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K-12 Environmental Education Report Card for Washington State

a joint project of



CENTER FOR ENVIRONMENTAL EDUCATION RESEARCH

A Project of the Competitive Enterprise Institute

Tucson, Arizona

and



Evergreen Freedom Foundation

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About the Center for Environmental Education Research

The Center for Environmental Education Research (CEER) is a project of the Washington, D.C. Based Competitive Enterprise Institute. CEER's mission is to improve the quality of teaching about the environment in America's K-12th grade schools by ensuring that students receive unbiased environmental information which is based on sound science and economics and develop the critical thinking skills needed to make informed decisions about complex environmental issues.

About the Evergreen Freedom Foundation

The Evergreen Freedom Foundation (EFF) is a non-profit, educational research organization. The Foundation's mission is to advance individual liberty, free enterprise and responsible government. EFF staff conduct research and publish analysis and policy alternatives in the areas of state budgets; governance and citizenship; and health, education and welfare reform.

The Evergreen Freedom Foundation neither solicits nor accepts donations from public sources. All programs and activities are funded by private donations from thousands of concerned individuals and numerous private foundations.

Preface

The goal of this report is simple: We want school children in Washington state to receive higher quality instruction about the environment. Accomplishing this goal requires reorienting current K-12 environmental education away from the national, politicized prototype and moving toward scientifically rigorous content and instruction.

Presently, our state's K-12 environmental education goals do not guarantee that students will receive in-depth, science-based knowledge and instruction beyond simple nature studies. But a review of the learner objectives (scope and quantity) indicates students *will* learn 1) how to be political activists, and 2) one side of numerous controversial environmental debates.

Solving our environmental problems and preventing new ones does not require training a new generation of political activists. It requires a new generation of scientists, engineers and inventors. It requires citizens who can reason and think critically. These objective and necessary outcomes are unlikely to occur for the majority of students under the umbrella of Washington state's current environmental education goals.

Environmental education is a complex subject, and reputable scientists often disagree about the scientific and economic certainty surrounding many environmental issues. Children must be exposed to the science and economics of *both* sides of controversial issues. Environmental education should equip students to discriminate between the genuinely misinformed and authentic scientific disagreement.

Insisting on balanced, science-based environmental education for students is a win-win situation. Children benefit from exposure to environmental education that is deep and sound. The environment benefits from a new generation of scientists and economists working to solve old problems and prevent new ones. Humankind benefits from a more permanent commitment to good stewardship.

Most of us living in Washington state consider ourselves "environmentalists." We are proud of the heritage and beauty afforded us by our abundant natural resources. To squander or destroy our land, air or water is unacceptable to us. But guaranteeing these outcomes requires that we and our children learn more than catchy slogans about how to judiciously use and care for our environment.

-L.H.-

ENVIRONMENTAL EDUCATION REPORT CARD FOR WASHINGTON STATE:

A Preliminary Report on the Legal, Regulatory, and Administrative Aspects of Environmental Education in Washington state.

Introduction

Fourth-grade students from Denver's Centennial Elementary School were excited about their Earth Day field trip. Leaving stuffy classrooms and textbooks for the opportunity to get out-of-doors on a crisp, sunny Colorado spring day excited students and teachers alike. Field trips can be an excellent way to bring classroom learning alive and create memorable educational experiences. But this field trip was different.

Some students began to wonder why the Sierra Club, the sponsor of the trip, was taking them to concrete-and-asphalt covered downtown Denver to learn about endangered species. But the Sierra Club had its reasons, which soon became apparent. Students were given a lecture on endangered species. They were then given sidewalk chalk and asked to draw their favorite endangered species on the sidewalks of fashionable Larimer Square Park.

On cue, local reporters arrived and as the kids gathered around to drink juice, they heard Sierra Club leaders denounce U.S. Senator Ben Nighthorse Campbell's environmental voting record and his support for a senate bill opposed by the Sierra Club. The teacher and at least one student joined in to condemn the Senator's environmental voting record. This fourth-grade field trip coincided with the Sierra Club's \$6 million campaign against this senate bill and a negative "voter education campaign" targeted at Senator Campbell's reelection.

One partisan critic charged that Sierra Club leaders "should be ashamed of themselves...." "To kidnap an elementary school's field trip for a news 'prop' goes beyond the pale." Senator Campbell called the Sierra Club's action "absolutely shameless." But the Sierra Club defended its actions as legitimate. "They [the students] were there to express their concern about endangered species and to let the public know that they were worried about endangered species protections that are under attack by [Senator] Ben Campbell."¹

This incident is a vivid illustration of the growing politicization of environmental education. While many schools and teachers stay strictly within the bounds of educational ethics and teach about the basic scientific aspects of nature—which adults may remember as "nature studies,"—much of the national movement supporting more environmental education is wedded to a concept that ranks political action training equal to learning scientific knowledge about the environment.

¹ Morson, Benny. "Sorry about environment rally, principal tells Campbell." *Rocky Mountain News*. April 22, 1998. and Zaret, Elliot. "Activists Accused of 'Hijacking' Earth Day Group." *Denver Post*. April 22, 1998.

In fact, this incident in Denver illustrates a national movement so committed to politicized environmental education that it is unable to take a stand against political manipulation of students. To date, the leading EE organizations, both nationally and at the state level, have failed to condemn this, and other, blatant examples of politicizing children for the benefit of a narrow political special interests.

This report is about politicized environmental education. Specifically, it focuses on:

- ▶ How politicized EE started almost thirty years ago.
- ▶ How politicized EE is encouraged nationwide by the federal EPA and its allies.
- ▶ How politicized EE has taken root in legal, regulatory, and administrative structures in Washington state.
- ▶ And, how science-based EE has replaced politicized environmental education in one state—Arizona.

This report does not examine the content of environmental education materials or programs in Washington. That is left to subsequent reports in this series.

Environmental Education: What Do Students Know?

Environmental education is one of the most popular educational trends to come along in recent memory. Walk into any elementary school and you will see student drawings of endangered species covering hallway walls. Attend a middle school science fair and you will see experiments showing how acid rain destroys plant life and how organic materials decompose and inorganic materials fail to decompose in landfills.

Environmental education which is scientifically based and objectively taught is an appropriate part of any school curriculum.

Children’s concern for the environment is a good thing. After all, they are aware that society faces environmental problems that, if not solved, they will inherit. Environmental education which is scientifically based and objectively taught is an appropriate part of any school curriculum.

Unfortunately, an increasing body of research shows that when children are taught about environmental issues—as distinguished from “nature studies”—students are exposed to biased information based on weak science and almost nonexistent economics. And the bias is always in the same direction—catastrophic environmentalism. For example, students are taught that ozone depletion will cause epidemics of skin cancer; that global warming will cause polar icecaps to melt and flood coastal cities, and that runaway world population growth will cause mass starvation. These issues are often taught without the provisos of scientists who study these issues or without contrast to equally competent scientists who dispute the claims of catastrophic results. In other words, legitimate scientific debates fail to find their way into our K-12 classrooms. Instead, students are forced fed one-sided information that leads them to predetermined conclusions. As a result, students are not trained to understand the real scientific process or to become critical thinkers.

If that was not bad enough, many environmental education presentations then go on to preach the latest “environmentally correct” behaviors—don’t use juice boxes, Styrofoam cups, etc. Students are also trained in sophisticated political action techniques—how to hold a press conference, raise money for environmental candidates, testify at a city council meeting, etc.

A study of 62 geography, health and science textbooks published by national textbook publishers shows that the average 6th through 10th grade student, as opposed to the student who takes an environmental *science* course, is exposed to only one side of scientific debates that surround many environmental issues. In addition, these texts often ignore basic scientific information that does not reinforce the catastrophic environmental message contained in the text. For example:

- Not one of 27 texts that discussed the stratospheric ozone issue mentioned that ozone has a natural fluctuation of up to 50 percent. This natural fluctuation makes scientific determination of possible man-made influences on the ozone layer difficult.
- Not one of 18 texts that discussed the problems of endangered species states that most of the very high rates of species loss are predictions of the theory of island biogeography which is hotly debated in the scientific community.
- Only three of 24 texts that discussed world population growth mention the fact that the world population growth rate has been decreasing since the late 1960s.²

Biased and weak material was also found by the Independent Commission on Environmental Education, a commission composed of ten leading scientists and economists. This commission concluded that many environmental education materials contain errors and “often fail to prepare students to deal with controversial environmental issues.” What is worse many environmental science textbooks, which one might think would be the best, “have serious flaws.” Additionally, according to the commission, some of these texts “provide superficial coverage of science” and others “mix science with advocacy.” The commission’s first recommendation is that primary emphasis should be placed on “acquisition of knowledge.”³

“...nine out of ten environmental plotlines evoke images of gloom and doom, such as mass extinction or environmental apocalypse.”

Robert Lichter and his associates, at the Washington, DC-based Center for Media and Public Affairs, studied environmental issues portrayed on children’s television programs. This study used detailed content analysis to review 175 episodes of animated and live-action cartoon shows including 22 episodes of “Captain Planet” produced by Turner Television. Among the findings is a pervasive doom-and-gloom message. This study found that “over nine out of ten environmental plotlines evoke images of gloom and doom, such as mass extinction or environmental apocalypse.” Another finding

² Sanera, Michael. “Environmental Education in Wisconsin: What the Textbooks Teach,” Wisconsin Policy Research Institute Report 9:5. 1996.

³ Independent Commission on Environmental Education (ICEE) “Are We Building Environmental Literacy?” 1997.

is even worse for those who believe that sound science is the foundation of good environmental education. Lichter found that “Overall, scientists fared worse than every other occupational group except for professional criminals.”⁴

Children exposed to these materials are grossly misinformed. University of Minnesota professor Jim Bowyer surveyed over 2,000 college students at 11 major universities. He found that large percentages of college students—the products of K-12 environmental education—believe information that is simply not true. For example:

- 65 percent thought that U.S. forest harvest exceeds net growth.
- 72 percent thought that elk, antelope, and wild turkey populations have declined.
- 78 percent thought that the world is running out of minerals.

Bowyer recounts asking during a class session how long, on average, does a tree live? The answers varied from several thousand years to “until the tree is cut down.” Bowyer concludes, “I am led to wonder whether it is possible to have a rational discussion about forests and their management with someone who believes that trees will live forever if not cut down.”⁵

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One might expect that the education prospective teachers receive at the university level would be better. But a study of courses taken by education majors at eight branch campuses of the University of Wisconsin showed that future teachers receive biased presentations on environmental issues. Textbooks from only two of the 12 courses studied passed the national guidelines for quality materials established by the North American Association for Environmental Education, the nation’s largest group of professional environmental educators.⁶

In fact, a university known as a nationwide leader in environmental education trained future teachers using a textbook that was criticized by three independent assessments. One critic charged: “The [text] book is so insistent in promoting its world-view that it could serve as a model for education-with-indoctrination.”⁷

These findings should be disturbing to anyone who values objective, unbiased education and especially to anyone who believes that if our society is to solve important environmental problems, we must greatly improve our science education.

⁴ Lichter, S. Robert, Linda S. Lichter, and Daniel R. Amundson. “Doomsday Kids: Environmental Messages on Children’s Television.” Center for Media and Public Affairs. Washington, DC. 1995.

⁵ Bowyer, Jim “U.S. Forests and Forest Products: Fact vs. Perception,” *Forest Products Journal* 45:11/12. p. 17-24. 1995.

⁶ Sanera, Michael. “Teaching Environmental Education to Wisconsin Teachers: A Review of University Course Materials.” Wisconsin Policy Research Institute Report, 10:7. 1997.

⁷ Rodel, M. The Textbook Letter 3 (Jan./Feb. 1993): p.6.

Development of Political Environmental Education

How did teaching about the environment become based on weak and biased science? How did teacher education become so biased? How did this aspect of our educational system become politicized? How did the important instruction of children to understand and appreciate nature turn into biased crusades to “save the planet?” These questions require a review of the development of the field of “environmental education.”

Before the 1970s, education about the environment consisted of teaching children about nature, emphasizing biological processes and conservation. The pre-1970 approach to teaching about the environment sought to educate students about natural resources, how they were used, and their importance in creating this nation’s economy. Children were encouraged to conduct nature studies in order to get a better understanding of the physical world and how mankind fit into it.⁸

...since the activists’ goal was to build political support for environmental changes they deemed necessary to “save the earth,” euphemisms were all that was necessary.

But teaching children about the environment based upon the scientific processes of nature was not acceptable to the new breed of environmental activists who came to prominence after the first Earth Day on April 22, 1970. They focused their elementary and secondary environmental education efforts on euphemisms like “environmental consciousness” and “saving the earth.” What they actually did, and continue to do, is politicize this area of education, teaching children political skills rather than an unbiased, science-based curriculum. It was easier than dealing with scientific facts, and since the activists’ goal was to build political support for environmental changes they deemed necessary to “save the earth,” euphemisms were all that was necessary.

Jonathan Alder, an environmental researcher at the Competitive Enterprise Institute in Washington DC, documents how this conversion from science-based education about the environment to politically motivated “environmental education” (EE) took place. He notes that EE shifted from focusing on science and resource management to promoting political activism and beliefs that challenged the country’s free enterprise system and technological development.⁹ Ironically, while this new method supposedly had a greater concern for the environment, there is less actual environmental education, and more environmental indoctrination.¹⁰ During the 1970s, environmental education took on the character and rhetoric of the environmental movement itself. A shift in focus occurred from conserving resources to the exercising political control of the use of resources. An emphasis was placed on the use of political power to accomplish the “control over the use of resources and the design of industrial life.”¹¹

⁸ Alder, Jonathan H. “The Rise of Environmental Education.” *Journal of Private Enterprise*. Vol. XI, No. 1. Fall 1995. pp.83-94. p.85.

⁹ *ibid.* p.83.

¹⁰ *ibid.*

¹¹ *ibid.*

In order to motivate children politically, they had to be convinced that their earth was in grave danger. To this end, kids were indoctrinated with biased information on environmental issues such as global warming, acid rain, etc. The traditional standards of presenting a balanced educational experience and commitment to scientific rigor were sacrificed to what the environmental activists believed to be the more noble, and moral, goal of saving the planet.

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Even some environmentalists view this new version of EE with alarm. Mike Weilbacher, a well-known environmental educator, writing in *E Magazine*, notes that children are not to be “warriors or worriers.” As an educator, he has seen the results of political EE in our schools. “Too often, environmental education becomes reduced to bumper stickers and slogans. Save the Earth! Reduce, reuse, recycle! Adopt a whale! We can no longer reduce ridiculously complicated global issues to lapel pins. Education-as-slogan is not working.”¹²

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This politically oriented environmental education model has promoted a mindset that teaches children we are running out of everything (natural resources, fresh air and water, land); that human beings are destroying the earth and all creatures, great and small, that industrialization and technology have been the bane of existence. Writing in *Audubon* magazine, Nancy Cardozo relates how she became disturbingly aware of this when she gave her 6-year-old daughter a second-hand wooden bed for her birthday. Her little girl looked sad as she patted the wooden headboard of her “new” bed. Sad, because she said, “They killed trees to make my bed.”¹³

The International Origins of Political Environmental Education

In order to give this new political EE model legitimacy, a coalition of environmental activists, environmental educators, and national, state, and local government officials organized internationally under United Nation's sponsorship. They organized two conferences in the 1970s, seeking to redefine existing education about the environment, and create the new, politicized field of environmental education.

Their first conference was held in Belgrade, Yugoslavia in 1976, resulting in the Belgrade Charter that re-defined education about the environment to include a political component never before associated with “nature education.” The United Nations Educational, Scientific and Cultural Organization (UNESCO)-sponsored conference provided a widely accepted goal statement for environmental education:

¹² Weilbacher, Mike. “Kids Can Save the Earth – But is it Their Job?” *E Magazine*. November/December 1994. p.31.

¹³ Cardozo, Nancy Bray. “Reading, Writing & Ruin.” *Audubon*. January-February 1994. p.112.

“The goal of environmental education is to develop a world population that is aware of and concerned about, the environment and its associated problems, and which has the knowledge, *skills*, attitudes, *motivations*, and *commitment to work individually and collectively toward solutions of current problems and the prevention of new ones.*”(emphasis added)¹⁴

While sounding innocuous, this goal becomes the first step toward establishing the political model of EE. “Skills” mean more than picking up roadside trash. It also means teaching the political “how to” techniques of lobbying, testifying before elected officials, holding press conferences, etc. For example, the EE establishment encourages teachers to use a “how to” political action manual by Barbara A. Lewis, *The Kid’s Guide to Social Action*. This action manual teaches children how to write letters to the editor, hold a press conference, raise money for political campaigns, lobby, picket and protest.¹⁵

In addition, “attitudes” means empowering teachers to use sophisticated behavior modification techniques to change attitudes and behaviors in “environmentally correct” ways. For example, children are often taught attitudes about certain products by learning an *Animal Farm* mantra. “Plastic bags are bad; paper bags are good.” “Paper diapers are bad; cloth diapers are good.” Using behavior modification to instill these attitudes in young children does not teach them to think critically about environmental issues. It only passes on the predetermined, environmentally correct attitudes which do not pass the test of critical scientific and economic reasoning.

While the Belgrade goal statement mentions acquisition of environmental knowledge, this quickly became subordinated to the “higher” values of changing behaviors and political action training. In other words, the teaching of objective and unbiased scientific and economic knowledge was forgotten and instead environmental “knowledge” was distorted to the presentation of only catastrophic environmental knowledge in order to motivate children to change their behaviors and to engage in political action.

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Using EE as a means towards a political end was formalized in the 1978 Tbilisi Declaration. This document was the result of another UN sponsored conference on environmental education held in Tbilisi, then in Soviet Georgia. At this meeting the EE community insisted on making “skills” training (a euphemism for political action training) and behavior modification centerpieces of EE.

The Tbilisi Declaration states that:

To provide every person with opportunities to acquire the knowledge, *values, attitudes, commitment, and skills* needed to protect and improve the environment;
To create *new patterns of behavior of individuals, groups, and society as a whole* towards the environment. (emphasis added)¹⁶

¹⁴ <http://www.epa.gov/enviroed/naeeindx.html>

¹⁵ Lewis, Barbara A. “The Kids Guide to Social Action.” Free Spirit Publishing: Minneapolis, MN. 1991.

¹⁶ <http://www.epa.gov/enviroed/naeeindx.html>

The Tbilisi Declaration enshrines the idea that children should be taught the “skills” to “participate” in activities that are supposed to resolve environmental problems.

Implementation of Politicized Environmental Education in the United States

In 1990, the Environmental Protection Agency assumed nationwide leadership for EE under the mandate of the National Environmental Education Act. This law established the Office of Environmental Education at the EPA, an EE training program, and provided educational grants, internships, fellowships, and education awards. It also created the Environmental Education Advisory Council and Task Force and the National Environmental Education and Training Foundation (NEETF).¹⁷

As with so many laws, the 1990 EE Act was full of generalities and vagueness. In Section 2, Item (4) under Findings and Policy, the law tracks the language of Belgrade and Tbilisi and illustrates how politicized EE was introduced on the federal level. “Effective response to complex environmental problems requires understanding of the natural and built environment, awareness of environmental problems and their origins (including those in urban areas), and *the skills to solve these problems*” (Emphasis added)¹⁸

Since education in the U.S. is primarily a state and local responsibility, the EPA had to devise a plan to pressure states and local school boards to adopt more of this politicized environmental education without it looking like a mandate from the federal bureaucracy. Consequently, they developed a system of funding private, non-profit organizations with similar environmental ideologies to carry out their goal. Here’s how it works.

The first step was for the Environmental Protection Agency (EPA) to sign a cooperative agreement with the North American Associate for Environmental Education (NAAEE) in 1995.¹⁹ This agreement created and funded the Environmental Education and Training Partnership (EETAP) to provide environmental education training and support for educators nationwide. EETAP is managed by the NAAEE and funded by the EPA under the Environmental Education Act of 1990.²⁰

So, federal EPA provides the funding for NAAEE and EETAP activities to spread politicized EE to the state and local level. All three of these organizations, in turn, provide funding for National Environmental Education Advancement Project (NEEAP), the operational branch of this consortium.²¹ Located in the School of Natural Resources at the University of Wisconsin-Stevens Point, the NEEAP runs the political operation that works directly with state groups, usually NAAEE state level affiliate organizations.

¹⁷ <http://thomas.loc.gov/cgi-bin/query/C?c101:./temp/~c101hn4pMb>

¹⁸ *ibid.*

¹⁹ <http://www.eetap.org/>. The NAAEE was organized in 1971 to further environmental education.

²⁰ *ibid.*

²¹ The “Advancement Project” was originally entitled the “Advocacy Project” until it was criticized for its political organizing nationally and in the states.

Thirty-four state level organizations receive funding and/or political organizing assistance. These organizations use the funding and technical political assistance to implement lobbying strategies to pressure state legislators to pass state laws establishing a comprehensive EE program. NEEAP's Comprehensive EE Program consists of 32 components in three areas; structural, funding, and programs. Examples of these components include a state law requiring all schools to teach EE at all grade levels and in all subjects; an EE trust fund to fund an EE grants program; a state law requiring teachers to have EE for certification; a fully staffed state EE Office (usually in the department of education); an interagency EE committee, etc. When in effect, this EPA-supported comprehensive EE program implements the political model of environmental education.

EE in Washington State

Washington state has one of the most "advanced" environmental education programs in the nation. Many of the components of NEEAP's comprehensive EE program have been established in law in Washington. Most importantly, Washington has a K-12 environmental education mandate which requires teaching EE in all grade levels and in most subject matters.

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"advanced" environmental education
programs in the nation.

The next section of this report examines several of the major structural components of the EE program in Washington state. The purpose of this section is to document the degree of consistency with the political EE model which has developed since 1970 and the comprehensive program being pushed by the federal EPA and its allies. The major limitation of this section is that it is an examination of legal, regulatory and funding structures, not the content of classroom instruction.

The Genesis of Environmental Education in Washington State

Like most other states attempting to reform K-12 education, Washington legislators began work in the late 1980s to alter the scope and content of mandated instruction. Environmental education joined the list of required instruction in the 1987 edition of “Environmental Education Guidelines for Washington Schools.” The amended state law called for all common schools to give instruction in “science with special reference to the environment.” It also amended the section of state law directing teachers to “stress the importance of . . . the worth of kindness to all living creatures” by adding the phrase “and the land.”²²

By 1995, state education officials were working aggressively with National Environmental Education Advancement Project (NEEAP), and the administrative code was modified to require that environmental education be interwoven throughout the curricula of grades K-12. “Pursuant to RCW 28A.230.020 instruction about conservation, natural resources, and the environment shall be provided at all grade levels in an interdisciplinary manner through science, the social studies, the humanities, and other appropriate areas with an emphasis on solving the problems of human adaptation to the environment.”²³

With these statutory and administrative changes, environmental education became a priority in Washington state schools. As the NEEAP hoped would happen, Washington state requires that EE be taught in every grade and in nearly every subject.

From Federal and State Government to Local Schools

The Office of Environmental Education (OEE) was created to help schools accomplish the environmental education mandates drafted in state administrative code. It is a subdivision of Educational Service District 189 (Island, San Juan, Skagit, Snohomish and Whatcom counties), but the OEE itself is located in Seattle. It is formally staffed by a full-time director and a part-time employee from the Environmental Education Association of Washington (EEAW).

The OEE is partially funded with grant money obtained from the Office of the Superintendent of Public Instruction. Other portions of the OEE’s annual \$109,000 budget come from two federal grants: Dwight D. Eisenhower technical assistance funds, and the technical assistance/innovative program portion of federal Title Six funds.²⁴

Partnering with the OEE is the Environmental Education Association of Washington (EEAW) self-described as a “non profit organization comprised of teachers, agency people, business representatives and community educators dedicated to offering and promoting effective environmental education to

²² RCW 28A.230.020

²³ WAC 180-50-115(6)

²⁴ Bill Paulson, OSPI, Agency Budget Director. Telephone conversation with author on June 11, 1999.

all sectors of Washington.” The EEAW says it is committed to engaging citizens in “active involvement and community decision making.” Teachers, corporations, students, and other individuals may become members.²⁵

According to Michele Halfhill, president of the EEAW, the Environmental Protection Agency and a significant number of city and county organizations provide grants for environmental education training or programs. Ms. Halfhill also maintains an grant resource book for environmental educators through her position through the Office of Environmental Education.

Washington’s Environmental Education Goals and Guidelines

Washington state’s “Master Plan” for environmental education is detailed in two publications. The first, Washington’s Environmental Education Systemic Plan, was last published in 1990 and is currently out of print. The state Office of Environmental Education has scheduled meetings to begin revisions and updates to this plan. Upon its completion, this systemic plan will outline general goals of the state Environmental Education Advisory Council, a group appointed by the Office of Superintendent of Public Instruction to advise the Office of Environmental Education. These general goals will presumably provide direction for all state environmental education programs.

The more critical document is the 1995 “Goals and Guidelines for Washington Schools,” This is the comprehensive working document outlining Washington’s EE requirements and expectations. It is currently in the process of being revised with the new version expected to be released in the fall of 1999.²⁶ The eagerly awaited 1999 revision supposedly ties the state’s environmental goals to the state’s education reform initiatives, including new state standards and assessments. Generally speaking, the overall goals of state environmental education have been stated and are likely to remain intact in the 1999 version of the EE guidelines.

The goals of Washington’s environmental education were created under three guiding principles: Environmental education should be holistic and integrated; interdisciplinary; and problem-focused and oriented to decision making.²⁷ These principles define Washington’s environmental plan as “comprehensive” in approach, affecting all grades and every subject.

The environmental goals created under these guiding principles are as follows:²⁸

Goal I: The student will develop knowledge of the components of the environment and their interactions.

Goal II: The student will value the environment as the basis of our physical lives, economy and emotional well-being.

²⁵ <http://www.halcyon.com/eeaw/basic.html>

²⁶ <http://cisl.ospi.wednet.edu/CISL/ENVED/CATGOALS.htm>

²⁷ <http://cisl.ospi.wednet.edu/CISL/ENVED/GUIDE/GGBODY.html#APPROACH>

²⁸ <http://cisl.ospi.wednet.edu/CISL/ENVED/GUIDE/GGBODY.html>

Goal III: The student will apply personal decision-making skills to enhance environmental quality.

Goal IV: The student will develop and utilize the knowledge and skills necessary for cooperative action on behalf of the environment.

Of the four goals, only Goal I specifically calls for *knowledge* of the environment, thus avoiding the snares of (directly or implicitly) calling for value modification or political action. But as we will soon discover, even plainly worded goals can be obfuscated. The knowledge necessary for “action” is not the same as the obtaining the scientific knowledge necessary to solve problems at their core.

The second goal, in which the state expresses the desire for all students to “value the environment” is ill-defined, while the third and fourth goals call for “personal decision making” and “cooperative action” on “behalf of the environment.” How will the state determine appropriate student action “on behalf of” the environment? The temptation for inappropriate leverage from individuals and organizations with specific political environmental agendas is too great to ignore.

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To illustrate this point, the preface of Washington State’s “Environmental Education: Goals and Guidelines” was written by Paul Ehrlich, noted doom-and-gloom population control professor and author. Ehrlich says “there is nothing more important for the future of our children than integrating environmental education into every level of our school system.” He goes on to discuss this integration process for mathematics: “There is no reason, for instance, that large numbers can’t be taught with large numbers of people. A square with a thousand rows of people, each a thousand persons long, makes a million people; five thousand squares like that is just about the number of people on Earth now. Each year there are more than eighty new squares.” For teaching civics: “How the government works,” Ehrlich says, “can be illustrated with the problems and triumphs of maintaining integrity of our environment and protecting our health.”²⁹

Ehrlich’s comments illustrate what happens when environmental education strays from concrete, science-based instruction: The education system becomes a tool for political propaganda.

Under the banner of the “guiding principles,” Goals I through IV were created. Learner objectives/outcomes and “instructional implications” follow each goal.³⁰ In some areas, the state plan focuses on providing students with scientific knowledge about the environment. In other areas, the emphasis is on attitudes, personal values and political action.

The first objective of Goal I, for example, is: “The teacher will help students to recognize that the earth’s living and non-living components are interrelated.” An expected “learner outcome” of this

²⁹ <http://cisl.ospi.wednet.edu/CISL/ENVED/GUIDE/GGPREFACE.html>

³⁰ <http://cisl.ospi.wednet.edu/CISL/ENVED/GUIDE/GGBODY.html>

objective is that students will “distinguish the difference between living and non-living things.”³¹ This is an important, scientific absolute.

On the other hand, the second objective of Goal I, “The teacher will show students that populations respond to the limiting factors of the environment,” opens the door to doomsday theories instead of a balanced discussion about how humans and the environment respond to changing, or finite environmental limitations. Under this objective, state guidelines call for teachers to “discuss the unprecedented rate of extinction of plants and animals; use the “Spaceship Earth” concept to discuss finite resources; and project how long finite resources can support a growing population.” Presentation of the equally compelling and scientifically sound counterpoints to these assertions are not part of the learner objectives. So much for giving students the knowledge necessary to employ critical thinking skills!

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The third objective of Goal I says that “The teacher will show that as the human population increases, our impact on the environment becomes more pronounced.” Under this objective, teachers will instruct students by building a graph to represent world population growth, then use population growth models to simulate geometric and arithmetic growth.³²

A “learner outcome” under Goal I asks students to “recognize that technological growth is exceeding our understanding of its impact on the environment.” This “learner outcome” directs teachers to require students to: design a plan to influence a political resolution on an environmental issue; select [environmental] issues that are important in the school or locally and then involve political decision makers and, launch a letter-writing campaign on behalf of an environmental concern.³³

The learner objectives we have just discussed fall under Goal I—the goal that calls for students to “develop knowledge.” Yet many of the objectives are highly questionable in terms of application of knowledge versus the application of theory or political preference.

Yet many of the objectives are highly questionable in terms of application of knowledge versus the application of theory or political preference.

The remaining three goals call for changing student values or moving students to political action. Goal Two says students should “value the environment as the basis of our physical lives, economy, and emotional well-being.” A learner objective of this goal is “the teacher will show that a viable economy is dependent upon the responsible use of our natural resources.” An expected outcome of this objective is for students to “understand the environmental impacts of supply and demand components of the economy.” To accomplish this, teachers are directed to explore how profit margins, gross and net income, and supply and demand “relate” to the environment.³⁴

³¹ *ibid.* p.7.

³² *ibid.* p.7.

³³ *ibid.* p.13.

³⁴ *ibid.* pp.17-18.

If students are taught what “supply and demand” means and how profits are generated, this sounds like a reasonable and necessary approach...until the reader gets to the part directing students to evaluate “responsible and irresponsible use of our natural resources.” In order to make these evaluations, students will “research and analyze the influence of natural resource industries.”³⁵ How will students make value judgments as to which industries are “responsible” and which are “irresponsible?” What information will they receive to make this decision? If the state has not predetermined what “responsible and irresponsible” uses of resources are, how will it determine whether or not the “learner outcome” has been achieved.

“Personal decision-making” is the focus of the state’s third environmental education goal.

Other objectives in Goal II rely on subjective measures rather than scientific facts. For example: Teachers are to communicate that “respect for the earth and all its living things encourages people to maintain a quality environment.” It should be no surprise that the

instructional practices employed to advance this objective define the terms for students. To show students how individuals “respect” the environment, teachers are to ask students to generate a list of ways people show this respect.³⁶ To further the objective, students will “demonstrate practices that show respect for the earth and its living creatures.” In order to encourage these demonstrations, teachers are to ask for participation in certain environmental programs and practices.³⁷

“Personal decision-making” is the focus of the state’s third environmental education goal. Teachers are directed to discuss how individual actions impact the environment and to provide examples of environmental topics upon which personal decisions can be made. Among other criteria, students are encouraged to base their decisions on “scientific data . . . and cultural heritage,”³⁸ but general guidelines and assumptions made in the state plans and goals suggest that only *some* scientific theories will be considered.

The state’s EE goals fail to provide reassurance that students will be taught scientific facts on these matters or that they will be introduced to responsible, competing, scientific theories.

Among the topics teachers may provide to students as examples of personal decision-making are: packaging processes (biodegradable vs. non-biodegradable), burning of fossil fuels/greenhouse effect;; agriculture methods; acid rain; and plastics and their effect on wildlife.³⁹ The state’s EE goals fail to provide reassurance that students will be taught scientific facts on these matters or that they will be introduced to responsible, competing, scientific theories.

Instructional strategies under Goal Three direct teachers to “help students recognize those qualities that distinguish a [environmentally] responsible citizen.” Under this goal, students will be directed to

³⁵ *ibid.* p.18.

³⁶ *ibid.* p.20.

³⁷ *ibid.* p.21.

³⁸ *ibid.* p.25.

³⁹ *ibid.* p.24.

participate in an activity that “enhances environmental quality” such as writing letters to groups, congress-people, and agencies and/or working for the Ecology Youth Corps.⁴⁰

Goal Four refers to the development of knowledge, but its focus is on “cooperative action on behalf of the environment.” Again, the goal and its related objectives and outcomes have little to do with the specific areas of scientific knowledge students should possess. Instead, the state is focused on political action, personal values or vague, ill-defined “interrelationships” between the environment and certain cultures or “communities.”

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Instructional strategies in the second and third objectives of Goal Four require teachers to “show how interest groups stimulate public awareness and affect change,” and to “foster the idea that involvement in the *political and legal process* (emphasis added) is paramount to resolving environmental issues.” These objectives call for students to “create an organization which focuses on a particular environmental concern, recognize that change is normal,” and “participate as an active citizen in the legal/political system to achieve a change in environmental quality.”⁴² These directives are not without merit if housed in the context of science-based, unbiased environmental education. Since this protection has not been afforded, activities such as those described are little more than manipulation of students.

Teacher Certification or Licensing

Most teachers in Washington state receive some level of environmental education training, though teachers may be certified without it. Connie Reichel, a certification specialist with the Office of the Superintendent of Public Instruction, noted that Washington law (WAC 180-78A-270 (1) (a) requires teachers to complete a well-planned sequence of courses and/or experiences in which they acquire and apply knowledge about the state goals and learning requirements.

According to Tony Angell, Director of the Office of Environmental Education, an extensive list of requirements for teacher certification previously existed and environmental education was on that list. Ironically, the elimination of the environmental education requirement for teachers occurred around the same time interdisciplinary environmental education was mandated.

Because portions of the state Essential Academic Learning Requirements (EALRs) refer to subjects related to environmental education, teachers will have to prepare some course work related to environmental education. Two components of the state’s social studies EALRs directly address environmental education. The geography portion of the state’s social studies EALRs contains two subsections mandating that students be able to “identify and examine people’s interaction with and impact on the environment” and “analyze how the environment and environmental changes affect people.”⁴³ Presumably, teachers will take some training in environmental education in order to fulfill

⁴⁰ *ibid.* p.26.

⁴¹ *ibid.* p.28.

⁴² *ibid.* pp.29-32.

⁴³ <http://www.k12.wa.us/reform/ealr/standards/sssubdocuments/geog.html>

their obligations regarding the EALRs. Whether or not science-based course offerings will be available for teachers is altogether uncertain.

Student assessments tied to EE

Environmental education is not evaluated as an independent subject in the new state assessments. But in keeping with the recommended holistic approach, numerous assessment questions are geared toward student's expected understanding of certain environmental issues. Essay questions in particular ask students to write solutions for a variety of environmental concerns, some of which are presented to students as factual when, in reality, they are still disputed in the scientific community.

For example, a question in the eighth grade science pilot test is written as though global warming were a proven fact. It asks students to choose one of four reasons to explain global warming.⁴⁴

Whether or not science-based course offerings will be available for teachers is altogether uncertain.

EE Interagency Committee

The Governor's Council on Environmental Education serves as an interagency committee and seeks to integrate environmental knowledge into existing education and to support new programs.⁴⁵ It is composed of representatives from numerous state agencies: Ecology, Fish and Wildlife, Health, Natural Resources, Transportation, Superintendent of Public Instruction's Office of Environmental Education, Washington State University Cooperative Extension, Washington Sea Grant/University of Washington, Interagency Committee on Outdoor Recreation, Washington State Parks and Recreation Commission, Puget Sound Water Quality Action Team, U.S. Geological Survey and the National Park Service. The U.S. Fish and Wildlife Service also serve as unofficial members.

The Council's work is guided by the following "internationally accepted" definition of quality environmental education:

Environmental education is a process aimed at developing a world population that is aware of and concerned about the total environment and its associated problems, and which has the knowledge, attitudes, motivations, commitments and skills to work individually and collectively toward solutions of current problems and the prevention of new ones.⁴⁶

The Council used this definition to develop its criteria for "high quality environmental education" even though the definition completely avoids the cognitive domain by never mentioning instruction in environmental science and economics. The Council also sponsored a workshop on evaluating environmental education to help directors determine "success."

⁴⁴ WASL. Grade 8, Science Pilot Test. Spring 1999.

⁴⁵ Governor's Council on Environmental Education. 1999. #99:5. See "Purpose & Participation" section.

⁴⁶ *ibid.* See "Raising Standards."

In cooperation with associated agencies and schools, the Council is involved in a number of environmental projects ranging from the Master Watershed Stewards courses offered by Washington State University Cooperative Extensions to Watch Over Washington (WOW), a program that promotes standards for volunteers monitoring environmental quality.⁴⁷ The Council has also developed state guidelines for collaboration between schools and government agencies.

Where do we go from here?

Environmental education is a complex subject about our living world and the natural laws and principles that govern it. To ensure a healthy future, it is imperative that our school children understand the science and economics of the environment. To ensure scientific and economic accuracy and to sharpen students' critical thinking skills, it is important that they study both all sides of controversial environmental issues. Learning catchy slogans and how to be political activists won't cut it. How can we reposition our state's K-12 environmental education program to be more balanced, science-based and economically sound? How can we train a new generation of true environmental problem-solvers; that is scientists, engineers and inventors?

One state, Arizona, has successfully tackled this issue head-on. But in 1990, Arizona's EE laws and instructional guidelines looked very much like those in Washington state in 1999. The next section of this report details Arizona's amazing transformation from politicized EE to a balanced, science-based model.

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⁴⁷ <http://www.wa.gov/ecology/wq/wow>

Environmental Education in Arizona: a scientifically based, balanced approach

Arizona is the only state to reject politicized environmental education in favor of a balanced presentation based on sound science and economics. But that was not always the case. In 1990 the legislature passed a comprehensive EE law which implemented politicized environmental education. This law closely followed the recommendations of the national EE movement building a comprehensive EE program based not only on knowledge of the environment but also on political skills and action.

The 1990 Arizona EE law stated: “All school districts shall develop and implement programs which integrate environmental education into the general curriculum....The environmental education program shall include curricula to increase awareness of the environment and to promote knowledge of environmental concepts, develop positive attitudes and values toward the environment and encourage civic and social responsibility toward environmental issues.”⁴⁸

Thus, the 1990 Arizona statute paraphrased the Belgrade Charter (1976) and the Tbilisi Declaration (1978).

To help schools implement this state requirement, the Department of Education published Environmental Education Guidelines in 1993. This document provided the substance for the vague generalities in the statutes. When parents and law makers saw what “develop positive attitudes and values” and “encourage civic and social responsibility” actually meant for the education of Arizona children, they were outraged.

Students in 4th grade studying social studies are encouraged to contact Greenpeace and Earth First! to obtain information on environmental issues.

For example, these Guidelines suggest:

Students in 4th grade studying social studies are encouraged to contact Greenpeace and Earth First! to obtain information on environmental issues.⁴⁹ These are two of the most radical environmental organizations, and they are not known for dispensing scientifically credible information.

Science students in the 9th grade are asked to “discuss how the rising level of CO₂ causes the greenhouse effect.”⁵⁰ Despite the fact that the Guideline authors confuse greenhouse effect with global warming, this exercise assumes a causal relationship which has not yet been established and is hotly debated by scientists.

Math students in the 4th grade are asked to use data on Christmas tree growing in the U.S. and Canada to “determine how many acres of land is [sic] utilized to support this tradition.” Regardless of the answer, clearly 4th grade students are supposed to come to the conclusion that too much land is being used to support “this tradition” and it should be stopped.⁵¹

⁴⁸ Arizona Revised Statutes: 15-706. 1990.

⁴⁹ Environmental Education Guidelines. Arizona Department of Education. Phoenix, AZ. 1993. p.212.

⁵⁰ *ibid.* p.307.

⁵¹ *ibid.* p.161.

Science students in the 9th grade are asked to “explain the importance” [benefits] of an environmental law without being asked to balance benefits and costs.⁵² This misleads students to focus only on the intended positive consequences of a law without considering the unintended negative consequences.

Students in first grade science are asked to “compare natural resource consumption of the United States or other industrialized and third world countries.”⁵³ This exercise misleads these very young students to consider only the consumption of industrialized countries without considering their enormous output of goods and services that benefit all parts of the world.

Finally, 12th grade social studies students are asked to “List three essential natural resources that the Republic of Germany lacked. Explain the reason for Germany’s invasion of Africa in WWII.”⁵⁴ This example trivializes the other causes of WWII, including racism and Nazi ideology, by causing students to focus only on natural resources. This is an egregious example illustrating the anti-intellectual bent of some environmental education.

The Guidelines go on to describe how teachers can implement the state-imposed mandate to “integrate” environmental education at all grade levels and into all parts of the curriculum. The Guidelines offer suggestions for teachers to implement EE in classes for dance, literature, music, health and the dramatic and visual arts. Furthermore, to help teachers the Guidelines provide an index which cross-references environmental education concepts by subject matter and grade level.

When teachers began using these Guidelines to educate children to “develop positive attitudes and values” and to engage in “civic and social” action, parents become concerned.

When teachers began using these Guidelines to educate children to “develop positive attitudes and values” and to engage in “civic and social” action, parents become concerned. Many of the “lessons” were not based on sound science and there was little discussion of important economic principles. Students were given a strong dose of environmental dogma and then taught to change their attitudes and to engage in political action.

The final insult came when the state Department of Education implemented a reading test which used a passage about the rain forest destruction written by the Rainforest Action Network. The passage was written by an advocacy organization and contained numerous errors and exaggerations. Outraged parents called and wrote their legislators.

Arizona Representative Rusty Bowers (now a state Senator) received many of those calls and letters. But he also learned about the abuses in environmental education from his own personal experience as a parent.

One day his fifth-grade son came home from school and told him that dogs, not coyotes, were responsible for killing sheep and other livestock. Representative Bowers was raised on a sheep ranch in central Arizona, and like anyone familiar with western ranching, he knew this to be false. Since his

⁵² *ibid.* p.306.

⁵³ *ibid.* p.75.

⁵⁴ *ibid.* p.329.

son had learned this in school, Representative Bowers started to question the methods and motivations of those in charge of environmental education in Arizona.

As a result of this personal experience and the protests from his constituents, Representative Bowers became involved with Arizona's environmental education program. His commitment grew when he learned that the committee in charge of creating the EE Guidelines for Arizona's schools was controlled by 22 individuals from one political viewpoint with only two members with another political point of view.⁵⁵

These abuses caused the state legislature to look into the conditions of EE in the state and to consider changes to Arizona's 1990 Environmental Education Act. Representative Bowers became the leader in this effort and he championed several legislative changes beginning in 1994. The changes in the Arizona EE law have created a new model for EE which has become known as the "Arizona EE Reform Model."

The Arizona EE Reform Model

In order to reform environmental education the legislature first moved to make environmental education a local school district decision. The state-imposed mandate for environmental education was repealed.⁵⁶ This was part of a larger "local control" initiative by the legislature which repealed several top-down state imposed education requirements.

Next the legislature considered the state's responsibility to students and their parents if local school districts decided to teach about the environment. Thus, the education code was amended to require that if a school district decided to teach about the environment, the environmental education program "shall be based on current scientific information, include a discussion of economic and social implications, and conducted in a balanced manner."⁵⁷ The language of the 1990 EE law requiring teachers to develop "positive attitudes and values" and encourage "civic and social responsibility." was deleted. This was the language that found its way into the Guidelines and led to so many educational abuses.

...if a school district decided to teach about the environment, the environmental education program "shall be based on current scientific information, include a discussion of economic and social implications, and conducted in a balanced manner."

During this time period, reforms of other aspects of politicized EE were instituted. The Interagency Committee of state, local and federal government agency officials was dissolved as a redundant organization. The EE Master Plan, published in 1992 by the Governor's EE Task Force, was considered irrelevant due to legislative reforms that changed the direction of EE in the state. The administrative responsibility for EE was transferred from the Department of Education, which supervised the implementation of the politicized EE model, to the State Land Department, an agency

⁵⁵ Senator Rusty Bowers. Speech at the Public Lands Committee, Council of State Governments—West. Phoenix, AZ. May 1998.

⁵⁶ Senate Bill 1348, 1995

⁵⁷ Arizona Revised Statutes: 15-706. 1994.

that would take a fresh, non-political and scientific view. Finally, the EE Guidelines, that caused much of the uproar and which were out of step with the reform laws, were no longer used by the Department of Education.

The Arizona Advisory Council on Environmental Education (AACEE), established by the 1990 EE Act, was changed from a nine-member to a ten-member body. The representation designations were also changed so that currently three members represent educational institutions, three members represent the natural resource industries or organizations concerned with environmental preservation, and three members represent private agencies or organizations. The Governor, the Speaker of the House and the President of the Senate each appoint one member from each category. The tenth member is appointed by the Governor without any designation.⁵⁸

When Arizonans voluntarily purchase this special plate, \$17 goes into a trust fund used to fund environmental education projects in the state.

The primary responsibility of the AACEE is to operate a grant program funded by the environmental auto license plate. When Arizonans voluntarily purchase this special plate, \$17 goes into a trust fund used to fund environmental education projects in the state. The AACEE has direct responsibility to set up a grant program to distribute most of this funding.⁵⁹ For fiscal years 2000 and 2001 the legislature authorized spending up to \$800,000 each year of the trust fund for environmental education in the state. This amount places Arizona among the top states in per student EE spending in the nation.

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The reform statutes require that the AACEE create grant programs which fund only those projects “that are conducted in a balanced manner, that are based on current scientific information and that include a discussion of economic and social implications.”⁶⁰

To further emphasize the difference between Arizona EE Reform Model and politicized EE in other states, the AACEE gave meaning to the statutory provisions by being the first official governmental body in the nation to adopt the Guidelines for Fairness and Accuracy established by the North American Association for Environmental Education, the nation’s largest association of professional environmental educators. These guidelines state, in part, that “environmental education materials should be fair and accurate in describing environmental problems, issues, and conditions and in reflecting the diversity of perspectives on them.”

They go on to note that: “Where there are differences of opinion or competing scientific explanations, the range of perspectives should be presented in a balanced way.” All potential grantees are guided by these rigorous standards when they design their EE programs. By holding grantees to this standard,

⁵⁸ Arizona Revised Statutes: 41-2251.

⁵⁹ A small amount of trust fund money goes automatically to fund education centers operated by the Natural Resource Conservation Districts.

⁶⁰ Arizona Revised Statutes. 41-2252.

AACEE is indicating that it is not interested in funding politicized EE and is encouraging the development of new EE programs based on a balanced presentation of current science.⁶¹

Educators may apply for Regular Grants of up to \$10,000 fund curriculum development, educator training, balanced material development, field trips, and field sites at schools. Universities may apply for Site Grants of up to \$30,000 support rural environmental education sites where K-12 students receive outdoor education related to the environment.⁶²

Classes write a well-researched, balanced paper presenting all sides of the controversial environmental topic.

Another innovative AACEE program is its “first in the nation” Class Environmental Research Contest for middle and high school classes. Classes select research topics from a list of four or five AACEE determined environmental topics (the topics change each year). Past selections include: Are human activities the cause of global temperature changes? Should livestock grazing be allowed as one of the multiple uses on public rangelands? Should Arizona government pass regulations to eliminate urban sprawl? Should government subsidize solar power?

Classes write a well-researched, balanced paper presenting all sides of the controversial environmental topic. These papers are judged based on the quality of the research and the ability of the students to present different perspectives in a fair and accurate way. The winning classes receive a grant ranging from \$2,500 to \$10,000 for a class field trip directly related to the topic of their paper.⁶³

These papers are judged based on the quality of the research and the ability of the students to present different perspectives in a fair and accurate way.

Teachers and students alike rave about this contest. One teacher exclaimed that “This contest is the single best teaching tool I have—without a doubt!” Another teacher urged other teachers to participate in the contest because it was “a life-changing experience” for him and his students who are predominately disadvantaged, Native American students. The

teacher also remarked: “One of my students was convinced that he was a ‘stupid little boy.’ Imagine if you will the change in his life when his picture was in the paper as a winner.”

Students are no less enthusiastic. When one class was informed via speaker phone that they won a \$10,000 field trip, they “were yelling and quite excited.” One eighth grade student remarked that: “When we started getting it all together and started to see it take shape, it was cool to see 30 people making one big contribution.” Another student noted the hard work the research paper required: “The hardest part was understanding the scientific journals.”

⁶¹ <http://www.epa.gov/epaoswer/general/educate/extranet/naaee.htm>

⁶² “Environmental Education Grant Application Manual.” Advisory Council on Environmental Education. Arizona State Land Department. Phoenix: May 1998. Introduction.

⁶³ *ibid.*

The AACEE developed a new innovation in 1999. AACEE decided to further streamline the process to make it even easier for teachers to receive grants so that their students could benefit from scientifically based and balanced environmental programs and materials. This was achieved by AACEE pre-approving EE activities and materials. EE providers including zoos, nature centers, and publishers of balanced materials, such as Greenhaven Press, submit requests to the AACEE for pre-approval of their programs and materials. Once the programs or materials are pre-approved by the AACEE, they are placed on a pre-approved list. Then teachers submit a simple one-page form to receive money to take their class to one of these programs or receive balanced materials. While still in the implementation process, AACEE expects this new program to greatly increase the delivery of quality EE to more Arizona students.

In summation, citizens in Arizona are assured through statutory requirement that children taking environmental education classes will obtain knowledge of the environment based on a balanced presentation of current scientific information. The fundamental conflict between presenting balanced (some might say dispassionate) environmental science and economics and the biased, “save the earth” crusader version of environmental education has been recognized and resolved in Arizona.