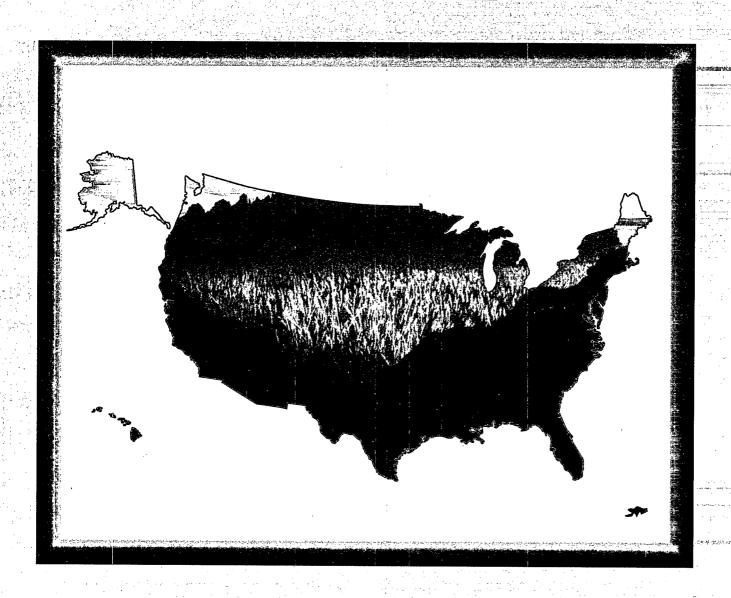
1998 Environmental Education Grant Profiles



U.S. Environmental Protection Agency
Office of Environmental Education
Office of Communications, Education, and Media Relations
401 M Street, SW (1704)
Washington, DC 20460

사용 - 용사용이 함께 1970년(1971년 - 1971년 - 197 - 사용
Company Comp
사이트를 하면 그런 경기 사용을 받는 것이 되었다. 그는 사용적인 보고 있는 사용적인 보고 있다는 사용적인 전쟁을 설명을 경영하는 경우를 받는다. 기계 중에 선생님은 기계 중에 선생님은 기계 중에 선생

Table of Contents

SUMMARY STATEMENT		1
Using the Grant Profiles		
Grants Awarded by EPA Headquarters		
Grants Awarded by EPA Regional Offices		6
CHART: RATIO OF APPLICATIONS TO AWARDS		
EPA REGIONAL ENVIRONMENTAL EDUCATION COORDI		
EFA NEGIUNAL ENVIKUNMENTAL EDUCATION GUORDI	NATUKS	



Notes



SUMMARY STATEMENT

ANNUAL AWARD UNDER SECTION 6 OF THE NATIONAL ENVIRONMENTAL EDUCATION ACT (PUBLIC LAW 101-619)

This report summarizes 254 environmental education grants awarded by the U.S. Environmental Protection Agency (EPA) during fiscal year (FY) 1998. The Environmental Education Grants Program was created under Section 6 of the National Environmental Education Act, and the first grants were awarded in 1992. EPA's Office of Environmental Education (OEE) manages the program. Grants of Federal funds over \$25,000 are awarded annually by EPA Headquarters and smaller grants by the 10 regional offices, as described below.

The grants are awarded to stimulate environmental education by supporting projects that address EPA educational priorities such as: education reform, human health, teacher training, building capacity, career development, and community environmental issues, including those related to environmental justice. The goal of the program is to support projects that enhance the public's awareness and knowledge of environmental issues and the skills they need to make informed and responsible decisions that affect environmental quality. Any college or university, tribal or local education agency, state education or environmental agency, nonprofit 501(c)(3) organization, or noncommercial educational broadcasting entity is eligible for grants under the program.

In FY 1998, Congress appropriated approximately \$3 million for the grants program. Federal funds may not exceed 75 percent of the total funding for a project. Dollar amounts reported in this document are the EPA funds awarded to the project only. Each project listed also has secured matching funds from sources other than federal programs. Such matching funds, often exceeding 25 percent of total funds for a project, are not reported in this document.

Headquarters awarded 12 large grants, for a total of \$1,042,413. Grants awarded averaged \$86,867; the smallest grant awarded was \$35,156; four grants exceeded \$100,000; and the largest awarded was \$149,968. Each regional office awarded approximately \$200,000 for an average of 25 grants each. The competition for grants is intense, especially as the amount of funding requested increases. For example, in 1998, Headquarters funded less than 5 percent of the 279 grant applications received. Because Congress mandates that 25 percent of the grant funds be awarded to small grants of \$5,000 or less, EPA is much more likely to award funding for small grants. On page 77 is a chart that illustrates the ratio of applications received to awards made.

EPA's annual Environmental Education Grants Solicitation Notice describes the solicitation, evaluation, and award process through which EPA arrives at final decisions about grant awards. The solicitation notice is published and available for review in the Federal Register, which can be obtained at most libraries, and can be viewed on the Internet at http://www.epa.gov/enviroed. The most recent solicitation notice also can be obtained by contacting EPA Headquarters or an EPA regional office. A list of EPA contacts is provided on pages 78 and 79 of this document.



Point of

contact

USING THE GRANT PROFILES

The main section of this document provides profiles of environmental education grants awarded in FY 1998. Profiles are listed in alphabetical order by the state or United States (U.S.) territory in which the project was conducted. Each profile identifies the organization that received the award, the amount of the award, and a point of contact for the project and presents a summary of the project. Illustrated below is a sample profile:

CALIFORNIA

Name of organization that received the grant

EAST BAY ASIAN YOUTH CENTER - \$5,000 €

→ Rasjidah Franklin, 2065 Kittredge Street, Suite M, Berkeley, CA 94704

Training Teachers and Teens in Environmental Education ←

Amount of EPA award

Name of the project

This project provides training through a two-day workshop for 10 high school students and 24 teachers from three elementary schools. The training equips participants to implement compost projects at school sites. Joint workshops for the teachers and students employ inquiry models to teach waste reduction, pollution prevention, and health in the context of urban organic gardening. After training, the high school students serve as mentors to elementary school students to guide the younger students in understanding the relationships among waste, pollution, and nutrition issues. The University of California Cooperative Extension Service in Alameda County and the Alameda County Waste Management Authority collaborate with the East Bay Asian Youth Center in the sustainable urban agriculture project.

Summary of the project



GRANTS AWARDED BY EPA HEADQUARTERS

CALIFORNIA

Adopt-A-Watershed - \$40,831 Jesse Miller, 731 Market Street, Suite 600A, San Francisco, CA 94103

Leadership Institute

The National Resources Conservation Service works in partnership with Adopt-A-Watershed's Leadership Institute to implement pre-service teacher training, using an existing model. The partnership is pilot-testing a natural resource education course for education majors at two historically black land grant colleges. The partnership provides course material, trains professors, and pilot-tests one class of pre-service elementary and secondary education majors at each college, as part of their curricula. The Leadership Institute offers a forum for training professors under a "train the trainers" model that equips participants both to establish sustainable Adopt-A-Watershed programs in their own communities and to lead, train, and support other teachers in replicating the programs throughout the region.

IDAHO

NEZ PERCE TRIBAL FOUNDATION - \$144,520 PATRICK J. SOBOTTA, P.O. BOX 365, LAPWAI, ID 83540

Two-World View Environmental Education Project

The Nez Perce Tribal Foundation, in partnership with the educational program of the Idaho Division of Environmental Quality, the University of Idaho, and high school teachers on the reservation, provides an environmental education curriculum that uses the Nez Perce Tribe's wildlife and fish books as a foundation. Protection of the ecosystem and issues related to forest management are the primary focus of the Two-World View Environmental Education Project. The target audience is American Indian students in kindergarten through grade 12 and 100 teachers on the Nez Perce reservation; 30 university students who are studying natural resources, environmental science, and engineering; and 40 university pre-service education students and in-service teachers. The curriculum designed for the program is intended to complement education reform in Idaho.

ILLINOIS

Illinois Easter Seal Society - \$95,322 Tom Berkshire, 2715 S. 46th, Springfield, IL 62703

TASK: Teaching Agricultural Safety to Kids

The educational priority of TASK: Teaching Agricultural Safety to Kids is to address health issues and mitigate the threats to human health posed by environmental pollution, as such pollution and health threats affect children on farms and in rural communities in Illinois.



The project trains 100 high school students to teach 50 classes of students in grades five through eight about rural environmental pollution, agricultural safety, and responsible decision making. The high school students learn to use educational material and apply teaching techniques. They develop leadership, decision-making, problem-solving, and critical-thinking skills that allow them to take action on environmental issues. The curricula for the elementary classes cover such environmental issues as runoff, spills, and disposal of chemicals; burning of solid waste; crop dusting and its effect on air quality; and generation of dust and molds from storage of feed and grain and the health and safety concerns related to those issues. The TASK curriculum has been translated into Spanish for presentation to migrant farm workers. Partners in the TASK program are the Illinois State Board of Education, Future Farmers of America (FFA) of Illinois, the Illinois Department of Public Health, and the Illinois Environmental Protection Agency.

KENTUCKY

Murray State University - \$120,186 Dr. Joe Baust, P.O. Box 9, Murray, KY 42071

Creating Connections for Parents, At-Risk Children, and Schools Using Environmental Education
The Center for Environmental Education provides a training program for educators who teach
low-income "at-risk" children. The program is designed to reach the parents of those children
as well. Through teacher training, the program builds leadership capacity and helps schools
meet mandates established by the Kentucky Education Reform Act of 1989. Educators learn
how to infuse environmental education into classroom activities and make use of local resources
to meet the needs of at-risk children. Teachers, teacher's aides, and prospective teachers develop
interdisciplinary units of study that include activities intended for parents to conduct at home.
Staff of the Land Between the Lakes Program sponsored by the Tennessee Valley Authority also
use the units. Teachers and prospective teachers lead children and their parents on field trips
focused on the study of lost habitats. Partners in the project are West Kentucky Education
Cooperative, the West Kentucky Environmental Education Consortium, the Regional Service
Center of the Kentucky Department of Education, family resource centers, and the Land Between
the Lakes Program.

MARYLAND

IRVINE NATURAL SCIENCE CENTER - \$56,535

JOE HARBER, 8400 GREENSPRING AVENUE, STEVENSON, MD 21153

Natural Connections Project

The Natural Connections Project trains high school students in Baltimore to lead elementary school students through a series of hands-on environmental activities that they carry out at schoolyards in the inner city. Teachers attend workshops during which they learn to build on those activities. The project focuses on the natural sciences and leads children to investigate plants, animals, and ecological relationships in their own neighborhoods. The project supports educational reform in Maryland by providing hands-on, performance-based activities that reinforce performance assessments mandated by the state, supplement the science curriculum



of the Baltimore City Public Schools, and provide high school students opportunities to learn and develop leadership skills. The high school student volunteers are primarily African-American, and approximately 80 percent of the elementary school children are members of minority groups. Further, 65 percent of the students live in low-income communities. Partners in the project are the Maryland State Department of Education, Baltimore City Public Schools, and the Baltimore City Department of Recreation and Parks.

MISSISSIPPI

Mississippi State University - \$35,156
Joe Sumrall, Curriculum & Instruction, P.O. Box 9705, Mississippi State, MS 39762

Integrating Environmental Education Into Math and Science Curricula

For this project, physical science and mathematics teachers of grades 10 through 12 attend a one-week summer workshop. During the program, the teachers develop lesson plans that have environmental components through which students become active participants in safeguarding the environment. The project, administered by the Department of Curriculum and Instruction of Mississippi State University and 12 secondary schools, is designed to complement education reform in Mississippi. More than half the schools from which the participating teachers are recruited serve primarily African-American populations, and many are located in rural and low-income communities.

NEBRASKA

LINCOLN-LANCASTER ENVIRONMENTAL HEALTH DIVISION - \$53,900 JANE STOREY, 3140 N STREET, LINCOLN, NE 68510

Environmental Education for Child Care Providers

The Environmental Health Division of Lincoln-Lancaster County educates child care providers about hazards in the environment that can pose threats to the health of children in their care. Topics explored include lead, molds, cleaning agents, and carbon monoxide. Training is made available to care providers in the home and in day care centers through in-service meetings, workshops, health fairs, and mailings to all licensed child care facilities. Providers also have the opportunity to earn credit hours that will help them meet requirements for maintaining their licenses. Partners in the project are the University of Nebraska, the Family Services Association, the Nebraska Health and Human Services System, and local hospitals.



<u> 디디디디디디디디디디디디디디</u>

NEW HAMPSHIRE

University of New Hampshire - \$149,968 MARY ELLEN BOELHOWER, OFFICE OF SPONSORED RESEARCH, 111 SERVICE BUILDING, 51 College Road, Durham, NH 03824

Project SERVE - High School Environmental Education

Project SERVE (Students for Environmental Resource Volunteerism and Education) offers high school students an opportunity to earn academic credit for working with conservation groups in their communities on local resource protection projects. The students have the support of professionals who assist them in volunteering for environmental conservation projects that provide the opportunity to develop a greater understanding of local natural resources. The project focuses on protection of the ecosystem, including such activities as monitoring of water quality, identification of sources of pollution, and evaluation of wetlands. Approximately 700 high school students, 100 community conservation organizations and mentors, and teachers from 35 schools participate in the program. Almost half the communities served have significant numbers of low-income residents. Partners in Project Serve include numerous high schools and municipal conservation commissions.

NEW JERSEY

ROBERT WOOD JOHNSON MEDICAL SCHOOL - \$110,000 AUDREY R. GOTSCH, UNIVERSITY OF MEDICINE AND DENTISTRY, 170 FRELINGHUYSEN ROAD, P.O. Box 1179, Piscataway, NJ 08855-1179

ToxRAP for Spanish Bilingual Classrooms

This project addresses health issues by teaching Spanish bilingual educators and Spanishspeaking students how to minimize the threats to human health posed by environmental pollution. The Public Education and Risk Communication Division of Robert Wood Johnson Medical School provides Spanish bilingual educators with curriculum materials by adapting and translating its new and successful curriculum ToxRAP (Toxicology, Risk Assessment, and Pollution). Bilingual educators participate in the review and evaluation of the curriculum to ensure that the materials are adapted appropriately. At its annual summer institute, the Environmental and Occupational Health Sciences Institute trains more than 50 bilingual educators from Arizona and New Jersey in the use of the ToxRAP materials. Partners in the project include school districts in Arizona and New Jersey and the Southwest Environmental Health Sciences Center at the University of Arizona, whose mission is to strengthen education and research in toxicology and environmental health.

NORTH DAKOTA

NORTH DAKOTA STATE UNIVERSITY - \$76,388 THEODORE S. MAY, TEACHER EDUCATION, 155 EML HALL, FARGO, ND 58105-5057

Engaging Middle Schools in Regional Environmental Issue Investigations

This project provides professional development for middle school teachers by training them in the use of a strong research-based curriculum to engage students in regional environmental



issues. The project builds the capacity of participating teachers to use the interdisciplinary curriculum and enhance their teaching skills. During summer workshops, teachers are trained in issues related to environmental education. North Dakota State University partners with the Center for Instruction, Staff Development and Evaluation (CISDE) for this project.

TEXAS

NATIONAL CENTER FOR FARMWORKER HEALTH - \$87,727 E. Roberta Ryder, 1515 Capital of Texas Highway South, Suite 220, Austin, Texas 78746

Farmworker Environmental Education

Through this project, outreach personnel from migrant health centers and migrant education agencies are trained to teach migrant farm workers and their children how to mitigate the threats to human health that are associated with farm work. In workshops, participants learn how to educate migrant farm workers about the dangers of exposure to pesticides, heat stress, infectious parasitic diseases spread by water that is unsafe for drinking or bathing, and the risk of infection caused by lack of sanitary facilities at job sites. The majority of migrant farm workers reached by the outreach personnel, who are certified trainers, are Latino and live below the federal poverty level. In general, the workers and their families have limited access to heath care or information about environmental hazards. The National Center for Farmworker Health works in partnership with seven organizations throughout the country that represent the interests of migrant farm workers.

VIRGINIA

NORFOLK PUBLIC SCHOOLS - \$71,880 SYBLE B. STONE, 800 EAST CITY HALL AVENUE, NORFOLK, VA 23510

Maritime Pathways: Oyster Restoration

This public school project educates members of the Ocean View community about their roles as caretakers of the environment and develops in them a stewardship ethic that protects the Chesapeake Bay. The project focuses on the restoration of habitat for the declining oyster population in the bay and addresses water quality, bay-friendly gardening and lawn maintenance practices, community outreach, and aquaculture studies. Tasks for students, which are identified by grade level, include: collect and test water samples, maintain databases, identify problems, hypothesize solutions, and make decisions based on scientific research. Students distribute the information they gather to the community through newsletters, workshops, presentations to community organizations, public service booths at area festivals. and a World Wide Web site. A high percentage of the students involved in the project are residents of a culturally diverse low-income community. Partners with the city schools in the Maritime Pathways project are the Chesapeake Bay Foundation, the Elizabeth River Project, and the Virginia Institute of Marine Science.



GRANTS AWARDED BY EPA REGIONAL OFFICES

ALABAMA

CENTER FOR ENVIRONMENTAL RESEARCH AND SERVICE - \$4,800
MICHAEL WILLIAM MULLEN, TROY STATE UNIVERSITY, TROY, AL 36082

Community Water Conservation Education

This project addresses the trends in groundwater levels in the wiregrass region of southeast Alabama through a comprehensive community water conservation education program. The project uses a program aimed at middle school students. Through the use of printed materials, local media, a community water festival, targeted workshops, and the provision of tools for water conservation, the project increases public awareness of the area's dependence on groundwater resources. The project is offered in Troy and other towns and cities in the wiregrass region.

ALASKA

Alaska Bird Observatory-Fairbanks - \$4,500 Nancy DeWitt, P.O. Box 80505, Fairbanks, AK 99708

Songbirds of Alaska

The primary objectives of the Alaska Songbird Project are the promotion of bird conservation and environmental career development. The project works to increase awareness of the need to conserve Alaskan habitat for migratory songbirds by conducting an Alaska bird camp and Alaskan songbird workshops and by providing student internships. Through interactive research projects, approximately 114 young people, representing a 25 percent minority population (15 percent Alaskan Native or Indian and more than 50 percent female) learn about ornithology, ecology, environmental issues, scientific research, and environmental careers.

FAIRBANKS NORTH STAR BOROUGH SCHOOL DISTRICT - \$5,000 LINDA SCHANDELMEIR, 520 FIFTH AVENUE, FAIRBANKS, AK 99701

Air Pollution Monitoring for Children

The goal of the Partners in Science Program (PISP) is to educate sixth grade students in an inner-city school in Fairbanks about the significance of air quality. Assisted by practicing scientists, some 60 students (more than 50 percent of the students are members of minority groups, primarily Native American or African American) and 45 teachers implement simple air pollution measurement techniques. Working in conjunction with the Global Learning and Observations to Benefit the Environment (GLOBE) project, participants learn to address the relationship between human health and air quality. Teacher and student materials are to be shared with other teachers in the district.



South East Regional Resource Center - \$4,851 JoAnn Henderson, 210 Ferry Way, Suite 200, Juneau, AK 99801

Faculty Training Workshop

The faculty training workshop for Alaskan Native Student Wilderness and Enrichment Retreat (ANSWER) Camp provides Galena City Schools and Louden Tribal Council educators with the skills and tools they need to integrate outdoor activities into academic courses. At the workshop, university and high school educators, members of Alaskan Native communities, and college students training to become teachers learn how to design, develop, and deliver classes that incorporate aspects of local government, industries, and culture. The workshop prepares the educators to implement the curriculum at the ANSWER Camp to be held in the summer of 1999.

Upper Copper Valley Community Development Corporation - \$24,306 Everlyn Beeter, P.O. Box 357, Gakona, AK 99586

Tribal Environmental Education Project

Improving the quality of salmon runs and environmental health are the two basic objectives of this project. The instructors teach low-income and Alaskan Native children and elders about environmental issues that affect their community, particularly about hazardous materials and how they affect community health, water quality, and the salmon runs. A special month-long summer classroom and field session educates school children about hazardous materials and the effects of those materials. To compliment those activities, the regular environmental and biological sciences curriculum focuses on hazardous material. In addition, students participate in community service projects related to their studies.

ARIZONA

Southwest Public Recycling Association - \$23,125 Mitra Khazai, P.O. Box 27210, Tucson, AZ 85726

Community Environmental Education Campaign

Focusing on the issues of recycling, proper disposal of waste oil, and alternatives to household chemicals, this project offers training for the teachers of grades 3 through 5 in the six elementary schools of Douglas, Arizona. Backup for the training includes development of bilingual classroom teaching materials and establishment of a resource library. A supplemental radio and newspaper advertising campaign aimed at parents coincides with the school lessons. The goal of the project is to increase awareness of the effect of an individual's choice of actions and behaviors on water and air quality and generation of solid waste.

YAVAPAI/PRESCOTT TRIBE - \$4,514
Debbie Roberts, 530 East Merritt Avenue, Prescott, AZ 86301

Organic Garden Project

Under this project, an organic garden affords hands-on experiences for approximately 40 young people of the Yavapai/Prescott Tribe, under the direction of an educational coordinator and volunteer parents and elders. The coordinator prepares a curriculum manual for Native American



organic gardening that emphasizes plants used by the tribe. Each participant is held responsible for planting and caring for specific crops that were planted by their ancestors. In place of pesticides, the young people learn how to use the interaction and interdependence of insects and animals, such as butterflies, worms, and bats, to cultivate plant development in a natural setting. They then invite their parents and members of their community to a harvest festival featuring food they have grown and prepared.

ARKANSAS

ARKANSAS HUMAN DEVELOPMENT CORPORATION - \$9,580 CLEVON YOUNG, 300 SOUTH SPRING STREET, SUITE 800, LITTLE ROCK, AR 72201

Farm Worker Environmental Education Program

Exposure of farm workers to pesticides is a serious problem among the rural populations of Arkansas. The project educates service providers, farmers and growers, and migrant and seasonal farm workers and their families through mini-fairs, public forums, and personal visits to provide hands-on demonstrations of the ways in which migrant workers and their families can become exposed.

ARKANSAS STATE UNIVERSITY - \$4,560 BRENT WURFEL, 213 E. 6TH STREET, MOUNTAIN HOME, AR 72653

Demonstrating Small-Scale Chemistry

Workshops and conferences for high school and college chemistry instructors in Arkansas demonstrate the use of small-scale chemistry. Small-scale chemistry is a proven technique that reduces the costs of chemistry instruction by using small amounts of chemicals. Use of the technique reduces the cost of chemicals, reduces the amount of waste generated, and makes laboratories safer. Small-scale chemistry provides a new way to teach creative problem solving, the processes of invention and discovery, analytical thinking, and the elements of descriptive chemistry.

CABOT PUBLIC SCHOOLS - \$5,000 BILL HOLDEN, 404 NORTH SECOND, CABOT, AR 72023

Cabot Schools Environmental Education Teacher Workshops

In partnership with the Arkansas Department of Pollution Control and Ecology, the Cooperative Extension Service, and the Central Arkansas Regional Solid Waste Management District, the Cabot Public Schools provide refresher workshops for teachers and students. The workshops reacquaint them with and update their information about issues related to air and water pollution, household hazardous waste, pollution prevention, composting, and recycle-reuse-reduce programs.



Lη

CENTRAL ARKANSAS REGIONAL SOLID WASTE MANAGEMENT DISTRICT - \$5.000 Leigh Ann Covington, P. O. Box 300, Lonoke, AR 72086

HOP (Hazards of Pollution) Portable Model

Teacher workshops and interactive classroom projects demonstrate the hazards of improper disposal of wastes and open burning, as well as the benefits of composting, recycling, and other environmental issues through a working 3-D Hazards of Pollution model. The model is intended for use in grades 3 through 7.

FOUR-COUNTY (NW) REGIONAL SOLID WASTE MANAGEMENT DISTRICT - \$4,991 Doli Brown, 2 N. College Avenue, Suite 302, Fayetteville, AR 72701

Open Burning Tool Kit

Open trash burning is a major environmental problem in the four-county area served by this project. This project is intended to reach students, businesses, and residents of both rural and urban areas. It uses workshops conducted in both English and Spanish for educators; seminars for residents; videotapes aired on cable television; and the Open Burning Tool Kit, which is distributed to classrooms. The lessons address the need to break the cycle of burning trash and seek to build understanding of the relationship between human actions and adverse effects on human health and the environment. Because a variety of delivery methods are used, the program is expected to reach its various audiences effectively.

JESSIEVILLE SCHOOL DISTRICT #1 - \$900 CHERYL KASTNER, 7900 N. HIGHWAY 7, JESSIEVILLE, AR 71949

Jessieville Recycles

This project makes students, parents, and teachers aware of issues related to ecology and the environment and potential health hazards caused by the dumping of trash. That goal is accomplished by promoting awareness of recycling through the establishment of designated collection sites and the conduct of workshops sponsored by the Parent-Teacher Association.

MISSISSIPPI COUNTY ECONOMIC OPPORTUNITY COMMISSION, INC. - \$5,000 SAM SCRUGGS, P.O. DRAWER 1289, BLYTHEVILLE, AR 72316-1289

Ecosystem Discovery Exhibit

The hands-on, self explanatory Ecosystem Discovery Exhibit demonstrates the interdependence of the various natural elements (water, air, sunlight, earth, plants, and animals) that make up the ecosystem. The exhibit stresses whole-system designs, with demonstrations of practical uses of solar orientation, gravity, biological resources, and energy produced on site; the relationships of animals to gardens; and containment and use of waste produced in the system.



CALIFORNIA

See page 3 for a profile of a grant awarded to Adopt-A-Watershed by EPA Headquarters.

AFRICAN AMERICAN DEVELOPMENT ASSOCIATION - \$10,250 ALLEN EDSON, 1235 PERALTA, OAKLAND, CA 94607

Environmental Education Network Collaborative

This project establishes a model environmental science corridor for urban youth from middle school through graduation from college or university. Through the linking of the faculties of a middle and a high school with that of a community college, a program of culturally relevant environmental projects enables students to follow a path leading to professional careers in the environmental field. A network of environmental professionals provides teacher training and follow-up classroom support. Using a nearby marsh and lake as outdoor classrooms, older students act as role models and instructors for younger students as they explore ecosystems and study issues related to environmental justice.

CALIFORNIA STATE UNIVERSITY, CHICO - \$5,000 KRISTIN COOPER-CARTER, KENDALL HALL, ROOM 114, CALIFORNIA STATE UNIVERSITY, CHICO, CA 95929-0870

Streaminder Salmon and Steelhead from Eggs to Fry

This project offers an eight-hour workshop that links salmonid life cycles with stream ecology for 30 teachers of kindergarten through grade 12 to support restoration of native fisheries. Students of the teachers trained through the workshops have the opportunity to raise salmon and steelhead from eggs to a stage at which they can be released into local streams. In conjunction with that project, students visit nearby streams to study riparian ecosystems, test water quality, and conduct bioassessment. Using the data they collect, the students determine whether the habitat is sufficiently healthy to allow the release of the salmon and steelhead fry they have cared for.

CARQUINEZ REGIONAL ENVIRONMENTAL EDUCATION CENTER - \$4,860 DAVID J. HICKS, P.O. BOX 65, CROCKETT, CA 94525

Training High-Risk Youth in Habitat Restoration

Under this project, 15 high school students and their science teachers develop the knowledge and skills they need to restore a portion of an historic riparian habitat. Each week for 32 weeks, an urban horticulturist and wildlife specialist guide students by small group instruction and field experiences through the cycle of habitat restoration: site preparation, propagation and reintroduction of native horticulture and wildlife, and monitoring of the vitality of the habitat. The project has built-in sustainability because students and teachers currently being trained become mentors for the next year's class.



CHAFFEY JOINT UNION HIGH SCHOOL DISTRICT - \$4,000 ROBERT SHAVER, 211 WEST FIFTH STREET, ONTARIO, CA 91762

ED-SAC: Environmental Disturbance in San Antonio Creek

This project provides some 100 to 120 high school sophomores a way to measure scientifically the effects of human intrusion on comparative habitats, one close to and the other remote from population. Students visit both sites once a month to take samples of the water, collect and catalog the types of trash and debris found, and observe the condition of plants and wildlife. Using the data they collect, students can draw conclusions about the comparative health of the two habitats. They report their findings to the community through articles in the local newspaper and presentations to the school board and city council.

FORTUNA HIGH SCHOOL - \$4,495 PAM HALSTEAD, FORTUNA HIGH SCHOOL, 379 12TH STREET, FORTUNA, CA 95540-0398

Fortuna Integrated Watershed Study

This project provides an integrated science curriculum at the ninth grade level that focuses on interdisciplinary study of conditions in local creeks. In partnership with the Fortuna Creeks Project, the Fortuna Parks and Recreation Department, and the AmeriCorps Watershed Stewards Project, the high school science department leads students in water quality monitoring, assessment of stream habitats, sampling of macroinvertebrate species, riparian restoration, and spawning survey activities. The incoming freshman class receives training in the use of scientific instruments in a real-world setting, interpretation of the data they collect, mentoring, and the development of networks through which they can share recommendations for stewardship of local natural resources with the community.

GREEN CITY PROJECT - \$5,000 Dana Lanza, P.O. Box 31251, San Francisco, CA 94131

Careers in Environmental Education

This project is a partnership effort of San Francisco Recycling, the California Coastal Commission, the California Native Plant Society, and the San Francisco Park and Recreation Department to train 20 high school students from inner-city neighborhoods to become docents to 20 elementary school classrooms in the city. The selected high school students choose from a field of three areas of study: waste management, conservation of habitat, or water issues. Students devote two hours per week for 12 weeks to preparatory sessions during which they not only master their subject, but also learn speaking skills and how to create presentation materials. During the spring semester, the high school students are matched with an elementary school teacher to work with the younger children to complete a hands-on community project in the docent's area of study.



KERN COUNTY SUPERINTENDENT OF SCHOOLS - \$9,500 SHIRLEY OESCH, 1300 17th Street - CITY CENTER, BAKERSFIELD, CA 93301-4533

Kern River Connections

This project expands the number of schools participating the Adopt-a-Watershed curriculum from 7 to 20 schools and provides Global Learning and Observations to Benefit the Environment (GLOBE) training for 40 additional teachers. Project partners include the Kern River Water Agency; the Forest Service, U.S. Department of Agriculture; the California Department of Fish and Game; and the Kern River Preserve. Through application of the GLOBE protocols, students learn to make decisions and take actions to address and remediate environmental problems that the students identify through their investigations.

LINDSAY WILDLIFE MUSEUM - \$5,000 LISLE LEE, 1931 FIRST AVENUE, WALNUT CREEK, CA 94596

Monitoring and Habitat Enhancement Program for At-Risk Youth

The museum staff, the city's parks and recreation department, and the faculty of Summit High School offer 20 at-risk students and their reachers opportunities to monitor and restore habitats along Gallindo Creek on the slopes of Mt. Diablo. Classroom and field exercises based on the Adopt-a-Watershed curriculum are conducted once a week during the school year. The project's main components include cleanup of the creek and the riparian zone and monitoring of water quality, enhancement of butterfly habitats, and establishment and maintenance of a database. In addition, students make presentations to the city council, the parks department, the youth council, and other interested organizations.

OAKLAND RECYCLING ASSOCIATION - \$5,000 Susan A. Blueston, 635 - 13th Street, #210, Oakland, CA 94612-1220

Recycling Education and Resource Center

This project partially funds one intern to provide recycling outreach programs for 90 fourth through sixth grade classrooms in Alameda County, California. The program provides hands-on, interactive learning experiences about waste reduction and conservation of natural resources through classroom art projects that use materials recovered from the waste stream, field trips to the transfer station, establishment of a compost program, and targeting of a specific recyclable material for research on its origin and uses. The program demonstrates the usefulness of objects otherwise considered garbage and encourages students to think before purchasing items marketed in elaborate but nonrecyclable packaging.

PALOS VERDES PENINSULA LAND CONSERVANCY - \$5,000 WENDY MILLET, 904 SILVER SPUR ROAD, #274, ROLLING HILLS ESTATES, CA 90274

Habitat-Based Science Curriculum for Elementary Schools

This project provides a curriculum based on local habitats and training for 90 intermediate grade teachers in the Palos Verdes Peninsula School District. In preparing for the program, staff of the land conservancy select from among existing environmental education resources and adapt them to the natural open-space areas within walking distance of the teachers' schools. Naturalists train teachers and parent volunteers in grade- and site-specific plans for implementing the curriculum.



San Diego Natural History Museum - \$17,714 KATHERINE BOSKOFF, 1788 EL PRADO, SAN DIEGO, CA 92101

Establishing a Regional Environmental Education Coordinator

This project matches a grant from the California State Department of Education to establish a full time coordinator to build capacity to deliver quality environmental education in the San Diego area, a large and diverse region that encompasses ocean, urban, rural, desert, and mountain habitats. The coordinator, housed in the San Diego Museum of Natural History, provides resources, promotes networking, and serves a clearinghouse for a potential audience of 20,000 teachers in 43 public school districts, private schools, and informal education programs.

San Diego State University - \$5.000 Melody Hunt, 5250 Campanile Drive, San Diego, CA 92182-1931

Student and Teacher Training in Water Quality Monitoring

This project establishes partnerships among several departments of San Diego State University, the Tijuana River National Estuarine Research Reserve, the San Diego County Water Authority, and several middle and high schools in San Diego. University students serve as mentors and trainers for middle and high school students in creating a monitoring program to perform regular water quality testing in semiarid San Diego area and international watersheds. The accompanying curriculum covers water treatment, water reclamation, non-point-source runoff pollution, and watershed management. In addition, the San Diego County Water Authority offers training to more than 300 teachers in the use of water monitoring kits to implement the program.

San Francisco Conservation Corps - \$5,000 McCrae Parker, 1050 South Van Ness Avenue, San Francisco, CA 94110

McLaren Park Youth in Action Project

This project joins the San Francisco Conservation Corps with the city's parks and recreation department to support restoration of native plants in a square-mile park in the southeast portion of the city. Through the corps' McLaren Park Youth in Action program, 50 older teens are trained to teach units on native plant ecology and restoration techniques. The older youth then work with 100 middle school students to develop the knowledge and skills they need to become stewards of the park, conducting service projects focused on removing nonnative and restoring native plant species.

San Joaquin Office of Education - \$5.000 JUDI WILSON, P.O. BOX 213030, STOCKTON, CA 95213

Project FEED (Families Exploring Environmental Dilemmas)

This project, which involves 30 elementary schools in San Joaquin County, provides a familyoriented event that offers hands-on activities designed to increase awareness of health threats caused by pollution of our natural resources and by improper practices in the management of solid and hazardous waste. A manual based on the successful practices presented in the California Department of Health Services' No Waste Anthology and the Alameda Office of Education's



Toxics: Taking Charge prepares parents and staff at each school to stage the event. Follow-up training for parents and staff covers the materials and logistics needed to stage a successful event, tips for attracting families to the event, and troubleshooting problem areas. A mentor from the science, health, or environmental fields assists each school by making a presentation on the goals of Project FEED, answering questions, and interacting with families as they prepare for and participate in the event.

SANTA MONICA BAYKEEPER - \$10,000 CAPTAIN TERRY TAMMINEN, P.O. Box 10096, MARINA DEL REY, CA 90295

Beachkeepers

This project establishes a partnership of the Regional Water Quality Control Board, the California Marine Institute, the Harbor Safety Committee, and the Wilmington Homeowners Association to train residents in monitoring and documenting storm drain pollution of coastal habitats in their neighborhoods along 60 miles of the coast of Santa Monica Bay. High school students and members of homeowners associations receive training in monitoring techniques. The project conducts monthly meetings in various neighborhoods, during which reports on earlier monitoring efforts are presented and plans made to determine what further action is needed.

Solana Vista School, Solana Beach School District - \$5,000 ELLIE TOPOLOVAC, 309 NORTH RIOS AVENUE, SOLANA BEACH, CA 92075

Composting Solana Vista

The project provides two workshops for teachers at Solana Vista Elementary School and one for parents on the need for and techniques of composting. The sessions are taught by a master gardener from the University of California Extension Service. At school, the lessons prepare the 16 faculty members to involve students in performing the tasks necessary to conduct a composting program, including the composting of school lunch leftovers. The parents' workshop, offered in both English and Spanish, trains parents to undertake home composting and gardening projects.

THE TIDES CENTER - \$3,017 LESLIE CRAWFORD, P.O. BOX 29907, SAN FRANCISCO, CA 94129-0907 (PROJECT IN OSSINING, NY)

Environmental Action Teacher Training Workshop

E2: Environment and Education, a nonprofit educational activity of the Tides Center, trains secondary school teachers from the Ossining, New York Union Free School District to integrate environmental education into an existing curriculum and develop their ability to explore environmental issues in the classroom. The workshop focuses on Environmental ACTION, a six-module program that includes study of energy conservation, water conservation, and biodiversity. The program educates teachers; students; and, through home activities, parents about environmental threats to health. The program helps students use the school as a laboratory to build their understanding of the relationship between global environmental issues and their lives and neighborhoods.



THE TIDES CENTER - \$3,017
LESLIE CRAWFORD, P.O. Box 29907, SAN FRANCISCO, CA 94129-0907
(PROJECT IN TUCSON, AZ)

Environmental ACTION: Teacher Training Workshop

This project offers 20 secondary school teachers in the Tanque Verde Unified School District of Tucson, Arizona training in how to integrate environmental education into their daily classroom offerings. Environmental Action, a six-part module for grades 6 through 12, has proven effective in the development of environmental awareness, critical thinking skills, and scientific learning. Under this project, support for classroom implementation includes identification of partner organizations and agencies that provide speakers who have expertise in specific environmental topics to introduce subject matter to students.

UKIAH UNIFIED SCHOOL DISTRICT - \$5,000
JENNIFER HARRIS, 925 NORTH STATE STREET, UKIAH, CA 95842

Redwood Valley Outdoor Education Project

This project provides partial funding for an AmeriCorps volunteer to act as the environmental coordinator for the Redwood Valley outdoor education site, a 45-acre plot of undeveloped land made up of flat and steeply sloping terrain along the Russian River. In dedicating the land for educational purposes, the school district established the goal of providing experiences for students, teachers, parents, and the community that would focus on all aspects of nature, wildlife, and protection of ecosystems and habitats. The coordinator's responsibilities include maintaining the site, scheduling classes for field trips, assisting teachers in leading field trips, and managing research projects. Regular testing of water, air, and soil provides data that help increase awareness of the threats posed to human health by environmental pollution. A portion of the funds is used to offset the cost of transportation for students in schools beyond walking distance from the site.

Yolo Basin Foundation - \$3,834 Robin Kulakow, P.O. Box 943, Davis, CA 95617

Discover the Flyway

In partnership with Central Valley Habitat Joint Venture, the California Department of Fish and Game, and the U.S. Army Corps of Engineers, this project presents day-long workshops for middle school teachers to encourage field study in the Yolo Bypass Wildlife Area, a 3,700-acre tract in the heart of the Pacific Flyway. Each workshop provides participants with wetlands education materials they can use before and after a field trip to the wildlife area. One goal of the project is to instill in students who visit the wildlife area a long-term interest in wetlands issues.



COLORADO

CLEAN AIR CAMPAIGN OF THE PIKES PEAK REGION - \$3,923 BARB NEGLEY, 219 WEST COLORADO AVENUE, SUITE 210, COLORADO SPRINGS, CO 80903

WHIFF Game Show to Educate Local Youth About Air Quality Problems

The primary goal of this project is to educate teachers, informal educators, and students about air pollution by providing a fun atmosphere through a short air pollution book and a game show. Skilled performers trained in child development and environmental issues dress up as Whiff the Clean Air Pup and Professor PureAir to invite students to participate in the "Air is Right" game show. The show is offered to middle and high school educators in the public school district, as well as to those in local private schools and other educational facilities. The game show and other materials focus on the components and characteristics of air, types of pollutants, causes and health consequences of air pollution, and solutions to such problems.

COLORADO ALLIANCE FOR ENVIRONMENTAL EDUCATION - \$23,000 MIKE WAY, 15260 S. GOLDEN ROAD, GOLDEN, CO 80401

Enhanced Volunteer Coordination for Colorado

This project builds capacity to deliver environmental education by forming networks of Colorado's business, agriculture, and higher education organizations and underrepresented populations in urban and rural communities. The project enhances coordination of volunteer efforts and establishes a statewide environmental education network through the World Wide Web sites of the various partners. The project relies on consistent and responsive contact among volunteer coordinators who encourage the development and use of on-line services, providers of environmental education, and target audiences.

COLORADO BIRD OBSERVATORY - \$15,666 MICHAEL CARTER, 13401 PICCADILLY ROAD, BRIGHTON, CO 80601

Conserve Shortgrass Prairies and the Birds That Depend on Them

This project provides five workshops for residents of rural communities, primarily private landowners, to educate them about shortgrass prairies and the birds that live in their communities. The project uses education and community action to encourage community members to conserve their local prairies and the birds that depend on that land. Slides, schedules, and handouts are used during the workshops.

Colorado State University - \$25,000 Frederick M. Stein, Ft. Collins, CO 80523-2002

Professional Development for American Indian Teachers

This project trains teachers of students in kindergarten through grade 12 about environmental issues to improve their environmental education teaching skills. A five-day, 40-hour, hands-on workshop for teachers and administrators, whose students are predominantly American Indians and Alaskan Natives, focuses on improving the school science curriculum. The workshop is based on environmentally friendly approaches through which chemistry can be taught easily at any grade level.



DENVER URBAN GARDENS - \$4,900 JAMIE DOUGLASS, 1110 ACOMA STREET, DENVER, CO 80204

Grounds for Learning

This project assists South Middle School in developing its school grounds as a water conserving, environmentally friendly, visually attractive, and educationally rich landscape. The project introduces students to horticulture and gardening, as they care for newly planted beds and plant and maintain a small vegetable garden. One purpose of the project is to build interest among the students in exploring careers in horticulture. The school is located in a disadvantaged community where the school population is made up primarily of members of minority groups.

GOLDEN HIGH SCHOOL - JEFFERSON COUNTY SCHOOLS - \$4,900 ELAINE M. SMITH, 701 24TH STREET, GOLDEN. CO 80401

Environmental Science Students Outreach Program

Golden High School environmental science students conduct an outreach program to educate all members of their community. The students collect data and conduct research to assess local air pollution and water quality. They then apply their knowledge and understanding of the environment to define such environmental problems as global warming, air pollution, and water quality as those problems affect their community. Students make presentations at city council meetings and for business organizations, using a videotape they produced and distributing pamphlets they developed. The students also make presentations at the city's elementary schools to educate younger students about environmental topics.

LUTHERAN OUTDOOR MINISTRIES OF THE ROCKIES, INC. - \$5,000 ROBERTA WENTWORTH, P.O. BOX T, 3056 COUNTY ROAD 198, HILLSIDE, CO 81232

Rainbow Trail Lutheran Camp Family Project

This project is a year-round environmental education program designed to educate the public about reducing food waste and gardening organically through the composting method. An overview display of the purpose of the site's composting program, a composting unit, and additional materials are available to all visitors who use the site. The composting unit itself serves as a teaching tool used to explain the benefits of recycling waste materials and provides campers a means of recycling food waste and other compostable materials during their stay. The compost then is used in gardening projects. Since the Rainbow Trail camp currently serves more than 4,000 campers throughout the year, from families to community leaders, the project reaches a large and diverse audience.

Poudre School District - \$4,950 2101 S. Taft Hill Road, Fort Collins, CO 80526

A Teacher Training Project for Ecosystem Field Studies

The primary objective of this project is to create a community-based teacher training program that helps teachers improve their environmental education skills to meet new state standards for science. Another component of the project increases students' awareness of and knowledge about ecosystems and other environmental issues. Middle school teachers and their students, who represent a variety of minority groups, benefit from the project.



SAN JUAN RESOURCE, CONSERVATION, AND DEVELOPMENT - \$4,770 Joe Arado, 31 Suttle Street, Durango, CO 81301

Educational Outreach Effort for Animas River Stakeholders

The goal of the project is to improve water quality and aquatic habitat throughout the Animas River watershed. Stakeholders in the Animas River area characterize existing conditions, assess sources of contaminants, determine the feasibility of various approaches to addressing environmental problems, and set priorities among sites for remediation. Monthly meetings and forums educate residents of the area about the quality of the watershed and about lead contamination and ways to clean up such contamination. A World Wide Web site distributes information about the watershed to those unable to attend the meetings and to others who have interest in such environmental issues.

eonnier au

CONNECTICUT AUDUBON COASTAL CENTER - \$5,000 BARBARA MILTON, 1 MILFORD POINT ROAD, MILFORD, CT 06460

Planning Workshops for Milford's Open Space Steering Committee

Connecticut Audubon Coastal Center (CACC) hosts six bimonthly workshops for representatives of the city of Milford's Open Space Steering Committee. The workshops cover the following topics: natural resources inventories, low-impact development, wetlands and waterfront open space, management of open space, funding for and acquisition of open space, and development of slide presentations. Approximately 20 representatives of various agencies will attend the workshops. Presentations based on the contents of the workshops are expected to reach thousands of people.

CONNECTICUT FOOD, DEPARTMENT OF ENVIRONMENTAL PROTECTION - \$18,950 STEVEN FISH, 79 ELM STREET, HARTFORD, CT 06106-5127

Food, Land & People Project

Food, Land & People Project developed a model curriculum that focuses on agriculture and environmental concepts and issues. The curriculum has been field-tested with 72 teachers. The Connecticut Department of Environmental Protection and its partners distribute the curriculum throughout the state to teachers of prekindergarten through 12th grade. A culturally diverse mix of students in all grades is targeted. In addition, 25 teachers are trained to train other teachers.

New Haven Land Trust - \$5,000 Sylvia Dorsey, P.O. Box 935, New Haven, CT 06504

Youth Environmental Education Program

Through this summer environmental education pilot program, young people from age 7 through age 12 design and develop seven community gardens. Hands-on activities with the young people in the gardens will bring the environmental education content to the program. Community gardens are located in low-income and culturally diverse neighborhoods. The program is expected to reach some 150 people.



SAVE THE SOUND, INC. - \$5,000 T. Robins Brown, 185 Magee Avenue, Stamford, CT 06902

Restoration of Estuarine Habitat

The project develops and tests a training program in restoration of estuarine habitat restoration for 25 high school students annually. Each student spends 200 hours in hands-on learning about how to restore estuarine habitats.

Soundwaters, Inc. - \$5,000 NATHAN FROHLING, 69 DYKE LANE, BOX 13, STAMFORD, CT 06902

Discovering Long Island Sound

Discover Long Island Sound: Bringing it Back to the Classroom is a five-day, multidisciplinary workshop in marine ecology for teachers. The workshop is conducted aboard the schooner Soundwaters and at several field sites. The goals of the workshop are to inform teachers about priorities related to Long Island Sound and to provide them the skills, materials, and resources they need to teach about those priorities. As many as 25 teachers participate in the workshop, and more that 500 students participate in a classroom or outdoor activity led by a Soundwaters educator.

DELAWARE

CENTER FOR INLAND BAYS - \$3,714 BRUCE RICHARDS, P.O. Box 297, NASSAU, DE 19969

Public Service Announcements About Delaware's Inland Bays

The Center for the Inland Bays, in partnership with the Delaware Audubon Society, provides eight 30-second public service announcements (PSA) for television and radio. The announcements cover topics related to the environmental concerns that affect the residents of the inland bays' watershed. Overenrichment by nutrients, protection of wildlife habitats, and the effect of human activities on the environment of the watershed are among the topics spotlighted. Specific environmental topics, such as the effect of dredging on shore birds and the cause of the occurrence of excessive amounts of sea lettuce in the bays, also are addressed.

DELAWARE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL - \$5,000 MARJORIE A. CROFTS, 89 KINGS HIGHWAY, DOVER, DE 19901

Air Curriculum for Delaware (The Three R's for Today and Tomorrow)

This program, called "The Three R's for Today and Tomorrow... a Waste Minimization/Pollution Curriculum, Waste and Air Section," combines information from the 1990 amendments to the Clean Air Act; state implementation plans; and ozone standards with curriculum activities that meet educational standards under the New Direction for Education in Delaware Program. The program includes teacher workshops and a tour of an air quality monitoring station. The curricula focus on activities for students in kindergarten through grade 12.



KALMAR NYCKEL FOUNDATION - \$5,000 ANDREW McKNIGHT, 1124 EAST 7TH STREET, WILMINGTON, DE 19801

Challenge Program - Building Awareness of the Environment and Environmental Justice for At-Risk Youth in Wilmington

Students participate in a boat-building class that helps them to develop an understanding of marine environments and learn more about the environmental factors that affect the Christiana River and its watershed, including sewage outflows, commercial shipping, runoff, and recreation. The students canoe, take water samples, and use microscopes to compare samples from various bodies of water in a specific region. The class also has the opportunity to sail on an oyster schooner on the Delaware Bay. The Challenge Program helps students understand how the quality of the river's water affects them and the many Wilmington industries that are located on the river.

DISTRICT OF COLUMBIA

THE ENVIRONMENTORS PROJECT - \$5,000

DAVID C. RUBINSTEIN, 5301 BROAD BRANCH ROAD, NW, WASHINGTON, D.C. 20015
(PROJECT IN TRENTON, NJ)

Trenton High School Outreach Program

Through the Environmentors Project, a community-based educational program for low-income communities, 30 Trenton teenagers become involved in environmental issues that affect their community. Students participate in an eight-month mentorship with a professional, during which they learn about environmental careers, environmental health risks in their communities, and community action choices. The knowledge, skills, and discipline acquired in the course enable the students to serve as environmental resources for their communities.

Lt. Joseph P. Kennedy Institute - \$5,000 Donna Degnan, 801 Buchanan Street, N.E., Washington, D.C. 20017

Students Impacting Their Urban Environment

This program adapts existing environmental education curricula and field methods to develop a functional environmental education theme unit for predominately minority special education students in an urban multicultural setting at the Kennedy Institute, an ungraded, 12-year special education day program. Participants strengthen their awareness of real-life local environmental issues. Students learn about urban air and water pollution and the effects of such pollution on human health and the local ecosystem. They also study the effects of population growth and decline on urban areas and the effects of such changes on climate, as well as discussing job opportunities in the environmental field.



FLORIDA

Brevard Community College - \$15,569
Deborah McClinton, 3865 N. Wickham Road, Melbourne, FL 32935

Environmental Literacy Modules

A multidisciplinary team of six members of the faculty of Broward Community College designs, develops, and pilot-tests a series of modules that can be incorporated into general education courses. The modules are designed specifically to expose college students enrolled in general education courses to crucial environmental issues. Workshops are provided to train the faculty in the use of the modules.

CHARLOTTE HARBOR ENVIRONMENTAL CENTER, INC. - \$5,000 JOY DUPERAULT, P.O. BOX 2494, PORT CHARLOTTE, FL 33949

Faculty Workshop for Monitoring Water Quality: High School and Community College

This project implements a monitoring program for the entire Charlotte Harbor watershed, under which water quality data are collected and analyzed. The project provides high school and community college faculty members with the skills they need to demonstrate to students the concepts of water quality sampling and monitoring. The effort is intended to improve public understanding of significant issues related to the management of water resources in the watershed.

FLORIDA ATLANTIC UNIVERSITY - \$4,616
CENTER FOR ENVIRONMENTAL STUDIES
LOISA KERWIN, P.O. Box 3091, Boca Raton, FL 33431-0991

Aquatic Ecology Workshop for Educators

This project provides a five-day aquatic ecology workshop to inform educators about the wide variety of resources and field sites that are available to them by training teachers in the methods necessary to conduct data collection and field experiments on water resources with their classes. The participants explore a watershed, an adjacent prairie, and the lacustrine system of Lake Okeechobee. At each site, scientific field protocols are applied in monitoring water quality and identifying aquatic plants and invertebrate animals as indicators of the health and diversity of an ecosystem.

Putnam County Health Department - \$4,128 Cheryl D. Lesneski, 2801 Kennedy Street, Palatka, FL 32177

Recognizing Pesticide Poisoning: A Training Program for Rural Health Care Providers

This project trains rural health care providers to identify pesticide illness, or poisoning, and to differentiate it from problems that cause similar symptoms. Sessions are conducted for community members on the potential hazards of pesticide use. The project provides in-service sessions for local health care providers, as well as workshops for individuals who work with "atrisk" children and for pesticide applicators. The project will provide pertinent reference materials, as well. Members of the community will attend sessions during which they will learn about the potential hazards of pesticide use.



ROY HYATT ENVIRONMENTAL CENTER - SCHOOL DISTRICT OF ESCAMBIA COUNTY - \$4,982 LINDA HARTMAN, 1300 TOBIAS ROAD, CANTONMENT, FL 32533

Florida's 4-R's and Vermicomposting Teacher Training Workshops

This project provides training for teachers in the use of effective solid waste management practices through the revised state-accredited curriculum, Florida's 4-R's and Vermicomposting. The project enhances the environmental awareness of both teachers and students and involves parents in classroom activities.

SCHOOL BOARD OF BROWARD COUNTY - DIVISION OF SCHOOL OPERATIONS - \$4,933 FRANK MANDLEY, 600 SOUTHEAST THIRD AVENUE, FORT LAUDERDALE, FL 33301

Whiddon-Rodgers Education Center Environmental Education Project

This project is designed to improve the environmental education teaching skills of educators who work with multicultural high school and adult students. Educators receive three hours of in-service training, during which they discuss environmental issues important to the community and the school. Educators share the activities with their peers so they have a repertoire of challenging instructional material that encourages students to arrive at their own conclusions about environmental issues and careers.

GEORGIA

CHATHAM COUNTY BOARD OF HEALTH - \$4,900 DIANE Z. WEEMS, 2011 EISENHOWER DRIVE, SAVANNAH, GA 31406

Home Hazards Education and Prevention Program

This project uses the Healthy Indoor Air for America's Homes instructional materials prepared by the U.S. Environmental Protection Agency to provide environmental education. Its audience includes senior citizens groups, clients of the Community Care program, and members of church organizations that provide services to senior citizens.

GEORGIA ENVIROTHON - \$4,900 TERRY SEEHORN, ROUTE 1, BOX 1A1, RABUN GAP, GA 30568

A Hands-On High School Environmental Knowledge and Skills Competition

The Georgia Envirothon provides students with environmental education through competitive events held in the field. During the competition, students have the opportunity to interact with environmental professionals and explore environmental careers.



Georgia Southern University - \$4,960
Department of Middle Grades and Secondary Education
Martha Schriver, P.O. Box 8005, Statesboro, GA 30460-8005

Using the Outdoor Classroom

This project educates 24 middle school science teachers about the fragile ecological balance of Georgia's wetlands and prepares them to pass on their learning to 2,140 students. The teachers have the opportunity to experience hands-on-minds-on learning activities in an outdoor classroom that is located in a large wetland complex.

THE GEORGIA TECH RESEARCH INSTITUTE - \$24,839
OFFICE OF CONTRACT ADMINISTRATION
DARA O'Neil, Georgia Institute of Technology, Atlanta, GA 30332

Teacher Training Workshop

This project establishes a teacher training program to create a cadre of teachers of Global Learning and Observations to Benefit the Environment (GLOBE) in Georgia. GLOBE is an Internet program that allows students to enter local environmental measurements into a national database. The project trains as many as 40 teachers of science in kindergarten through grade 12 to use the GLOBE program to provide environmental education in their schools. Trained teachers using the GLOBE program encourage students to pursue environmental careers and to develop environmental awareness.

Walton County Board of Education - \$5,000 Loretta Altman, Loganville Middle School, 115 Oak Street, Monroe, GA 30655

Project Kids: Our Future

This community-based education initiative involves both the Loganville Middle School and the community. Together, they build an awareness of the need for conservation of natural resources through composting and recycling.

HAWAII

HAWAII DEPARTMENT OF EDUCATION, KIDSCIENCE - \$20,000 PATTY MILLER, 2350 DOLE STREET, HONOLULU, HI 96822

Watershed Detectives

This project funds five one-hour television broadcasts of "Watershed Detectives" on the KidScience public broadcasting network for fifth and sixth grade classes. Each broadcast features demonstrations presented by professional environmental experts and an on-camera teacher. Students on all of Hawaii's islands can participate by calling in on the telephone or through the Internet. In-service training for teachers familiarizes them with activities that students can take part in before and after the broadcasts to measure the health of a watershed and develop individual action plans.



Manoa School - \$4,716 VICTORIA BANNAN, 3155 MANOA ROAD, HONOLULU, HI 96822

Manoa School - Ala Wai Canal Watershed

This project funds a one-day workshop to train the faculty of Manoa School in the use of Global Learning and Observations to Benefit the Environment (GLOBE) instruments and protocols to allow students to conduct experiments in and around Manoa Stream. The stream, which once provided fish and recreation for the community, is closed to those activities because of pollution. Dr. Eric DeCarlo of the University of Hawaii's Department of Oceanography provides technical guidance in taking environmental measurements and directing field studies that students can carry out safely. Students forward data collected to the Clean Water Branch of the Department of Health and to GLOBE's database.

NATURE CONSERVANCY OF HAWAII - \$24,975 PAULINE SATO, 1115 SMITH STREET, SUITE 201, HONOLULU, HI 96817

Project Stewardship

This project expands its current interactive partnership with natural resources managers to promote environmental stewardship to two more high schools on Oahu. The year-long program encompasses five modules, each of which contains specific pre-site, on-site, and post-site learning experiences that teach a progression of skills designed to prepare students for field activities. The five modules are: biodiversity and stewardship; plant propagation techniques; control of invasive alien species; revegetation and restoration; and mapping, monitoring, and stewardship. Students are responsible for developing individual or team projects based on their study of the modules.

IDAHO

See page 3 for a profile of a grant awarded to the Nez Perce Tribal Foundation by EPA Headquarters.

Mackay Joint School District #182 - \$4,567 KARLENE HARDY, P.O. Box 390, 411 Rose Avenue, Mackay, ID 83251

Environmental Awareness Project

This project increases the environmental education knowledge base of the staff of the Mackay Joint School District by providing the following training: Project Wild I and II, Project Wet, and Project Learning Tree. The teachers plan to integrate age-appropriate student activities into their classroom curricula. In the fall and spring, students participate in such activities as an aquaculture project in which they raise fish and release them into local waterways. Through an environmental fair, students apply what they have learned by creating exhibits and demonstrations and presenting them to other students and community groups.



ILLINOIS

See page 3 for a profile of a grant awarded to the Illinois Easter Seal Society by EPA Headquarters.

Business and Professional People for the Public Interest - \$24,192 Jill Viehweg, 17 E. Monroe Street, Suite 212, Chicago, IL 60603

Integrated Pest Management

The Safer Pest Control Project (SPCP) educates community leaders and residents of neighborhoods in Chicago about techniques of integrated pest management (IPM). SPCP provides an educational comic book through which readers learn the appropriate techniques for controlling cockroaches in their homes, while avoiding indiscriminate or illegal use of pesticides. In an effort to reach diverse audiences, the comic book is made available in both English and Spanish. SPCP also conducts a series of train-the-trainer seminars, during which participants learn how to implement IPM in their homes and receive the supplies they need to teach others about IPM. SPCP trains 100 to 150 community leaders who in turn reach 350 to 400 residents of Chicago communities.

CHICAGO ACADEMY OF SCIENCES - \$24,550 PHIL PARFITT, 2060 N. CLARK STREET, CHICAGO, IL 60614

Butterfly Gardens in Schools

Using the successful Ecological Citizenship program (funded by EPA) as a model, the Chicago Academy of Sciences trains teachers to use butterfly gardens as educational tools. Selected teachers and their respective students in six Chicago schools participate in the program. Teachers attend three workshops to study biodiversity and learn strategies for teaching ecological issues. Students create, design, and develop a butterfly garden at their schools and are responsible for maintenance of the gardens. During the school year, staff of the academy make three visits to the classrooms of participating students and provide continual assistance to ensure the success of the program. Three lectures provided at the newly constructed nature museum give members of the communities involved the opportunity to learn from butterfly experts and to view the newly created exhibit Butterfly Haven.

LINCOLN PARK ZOO - \$11,842 Susan Teller-Marshall, P.O. Box 14903, 2150 N. Cannon Drive, Chicago, IL 60614

People, Places, & Change

The Lincoln Park Zoo is expanding its People, Places, & Change teacher education program. Participants in the program examine historical change and development in an area and then determine the nature and causes of the change. The curriculum of the workshop is correlated to the state's science standards, thereby dramatically increasing use of the resources and materials. The zoo uses the grant funds to double the workshop hours, provide a stipend to participating teachers, and enhance the teaching materials provided. Environmental professionals in a variety of areas provide teachers participating in the workshop with background information about



environmental issues. They also serve as resources for the participants after the workshop has concluded. The workshop therefore is more comprehensive than past programs, and teachers have support available after the program has ended.

St. Clair County Health Department - \$5,000 BARBARA A. HOHLT, 19 PUBLIC SQUARE, SUITE 150, BELLEVILLE, IL 62220-1624

Clear the Air/Save the Environment

The St. Clair County Health Department increases awareness of air pollution issues and educates community members about the effects of ozone on public health. The department provides an educational display that is used at a variety of conferences throughout the year. The department also conducts three training sessions to educate community members about air pollution, ozone depletion, and the adverse health effects associated with various air pollutants. The county's clean air hotline is updated regularly, and a communications system is used to notify local businesses about ozone action and alert days.

INDIANA

CITY OF GARY - \$5,000 DORREEN CAREY, OFFICE OF THE MAYOR, GARY, IN 46402-1236

Community-Based Environmental Education

The city of Gary, in partnership with the Lake County Solid Waste Management District, provides a community-based environmental education program. The organizations work with the students and teachers of West Side High School to provide training and resources for the implementation of a sustainable solid waste and recycling program. Environmental professionals train 10 teachers and 20 students to use interactive environmental education tools. Students then coordinate a minimum of 20 educational sessions for citizens and leaders of communities and students of all ages, reaching a target audience of 500 people.

GRAND CALUMET TASK FORCE - \$5,000 Bowden Quinn, 2400 New York Avenue, Whiting, IN 46394

Gary Kids for the Environment

The Grand Calumet Task Force supports an environmental club for students in the Gary, Indiana school district. Students participate in after-school activities through which they learn about the environmental issues that affect their community. Club activities enhance environmental education lessons learned in the classroom. Students also have the opportunity to visit outdoor sites where they participate in hands-on, interactive learning experiences. Science teachers from the Gary school district serve as technical advisors to the club and encourage students to develop skills in scientific investigation. The Grand Calumet Task Force targets communities affected by issues of environmental justice in which students typically are underserved.



IOWA

AKRON-WESTFIELD COMMUNITY SCHOOL - \$18,886 RONALD WILMOT, 850 KERR DRIVE, AKRON, IA 51001

Cooperative Study of a Reclaimed Northwest Iowa Accretion Wetland

The project is designed for 60 students (grades 9 through 12) and four staff members who meet on two Saturdays a month for three-hour sessions. The group goes to the wetlands in the flood plain of the Big Sioux River next to the school, where they gather data, take samples, and record observations. The project has the unique opportunity to help in the long-term effort to reestablish wetlands along the Big Sioux River. The goal is the development of the Big Sioux River Corridor, more than 2,000 acres of wetlands.

IOWA DEPARTMENT OF EDUCATION - \$5,000
DUANE TOOMSEN, GRIMES STATE OFFICE BUILDING, DES MOINES, IA 50319-0146

Food, Land, and People

The project builds the urban school district's capacity to initiate and sustain the process of training educators to use Food, Land and People (FLP) curriculum materials. The training strengthens educators' ability to teach about the interdependencies of agriculture, the environment, and diverse cultures. The project provides a 15-hour workshop for 100 teachers in the district. The workshop includes presentations by local resource professionals on environmental issues of concern to the local community.

Iowa State University Extension Service - \$2,500 Amalia Spescha Bright, 2606 W. Burlington, Fairfield, IA 52556

Iowa Organic Farming Educational Videotape

The project provides farmers who are in transition from conventional crop production to organic farming with the information they need to make that change. The organic farming education videotape is intended to educate the public in general and the farming community in particular. The video is distributed to staff of extension services and other farm agencies in the state. Non-point-source pollution generated by agricultural operations is a major cause of impairment of water quality; concern about the issue is so strong that many farmers indicate they would reduce their use of farm chemicals if they had available economically acceptable alternatives.

KANSAS

Coordinating Committee for Automotive Repair - \$5,000 Sherman Titens, 11301 Nall Avenue, Suite 203, Leawood, KS 66211 (Project in Washington, D.C.)

Training for Automotive Education Instructors

The goal of this grant is to provide in-service training to secondary, post-secondary, and industry instructors who then train automotive shop owners and technicians. The Coordinating Committee for Automotive Repair provides an environmental information program that makes



available information about compliance with regulations applicable to such businesses and about pollution prevention in a self-study format. Also included in the package are historical information and contact information for federal, state, and university resources that are available to shop owners and technicians to assist them in complying with environmental regulations.

EMPORIA STATE UNIVERSITY - \$4,996 JONENA HEARST, 1200 COMMERCIAL STREET, EMPORIA, KS 66801

Fort Berthold Watershed Project

This project seeks to build tribal environmental capacity by educating tribal members about the importance of watershed management and increasing public access to information about the watershed through preparation of an accurate database and construction of a World Wide Web site. The target audience is the population on the reservation of the Three Affiliated Tribes, which have 5,500 enrolled tribal members and approximately 5,400 nontribal members. A series of six seminars introduces educators and tribal members to information and curriculum aids on watershed issues that are available through the Internet. To encourage all tribal members to participate, the seminars are held at a variety of locations.

HEARTLAND COUNCIL OF CAMP FIRE BOYS AND GIRLS - \$5,000 STEPHEN McCue, 7930 STATE LINE ROAD, PRAIRIE VILLAGE, KS 66208

Good Earth Camp

The Good Earth Camp is intended to institutionalize environmental education at Camp Good Earth, a 290-acre facility in Waldron, Missouri that is attended by more than 3,000 campers each summer. Camp staff and volunteers are trained to serve as assistants during one-day-per-week workshops for all resident campers during each of the eight weeks of resident camp. Camp Fire serves young people ages 5 to 18.

KANSAS STATE UNIVERSITY - \$17,500 DAVID HARTNETT, 2 FAIRCHILD HALL, KANSAS STATE UNIVERSITY, MANHATTAN, KS 66506-1103

The Tallgrass Prairie of the Flint Hills

The major focus of this project is a film "The Tallgrass Prairie of the Flint Hills of Kansas," intended for broadcast nationally on Public Broadcasting Service (PBS). The film focuses on the tallgrass prairie ecosystem in Kansas and addresses such topics as the natural history of the region, the environmental effect of the presence of Native Americans and European settlers, new scientific findings and their implications for grasslands worldwide, what prairies can predict about the composition of row-crop soil, the biological value of the tremendously diverse life forms in and under the grasses, the danger of misuse of the grasses, the debate over how best to use the protein in the grasses for conversion to human use, and the potential role of the prairie as a carbon sink in mitigating projected global warming. Three play dates on PBS have the potential to reach more than five million viewers, and the film also is to be shown in educational settings.



Maize, Kansas Unified School District 266 - \$16,666 Mark Diskin and William Kruse, 1600 W. 45th Street, North Maize, KS 67101

Captivating Activities Promoting Environmental Research Strategies

The Captivating Activities Promoting Environmental Research Strategies (CAPERS) project focuses on educating teachers, pre-service teachers, and students in kindergarten through grade 12 about environmental issues, specifically water pollution and protection of water resources. The target audience consists of certified teachers, pre-service teachers, post-graduate teachers, and students. The delivery method consists of training sessions, workshops, summer science camps, and conferences. The project is expected to reach some 3,000 to 4,000 students and 375 to 400 teachers.

Wyandotte County Parks Foundation - \$5,000 Vicki McLain, 3488 West Drive, Kansas City, KS 66109

Stotler Cove Nature Trail and Learning Center

The Stotler Cover Nature Trail and Learning Center at Wyandotte County Lake provides teachers with a classroom that can be used all year. The trail is new to the lake and is the only walking and hiking trail available in the park. The Kansas Department of Wildlife and Parks and the Wyandotte County Conservation District provide training sessions for the teachers. The primary goal is to improve the teachers' skills in teaching protection of the ecosystem and testing of water quality.

KENTUCKY

See page 4 for a profile of a grant awarded to Murray State University by EPA Headquarters.

JACKSON COUNTY BOARD OF EDUCATION - \$4,980 JOHN C. DUNSIL, P.O. BOX 217, McKee, KY 40447

McKee Elementary School Environmental Learning Center

This project teaches students and community groups the skills they need to make well-informed environmental decisions by developing an environmental learning center. Through the learning center, citizens have the opportunity to exercise problem-solving skills to increase their understanding of their relationship with the natural world.

JEFFERSON COUNTY PUBLIC SCHOOLS - \$5,000 LARRY D. HAMFELDT, P.O. BOX 34020, LOUISVILLE, KY 40232-4020

The Outdoor Classroom

This project develops an outdoor classroom and an environmental education program that engage the entire school in acquiring, through direct experiences, knowledge about the environment and the organisms that live in it. The students develop habitats that they then use to study specific organisms to increase their understanding of the effects human activities have on the environment.



University of Louisville Research Foundation - \$4,997 Russell Barnett, Jouett Hall, Louisville, KY 40292

Urban Environmental Education

This project is designed to enhance the environmental education program in the Jefferson County public schools. The collaborative effort of 10 high school teachers, The Kentucky Institute for the Environment and Sustainable Development, and the West County Task Force provides an interpretive guide to some 20 to 25 sites in west Louisville. The guide is used to conduct field trips to sites that illustrate environmental issues that typically affect urban areas.

Versailles Montessori School, Inc. - \$5,000 Barbara Kessier, 480 Pinckard Pike, Versailles, KY 40383

Recycling Decision Tree

This project provides environmental education opportunities to students and adults through a series of activities. A walk-through display graphically illustrates issues homeowners face in making decisions about how they dispose of wastes. Elementary students are taught how to examine the costs and benefits of recycling and composting and measure, in their own households, the amount of recyclable and nonrecyclable waste their families produce each week. Students also compare a variety of composting methods to observe firsthand the benefits and drawbacks of each method.

LOUISIANA

CITIZENS FOR A CLEAN TANGIPAHOA - \$4,975 BEN TAYLOR, P.O. BOX 784, HAMMOND, LA 70404

Why Do We Recycle?

A recycling workshop for 1,350 Tangipahoa Public School second graders makes the students aware of the need to recycle and conserve our natural resources. The students learn about the destination of items placed in landfills and to identify those items that can be recycled. Recycling demonstrations are provided.

CITIZENS FOR A CLEAN TANGIPAHOA - \$1,000 BEN TAYLOR, P.O. BOX 784, HAMMOND, LA 70404

Bring the Tangipahoa River to the People Displays

This project uses portable tri-fold displays to present the ecology and history of the Tangipahoa River to students and citizens of the parish. Subjects include closing of the river because of high levels of contamination with fecal matter, a monthly water testing program, macro-invertebrate testing, and an anti-litter campaign. The demonstrations inform students and citizens about the problems that affect waterways, streams, and rivers.



Grayson Elementary School - \$5,000 Denise McCoy, P.O. Box 239, Grayson, LA 71435

Outdoor Classroom

The Outdoor Classroom provides 382 students an opportunity for hands-on environmental education. Features include nature trails, observation platforms, a weather station, flower and rock gardens, a water study area, a pond, bird feeders, nesting boxes, and soil study areas. High school students serve as mentors to younger students.

MAINE

AROOSTOOK LITERACY COALITION - \$5,000 ERVIN MACDONALD, P.O. Box 190, Houlton, ME 04469

Network Resources Teacher Training

This project uses the Internet to deliver training on environmental resources to educators. The training shows teachers how to use classroom projects that incorporate critical thinking, problem-solving, and effective decision-making skills to address human health issues and environmental issues that have high priority in the region. The 25 Internet training units involve 200 teachers in eight hours of training.

University of Maine - Water Research Institute - \$11,406 Jeffery S. Kahl, 5717 Corbett Hall, Orono, ME 04469-5717

Discovering the Penobscot River Watershed

The Testing the Waters (TTW) program provides education and a hands-on experience in monitoring water quality for more than 1,000 students in kindergarten through college. Participants collect water samples at more than 40 stations along the Penobscot River. They then use field testing kits to analyze the samples. Staff of the Maine Department of Environmental Protection, as well as members of Project WET and other groups, provide assistance in the program, which builds on earlier pilot TTW events.

MARYLAND

See page 4 for a profile of a grant awarded to the Irvine Natural Science Center by EPA Headquarters.

CHARLES COUNTY COMMUNITY COLLEGE - \$4,350
JONATHAN BAIR, P.O. BOX 910, LA PLATA, MD 20646-0910

Internet Workshop for Environmental Trainers

Funds support a one-day hands-on workshop for instructors at the Maryland Center for Environmental Training to improve their skills in using computers and the Internet to promote learning. The workshop provides an overview of software and hardware, Internet basics, and on-line resources. The local environmental protection experts who participate learn practical ways to perform research and gather information from the Internet and to encourage students



to use the Internet for their own research. The training team is made up of operations specialists, engineers, electrical and instrumentation experts, microbiologists, utility managers, and financing professionals.

PATUXENT RIVER 4-H CENTER FOUNDATION - \$4,775 BONNIE DUNN, 18405 QUEEN ANNE ROAD, UPPER MARLBORO, MD 20774

Environmental Career Launching Workshop

The Patuxent River 4-H Center is a 134-acre environmental education facility that provides programs for the Maryland-Washington, D.C. metropolitan area. In partnership with the Maryland-National Capital Park and Planning Commission and the Southern Maryland Cooperative Extension Service (CES), the foundation provides a public education program focused on issues related to health and the agriculture industry. The program includes environmental education sessions for students, teachers, and parents that provide two days of intensive, hands-on learning. Water education workshops also are offered to teachers and community leaders who work with the students. Fliers that provide information about the program are distributed to science teachers throughout southern Maryland.

SOUTHERN MARYLAND RESOURCE CONSERVATION AND DEVELOPMENT, INC. - \$4,985 KENNETH J. HAFNER, 303 POST OFFICE ROAD, SUITE B4A, WALDORF, MD 20602-2702

Mitchell Elementary Schoolyard Habitat

This grant supports an environmental education program developed in partnership with the Mitchell Elementary School in La Plata, Maryland. The program involves the use of alternative groundcovers and natural plant species to create a schoolyard habitat that consists of a butterfly garden, a wetland nursery, organic gardens, a forested area, nature trails, and a stream monitoring station. Approximately 600 students of diverse ethnic backgrounds are involved in the project, which serves as a demonstration to the entire community of La Plata. The program is expected to result in actual reduction of nonpoint-source pollution in the Potomac River and the Chesapeake Bay.

WILDFOWL TRUST OF NORTH AMERICA - \$12,000 EDWARD J. DELANEY, P.O. Box 519, GRASONVILLE, MD 21638

Tidewater Environmental Education In-Service Institute for Teachers

This training program provides elementary school teachers with a living ecological education experience. The goal of the program is to help teachers develop experiential-based curricula that meet the environmental education standards of the state of Maryland, while strengthening the role of the Wildfowl Trust of North America as an educational resource for Maryland's public schools. Participants in the program, a maximum of 20 teachers from different backgrounds and schools, are expected to reach approximately 600 students during the first year.



MASSACHUSETTS

ALTERNATIVES FOR COMMUNITY & ENVIRONMENT - \$5,000
PENN LOH, 2343 WASHINGTON STREET, 2ND FLOOR, ROXBURY, MA 02119

Environmental Justice Youth Educators

Alternatives for Community & Environment (ACE) recruits 8 to 12 young people from age 14 to age 21 to educate their peers and their community about the broad health effects of indoor and outdoor air pollution. ACE's program includes the Roxbury Environmental Empowerment Project, which works with the recruits to educate the predominately low-income and culturally diverse community of Roxbury through workshops, a newsletter, and training.

CLEAN WATER FUND - \$4,800 LEE KETELSEN, 76 SUMMER STREET, 6TH FLOOR, BOSTON, MA 02110

Breaking the Pesticide Habit To Protect Children's Health

Pesticides are used widely and can have harmful effects on children's health. The project, Breaking the Pesticides Habit, seeks to educate parents and school and park personnel about the dangers of misusing pesticides. The Clean Water Fund works with parent-teacher organizations in Haverhill, Massachusetts to educate all parents and teachers in at least 10 schools, reaching approximately 2,000 parents with written materials and engaging about 300 in workshops. Education in the use of pesticides and safer alternatives helps parents guard the health and safety of the children.

EAGLE EYE INSTITUTE, INC. - \$25,000 ANTHONY SANCHEZ, 36 HANCOCK STREET, SOMERVILLE, MA 02144

Learn About the Forest

Eagle Eye Institute (EEI) provides hands-on environmental education for 300 to 350 urban youth, 8 to 22 years old. The Learn About the Forest project is built around outdoor programs that use interactive and hands-on methods to teach skills in problem solving, group dynamics, and decision making. EEI provides disadvantaged youth with hands-on learning about the importance, health, and care of trees and the ecosystem of the urban environment in which they live. The format is a one-time, three-hour program or series of programs offered in the spring and fall. During the summer, EEI provides one- and three-day programs in a rural setting. Those programs are focused on trees and the forest. From 15 to 20 young people and their counselors participate in the programs. EEI also gives young people the opportunity to work in their own neighborhoods through recycling and planting and pruning trees.

EARTH WORKS PROJECTS, INC. - \$5,000
BILL TAYLOR, 11 GREEN STREET, JAMAICA PLAIN, MA 02130

Urban Orchards Outdoor Classroom Expansion

This project involves teachers and youth in planting and caring for fruit and nut trees, shrubs, and vines at 15 schools. The project targets children in kindergarten through grade 2 and those in grade 5, using the schoolyard orchards to teach the students about food production and



ecosystems. The goal of the program is to adapt curriculum to after-school programs. Teacher training and workshops help teachers test and use activities at existing urban orchard sites.

Jobs for Youth - Boston, Inc. - \$ 25,000 Paula Paris, 125 Tremont Street, Boston, MA 02108

Linking Environmental Education and Environmental Justice to Careers

This program provides training to increase the number of low-income communities who are employed in environmental fields. Students receive environmental training, academic preparation, Occupational Safety and Health Administration (OSHA) certification, and applied skills training in hazardous waste treatment and geographic information systems, as well as job placement services. Two training cycles are conducted, each for 20 to 25 students.

OLD COLONY YMCA-TAUNTON - \$5,000 SCOTT CLARK, 71 COHANNET STREET, TAUNTON, MA 02789

Taunton YMCA Earth Service Corps

This project forms an Earth Service Corps at the Old Colony YMCA to strengthen and diversify the youth environmental movement in Taunton and to improve environmental education strategies that target residents of low- and moderate-income housing. During its first year, the project emphasizes the development of a dedicated cadre of youth leaders. They will be encouraged to focus on improving recycling and composting efforts in the city. The grant money will support team-building activities, retreats and field trips, transportation, and purchase of project materials.

University of Massachusetts, Boston - \$5,000
Barbara Robinson, 100 Morrissey Boulevard, Boston, MA 02125

Watershed Education

This project focuses on designing and implementing a model in the Neponset River watershed that educates citizens and officials of communities in the watershed about pertinent environmental issues through a World Wide Web site, media coverage, and public meetings. The Web site provides information and educational materials about issues that affect the Neponset River watershed. It is expected that hundreds of volunteers will be educated through the project.

Westport River Watershed Alliance, Inc. - \$5,000 Gay Gillespie, P.O. Box 1054, 1151 Main Street, Westport, MA 02790

Watershed Education Project: Estuary Curriculum

Westport River Watershed Alliance (WRWA) and Westport Community Schools have been partners for five years in developing and implementing the Watershed Education Program (WEP), an interdisciplinary environmental education curriculum that focuses on watershed ecology and related issues. Its purpose is to provide students the skills they need to understand the valuable natural resources in the region and to increase environmental



awareness among students in the Westport River watershed. WEP is intended to improve and expand the curriculum significantly to include field studies and weather monitoring. WEP complements existing school curricula with a series of thematic multidisciplinary kits, teacher guides, and workshops.

MICHIGAN

Ecology Center of Ann Arbor - \$4,820 REBECCA KANNER, 117 N. DIVISION, ANN ARBOR, MI 48104

The Re-Bicycle Project

The Ecology Center of Ann Arbor provides a summer program for young people through which participants learn how to repair used bicycles. In addition to learning the technical skills of repairing a bicycle, students learn the important environmental concepts of reuse and recycling. Participants reduce the amount of solid waste going into the landfill by repairing discarded bicycles. They also obtain an affordable and environmentally friendly form of transportation. The program targets middle school children living in public and subsidized housing developments. Approximately 45 to 60 young people participate in the program.

GOODRICH AREA SCHOOLS - \$4.930 TIM WHEATLEY, 8029 S. GALE ROAD, GOODRICH, MI 48438

F-Stream Video Conferences

Goodrich Area Schools is expanding its successful water quality monitoring project through videoconferencing. Currently, five partner schools participate in a water quality monitoring project under which students conduct tests and submit their data for posting on a World Wide Web site. Grant funds have been used to connect five classrooms through a videoconferencing system. Teachers and moderators conduct conferences and hands-on interactive activities that give students the opportunity to increase their knowledge about water quality. Students in classrooms and schools that do not have videoconferencing technology have the opportunity to travel to a nearby school so that they can take part in the sessions. The videoconferences reach 15 teachers and 450 students in the Goodrich area.

INTER-TRIBAL COUNCIL OF MICHIGAN - \$5,000 SYLVIA MURRAY, 405 E. EASTERDAY AVE., SAULT STE. MARIE, MI 49783

Michigan Youth Water Stewardship Project

Through this project, 40 Native American high school students received intensive, hands-on environmental education at a youth leadership conference offered in the summer of 1998. Students studied the effects the activities of humans have on water quality and local watersheds. Natural resource personnel and environmental health educators helped students identify local environmental problems and design action plans to address those problems. Trained students then chose three sites in their communities at which they applied their environmental knowledge and skills. They used problem-solving and critical-thinking skills to improve the quality of their watersheds. The field experience enhanced the skills the young people acquired during the summer leadership conference.



MICHIGAN TECHNOLOGICAL UNIVERSITY - \$4,800

JOAN SCHUMAKER-CHADDE, 1400 TOWNSEND DRIVE, HOUGHTON, MI 49931

Campus Volunteers in Copper Country

Michigan Technological University trains 30 university students to make environmental education presentations in classrooms. The pre-service teachers learn hands-on, interactive exercises that engage elementary and high school students. The trained students give more than 30 presentations during the school year. Local teachers also have the opportunity to participate in two teacher education workshops during which they learn to use the existing curricula: Project WET, Project Wild, and Wonders of Wetlands. Three family science fun nights also are provided in an effort to educate both students and their parents. More than 150 people attend each family science fun night, and more than 1,000 students are reached through the classroom presentations.

Northern Michigan University - \$10,880 Carl Wozniak, Northern Michigan University Seaborg Center, 1401 Presque Isle, Marquette, MI 49855

Lake Superior Watershed Project

The Northern Michigan University (NMU) Seaborg Center provides a comprehensive water quality monitoring program in the local watershed. Students at 10 middle and high schools monitor the quality of their local water supply with equipment provided by the center. Data collected then are posted on a World Wide Web site, along with other water quality data and information about resources. Teachers in participating schools attend two water education workshops to learn how to incorporate interactive exercises into their classroom curricula. Participating schools also conduct public education sessions for their local communities to teach residents about issues related to water quality.

Southeast Coalition on Occupational Safety and Health - \$9,596 Marta Hoetger, 1550 Howard, Detroit, MI 48216

Keep the Lead Out

The Southeast Coalition on Occupational Safety and Health (SEMCOSH) implemented a lead-exposure prevention program designed to reduce the levels of lead found in young children in the Detroit area. In the summer of 1998, some 40 to 50 homes in which young, at-risk children live were identified. The project coordinator and teen volunteers then invited members of those households to attend one of two workshops to learn techniques for preventing exposure to lead hazards. Those unable to attend the workshops received home visits during which volunteers demonstrated cleaning techniques and provided residents with cleaning kits. Follow-up visits will be conducted in the spring of 1999 to determine whether residents have taken the steps necessary to reduce lead hazards in their homes. SEMCOSH also will conduct outreach to community leaders, church groups, and pre-school teachers in an effort to increase awareness of the risks of exposure to lead.



THE UNIVERSITY OF MICHIGAN - \$5,000 PEGGY BRITT, MICHIGAN SEA GRANT, 3003 S. STATE STREET, ROOM 1066, ANN ARBOR, MI 48109

Environmental Journalism

The Michigan Sea Grant Program provides a handbook and fact sheet for high school writing teachers. The handbook and fact sheet provide teachers with the information they need to incorporate environmental journalism into their curricula. The materials provide teachers with an understanding of key environmental concepts and address the elements of science-based environmental writing. Students are introduced to environmental journalism and related careers in environmental communication. The handbook and accompanying fact sheet address critical-thinking skills, such as investigating and analyzing environmental issues and assessing the threats that pollution poses to human health. Although a needs assessment indicated that educators were not interested in workshops, staff at Michigan Sea Grant are committed to assisting teachers in fully integrating the lessons from the handbook into their classroom criteria.

Wayne County Regional Educational Service Agency - \$4,970
Nancy Nagle, 33500 Van Born Road, P.O. Box 807, Wayne, MI 48184

Program for Outdoor Environmental Education

The Regional Educational Service Agency provides underserved teachers and students in the Detroit area with the opportunity to increase their environmental knowledge. A group of 14 teachers from Wayne County participate in two days of intensive, hands-on training in environmental education. Educators learn to use Project Wild and other established environmental curricula to incorporate environmental issues into their classroom activities. More than 420 students then visit an environmental learning center to participate in outdoor, interactive exercises. Activities conducted at the learning center give students the opportunity to apply the knowledge they learn in the classroom to actual outdoor investigations.

MINNESOTA

Brown/Nicollet/Cottonwood Water Quality Board - \$4,800 Jane Starz, 301 S. Washington, St. Peter, MN 56082

Children's Water Festival

The Brown/Nicollet/Cottonwood Water Quality Board is creating, developing, and coordinating a Clean Water Festival to be held in the spring of 1999. Before the festival, fourth grade students will participate in classroom activities through which they will learn about water quality issues in their local communities. At the clean water festival, students will participate in handson, interactive activities, applying the knowledge they have learned in the classroom. Displays, exhibits, and presentations also will help the students understand water quality issues. While students attend the festival, teachers will attend an intensive workshop, during which they will learn water education activities and other environmental education strategies.



University of Minnesota Extension Service - Hennepin County - \$5,000 Anna Sonmore-Costello, 1525 Glenwood Avenue, Minneapolis, MN 55405

Young Discoverers

The J.D. Rivers Outdoor Discovery Center has designed and is implementing an environmental education program for pre-school children. The program is targeted at those children who live in typically underserved, culturally diverse areas of the community. More than 160 children participate in the six-week program, through which they learn about environmental issues. Learning kits increase the children's environmental awareness. Thematic gardens, wildlife habitats, and miniscience centers allow the children to participate in outdoor, hands-on activities. A community "fall festival" event will celebrate the accomplishments of the participants in the program.

MISSISSIPPI

See page 5 for a profile of a grant awarded to Mississippi State University by EPA Headquarters.

TUNICA COUNTY SCHOOL SYSTEM - \$15,000 JOHN KEELER, P.O. BOX 997, TUNICA, MS 38676

Wetlands Environmental Learning Center

This project takes students out of the classroom and into a wildlife wetlands education environment. The wetlands center provides teachers with environmental education teaching tools they can use during and after school. Students have the opportunity to see, touch, and learn about natural resources in an outdoor setting. They learn how wildlife and humans can interact in harmony.

MISSOURI

American Lung Association - \$5,000 Joseph Buta, 2007 Broadway, Kansas City, MO 64108

Open Airways for Schools

This project is intended to empower children with asthma by teaching them how to prevent asthma episodes and emergencies and by creating partnerships in asthma care among school personnel, nurses, physicians, families, and local American Lung Association volunteers. The Tools for Schools program is initiated by training the appropriate school health professional who then conducts six 40-minute interactive group lessons with asthmatic children in grades 3 through 5. The effort is followed up by a half-day conference for managers of school facilities, during which they learn about indoor air quality.

BRIDGING THE GAP, INC. - \$25,000 MARK CARR, P.O. BOX 10220, KANSAS CITY, MO 64171

Westside Neighborhood Recycling Campaign

This project uses the economic value of recyclable materials to encourage community organizations in a primarily low-income, minority neighborhood to involve at least 750 families in recycling. Community organizations establish a subscription collection program, contact residents in the neighborhood, and



convince the residents to support the organizations by subscribing to save aluminum cans. Materials are provided in both English and Spanish. Volunteers pick up cans from their subscribers and take the cans to a central point where they are accumulated and eventually redeemed. The participating community organizations receive the proceeds from redemption of the cans.

FERGUSON-FLORISSANT SCHOOL DISTRICT - \$17,170 TERRY HENDERSON, 1005 WATERFORD DRIVE, FLORISSANT, MQ 63033

Environmental Rangers

The goal of this project is to increase the awareness, knowledge base, and participation of high school students in environmental education. The delivery method is to first train high school teachers to be environmental trainers, called "rangers." The rangers receive an intensive program while working at the Little Creek Nature Area. The rangers then collaborate with fourth grade teachers to develop presentation methods that the teachers can use in their classrooms. Finally, the fourth grade students participate in projects that explore problems related to soil characteristics and water and air pollution.

HEARTLAND ALL SPECIES PROJECT - \$24,870 MARTY KRAFT, 5644 CHARLOTTE STREET, KANSAS CITY, MO 64110

49/63 Neighborhood Environmental Stewardship Training Program

The 49/63 Neighborhood Environmental Stewardship Training Program involves 20 young people from 10 to 15 years of age in an environmental education work and service program that stresses principles and practical application of recycling, reduction of household hazardous and other waste, composting, gardening, cooking, grass recycling, sound consuming practices, home energy conservation, weatherization, energy conservation, landscaping, and neighborhood community-building. The young people interact with the 8,000 residents and numerous businesses in their community. The goal of the project is to integrate all aspects of urban neighborhood life into a sustainable model at the block level.

LUTIE R-VI SCHOOL DISTRICT - \$5.000 JOYCE TABER, HC 4 Box 4177, THEODOSIA, MO 65761

"Living Below the Branson Boom": A Water Quality Study

This project is a hands-on water testing activity that provides interdisciplinary learning. The audience is an after-school science club of 40 middle and high school students who study current water quality conditions in Big Creek, which is located downstream of the Branson, Missouri tourist area. The study is intended to increase awareness of the need to protect natural resources as development occurs in the area and encourage individual responsibility for doing so.

Meramec Regional Planning Commission - \$ 5.000 TAMARA SNODGRASS, 101 W. 10th Street, Rolla, MO 65401

Environmental Resource Center Curriculum Workshop

This project reaches educators in the South Central District of the Missouri State Teachers Association, which has a membership of 1,600. It provides resource materials that allow teachers other than science teachers to add environmental curriculum to their classes, such as mathematics, history, and



English. Encouraging educators to use materials and methods rooted in the concept of protecting and healing our environment promotes the ethic of stewardship and responsibility for the environment.

MID-AMERICA ENERGY & RESOURCE PARTNERS - \$5,000 DEBORAH CHOLLET, 7525 SUSSEX AVENUE, St. LOUIS, MO 63143

Interactive Models of a Landfill and an Energy-Efficient House

This project aims to acquire and circulate interactive models to present key concepts of waste management and energy efficiency in buildings. Teachers and students in kindergarten though grade 12 are the primary audience. Staff of Mid-America Energy & Resource Partners use the models at EarthWays Home and during the Earth Day festival and in making presentations at local schools throughout the year.

Missouri Department of Conservation - \$5,000 Kim Wade, 2901 West Truman Boulevard, P.O. Box 180, Jefferson City, MO 65102-0180

Environmental Education Show-Me Models

The goal of the project is to develop reproducible curriculum integration models that demonstrate the role of environmental education in advancing education reform efforts in the state. The primary audience is classroom teachers who work with students in fourth through seventh grades. The educational priority addresses the standards formally adopted by the Missouri State Board of Education in January 1996.

NORTHWEST MISSOURI REGIONAL COUNCIL OF GOVERNMENTS - \$4,655 JOEL MILLER, 114 W. THIRD STREET, MARYVILLE, MO 64468

Northwest Missouri Recycles

The purpose of the project is to educate students in grades 2 through 5 about environmental issues that directly affect their communities. The goal is to generate interest in recycling efforts and waste management through demonstrations, slide shows, and vermicomposting. The program targets some 2,000 students in 17 school districts. School districts and parents are expected to respond by participating in a recycling effort for the northwestern area of the state.

Ozanam Home for Boys, Inc. - \$1,199 Alice Blizzard, 421 East 137th Street, Kansas City, MO 64145

The Environment of Our Creek

The project improves understanding among inner-city or low-income students of the relationship between environmental conditions and their own lives. The students test a tributary of the Little Blue River for both biotic and abiotic characteristics. They then distribute the information through their school newspaper and an organizational newsletter. The students learn to make environmentally correct choices and research careers related to stream life.



Southwest Missouri State University - \$3,997 Janice S. Greene, 901 S. National Avenue, Springfield, MO 65804

Integration of Environmental Education into Pre-Service Teacher Preparation

This project is designed to improve the environmental education teaching skills of pre-service teachers. The primary audience is fourth grade teachers from six elementary schools. The secondary audience is 860 fourth grade students, along with other teachers, parents, and members of the community. The delivery method is to first train the trainers (rangers) who then train and assist the fourth grade teachers. Finally, the fourth graders work on projects that involve their families and members of their communities, thereby increasing the community's awareness of environmental responsibility.

MONTANA

CLARK FORK WATERSHED EDUCATION NETWORK - \$4,400 STEPHANIE STOWELL, 1000 TAYLOR, MISSOULA, MT 59802

Clark Fork Watershed Education Program

This project trains teachers and staff volunteers to coordinate and organize field experiences and gather field data by monitoring water quality in the Missoula watershed. Elementary and middle school teachers attend a two-day training workshop that focuses on water quality monitoring techniques. Students in first through eighth grades participate in water quality monitoring at pilot project schools. The large Native American population of the Missoula watershed benefits from the project.

FIVE VALLEYS AUDUBON SOCIETY - \$4,825
JANIE CHODOSH, P.O. BOX 8425, MISSOULA, MT 59807

Montana To Oaxaca: Migratory Bird Education Exchange

This project educates fourth and fifth grade teachers to develop an international sister school program with students and teachers in Oaxaca City, Mexico. Teachers and students participate in a cross-cultural study of neotropical migratory birds that breed in Montana and migrate to Oaxaca during the winter months. Students learn about neotropical migration, avian habitat needs, and basic field identification skills; they then are able to educate the general public, translating classroom learning into community education. The project explores the need for preservation of ecosystems in both countries.

Montana Audubon, Inc. - \$4,750 Robert Petty, P.O. Box 595, Helena, MT 59624

Migratory Bird Education Project

This project is intended to protect Montana's ecosystems through the coordinated efforts of members of Montana Audobon, Inc., focused on the conservation of birds, other wildlife, and natural communities for the benefit of future generations. The project provides workshops to reach public and private school teachers and students and their families, as well as other members



of the community. Other workshops introduce teachers to bird conservation curricula to be used in the classroom. The project includes field exploration for families, public lectures, and slide presentations on bird conservation for the community.

MONTANA ENVIRONMENTAL EDUCATION ASSOCIATION - \$4,737 CAROLYN DUCKWORTH, P.O. Box 362, Gardiner, MT 59030

Expanding Environmental Education in Montana

This project addresses new science and geography standards by making available environmental education materials and information. Educational information distributed in newsletters encourages community members to adapt activities to be included in environmental education. Science, social studies, and language arts at the kindergarten through grade 12 levels; educators working in informal settings; and personnel of state and federal agencies participate in preparing the newsletter, which is distributed at environmental workshops and conferences.

Montana Natural History Center - \$16,830 Lisa Mills, P.O. Box 8514, Missoula, MT 59807

Teachers as Community Naturalists

This project educates teachers, pre-service teachers, and college students about environmental issues to improve their environmental education teaching skills. The target audience of this project is fourth grade teachers in Missoula County. Workshops focus on topics related to biodiversity and involve local scientists. The training provides the instructors the skills they need to teach in formal settings about environmental issues and to encourage environmental careers. The teacher training incorporates outdoor activities, mentorship by scientists, and action projects and teaches the participants how to integrate existing environmental curricula into their classroom programs.

OWL RESEARCH INSTITUTE - \$5,000 ERIC C. ATKINSON, P.O. BOX 8335, MISSOULA, MT 59807

Northern Saw-Whet Owl Migration Monitoring Project

This project educates Gallatin County students and their families about ecological processes and interactions between owls and their community. To encourage wise stewardship, information based on scientific research is made accessible to the general public. The project also is tied to owl conservation and measures the effects of conservation on the health of the ecosystem in the community.



NEBRASKA

See page 5 for a profile of a grant awarded to the Lincoln-Lancaster Environmental Health Division by EPA Headquarters.

HEBRON PUBLIC SCHOOLS - \$8,080 JEFF NEFF, P.O. Box 9, HEBRON, NE 68370-0009

ALPHA Project to Test Surface Water

Under this project, students in Hebron High School's advanced biology courses use advanced data collection technology to study interactions among ecological systems and apply the knowledge they gain to make informed decisions. The students also use the Internet to collaborate with students in other schools in the state. The project is intended to meet the National Education Goals 2000 and the goals of strengthening mathematics and science education established by the Nebraska State Board of Education.

Nebraska Groundwater Foundation - \$8,750 Susan Seacrest, P.O. Box 22558, Lincoln, NE 68542-2668

Groundwater Protection Through Local Action

This project produces a 15-minute videotape, "Groundwater Protection through Local Action," that demonstrates the importance of educating community residents about protection of groundwater and involving them in efforts to do so. The video is intended for broadcast on the Nebraska Educational Telecommunications (NET) channel and distribution through the Nebraska Groundwater Foundation in an effort to reach the state's "Groundwater Guardian" communities in both rural and urban areas. Portions of the video are to be made available on the foundation's World Wide Web site.

THURSTON COUNTY EXTENSION SERVICE - \$5,000 JANET NIELSEN, P.O. BOX 245, WALTHILL, NE 68067

Native American Students Learn Responsibility Toward the Environment

The project educates the 75 fourth grade students at the Walthill Public School, all of whom of are Native Americans of the Omaha Tribe. The students learn about their responsibilities toward their environment as an aspect of their tribe's historical relationship with the earth. The curriculum is designed to introduce a different environmental and cultural component each week. Elders of the tribe share historical information about their relationship to the earth and the responsibility it entails. This project is a partnership effort of the Thurston County Cooperative Extension Service and the Walthill Public Schools.



NEVADA

University of Nevada, Reno - \$5,000 Keith Dennett, Office of Sponsored Projects/325, University of Nevada, Reno, NV 89557-0035

Water Environmental Education Program for the Mobile Engineering Laboratory

This project provides the infrastructure needed to equip a mobile engineering laboratory for use as an interactive educational tool for kindergarten through 12th grade students in northern Nevada to be used in studying the water environment. The laboratory, consisting of electronic and technical water monitoring kits, enables students to experience science and engineering in an informal setting by asking questions, performing experiments, and analyzing results to solve real-world problems related to water resources. Students focus on the parameters used to monitor water quality. Using a flow-through model, they study the various treatment processes that ensure that water is safe to drink.

NEW HAMPSHIRE

See page 6 for a profile of a grant awarded to the University of New Hampshire by EPA Headquarters.

GREAT BAY STEWARDS -\$14,990 KAREN ACERNO, 89 DEPOT ROAD, STRATHAM, NH 03885

Great Bay Ecology Club Mentor

The Great Bay Kid's Ecology Club combines enrichment and stewardship activities related to the estuarine habitat for at-risk youth. The young people take part in fun, hands-on activities led by college students. Guidance professionals choose from 36 to 40 at-risk youth from grades 4 and 5 to participate in the project, which offers them one Saturday activity every two weeks from September through May.

New Hampshire Project Learning Tree - \$5,000 Esther Cowles, 54 Portsmouth Street, Concord, NH 03301

Project Learning Tree in the Androscoggin River Valley

For this project New Hampshire Project Learning Tree (NHPLT) and its partners will design teacher workshops. NHPLT hosts as many as three teacher workshops to train elementary and high school teachers and other educators in the PLT curriculum. At least 35 educators from the Androscoggin River Valley attend the workshops. Some of the issues the workshop addresses are sustainable forestry, biological diversity, economic viability of the forest-products industry, and management of public lands.



See page 6 for a profile of a grant awarded to the Robert Wood Johnson Medical School by EPA Headquarters.

Comite de Apoyo a los Trabajadores Agricolas - \$5,000 4 South Delsea Drive, P.O. Box 510, Glassboro, NJ 08028

Farm Worker Family Environmental Project

The purpose of this program of the Comite de Apoyo a los Trabajadores Agricolas (CATA) is to educate and empower Puerto Rican farm workers and their children to take an active role in protecting themselves from health risks posed by environmental hazards. The program, which is conducted in southwest Puerto Rico, is intended to reach migrant farm workers and their families. CATA is conducting a study of current environmental hazards, educating agricultural workers about the hazards posed by pesticides and techniques for preventing exposure to them, and developing the leadership skills of farm workers.

EL COMITE DE APOYO A LOS TRABAJADORES AGRICOLAS - \$20.000 Nelson Carrasquillo, 4 South Delsea Drive, P.O. Box 510, Glassboro, NJ 08028 (Project in PA)

Pesticide Education Outreach Program

This program seeks to educate approximately 11,000 Mexican migrant workers and their families who live in the southern portion of Chester County about issues related to environmental justice, legal rights, pesticide safety, and regulations intended to protect workers from exposure to pesticides. Workers are encouraged to take a more active role in protecting themselves and their families. They participate in interactive learning programs, role-play, and examine case studies through the program, which is designed to achieve the goals of EPA's agricultural workers protection standard.

COUNTY OF SOMERSET - \$ 5,000 Ross Zito, P.O. Box 3000, Somerville, NJ 08876-1262

Non-Point-Source Pollution Workshop

The program on non-point-source pollution consists of a full-day workshop for middle school students and their teachers. The workshop will focus on the effects of non-point-source pollution on the Great Swamp watershed. Planned for Earth Week 1999, the session will provide 80 students and 20 teachers with presentations, discussions, and field activities designed to engage them in watershed issues. Speakers and facilitators will be drawn from the Somerset County Park Commission Environmental Center, the Alliance for New Jersey Environmental Education, and environmental organizations. Teachers will participate in sessions on teaching techniques for familiarizing their students with crucial environmental issues.



EAST BRUNSWICK PUBLIC SCHOOLS - \$5.000 THOMAS P. SMITH, 760 ROUTE 18, EAST BRUNSWICK, NJ 08816

Collaborative Stream Monitoring Program

The project will educate students, parents, and community members in East Brunswick, New Jersey about the importance of clean water to stream quality and the threat posed to human health and the water supply by environmental pollution. The collaborative project involves the East Brunswick Environmental Commission, the public schools of East Brunswick, and members of parks and watershed groups in the township who monitor water quality in Ireland and Lawrence brooks and compare and report data. Students trained in water monitoring procedures will visit two sampling locations regularly to collect samples. They then analyze data and share the information with others in person and on local cable television.

Environmental Commission of Camden County - \$3,135 PETER KROLL, 1301 PARK BOULEVARD, CHERRY HILL, NJ 08002-3752

Education for Environmental Awareness

The Education for Environmental Awareness program presents the concept of the geographic information system (GIS) to Camden County educators, public environmental officials, and the general public through workshops, lectures, and presentations. Participants learn how to use GIS technology, which displays data, including environmental data, to make more informed assessments of their environment and of environmental issues. By presenting case studies of circumstances in which GIS has been applied, the project introduces relevant environmental issues and trains educators and environmental groups to use GIS in addressing such issues.

GREATER NEWARK CONSERVANCY - \$24,425 LISA LEAL, 303-9 WASHINGTON STREET, 5TH FLOOR, NEWARK, NJ 07102

Healthy Environment, Healthy Me - Teacher Training Project

The Greater Newark Conservancy (GNC), in partnership with the Resource Center of the Environmental and Occupational Health Sciences Institute (EOHSI), trains 70 elementary school teachers in the city to use the Healthy Environment - Healthy Me curriculum. The program teaches students about possible environmental hazards and how to reduce environmental risk in their lives. EOHSI staff will train GNC staff who then will conduct seven workshops for Newark teachers. The areas of study included are: My Environment and Me; Recycling: A Community Pollution Solution; Using My Safety Sense; Creating a Safer Environment; Exploring Water Pollution; Exploring Air Pollution; and Garbage, Garbage, Garbage.

LIBERTY SCIENCE CENTER - \$5,000 KAREN R. LONGO, LIBERTY STATE PARK, 251 PHILLIP STREET, JERSEY CITY, NJ 07305-4699

Environmental Education in the Urban Classroom

The Liberty Science Center and the Interpretive Center at Liberty State Park offer the program Environmental Education in the Urban Classroom (EEUC) through workshops and hands-on field experience. The goals of the program are to educate teachers about local environmental



issues, enhance their teaching skills, and empower them to teach students about local issues that involve considerations of environmental justice. Teachers from urban schools in the Jersey City, Newark, and Paterson, New Jersey school districts participate in the program.

New Jersey Audubon Society - \$23,250 Patricia Kane, 9 Hardscrabble Road, P.O. Box 126, Bernardsville, NJ 07924

Bridges to the Natural World

The New Jersey Audubon Society holds 10 workshops in various locations around the state to familiarize teachers with a variety of New Jersey habitats and equip them to provide their students with educational field trips in the outdoors. The program uses the curriculum Bridges to the Natural World, which conforms to the state's content standards for core curricula, to incorporate a variety of learning styles. Teachers are provided 10 workshops covering hands-on activities and lessons about the diversity and interdependence of species in a variety of New Jersey habitats.

NEW MEXICO

BORDER ENVIRONMENTAL HEALTH COALITION - \$5,000 KITTY RICHARDS, P.O. Box 134, Mesilla Park, NM 88047

Children's Photographic Study of Environmental Health Concerns

This project challenges 100 middle school students to photograph environmental conditions in their neighborhoods and write essays about the photographs that include comments on the environmental concerns, their implied causes, their potential health effects, and the potential solutions to those problems. The best of the photos and essays are published in local newspapers and displayed in public areas. The project is intended to enhance students' environmental awareness and ability to identify and analyze visual material.

SANTA FE BOTANICAL GARDEN - \$5,000 BETH ANDERSON, P.O. BOX 23343, SANTA FE, NM 87502

Santa Fe Botanical Garden Docent Training Program

Under this project, 20 docents attend 40-hour workshops to learn how to lead tours through the Leonora Curtin Natural History Area in the Ortiz Mountains, a native environment adjacent to Santa Fe Community College, and promote environmental education through presentations for local schools and community organizations.

SALT MISSIONS TRAILS MAIN STREET - \$4,250 SUSAN SIMONS, P.O. BOX 48, ESTANCIA, NM 87016

Thoreau Landfill Reclamation Project

This project educates middle school students about the environmental hazards posed by an old dump site and gives them the information they need to make decisions about actions they should take to resolve such problems. The project includes field trips, meetings with experts, access to computer resources, and correspondence with other communities that have experienced similar problems.



Santa Fe Children's Museum - \$5,000 Ellen Biderman, 1050 Old Pecos Trail, Santa Fe, NM 87501

Earthworks Comprehensive Family Education Programming

Land adjacent to the museum has become an outdoor classroom to serve 60,000 museum visitors annually, targeting the 11,000 children among them. Free workshops give visitors the opportunity to view a 900-square-foot projection greenhouse, a children's vegetable garden, fruit trees, butterfly and hummingbird gardens, homing pigeons, various live animals, wetlands, a pond, a miniature adobe village, a weather station, and a "southwestern" gardening amphitheater. Handouts are provided in both English and Spanish.

NEW YORK

BROOKLYN CENTER FOR THE URBAN ENVIRONMENT, INC. - \$5,000 JOHN C. Muir, Prospect Park, Brooklyn, NY 11215-99921

Future Teachers, Scientists, and Mathematicians -- SciMat3

The goal of the Future Teachers, Scientists, and Mathematicians -- SciMat3 program is to involve high school and elementary school students in the Fort Greene neighborhood of Brooklyn in careers in science, mathematics, and teaching, with an emphasis on environmental issues. Students from two high schools study such local environmental issues as lead poisoning, soil contamination, and water quality. Those students are paired with elementary school classes for which they act as teachers and mentors for a 10-week period. The high school students give elementary students first-hand experience in examining environmental issues and meeting the challenges of mathematics and science.

Centers for Nature Education, Inc. - \$4,836 Wayne Gillespie, P.O. Box 133, 4007 Bishop Hill Road, Marcellus, NY 13108-0133

Teacher Environmental Workshop

During this project, a curriculum guide is used to incorporate environmental studies into classroom programming. The curriculum includes new educational tools, such as computer software and the Internet. Regional workshops are held for teachers in Syracuse and Onondaga County schools to introduce and review the curriculum and provide hands-on experience with the units. During an evaluation phase, teachers' responses to a follow-up questionnaire are used to improve the workshops and test the effectiveness of the program.

CITIZENS COMMITTEE FOR NEW YORK CITY - \$24,481

MICHAEL E. CLARK, 305 SEVENTH AVENUE, 15TH FLOOR, NEW YORK, NY 10001

The Neighborhood Environmental Leadership Institute, Queens Chapter

The Neighborhood Environmental Leadership Institute (NELI) targets grassroots leaders of low-income communities in Queens, New York, one of the most diverse of New York City's five boroughs. More than 100 residents of those communities take part in an interactive train-the-trainer program on environmental issues and leadership and organizational development skills designed to enhance their problem-solving, critical-



thinking, and decision-making skills. The program enhances the teaching skills of the informal educators, who return to their communities to provide environmental education and assistance in implementing grassroots projects.

County of Westchester - \$5,000 KAY EISENMAN, 407 MICHAELIAN OFFICE BUILDING, WHITE PLAINS, NY 10601

Natural Resources Inventory

This project facilitates the development and updating of natural resource inventories (NRI) in Westchester County communities. Using the New York State Department of Conservation's Natural Resources Inventory: A Guide to the Process, the County of Westchester provides a course for environmental management councils, conservation advisory councils, county and local municipal officials, and citizens of the county. The purpose of the program is to educate the public, board members, and members of communities about the natural resources of the area by developing an NRI and using it as a resource to support decision making.

Environmental Action Coalition - \$5,000 Paul Berizzi, 625 Broadway, 9th Floor, New York, NY 10012

East Harlem Neighborhood Education Network

Together with neighborhood residents and classroom teachers, the Environmental Action Coalition (EAC) is implementing a community-based environmental stewardship program. Two pilot programs have been developed, one targeting youth and the other adults. Members of EAC's East Harlem Women's Environmental Leadership Program play an active role by visiting block and tenant associations, churches, and schools throughout the neighborhood to help residents of the community implement the stewardship program. Lesson plans appropriate for students in grades 4 through 6 are posted on EAC's World Wide Web site.

HOBART AND WILLIAM SMITH COLLEGES - \$5,000 JOHN D. HALFMAN, DEPT. OF GEOSCIENCE AND CHEMISTRY, GENEVA, NY 14456

Herbicide & Pesticide Awareness in the Finger Lakes

Hobart and William Smith Colleges integrate into various environmental, geoscience, and chemistry courses field and laboratory investigations of the source, fate, and alleviation of Atrazine (a widely used herbicide) in Seneca Lake. Students determine the source and fate of the herbicide by sampling vertical and horizontal gradients in the lake and by testing targeted tributaries. For such courses as hydrogeology and organic chemistry, the colleges provide classroom and laboratory exercises that use students' findings. The findings also will be presented to local watershed associations that focus on protection and preservation of the watershed of Seneca Lake.



Hudson Valley Materials Exchange, Inc. - \$5,000 Sarena Marrero, 207 Milton Turnpike, Milton, NY 12547

Learning with Leftovers, an ECOrriculum of Interdisciplinary Lessons

This project examines the sources, uses, content, and fate of reusable business and industrial waste materials that are collected and made available at the Hudson Valley Materials Exchange (HVME). A curriculum and teacher training are provided for 11 schools in the Newburgh City School District. The course of study includes teaching units, evaluation tools for teachers and students, and a video tape that demonstrates the value of recycling and reuse, as well as the operations of the HVME. The lesson plans conform to New York State learning standards.

Long Island Traditions Inc. - \$5,000 Nancy Solomon, 619 Brooklyn Avenue, Baldwin, NY 11510

South Shore Estuary Maritime Culture

Building on a New York state mandate for education about local history, this program seeks to build stewardship among local fourth graders for the maritime community and ecosystem of the Long Island South Shore. The program includes classroom presentations by local baymen and anglers, field trips to local sites that are affected by pollution, hands-on experience at wetlands and fish habitats, and audiovisual materials for presentation in the classroom. Development of writing, oral communication, research, and analytical skills is a focus of the project. A staff-development workshop enables teachers to incorporate studies of the south shore estuary's maritime culture and lessons about the environment into science and social studies programs.

NIAGARA AQUARIUM FOUNDATION - \$4,875 NANCY CHAPIN, 701 WHIRLPOOL STREET, NIAGARA FALLS, NY 14301-1094

The Lower Niagara River Environmental Education Project

This project, which targets non-point-source pollution and toxic contaminants, provides students and teachers in formal and informal settings with three ways to learn about the environment of the lower Niagara River. The program includes staff development workshops, an interpretive exhibit, and hands-on activities for students. The aquarium works in partnership with Cornell University Extension's New York Sea Grant Program and the Great Lakes Program of the State University of New York (SUNY) at Buffalo to focus on environmental education experiences for students and educators in Niagara and four adjacent counties.

THE RIVER PROJECT - \$10,913
DINA SANTOS, PIER 26, NORTH RIVER, NEW YORK, NY 10013

The River Project's 1998-1999 Internship Program

Located on the North River in the borough of Manhattan, the River Project is dedicated to the protection and restoration of estuarine wildlife through research, education, and hands-on programs in urban ecology. The project establishes an improved internship program called Young of the Year. In partnership with Stuyvesant High School, the Brooklyn Botanic Garden, the City of New York Department of Health, the environmental organization Baykeepers, the Hudson River Park Conservancy, the High School for Environmental Studies, and the Stewardship Program of



the New York City Soil and Water Conservation District, the internship program provides young people, under the supervision of environmental scientists, with field experience in the local environment through science projects focused on the waterfront habitats of Manhattan.

SHENENDEHOWA SCHOOL DISTRICT - \$5,000 LENORE REBER, 1581 CRESCENT ROAD, CLIFTON PARK, NY 12065

Okte Elementary Wetland Project

In partnership with the Saratoga Lake Conservancy and the New York State Department of Environmental Conservation, the Okte Elementary School teachers provide fourth graders with hands-on educational experiences in local wetlands. Students research and study a local wetland ecosystem, studying an assigned square-meter plot throughout the school year. Students research the flora and fauna and other characteristics of the wetland ecosystem. The students' findings are to be presented in a hyper-studio interactive program and in presentations to community groups.

THEODORE ROOSEVELT SANCTUARY, INC. - \$5,000 JONATHAN TEYAN, 134 COVE ROAD, OYSTER BAY, NY 11771

Migratory Bird Initiative

This project builds on the Theodore Roosevelt Sanctuary's migratory bird program and outreach to educators on Long Island and their students. By tagging and following the migration of a local osprey, students are able to track a migrating bird and participate in an international environmental research project. Staff of the Theodore Roosevelt Sanctuary share their expertise with participating teachers through workshops. Students and teachers become familiar with the environmental issues associated with migratory birds in general and the tagged osprey in particular.

WILDLIFE CONSERVATION SOCIETY - \$21,328
LEE LIVNEY, 2300 SOUTHERN BOULEVARD, BRONX, NY 10460

Promoting Environmental Education in Rural Schools

In partnership with the Jefferson-Lewis Board of Cooperative Educational Services (BOCES), a consortium of 18 school districts in rural, underserved areas of northern New York state, the Wildlife Conservation Society provides a training program in environmental education for elementary school teachers. The program, a component of a BOCES reform effort, is designed to improve science education in the elementary schools by focusing on wildlife to promote interest among students in pursuing environmental studies. An intensive six-day seminar is followed by a technical assistance program that features Internet on-line chat rooms and bulletin boards, a toll-free consultation hotline, and newsletters to further support environmental science content, teaching methods, and peer training.



NORTH CAROLINA

CHARLOTTE-MECKLENBURG BOARD OF EDUCATION - \$5,000 CAROL NEWMAN, P.O. Box 30035, CHARLOTTE, NC 29230-0035

Global Systems at the Park

This project provides a unified environmental education curriculum. An extensive teacher workshop trains teachers in using the Internet to support classroom teaching about environmental issues related to non-point-source pollution and technology. Students plot and use data on the Estuary Net World Wide Web site.

Eagle's Nest Foundation - \$5,000 Susan Deal, 43 Hart Road, Pisgah Forest, NC 28768

The French Broad Watershed Project for Children

This project educates children about their surroundings so that they will develop an attitude of responsibility toward natural communities. Through various experiments, students discover how the French Broad River is altered along its course from its source to the valley. Students learn how to use various laboratory and natural tools, take measurements, document information, and draw conclusions on their own through comparison.

Mountain Area Gardeners in Communities, Inc. - \$5,000 MORT JONAS, P.O. BOX 168, ASHEVILLE, NC 28802

Environmental Education Field Trips for Local School Groups

This project provides teachers with lesson materials that incorporate environmental education into the language arts curriculum. The teachers use the materials before and after field trips to the Mountain Area Gardeners in Communities, Inc. (MAGIC) Environmental Education Center. During the field trips, students study environmental issues in three sessions, with each grade addressing a different area.

North Carolina Farm Worker Project - \$17,875 WILFREDO RIVERA, P.O. Box 352, Benson, NC 27504

Keep Us Safe Project

The Keep Us Safe Project is a part of the weekly school curriculum for children of migrant farm workers, to whom the project has direct access through its partnership with Migrant Head Start. Outreach workers use interactive presentations, activities, and art projects that speak directly to children about pesticides and the dangers they pose. The children are given information to take to their parents about the effects of pesticides on the environment, methods of preventing exposure, and resources available to them.



PIEDMONT HEALTH SERVICES, INC. - \$2,866 GENOVEVA MARIN, 121 KINGSTON DRIVE, CHAPEL HILL, NC 27516

Pesticide Education for Children of Migrant Farm Workers and Their Families

This project addresses the risk of exposure of children of migrant farm workers to pesticides. It educates the children's families about the dangers pesticides pose to the children's health and helps the families develop the skills they need to protect themselves from the threats posed by pesticides.

WESTERN NORTH CAROLINA TOMORROW - \$5,000 PHILLIP GIBSON, P.O. BOX 222, CULLOWHEE, NC 28723

Production of Broadcast Media

This project reaches the citizens of the 26 counties of western North Carolina through western North Carolina's primary television station and local cable networks. Those media and brochures are used to deliver environmental education to young people in elementary, middle, and high schools in the area. Focus groups and interactive workshops address environmental issues, especially children's health.

NORTH DAKOTA

See page 6 for a profile of a grant awarded to North Dakota State University by EPA Headquarters.

GATEWAY TO SCIENCE CENTER - \$6,150
JIM COLLINS, JR., 2700 STATE STREET, BISMARCK, ND 58501

Coalition for Conservation and Environmental Education

Under this project, conferences are held for educators at the kindergarten through grade 12 levels in North Dakota, especially those educators in home school and Native American programs. Sessions address education reform and the development of community action projects.

OHIO

CLEVELAND STATE UNIVERSITY - \$23,963 FRANK JOHNS, 1983 E. 24th Street, CLEVELAND, OH 44115

Hands-On Science Teaching

The Center for Environmental Science, Technology, and Policy, in collaboration with the Education Department, provides two intensive, interactive teacher workshops for 16 educators from the local school district. The first two-hour workshop provides teachers with the theory behind hands-on, problem-based science education. They also learn how to use the equipment necessary for the project. After the first workshop, teachers design their own activities using the information they have acquired. The second two-hour session provides the teachers with the opportunity to present and discuss their proposed activity for peer review. Teachers then return to their schools and implement their projects. A final workshop will be held at the end of the school year to evaluate the success of the modules.



KEEP AKRON BEAUTIFUL - \$5,000 PAULA DAVIS, 850 E. MARKET STREET, AKRON, OH 44305

Science Education for Public Understanding Program Fellows Institute for Northeast Ohio

The Science Education for Public Understanding Program (SEPUP) is a comprehensive, 12-module unit, through which teachers learn to teach science in the context of societal issues. Keep Akron Beautiful conducts a workshop for 20 educators in northeast Ohio; during the workshop, the teachers learn 4 of the 12 modules. During the five-day workshop, educators receive hands-on training that they then use in their classrooms. On the fifth day of the workshop, teachers design a plan of action for disseminating the curriculum throughout their school districts. At the conclusion of the workshop, participants receive three of the modules to take to their respective districts for use in training others. Follow-up with participants will be conducted in the spring of 1999.

OKLAHOMA

CAMP CLASSEN YMCA - \$5,000
JIM PARRY, ROUTE 1, BOX 46, DAVIS, OK 73030

Recycling Community Education Program

Camp Classen's Outdoor School is furthering its efforts to demonstrate environmentally responsible life in the community with respect to recycling. More than 300 teachers and 100 camp staff are trained to reach 9,000 student campers annually in Texas, Oklahoma, and Louisiana. The integral role of recycling is one of the camp's environmental education components. Campers take home with them an understanding of how home and commercial recycling benefits their communities.

MIAMI PUBLIC SCHOOLS - \$20,751 REBECCA JIM, 2000 E. CENTRAL, MIAMI, OK 74354

Tar Creek Issues

The Tar Creek Issues project focuses directly on environmental health concerns by involving secondary students in the issues of the exposure of children to lead and water quality and in exploring solutions to both problems. Students learn about the hazards of lead and find tangible and positive ways of providing warnings to those in danger of exposure. Students interact with experts on acid mine drainage and related hazards and study the quality of water in the area.

OKLAHOMA STATE UNIVERSITY - \$5,000
DEBORAH SALAZAR, OKLAHOMA STATE UNIVERSITY, STILLWATER, OK 74078

Hazardous Materials Awareness Curriculum

This project educates college students about the threats posed to human health by hazardous materials by adapting existing materials on the subject for use in upper division undergraduate geography courses. The project uses hands-on demonstrations, field trips, workshops, and classroom instruction to train students to identify potentially hazardous materials and to read warning signs.



Tulsa Public Schools - \$4,401 Deidra Wakeley, 2800 E. 41th Street, Tulsa, OK 74105

Biodiversity Activities

This project expands environmental education opportunities through teacher training, community education, and student activities. The project explores interaction with native wetland regions; provides interactive instructional opportunities for students, teachers, and community leaders; addresses ecological concerns in the state; explores ways to preserve the state's biodiversity; and instructs participants in real-world environmental research.

University of Oklahoma - \$5,000 Mark A. Nanny, 1000 Asp Avenue, Room 314, Norman, OK 73019

Student Research at Landfill

Students, guided by a high school science instructor, become involved directly in meaningful and realistic research at the closed Norman Landfill. The project is intended to stimulate interest in environmental science and real-world scientific research, strengthen reasoning skills, and provide interaction with professional researchers. Students are encouraged to continue their education at the university level in environmental, scientific, or engineering areas.

OREGON

EARTH CONSERVATION CORPS - \$4,995 SCOTT WELCH, 729 NE OREGON, SUITE 200, PORTLAND, OR 97232 (PROJECT IN WA)

Plant A Tree, Save A Fish

Plant A Tree, Save A Fish is a project intended to restore fish habitat through the planting of indigenous trees along the Yakima River and its tributaries over an eight-month period. The project heightens awareness of the characteristics of a healthy community and ecosystem protection among Native American high school students, at-risk youth from various tribes, and teachers. The project can become a model for a long-term, coordinated effort among tribal, private, state, and federal entities to develop and sustain a community-based habitat recovery effort that is centered on individual schools.

H20 (Headwaters to Ocean) - \$5,000 Angela Borden Jackson, 3941 SE Hawthorne Boulevard, Portland, OR 97214

Boat-Based Environmental Education Project

Boat-Based Education on the Columbia/Willamette Rivers is an innovative program that fosters a broad-based community stewardship through hands-on experiences involving boats. Teachers and students in grades 4 through 12, along with decision makers, business representatives, and the general public, participate. Funding allows H20 to expand the scope of river explorations. Participants learn about problems affecting the river ecosystem by studying plankton and pollution and conducting water testing. Field work and observations address the following topics as they affect rivers: fish and wildlife habitat, human health, drinking water, groundwater, sewage disposal, and community problem solving.



NORTHEAST COMMUNITY DEVELOPMENT CORP. - \$10,500 CHERYL ROBERTS, 4114 N. VANCOUVER AVENUE, PORTLAND, OR 97217

Humboldt School Learning Garden

Phase II of the Humboldt School Learning Garden project creates a wetland simulation at the garden. Humboldt is located in one of Portland's most ethnically diverse neighborhoods, and students of the Humboldt School, along with the Humboldt community (almost 70 percent African American and almost 45 percent under the poverty level), are involved in the project. The students implement the project through classroom research and environmental study, field trips to natural resource areas, hands-on planting, landscaping of the garden, and activities that involve the whole family. Several local community organizations and businesses are partners in the project. The project advances Oregon's education reform goals, demonstrates communitybased environmental education, promotes environmental stewardship among young people, introduces an urban population to experiential learning, and provides a "green space" that the entire community can enjoy.

Oregon 4-H Foundation - \$5,000 MARY ANN SWARD, 105 BALLARD HALL, OREGON STATE UNIVERSITY, CORVALLIS, OR 97331-3608

Healthy Indoor Air for America's Homes

This project supports volunteer 4-H leaders and school teachers in their efforts to educate young people by implementing a national Healthy Indoor Air for America's Homes curriculum on children's health. 4-H volunteers and teachers are instructed in how to present the new, activity-based curriculum for students in grades 7 through 12 in both formal and informal settings.

OREGON STATE UNIVERSITY - \$9,132 Susan Borden, 18 Gladys Valley Center, Oregon State University, Corvallis, OR 97331

Science and Math Investigative Learning Experiences Program

OSU's Science and Math Investigative Learning Experiences Program (SMILE Program) is offering two projects - Water Quality Challenge Weekend and Summer Science Camp on Watershed Ecology with an emphasis on salmon. The program involves 150 high school students and 15 high school teachers who receive training from Oregon State University (OSU) faculty and practicing professionals in water quality issues, sources of pollution, and the scientific fields and careers related to such issues. The high school students learn about the issues in after-school science clubs during the school year, then travel to OSU for the Challenge Weekend, during which they solve a simulation exercise. The two-week Summer Science Camp involves 32 middle school students who are introduced to the field of environmental science, with special emphasis on watershed health and salmon habitat and hands-on activities. All students involved are minority (40 percent Hispanic and more than 30 percent Native American) or members of low-income families.



OREGON TROUT, INC. - \$5,000
REBECCA MARTIN, 117 SW FRONT AVENUE, PORTLAND, OR 97204

Salmon Watch Environmental Education Program

The successful Salmon Watch program of Oregon Trout, Inc. is a community-based environmental education program that educates middle and high school students, as well as other members of local communities, about the historical, cultural, and economic value of salmon to the Pacific Northwest. The grant enables Salmon Watch to compile an abridged version of the existing Salmon Watch curriculum for use outside the school setting. In addition, educational materials are to be revised to incorporate into them an interdisciplinary and multicultural focus.

OREGON WATERSHEDS - \$1,385 AL WHITE, P.O. BOX 18361, SALEM, OR 97305

Water Quality Monitoring Partnership Project

The Water Quality Monitoring Partnership Project in the Santiam River watershed expands Oregon Watersheds' current community-based water quality project with high school students to a middle school in the area. Teachers are given new educational tools, equipment, training, and field support to help them and their students, as well as the rural farming community, to understand the significance of the relationship between water quality and human health. Data collected by the students are submitted to the volunteer database maintained by the Oregon Department of Environmental Quality for use in decision making related to water quality throughout the state. Students use their data to learn more about the ecosystem and water quality and its effect on human health and then share the information with the community through public events or public displays.

THINK LINK DISCOVERY MUSEUM - \$5,000 DONNA WYETH, 906 WASHINGTON STREET, LA GRANDE, OR 97850

Hands-On Outdoor Classroom

The goal of the Hands-On Outdoor Classroom Opportunities for Local School Children project is to expose children to a natural environment in which they do not live. Teachers and parents accompany the 250 fourth through sixth grade students on field trips to a site at which they focus their studies on ecosystems and resource management. Landowners; tribal members; and staff of EPA, the Oregon Department of Environmental Quality, and Oregon Fish and Wildlife have formed a partnership to help the students participate in the project.

PENNSYLVANIA

Allentown School District - Grover Cleveland Elementary School - \$4,330 Jane Dotter, 31 South Penn Street, Allentown, PA 18101

Environmental Education at Grover Cleveland Elementary School

Under this project, students in grades 1 through 4 are introduced to several nature study areas in the greater Allentown area to help them become directly involved in learning the basics of ecology and in making informed environmental decisions. The grant also provides the means to train



teachers; develop services for staff training; and support environmental in-service training, transportation, and acquisition of equipment for hands-on exercises at the study areas. The grant continues funding received in 1997 to start the program, a business-education partnership with PPL Resources, an electric utility that has its corporate headquarters near the school. Because of its success, the program has expanded into five additional elementary schools in the district.

BERKS COUNTY CONSERVANCY - \$3,500 PHOEBE HOPKINS, 960 OLD MILL ROAD, WYOMISSING, PA 19610

Watershed Awareness on a Local Level

This environmental education project of the Berks County district schools helps all high schools in the Berks County district begin discussion of the techniques of watershed improvement. The initiative promotes community involvement and local awareness, as well as possible solutions to problems that affect watersheds in the area.

CHILDREN'S MUSEUM OF BLOOMSBURG - \$4,763
DIANE WUKOVITZ, P.O. BOX 192, BLOOMSBURG, PA 17815

Natural Bridges -- Pathways That Connect Us to Nature

Natural Bridges -- Pathways That Connect Us to Nature is an exhibit that was featured at the 1998 Summer Art and Science Center. Appealing to all ages -- students, parents, educators, and tourists -- the hands-on exhibit sought through numerous activities to stimulate visitors' environmental awareness by encouraging them to experience the interrelatedness of the living and nonliving things around them. Presentation of a variety of environmental situations encouraged visitors to think about the ways in which the decisions of individuals and communities affect the health of the natural environment.

CLEAN WATER FUND - \$5,000 ROBERT WENDELGASS, 607 PENN AVENUE, SUITE 212, PITTSBURGH, PA 15222

Children's Health Education Project

Through presentations and workshops, this project educates students, teachers, and parents in the Pittsburgh area about potential threats that environmental pollution in schools poses to the health of children. Participants apply the tools they learn in analyzing the environment of their own schools. Focusing primarily on the use of pesticides in schools, the project teaches parents and teachers how to research and analyze pest control practices in their school districts; develop alternative strategies that reduce the use of pesticides; and, working with school officials, develop a new pest control strategy that reduces reliance on toxic chemicals.

CLEARWATER CONSERVANCY OF CENTRAL PENNSYLVANIA - \$5,000 KRISTEN SAACKE BLUNK, P.O. BOX 163, STATE COLLEGE, PA 16804

Students - Community - Streams - Connection

This program helps foster students' awareness and understanding of streams in their area that are headwaters of the Chesapeake Bay. Primary elementary students collect water plants for art projects and discussions, write poems, and construct water-flow charts. Intermediate elementary



students study the temperature, depth, pH, and turbidity of stream water and speed and distance of water flow. Middle school and junior high school students become involved in scientific investigations and work with community groups. Participants of senior high school age monitor the biological, physical, and chemical parameters of the stream, establish a World Wide Web site, and serve as mentors to younger students in the program.

MARION CENTER SCHOOLS - OUTSIDE ENVIRONMENTAL LAND LABORATORY - \$12,727 A. Jeff Martz, P.O. Box 156, Marion Center, PA 15759-0156

Four Trails: Wetlands, Soil, Water, Ecosystems

This program increases the environmental awareness of students and teachers in the Marion Center Area School District, a rural school district located in Indiana County. The program will includes a handicapped-accessible environmental education center, an outdoor trail, interactive student work stations, and guest speakers. It targets the 1,997 students in the district, plus Boys Scouts and Girl Scouts, members of the Audubon Society and the organization Friends of Parks, and families. Because the economy of the area is based on agriculture, coal mining, and production of natural gas, abandoned strip mines, contaminated streams, degraded drinking water, and other environmental problems beset residents. The Marion Center Area Environmental Education Center seeks to address the environmental issues that affect the area, the region, and the world through education and community-based programs.

Northern Bedford County School District - \$3,740 JERRY W. YOUNG, HC 1, Box 200, Loysburg, PA 16659

Water Connections

This project augments a revised sixth grade science curriculum called Water Connections. Approximately 90 sixth-grade students study concepts related to water quality in local wetlands. Students identify local water quality problems, including such issues as the controversy in the county over hog farms and their effects on water quality. The students follow Bedford County waterways to the Chesapeake Bay to learn how local problems affect the bay. They also travel to Baltimore to learn about water quality problems in the bay and conduct the same water quality tests on bay waters. The grant funds support testing and travel costs, as well as the costs of publication and distribution of a public awareness pamphlet.

Stroud Water Research Center - \$5,000 KRISTEN TRAVERS, 970 SPENCER ROAD, AVONDALE, PA 19311

Red Clay Creek Monitoring Project

The Stroud Water Research Center, a nonprofit environmental research center, conducts a water monitoring project at Red Clay Creek for students in biology classes at Kenneth High School. The students study specific local water quality issues, while gaining practical skills that will enable them to become effective decision makers in their communities. The funds support training for both teachers and students, as well as the purchase of equipment.



THE VANGUARD SCHOOL - \$1,320 CAROLYN BRUNSCHWYLER, P.O. Box 730, 1777 N. VALLEY ROAD, PAOLI, PA 19301

Design, Plant, and Monitor a Campus Butterfly Garden

The Vanguard School's science department and Junior Achievement Club, in cooperation with Valley Forge National Park and the NOVA Society of the Lockheed Martin Corporation, design, plant, and monitor a campus butterfly garden. Students in the lower and middle schools construct the garden. The butterfly garden is both a creation that students, faculty, and guests will enjoy and a restoration area of butterfly and insect habitat that has been lost to development. The Vanguard School shares its campus with 110 students of the Crossroads School, who also have the opportunity to experience the garden as a learning laboratory. The science curricula at both schools include units related to the garden.

West Chester University - \$4,885 CHARLES V. SHORTEN, WEST CHESTER UNIVERSITY, WEST CHESTER, PA 19383

Development of a Local Emergency Planning Committee Web Site

The purpose of this grant is to establish an electronic presence for the Chester County local emergency planning committee (LEPC) on the Internet that serves as a focal point for educating the public about incidents in which hazardous materials are involved and about measures that can be taken to prevent such incidents. Under the project, a Chester County LEPC World Wide Web site fulfills that purpose. The availability of the Web site is publicized to the general public, the regulated community, and organizations active in Chester County.

WILDLIFE INFORMATION CENTER - \$2,400 DAN R. KUNKLE, P.O. BOX 198, SLATINGTON, PA 18080-0198

Young Ecologists Summer Camp

Working with the Trexler Trust, the William Penn Foundation, and the Boys and Girls Club of Allentown, the Wildlife Information Center sponsors the Young Ecologists Summer Camp. Funding covers camp costs, equipment, and the salaries of instructors. At the camp, 16 children in grades 7 through 9 will study environmental issues relevant to the Kittatinny raptor corridor. The program focuses on water quality, land use, and conservation of wetlands and wildlife. Issues related to environmental justice and career development also are covered.

Wyncotte Audubon Society - \$5,000 JANET STARWOOD, 1212 EDGE HILL ROAD, ABINGTON, PA 19001

Birds for a Purpose

This project supports the educational goals recommended by the national science guidelines and targets underserved urban areas. The program offers practical approaches to natural science education for fourth, fifth, and sixth grades by combining classroom work and environmental field research with hands-on environmental analysis and restoration projects in the neighborhoods in which the students live. Because birds are indicators of the health of



ecosystems, the curriculum focuses on birds and bird habitat to teach students about ecology, natural processes, and the essential role of healthy ecosystems in sustaining life on earth. Similar pilot programs have been successful in schools in New York, New York.

YORK COUNTY YMCA - \$4,651 NANCY EBERLY, 90 N. NEWBERRY STREET, YORK, PA 17401

Camp Spirit

The program teaches approximately 3,000 children, ages 5 through 18, and 40 teachers the Spirit IDEA - Informed Decisions for Environmental Action. The program is intended to increase participants' understanding of the environment in all areas, including outdoor survival skills; to stimulate critical and creative thinking; to develop the ability to make informed decisions; and to instill the confidence and commitment that enable participants to take responsible actions.

PUERTO RICO

Puerto Rico Department of Education - \$5,800 Soller Agricultural-Vocational School Blanca M. Aponte, P.O. Box 190579, San Juan, PR 00919-0759

Take Charge of Your School, Community, and Environment

This project establishes a recycling program at the Soller Agricultural-Vocational School, which is located in a rural farming community in northwest Puerto Rico. The recycling program incorporates the concept of sustainable development, achieving a balance that ensures that economic growth will not cause irreversible environmental damage. The three-step project trains and educates faculty members and school personnel in methods of environmental education and recycling techniques. The participants learn how to apply problem-solving and decision-making techniques to teach students and members of local communities about recycling and to establish a recycling center.

RHODE ISLAND

Environment Council of Rhode Island Education Fund, Inc. - \$5,000 Guy Lefebyre, P.O. Box 40568, Providence, RI 02940

Building the Foundation for Comprehensive Environmental Education

The Rhode Island Education Fund seeks to include environmental education into the curricula of elementary and secondary schools throughout the state through current efforts to bring about education reform. The fund supports 10 three-member teams who assess environmental education curricula. The teams also establish a contact at each of the 416 schools in the state to keep educators aware of high-quality environmental education materials. The fund also is establishing an environmental education World Wide Web site to make each school's contact person available to the environmental education community.



KEEP PROVIDENCE BEAUTIFUL - \$5,000 LAURA ARCHAMBAULT, 385 WESTMINISTER STREET, PROVIDENCE, RI 02903

Green Team Environmental Education

Keep Providence Beautiful (KPB) has organized "green teams" to educate minority youth ages 14 to 18 about the importance of a clean, safe, and beautiful neighborhood. In the summer, 13 teams pick up litter in their neighborhoods and plant and maintain public spaces. In the winter, the teams apply what they have learned by working with KPB environmental clubs in the local elementary schools. An environmental educator teaches the importance of safe practices in the management of solid waste and how to design and plant environmentally sustainable public spaces. The educator visits each team to reinforce the lessons taught and ensure that the teams' projects are sound. The educator also assists members in passing along what they learn through their summer experience to the elementary school environmental clubs they will work with in the winter.

THE SALT PONDS COALITION - \$5,000 Brenda Dillman, P.O. Box 875, Charlestown, RI 02813

Innovative On-Site Wastewater Management, a Video Produced by Students

Under this project, students produce a 15-minute video on wastewater management in Rhode Island. With on-site wastewater disposal systems a high-priority environmental issue in the state, the video provides an overview of state and local regulations governing septic systems and an array of advanced wastewater technologies currently being piloted. The students, along with active community environmental groups, also take responsibility for distribution of the video.

SOUTH CAROLINA

SCHOOL DISTRICT OF GEORGETOWN COUNTY - \$21,552 SUZIE SHOWMAN, 524 FRONT STREET, GEORGETOWN, SC 29440

What's in Our Water?

This project implements two programs that provide students in grades 4 through 12 with handson, outdoor environmental lessons, including regular collection and recording of data and various field activities. The project uses the National Geographic Society's Kids Network program "What's in Our Water?" and the pilot program Estuary-Net developed by the Belle W. Baruch Marine Laboratory of the University of South Carolina to implement a technology-based watershed project.

SOUTH DAKOTA

MEADE SCHOOL DISTRICT 46-1 - \$24,896 JOSEPHINE HARTMANN, 1230 DOUGLAS STREET, STURGIS, SD 57785

It's All Yours, Naturally

The project supports a coordinated environmental education network and provides an outdoor classroom and a posted nature walk in Sturgis City Park. Elementary students in the third and fourth grades, their parents, and school teachers participate in the program. Students study materials in classroom settings, view videotapes, and work with computer programs related to myriad environmental topics that they then share with the members of their families.



TENNESSEE

LICHTERMAN NATURE CENTER - \$4,904
RACHEL ENGLER, 5922 QUINCE ROAD, MEMPHIS, TN 38119

Teaching Urban Ecology: An Environmental Workshop and Resource Kit

This project trains 100 teachers from Memphis and Shelby County to use Project Wild and Project Learning Tree in cooperation with the Tennessee Department of Education. A teacher resource kit enhances the project. Each teacher attending the workshop receives the kit.

MIDDLE TENNESSEE STATE UNIVERSITY - \$14,199 CINDI SMITH-WALTER, BOX 60, MURFREESBORO, TN 37132

We're Really Involved in Real Discoveries

The We're Really Involved in Real Discoveries (WEIRD) project trains 20 teachers in urban school systems to use the Delta Life Science Modules environmental education materials. The teachers receive those materials; references to local, state, and national science guidelines; and content information in the form of a teacher resource book. Each teacher who participates in the workshop is expected to recruit and train five other educators.

TEXAS

See page 7 for a profile of a grant awarded to the National Center for Farmworker Health by EPA Headquarters.

AMERICAN INSTITUTE FOR LEARNING - \$14,789
PENNY WEIBLY, 422 CONGRESS AVENUE, AUSTIN, TX 78701

Interactive Recycling Education for East Austin

Hundreds of at-risk teens and elementary students from low-income neighborhoods of Austin learn about recycling through hands-on activities, including eco-festivals. Eco-festivals illustrate particular aspects of recycling through demonstrations, games, puppet shows, songs composed by students, and various other hands-on activities.

BISHOP DUNNE HIGH SCHOOL - \$14,050 KATE COLLINS DAILEY, 3900 RUGGED DRIVE, DALLAS, TX 75224

Five-Mile Creek and Trinity River Basin Project

The purpose of this project is to create a team approach to water quality education for 40 high school students each year. The environmental issue and geographic focus is a creek and the Trinity River basin in Dallas. The students participate in field trips, use computer laboratories, and collect and analyze samples, ultimately producing a documentary to be aired on local community access cable to disseminate the findings of their year-long study. The information also is to be made available on a World Wide Web site.



CLASSICAL MAGNET SCHOOL, RICHARDSON INDEPENDENT SCHOOL DISTRICT - \$5,000 BETTY DAIGLE, 400 S. GREENVILLE AVENUE, RICHARDSON, TX 75081

Outdoor Learning Center

This project provides an outdoor learning center that features three native ecosystems, including a garden, a raised pond with a waterfall, a grassland prairie, a woodland area, bat and bird houses, and a small wildlife area. All students in the school system and their families benefit from the outdoor learning center.

THE GREEN CLASSROOM, INC. - \$25,000 Carla Marshall, 1701 Brian, Austin, TX 78704

Taking Activities from the Classroom and Home - TEACH

Students from 30 schools in the Austin area learn about water quality and conservation through hands-on activities and the construction of models. Students test water from local taps, creeks, and lakes; construct models of aquifers and watersheds; and learn about the relationship of the water cycle and water quality to health issues. As they learn the lessons, students in upper grades in turn teach lower-grade students, and lower-grade students then teach even younger students.

LAMAR HIGH SCHOOL, ARLINGTON INDEPENDENT SCHOOL DISTRICT - \$3,000 JANE BORLAND, 1203 W. PIONEER PARKWAY, ARLINGTON, TX 76013

Outdoor Environmental Gardens and Learning Center

The environmental gardens and learning center teach inquiry-based biology and environmental science through the use of vegetable and butterfly gardens in raised beds, along with soil-test and experimental-design beds. Students learn about composting and vermicomposting. Topics include, but are not limited to, botany; food chains; invertebrates; soil analysis; use of pesticides, herbicides, and fertilizers and the environmental and health consequences of their use; water quality; and management of solid waste. Approximately 600 high school students use the gardens each year.

Nature Discovery Center - \$5,000 FRED COLLINS, P. O. Box 77, Bellaire, TX 77402-0777

Prairie Education Project

The Prairie Education Project provides a traveling prairie ecology exhibit and outreach prairie display and travel kit to educate children and adults about the nature and importance of the prairie. This project also provides four curriculum units on the prairie ecology to be published in the second volume of the curriculum guide Nature at Your Doorstep.



Pearce High School, Richardson Independent School District - \$4,934 Shelley Hale, 400 S. Greenville Avenue, Richardson, TX 75081

Outreach Program on Environmental Awareness

This project provides students with a hands-on approach to the natural sciences through ecological camping trips, backpacking, and environmental assessment and interdependence studies (for example, study of water testing and water quality as they are related to flora and fauna in the vicinity of the body of water). Students test concepts and principles introduced in the classroom and explore specific problems through field research. Students in upper grades serve as role models for younger students.

Texas Private School Foundation, Inc. - \$5,000 Laura North, P.O. Box 953, Bryan, TX 77806

Allen Academy Science Center Environmental Education Project

Allen Academy provides a nature center to expand its existing environmental education program. The nature center, designed and maintained by students, includes a nature trail with information in two languages, a bird sanctuary with hibernation houses, a pond, a wetland area, an irrigation system, and a butterfly garden. To minimize the need for water and maintenance, native vegetation is used. A fluorescent lighting system is used to grow plants from seed.

West Orange-Cove Consolidated Independent School District - \$22,125 Michael Hoke, P.O. Box 1107, Orange, TX 77630

The Nature Classroom

Approximately 3,200 students experience environmental education related to wetlands and forest ecology in The Nature Classroom, an eight-acre woodland and two-acre island area of Adams Bayou. Middle school volunteers, called eco-rangers, visit elementary schools to provide hands-on environmental activities. Senior citizens and community volunteers, called environmental ambassadors, present programs to the public and also provide environmental instruction to elementary students.

UTAH

CACHE SCHOOL DISTRICT - \$5,000 RON HELLSTERN, 29 NORTH 400 WEST, HYRUM, UT 84319

Leopold Education Project: Land Ethics-Based Education

Under this project, 30 educators from federal, state, and local entities attend a two-day workshop. The Leopold Education Project uses an interdisciplinary conservation ethics curriculum, Lessons in a Land Ethic, designed to instill environmental awareness and ethical practice in students in grades 6 through 12.



UTAH FORESTRY, FIRE, AND STATE LANDS - \$5,000 TONY DIETZ, P.O. Box 145703, SALT LAKE CITY, UT 84114-5703

Project Learning Tree

This project provides hands-on workshops for educators at the kindergarten through 12th grade levels. The workshops, which use the Project Learning Tree activity guide, focus on hands-on activities that are designed to teach ecological concepts that enable students to make wise decisions about the use of natural resources.

UTAH SOCIETY FOR ENVIRONMENTAL EDUCATION - \$25,000 TIM Brown, 350 South 400 East, Suite G4, Salt Lake City, UT 84111

Environmental Education Network for Utah Schools

This project is intended to improve environmental education programs for teachers in Utah school districts and make resources more readily available to them. The project includes the distribution of newsletters and the use of World Wide Web sites to help teachers and their students identify common environmental problems and their possible solutions. It also creates an environmental education network for Utah schools that will be made available throughout Utah's 40 school districts. Teachers and students in kindergarten through grade 12 benefit from the project.

VERMONT

THE GAILER SCHOOL AT MIDDLEBURY - \$5,000 Mary Jeanne Pacher, 19 Shannon Street, Middlebury, VT 05753

Summer Field Biology Program

The Summer Field Biology Program educates young people and their instructors about the actual tools and techniques of field biology in timber harvest practices and water quality. Field work includes measuring a variety of indicators of water quality (for example, alkalinity and temperature). Forest management professionals lead exercises on sustainable management of forests and overcutting of trees. Current resources of Project WILD, Project Learning Tree, and other programs are used as starting points for the educational content of the project, which attracts a diverse audience: 19 high school and middle school teachers (4 from China) and 25 students (10 from China) in grades 9 through 12.

Vermont Institute for Natural Science - \$24,854 BILLI GOSH, RR 2, Box 532, WOODSTOCK, VT 05091

Updating Hands-On Nature and the Environmental Learning for the Future Curriculum

This project improves one of the model curricula of the Vermont Institute for Natural Science (VINS), Environmental Learning for the Future (ELF) and its companion book, Hands-On Nature. VINS is a partner with 68 schools and 1,300 ELF volunteer educators in Vermont who learn new teaching skills and pilot-test revised ELF activities. VINS intends to improve Hands-On Nature, which currently consists of 33 units of fact-filled essays that introduce educators to the topic, followed by field-tested activities for students in kindergarten through grade 6.



U.S. VIRGIN ISLANDS

VIRGIN ISLANDS CONSERVATION SOCIETY, INC. - \$8,940 GRETHELYN D. PIPER, P.O. BOX 12379, St. THOMAS, VI 00801

ECO-Camps

This program targets 60 seventh-grade students in urban public junior high schools in the U.S. Virgin Islands. It seeks to reach young people who have little access to environmental education and provide them with an opportunity to learn about and experience their natural environment. The program fosters students' interest in environmental careers, provides first-hand experience with habitats and ecosystems of the Virgin Islands that currently are threatened by human activities, emphasizes the role that habitats play in a healthy environment, and teaches the basic concepts of ecology and practices that conserve resources.

VIRGINIA

See page 7 for a profile of a grant awarded to the Norfolk Public Schools by EPA Headquarters.

ALLEGHANY HIGHLANDS YMCA - \$4,330 GREG LEMMER, P.O. BOX 905, COVINGTON, VA 24426

Earth Services

Earth Services, a community service program, focuses on training teens in environmental education and community service. The funds are used to empower teens to make their own positive decisions and become involved in the community; promote global environmental understanding and action through development of education projects and leadership training; and organize a long-term partnership among teenagers, teachers, community leaders, business people, and representatives of government agencies and nonprofit organizations. The program, which is open to all middle and high school students, serves 200 teens and involves eight teachers and five businesses. Participants will complete more than 500 hours of community service work.

AMERICAN LUNG ASSOCIATION OF RICHMOND - \$25,000 DEANA HAGERTY, 311 SOUTH BOULEVARD, P.O. BOX 7065, RICHMOND, VA 23221

Teaching Elementary Schools Today

Under the Teaching Elementary Schools Today (TEST) program, 240 high school students teach elementary students about various lung diseases, including asthma and allergies, and about the hazards of smoking, second-hand smoke, and indoor and outdoor air pollution. The high school students adopt schools and act as mentors to students in third and fourth grades in the Richmond tri-city area (the cities of Richmond and Petersburg and the counties of Chesterfield, Hanover, and Henrico.) The program reaches 1,200 students (100 per school) and their teachers. TEST can be sustained after the initial implementation year by the school coordinators who will continue to recruit and train students mentors.



Commonwealth of Virginia Department of Game and Inland Fisheries - \$6,498 Raymond E. Davis, 4010 West Broad Street, Richmond, VA 23230-1104

Wildlife Mapping in Virginia

This program provides an opportunity for citizens, community groups, school children, and others to contribute their observations of wildlife to the state's biological databases. Through two workshops, each accommodating 20 people, participants learn to inventory and monitor wildlife, identify habitat, and read maps. One of the workshops trains 20 facilitators, who have the potential to reach 400 other people. The other workshop trains participants to become wildlife mappers. Wildlife experts and wildlife mapping mentors provide assistance in identifying wildlife. Educators can integrate the program into existing curricula and subject areas.

ROCKBRIDGE CONSERVATION COUNCIL - \$4,800 Mollie J. Messimer, P.O. Box 564, Lexington, VA 24450

Roots and Shoots at Central Elementary School

In an informal, real-world setting, this program teaches elementary students about environmental issues and encourages them to consider the pursuit of environmental careers. The project involves 340 children in kindergarten through grade 5 at Central Elementary School in western Virginia. Students attend 90-minute sessions in the classroom and participate in field trips planned for each grade. Activities are geared to the academic level of each grade and conform to the state's standards of learning.

STAFFORD COUNTY PUBLIC SCHOOLS - \$14,882 RUSSEL L. WATSON, 1729-A JEFFERSON DAVIS HIGHWAY, STAFFORD, VA 22554

Environmental Action Through a Service-Learning Class

This pilot project establishes a service-learning class, called Environmental Action, at North Stafford High School. The class combines community service with a formal education curriculum. The curriculum goes beyond the academic study of the environment, exposing the students to new ideas, people, and expertise. For example, students examine the vulnerability of two local rivers, the Rappahannock to the south and the Potomac to the north, and of wildlife habitats in the rapidly developing county.

WASHINGTON

BATTLE GROUND SCHOOL DISTRICT - \$8,143
TERESA BALDWIN, P.O. BOX 200, BATTLE GROUND, WA 98604

Environmental Summer School

In 1999, five middle schools in the school district will participate in a summer school program. Seventh grade students who have deficient academic records will benefit from subject matter intended to heighten environmental awareness, improve skills in mathematics and science, and develop cooperative working skills. Each school is to focus on a specific environmental project, with activities overseen by a teacher, an assistant, an intern, and guests (faculty of Washington State University and practicing professionals). Field trips will increase the students' understanding



of environmental science issues. At the end of the program, students will share the results of their work with other students and the community. The students who will be involved in the program represent a predominantly white, low-income population.

KITSAP COUNTY - DEPARTMENT OF PUBLIC WORKS, SOLID WASTE - \$5,000 GRETCHEN OLSEN, 614 DIVISION STREET, MS-27, PORT ORCHARD, WA 98366

Danger and Danger Household Detective Agency

Kitsap County's Danger and Danger Household Detective Agency educates students in grades 2 through 6 and the community about household hazardous waste. The students receive instruction from "leaders" in the form of a participatory, cartoon detective game. By developing projects and participating in field trips together, both children and their parents learn the facts about hazardous household products. The program has been applied in one of five school districts in Kitsap County, and a second is to be added.

NORTH CENTRAL EDUCATIONAL SERVICE DISTRICT - \$9,596 JACK HORNER, P.O. BOX 1847, WENATCHEE, WA 98807-1847

Technology Applications Promoting Environmental Studies

A one-week summer training institute on biodiversity and follow-up activities during the school year for 15 teachers of grades 7 through 10 is the focus of this project. The training prepares the participants to teach the following to their students: (1) basic ecological and environmental principles associated with biodiversity; (2) key environmental and social issues associated with biodiversity; and (3) research and critical-thinking skills needed to examine issues and develop action resolutions. The teachers also learn how to involve students in investigating and evaluating real issues and help them develop patterns of behavior that befit responsible citizens.

ONALASKA SCHOOL DISTRICT #300 - \$23,800 ROBERT P. KRAIG, 540 CARLISLE AVENUE, ONALASKA, WA 98570

Onalaska School District Environmental Education Project

The district's environmental education project is located in an outdoor educational park and is directed toward ecologically minded students. The main goal of the project is to add field work to the routine of classroom teaching. To accomplish that goal, the district, in cooperation with more than a dozen other school districts (Technical Prep/School to Work Educational Consortium) provides an interpretive trail system; provides presentations to the public that explore environmental and ecological issues; implements educational technology to improve the access of teachers, students, and members of the community to information about important environmental issues; and sponsors a festival called "Music Under the Stars." High school students and the public, 60 percent of whom are minority or low-income populations, benefit from the project.



RAINSHADOW NATURAL SCIENCE FOUNDATION - \$5,060 ANNETTE HANSON, P.O. Box 3007, Sequim, WA 98382

River Resources - Education Reform and Training

The Rainshadow Natural Science Foundation, made up of educators, scientists, and engineers, is working in partnership with the National Audubon Society to develop an outdoor educational site at the Dungeness River Park, located on the Olympic Peninsula. The goal of the project is to help residents in the watershed to understand their natural environment, thereby increasing their ability to deal with local issues and increasing their involvement in decisions that affect local water quality. Experts on the local watershed instruct 24 volunteers (teachers) who then make presentations for public, private, and home school teachers; science and environmental education museums and centers; and staff of local, state, and federal agencies for incorporation into their school and public programs. During the project, the foundation is updating existing environmental education watershed curricula.

SAINT MARTIN'S COLLEGE - \$5,000 HUABIN CHEN, 5300 PACIFIC AVENUE, SE, LACEY, WA 98503

Integrating Telecommunication and Computer Technologies into Environmental Education

Saint Martin's College and the Montesano School District are enhancing environmental education in the school district through in-service teacher training on the application of technology to environmental education. The project fosters global awareness and international cooperation by addressing environmental issues through telecommunications. Teachers are trained in using electronic mail, the Internet, CD-ROMs, videodiscs, probeware, and other technology as learning tools for environmental education. The school district is located in an economically depressed rural community.

Skykomish School District - \$4,488 CONNIE A. ADAMS, P.O. BOX 325, SKYKOMISH, WA 98288

Adopt-A-Stream Program

Skykomish School District's partnership with the Forest Service, U.S. Department of Agriculture, continues a high school environmental science class effort to study the Skykomish River. The school district, located in northern Washington, uses the nearby Maloney Creek as an outdoor classroom for biology and environmental science classes. The project also involves members of the community living near the creek, as well as parents of the students. Fisheries are key to the community's culture. This project expands monitoring efforts to include a study of aquatic insect bioassays and a study of streamside vegetation in relation to fish habitat. Students also assist in developing a drainage plan to alleviate flooding in the city of Skykomish.

WASHINGTON STATE PARKS AND RECREATION COMMISSION - \$19,815 PAUL MALMBERG, 11838 TILLEY ROAD, S., OLYMPIA, WA 98512

Forest Stewardship Project

The objective of the Forest Stewardship Project is to increase the public's awareness of the wildlife and vegetation of public forests and the human community's essential relationship



with public forests. The Washington State Parks and Recreation Commission and its partners are combining their efforts to support a traveling show that educates audiences through skits and interaction. In addition, a study guide, a videotape, and a guide to developing similar creative environmental education programs are being produced. The audience includes individuals and families camping at state parks, patrons of public libraries, and middle school students.

Washington State University - \$24,713
Center for Environmental Education
Darin Saul, Washington State University, Pullman, WA 99164

Expand Environmental Education in Inland Northwest

The Center for Environmental Education at Washington State University is expanding environmental education in southeastern Washington and northern Idaho by assessing the resources and needs of several local schools (Plummer-Worley School District and the Coeur d'Alene Tribal School) and technical agencies and designing workshops to meet those needs. Two workshops are provided for 80 teachers and 30 staff of technical agencies. One workshop introduces a new environmental curriculum to teachers of kindergarten through grade 12 that focuses on watershed issues (water quality, aquatic resources, fisheries, and more). The second workshop creates a partnership between technical agency personnel and the teachers that supports field trips and hands-on activities.

YMCA of Snohomish County - \$5,000 Maddy Metzger-Utt, 2720 Rockefeller Avenue, Everett, WA 98200

YMCA Earth Service Corps

With assistance from EPA, YMCA of Snohomish County's Earth Service Corps provides seven environmental education workshops that focus on real and current environmental problems the community is facing. The workshops educate young people about local issues and teach them job skills. They also demonstrate to the young people how environmental awareness strengthens the community and "allow adults to see youth in a positive light." Speakers representing a variety of agencies provide hands-on activities for the young people, teachers, and YMCA staff. Currently, three of the seven workshops, covering water, waste management, and world hunger, have been completed. Subject matter for the remaining workshops will be selected by the participants.

WEST VIRGINIA

Shepherd College Foundation - \$15,270

James Watson, Shepherd College, Shepherdstown, WV 25443

Environmental Education at Shepherd College and in Its Environs

This grant enables Shepherd College to continue to develop its internal undergraduate environmental education program and to enhance its outreach to public schools in the region by providing funding for student work in the field and at conferences and workshops. Funding also enables the program to obtain portable air, water, and soil testing kits that enhance both teaching on campus and continuing education for public school teachers.



WISCONSIN

16th Street Community Health Center - \$18,980 Ellyn McKenzie, 1032 S. Cesar Chavez Drive, Milwaukee, WI 53204

Collaborative Environmental Education Project

During the school year, the 16th Street Community Health Center is conducing three teacher workshops that focus on the topic of air quality. Teachers learn to use the recently revised Project Learning Tree curriculum, as well as a curriculum designed by the Wisconsin Department of Natural Resources. Teachers also learn how to use data taken from particulate air monitors in their communities. They then educate their students about the importance of good air quality, using the monitors as a local, community-based reference. Staff of the health center also visit classes participating in the project.

Citizens for a Better Environment - \$5,000 Susan Mudd, 152 W. Wisconsin Avenue, Milwaukee, WI 53203

Human Health and Endocrine Disruptors

The Women's Health and Environment Network (WHEN) is creating and distributing a videotape and supporting materials designed to educate young women about the possible health risks associated with endocrine disruptors. Endocrine disruptors are chemicals found in the environment that may have an adverse effect on hormonal balance and development in humans. WHEN is working collaboratively with Audubon Middle School and the Division of Nursing of Alverno College to develop a teacher's discussion guide, student handbook, and fact sheets to accompany the video. The target audience is middle school girls, and the materials encourage them to think critically and make informed decisions. Students participating in the development of the video and materials are responsible for researching the topic, as well as learning the technical aspects of developing a video.

TROUT UNLIMITED - \$4,000 LAURA HEWITT, 1327 UNIVERSITY AVENUE, MADISON, WJ 53715

Water Quality Monitoring by Citizens

In partnership with Community Conservation Consultants (CCC), Trout Unlimited is training 15 to 20 citizen volunteers to collect reliable water quality monitoring data. The data collected is to be integrated into a basinwide database already established for a school monitoring initiative. Environmental professionals from the partner organizations train the volunteers, develop sampling protocols, identify sampling sites, and integrate the information collected. The staff also write monthly newspaper columns to inform the general public about their efforts to manage and protect the watershed.



Wisconsin Coulee Region Community Action Program, Inc. - \$2,677 KAY BENDER, 201 MELBY STREET, WESTBY, WI 54667

House Party Plan

The House Party Plan educates parents and the general public about the threats posed to human health by lead-based paint, especially as those threats affect children. Eight house parties are held over a period of six months; more than 40 residents of underserved communities are educated about lead hazards. The staff of the Wisconsin Coulee Region Community Action Program, Inc. train volunteers to conduct the house parties in an effective, educational manner. At the sessions, participants learn proper cleaning methods for addressing lead contaminants and receive cleaning kits to take home. By the end of the session, parents are able to assess their home environments and initiate practices that will help protect their children from exposure to lead.

Zoological Society of Milwaukee - \$5,000 SHARON ROHDE, 10005 W. BLUEMOUND ROAD, MILWAUKEE, WI 53226

Birds Without Borders

The grant funds for this project assist the Zoological Society of Milwaukee in developing a multiyear international conservation, research, and education project designed to monitor species of birds that breed in Wisconsin and winter in Belize, Central America. More than 20 teachers in participating schools are trained to use the already developed One Bird-Two Habitats curriculum. Students work with zoological society scientists at the research sites to observe and identify different species of birds. They also participate in bird-banding demonstrations, bird walks, insect sampling, and data analysis. Communicating with students in Belize provides students with cultural lessons, in addition to the scientific knowledge they acquire.





Notes

Chart: Ratio of Applications Received to Awards Made

Region	Applications Received \$5,000 or Less	Awards Made	Applications Received \$5,001 to \$25,000	Awards Made	Total Applications Received	Total Awards · Made
1	7.0	16	. 41	9	111	22
1	43	17	61	7	104	24
	48	22	41	7	89	29
	46	20	48	9	94	26
	91	16	79	7	170	23
	0.2	22	32	9	102	2.8
	31	14	28	8	59	22
	23	13	26	7	49	20
	42	18	99	7	108	25
	40	14	41	6	81	23
	504	172	463	02	296	242
				HEADQUARTERS	279	12
				TOTAL	1,246	254



EPA REGIONAL ENVIRONMENTAL EDUCATION COORDINATORS

Region 1 — CT, ME, MA, NH, RI, VT

Kristen Conroy

U.S. EPA, Region 1

One Congress Street, Suite 1100 (RAA)

Boston, MA 02114-2023

Phone: 617-918-1069

Fax: 617-918-1029

E-mail: conroy.kristen@epa.gov

Region 2 — NJ, NY, Puerto Rico, Virgin Islands

TERRY IPPOLITO

U.S. EPA, Region 2

290 Broadway, 26th Floor

New York, NY 10007

Phone: 212-637-3671

Fax: 212-637-4445

E-mail: ippolito.teresa@epa.gov

Region 3 — DE, DC, MD, PA, VA, WV

LARRY BROWN

U.S. EPA, Region 3

1650 Arch (3CG00)

Philadelphia, PA 19103-2029

Phone: 215-814-5527

Fay•

215-814-5104

E-mail: brown.larry@epa.gov

Region 4 — AL, FL, GA, KY, MS, NC, SC, TN

RICH NAWYN

U.S. EPA, Region 4

61 Forsyth Street, SW

Atlanta, GA 30303

Phone: 404-562-8320

Fax: 404-562-8335

E-mail: nawyn.richard@epa.gov

Region 5 — IL, IN, MI, MN, OH, WI

SUZANNE SARIC

U.S. EPA, Region 5

77 West Jackson Boulevard (PI-19J)

Chicago, IL 60604

Phone: 312-353-3209

Fax: 312-353-1155

E-mail: saric.suzanne@epa.gov

Region 6 — AR, LA, NM, OK, TX

Jo Taylor

U.S. EPA, Region 6

1445 Ross Avenue (6XA)

Dallas, TX 75202

Phone: 214-665-2200

Fax: 214-665-2204

E-mail: taylor.jo@epa.gov

Region 7 — IA, KS, MO, NE

Rowena Michaels

U.S. EPA, Region 7

726 Minnesota Avenue

Kansas City, KS 66101

Phone: 913-551-7003

Fax: 913-551-7066

E-mail: michaels.rowena@epa.gov

Region 8 — CO, MT, ND, SD, UT, WY

CECE FORGET

U.S. EPA, Region 8

Denver Place (OC)

999 18th Street, Suite 500

Denver, CO 80202-2405

Phone: 303-312-6605

Fax: 303-312-6961

E-mail: forget.cece@epa.gov



Region 9 — AZ, CA, HI, NV, American Samoa, Guam, N. Marianas, Palau

STACEY BENFER

U.S. EPA, Region 9 75 Hawthorne Street (E2) San Francisco, CA 94105 Phone: 415-744-1161

Fax: 415-744-1072

E-mail: benfer.stacey@epa.gov

Region 10 - AK, ID, OR, WA

SALLY HANFT

U.S. EPA, Region 10 1200 Sixth Avenue (EXA-142)

Seattle, WA 98101 Phone: 206-553-1207 Fax: 206-553-0149 E-mail: hanft.sally@epa.gov

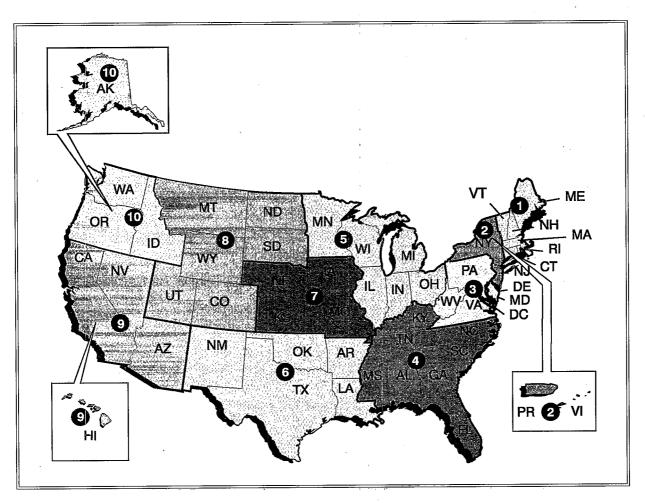
Headquarters

U.S. EPA

Office of Environmental Education 401 M Street, SW (1704) Washington, DC 20460

Phone: 202-260-8619 Fax: 202-260-4095

E-mail: enviroed.group@epa.gov





o depide