Principals Association
- Classroom Teachers Association
- Private and Parochial Schools
- State-Operated School Administrators
- Museums and Libraries

The other five members would be drawn from the following sources:

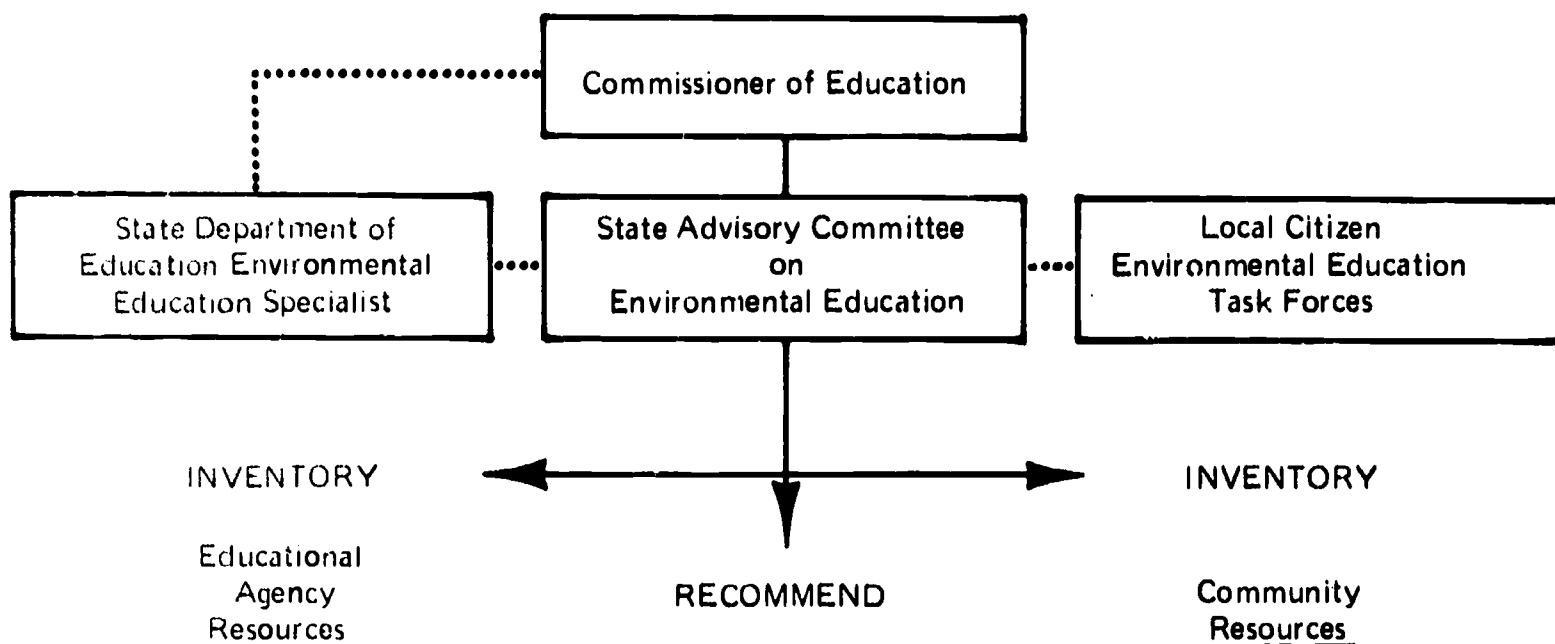
- Parents
- Secondary and College Students
- Boards of Education
- Conservation Groups
- Municipal Governments
- Park Commissions
- Citizen Service Organizations
- Private Foundations
- Business
- Churches
- News Media
- Labor and Industry

The Advisory Committee on Environmental Education should address itself to the following:

- 1) Inventory personnel in existing educational agencies on both the state and local levels with the Commissioner of Education and recommend effective means for their coordination.
- 2) Devise a way to effectively coordinate the capabilities of educational agencies with those of business, civic groups, federal and state agencies.
- 3) Identify the amount and designation of state and federal government monies now allocated to environmental education, consider the need for new or improved fiscal arrangements.

- 4) Consider the statewide establishment of environmental education centers and devise appropriate legislation for their initiation and continuation.
- 5) Identify and assess the capabilities of other environmental resources and agencies within the state and recommend means for their coordinated use. For example: park systems, museums and libraries.
- 6) Recommend a system to insure the constant flow of new materials into the school curricula.
- 7) Submit biannual reports on its findings to the Commissioner of Education.
- 8) Evaluate the effectiveness of statewide program development.





Review Education personnel in existing state and local educational institutions.

Identify amount & designation of state and federal monies now allocated to EE.

Inventory educational agency facilities & resources which might contribute to EE Centers & programs.

Evaluate extent & quality of agency EE curriculum materials.

Evaluate effectiveness of statewide educational agency EE program.

Outline means for their coordination & optimum utilization for a statewide Environmental Education Program.

Consider the need for new improved fiscal arrangements.

Outline a procedure for the establishment of EE Centers & propose legislation for their initiation & continuation.

Recommend a means to insure the constant flow of new materials into the system.

Advise the Commissioner of Education on the status of statewide EE program.

Identify community resources: civic & conservation groups, Municipal Planning Commissions, etc.

Identify national sources of private funds for EE programs.

Identify potential community contributors of facilities & funds for EE Centers & programs.

Assess private local sources of materials & possibilities of donations of money for materials.

Evaluate the extent of community involvement in & contribution to EE.

## CITIZEN ENVIRONMENTAL EDUCATION TASK FORCE

The State Department of Education Environmental Education Specialist should contact concerned and knowledgeable citizens in boroughs and unincorporated areas to encourage the establishment of local Citizen Environmental Education Task Forces.

Task Forces should comprise at least ten persons and be representative of education agencies, conservation and civic groups, students, news media, business, labor and industry.

### *Task Force Activities:*

- 1) Inventory land, facilities, funds and personnel in the borough or community which are present or potential assets to environmental education activities.
- 2) Identify situations requiring immediate action; for instance, new school sites in the process of being cleared.
- 3) Designate potential environmental education projects in order of priority.
- 4) Work for community-wide involvement in environmental education projects.
- 5) Report regularly to the Superintendent of Schools and Board of Education.
- 6) Provide information for the State Advisory Committee on Environmental Education.

### **—Priority Projects—**

- \* Community education programs to increase the public's understanding of the goals and techniques of environmental education and to enhance its ability to participate. (For instance, community college adult education courses.)
- \* Acquisition of a network of outdoor classroom sites including: areas adjacent to schools, outlying sites representing a variety of ecotypes, overnight sites for outdoor school programs.
- \* Organization of a local Environmental Education Center to provide instruction, guidance, and resources to students, teachers, and community groups carrying out group or individual environmental education projects.

## PROPOSED EDUCATIONAL FACILITIES

### Local

#### *Extended School Sites:*

As a matter of convenience or for lack of facilities, teachers overemphasize indoor learning when many times out-of-door-classroom activities offer superior opportunities. Too often the learning process loses its vitality as a result of educators' struggles to simulate environmental situations. There is a need for a variety of outdoor school sites to provide direct learning opportunities in man-made and natural environments. Each school district should inventory the learning environments within its area and develop guidelines for the acquisition and dedication of study sites for perpetual school and community use.

- \* Environmental Study Areas—on the school grounds or within walking distance of the school, to enable teachers to take frequent advantage of improved learning opportunities available beyond the classroom.
- \* Urban and Industrial Sites—to enhance student investigations in human ecology.
- \* Remote Sites—(representing local ecotypes) to enable student investigations in a variety of ecological situations, thereby enhancing their understanding of regional relationships.

#### *Resident Outdoor School Sites:*

Resident outdoor school programs include opportunities for:

- \* Involvement in a week-long living experience that promotes group interaction in learning to work together.
- \* Enrichment of the existing curriculum with relevant and significant learning experiences based on the ecological study of the natural environment.
- \* Application of the basic learning skills in environmental investigations.
- \* The child to develop personality traits of self-initiative, self-reliance, creativity and responsibility to others and the environment.
- \* High school or college students to develop leadership responsibilities in learning how to work with young people.

These facilities can also be used for teacher and community environmental education training workshops.

#### *Local Environmental Education Centers:*

In response to the growing concern for the environment, conservation organizations and civic groups have initiated programs and community action oriented toward a wide variety of environmental issues and problems. There is a growing need for communication, coordination and cooperation between these groups to further ongoing action and planning that will benefit the entire community and state. A local Environmental Education Center,

organized by the community from the existing resources of the area, would provide a point of coordination for information on local environmental problems and community-wide projects.

Center services might include the provision of facilities, equipment and technical assistance to students and teachers involved in programs and projects; training of education and noneducation personnel; development of special materials requested by the community; dissemination of desired materials; and consultant services for formal and community education program development and evaluation.

The local Center could cooperate with other borough and community centers, a state Center and the State Advisory Committee on Environmental Education to develop a statewide public information program and to facilitate the spread of newly developed instructional materials.

## State

### *Alaska Center for Environmental Studies:*

Wise decisions take public understanding based on up-to-date factual data, but most of the data collecting about the environment is made by specialized agencies, businesses and institutions which are widely scattered across Alaska, the United States and the world. The language in which the collected data is reported is usually in the specialized terminology of the professional and often is incomprehensible to the general public.

There is a need for a state Center in which materials could be collected from all public agencies, private businesses and educational institutions. These materials would then be available at a central location for research projects in the field of environmental studies. Technical material could be abstracted and translated by the participating agencies and made available to the general public through center media projects.

The Center would be available at all times of the year for curriculum development for all levels of education. Businessmen could send their leaders to develop materials for their employees; educators could send teachers and administrators to develop curricular materials and programs for use in the schools. University students and others could be able to research relevant problems in their field. Businessmen and vocational education leaders could have joint conferences to plan for future employment opportunities.

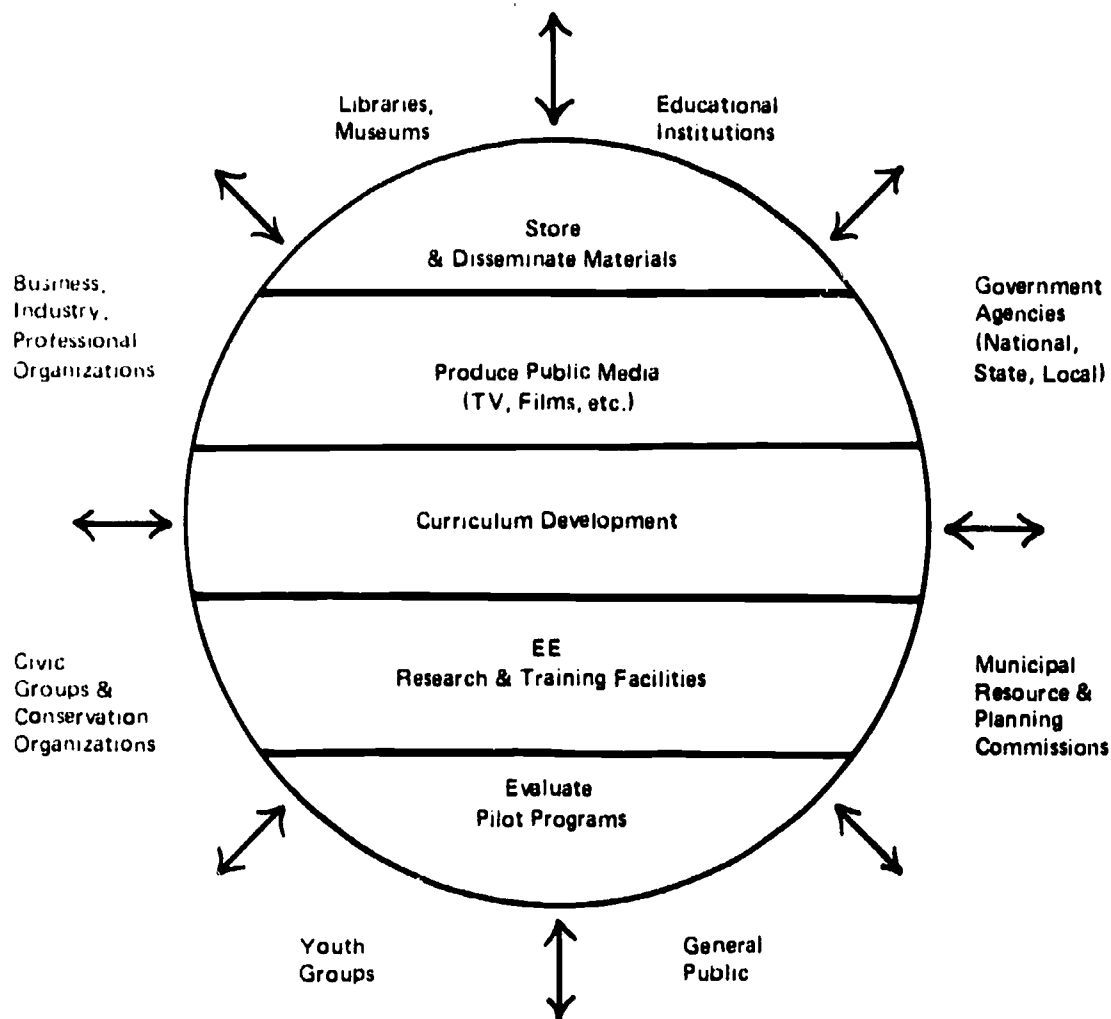
The Alaska Center for Environmental Studies could be the keystone to the development of long-range plans for utilization of the State's resources. It could be the key to creating an Alaska for *people for all time!*

### *Goals:*

- 1) To make available, in a single location, materials related to environmental quality.
- 2) To disseminate, through all educational media, materials relevant to environmental education.
- 3) To establish problem-oriented research studies in environmental education.
- 4) To provide a study center for curriculum development of environmental education materials.
- 5) To provide a common meeting center for agencies, institutions and businesses.

- 6) To coordinate environmental education efforts of the various local, state and national institutions, agencies and private organizations located within the state of Alaska.

### ALASKA CENTER FOR ENVIRONMENTAL STUDIES



#### *Proposed Activities of the Center Staff:*

- 1) Collect and catalogue relevant materials from all agencies, institutions and businesses related to environmental studies.
- 2) Publish, bimonthly, an abstract of new materials and a report on environmental studies in progress.
- 3) Provide assistance in research to participating groups by making available research libraries.
- 4) Provide a staff for training members of participating groups in basic ecological concepts and environmental education methods.
- 5) Construct a model Environmental Study Area in the outdoors within five minutes walking distance of the Center site for use in the development and testing of environmental education activities and materials.

- 6) Test and evaluate all pilot programs produced and distribute the results.
- 7) Maintain contact with local environmental education centers and local Citizen Environmental Task Forces throughout the state.
- 8) Present statewide public information program via the news media and educational films.

*Mobile Touring Facilities:*

The growing mobility of society and the global nature of environmental problems require that an effective environmental education program enable students to investigate and analyze a variety of ecological situations.

Mobile Touring School Programs are one method of exposing students to the ecological relationships of entire regions, thereby enhancing their appreciation of the need for regional cooperation and planning.

Educators should investigate the possibilities of using the State Ferry System, university, and state agency ships, busses, planes, etc., to broaden students' exposure to an understanding of statewide relationships and problems.

## PROPOSED EDUCATION PERSONNEL

### Local

#### *District Environmental Education Coordinators:*

Each school district should consider hiring an Environmental Education Coordinator and, depending on its size, assistant coordinators to work directly with teachers of all disciplines in developing environmental education curricula. District coordinators would organize teacher training workshops, work with teachers to develop a K-12, multi-disciplinary curriculum, direct environmental education camp programs and act as a liaison between schools, Environmental Education Centers and the community.

### State

#### *Environmental Education Specialist:*

The State Department of Education should consider the maintenance of a permanent position for an Environmental Education Specialist whose present job is to:

- \* consult with school administrations and staffs concerning environmental education programs and coordinate programs presently existing in the state,
- \* assist school personnel in setting up new programs, evaluating these programs and suggesting modifications and improvements,
- \* work with personnel in Alaska universities and the Department of Education to supervise the development of educational guides,
- \* conduct workshops at the request of Alaska school administrators,
- \* serve as resource to State Advisory Committee on Environmental Education.