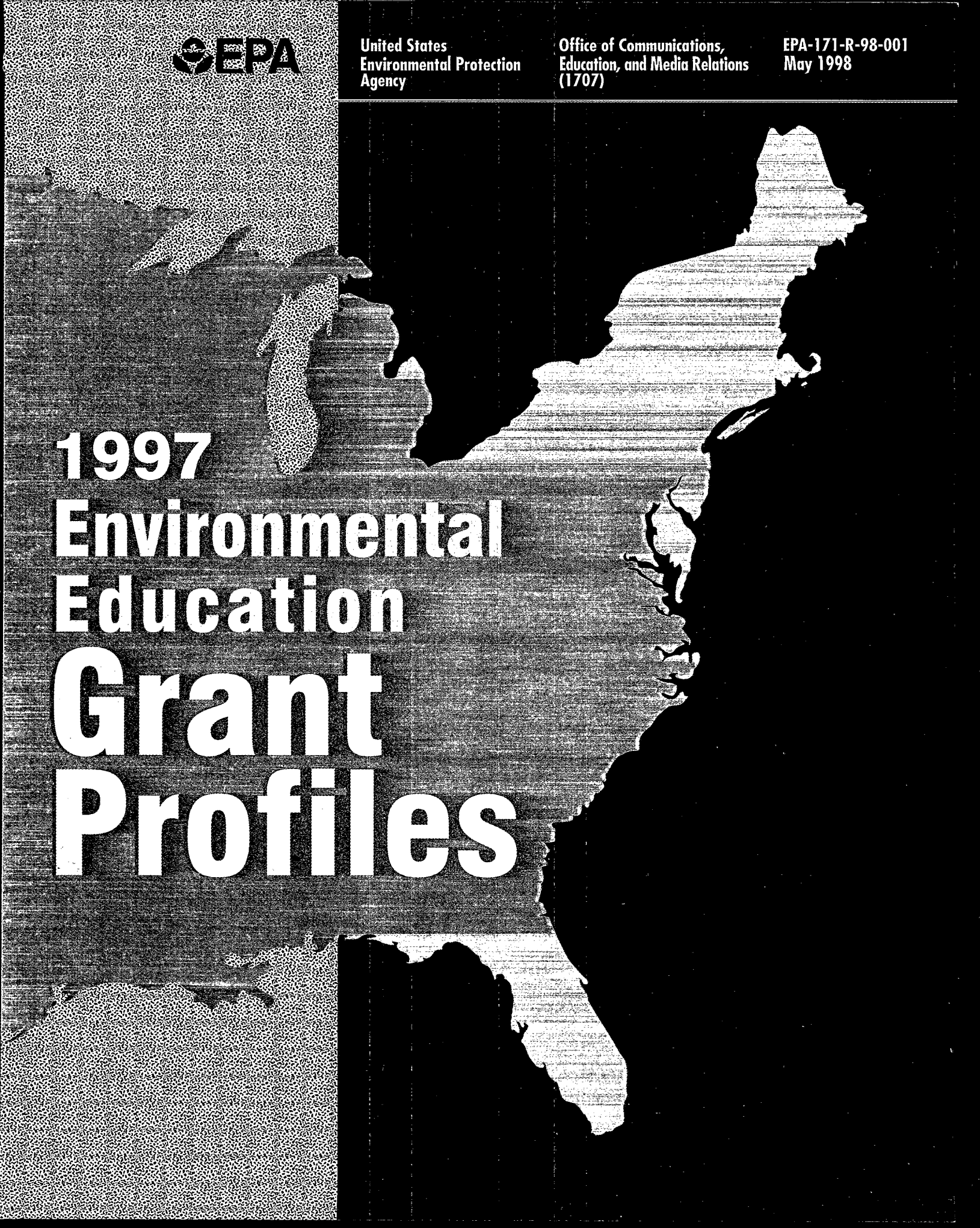




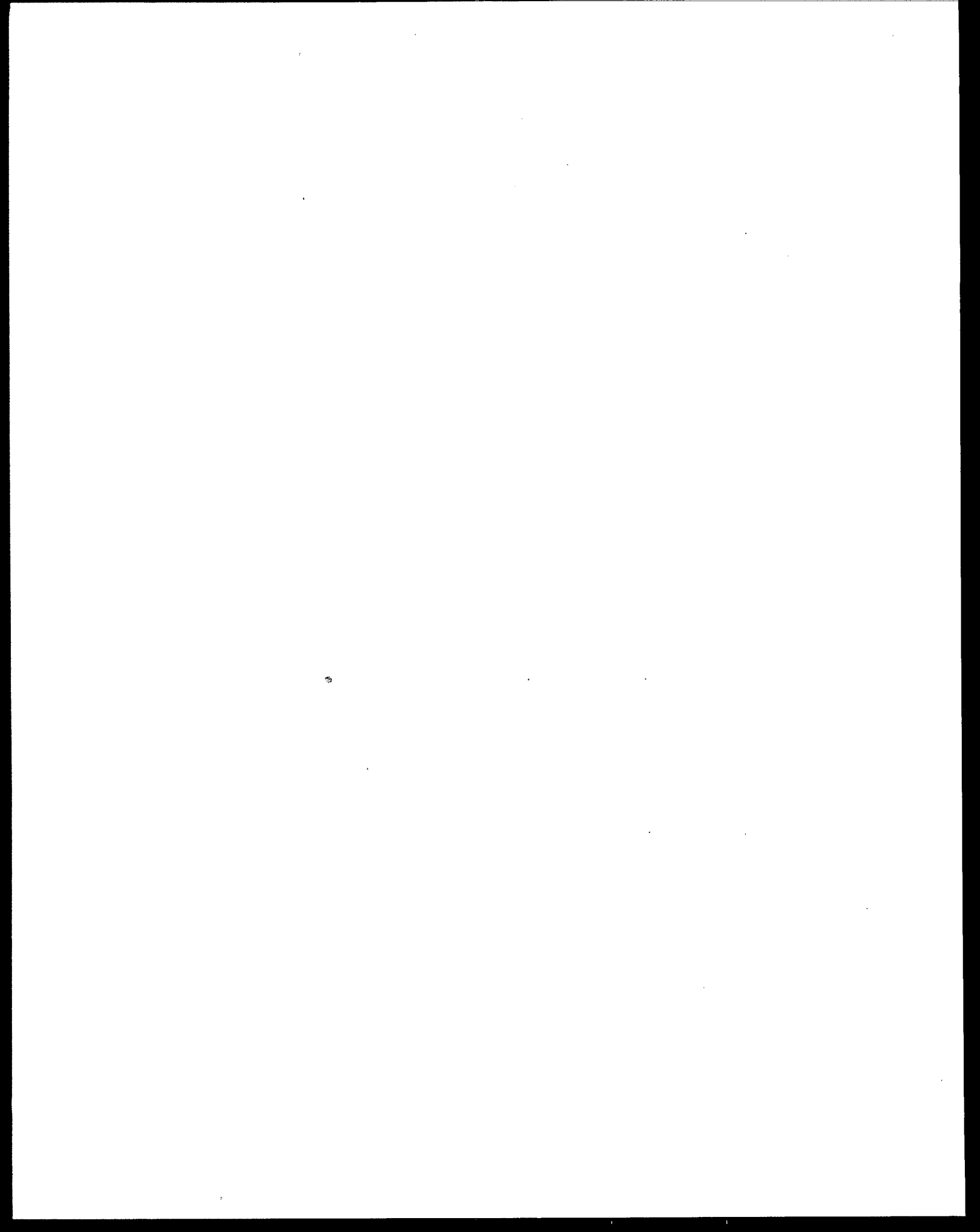
United States
Environmental Protection
Agency

Office of Communications,
Education, and Media Relations
(1707)

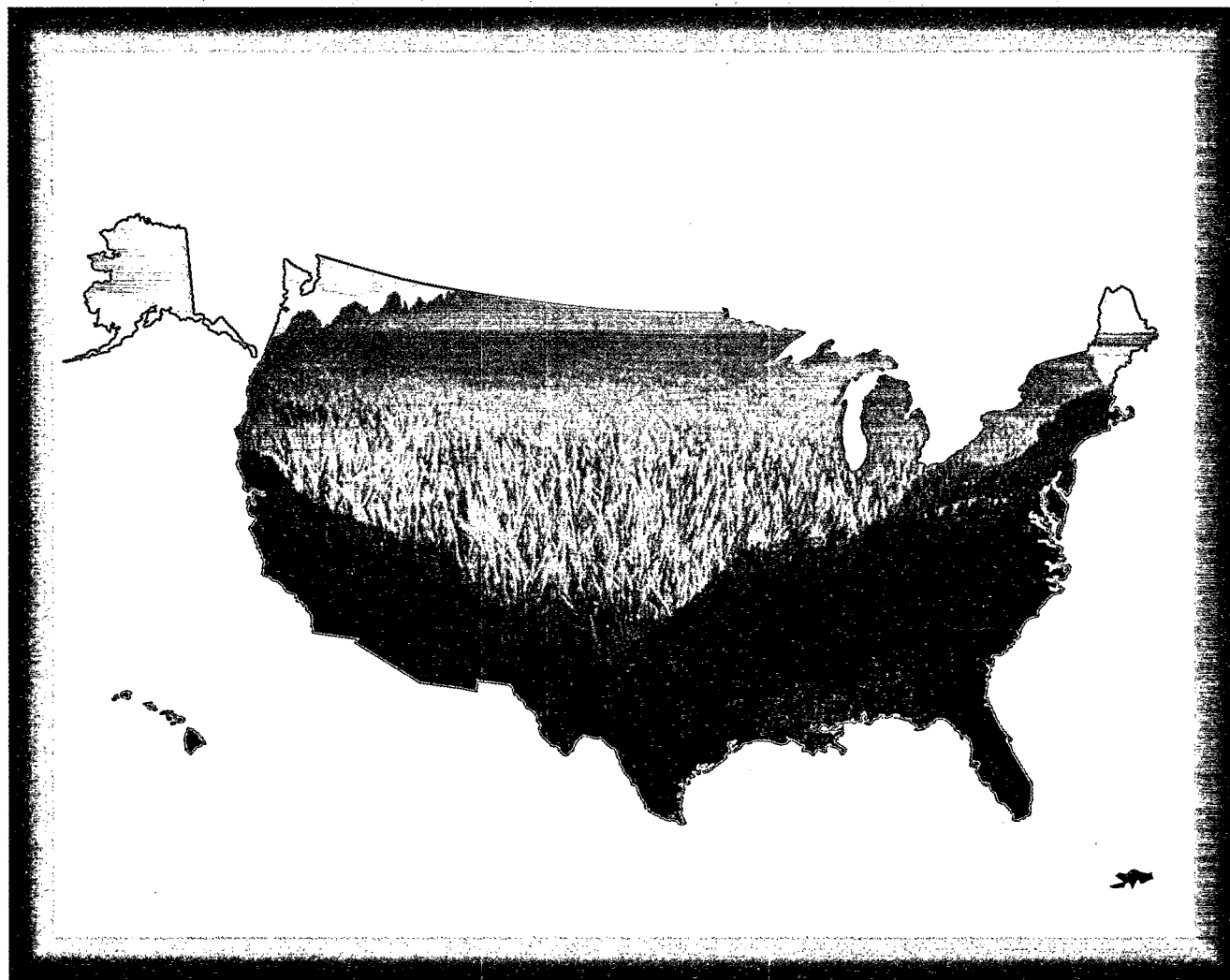
EPA-171-R-98-001
May 1998

A large, stylized map of the United States is shown with a torn paper effect. The map is divided into two main sections: the left side is a light gray with a fine dot pattern, and the right side is solid black. The torn edges are irregular and jagged, giving the impression of a piece of paper being ripped apart. The title text is overlaid on the left, light-gray section.

1997 Environmental Education Grant Profiles



1997 Environmental Education **Grant Profiles**

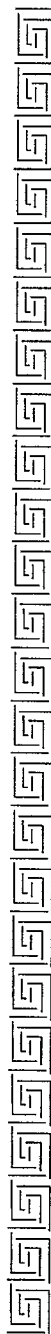


U.S. Environmental Protection Agency
Office of Environmental Education
Office of Communications, Education, and Media Relations
401 M Street, SW (MC 1707)
Washington, DC 20460
<http://www.epa.gov>



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SUMMARY STATEMENT

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

This report summarizes 265 environmental education grants awarded by the U.S. Environmental Protection Agency (EPA) during fiscal year (FY) 1997. 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. Larger grants 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 priorities such as: education reform, issues related to children's health, teacher training, 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 tribal or local education agency, college or university, state education or environmental agency, nonprofit organization, or noncommercial educational broadcasting entity is eligible for grants under the program.

In FY 1997, Congress appropriated approximately \$3 million for the grants program. It is anticipated that similar appropriations will fund the program in the future. EPA regional offices award grants of \$25,000 or less; larger grants are awarded by EPA Headquarters. 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.

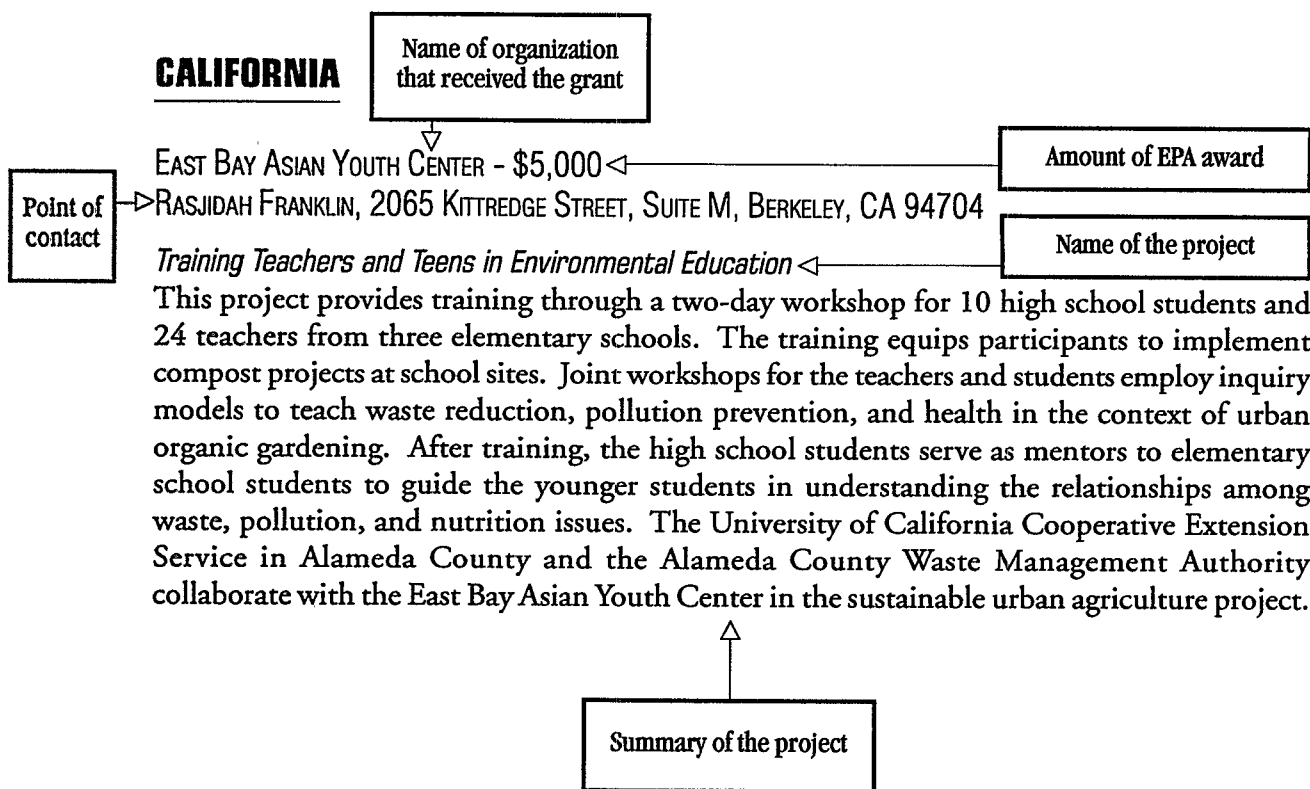
In FY 1997, Headquarters awarded 13 grants larger than \$25,000, for a total of \$1,248,588. Grants awarded averaged \$96,000; more than half of the Headquarters grants were less than \$70,000, and the largest awarded was \$177,485. Each regional office awarded approximately \$185,000 for an average of 25 grants each. The competition for grants is intense, especially as the amount of funding requested increases every year. On page 83 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://eeelink.umich.edu>. 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 page 85 of this document.



USING THE GRANT PROFILES

The main section of this document provides profiles of environmental education grants awarded in FY 1997. 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:



GRANTS AWARDED BY EPA HEADQUARTERS

ALABAMA

JACKSONVILLE STATE UNIVERSITY - \$162,615

MARGARET B. BOGAN, 700 PELHAM ROAD NORTH, JACKSONVILLE, AL 36265

ENVIRONMENTAL EDUCATION, FROM AWARENESS TO ACTION

Under this teacher training project, secondary school teachers improve their skills at 11-day in-service workshops, during which they examine model teaching strategies. The project is intended to increase the teachers' environmental awareness and attitudes, as well as to prompt them to take action to influence the use of water resources and to foster public understanding of the effects of such use. Teachers learn new teaching and assessment strategies that inspire students to become active learners and high achievers, communicate with an international network of colleagues teaching about the environment, facilitate action programs for students, and provide district in-service education. The teachers keep and submit notebooks of the projects and Internet communications their students conduct. The project serves teachers in Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.

COLORADO

PROJECT FOOD, LAND, AND PEOPLE - \$66,700

ROXANNE BRICKELL, 635 IRIS AVENUE, BOULDER, CO 80304

PROJECT FOOD, LAND, AND PEOPLE

Project Food, Land, and People fills a gap by addressing the interrelationships among agriculture, the environment, and society. The goals of the project are to build educational capacity in various states to train educators to use existing curriculum materials related to those issues; to implement an improved training workshop model; to meet the need for environmental education materials in Spanish; and to serve a culturally and geographically diverse cross-section of educators in states in six EPA regions — California, Colorado, Connecticut, Florida, Ohio, and Texas. The project trains more than 150 facilitators, who in turn conduct workshops for several thousand educators. The educators reached through the project include teachers in bilingual classrooms in which curricula are taught in Spanish and English. The project also serves organizations that work in environmental education, natural resources, and agriculture. In addition, the project provides additional lessons in Spanish in response to needs expressed by educators in bilingual classrooms.

HAWAII

HAWAII STATE DEPARTMENT OF EDUCATION - \$133,465

COLLEEN MURAKAMI, P.O. Box 2360, HONOLULU, HI 96804

WATER ISSUES TEACHER TRAINING PROJECT

This project supports both education reform and environmental education in Hawaii. Its objectives are to create and implement a development program that improves teachers'



understanding of water issues and strengthens their skills, to develop partnerships with the Department of Health and the University of Hawaii, to upgrade an electronic database to be used throughout the state for the study of water issues, and to develop a cadre of 24 master teacher trainers to deliver workshops. The project involves 120 public school teachers of diverse ethnic origins who teach grades 6 to 12.

ILLINOIS

CENTER FOR INSTRUCTION, STAFF DEVELOPMENT, AND EVALUATION - \$153,843
TRUDI VOLK, 1925 NEW ERA ROAD, CARBONDALE, IL 62901

ENVIRONMENTAL EDUCATION FOR RESPONSIBLE CITIZENSHIP

The Environmental Education for Responsible Citizenship project builds upon an earlier project of the Center for Instruction, Staff Development, and Evaluation that trained 300 educators in 10 states and Puerto Rico in the use of two curricula. The new project introduces a leadership component, the Trainer of Trainers Workshop, which brings together 50 of the trained and experienced teachers to prepare them to conduct five-day workshops in their regions for an estimated 1,250 other educators. The project involves more than 1,200 formal and informal educators in grades 5 through 12 and makes special effort to target teachers of minorities. The curriculum is published in both English and Spanish.

KANSAS

KANSAS ASSOCIATION FOR CONSERVATION AND ENVIRONMENTAL EDUCATION - \$25,200
JOHN STRICKLER OR GARY HULETT, 2610 CLAFLIN ROAD, MANHATTAN, KS 66502-2798

DEVELOPMENT AND DISSEMINATION OF STATE ENVIRONMENTAL EDUCATION STANDARDS

Through a partnership of public and private-sector organizations, the project integrates environmental education into kindergarten through 12th-grade programs and fosters the state's current efforts in education reform. The three objectives of the project are to develop environmental education standards for the state that are based on national standards, to conform various teacher training materials, and to distribute the new standards and materials with the state's core curricular standards through teacher training workshops. The project reaches more than 1,500 kindergarten through 12th-grade teachers and pre-service teachers each year.

LOUISIANA

XAVIER UNIVERSITY OF LOUISIANA, DEEP SOUTH CENTER FOR ENVIRONMENTAL JUSTICE - \$177,485
BEVERLY WRIGHT, 7325 PALMETTO ST, CAMPUS BOX 45B, NEW ORLEANS, LA 70125

THE NEW ORLEANS ENVIRONMENTAL JUSTICE EDUCATION TEACHER TRAINING PROGRAM

This teacher training program addresses environmental threats to health, especially those that affect children. The project uses a newly designed curriculum that incorporates issues and concerns related to environmental justice into the regular science curriculum taught by 225 elementary school teachers. The curriculum emphasizes those issues, as well as skills correlated to Education Goals 2000, Louisiana Education Assessment and Curriculum Program Objectives,



and Science 2000 objectives. Modules address lead, air pollution and asthma, pesticides, landfills, and the abandoned and possibly contaminated urban sites known as brownfields. Teachers trained through the program reach more than 6,000 students. The Deep South Center for Environmental Justice, the public school system of New Orleans, and the National Lead Information Center are partners in the project.

MARYLAND

LIVING CLASSROOMS FOUNDATION - \$165,850

SCOTT RAYMOND, 802 S. CAROLINE STREET, BALTIMORE, MD 21231

CHESAPEAKE LITTLE SHEDS NITRATE NET PROJECT

This project involves hands-on education at shoreside facilities and in floating classrooms that complements the efforts of scientists to implement areawide pollution monitoring and to address the interactions between air and water. Under the project, students study technology to increase their scientific literacy and understanding of the complex environmental issues that affect the Chesapeake Bay. Students collect and analyze environmental data to be used by both the education and the scientific communities. The skills and knowledge students develop through the project are a crucial factor in meeting the challenge to improve the health of the Chesapeake Bay.

MASSACHUSETTS

MASSACHUSETTS AUDUBON SOCIETY - \$60,000

CLETI CERVONI, 208 SO. GREAT ROAD, LINCOLN, MA 01773

WATERSHED ENVIRONMENTAL SCIENCE EDUCATION PROJECT

The Watershed Environmental Science Education Project uses environmental education as a catalyst to advance education reform on the state, local, and tribal levels. Using watersheds as a theme, the project provides professional development services to science teachers. It documents best practices and communicates them to staff of the Massachusetts Audubon Society and to environmental educators in Massachusetts, other New England states, and other parts of the United States. More than 70 middle and high school science teachers at 30 schools develop their knowledge of concepts related to watersheds and confidence in leading field-study trips to natural areas. In turn, they act as mentors for other teachers and share with more than 4,000 students exciting new ways to learn about mathematics and science through exploration of their local watershed. Staff at six Audubon wildlife sanctuaries work in partnership with the 30 schools to conduct the project.

MICHIGAN

GLOBAL RIVERS ENVIRONMENTAL EDUCATION NETWORK - \$65,673

KEITH WHEELER, 206 SOUTH FIFTH AVENUE, SUITE 150, ANN ARBOR, MI 48104

THE GREEN LEADERSHIP INITIATIVE: CREATING LEARNING COMMUNITIES FOR WATERSHED EDUCATION AND HEALTH

The GREEN Leadership Initiative addresses the high-priority environmental issue of water quality and its effect on human health. The project provides training and evaluation sessions



for facilitators, as well as 10 watershed workshops. A training retreat enhances understanding of capacity-building and health-related issues. In addition, the project has improved existing watershed programs and established new programs in targeted areas by providing two workshops in each of five EPA regions.

MINNESOTA

TWIN CITIES PUBLIC TELEVISION - \$78,107

RICHARD HUDSON, 172 E. 4TH STREET, ST. PAUL, MN 55101

"NEWTON'S APPLE": ENVIRONMENTAL IMPACTS ON CHILDREN'S HEALTH

"Newton's Apple": Environmental Impacts on Children's Health is a series of three video segments designed to be aired on the public television series "Newton's Apple" to educate viewers about environmental threats to health and strategies for minimizing the exposure of children to those threats. The videos are reinforced by an outreach effort that includes lessons and resource pages in the teacher's guide to the series and a special feature on the "Newton's Apple" World Wide Web site. The video segments and supplementary materials, broadcast on 300 stations across the nation, educate millions of parents, teachers, and young people about environmental hazards and guide them in taking responsible action to minimize the exposure of children to those threats.

NEW JERSEY

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION - \$30,150

TANYA OZNOWICH, NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION, P.O. Box 402, TRENTON, NJ 08625-0402

NEW JERSEY CLASSROOM REFORM

This project provides faculty, parents, and students in kindergarten through grade 12 comprehensive and effective supplemental and enrichment materials in environmental education that support the New Jersey core curriculum content standards (CCCS) and other needs identified through education reform efforts in the state. Under the project, 13 trained facilitators develop a multisubject matrix for each activity and a master matrix of cross-referenced activities for each of the four projects the program includes. Further, 15 to 20 trained facilitators identify needs and develop new modules or a series of enhancements of current workshops that link each project to the CCCSs. The modules or enhancements are pilot-tested in eight project workshops. A three-day workshop for facilitators that highlights support for education reform rounds out the project.

OREGON

ROGUE VALLEY COUNCIL OF GOVERNMENTS - \$69,500

DAVID JACOB, P.O. Box 3275, 155 S. SECOND STREET, CENTRAL POINT, OR 97502

BEAR CREEK STEWARDSHIP PROJECT

The Bear Creek Stewardship Project provides educational opportunities for students and teachers in the Bear Creek watershed and in rural communities in southwestern Oregon. The project



sponsors a training session for educators that focuses on monitoring of water quality and provides equipment, supplies, and references necessary to conduct such testing. It also provides study kits and supports a water quality monitoring program for students. A student congress and a watershed education symposium give students the opportunity to share the results of their projects and work to improve the condition of Bear Creek. In addition, the program funds school and class environmental education projects through a small grant program and sponsors two large-scale stream cleanups, as well as the Adopt-a-Storm-Drain Program that provides drain-painting kits and informational brochures for use by students and teachers. Completing efforts under the project are two videos produced by students, one that focuses on the project itself and another that addresses misuse of storm drains, and a rural outreach program. Approximately 1,000 students in grades 1 through 12, as well as 40 educators, are involved in the project.

UTAH

UTAH STATE OFFICE OF EDUCATION - \$60,000

BRETT MOULDING, 250 EAST 500 SOUTH, SALT LAKE CITY, UT 84111

SYSTEMATIC EDUCATION REFORM IN UTAH

This project integrates environmental education into Utah's statewide education reform efforts. It works with teachers and students to build learning based on environmental projects into the state's new ninth-grade Earth Systems Science Course. Through action projects, students apply the concepts they have learned to real-world environmental problems. Under the project, 40 science teachers receive training and funding to help engage their students in such learning experiences, and ninth-grade students in the earth systems course plan and implement environmental projects and enlist the assistance of local community and government organizations. In addition, high school students use the Internet to communicate their experiences and share resources with other earth systems science classes and teach local elementary school students about the work the older students have done and its significance. Project staff refine the system for training and supporting teachers, evaluate the project, and distribute the results nationwide.





Notes



GRANTS AWARDED BY EPA REGIONAL OFFICES

ALABAMA

See page 3 for a profile of a grant awarded to Jacksonville State University by EPA Headquarters.

CAHABA RIVER SOCIETY - \$17,500

RACHEL REINHART, 2717 7TH AVENUE SOUTH, SUITE 205, BIRMINGHAM, AL 35233

Cahaba/Black Warrior Clean

This project provides for 105 water resource field trips for approximately 2,300 students and 60 teachers. Four teacher workshops, each a week in length; six day-long teacher field trips and planning sessions; and fifteen curriculum training workshops, each a full-day session, are conducted for 315 teachers. A curriculum developed by the Chesapeake Bay Foundation was adapted to create an interdisciplinary classroom and field curriculum that is tailored to regional issues and that complements the field experiences.

CULLMAN COUNTY SOIL AND WATER CONSERVATION DISTRICT - \$5,000

ROBERT HARBISON, 301 1ST STREET N. E., CULLMAN, AL 35056-1456

Teaching the Teachers

Under this project, teachers and other educators learn to develop and deliver their own environmental education programs for elementary and secondary school students. In addition, members of conservation district boards and Earth Team volunteers have the opportunity to participate in workshops. The two-day workshop trains participants to use the material provided to teach classes and gives them the opportunity to practice their newly acquired skills in a classroom setting.

FRANKLIN COUNTY SCHOOL SYSTEM/EAST FRANKLIN JUNIOR HIGH SCHOOL - \$5,000

WYATT HUTCHESON, P.O. BOX 610, RUSSELLVILLE, AL 35653

Development of an Environmental Education Program

This project develops an environmental education center at the East Franklin Junior High School. The center includes an outdoor classroom and nature trail that has a wetlands habitat, a bird habitat, and a native plant habitat. The project is designed to teach students about the threats to human health posed by pollution and to educate them about environmental careers. A companion workshop trains teachers in the use of Project Learning Tree.

ALASKA

ALASKA BIRD OBSERVATORY - FAIRBANKS - \$4,995

NANCY DEWITT, P.O. BOX 80505, FAIRBANKS, AK 99708

Songbirds of Interior Alaska

The purpose of the Songbirds of Interior Alaska project is to create an interactive workbook and curriculum module guide for kindergarten through sixth-grade programs that promotes



conservation of migratory and resident birds in Alaska's boreal forest. The project provides in-service training for 60 elementary school teachers in the North Star Borough School District, Fairbanks, where minorities represent more than 25 percent of the school population. Emphasis is placed on activities that introduce students to protection of habitat and bird conservation.

KUIGPAGMUIT INC. - \$5,000

VINCE J. BEANS, P.O. Box 32209, MOUNTAIN VILLAGE, AK 99632

Tribal Environmental Training Program

The Tribal Environmental Training Program is intended to establish a culturally sensitive environmental education program that emphasizes tribal responsibility for dealing with hazards created by human activities. Under the project's Trainers-of-Trainers (TOT) component, biologists and environmental scientists from the Native American Fish and Wildlife Society provide culturally sensitive training to tribal leaders in three Yu'pik Eskimo villages. The society's technical assistance database is available to the project, as well. Each TOT graduate implements at least two community activities, using a plan the trainer developed through the TOT program. Under the program, a game and a community awareness activity are being developed, and information is being made available on the World Wide Web.

UNIVERSITY OF ALASKA - FAIRBANKS - \$4,782

INSTITUTE FOR ARCTIC BIOLOGY, DOUGLAS SCHAMEL, P.O. Box 757000, FAIRBANKS, AK 99775-7000

Wetlands Ecology Training Project

The Wetlands Ecology Training Project (W.E.T.) is conducting a series of interactive workshops and outdoor activities for elementary teachers who have little or no experience in the conduct of scientific investigations. The project increases teachers' knowledge of pond ecology, methods of scientific investigation, and use of scientific equipment and relevant curriculum materials. Teachers learn firsthand how to conduct field studies and use scientific supplies. The workshop requires that each participant conduct an investigation with his or her class. The project is being conducted in the North Star Borough School District, Fairbanks, which has 9,400 students in 19 elementary schools. Minorities, most of whom are Alaska natives, make up approximately 25 percent of those students.

AMERICAN SAMOA

AMERICAN SAMOA COMMUNITY COLLEGE - \$5,000

DON VARGO, P.O. Box 26, AS 96799

Field Guide to the Wildlife of the Protected Areas of Samoa

American Samoa Community College, Pago Pago, is developing a field guide to the wildlife that inhabit Samoa's wetlands, rain forests, and coral reefs. The guide is intended for use both in the field and in the classroom by middle and high school students and adults to identify wildlife species that inhabit protected areas of Samoa. The guide describes and illustrates in full color numerous species of birds, fish, and reptiles and includes thought-provoking questions

and activities that stimulate an understanding of the environmental challenges facing the tiny island ecosystem. Key partners that provide monetary or technical support to the project include the American Samoa Environmental Protection Agency, the Department of Education, the Department of Marine and Wildlife, Fagatele Bay Marine Sanctuary, Le Vaomatua, and Le Tausagi.

ARIZONA

AGUA FRIA-NEW RIVER NATURAL RESOURCE CONSERVATION DISTRICT - \$5,000

KATHY KILLIAN, 3150 N. 35TH AVENUE, SUITE 7, PHOENIX, AZ 85017

Project Preserve Expansion Effort

This project is designed to expand the community's 20-acre outdoor environmental education facility to include a desert tortoise habitat that complements the dry wash, modern vegetable and flower garden, native Arizona plant garden, pond, and Native American village currently in place. In addition, the curriculum that accompanies the outdoor resource is being updated to incorporate lessons on threatened and endangered species and on aquatic ecosystems and water quality. Teachers, in particular 40 who are new to the area, are being trained in the use of the facility.

ARIZONA 4-H YOUTH FOUNDATION - \$5,000

JAWANDA MAST, 4341 EAST BROADWAY, PHOENIX, AZ 85040

Maricopa County 4-H Project: Stop Trashing Our Planet

This project trains teenagers from 10 junior high schools to deliver environmental education to schools and community groups. The mentor teens, in keeping with the 4-H "learn-by-doing" tradition, organize children in their own and nearby schools to participate in recycling activities. The project also is producing a guidebook to help teachers support the teen activities. Partners in the effort include the Extension Service of Maricopa County; Phoenix Clean and Beautiful; and Kennedy K-8 School, which conducted a successful pilot program.

NORTHERN ARIZONA UNIVERSITY - \$5,000

LYNDA HATCH, P.O. BOX 4085, FLAGSTAFF, AZ 86011

Northern Arizona University Alpine Partnership

Alpine Partnership brings together faculty and pre-service teacher candidates at the university with staff of informal education facilities in the Flagstaff area to develop and implement an environmental education curriculum that the teacher candidates present to school children and other visitors to those institutions. Lessons developed for this project enable students and visitors to examine and identify the ecological, political, economic, social, and educational issues that affect each environmental decision. Major partners working with Northern Arizona University's Education Department to support the project include Lowell Observatory; the Arboretum at Flagstaff; the Museum of Northern Arizona, and the National Park Service monuments of Walnut Canyon, Sunset Crater Volcano, and Wupatki. Those institutions provide visitor services to approximately 40,000 school children per year, as well as to more than 100,000 other visitors from throughout the United States and the world.



PIMA CENTER FOR CONSERVATION EDUCATION - \$4,816

KIMBERLY OTERO, 4343 NORTH OARCLE ROAD, M-192, TUCSON, AZ 85705

A Simulation Activity in Natural Resources Management: Working Within the Framework of the National Environmental Policy Act

This project is developing resource material for social studies classes at Cross Middle School that employ simulation and role-playing to demonstrate the steps usually taken to perform an environmental impact assessment. The students are assigned a role as a member of one of four stakeholder groups: proponents, public agencies, private consulting firms, and the general public. Over the course of several weeks, students visit a site; research the environmental and economic factors that affect it; and identify the regulatory, sociopolitical, and resource constraints that influence the particular position they will defend. The culminating activity is the effective communication to the group of the stand each student developed during the simulation.

PIMA COUNTY DEPARTMENT OF ENVIRONMENTAL QUALITY - \$4,030

JOHN BERNARDO, 130 WEST CONGRESS STREET, 3RD FLOOR, TUCSON, AZ 85701-1317

Bilingual Air Quality Education

The Bilingual Air Quality Education project is training 15 teachers who are bilingual in English and Spanish through a half-day workshop designed to increase their knowledge of air quality issues. Each school represented at the workshop receives 10 copies of a clean air curriculum. After the teachers complete the workshop, trainers work with them in their classrooms for a minimum of two class sessions to demonstrate ways to integrate air quality lessons into the classroom schedule.

PHOENIX COLLEGE/MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT - \$23,677

KATHLEEN PREECE, 2411 WEST 14TH STREET, TEMPE, AZ 85281-6941

Fresh Air Project: Collaborative Program to Link Community Problem Solving and Awareness About Air Pollution to K-12 Systemic Reform Initiatives

This project establishes 35 collaborative teams, each usually made up of a class, a teacher advisor, and a community advisor, to explore air pollution problems in Phoenix. Teachers attend workshops, 20 of which are scheduled under the project, at which they learn about the city's air pollution problems, appropriate hands-on classroom activities, and a format for developing student projects. A similar number of workshops for parents acquaint them with air pollution problems and increase their knowledge of potential hazards to their children's health. During the workshops, parents also explore ways to minimize those effects. The closing event scheduled for the project is a "Fresh Air Fest" at which students display their science fair projects and explore environmental careers. The event also provides an opportunity to solicit innovative solutions to air quality issues in the Phoenix metropolitan area.



UNIVERSITY OF ARIZONA - \$4,992

NADER CHALFOUN, P.O. Box 210075, TUCSON, AZ 85721

House Energy Doctor: Interactive Multimedia Workshop

This project conducts energy awareness and conservation seminars at three Tucson high schools. Approximately 120 high school students participate in the round of three workshops. Under a competitive format, teams of 11th-grade science students assess various energy-saving strategies to reduce the utility bills for a residence typical of the neighborhood. Multimedia computer analysis showing the fundamentals of each strategy, the energy-saving results achieved, and the resulting reduction in annual utility bills provides information that students on the various teams use to debate among themselves which plan is most effective before they submit their selections for judging.

ARKANSAS

SEVIER COUNTY 4-H COUNCIL - \$5,000

RALPH TYLER, 115 N. 3RD STREET #212, DEQUEEN, AR 71832

Upstream Educational Activity for Youth

The Upstream Educational Activity for Youth is an intensive educational program aimed at involving students in environmental issues. Youth learn about water quality and assist in the development of programs related to the topic. They develop videos and slide shows on farming, land management, timber operations, and mining. In addition, they show how downstream water quality is affected. Further, the young people collect water and soil samples for analysis.

WHITE RIVER PLANNING AND DEVELOPMENT DISTRICT - \$22,900

VAN THOMAS, P.O. Box 2396, BATESVILLE, AR 72503

Teacher Environmental Education Workshops

The purpose of the project undertaken by the White River Planning and Development District, Inc. (WRPDD) is to enhance public awareness of and involvement in environmental issues in each city and community in the area's 10 counties, which are overwhelmingly rural and poor. The project bases its community outreach efforts on the education of school-age children. To address the need for the establishment of consistent programs in the district's public schools, the project provides a series of environmental education workshops for teachers and informal educators. During the one-day workshops, educators learn how to incorporate concepts related to recycling, composting, and environmental education into their curricula. Each lesson proposed during the workshops can be incorporated into teaching on other subjects, such as mathematics, science, and English, and is accompanied by complete instructions and examples that conform to usual classroom procedures. Staff of the Arkansas Department of Pollution control and Ecology and of the University of Arkansas Cooperative Extension Service join WRPDD in the project by serving as instructors for the workshops.



Wilbur D. Mills Education Service Corporation - \$3,800

Shirley Hooks, 210 N. Main Street, Drawer #1016, White County, Beebe, AR 72012

Central Arkansas Student-Teacher Environmental Awareness Congress

The goal of this concentrated project is to increase the understanding of issues related to water quality and related topics among sixth-grade teachers and students. It educates them about the threats that water pollution poses to human health. Teachers, students, and members of community organizations become actively involved through environmental workshops and research conducted by the students. Participants also conduct water-testing activities. Another goal of the project is to organize a Student-Teacher Environmental Awareness Congress to train teachers and students.

CALIFORNIA

CITY OF ARCATA - \$4,850

JULI NEANDER, 736 F STREET, ARCATA, CA 95521

Arcata Marsh Interpretative Center Educational Exhibit

This project provides an interpretive exhibit that demonstrates the unique features of the community's integrated wetland and wastewater treatment facility for an estimated 10,000 annual visitors. The educational exhibits highlight the biological and technical aspects of the use of constructed wetlands to treat wastewater and provide wildlife habitat. As an example of appropriate technologies for the reuse of wastewater and restoration of wetlands, the interpretive center and adjacent wildlife sanctuary attract large numbers of visitors, ranging from school children to public officials and consulting engineers. Using the interpretive displays, Friends of Arcata Marsh conduct educational tours of the facilities that focus on the water cycle, human use of water resources, the use of restored wetlands for wastewater treatment, and wildlife habitats.

EAST BAY ASIAN YOUTH CENTER - \$5,000

RASJIDAH FRANKLIN, 2065 KITTREDGE STREET, SUITE M, BERKELEY, CA 94704

Training Teachers and Teens in Environmental Education

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.



FRIENDS OF OAKLAND PARKS AND RECREATION/BROOKDALE DISCOVERY CENTER - \$5,000
RICHARD BOLECEK, 1520 LAKESIDE DRIVE, OAKLAND, CA 94612

Courtland Creek: An Urban Creek Community Learning Project

The Courtland Creek project provides training for three high school students in the Courtland Creek neighborhood to become training assistants working with adult consultants to increase awareness of the importance of a healthy creek habitat among their peers, their families, and other members of the community. The project focuses on educating teachers, students, parents, community leaders, and the public about the threats that pollution poses to human health. Through hands-on community workshops, participants keep toxic substances out of the creek, restore native plants to the area, and reintroduce native amphibians if water quality proves satisfactory for the survival of those species. Key partners in the project include the Environmental Sciences Academy of the Oakland Unified School District, the California Academy of Sciences, and the Urban Creek Council.

GEORGE WASHINGTON ELEMENTARY SCHOOL/BURBANK UNIFIED SCHOOL DISTRICT - \$5,000
RICHARD MOSKUN, 2322 N. LINCOLN STREET, BURBANK, CA 91504

Habitat Environmental Learning Project

The Habitat Environmental Learning Project (HELP) is developing an environmental science native plant garden on the campus of George Washington Elementary School. Under the HELP project, 90 students in third to fifth grade at Washington and two adjacent schools participate in three-week sessions, working in groups of 15, to learn to identify native plants, cultivate conditions that enhance their growth, compare native ecosystems in the environmental science garden with those in the surrounding neighborhood, and maintain journals to record their activities in support of the project. Information about the progress of the project is disseminated through newsletters distributed to parents, through the local media, and on the school's World Wide Web page. Partners in the project include the Burbank Education Foundation, the City of Burbank Parks and Recreation, and the Burbank Rotary Club and its service unit, Interact, for high school students.

INYO COUNTY OFFICE OF EDUCATION - \$5,000
LO LYNES, 135 SOUTH JACKSON STREET, INDEPENDENCE, CA 93526

Eastern Sierra Institute for Secondary Students

This project provides 60 to 80 high school students a five-day residential program in the study of issues related to water use. The participants are recruited from Inyo, Mono, and Los Angeles counties. Students become involved in an intensive effort to assess vegetative health, soil conditions, air and water quality, and the water and power infrastructures. They shadow and interact with resource managers and scientists as they practice using on-site investigative tools and laboratories. Partners in the project include the Los Angeles Unified School District; the Bureau of Land Management, the U.S. Department of the Interior; the Inyo County Water Department; the California Department of Fish and Game; and the Los Angeles Department of Water and Power.



LOS ANGELES EDUCATIONAL PARTNERSHIP - \$18,870

PATRICIA DUNG, 315 WEST 9TH STREET, SUITE 1110, LOS ANGELES, CA 90015

Environmental Issues: Chaparral, Wetlands, Coastal Sage, Sand Dunes, and Oak Woodlands

The Environmental Issues project conducts training for 120 teachers in the Los Angeles Unified School District to help them foster awareness among their inner-city students of the interrelationships and interdependency of the ecosystems that surround the city. The project is creating World Wide Web pages that highlight local fragile ecosystems, including chaparral, wetland, coastal sage, sand dune, and oak woodland habitats. Using the Internet to acquaint students with environmental issues that affect those local habitats, the project provides students with current resources and leads them in investigations, virtual field trips, and environmental action projects. Students are enabled to make decisions to act responsibly and to take action in the community to improve the environment for all living things. Partners in the project include the University of California Los Angeles Science Project and the Los Angeles Unified School District.

MONTEREY REGIONAL WASTE MANAGEMENT DISTRICT - \$5,000

HEIDI FELDMAN, P.O. BOX 6, MARINA, CA 93933

"Small Planet" School Education Program: Educational Materials, Teacher Workshops, and Demonstration Area

This project implements a comprehensive program of outreach to the schools to prompt students to become active participants in waste reduction. Teachers in five school districts enjoy opportunities to obtain training in the relationship between the generation and disposal of waste and the environment and human health. The project also is developing materials for classroom use that encourage students to design and manage recycling programs at their schools. Students have the opportunity to visit a waste management facility to learn first-hand how waste is handled at such facilities. Partners in the project include the Monterey County Office of Education, the Watershed Institute of California State University Monterey Bay, and the Monterey City Disposal Service.

OAKLAND ARTS MAGNET/FAR WEST SCHOOL - \$10,000

SUSAN QUINLAN, 5623 BROADWAY TERRACE, OAKLAND, CA 94618

Integrated Recycling and Yard Waste

This composting project is a model meant to guide the Oakland Unified School District's efforts to establish a school-based recycling program for its 120 schools. The project, which is implementing an integrated recycling and yard waste composting project as a model for the school district, is an important aspect of educational reform. Under the leadership of a recycling coordinator, teams of students undergo extensive training to equip them to educate other students, faculty, and staff about the concepts and practice of recycling and composting. The organizational structure of the project focuses on becoming self-sustaining and achieving the goal that 90 percent of all recyclable materials are diverted from the waste stream. Partners in the project include the Oakland Museum, the East Bay Community Foundation, the Alameda County Waste Management Authority, and the City of Oakland.

PACIFIC OAKS COLLEGE - \$5,000

JAN BROWN, 5 WESTMORELAND PLACE, PASADENA, CA 91105

Environmental Education Training for Teachers and Young Students

This training partnership project provides six hours of environmental education staff development for 75 teachers of pre-school children. During the project's NaturKind workshops, the teachers learn to use simple activities based on habitats of land snails and earthworms to introduce three- to five-year-old children to ways to explore the world around them. Follow-up support is available to workshop participants by telephone and through on-line computer consultation. Pacific Oaks College collaborates with the Roger Tory Peterson Institute to conduct the NaturKind workshops for Head Start centers, subsidized children's centers, and state pre-school programs.

RESOURCE CONSERVATION DISTRICT OF GREATER SAN DIEGO COUNTY - \$4,570

PENNY DOCKRY, 332 SOUTH JUNIPER STREET, SUITE 110, ESCONDIDO, CA 92025

Learning About the Watersheds Through Classroom Presentations

This project expands the Water Awareness: Keeping San Diego Bay Clean program to serve an additional 1,513 sixth-grade students in areas outside the Port District's sphere of influence, but in the overall watershed area. The ongoing program for schools in the Port District focuses on non-point-source pollution from trash, petroleum products, fertilizers, pesticides, and animal waste. Through classroom presentations that are a model of the watershed, students and teachers learn about watershed health by applying problem-solving and decision-making skills to develop an understanding of the causes of non-point-source pollution in the San Diego Bay watershed and of preventive measures that can control such pollution. Partners in the project include the San Diego County Office of Education, the Otay Water District, and the San Diego Unified Port District.

SAN FRANCISCO RECYCLING CENTER - \$5,000

NATASHA STILLMAN, 1145 MARKET STREET, SUITE 401, SAN FRANCISCO, CA 94103

Recycle Challenge 2000

Recycle Challenge 2000 is a science-based comprehensive project designed to use service learning to broaden participation in recycling programs at schools in San Francisco. The project promotes participation by training a corps of 20 middle and high school youth recruited from culturally diverse sections of the city. In their own and neighboring schools, the students conduct service learning activities that focus on waste management and recycling. Partners in the project include the San Francisco Unified School District, the San Francisco Volunteer Center, the service program Linking San Francisco, and the San Francisco Clean City Coalition.

SAVE SAN FRANCISCO BAY ASSOCIATION - \$5,000

MARCIA SLACKMAN, 1736 FRANKLIN STREET, 4TH FLOOR, OAKLAND, CA 94612

Seafood Consumption Information Project

This project targets the subsistence fishing population in six Bay Area counties to acquaint them with contaminants in bay waters and with ways to minimize the threats to health that



consumption of fish from contaminated waters can pose. The goal of the project is to reach 2,000 individuals, including the fishing population itself, community members and leaders, students at all grade levels, teachers, and health workers. To disseminate its message, the project uses presentations in classrooms, community meetings, health clinics, and libraries, as well as one-on-one outreach to the fishing population. Partners in the project include the Asian Pacific Environmental Network; Estuary Action Challenge, a project of the Earth Island Institute; the Oakland Chinese Community Council; and Impact Assessment, California Department of Health Services.

SHASTA COUNTY OFFICE OF EDUCATION - \$16,016
DAVID KLASSON, 1644 MAGNOLIA AVENUE, REDDING, CA 96001

Environmental Science Leadership Development Workshops

This project provides five-day workshops for 100 teachers, classroom aides, community coordinators, and natural resource professionals. The two workshops, open to participants from counties in northern California, train participants to use environmental education curricula developed by the Adopt-a-Watershed Foundation, Project WILD, Project Learning Tree, and A Child's Place in the Environment, as well as the California State Environmental Education Guide. Key partners in the project include the Whiskeytown Environmental School; the Adopt-a-Watershed Foundation; the California Department of Education; the Society of American Foresters; Horsetown-Clear Creek Preserve; the California Department of Fish and Game; the Forest Service, U.S. Department of Agriculture; the U.S. Natural Resources Conservation Council; the Western Shasta Resource Conservation District; the Bureau of Land Management, U.S. Department of the Interior; and the Shasta-Tehama Bioregional Council.

WATER EDUCATION FOUNDATION - \$5,000
JUDY WHEATLEY, 717 K STREET, SUITE 517, SACRAMENTO, CA 95814

Water Conservation in Disadvantaged, Culturally Diverse Inner City Schools

This project provides training in water resources and conservation for 100 primary grade teachers in Sacramento, San Diego, and San Francisco school districts. The workshops focus on the use of educational software developed by the Water Education Foundation, in cooperation with the Bureau of Reclamation and Division of Water Conservation, for teaching students in kindergarten through third grade about water conservation and pollution prevention in urban areas.

COLORADO

See page 3 for a profile of a grant awarded to Project Food, Land, and People by EPA Headquarters.

ADAMS CITY HIGH SCHOOL - \$4,927
DON BRUCE, 4720 EAST 69TH AVENUE, COMMERCE CITY, CO 80022

Students as Catalysts for Pollution Prevention

The goal of this project is to increase the availability to students, teachers, and the public of pollution prevention strategies and resources that can contribute to a safer environmental future.



The project involves more than 300 high school students, particularly 200 students at Adams City High School who live in a culturally diverse, low-income area and are challenged by residential and commercial pollution in their communities, which are in close proximity to five Superfund sites. The students produce multimedia presentations that highlight pollution prevention, environmental justice, and environmental health. In addition, the project makes available on the Internet a risk reduction curriculum, resources, and projects for schools and communities. The primary partners with Adams City High School in the project are Front Range Community College, the Northwest Metro Pollution Prevention Alliance, the city of Commerce, the Tri-County Health Department, ENVIR-MGMT, MAACO, and Conoco.

COLORADO ALLIANCE FOR ENVIRONMENTAL EDUCATION - \$16,100

MIKE WAY, 999-18TH STREET, #2750, DENVER, CO 80202

Colorado Environmental Education Correlations Project

This project provides training to educators in curriculum content standards and provides a comprehensive, cross-referenced list of environmental education programs that can be used to meet the requirements of the statewide curriculum content learning standards. The project targets the state's 50,000 educators, with emphasis on the 1,500 individuals designated to serve as environmental education liaisons under the Conservation Education Section of the Colorado Department of Education. In addition, some 2,300 providers of environmental education have been invited to participate in the project, which is intended to help educators become aware of state curriculum content standards through workshops and a compendium of environmental education programs. Under the project, 10 training workshops for environmental education providers are being conducted through community-based environmental education networks. Among the issues addressed during the workshops are development and delivery of environmental education and reform of education. The primary partners in the project are the Colorado Alliance for Environmental Education, the Colorado Department of Education, and educators throughout the state.

CLEAN AIR CAMPAIGN OF PIKE'S PEAK REGION - \$2,000

BARB NEGLEY, 219 WEST COLORADO AVENUE, #210, COLORADO SPRINGS, CO 80903

Clean Air for High School Classrooms

The goal of the Clean Air for High School Classrooms project is to educate the community to solve air quality problems through pollution prevention activities. The project is designed specifically to educate teachers and students about the properties of air and the effects of air pollution, as well as the development of intellectual skills that support pollution prevention efforts. Under the project, 25 educators in the 13 public-school districts in the Pike's Peak region educate 750 students; through those students, the project reaches 2,250 people, members of the students' families. Hands-on workshops for educators make use of a variety of educational materials, including the Clean Air for the High School Classroom resource packet, air quality monitors provided by the Environmental Services Division of Colorado Springs Utilities, and curricula provided by local environmental organizations. The project also focuses on educating teachers in environmental issues and pollution prevention. The primary partners in the project



are Clean Air for the High School Classroom, the Environmental Services Division of Colorado Springs Utilities, and such local environmental organizations as Keep Colorado Springs Beautiful and Wecycle.

COLORADO WILDLIFE FEDERATION - \$8,471

DIANE GANSAUER, 445 UNION BOULEVARD, #302, LAKEWOOD, CO 80228

Urban NatureLink

This project focuses on awareness among families in Denver of the wildlife, habitat, and environmental issues that affect their neighborhoods. It provides resources families can use as they see fit to protect or improve their environment. The target audience of the project is 15 to 20 urban families, totaling an estimated 30 to 70 participants of all ages, who live in underserved minority or low-income communities. The Urban NatureLink project includes the current programs of the Colorado Wildlife Federation and five other educational programs, which educate culturally diverse, low-income audiences about environmental issues, thereby advancing environmental justice. The primary partners in the project are the Colorado Division of Wildlife, the Colorado Bird Observatory, Denver Parks and Recreation, and the Thorne Ecological Institute.

ELECTRONIC PATHWAYS - \$5,000

JOHN HOOVER, 3215 MARINE ST/CU, BOX 456, BOULDER, CO 80309

Environmental Science Career Communications Network

This project is expanding the Electronic Pathways World Wide Web site called Career Communications Network for Women and Girls. The project provides equal access and opportunity to participate fully in today's information age to underserved and underrepresented populations. It involves 50 to 70 women's and girls' organizations in Colorado that have access to the Internet. The product reaches its audience through a needs assessment survey and the Career Communications Network, as well as through a Web site that provides career information in several categories, including health occupations, science, and nontraditional occupations.

FRIENDS OF BLUFF LAKE - \$4,750

SARAH MOONEY, 3051 SOUTH ELM STREET, DENVER, CO 80222

Kindergarten Curriculum

This project provides the first environmental education curriculum specifically geared to kindergarten students in the Denver metropolitan area and involves that target audience in environmental education programs. The target audience is traditionally underserved, racially-mixed, low-income schoolchildren, involving approximately 700 students and their teachers. The environmental education curriculum and life experiences for students reach that audience through two-hour environmental education field trips, reinforced by pre- and post-visit activities. The project provides city children an opportunity to experience a "wild place" in the midst of a densely-populated urban area. Partners in the project are the Friends of Bluff Lake, the Denver Public Schools, and the Aurora Public Schools.



GRAND VALLEY EARTH COALITION - \$6,064
SANDI STURM, P.O. BOX 4758, GRAND JUNCTION, CO 81502

Community Environmental Education Project

The Community Environmental Education Project enables students, educators, and residents in Grand Valley to make informed decisions based on an understanding of environmental systems and to assess the effects of human activity on those systems. It involves teachers in the work of local environmental agencies; the teachers then bring the knowledge they have gained back to the classroom, and both teachers and students increase their environmental awareness through direct experience. Three government agencies provide teacher training and capacity-building through internships. Public outreach, an environmental lecture series, and roundtable discussions with high school and college students, along with an Internet Web site created under the project, round out the educational effort.

HYGIENE ELEMENTARY SCHOOL - \$4,900
BILLIE PETT, P.O. BOX 300, HYGIENE, CO 80533

Aquatic Discoveries

The Aquatic Discoveries project, conducted solely by Hygiene Elementary School, teaches students about environmental issues that affect water, such as conservation, quality, and aquatic ecosystems. It also increases awareness of such issues, engages students in the development and application of critical-thinking skills and problem-solving strategies, and encourages them to take positive environmental action and become involved in the concerns of their communities. The project involves all staff and students at Hygiene Elementary School, which has a primarily Caucasian population, with a minority of African American and Hispanic students, and works to involve parents and other members of the community, as well. During the school year, students conduct numerous projects to be featured at the Aquatic Discoveries environmental festival. Newsletters, classroom participation by students, after-school programs, and communication with the media, as well as the environmental festival itself, promote the project and build public awareness of environmental issues that affect water.

IGNACIO SCHOOL DISTRICT - \$5,000
JULIE SOMERS, 315 IGNACIO STREET, IGNACIO, CO 80309

Ignacio Water Quality

This project builds awareness of environmental issues and ethics, teaches research techniques, explores technologies, strengthens teamwork and communication skills, and examines career options in environmental fields in an applied, hands-on manner. Each semester, 20 students, a majority of whom are Hispanic or Native American, take part directly in the program, with the entire school population, as well as members of the community, also reached by the effort. Another goal of the project is to combine an Environmental Science class with a new class in Field Techniques and Science Technologies. The project aims to stimulate interest in environmental careers through increased environmental awareness, improve skills in environmental sampling techniques and communication, strengthen teamwork, and generate better use of technology and application of the scientific method. The primary partners in the



endeavor are the Ignacio School District, the Southern Ute Indian Tribe, and the River Watch Program of the Colorado Division of Wildlife.

WILLIAM MARSH RICE UNIVERSITY - \$18,894

ROBYN WRIGHT-DUNBAR, TELEPHONE: 650-323-45 27, < rwd@ruf.rice.edu >

Mancos Canyon Discovery

This project develops correlations between environmental education programs and state standards for curriculum content. Students in grades three through five at the Ute Mountain reservation and public school teachers in the two-county region neighboring the reservation are involved in the environmental education effort that is designed to be a catalyst to advance education reform on the state, local, and tribal levels. The target audience is a diverse population that is 9 percent Hispanic and more than 16 percent Native American. In 1999, students in grades six to eight will join the project, increasing the number of participants to more than 100 students per summer. The project is developing a locally organized, self-sustaining, backyard learning resource. The primary collaborators in the project are the Ute Mountain Tribe, RE-1 Independent School District, and The Four Corners Coalition.

CONNECTICUT

SAVE THE SOUND, INC. - \$5,000

T. ROBINS BROWN, 185 MAGEE AVENUE, STAMFORD, CT 06902

Long Island Sound Education for New Rochelle, New York

This project increases children's awareness and knowledge of Long Island Sound, New York and its watershed by involving them in hands-on activities. Teachers learn how to integrate activities related to Long Island Sound, watershed preservation, and the threats that water pollution poses to health into their classroom programming. The program reaches 15 to 20 teachers of fourth- and fifth-grade classes in New Rochelle. Under the program, the students of the participating teachers take part in beach classes led by experienced naturalists at Long Island Sound Beach. Partners with Save the Sound, Inc. in the project are the New Rochelle Environmental Partnership and the City School District of New Rochelle.

LYME CONSOLIDATED SCHOOL/CONNECTICUT REGIONAL SCHOOL DISTRICT - \$5,000

DONNA TURCHI, RFD #2, BOX 478, LYME, CT 06371

Salmon Restoration/Watershed Study Project

The Salmon Restoration/Watershed Study Project provides an indoor aquatic laboratory designed to heighten students' awareness of the adjacent Connecticut and Eightmile River tidelands. Teachers are trained to use the rivers and the aquatic station as laboratories for fostering scientific inquiry. The project is a collaborative effort between the Lyme Consolidated School and the Edgerton Elementary School in New London and its minority population.



NEW HAVEN ECOLOGY PROJECT, INC. - \$4,955

JOANNE SCIULLI, c/o WEST ROCK NATURE CENTER, P.O. Box 2969, NEW HAVEN, CT 06515

Future Environmental Educator Training

The Future Environmental Educator Training (FEET) project trains urban teenagers to become environmental educators in West Rock, a primarily African American community in New Haven. FEET trains six teen educators who lead programs for as many as 400 children and adults in the following year. The program exposes the young people to careers in education and the environmental professions, fields that are in dire need of racial diversification.

SOUNDWATERS - \$5,000

NATHAN FROHLING BREWERS YACHT HAVEN MARINA, WASHINGTON BLVD., STAMFORD, CT 06902

Urban Ecology Project at Monterey Village

The project educates from 30 to 60 children in fourth through eighth grade from a low-income, culturally diverse population, along with their families, in issues related to non-point-source pollution. It demonstrates the link between Monterey Village, a privately owned, low-income housing project, and the Norwalk River Watershed that flows into Long Island Sound.

DELAWARE

CENTER FOR INLAND BAYS - \$4,950

BRUCE RICHARDS, P.O. Box 297, NASSAU, DE 19969

Aquaculture Education Initiative

This initiative focuses on priority areas and uses environmental education as a catalyst for expanding inland bays aquaculture programs to encourage improvement in public policy, influence future research, and encourage economic aspects of aquaculture. The project also educates the public about environmental issues that affect their communities through community-based organizations or through print, film, broadcast, or other media. The study area is the inland bays watershed that encompasses eastern Sussex County. The area has a unique diverse population of primarily European ancestry, along with African Americans, Hispanics, American Indians, and Asians. The target audiences are local organizations, the Citizen's Advisory Committee, the Scientific and Technical Advisory Committee, and Business People for the Bays.

FLORIDA

FLORIDA STATE UNIVERSITY - \$5,000

ELLEN GRANGER, OFFICE OF RESEARCH, TALLAHASSEE, FL 32306-3067

Sea-to-See: An Introduction to Marine Organisms

The Sea-to-See program brings the marine environment into the elementary classroom and provides workshops for elementary teachers. Under the program, 3,000 second- and fourth-grade students have the opportunity to explore the array of macro-invertebrate life that populates the near-shore marine environment of north Florida. Students explore that environment through



two touching tanks — one representing the salt marsh, oyster bar, and sandy bottom and the other representing the extremely diverse sea grass beds.

FOCUS CENTER, INC. - \$4,300

JENNIFER B. PETRO, 139 BROOKS STREET, FORT WALTON BEACH, FL 32548

Woods to Water: An Environmental Approach

This project provides students with an understanding of the environmental dangers present in local soil and water. It makes students aware of the environmental health risks that pollution poses to humans. In addition, it promotes awareness of environmental policies, possible approaches to cleanup, and pollution prevention.

LAKE COUNTY SCHOOL DISTRICT/UMATILLA HIGH SCHOOL PUBLIC SERVICE ACADEMY - \$5,000

LAUREN STRICKLEN, 201 W. BURLEIGH BOULEVARD, TAVARES, FL 32778

Emeralda Marsh Living Classroom

The Emeralda Marsh Living Classroom project allows 90 students the opportunity to explore the Emeralda Marsh Restoration Area through a variety of activities. It helps the students to develop an understanding of the resource and the value of its preservation. The activities offered under the program incorporate a variety of instructional strategies and techniques described in current education research. The project is a collaborative effort with the Saint Johns River Water Management District.

SCHOOL BOARD OF ALACHUA COUNTY - \$4,950

DR. DONNA OMER, 620 EAST UNIVERSITY AVENUE, GAINESVILLE, FL 32601

Not In My Back Yard

Not In My Back Yard is an interdisciplinary program for 170 students in fifth grade that investigates issues of environmental quality related to solid waste disposal in the community. The students, representing various socioeconomic and racial populations, work in collaborative groups to investigate local ecosystems and learn to become informed citizens who take responsible environmental actions.

GEORGIA

CHATTAHOOCHEE-FLINT REGIONAL DEVELOPMENT CENTER - \$19,245

LISA J. HOLLINGSWORTH, P.O. BOX 1600, FRANKLIN, GA 30217

Comprehensive Regional Environmental Database

This project provides a comprehensive regional environmental database, on CD-ROM, that includes mapped data on environmentally sensitive areas and solid waste management capacity. The project also provides a training workshop for planning commissioners, local planning staff, elected officials, and other interested persons to educate them in using the database to support the review of land use permit applications and decisions about approval or denial of such applications.

The project also assists local governments in arranging special programs that introduce high school students to the CD-ROM program and its use.

COASTAL KIDS - \$4,520

CATHY TOBLER, P.O. BOX 21243, ST. SIMONS ISLAND, GA 31522

Coastal Encounters Project

The Coastal Encounters Project focuses on building the capability of local teachers and informal educators to enhance and deliver environmental education and to increase students' awareness of the effects of tourism and other local industries on the coastal environment. In four workshops, 60 teachers work in collaboration with Coastal Encounters to integrate the curriculum into current classroom instruction. Through 18 field trips, the project also provides the opportunity for almost 1,000 students to participate in hands-on activities and work on group assignments and problem-solving exercises.

ENVIRONMENTAL EDUCATION ALLIANCE - \$4,875

DERON DAVIS, 2125 ELACHEE DRIVE, GAINESVILLE, GA 30504

Develop and Distribute Georgia Education Resource Guide

This project provides a resource guide to environmental education facilities throughout the state of Georgia. Educators and other interested persons can use the resource guide to find field trip locations and information that can be integrated into current environmental curricula. The guide also helps ensure that environmental information is consistent.

GEORGIA ENVIROTHON - \$4,900

TERRY SEEHORN, ROUTE 1, BOX 1A1, RABUN GAP, GA 30568

The Georgia Envirothon - A High School Environmental Competition

The hands-on academic competition conducted under this project provides 148 students and 48 teachers an opportunity to enhance environmental education through interaction between agencies responsible for the protection of natural resources and educators. Students interact with natural resource professionals at competition stations that give them a better understanding of the day-to-day problems and opportunities people who hold those jobs encounter. A college and career fair is an integral part of the competition.

SEVEN RIVERS RESOURCE CONSERVATION AND DEVELOPMENT AREA, INC. - \$5,000

DALE D. SELLERS, 400 EAST PARK AVENUE, SUITE 5, BAXLEY, GA 31513

Project Environmentally Correct!

Project Environmentally Correct! addresses the issue of wetland ecosystems and provides sustained and intensive professional development to teachers and staff of the Appling County Middle School to improve instruction in environmental science. Students use two ponds that feature nesting boxes and an observation platform to study aquatic and wetland ecology, learn to conduct water testing, and study the habitats.



HAWAII

See page 3 for a profile of a grant awarded to the Hawaii State Department of Education by EPA Headquarters.

IDAHO

IDAHO DEPARTMENT OF WATER RESOURCES - \$5,000

DICK LARSEN, PUBLIC INFORMATION OFFICE, 1301 N. ORCHARD STREET, BOISE, ID 83706

Idaho Water Awareness Week

The Idaho Water Awareness Week program equips sixth graders with the educational tools and understanding they need to develop and maintain an appreciation of the importance of water in their lives. The project uses an existing curriculum that specifically focuses on water to teach 11,500 students from a variety of school environments, including home schools. Under the project, extensive organized student activities, including field trips, environmental projects, and hands-on programs, reinforce classroom activities. The program gives students the opportunity to develop critical-thinking and decision-making skills while they increase their scientific and general knowledge about issues related to water and the environment.

NORTHWEST NAZARENE COLLEGE - \$20,000

LIANNE YAMAMOTO, TEACHER EDUCATION DEPARTMENT, 623 HOLLY, NAMPA, ID 83686

The Examining Regional Biodiversity Systems Project

The Examining Regional Biodiversity Systems Project enriches the overall environmental literacy and environmental action skills of middle school students living in small-town and rural communities in Idaho, Washington, and Oregon; enhances the planning and instructional skills of middle school teachers in areas related to environmental education; and expands the capacity of schools to provide superior activities focused on environmental issues, with a special emphasis on hands-on activities for young people. A professional training cadre of 21 middle school teachers from seven schools delivers the program. The innovative approach that forms the basis of the program focuses on a model that demonstrates how people experience a change in attitude, and subsequently a change in behavior, as they investigate solutions to various environmental issues.

SOUTHEAST IDAHO COUNCIL OF GOVERNMENTS - \$1,400

CHUCK PRINCE, PORTNEUF WATERSHED COUNCIL, P.O. Box 6079, POCA TELLO, ID 82305-6079

Portneuf Watershed Council Water Quality Education

This project aims to improve public awareness of the importance of the quality of both surface water and groundwater in a four-county region. The project focuses on developing critical-thinking skills related to the possible effects of certain land uses on water bodies and the degradation of water quality that may result from certain actions. Models of groundwater and surface-water flow and videotapes are used in presentations and demonstrations for students, teachers, civic groups, community and tribal leaders, and the general public. The presentations



are designed to equip those audiences to make informed decisions about land use, the protection of water quality, and possible solutions to problems related to those issues.

ILLINOIS

See page 4 for a profile of a grant awarded to the Center for Instruction, Staff Development, and Evaluation by EPA Headquarters.

AMERICAN LUNG ASSOCIATION OF ILLINOIS - \$4,953
KAREN LANTER, 6100 CENTER GROVE ROAD, EDWARDSVILLE, IL 62025

Open Airways for Schools

Under this project, the American Lung Association (ALA) of Illinois is training nursing students at Southern Illinois University and school nurses in East St. Louis and Granite City to use the highly structured and user-friendly curriculum Open Airways. The curriculum teaches 8- to 11-year-old students how to control and manage their asthma. The trained educators will reach more than 200 students in 20 schools throughout East St. Louis and Granite City, areas in which 99 percent of the children are African American from families that have incomes less than the average in the state. Through participation in the program, children learn to manage their asthma by identifying factors that trigger attacks, including environmental conditions. Children therefore experience improved health and increase their awareness of environmental issues, particularly those related to environmental justice.

BENEDICTINE UNIVERSITY - \$4,948
MARY MICKUS, 5700 COLLEGE ROAD, LISLE, IL 60532

Elementary Outreach Program - Discovery Boxes

Under this project, the Jurica Nature Museum, housed in the Scholl Science Center, is expanding its environmental education and outreach program by developing "discovery boxes" that focus on local issues related to biodiversity and the ecosystem. The boxes, which are distributed on loan to elementary school teachers, contain a variety of environmental lessons and activities. The project reaches more than 3,000 students in their classroom, as well as 80 school groups that visit the museum's new and improved interactive environmental exhibits. Through the discovery box activities and museum visits, students learn to identify environmental issues, state facts accurately, and resolve problems and develop an understanding of how difficult decisions are reached. The project also trains science teachers in methods of teaching a curriculum on environmental diversity.

CHICAGO PARK DISTRICT - \$4,783
SOFIA REFETOFF, 425 E. McFETRIDGE DRIVE, CHICAGO, IL 60605

Environmental Education in Urban Parks

Under this project, the Chicago Park District is integrating environmental education into its core program through a series of intensive staff development workshops and lectures. Managers, park supervisors, and park instructors receive training in the educational programs Project Learning



Tree, Project WET, Project WILD, and Project Aquatics and in waste management. Park staff learn to integrate environmental education into the district's existing programs, which serve more than 40,000 children throughout the city. In its first year, the project reached approximately 360 park personnel from 260 city parks, as well as an estimated 3,600 students influenced by the trained employees. The Chicago Park District conducts the project in partnership with the Illinois Department of Natural Resources and the Chicago Academy of Sciences.

THE CONSERVATION FOUNDATION OF DU PAGE COUNTY - \$5,000
ANNE MARIE SMITH, 703 WARRENVILLE ROAD, WHEATON, IL 60187

Envirothon

The Du Page County Envirothon tests students' knowledge and understanding of issues related to the use of the state's resources, cultivates a desire to learn more about the natural world, and promotes interest in environmental careers. After competing at the county level, students proceed to a statewide competition. State winners then participate in a competition that involves participants from 15 states. Du Page and Kane counties draw participants from environmental clubs at public high schools, various private schools, and 4-H clubs. The expanding program is expected to reach 140 students and 35 teachers in its second year. Du Page County and the Kane-Du Page Soil and Water Conservation District work in partnership to coordinate and host the Envirothon.

HEARTLAND COMMUNITY COLLEGE - \$5,000
MARK FINLEY, 1226 TOWANDA, BLOOMINGTON, IL 61701

Mackinaw Watershed Environmental Education

Heartland Community College is conducting this project designed to increase public awareness of and knowledge about environmental issues that affect the upper Mackinaw River system. The project focuses first on community education and then on teacher education. Its community courses teach high school students and members of the public to collect information about environmental assessment in the local watershed, evaluate the information, and identify stresses on the river system. In addition, a five-day summer workshop teaches educators to use the Mackinaw River as a natural laboratory. The project has reached more than 100 students and more than 30 teachers from several communities. The Heartland Community College conducts the project in partnership with The Nature Conservancy.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY - \$24,000
BRIAN URBASZEWSKI, P.O. Box 19276, SPRINGFIELD, IL 62794

A Tour of the Urban Environment

Under this project, the Illinois Environmental Protection Agency is enhancing the air pollution component of a new environmental science exhibit at the Museum of Science and Industry called "A Tour of the Urban Environment." Using an interactive device and a display unit, the exhibit educates students and the public about the sources of urban ozone smog, the health risks it poses, and solutions to the smog problem. The project fosters an understanding of the human actions and scientific processes that lead to the formation of ozone and encourages





consideration of preventive actions that might decrease ozone levels in the Chicago region. Each year, the museum hosts more than 400,000 students in school and other youth groups among its 1.7 million visitors.

METROPOLITAN CHICAGO COUNCIL OF CAMPFIRE, INC. - \$5,000
JEAN D. LACHOWICZ, 203 N. WABASH, #1518, CHICAGO, IL 60601

Farm Camp

The Farm Camp project takes 40 boys and girls in the Campfire organization, along with 12 trained adult volunteers, to an organic farm in Caledonia, Illinois, where the children spend three days learning about the day-to-day operations of the farm and observing environmentally conscious food production and farming. The children explore the issues of agricultural waste, biodiversity, and erosion. Through a series of hands-on activities, the children learn to think critically and evaluate environmental issues and the relationship of such issues to hunger, land use, agricultural techniques, and earth awareness.

PUBLIC SCHOOL DISTRICT #29 - SUNSET RIDGE ELEMENTARY SCHOOL - \$5,000
GEORGIA BOZEDAY, 525 SUNSET RIDGE ROAD, NORTHFIELD, IL 60093

Impact of the Water Cycle on Regional and Global Ecosystems

Students in grades four to eight at Sunset Ridge Elementary School study their local wetlands through daily collection of various data. The activities conducted under this project include field trips to local wetland habitats and to a water reclamation plant. The students then share the data collected with others throughout the world through the GLOBE program, a worldwide network of students and scientists working together to learn about the global environment. Students also create multimedia presentations based on their outdoor investigations. In addition, educators attend GLOBE training workshops that equip them to use the computer program effectively in their classrooms. More than 250 students participate in wetland activities and the GLOBE program.

INDIANA

VIGO COUNTY SCHOOL CORPORATION - \$3,990
C. JEAN CHURCH, 961 LAFAYETTE AVENUE, TERRE HAUTE, IN 47804

Substitute Teacher Environmental Project

Through a program at Utah State University, Vigo County trains an in-service facilitator in water education. The facilitator then trains 20 substitute teachers in the Vigo County school system to be water education specialists so that they can teach environmental lesson plans when they substitute throughout the school district. The training workshop focuses on learning to use the Comprehensive Water Education Book, a text designed to accomplish the objectives set forth by the National Science Council. In the classroom, students study issues related to water quality, wise use of water, and non-point-source pollution. They explore those issues through learning activities based on sound, hands-on techniques of inquiry. The project reaches more than 8,000 students during the school year.



IOWA

AMERICAN WATER WORKS ASSOCIATION, IOWA SECTION - \$5,000
ANGIE MANN, 2201 VALLEY DRIVE, DES MOINES, IA 50321

Iowa Children's Water Festival

The Iowa Children's Water Festival is a one-day educational event that gives fifth graders the opportunity to learn about the important role of water in the environment. To ensure statewide participation, random regional drawings are conducted to select 1,500 students to attend the event, held at the Ankeny campus of the Des Moines Area Community College. The Des Moines Water Works is a partner in the project.

IOWA DEPARTMENT OF EDUCATION - \$4,420
DUANE TOOMSEN, GRIMES STATE OFFICE BUILDING, DES MOINES, IA 50319-0146

Nature Speaks

The Nature Speaks project develops numerous communication skills linked with experiences in the natural environment. Through the project, 26 teachers participate in a workshop designed to connect the disciplines of language arts, social studies, science, physical education, and art with ecology and understanding of environmental relationships in learning-by-doing activities. The University of Northern Iowa is a partner in the project.

IOWA RENEWABLE ENERGY ASSOCIATION - \$5,000
THOMAS DEVES, 3863 SHORT STREET, DUBUQUE, IA 52002

Iowa Electrathon

Under the Iowa Electrathon project, schools design, build, and race one-person electric vehicles. Students are involved directly in the design and construction of the cars and are involved indirectly in obtaining sponsors, arranging publicity, and project planning. More than 500 schools in Iowa — public, private, and parochial — participate in the project. Teachers attend a workshop during which they explore environmental issues and learn to build the Electrathon vehicles. The Electrathon is intended to bring attention to the environmental problems caused by conventional cars and to demonstrate the practicality of electric vehicles. Partners in the project are the Iowa Renewable Energy Association and the Center for Energy and Environmental Education at the University of Northern Iowa.

MAHARISHI UNIVERSITY OF MANAGEMENT - \$5,000
TERRY ALLEN, 1000 NORTH 4TH STREET, FAIRFIELD, IA 50556

Creating an Ecosystem: A Model K-12 Environmental Curriculum

The curriculum implementation project includes faculty training, student education, and distribution of educational material to the public. The target audience includes 650 students and faculty of the school selected for the project, as well as an estimated 200 students and teachers from other schools. The project addresses a fundamental environmental problem, the need to develop sustainable methods of agriculture, and includes a faculty workshop and

classroom and greenhouse activities. Food workers who teach the Common Roots Curriculum are partners with the university in the project.

MISSOURI & MISSISSIPPI DIVIDE RESOURCE CONSERVATION & DEVELOPMENT, INC. - \$4,560
KEITH EDWARDS, 618 PARK AVENUE, SAC CITY, IA 50583

Iowa Organic Agriculture Education Project

The Iowa Organic Agriculture Education Project increases awareness and knowledge of organic agriculture among farmers and provides them the skills they need to apply organic agriculture practices. Farmers who are converting to organic farming and others who use organic practices are the target audience. A series of six workshops provide training for more than 300 members of the farming community. The participants gain an understanding of the effects of farming practices on human health. Missouri & Mississippi Divide Resource Conservation & Development, Inc.; Golden Hills Resource Conservation and Development, Inc.; the Heartland Organic Cooperative; and the Iowa Department of Agriculture and Land Stewardship are partners in the project.

UNIVERSITY OF IOWA - \$5,000
DAVE CONRADS, E216 FIELD HOUSE, UNIVERSITY OF IOWA, IOWA CITY, IA 52242

Wild 2000, A Wildcare Project

Wild 2000, A Wildcare Project provides all children in the Iowa City Community School District (ICCS) the opportunity to participate in a week-long outdoor environmental educational experience sometime during their elementary school years. The week-long program is modeled on a wildlife camp program that focuses on various ecosystems in the area. The pilot program begins with five elementary schools, including more than 250 students and 15 teachers. The students participating are fourth, fifth, and sixth graders from a multicultural background. Partners in the project are the ICCS and the University of Iowa.

KANSAS

See page 4 for a profile of a grant awarded to the Kansas Association for Conservation and Environmental Education by EPA Headquarters.

BAKER UNIVERSITY - \$12,450
ROGER BOYD, 8TH & GROVE, BALDWIN CITY, KS 66006

Wetlands With a Vision

The Wetlands With a Vision project incorporates student and teacher training, as well as community-based education, to increase the use of an outdoor classroom by area schools. The project trains a group of volunteers as tour leaders, who then are equipped to improve awareness and understanding among the general public of the value and functions of wetlands. Under the project, pamphlets that provide check lists of birds, mammals, fish, herbs, and plants found in the wetlands are integrated into the current curriculum. Because of their locations, wetlands adjoining Haskell Indian Nations University and wetlands in the flood plain of the Wakarusa



River benefit from the program. The target audience of the project is kindergarten through 12th-grade students in the Douglas County school system.

BUTLER COUNTY COMMUNITY COLLEGE - \$3,797

JUDY CARNEY, 901 S. HAVERHILL ROAD, EL DORADO, KS 67042

Developing a Water Festival in Butler County

Under this project, a one-day water festival is held for more than 400 fourth- and fifth-grade students in Butler County. The water festival raises public awareness of the problem of non-point-source pollution in the Butler County water supply. Partners in the project are Butler County Community College and the Butler County Conservation District.

HASKELL INDIAN NATIONS UNIVERSITY - \$25,000

WILLIAM M. WELTON, 155 INDIAN AVENUE, LAWRENCE, KS 66046

Environmental Education Through Distance Learning

Haskell Indian Nations University (HINU) and the Haskell Environmental Research Studies Center are extending environmental education through distance learning for underserved American Indian audiences. The project uses satellite technology in collaborative efforts to build tribal capacity by providing formal environmental education to tribal educators and students. Teachers are trained in the use of culturally relevant material from the curricula Investigate Your Environment and Project Learning Tree. The teachers in turn reach 300 sixth-through eighth-grade American Indian students. Under the project, HINU works in cooperation with tribally controlled colleges in five states — Nebraska, South Dakota, North Dakota, Montana, Washington — and with tribes in Kansas.

KANSAS RURAL CENTER - \$4,825

JERRY JOST, P.O. BOX 133, WHITING, KS 66552

Making the Pieces Fit in Sustainable Agricultural Conference

This conference makes available effective learning opportunities in practical approaches to sustainable agriculture. It provides networking opportunities for approximately 275 farmers among the community-based farming clusters in the Heartland Network. The effort is sponsored jointly by the Kansas Rural Center and Kansas State University.

UNIFIED SCHOOL DISTRICT #323 PERRY PUBLIC SCHOOLS - \$5,000

PAULA KELLOGG, THIRD AND BRIDGE STREETS, PERRY, KS 66073

Local and Global Education to Enhance Environmental Awareness

The Local and Global Education to Enhance Environmental Awareness project prepares staff of the school district to serve as trainers in the Global Learning and Observations to Benefit the Environment (GLOBE) program and to develop an outdoor study site. More than 70 teachers are trained in the use of the GLOBE program and have access to the study site, and more than 1,000 students participate in the project. Through Internet capabilities available in all classrooms in Unified School District #323, students and staff communicate with other students, teachers,



and scientists throughout the world. Local organizations, such as scouts and Quail Unlimited, Inc., take an active role in maintaining and using the study site.

W. CLEMENT STONE NATURE CENTER - \$5,000
MARTHA BIRREL, 7240 SW 10TH STREET, TOPEKA, KS 66615

Fostering Environmental Responsibility in the Urban Environment

This project extends opportunities for environmental and outdoor activities to low-income and at-risk youth. The program is offered to 20 leaders and 430 young people, ages 8 to 14, from eight schools and two youth organizations. Approximately 66 percent of the young people participating in the project are African American or Hispanic. Student education and teacher training, with an emphasis on conservation of the natural environment, contribute to that population's appreciation of the natural world.

WYANDOTTE COUNTY HEALTH DEPARTMENT - \$6,169
JOSEPH CONNOR, 619 ANN AVENUE, KANSAS CITY, KS 66101

Project Protect: A Community-Based Program to Prevent Childhood Lead Poisoning

Project Protect uses a coordinated community-based educational process to reduce the risk of exposure to lead in high-risk families. The project director trains 34 staff members from three community-based organizations who then give presentations to three neighborhood associations and three child-development classes at local colleges. The object is to personalize educational activities related to prevention of lead-poisoning for 926 targeted families who have children six and under who live in low-income housing built before 1978.

KENTUCKY

JEFFERSON COUNTY PUBLIC SCHOOLS/MEDORA ELEMENTARY SCHOOL - \$4,964
LARRY D. HAMFELDT, P.O. BOX 34020, LOUISVILLE, KY 40232-4020

River as Giver

The River as Giver project teaches students to become global citizens, take personal responsibility for preserving the integrity of the Ohio River, and understand the influence the river has on their daily lives. The students and their teachers participate in hands-on activities at the river and at school. Students and members of the community have access to science stations set up at Riverside, a restored farmstead that reflects life in the 1800s.

KNOX COUNTY BOARD OF EDUCATION/LAY ELEMENTARY SCHOOL - \$16,238
DAVID COLE, 200 DANIEL BOONE DRIVE, BARBOURVILLE, KY 40906

Lay School Environmental Education Project

This project trains teachers to use wetlands to teach students and the community about environmental issues and to monitor the health of a wetland. Teachers are trained through workshops to use the on-site natural wetland to meet the instructional goals of the curriculum as a whole. Students have the opportunity to verify the environmental effects of pollution on



wetlands. Use of the wetland for study and research increases students' scientific knowledge and ability to use scientific methods.

MONTICELLO INDEPENDENT BOARD OF EDUCATION - \$5,000

MARGARET BROADHURST, 135 CAVE STREET, MONTICELLO, KY 42633

Outdoor Classroom/Nature Trail

This project establishes an outdoor classroom and nature trail that brings environmental education to students, school personnel, and the community. At the outdoor classroom, students participate in hands-on learning experiences that move them from a passive to an active role in the learning process. The nature trail includes a path accessible to the handicapped.

OLDHAM COUNTY BOARD OF EDUCATION - \$5,000

LINDA D'ANTONI, P.O. Box 218, BUCKNER, KY 40010

Preschool Environmental Education Center

The Preschool Environmental Education Center provides preschool children with increased knowledge of the local environment and how it is affected by various factors. Through that knowledge, the youngsters and the preschool's partners develop increased capacity to engage in community efforts to preserve their local environment. The on-site environmental education center is used extensively by 149 preschool children.

LOUISIANA

See page 4 for a profile of a grant awarded to Xavier University of Louisiana, Deep South Center for Environmental Justice by EPA Headquarters.

BIG RIVER COUNCIL CAMP FIRE - \$5,000

GWEN STEWART, 4874 CONSTITUTION AVENUE, SUITE 1E, BATON ROUGE, LA 70808

Primary Nature Trail

The Primary Nature Trail project gives inner-city youth an opportunity to acquire environmental knowledge and awareness through the written and pictorial information about trees and other plants that is provided along the path. The young people also observe and collect samples of lichens, fungi, and insects found in and around decaying logs. The nature trail includes a compost pile, a butterfly garden, and a wetland, as well as nesting boxes that allow observation of the occupants. Users of the trail also can observe bats, ducks, and birds in their natural habitats. In addition, an archaeological dig highlights fossils for observation.

LOUISIANA UNIVERSITY MARINE CONSORTIUM - \$18,060

JOHN CARUSO, 8124 HIGHWAY 56, CHAUVIN, LA 70344

Effects of Eutrophication and Hypoxia in Louisiana's Coastal Waters

The Louisiana University Marine Consortium (LUMCON), a cooperative effort of the state's 13 public universities, 6 private institutions of higher education, their governing boards, and



several state environmental agencies, sponsors this project for university-level students. The project seeks to provide such students detailed, in-depth education on the widespread and closely related phenomena of eutrophication and oxygen depletion in Louisiana's coastal waters. Students involved in the project participate in one of LUMCON's three principal programs: field trip programs that enrich regular session courses and those that are conducted during spring break and summer and courses provided under the Louisiana Alliance for Minority Participation (LAMP) Program, all of which provide the students first-hand experience in the marine environment. The target audience of the project is graduate and undergraduate students enrolled in the 19 member universities of the consortium, of which five are historically minority colleges and universities. Each year, some 400 students participate in some phase of the program.

CENLA PRIDE - \$3,800

BETTY JONES, 802 THIRD STREET, ALEXANDRIA, LA 71301

Water Quality Career Camp

The Water Quality Career Camp educates students about environmental issues to encourage their interest in environmental careers, specifically in the area of water quality. Students develop an understanding of urban storm-water runoff and its effects on aquatic ecosystems. They also attend a day camp program, conduct hands-on projects and activities, and take field trips related to water quality. A public awareness component rounds out the project.

TALLULAH ELEMENTARY SCHOOL - \$5,000

BECKY LANCASTER, 1100 JOHNSON STREET, TALLULAH, LA 71282

Outdoor Environmental Education Classroom Problem-Solving Project

The Outdoor Environmental Education Classroom project provides students an opportunity for hands-on environmental education. It includes nature trails, observation platforms, a weather station, flower and rock gardens, a water study area, ponds, bird feeders, nesting boxes, and soil study areas. The center is a vital environmental learning resource for all students and teachers in the parish.

MAINE

AROOSTOOK BAND OF MICMACS - \$3,728

FRED COREY, ENVIRONMENTAL HEALTH DIRECTOR, 759 MAIN STREET, PRESQUE ISLE, ME 04769

Environmental Workshops and Newsletters: Education, Problem Solving, and the Environment

This two-part project provides workshops for tribal youth and distributes newsletters to the tribal community. Through the three workshops provided, the young people examine issues related to non-point-source pollution, solid waste and landfills, and water quality. The two newsletters produced under the project cover environmental hazards known to affect the Micmac community. The Maine Department of Environmental Protection and the U.S. Department of Agriculture, collaborators in the development and presentation of the workshops, provide staff, educational resources, and equipment for field exercises.



AUDUBON EXPEDITION INSTITUTE - \$15,000

LISSA WIDOFF, DEVELOPMENT DIRECTOR, P.O. BOX 365, 243 HIGH STREET, BELFAST, ME 04915

Fostering a New Generation of Environmentally Literate Teachers

This project establishes a summer master's degree program in ecological literacy, which fosters a new generation of environmentally literate teachers. After preparation of curricula and course syllabi, selection and training of faculty, and planning for its field and urban segments, the program reaches 20 teachers and the students in each of their classrooms, thereby affecting as many as 400 non-traditional (working) students. The project is a collaborative effort of the Audubon Expedition Institute and Lesley College of Cambridge, Massachusetts.

BLUE HILL CONSOLIDATED SCHOOL - \$5,000

PATRICK PHILLIPS, BLUE HILL, ME 04614

Enhancing Environmental Education Through Collaboration and Inservice

The core curriculum developed under this project involves students in the care of injured wildlife and research related to the needs of those creatures and enhances awareness of endangered species, especially in the Blue Hill Peninsula and Mount Desert Island area. The project uses existing resources to integrate the subject matter into environmental education at the seventh- and eighth-grade levels. The project also provides support for kindergarten through sixth-grade curricula. Blue Hill Consolidated School conducts the project in collaboration with the Acadia Wildlife Foundation and College of the Atlantic.

NORTHERN MAINE DEVELOPMENT COMMISSION - \$17,559

ROBERT P. CLARK, EXECUTIVE DIRECTOR, P.O. BOX 779, 2 SOUTH MAIN STREET, CARIBOU, ME 04736

Household Hazardous Waste Education and Exchange Program

The Household Hazardous Waste (HHW) Education and Exchange Program provides regional workshops for citizens, businesses, industries, schools, nonprofit organizations, and municipalities in northern Maine, an area that has a population of 79,582. The project also provides workshops through which teachers and students learn about inventorying and reusing HHW, as well as reducing the amounts of such waste generated. The workshops, which reach more than 15,000 students, are conducted in conjunction with solid waste professionals in Aroostok County, local water and sewer utility districts, and the Northern Maine Solid Waste Management Committee.

MARYLAND

See page 5 for a profile of a grant awarded to the Living Classrooms Foundation by EPA Headquarters.

CENTER FOR SOCIAL ORGANIZATION OF SCHOOLS - \$5,000

ALAN RUBY, JOHNS HOPKINS UNIVERSITY, 3505 N. CHARLES STREET, BALTIMORE, MD 21218

Water Pollution Unit for 8th-Grade Science

This project works with several inner-city middle schools in Philadelphia, Pennsylvania to address the issue of water pollution and health problems related to the quality of local drinking

water. The curriculum conforms to new standards for science and environmental ecology programs established for Pennsylvania schools. Teachers learn, and then bring to the classroom, hands-on activities that examine issues related to urban water supplies, such as problems associated with older water treatment systems and old delivery systems and urban sources of water contamination. The curriculum also examines environmental careers and gives students an opportunity to explore ways to prepare for a future in environmental science.

CHESAPEAKE AUDUBON SOCIETY - \$3,799

RICHARD LEADER, 11450 AUDUBON LANE, EASTON, MD 21601

Environmental Education and Career Exposure for Adjudicated Youth

Pickering Creek Environmental Center works with a residential program for male adjudicated students, all from low-income families, to provide environmental education. The course provides the 24 students in the program with a positive introduction to the outdoors and builds their communication and teamwork skills. Through classroom programs, field trips, and schoolyard habitat programs, the project gives the students the opportunity to explore environmental careers and involves them in hands-on projects that directly improve the environment. Under the program, students earn credits toward their high school diplomas. The project is a partnership effort of the Chesapeake Audubon Society, which owns and operates the environmental center, and Bethany House.

MARYLAND FORESTRY BOARD FOUNDATION - \$5,000

MICHAEL GRANT, P.O. BOX 4205, ANNAPOLIS, MD 21403

Forest Conservation and Natural Resources Career Week

The Forest Conservation and Natural Resources Career Week program brings environmental education to 48 high school students attending a one-week summer camp. Applicants, two from each county in the state, are selected through a competitive interview process. The camp, developed for students interested in pursuing careers in forestry or other natural resource management fields, is located on 100,000 acres of the Savage River State Forest. Teams of eight students each use their newly acquired skills to perform an environmental analysis of an assigned tract of land and solve a complex environmental problem.

MONTGOMERY COUNTY GOVERNMENT - \$5,000

BOYD CHURCH, 101 MONROE STREET, 4TH FLOOR, ROOM 410, ROCKVILLE, MD 20850

Clean Streets, Clean Streams Program

The Clean Streets, Clean Streams Program educates the community about the effects of non-point-source pollution, particularly the improper disposal of waste automotive fluids, on the region's public drinking water. Program materials, available in Chinese, Korean, Spanish, and Vietnamese, describe methods of catching leaks and spills, as well as proper cleanup and disposal of contaminated materials. They are displayed at the county's Ethnic Heritage Festival and at the county fair. In addition, the availability of the materials is announced on radio broadcasts, and they are distributed in educational packages.



SOUTHERN MARYLAND RESOURCE CONSERVATION AND DEVELOPMENT, INC. - \$364
 KEN HAFNER, 303 POST OFFICE ROAD, SUITE B4A, WALDORF, MD 20602-2702

Nanjemoy Creek Environmental Education Center Meadow Habitat

Under this project, 150 disadvantaged youth, grades five through eight, are establishing an improved meadow habitat at Nanjemoy Creek Environmental Education Center. The students also study aquatic, tidal marsh, river shoreline, upland woods, and meadow habitats to learn how the environmental quality of the creek affects the ecosystem of the Chesapeake Bay.

MASSACHUSETTS

See page 5 for a profile of a grant awarded to the Massachusetts Audubon Society by EPA Headquarters.

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

Youth Educators for Asthma Prevention

This project is conducted in Roxbury, an impoverished city of 60,000 residents, 90 percent of whom are people of color. Roxbury has the highest rate of asthma in Massachusetts. A corps of 16 to 24 Roxbury youth, ages 14 to 21, are trained in two after-school sessions. They then design workshops, skits, handouts, and other outreach devices to share their knowledge with other youth, teachers, and adults in their community. All materials developed are compiled into a manual on asthma that is distributed to educators in Boston.

CAMP FIRE COUNCIL FOR EASTERN MASSACHUSETTS - \$5,000
 CYNTHIA BEAUDOIN, 108 UNION WHARF, BOSTON, MA 02109-1281

WorldWise

In eastern Massachusetts, the WorldWise project, a national effort of Camp Fire Boys and Girls, has five learning objectives: The Ecosystem; Limiting Factors; Habitat and Niche; Matter and Energy Flow in Ecosystems; and Succession. Staff of 15 licensed urban after-school programs, including several in Boston and Cambridge, and of suburban programs participate in workshops and community service activities. Using a written survey, the 30 workshop participants evaluate presentations that are provided to an average of 375 children each year.

CENTER FOR ECOLOGICAL TECHNOLOGY, INC. - \$5,000
 NANCY NYLEN, 112 ELM STREET, PITTSFIELD, MA 01201

Environmental Teleconference Project: River Awareness and Action

This project actively engages students at four high schools and two colleges in investigating the environmental condition of the Hoosic River. The project builds local capacity by expanding educational programming and increasing awareness on the part of the general public of issues that affect the watershed. The project broadcasts educational television programming to approximately 14,000 households and culminates in an interactive teleconference among participating schools. The project is a collaborative effort of the Center for Ecological Technology, Inc.; the Hoosic River Watershed Association; and the Northern Berkshire Community Television Corporation.



CHELSEA HUMAN SERVICES COLLABORATIVE - \$5,000
EDWARD MARAVKOVITZ, 300 BROADWAY, CHELSEA, MA 02150

Environmental Issues in Chelsea: Capacity-Building for Informed Decisions and Responsible Action

Environmental Issues in Chelsea provides an educational conference focused on four recent reports about environmental concerns that affect Chelsea, a low-income city at high risk for environmental problems, including lead poisoning and conditions that cause or aggravate asthma in children. The target audience includes 100 community leaders in Chelsea, of whom 50 percent are low-income and 50 percent are Hispanic. Further, 25 percent of that audience are youth leaders, and 10 percent are public officials. An additional 1,000 people, of a similar demographic composition, are targeted through the public media. Key partners in the project are the Environmental Diversity Forum, the Bridge School of Chelsea, the Massachusetts Toxics Campaign Fund, the Chelsea *Record*, and the Spanish language newspaper *El Mundo*.

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

Schoolyard Orchard Outdoor Classroom

The Schoolyard Orchard Outdoor Classroom project expands Earth Works Project, Inc.'s efforts to encourage teachers and young people to plant and care for fruit and nut trees, shrubs, and vines and to teach them about food production and ecosystems. The project provides 30 hands-on activities organized according to several themes or units and field-tests and evaluates the materials as they are used by at least 12 teachers and 200 students. The project also provides a curriculum handbook for the training of 40 teachers of primarily low-income students in kindergarten through grade six in the use of schoolyard urban orchards. Approximately 800 students are involved directly in the project.

FALMOUTH PUBLIC SCHOOLS - \$5,000
JOAN MULLER, 340 TEATICKET HIGHWAY, EAST FALMOUTH, MA 02536-6527

Adult Basic Education Focusing on Groundwater and Pollution Issues

This project improves and enriches the current science curriculum of the Adult Basic Education (ABE) program by adapting a groundwater and pollution course for ABE students and distributing the materials to other programs on Cape Cod, where concerns about groundwater pollution are particularly high because of the Superfund hazardous waste site at the Massachusetts Military Reservation. The primary goal of the project is to educate 15 adult-education instructors and 120 adult learners who, lacking high school diplomas, are marginally employed or unemployed. The learning program includes hands-on activities and reading and writing assignments. The participants also keep journals.

HOLLAND ELEMENTARY SCHOOL - \$1,190
DEBRA BENVENISTE, TOWN HALL, P.O. BOX 170, HOLLAND, MA 01521

Environmental Fair Day at Lake Siog

The Environmental Fair Day project is a day-long series of workshops: Life of the Forest Floor, Life of the Pond, Life of the Beaver Dam, Wetland Identifiers, and The Night Sky. Serving



approximately 100 to 150 people, including 70 children, the workshops help participants develop awareness of indicators of both health and distress for wetland areas, ponds, and forests. Some individuals are trained to provide the workshops to other audiences. Partners in the endeavor include the Holland Park Commission, The Hitchcock Center for the Environment, the Planetarium at Amherst College, and the Massachusetts Division of Fisheries and Wildlife.

NORTHEAST SUSTAINABLE ENERGY ASSOCIATION - \$17,700
NANCY HAZARD, 50 MILES STREET, GREENFIELD, MA 01301

Journey to the Future: Elementary Education for Pollution Prevention and Sustainable Living

This project provides a set of curriculum materials focused on technologies and behaviors that create a sustainable society. The project provides an interactive educational booklet for elementary school students and a teacher guide that focuses on the everyday decisions and actions that people make as individuals. In addition, educators from New York and New Jersey attend workshops on the use of the materials. The project provides a vision of sustainable living and decision making that fosters pollution prevention. Partners in the public and private sectors, including environmental educators, work with the Northeast Sustainable Energy Association in developing and delivering the curriculum materials.

PARKER RIVER CLEAN WATER ASSOCIATION - \$5,000
DAVID C. MOUNTAIN, P.O. BOX 823, BYFIELD, MA 01922

Schoolyard Ecology for the Parker River Basin

This project expands a program developed under a 1995 grant from EPA by the Triton Regional School District. It provides 10 elementary school teachers a five-day summer workshop and follow-up activities on the subject of watersheds. The training assists teachers in using hands-on, inquiry-based learning and is designed to increase their knowledge of organisms and environments in their communities.

THOMPSON ISLAND OUTWARD BOUND - \$5,000
CAROL NUGENT, DIRECTOR OF DEVELOPMENT, EDUCATION CENTER, P.O. BOX 127, BOSTON, MA 02127

Summer Institute for Interdisciplinary Science-Based Learning

This program increases the use of hands-on environmental teaching strategies in the public schools of Boston. The program serves 26 public school teachers and 60 public middle school students, 85 percent of whom are people of color. Through the six-week Outward Bound Summer Institute, the teachers participate in a five-day seminar to learn pedagogy and in expeditions in Boston Harbor to learn about their marine environment. The teachers then develop curricula based on Boston Harbor that they use in summer school and in their public school classrooms.

WESTPORT COMMUNITY SCHOOLS - \$17,558
LANA M. PAOLILLO, 17 MAIN ROAD, WESTPORT, MA 02790

Finfish Restoration Project

Under the Finfish Restoration Project, students and teachers work together to breed and raise three species of fish including scup, black sea bass, and winter flounder, in closed saltwater



recirculation systems and to restock the waters in the area. The project involves 150 students in 8th grade and 100 students in 10th through 12th grades in two schools, all of whom participate in site visits between the schools, share data, and give presentations on their work. The project is a collaborative effort of Durfee High School in Fall River and Westport Middle School in Westport.

WESTPORT RIVER WATERSHED ALLIANCE, INC. - \$5,000

GAY GILLESPIE, 1151 MAIN ROAD, P.O. BOX 3427, WESTPORT, MA 02790

Watershed Education Program

The Watershed Education Program (WEP) provides an interdisciplinary curriculum that focuses on watershed ecology and encourages students to become stewards of their fragile environment. WEP targets approximately 90 teachers and 1,328 students in kindergarten through eighth grade. Current efforts ensure that the WEP curriculum kits are fully integrated into the classroom program by providing additional kits to schools at which entire grades previously shared a single kit and by conducting workshops that increase the confidence of teachers in their ability to lead students through the WEP activities. The Westport River Watershed and Westport Community Schools have been partners in the program for several years.

MICHIGAN

See page 5 for a profile of a grant awarded to the Global Rivers Environmental Education Network by EPA Headquarters.

ARAB COMMUNITY CENTER FOR ECONOMIC AND SOCIAL SERVICES - \$20,060

KATHYRN SAVOIE, 2651 SAULINO COURT, DEARBORN, MI 48120

Youth Empowerment Project

The Youth Empowerment Project seeks to create environmental awareness in an Arab American community located in southeast Michigan and to encourage community action on local issues that involve environmental justice. The program targets youth ages 12 to 19 who are members of an Arab American community of 250,000. Experts give monthly presentations on issues related to environmental justice at middle schools and high schools, and at meetings of youth groups, as well. Under the project, approximately 15 youth participate in the Rouge River Flood Plain Ecology Program at the University of Michigan, while 10 others participate in the Young Naturalist Program at the university. The Arab Community Center for Economic and Social Services also organizes and coordinates a two-month summer program of environmental education activities. Students conduct an in-depth study of the Rouge River ecosystem, access environmental data on line to share with members of the community, produce an environmental newsletter, and distribute the newsletter to 800 households in the immediate area.

CITY OF ANN ARBOR - \$4,888

CHERYL SAAM, 1831 TRAVER ROAD, ANN ARBOR, MI 48105

Taking Action in Recycling

Taking Action in Recycling provides 19 full-day field trips for students in area schools. Through the field trips, approximately 1,140 students become familiar with the recycling process and



learn how to implement recycling programs at their schools. Each field trip begins at the Leslie Science Center, where staff members introduce the concepts of natural cycles, ecosystems, and interdependency. Students participate in hands-on activities, nature hikes, simulation games, and group discussions. They then have the opportunity to see recycling in action at the Solid Waste Department's material recovery facility. After the field trip, students and teachers receive recycling boxes and are encouraged to establish recycling programs in their schools. The Leslie Science Center and the City of Ann Arbor Solid Waste Department work in partnership to sponsor the project.

CRANBROOK EDUCATIONAL COMMUNITY - \$4,962

MICHELLE GOYETTE, 1221 N. WOODWARD AVENUE, BLOOMFIELD HILLS, MI 48303

Understanding Honey Bees

Under this project, the Cranbrook Institute of Science seeks to significantly improve its honey-bee education program. The institute uses the program to educate student groups and the general public about the value of the honey bee population and the risks that population currently faces in the environment. Through the program's outreach effort, educators travel to schools in the Detroit area to teach more than 400 students about insects and honey bees. Cranbrook also trains 20 junior-high and high-school students as volunteers at its nature center and assists in educating the public about the honey bee population. Volunteers research the honey bees at the Cranbrook Educational Community and then use the Internet to share the information they have gathered with other institutions. More than 2,000 students and 100 teachers participate in educational activities at the nature center.

INLAND SEAS EDUCATION ASSOCIATION - \$4,975

THOMAS KELLY, 101 DAME STREET, SUTTONS BAY, MI 49682

Virtual Schoolship

The World Wide Web site developed by the Inland Seas Education Association (ISEA) under this project expands and enhances ISEA's education program entitled "Schoolship." Through the "virtual schoolship," students who are unable to participate in the education programs offered on board ISEA's research vessel can take part on line. Students can download and manipulate data, request specific information, and ask questions of Schoolship professionals and other Schoolship participants. They are challenged to navigate through the Web site, perform virtual testing and sampling, view pictures, and record observations. The Web site also facilitates students' participation in the Schoolship program's pre- and post-activity evaluations and helps them apply their knowledge to their own communities.

LAKE SUPERIOR STATE UNIVERSITY - \$5,000

BILL BOWERMAN, 650 EASTERDAY AVENUE, SAULT STE. MARIE, MI 49783

Cooperative Radon Survey

Through this program, the Environmental Institute at Lake Superior State University is educating students and homeowners about radon, an environmental health hazard. More than 1,200 students in grades 5 through 12, many of whom are Native Americans, receive age-appropriate environmental health presentations in their science classes. Through hands-on participation in desktop



environmental chemistry laboratory exercises, students are encouraged to think critically and use problem-solving techniques when learning about radon. Students and their families also participate in a home radon survey. Those homes in which high levels of radon are detected receive information about how to reduce those levels. Science teachers and the university's Internet Web site provide updates on the radon study.

MICHIGAN STATE UNIVERSITY - \$20,460

MICHAEL KLEPINGER, ROOM 334, NATURAL RESOURCES BUILDING, EAST LANSING, MI 48824

Experiential Learning Using Biological Control of Purple Loosestrife

This project focuses on control of a pest plant through the introduction into the environment of an insect predator that feeds on the plant. Personnel of Michigan State University (MSU) work with educators and students to develop a set of lesson plans for primary and secondary students on the practice of biological control, the effect of exotic species on local flora and fauna, the biology of purple loosestrife, and wetland ecology. Lesson plans, which are accompanied by a set of learning activities, describe methods of releasing and monitoring the plant-feeding beetle used as the biological control agent. Students are introduced to laboratory and field methods and share and compare results through an Internet site called the "purple pages." Educators receive hands-on training to support their use of the activities in their classrooms, as well as beetle-rearing kits provided by the university.

SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS - \$5,000

KATHLEEN LOMAKO, 660 PLAZA DRIVE, SUITE 1900, DETROIT, MI 48226

Educational Curriculum Package on Ozone

Under this program, two workshops train teachers throughout southeastern Michigan in the use of the Spatially Plotted Ozone Tracking System (SPOTS) software, a computer-animated program that tracks ozone formation in 16 states. The curriculum educates users about the formation and transport of ground-level ozone and provides teachers with activities they can incorporate into their lesson plans. The information booklet for teachers that accompanies the software helps improve current teaching methods and provides new approaches to education about ground-level ozone.

MINNESOTA

See page 6 for a profile of a grant awarded to Twin Cities Public Television by EPA Headquarters.

HAMLIN UNIVERSITY - \$5,000

TRACY J. FREDIN, CENTER FOR GLOBAL ENVIRONMENTAL EDUCATION, 1536 HEWITT AVENUE, ST. PAUL, MN 55104

A Thousand Friends of Frogs

Under this project, the Center for Global Environmental Education at Hamline University uses frogs as bioindicators to educate the public about the state of the environment. The center is expanding its education program into the neighboring states of Wisconsin, Iowa, North Dakota, and South Dakota. The Hamline Center for Environmental Education is



distributing 500 copies of the curriculum Frogs as Bioindicators to formal and informal educators, as well as reaching 10,000 people through an on-line education project. The program provides educators the opportunity to attend a summer workshop at which they learn how to incorporate the study guide and activities into their classroom activities. The center also maintains a World Wide Web site, manages a listserver to facilitate communication among participants, conducts an interactive Internet project that links students with experts, and provides a toll-free hotline to answer questions.

SOUTHWEST STATE UNIVERSITY - \$4,240

ELIZABETH DESY, 1501 STATE STREET, MARSHALL, MN 56258

Guidebook and Hands-on Activities Using Regional Resources

Southwest State University uses the wildlife area on its campus to promote the development of environmental education programs in local schools. Approximately 29,000 kindergarten through 12th-grade teachers and students in a 16-county area take part in the project. The university is surveying the animal populations of the wildlife area, developing pre-visit activities for students who tour the area, and developing hands-on activities for teachers to conduct with their students while they are in the wildlife area.

MISSISSIPPI

CROW'S NECK ENVIRONMENTAL EDUCATION CENTER - \$4,913

MATTHEW P. MILLER, P.O. BOX 460, TISHOMINGO, MS 38873

Summer Institute in Environmental Education

The Summer Institute in Environmental Education trains teachers in northern Mississippi to incorporate environmentally sound principles into the science curriculum, with particular emphasis placed on the recruitment of schools serving minority populations. The project is conducted by a partnership of the Biological Field Station, the Department of Biology, and the School of Education of the University of Mississippi; the North Mississippi Environmental Education Consortium; and the Crow's Neck Environmental Education Center.

JACKSON PUBLIC SCHOOLS - \$16,375

NOAH GRAY, 6190 HIGHWAY 18 W, JACKSON, MS 39209

Study of Water Pollution and Aqua-Fair

This project focuses on the dissemination of an environmental curriculum on water pollution prevention for 2,500 sixth-grade students and 50 teachers. The project trains teachers to work with students to make them conscious of the effects of water pollution. An Aqua-Fair culminating the students' learning experiences includes a number of activities that highlight a variety of issues related to water.



UNIVERSITY OF MISSISSIPPI - \$5,000

BONNIE J. KRAUSE, UNIVERSITY MUSEUMS, UNIVERSITY, MS 38677

Environmental Education Training

This project provides three "traveling trunk" programs that are based on the pine forest of northern Mississippi: Plants and Civilization; Animal Adaptation; and Soil Erosion. The programs are available for use by local classroom teachers. Each "traveling trunk" contains all the materials teachers need to present the topic to their classes.

MISSOURI

MACON COUNTY UNIVERSITY EXTENSION COUNCIL - \$5,000

WANDA EUBANK, 119 NORTH RUBEN, MACON, MO 63552

Water Quality Education for Educators

This project provides a water quality workshop for teachers, students, and informal educators from the 21-county Northeast Extension Region of Missouri. The project puts into place a train-the-trainer model that reaches at least 4,500 teachers in its first year. The 45 hours of instruction included in the workshop explore water quality issues, examine existing curricula, and strengthen program development and public education outreach skills. Among the partners in the project are the Natural Resources Conservation Service; the Mark Twain Water Quality Demonstration Project; soil and water conservation districts; and the Missouri Department of Conservation, Health, and Natural Resources.

NATIVE AMERICAN HEALTH/AIDS COALITION EDUCATIONAL DIVISION - \$16,718

SHIRLEY HOSKINS, 6025 PROSPECT, #103, KANSAS CITY, MO 64130

Native American Interactive On-Line Educational Program

The goal of the Native American Interactive On-Line Educational Program is to develop a school-based, on-line network devoted to environmental efforts conducted by Native Americans. Such efforts are designed to prevent health problems, minimize environmental injustice, and assess the health priorities of the Native American community. The program teaches the history of respect for Mother Earth to 200 students, 25 teachers, and more than 500 community members. The program eventually will be expanded to reach 400 tribes and 300 Indian-controlled schools. Partners with the Native American Health Clinic are the Selective Learning Network, a national on-line educational program, and the Kickapoo Nation School.

SENECA R-VII SCHOOLS - \$20,841

CHARLES YUST, P.O. BOX 469, SENECA, MO 64865

Habitat Patrol

The Habitat Patrol project gives students and community members the opportunity to use today's technology to expand their knowledge of environmental management. Through community-based education, the project reaches 1,437 students and more than 2,500 members of the Eastern Shawnee, Modoc, and Wyandotte tribes, as well as approximately 2,000 members of the general population. Participants learn about the technology through media modules. Further, the entire



community participates in the construction and maintenance of a water garden. The project is intended to increase all participants' knowledge and awareness of their ecosystem.

SOUTHWEST MISSOURI STATE UNIVERSITY - \$19,242
CHARLES W. EMERSON, 901 S. NATIONAL, SPRINGFIELD, MO 65804

Environmental Baseline Investigation of Fulbright Springs Watershed

The environmental baseline investigation conducted under this project assesses and maps the environmental condition of Fulbright Springs and land use patterns in the area, which is a sensitive watershed and an important source of drinking water. A workshop demonstrates the potential uses of the global positioning system (GPS) technology for representatives of local environmental groups, neighborhood associations, and public agencies. The Fulbright Springs project addresses the high-priority environmental issue of urbanization and its effects on the quality of groundwater. A primary partner in the project is the Watershed Committee of the Ozarks.

UNIVERSITY OF MISSOURI 4-H YOUTH PROGRAM - \$20,000
L. JO TURNER, 212 WHITTEN HALL, COLUMBIA, MO 65211

Streets to Streams - Water Quality Education for Youth

Streets to Streams prepares 40 professionals to be water quality trainers. The professionals in turn train 400 educators who reach 8,000 youth. The Streets to Streams curriculum, with a target audience of students ages 9 to 13, responds to the high-priority need to protect surface and groundwater. A key component of the curriculum is the inclusion of standards correlated to standards adopted by the Missouri Board of Education.

WYMAN CENTER - \$4,500
LINDA SANDERS, 600 KIWANIS DRIVE, EUREKA, MO 63025

Sunship Earth Program

The Sunship Earth Program helps participants develop an understanding of and appreciation for the relationship between people and the natural world that will lead to positive environmental actions. Sunship Earth reaches children attending schools in lower income and culturally diverse neighborhoods in which access to business, education, and health resources is limited. The program is based on a five-day camp experience. During the camp program, participants explore the process of environmental decision making. Wyman Center is a social service organization that serves children, youth, and families in lower income and culturally diverse neighborhoods.

MONTANA

MISSOULA YOUNG MEN'S CHRISTIAN ASSOCIATION (YMCA) - \$4,642
J. PORTER HAMMITT, 3000 SOUTH RUSSELL, UNIVERSITY HALL 116, UNIVERSITY OF MONTANA,
MISSOULA, MT 59801

Missoula Community Environmental Education Program

The Missoula Community Environmental Education Program is a year-round project that offers quality learning experiences in environmental education. More than 100,000 residents



of the community have the opportunity to take part in the program's outdoor sessions, during which experienced instructors lead educational activities that vary in length from one hour to one day. The instructors demonstrate and disseminate field-tested curricula developed under other programs, borrowing primarily from established sources. They focus the learning experiences on issues related to the environment and natural resources of western Montana.

UNIVERSITY OF MONTANA - \$25,000

KEN D. HUBBARD, RESEARCH ADMINISTRATION, MISSOULA, MT 59812-0002

Integrated Ecosystem Conservation Framework

The Integrated Ecosystem Conservation Framework project develops and demonstrates a new, balanced, integrative teacher training course outline for environmental education. The primary goals of the project are improvement of skills in teaching environmental subjects among middle- and high-school teachers and improvement of teacher-training skills in the same area among faculty members at the University of Montana. A pilot workshop demonstrates materials and teaches educators how to use them and evaluate them. Problems addressed through the curriculum include polarization and conflict among such environmental issues as those related to endangered species, harvesting of timber, reintroduction of bear and wolf populations, and water quality. In addressing such issues, the project focuses on teaching critical-thinking and problem-solving skills. Under long-term plans, the revised curriculum will be offered as a two- to four-credit course through the continuing education summer program at the university. Primary partners in the project are the Boone & Crockett Conservation Education Program, the Western Montana Ecosystem Management Learning Center Program, and the Missoula Curriculum Consortium.

NEBRASKA

CHADRON CLEAN COMMUNITY SYSTEM, INC. - \$2,709

LOIS CAWRSE, 250 MAIN STREET, CHADRON, NE 69337

Waste-In-Place & Waste: A Hidden Resource

This project provides the first teacher workshop in Northwest Nebraska related to solid waste management for 25 teachers in a three-county area. The teachers in turn present the materials to 625 students, who then share the information with their families. Partners in the project include the city of Chadron; the Forest Service, U.S. Department of Agriculture; the Nebraska Environmental Trust; and the Nebraska Department of Environmental Quality.

LINCOLN-LANCASTER COUNTY DEPARTMENT OF HEALTH - \$4,800

JOHN CHESSE, 3140 N STREET, LINCOLN, NE 68510-1514

Environmental Education for Groundwater Quality in Domestic Water Wells

This project builds upon the Lincoln-Lancaster County Department of Health's (LLCDH) Groundwater and Environmental Self-Help Check List Program. With a target audience of rural homeowners, acreage owners, and farmers, as well as high school students, the project educates participants about groundwater quality and protection of that resource and demonstrates how to evaluate the adequacy of domestic water wells. The curriculum unit



introduces hydrology, describes methods of installing wells, and teaches participants how to check the quality of groundwater. The unit is available to teachers and other adults for use in supplementing the well check list. Partners in the project are LLCDH, the lead agency; the state's Department of Health; and the University of Nebraska.

NEBRASKA STATE 4-H CAMP - \$4,960
BERNIE LORKOVIC, P.O. BOX 87, HALSEY, NE 69142

NatureLink, Family Outdoor Education Weekend

NatureLink provides a meaningful outdoor educational experience to urban and suburban families from low-income and culturally diverse backgrounds. The program, presented over a three-day weekend, includes workshops organized as family "Learnshops," during which parents experience the outdoors with their children. Such intergenerational participation reinforces the message that natural resources must be protected for future generations. Mentors work with families during the weekend and make a commitment to keep in touch with the families after the program has ended. Partners in the program are the Big Brothers and Big Sisters organizations, whose members work with single-parent families and at-risk youth.

NEVADA

NEVADA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES - \$4,500
JEAN MURRAY, 1550 EAST COLLEGE PARKWAY, SUITE 142, CARSON CITY, NV 89710

Wet, Wild, and Woody

Wet, Wild, and Woody is a three-part project that provides a two-day teacher workshop in water resources and conservation; a course on water issues for teacher candidates at the University of Nevada Reno; and the expansion of a World Wide Web site to include the project's activities. Under the format of traditional training in environmental education developed for the earlier Project WET, Project WILD, and Project Learning Tree, participants in the Wet, Wild, and Woody in-service workshop develop critical-thinking skills, particularly in the area of assessing the role human activities play in causing environmental pollution. The College of Education at the University of Nevada Reno is offering to 30 teacher candidates a new 15-hour course, taught by the project's facilitators and professionals from state agencies. The Web site maintained by the Nevada Department of Conservation and Natural Resources links with the water education site of Utah State University to allow professionals in the Water Planning Division to respond to questions posed by students throughout the state.

UNIVERSITY OF NEVADA LAS VEGAS - \$23,679
WILLIAM SCHULTZE, OFFICE OF SPONSORED PROGRAMS 1037, UNIVERSITY OF NEVADA LAS VEGAS,
LAS VEGAS, NV 89154-1037

Freshman Interest Groups: Mentoring, Environmental Education, and Sustainable Practices

This project organizes freshman interest groups as clusters of 15 to 25 students enrolled in the same sections of three core courses. The interest groups provide opportunities for freshman students to join upper-division students in environmental studies to develop thesis projects, as well as to work in community development with students at Crestwood Elementary School and



environmental professionals. The community involvement effort centers on creating wetlands from treated wastewater discharge. The water quality and endangered species project is designed to determine, through water quality monitoring, the feasibility of raising endangered species of fish in ponds located in the wetland. Partners in the project include the government and school district of Bolder City, the Bureau of Reclamation, and the Nevada Department of Wildlife.

WASHOE COUNTY SCHOOL DISTRICT - \$5,000

JOANNE EVERTS, 425 EAST NINTH STREET, RENO, NV 89520-0106

Project Great Basin

This project provides teacher training for 700 elementary school staff to help them integrate into all curriculum areas concepts related to the environmental and cultural diversity found in the Great Basin. The training provides a cadre of teacher trainers at each grade level in the district's 55 elementary schools. The trainers encourage teachers to include consideration of the diversity of the local region in all aspects of student learning. The purpose of such an approach is to develop in students an appreciation for environmental and cultural diversity, as well as an understanding of the need for conservation of the area's fish and other wildlife and native plants. Key partners with the school district in the program include the Biological Resources Research Center of the University of Nevada Reno; the Departments of Education and Geography at the University of Nevada Reno, University of Nevada Reno Cooperative Extension; the Washoe-Storey Conservation District; Wilbur May Museum; Nevada State Parks; the Nevada Divisions of Wildlife and Agriculture; the Bureau of Land Management, U.S. Department of the Interior (DOI); and the U.S. Fish and Wildlife Service, DOI.

NEW HAMPSHIRE

NEW HAMPSHIRE ASSOCIATION OF CONSERVATION DISTRICTS - \$5,000

R.J. DICK OBYC, 3 COOMBS ROAD, SOMERSWORTH, NH 03878-2001

New Hampshire ENVIROTHON

ENVIROTHON is a statewide, high school environmental education program in its fifth year. It builds upon the strengths of previous years with 28 registered teams totaling 13,000 students and directly involves 195 students and 28 teacher-advisors. More than 100 volunteers help conduct the program, which is open to all high school students in the state. Under the project, students study, analyze, and evaluate real-life land use problems. They then participate in a statewide competition, with winners going on to compete in the national ENVIROTHON.

NEW HAMPSHIRE PROJECT LEARNING TREE - \$5,000

ESTHER COWLES, 54 PORTSMOUTH STREET, CONCORD, NH 03301

Project Learning Tree

The Project Learning Tree pilot project develops innovative methods of delivering the project's curriculum in forest management to 11 rural public schools in the Upper Connecticut River Valley. The project is conducted in partnership with two forest product companies, Champion International Corporation and International Paper Company. It provides two workshops, including forest field trips, for 18 elementary school teachers and one for 10 secondary school teachers.



UNIVERSITY OF NEW HAMPSHIRE - \$5,000

FRANK MITCHELL OR NANCY LAMBERT, NEW HAMPSHIRE COOPERATIVE EXTENSION SERVICE,
111 PETTEE HALL, DURHAM, NH 03824

Project SERVE: Students for Environmental Resource Volunteerism and Education

Project SERVE is an environmental outreach program for high school students, who earn credit for working with conservation groups in their communities on local resource protection projects. It involves 10 to 16 students, six town conservation commissions, and two teachers in exploring such topics as functional evaluation of wetlands, monitoring of water quality, identification of sources of pollution, delineation and description of watersheds, and mapping of vernal pools. Partners in the project include Kearsarge Regional High School, the New London Conservation Commission, the Springfield Conservation Commission, and the Newbury Conservation Commission.

NEW JERSEY

See page 6 for a profile of a grant awarded to the New Jersey Department of Environmental Protection by EPA Headquarters.

CAMP VACAMAS ASSOCIATION, INC. - \$5,000

MICHAEL H. FRIEDMAN, 256 MACOPIN ROAD, WEST MILFORD, NJ 07480

GREEN YOUTH Program

Under the GREEN YOUTH Program, Camp Vacamas provides experiential education for at-risk inner city youngsters from diverse backgrounds. GREEN YOUTH educates students from Paterson's Eastside High School to become peer trainers in environmental education. Through four in-school workshops, the program teaches a corps of 20 juniors and seniors the activities, environmental concepts, and skills they need to conduct workshops for other students. Participants in the program explore important environmental issues as they acquire the problem-solving and decision-making skills that are the core of education.

CITIZEN POLICY & EDUCATION FUND OF NEW JERSEY - \$14,995

RALPH SCOTT, 400 MAIN STREET, HACKENSACK, NJ 07601

Newark Area Lead Poisoning Education, Train-the-Trainer Project

This project creates a Newark area infrastructure in lead poisoning education by training staff from 24 area organizations and agencies. The Citizen Policy & Education Fund (CPEF) works in partnership with agencies that provide services to families at high risk for lead poisoning. Staff learn to incorporate lead-poisoning prevention education into their regular work with families, thereby establishing programs in their own agencies. CPEF facilitates communication and collaboration among agencies to increase their effectiveness and provides ongoing assistance and follow-up training.



GLOBAL LEARNING INC. - \$5,000

JEFFREY BROWN, 1018 STUYVESANT AVENUE, UNION, NJ 07083-6023

New Jersey and Sustainable Development Conference

The New Jersey and Sustainable Development Conference gives middle and high school science and social studies teachers the opportunity to address the issues of sustainable development in New Jersey. The program demonstrates and distributes supplemental interdisciplinary curriculum materials developed under the New Jersey Sustainable Development Project. The project also addresses recently adopted state educational standards and provides interactive, highly motivating educational activities.

GREATER NEWARK CONSERVANCY - \$5,000

LISA LERL, 303-9 WASHINGTON STREET, 5TH FLOOR, NEWARK, NJ 07102

Water Quality Project

The Water Quality Project's goals include improving the quality of environmental education in three urban elementary and middle schools in Newark, New Jersey, by working with teachers to create an environmental education program that has the potential to become a permanent part of the three schools' programming. Teachers focus on the Hudson-Raritan Estuary, learning about the area's ecology and exploring methods of incorporating hands-on activities into their curricula. An information exchange among the three schools allows students to conduct comparative monitoring of the estuary and link the project to other statewide water monitoring programs.

HACKENSACK MEADOWLANDS DEVELOPMENT COMMISSION - \$4,995

ROBERT SIKORA, 2 DEKORTE PARK PLAZA, LYNDHURST, NJ 07071-3707

Improving Environmental Education Teaching Programs

This project employs two successful teacher training models, the summer seminar on environmental issues and an in-service training and curriculum revision meeting. The project assists teachers in the development, delivery, and institutionalization of quality environmental education programs through districtwide planning for the revision of curricula. The in-service training involves fifth- and sixth-grade teachers from schools in Hoboken in three days of training and five curriculum planning sessions. The summer session for 20 teachers is a two-week graduate level course that incorporates a variety of teaching methods, hands-on workshops, and laboratory exercises, as well as a mock public hearing that serves as a problem-solving exercise.

NORTH ARLINGTON BOARD OF EDUCATION - \$1,100

LORIS CHEN, 222 RIDGE ROAD, NORTH ARLINGTON, NJ 07031

Project WET/WOW Workshop

The North Arlington Board of Education provides a one-day in-service training program to assist elementary school teachers in developing environmental lessons based on Project WET/WOW and ensuring that those lessons meet the standards for core curricula established by the state of New Jersey for various disciplines. The workshop is designed to educate teachers about critical issues related to watersheds and to improve environmental instruction in the elementary



schools of the district. Teachers are introduced to environmental lessons that can be integrated into the curriculum to meet state standards for kindergarten through fifth-grade programs.

SCHOONER CLYDE A. PHILLIPS, INC., T/A DELAWARE BAY SCHOONER PROJECT - \$5,000
MEGHAN E. WREN, 2800 HIGH STREET, PORT NORRIS, NJ 08349

The River as Classroom

This project supports environmental education sailing trips for more than 3,000 New Jersey students. The program emphasizes compatible and incompatible uses of the Delaware Estuary resource and explores the stresses on the estuary that result from daily decisions. Students in grades 4 through 12 in public, parochial, and independent schools take part in the program. The activities conducted on the schooner, as well as related preparation and follow-up experiences, encourage a heightened awareness of the interdependence of humans and the Delaware Estuary.

NEW MEXICO

SALT MISSIONS TRAILS MAINSTREET - \$3,825
SUSAN SIMONS, P.O. BOX 48, ESTANCIA, NM 87016

Estancia Landfill Reclamation Project

This project familiarizes low-income culturally distinct community groups with the environmental hazards posed by an old dump site and equips them with the tools and information they need to make decisions about actions they should take to resolve the problem. Students and science teachers use new curriculum material and meet with experts in waste management from local public agencies and private industry. The curriculum materials developed under the project are easily adaptable for use in other school districts.

NEW MEXICO MUSEUM OF NATURAL HISTORY & SCIENCE - \$4,860
KRISTIN GUNCKEL, 1801 MOUNTAIN ROAD NORTHWEST, ALBUQUERQUE, NM 87104

Econnections Environmental Education Project in Rural New Mexico

This comprehensive project helps to build state and local capacity to deliver quality environmental education by providing school districts with a continuum of environmental education programs. It improves instructional strategies in environmental education by providing teachers with curriculum and workshops that reflect efforts in the state to achieve education reform. The project also provides students and teachers a means of examining and developing an understanding of environmental issues in their own communities.

LA PLATA MIDDLE SCHOOL - \$5,000
TOM SWEITZER, 2810 N. SWAN STREET, SILVER CITY, NM 88061

La Plata's Plot to Improve Urban Arroyo Healthy Riparian System

Drawing on data from an inventory survey of sites, this project creates maps that depict the information collected through that survey. It is replacing nonnative species of plants and installing a nature trail and an in-stream structure to catch sediment and pond water. The project also provides a video that documents the process of restoration at the site.



RECURSOS DE SANTA FE - \$4,901

KESSA SHIPLEY, 826 CAMINO DE MONTE REY, A-3, SANTA FE, NM 87505

Gonzales Elementary G-SCAPE II - Model Water Conservation Education Project

This project addresses critical environmental issues in high desert areas where water is in very short supply and the levels of human population are skyrocketing. The project is designed to increase awareness of such issues and develop a heightened sense of responsibility for conserving water. To measure the effectiveness of the program, the use of educational materials related to water issues and the comments of students and parents are tracked.

FRIENDS OF THE RIO GRANDE NATURE CENTER - \$5,000

KAREN BROWN, 2901 CANDELARIA NORTHWEST, ALBUQUERQUE, NM 87107

Aquatic Education Workshops

Friends of the Rio Grande Nature Center is a cooperative, long-term, citizen project dedicated to gathering and sharing information about the ecological conditions of the Rio Grande and its riverside forest ecosystem. The project examines the plants and animals of the bosque and explores the ways in which their evolution has been changed by human activity. Environmental educators participate in aquatic ecology workshops that expand existing curricula to focus on aquatic resources and the need to protect, maintain, and study those resources.

NEW YORK

CITIES IN SCHOOLS - NEW YORK, INC. - \$5,000

DONNA GOODMAN, C/O METROPOLITAN CORPORATIVE ACADEMY, 362 SCHERMERHORN STREET, BROOKLYN, NY 11217

Education Reform

This project creates a comprehensive environmental science program based on the urban ecology of Brooklyn for students at a public alternative high school in Brooklyn. The project links and expands an environmental science curriculum and a summer woodlands restoration program conducted in Brooklyn's Prospect Park. The project also meets requirements established by the state and city for science programs, gives students experience in scientific research, educates young people to value and protect public parks and woodlands, and provides an introduction to environmental careers.

CITY PARKS FOUNDATION - \$4,500

CARRIE MESSENGER, 830 FIFTH AVENUE, NEW YORK, NY 10021

SEED: Schoolyard Environmental Education Directive

This project provides hands-on schoolyard gardens in the Chancellor's district, where a group of the lowest-performing public schools in the city is located. The premise of the program is that engaging students in a hands-on gardening program will help them become more aware of environmental issues. The gardening program also builds self-esteem, reinforces literacy education, increases literacy, helps educators improve their teaching skills, and forges special relationships with the neighboring community. For many of the students in the first targeted



schools, the project provides their first opportunity to experience the natural world. The project is conducted by the City Parks Foundation under a new partnership with the New York City Board of Education.

COMMUNITY ENVIRONMENTAL CENTER - \$24,000

RICHARD M. CHERRY, 22-09 QUEENS PLAZA NORTH, LONG ISLAND CITY, NY 11101

Preparing Youth to Create a Better Environment

This project integrates environmental education into community service projects for New York City teenagers. Supervised groups of teenagers design, implement, and evaluate community service projects focused on urban environmental health. Community workshops examine the environmental health issues that affect economically and ethnically diverse communities in Manhattan and Queens. In addition, staff of partner organizations are trained in environmental education and urban environmental issues. Partners in the project with the Community Environmental Center are the Young Men's Christian Association (YMCA) and the Jacob Riis and Grand Street settlement houses.

CORNELL COOPERATIVE EXTENSION OF WARREN COUNTY - \$4,687

LAUREL R. GAILOR, SCHROON RIVER ROAD, HCR 02, BOX 23B, WARRENSBURG, NY 12885-9601

Warren County Watershed Education Program

The Warren County watershed education program conducts outreach efforts and provides educational activities to improve public awareness of the importance of water quality in Warren County. The program accomplishes that objective through a two-day workshop for representatives of the lake association. The workshop focuses on the hydrology of the region and teaches strategies for fostering cooperative efforts to resolve issues that affect the watershed. Another 10 workshops are designed to provide the specific information that local government officials need to support effective decisions about such issues. In addition, county science teachers attend a one-day workshop to learn about planning issues related to the watershed. Partners in the project include the Warren County Soil and Water Conservation District, the Lake Champlain-Lake George Regional Planning Board, the Cornell Cooperative Extension of Warren County, and the Warren County Water Quality Strategy Committee.

COUNCIL ON THE ENVIRONMENT, INC. - \$5,000

MICHAEL ZAMM, 51 CHAMBERS STREET, ROOM 228, NEW YORK, NY 10007

Training Students to Organize - Academy of Environmental Science in East Harlem

The Council on the Environment educates high school and intermediate school students to organize environmental improvement projects in their schools. The council provides its Training Student Organizers program to the Academy of Environmental Sciences, a public school in East Harlem for grades 7 through 12. The project educates students and their teachers to organize projects to teach other students, parents, community leaders, and the public about the threats to human health posed by environmental pollution, especially the effects of such pollution on young people.



THE CROTON ARBORETUM & SANCTUARY, INC. - \$5,000
EVELYN H. SINGER, P.O. BOX 631, CROTON-ON-HUDSON, NY 10520

Environmental Education: Water Monitoring

This project, part of a more extensive effort to provide an innovative outdoor learning environment, focuses on a threatened wetland on the grounds of the arboretum. The program recruits and trains the trainers who learn the skills and knowledge needed to deliver effective educational experiences. Through training workshops and seminars, community leaders, teachers, faculty, and students learn to collect and interpret data from established sampling sites in the biologically diverse wetland. They also develop wetland education programs and train new participants as they enter the program. The project expands the arboretum's collaborative partnership with the local school district and establishes a new partnership with municipal environmental boards and commissions.

HIGH SCHOOL FOR ENVIRONMENTAL STUDIES - \$5,000
ROBERT MASLOW, 444 WEST 56TH STREET, NEW YORK, NY 10019

High School Course in Environmental Justice and Decision Making

The High School for Environmental Studies (HSES) provides a one-year course in environmental justice to high school students. Subjects included in the course are environmental history, economics, ethics, politics, racism, decision making, urban planning, and urban design. The project also makes available a curriculum guide, a textbook, and a list of resources for the study of environmental justice and decision making, as well as an annual publication, *Environmental Justice*, which is written and edited by students. A network of supportive organizations and individuals outside the school serve as resources to provide insight into environmental careers, politics, and economics. Queens College is a partner in the project.

INSTITUTE OF ECOSYSTEM STUDIES - \$14,586
MARTHA CHED, BOX R, ROUTE 44A, MILLBROOK, NY 12545

Building Watershed Bridges

Building Watershed Bridges establishes a network of schools and resource partners to develop, coordinate, and sustain watershed education in the mid-Hudson Valley. The project also develops an organized and accessible clearinghouse of educational resources related to watershed issues. Resource partners provide workshops and other support for educators working to involve students in watershed stewardship projects. Students in rural, suburban, and urban schools share their experience, as well as information about issues related to the watershed, and collaborate in conducting watershed stewardship projects.

JEWISH COMMUNITY CENTER OF STATEN ISLAND, INC. - \$5,000
LEWIS STOLZENBERG, 475 VICTORY BLVD., STATEN ISLAND, NY 10301

Forever Green: Lessons to Live by from the Staten Island Greenbelt

Forever Green improves the environmental knowledge and teaching skills of camp staff, enabling them to understand issues related to the protection of habitat as they affect open areas and natural resources on Staten Island. More than 30 counselors learn how to integrate hands-on environmental



activities into their camp programs. They also learn how to engage campers in testing of soil, water, and air quality; restoration of native plants; and nature identification games. The program is designed to improve the young people's ability to apply critical-thinking skills to issues related to the interrelationships among living things and the role of the greenbelt in the urban ecology of Staten Island. High Rock Park, a public park on the island, is a partner in the project.

LAKE GEORGE ASSOCIATION - \$5,000

MARY ARTHURBEEBE, P.O. BOX 408, LAKE GEORGE, NY 12845

Reaching New Heights, Floating Classroom

This project improves a program designed to educate every seventh grader in the Lake George area in stewardship of the lake and science topics related to the lake's environment. The program, which combines on-shore learning and hands-on activities on the lake, teaches students basic limnology and gives them an understanding of the importance of the watershed that surrounds Lake George. Students learn about nutrient cycles and the oligotrophic status of the lake. Through various activities, they come to understand the role of the lake as the source of drinking water for the area and to assume stewardship for the lake. The program takes students through the learning activities during the fall, the optimum time of the year for limnological studies, and teaches the economic and ecological importance of the lake in the lives of area residents.

NUNATAKS, LTD./GREENBURGH NATURE CENTER - \$5,000

WILLIAM LAWYER, 99 DROMORE ROAD, SCARSDALE, NY 10583

Riley Pond Community Environmental Education Project

The Riley Pond Community Environmental Education Project educates members of the community of Fairview about the problems and promise of Riley Pond, a polluted natural resource in the heart of the low- to moderate-income, culturally diverse community. The project focuses on environmental justice and community education. It offers young people in the community the opportunity to learn field and classroom research techniques and skills in collection and analysis of data and fosters an intergenerational collaborative relationship between fifth- and seventh-grade students and senior citizens. If results of the community's research effort indicate that revitalization of the pond is practicable, the project will develop a plan for doing so. The Riley Pond project is a partnership effort of the Fairview-Greenburgh Community Center (FGCC) and the Greenburgh Nature Center.

PUTNAM/NORTHERN WESTCHESTER BOARD OF COOPERATIVE EDUCATIONAL SERVICES - \$5,000

DONNA L. SCHROETER, 200 BOCES DRIVE, YORKTOWN HEIGHTS, NY 10598

Environmental Education Kits

The Putnam/Northern Westchester Board of Cooperative Educational Services (BOCES) provides five environmental kits, each focused on a different ecosystem and supported by a strong teacher training component. The kits include extensive instructional and educational materials and a teachers' guide that suggests activities that help students learn about the value of ecosystems, the roles humans play in bringing about change in ecosystems, and issues that affect ecosystems. An advisory committee made up of teachers, curriculum specialists, project coordinators, and a member of the staff of the project's partner organization oversees development



of the kits. The kits are used by district schools and in training sessions and are distributed to teachers on request. The Center for Environmental Education is a partner in the project.

RACHEL CARSON INTERMEDIATE SCHOOL - \$5,000
LAUREN GEZZI, 46-2 COLDEN STREET, FLUSHING, NY 11355

A Family Affair: A Source-Reduction Educational Program

This project uses environmental education to nurture and develop critical thinking and problem-solving skills as students, parents, and members of the community learn how to avoid toxic substances commonly found in the household. Graphs and charts support the effort to reach first-generation immigrant children and families who have poor English language skills. The families receive information about household toxins and alternative products they can choose. Cooperative learning, team teaching, and learning through drama are employed to help students discover the hazards of household toxins and develop a personal responsibility strategy.

ROGER TORY PETERSON INSTITUTE OF NATURAL HISTORY - \$5,000
MARK BALDWIN, 311 CURTIS STREET, JAMESTOWN, NY 14701

The Training Partnership Project

The Training Partnership Project provides staff development in nature and environmental education for pre-schools, child care centers, and kindergartens. The project disseminates the NaturKind training model, which features methods of teaching about the environment and nature in age-appropriate ways, through workshops for early childhood educators. The instructors in turn strive to prepare local "training associates" who then organize workshops for their peers. The NaturKind workshops target Headstart centers, subsidized children's centers, and state pre-school programs in northern Chautauqua and southern Erie counties. The Roger Tory Peterson Institute and Pacific Oaks College are collaborators in the project.

SENECA NATION OF INDIANS - \$4,950
LIONEL R. JOHN HEALTH CENTER, P.O. Box 500, SALAMANCA, NY 14779

Asthma Education and Prevention

The Asthma Education and Prevention Project of the Seneca Nation Health Department (SNHD) focuses on the training of health-care providers, health educators, and asthma patients and their families. The goal of the project is to increase awareness among patients and their families of effective means of preventing and managing asthma. Training in prevention and management of asthma is provided to medical staff and health-care professionals. An Asthma Education and Prevention Day at each SNHD center focuses on prevention and management, as well as issues related to indoor air quality. The SNHD maintains a referral system for arranging for the conduct of environmental assessments, as well as a resource library on the subject.

STATE UNIVERSITY OF NEW YORK (SUNY) AT MORRISVILLE - \$4,987
DOUGLAS J. NELSON, P.O. Box 901, MORRISVILLE, NY 13408

Developing Environmental Decision-Making Skills for Urban Youth

This project provides an environmental decision-making workshop for 9th and 10th graders from the Syracuse metropolitan area. Approximately 75 youths participate in a one-day



workshop that involves them in identifying local environmental issues and the data needed to support decisions about those issues. Workshop participants demonstrate their understanding of the effects of releases of pollutants into selected environments and use the critical-thinking skills they have developed by taking part in a public meeting. The Central New York Regional Minority Access Consortium is a partner in the project with the State University of New York (SUNY) College of Agriculture and Technology at Morrisville Environmental Training Center.

SURPRISE LAKE CAMP - \$5,000

ADAM BENDERSON, 50 WEST 17TH STREET, 7TH FLOOR, NEW YORK, NY 10011

Camp Staff Training Program

The Camp Staff Training Program supports a camp training program for Jewish residential camps in the eastern United States. The project is designed to increase environmental expertise among counselors and nature specialists by teaching them how to conduct environmental education programs. The informal educators who staff the camps attend workshops led by experts in the field, who train the participants in delivery of programs and activities. The participants also learn to integrate environmental ethics into various aspects of camp life. They receive information about practical lessons and activities, a manual, and a song book to help them implement the programs in their camps.

NORTH CAROLINA

COLBURN GEM & MINERAL MUSEUM - \$5,000

CASSANDRA H. LOVE, P.O. BOX 1617, ASHEVILLE, NC 28802

You Have the Power

This project focuses on designing, demonstrating, and distributing an environmental education unit matched to a fifth-grade curriculum. Workshops for 26 teachers examine environmental issues related to the production and use of energy, as well as issues that arise from pollution associated with energy production.

MOUNTAIN AREA GARDENERS IN COMMUNITIES - \$5,000

MORT JONAS, P.O. BOX 168, ASHEVILLE, NC 28802

Environmental Education Center in the Garden

The Environmental Education Center in the Garden provides students with outdoor hands-on environmental experiences that demonstrate the relationships between environmental science and garden ecosystems. In addition, 36 teachers participate in a series of workshops consisting of hands-on environmental lessons that enable them to teach the basic techniques of organic gardening and related environmental topics. A series of seminars and workshops for the general public provides information about topics of interest to the community.



OHIO**CASE WESTERN RESERVE UNIVERSITY - \$4,988****GLENN ODENBRETT, 10900 EUCLID AVENUE, CLEVELAND, OH 44106***Watershed Education*

The Watershed Education Project seeks to educate more than 200 students, primarily African American, enrolled in a local underserved school district. Case Western Reserve University recruits, trains, and deploys a corps of 10 student environmental leaders who serve as role models and liaisons between the school district and the environmental education organizations that are partners in the project. The student leaders educate other students about watersheds, water quality, and water pollution. Students engage in hands-on activities and experiments in the classroom and visit the partner environmental education organizations to apply the knowledge they have acquired. The university also integrates hands-on watershed education activities into pre-college summer programs for minority students. Through environmental service learning projects, students monitor water quality and evaluate contamination of soil.

ENVIRONMENTAL EDUCATION COUNCIL OF OHIO - \$25,000**DEB YANDALA, 397 W. MYRTLE AVENUE, NEWARK, OH 43055***Ohio EE 2000 - Building State Capacity*

This project implements a statewide strategy for building environmental education capacity in Ohio. It promotes interdisciplinary environmental education that conforms with the current education reform efforts in the state. Under the project, a broad-based planning group develops and implements a statewide strategic environmental education plan, incorporates current research related to reform-based education and comparative risk into the plan, distributes the plan statewide for comment, and forms work groups to implement the plan. Participants in the project include policy makers, educators, representatives of business and industry, members of citizen groups, and staff of state agencies. Partners in the project are the Environmental Education Council of Ohio, the Ohio Alliance for the Environment, the Ohio Department of Education, the Ohio Department of Natural Resources, and the Ohio Environmental Protection Agency.

ENVIRONMENTAL MOBILE UNIT - \$5,000**SHARON EDWARDS, 5431 TALLAWANDA LANE, OXFORD, OH 45056***The M.O.L.E. Project*

The Measuring Our Local Environment (M.O.L.E) project is designed to strengthen the environmental problem-solving skills of both teachers and students through observation and evaluation of their local environments, as well as action to improve those environments. A naturalist from the environmental mobile unit (EMU) works with teachers to develop lesson plans that give students the opportunity to investigate a number of environmental issues, at both local and regional levels. Students gather data and exercise their problem-solving skills while learning about water quality, air quality, wildlife habitat, and soil. The naturalist also educates teachers, students, and their families about pollution; helps teachers improve their skills in teaching environmental topics; and supports the goals of the state's education reform efforts. More than 50 teachers and 1,500 kindergarten through sixth-grade students participate in the EMU program.



OKLAHOMA

KAW NATION OF OKLAHOMA - \$3,243

CHRISTOPHER WINTER, P.O. DRAWER #50, KAW CITY, OK 74641

Environmental Education Leadership Workshop Native American Land Ethic Project

The workshop is an educational tool designed to strengthen land ethics among 6th- through 12th-grade students. It helps them develop their critical- and creative-thinking skills by engaging them in hands-on activities that strengthen their ecological literacy. Further, the workshop assists educators in integrating the land ethic curriculum into their classroom programs, as well as into adult learning settings.

SOLID WASTE RESEARCH INSTITUTE - \$16,253

KEN PURDY, 111 W. SHAWNEE, TAHLEQUAH, OK 74464

Abatement of Open Dumping Environmental Education Program

This project helps students develop an understanding of the importance of clean water and soil and of the sources of pollution that are associated with improper management of solid waste. The project also enhances knowledge and awareness among students of the hazards associated with open dumping. By conducting experiments and developing demonstrations, students learn to analyze the consequences of open dumping and make informed decisions about management of solid waste in their homes and communities.

TULSA COUNTY INDEPENDENT SCHOOL DISTRICT - \$4,774

JOE BIRDWELL, 3027 S. NEW HAVEN, BOX 470208, TULSA, OK 74114-0203

Partnership to Promote Informed Decisions

Under this project, teachers and students receive curriculum kits that motivate learning and refine existing secondary curricula on issues related to ozone, and lead teachers are trained to use and distribute the kits. The materials in the kits help Tulsa's secondary students to become environmentally informed citizens and to enhance their critical-thinking, problem-solving, and decision-making skills.

FOX PUBLIC SCHOOLS - \$4,840

LINDA ANDERSON, P.O. BOX 248, FOX, OK 73435

Earth Science Project Teacher Training Workshop

This training and environmental workshop for teachers equips them with a curriculum that enables them to teach the basic concepts of earth science through the exploration of hydrocarbons. Using the curriculum, teachers help students increase their knowledge and understanding of oil and gas as important natural resources and of the effects of the production and use of those resources on the local environment.



HEART OF OKLAHOMA COUNCIL CAMP FIRE - \$5,000

VANNA PRIBBLE, 3309 E. HEFNER ROAD, OKLAHOMA CITY, OK 73131

DaKani Outdoor Environmental Classroom Project

This accredited program has a long history of providing outdoor programs to children and teens who have little access to more traditional outdoor programs. It focuses on educational experiences that equip those young people with the knowledge and skills they need to exert a positive influence for the preservation of the environment. The program incorporates basic hands-on training that teaches the young people how to observe and listen to birds and identify their habitats, identify insects, test water and soil, and explore other aspects of their environment.

MIDWEST CITY-DEL CITY INDEPENDENT SCHOOL DISTRICT - \$3,263

CHESTER WEEMS, 7217 S. E. 15TH STREET, MIDWEST CITY, OK 73110

Find Your Wings - Butterfly and Hummingbird Nature Garden

Find Your Wings gives both teachers and students the opportunity to develop an outdoor living laboratory devoted to attracting butterflies and hummingbirds. Participants in the project also tag butterflies, research plants needed for butterfly habitat, and maintain the shelters at the facility. The students observe the life stages of the butterflies, as well as the habits of hummingbirds. In addition, teachers are trained to integrate the scientific information into their curriculum.

OREGON

See page 6 for a profile of a grant awarded to the Rogue Valley Council of Governments by EPA Headquarters.

LINN SOIL AND WATER CONSERVATION DISTRICT - \$4,996

SUSAN GRIES, SOUTH SANTIAM WATERSHED COUNCIL, 33630 McFARLAND ROAD, TANGENT, OR 97389

Water Quality Monitoring Program

The purpose of this project is to implement a water quality monitoring program in cooperation with three teachers from Lebanon, Sweet Home, and Scio High Schools, while providing community-based education to young people and other members of the community. Under the project, participants gather data on water quality and riparian and aquatic habitats to fill gaps in data available on the area watershed. They learn about biological, physical, and chemical water quality monitoring techniques and about issues that affect the watershed and strengthen their critical-thinking and analytical skills.

McKENZIE SCHOOL DISTRICT #68 - \$14,000

JIM FANNING, 51187 BLUE RIVER DRIVE, FINN ROCK, OR 97413

McKenzie Sustainable Watersheds Environmental Education Program Development Project

The McKenzie Sustainable Watersheds Environmental Education Program Development Project engages teachers and the project's community partners in adapting existing curricula to local needs and circumstances, and integrating such curricula into the framework of the McKenzie



Sustainable Watersheds Program as practical educational exercises. The project, which reaches more than 400 students and their families, emphasizes local capacity to deliver quality environmental education through a participatory process that includes a series of teacher workshops. The project demonstrates practical ways to use environmental education programs, solidifies partnerships with the community, and sets standards for projects.

MILTON-FREEWATER UNIFIED SCHOOL DISTRICT #7 - \$4,755
DIANE GROFF, 138 S. MAIN, MILTON-FREEWATER, OR 97862

Science Technology Environmental Land Laboratory and Research Project

The Science Technology Environmental Land Laboratory and Research (STELLAR) project seeks to identify environmentally sound solutions to persistent and recurring problems in the local agricultural community. Students in kindergarten through grade 12 who participate in the STELLAR project become environmental stewards as they research the interconnectedness of management of crops, the watershed, and weeds through the project's "living classroom" approach to scientific investigation. The STELLAR project is designed to reach the area's rapidly growing Hispanic population, who make up approximately 33 percent of enrollment in the Milton-Freewater Unified School District; few such students enroll in traditional science courses.

NORTHWEST FILM CENTER - \$5,000
ELLEN S. THOMAS, 1219 SW PARK AVENUE, PORTLAND, OR 97205

Alien Invasion Film Project

Under the Alien Invasion Film Project, 75 junior and senior high school honor students from diverse economic and racial backgrounds create a 20-minute film and printed study guide that focuses on the effects of alien and invasive plant and animal species on an indigenous habitat. Through the project, students acquire a variety of skills related to scientific inquiry and process, research, community outreach, and the technical and artistic aspects of film making. The project provides a model for the certificate of advanced mastery (CAM) in the Natural Resource Systems focus area, a key component of education reform in the Portland public schools and throughout Oregon.

ORLO - \$5,000
PETE DuBOIS, P.O. Box 10342, PORTLAND, OR 97214

The Garbage Gurus

The Garbage Gurus uses the creative arts to increase understanding of environmental issues among citizens and engage them in addressing such issues. The project educates students and teachers, links schools with community organizations, and provides workshops for students during which they explore environmental careers and activism. Through the Orlo Road Show, which visits selected watersheds throughout the Pacific Northwest, 10,000 students and members of community groups experience a 45-minute musical assembly and attend workshops.



PORTLAND STATE UNIVERSITY - \$19,181

JULIE MAGERS, CENTER FOR SCIENCE EDUCATION, P.O. BOX 751, PORTLAND, OR 97207

Water Workshop Series for Teachers

The Water Workshop Series for Teachers trains educators of kindergarten through 12th-grade students to lead and facilitate the improvement of science education by establishing community, research, and education partnerships. The project offers 12 workshops to approximately 165 teachers throughout Oregon and southern Washington and brings together numerous existing public and private programs, materials, and resources in water education. Teachers have available the tools, resources, and expert guidance they need to effectively incorporate water education activities into their current curricula.

SCHOOL DISTRICT No. 1 - MADISON HIGH SCHOOL - \$4,840

JULIE HOWLAND, P.O. BOX 3107, PORTLAND, OR 97208

Madison High School Water Analysis Team

The Madison High School Water Analysis Team project provides the ethnically diverse population of Madison High School, which is 37 percent minority, with the opportunity to become involved in "real" science, build a broader understanding of water quality issues, explore careers in natural resources, and take positive action to benefit their communities. Some 30 to 90 students and two teachers participate in the project, which is intended to raise the percentage of students at Madison who take science courses from the current lowest level among Portland high schools.

SHERWOOD SCHOOL DISTRICT 88J - \$11,130

JANET BECHTOLD, 23295 So. SHERWOOD BLVD., SHERWOOD, OR 97140

Sherwood Sustainable Community Education Initiative

The Sherwood Sustainable Community Education Initiative promotes interdisciplinary environmental education by making available a reproducible model that demonstrates the benefits of sustainable development and fosters partnerships among schools, environmental groups, businesses, and government. The three primary activities offered under the project are a pilot teacher training workshop that provides information about innovative trends in environmental and sustainability education and curricula in use throughout the nation, pilot projects that test the model with students and members of community groups, and two or three pilot projects that test the effectiveness of the proposed methodology.

PENNSYLVANIA

ACADEMY OF NATURAL SCIENCES - \$24,914

KATHLEEN FADIGAN, 1900 BENJAMIN FRANKLIN PARKWAY, PHILADELPHIA, PA 19103

The George Washington Carver Water Quality Research Program

The George Washington Carver Water Quality Research Program sponsors a new summer program called the George Washington Carver Summer Scholars Program. The principal goal of the program is to encourage students to pursue environmental careers by increasing their



awareness of water quality issues and strengthening their ability to perform hands-on scientific research. Students also are encouraged to participate in the George Washington Science Fair and to present their project findings to the community. Partners with the Academy of Natural Sciences in the project are the School District of Philadelphia and Temple University.

DARBY CREEK - \$4,873

CAROL KILLMAIER, P.O. BOX 583, LANSDOWNE, PA 19050

Stream Watch Program - Community Environmental Education

The Darby Creek Valley Association (DCVA) maintains a volunteer project under which members of the community monitor the Darby Creek watershed. The project has a strong environmental education component that reaches out to local schools and residents in the vicinity of the creek. The DCVA uses existing monitoring protocols that were developed specifically for volunteers and for environmental education. The community monitors use the knowledge they have gathered to discuss environmental regulations, land use planning, and habitat improvement projects during meetings with representatives of both state agencies and municipalities. The project educates the community about the importance of riparian corridors, vegetation of riparian areas, and storm-water control in protecting stream ecology, human health, and property.

GIRLS CLUB OF ALLENTOWN - \$5,000

DEBORAH FRIES, 1302 TURNER STREET, ALLENTOWN, PA 18102

We Care Program

This project provides to low-income, inner-city girls, ages 5 through 18 years, a program designed to educate them in environmental issues, increase their awareness of individual responsibility for protection of the environment, and promote their involvement in environmental activities. The We Care Program, Children Acting Responsibly Toward the Environment, informs the young participants about environmental issues related to their homes, communities, and world and shows them how they personally can bring about positive change as members of a community. They also explore at least 10 environmental careers, both traditional and nontraditional. To support the project, the Girls Club of Allentown works in partnership with the Lehigh Environmental Education Consortium, a group of eight local public and private institutions, and participates in Adopt an Acre, a program of The Nature Conservancy.

GRASS ROOTS ALLIANCE FOR SOLAR PA - \$4,955

LAURIE CAMERON, 3500 LANCASTER AVENUE, PHILADELPHIA, PA 19104

Energy-Efficient and Environmentally Sensitive Building Design

This project expands and implements an existing workshop that provides developers of low- to moderate-income community-based housing with information about new choices in design and construction. The workshop addresses two key environmental inequities that low-income populations face: high utility costs and poor indoor air quality. The curriculum, founded on the principles of building science, includes information about "green" products and renewable energy technologies. Workshops are held in Pennsylvania, Maryland, Delaware, and Washington, D.C.



KEYSTONE COLLEGE - \$8,550
TODD SORBER, P.O. Box 50, LA PLUME, PA 18440

Project WET and More

Keystone College conducts four-day summer workshops for teachers of kindergarten through grade 12. The training provides participants with support for incorporating water education into their school curricula. Training includes 15 hours of environmental education and engages the teachers in an intensive study of the local watershed. Teachers also visit environmental centers and learn how to gain access to information available on the Internet. Partners with the college in the nontraditional teacher training effort include the Wyoming County Conservation District and Northeastern Educational Intermediate Unit #19.

PENNSBURY SCHOOL DISTRICT - \$4,225
CINDY DeMARIA, 134 YARDLEY AVENUE, P.O. Box 338, FALLSINGTON, PA 19058

Environmental Science: Issues and Answers

This project provides an environmental education program for both teachers and students. The program encourages students to take an active role in developing an understanding of local natural systems and the issues associated with those systems. Students concentrate on vegetation, birds, and soil in the fall; in spring, they investigate topography, mammals, and reptiles. Using the data they collect, they then develop maps and a field guide. The Pennsbury School District and Silver Lake Nature Center are partners in the project.

PHILADELPHIA WATER DEPARTMENT - \$20,540
ED GRUSHESKI, 1101 MARKET STREET, PHILADELPHIA, PA 19107

Urban Watershed Exhibit Master Plan

This project supports the planning and design of the Fairmount Water Works Interpretive Center's (IC) primary environmental exhibits — together called The Urban Watershed. The IC is the primary environmental education forum of the Philadelphia Water Department. The IC exhibit draws approximately 80,000 visitors a year.

SCHOOL DISTRICT OF PHILADELPHIA - \$4,999
TIM BEAVER, A. L. FITZPATRICK ELEMENTARY SCHOOL, 21ST STREET SOUTH OF PARKWAY, ROOM 408, PHILADELPHIA, PA 19103

Science, Math, and Technology Institute Project

Under the Science, Math, and Technology Institute Project, students learn to plan, build, study, and maintain a habitat. They turn waste into useful soil and garden debris, which is used in a habitat that attracts and sustains butterfly populations and is designed to be self-sustainable for future years. Students learn that they can help to improve the city environment through their own efforts.



SCHOOL DISTRICT OF PHILADELPHIA - \$4,998

LEONARD WHITE OR JACQUELINE DUBIN, JAY COOKE MIDDLE SCHOOL, 21ST STREET SOUTH OF PARKWAY, ROOM 408, PHILADELPHIA, PA 19103

Science, Math, and Technology Institute Project

This project teaches students about the components of an ecosystem, introducing them to such environmental issues as water pollution and waste disposal. The students participate in field studies and enjoy opportunities to meet and work with people in the environmental fields. They learn about the latest technology and are encouraged to develop critical-thinking and problem-solving skills, while helping to solve a simulated environmental crisis.

THE SCHUYLKILL CENTER FOR ENVIRONMENTAL EDUCATION - \$7,121

GAYLE WHITTLE, 8480 HAGY'S MILL ROAD, PHILADELPHIA, PA 19128

Environmental Education in an Alternative School Curriculum

This project introduces environmental education into the Montgomery County Youth Center Shelter Alternative School for "at-risk" students, ages 12 through 17. The project trains both teachers and students in aquatic ecology, examining the effects of pollution in aquatic ecosystems and teaching chemical and field biological techniques for testing water quality. The students participate in field studies to determine whether water pollution is present in the body of water under study, identify regulations that protect it, characterize the risks any existing pollution poses to human health, and assess the need for water treatment.

WILKES-BARRE RIVERFRONT PARKS COMMITTEE - \$5,000

COREEN WEILMINSTER, 16 EAST NORTHAMPTON STREET, WILKES-BARRE, PA 18701

Disadvantaged Youth Environmental Education: Training Regarding Negative Health Effects of Pollution

This two-week day-camp project focuses on the health threats posed by pollution and develops critical-thinking skills by giving the participants the opportunity to attempt to resolve specific environmental health problems. Experts in different environmental fields guide the campers in exploring such subjects as ecology, ecosystems, and the nutrient and water cycles. The participants also learn to identify the needs of living things, examine the importance of diversity, and develop basic understanding of plant and animal identification.

WOODLAND HILLS SCHOOL DISTRICT - \$8,583

JOSEPHINE SMERDEL, 2430 GREENSBURG PIKE, PITTSBURGH, PA 15221

Environmental Water Study

This project engages high school students in actively studying the quality of water in streams that run through the school district. Under the project, 50 high school students teach approximately 500 fifth graders about the relationship between the streams and the three rivers that come together in Pittsburgh. The high school students also maintain a World Wide Web site, which they use to communicate with other students who are studying environmental issues, and work with local municipalities to teach the public about water pollution.



PUERTO RICO

THE CONSERVATION TRUST OF PUERTO RICO - \$23,500

ALEXIS MOLINARES, P.O. Box 9023554, SAN JUAN, PR 00902-3554

Hacienda Buena Vista: An Environmental Education Laboratory

Hacienda Buena Vista conducts a one-year model program in south-central Puerto Rico that educates teachers and students in two rural schools in the Ponce area. Using the hacienda, a museum and educational facility for the public, as a living laboratory, the teachers and students learn about ecological issues associated with the subtropical forest. They use the riparian and cultivated areas of the hacienda property to increase their understanding of issues of conservation and environmental protection that are associated with rural farm settings. The project also provides educators materials on conservation and solutions to environmental challenges in the small farm setting and coffee cultivation operations.

RHODE ISLAND

THE NATURE CONSERVANCY - \$25,000

CHRISTOPHER LITTLEFIELD, BIORESERVE MANAGER, P.O. Box 1287, BLOCK ISLAND, RI 02807

The Block Island Environmental Education Program

The Block Island Environmental Education Program increases the understanding and commitment of teachers, students, families, and other members of local communities to the protection of the fragile natural resources of Block Island. The project targets 130 students in all grade levels, every elementary school teacher in the system, several secondary-level teachers, and 800 permanent residents of the island. It offers participants outdoor experiences and hands-on projects that encourage sharing of experience through displays, articles, contributions of information, and presentations by students. The Block Island program is a new partnership between the Nature Conservancy and the Block Island School.

RHODE ISLAND ASSOCIATION OF WETLAND SCIENTISTS - \$2,287

JAMES G. TUREK, P.O. Box 1514, PROVIDENCE, RI 02901-1514

Wetlands Training Workshops Program

This program provides a full-day workshop for high school teachers, staff of local government agencies, members of the conservation commission, and advanced-level high school students. The participants learn how to identify and classify wetlands and examine their structure and functions. Providing participants expanded opportunities to take part in field activities, the project instructs them in the ecological functions and societal values that wetlands provide, such as protection of water quality and wildlife habitat. The workshops help teachers improve their teaching skills, encourage students to enter environmental careers, and guide local government officials in using sound science as the basis for decisions about regulation and management of wetlands. The Audubon Society of Rhode Island is a partner with the Rhode Island Association of Wetland Scientists in the project.



SOUTHSIDE COMMUNITY LAND TRUST - \$10,000
CAROL MILLETTE, 288 DUDLEY STREET, PROVIDENCE, RI 02907

Creation and Integration of an EcoLab into an Existing Ecoliteracy Curriculum

This project integrates an ecology laboratory into an existing ecoliteracy curriculum. The project provides biweekly teacher training through workshops that feature dynamic classroom presentations. Teachers and students work to reclaim a 3,775-square-foot lot adjacent to the Asa Messer Elementary School. Their efforts are creating the ecology laboratory, which includes an artificial wetland, a woodland, and a pond, as well as shrubs, trees, and plants that attract and support amphibians, birds, and butterflies and other insects. The school is a partner with the Southside Community Land Trust in the project.

SOUTH CAROLINA

CITY OF NORTH CHARLESTON - \$3,000
SHANNON B. PRAETE, 4900 LACROSS ROAD, NORTH CHARLESTON, SC 29419-1906

Coasting Through the Summer

Coasting Through the Summer is a program for minority and low-income children. The children attend a camp for 11 hours per week over 12 weeks. They take part in a variety of activities designed to increase their knowledge about the environment, particularly water and the coastal and marine environment.

UNIVERSITY OF SOUTH CAROLINA, INSTITUTE OF PUBLIC AFFAIRS - \$3,990
LANGDON S. WARNER, CAROLINA PLAZA, COLUMBIA, SC 29208

Use of Siting Game as an Assessment Tool

The Siting Game is an interdisciplinary simulation of real-world environmental problems designed for use by teachers of 9th- to 12th-grade social studies programs. The game is played in a fictitious location by 30 to 50 students. Ten high school teachers attend a two- to three-day workshop that includes a review of key elements and a demonstration of the game. The teachers receive complete packages of game materials so they can play the game at their own schools.

TENNESSEE

IJAMS NATURE CENTER - \$5,000
BO TOWNSEND, 2915 ISLAND HOME AVENUE, KNOXVILLE, TN 37901-2601

Earth Flag Program

This project is designed to reduce the amount of solid waste generated in 51 elementary schools, 13 middle schools, 11 high schools, 2 vocational schools, and 46 private schools in Knoxville, Tennessee. Students practice daily hands-on waste reduction activities that reinforce concepts in environmental education. Schools are awarded Earth Flags for exhibiting continued attainment of five environmental goals: reducing and reusing; recycling; composting; maintaining sustainable sites; and practicing effective communication.



KNOX COUNTY SCHOOL SYSTEM - \$5,563

MONTY HOWELL, 912 SOUTH GAY STREET, KNOXVILLE, TN 37902

Adopt-a-Creek

Adopt-a-Creek provides three middle school and three high school science teachers with the instructional skills to teach students about procedures for monitoring water quality. Newly trained students adopt a designated section of a stream in their community, develop baseline stream characterization data, record the results of their investigation in a database, and use the results to identify areas that require cleanup and those that are in need of protection. The project also provides teachers with instructional skills to help train other faculty members.

MEMPHIS BOTANIC GARDEN - \$4,990

MARY HELEN BUTLER, 750 CHERRY ROAD, MEMPHIS, TN 38117

Teaching Urban Ecology

This project provides 100 teachers the opportunity to attend hands-on workshops designed to improve their classroom skills and equips them with interdisciplinary, ready-made lesson materials and activities that supplement the existing curriculum. Partners in the project with the Memphis Botanic Garden are the Tennessee Department of Conservation and the Lichterman Nature Center.

MIDDLE TENNESSEE STATE UNIVERSITY - \$9,677

CINDI SMITH-WALTERS, P.O. BOX 60, MURFREESBORO, TN 37132

Environmental Education for Everyone E³

This project trains 50 educators in the use of selected Outdoor Biology Instructional Strategies (OBIS) folios. Each participant in turn trains at least three educators in the use and implementation of OBIS. The project emphasizes science content, integrated curricula, and teaching strategies that incorporate environmental themes.

TEXAS

AUSTIN COMMUNITY GARDENS INC. - \$5,000

FRANK FULLER, 4814 SUNSHINE DRIVE, AUSTIN, TX 78756

East Austin Wildscaping Initiative

Under the East Austin Wildscaping Initiative, young people assist in the development of gardens that provide habitats for a variety of wildlife. Wildscapes are living laboratories that diversify the urban habitat, providing food and refuge for song birds, small mammals, reptiles, butterflies, and other pollinators. The project also increases understanding among children about the environment, plants, and animals and the role each plays in the ecosystem.



DENTON INDEPENDENT SCHOOLS - \$4,999

ZAN AUSTIN, 1307 N. LOCUST, DENTON, TX 76201

Water the Cycle of Life Project - 8th Graders to Produce Public Service Commercials

This interdisciplinary project heightens students' understanding of the similarity between the drinking-water cycle and the Earth's water cycle. The students take part in activities that demonstrate how easily water can become polluted and replicate methods of cleaning water. They also conduct studies of water use in their own homes.

EISENHOWER HIGH SCHOOL - \$4,720

ANASTASIA VOUGHT, 7922 ANTOINE, HOUSTON, TX 77088

Where Have all The Flowers Gone?

Where Have All the Flowers Gone? increases students' critical-thinking, problem-solving, and decision-making skills through a cross-curricular, multilevel environmental education program. The program includes the development and implementation of an integrated curriculum guide that applies new education standards mandated by the state. The project also involves students, parents, teachers, administrators, and members of the community in the design, creation, and maintenance of an outdoor living classroom and trains teachers in the best ways to use the curriculum guide and the outdoor classroom.

GREATER PARK PLACE COMMUNITY DEVELOPMENT CORPS - \$5,000

ANTONIA CAHN, P.O. Box 262784, HOUSTON, TX 77207

Sims Bayou Urban Nature Center - Computer Environmental Education Project

This project establishes the Sims Bayou Urban Nature Center, a computer-aided environmental education project that brings year-round nature discovery programs to area schools. It also includes a community garden program for youth and adults that teaches horticulture and marketing skills.

LDL EDUCATIONAL RESOURCES FOUNDATION - \$4,481

LIZ SHERRELL, P.O. Box 1283, GLEN ROSE, TX 76043

Create An Ongoing Environmental Classroom

The environmental classroom is an outdoor environmental studies laboratory designed to increase the environmental knowledge and awareness of elementary school students. It gives them the opportunity to develop an interactive and interdependent relationship with their environment through hands-on, problem-solving experiences with nature.

THE LEAF ALLIANCE - \$4,531

SUSAN ALEXANDER, ROUTE 1, Box 335, PINELAND, TX 75968

Discovering Watersheds

Discovering Watersheds provides an environmental science unit and "trunk kit" designed to teach students about watersheds, the environmental problems related to them, and possible solutions to such problems in an enjoyable and motivating way suitable for both indoor and



outdoor classroom use. The activities encourage students to think critically about preventing and controlling pollution. Students also design, build, and demonstrate a model of a working septic system that contributes to pollution control.

TEXOMA COUNCIL OF CAMP FIRE - \$4,500

RACHEL HAMPTON, BOYS & GIRLS, 728 W. SEARS, DENISON, TX 75020

Nature Watch: Student Field Trips; Students and Ecosystems

The Nature Watch program educates students about the importance of ecosystems and how they affect our current and future lives. The program uses group activities to facilitate learning about the environmental issues that affect local ecosystems.

TEXAS WATER DEVELOPMENT BOARD - \$22,500

BILL HOFFMAN, P.O. BOX 13231, AUSTIN, TX 78711

Texas Water Conservation & Water Resource Education Project

The Texas Water Conservation & Water Resource Education Project provides new and revised classroom education material through direct mail, the Internet, the Texas Education Agency, and workshops for teachers. Its goal is to provide directly to the classroom material that promotes the development of critical-thinking, problem-solving, and decision-making skills related to water conditions in the state and water conservation and management of resources in general. Under the project, classroom exercises and activities, as well as resource materials for teachers, on water conservation and resource issues specific to Texas are distributed to classrooms. The Texas Water Development Board (TWDB), sponsor of the project, also provides demonstration workshops to help teachers learn to use the materials effectively in their classrooms. The Texas Natural Resource Conservation Commission, the Texas State Soil and Water Conservation Board, and the Harris-Galveston Conservation Commission, as well as the Water and Environment Association of Texas and the Texas Section of the American Water Works Association, are among the organizations involved with TWDB in partnership efforts to support the project, which in turn is intended, in part, to support the development of a consensus water plan for the state.

YMCA OF METROPOLITAN DALLAS - \$10,000

ILENE STERN, 601 N. AKARD STREET, DALLAS, TX 75201

Outdoor Education Center at Camp Grady Spruce

The Outdoor Education Center (OEC) at Camp Grady Spruce works with culturally and ethnically diverse fifth- and sixth-grade students in 10 counties in the Dallas-Fort Worth area to increase the students' knowledge and awareness of environmental issues. The project is based on intensive, yet "friendly," immersion in the environmental curriculum.



UTAH

See page 7 for a profile of a grant awarded to the Utah State Office of Education by EPA Headquarters.

DECKER LAKE WETLAND PRESERVE FOUNDATION - \$17,461

DIANA SMITH, 869 EAST 4500 SOUTH, #513, SALT LAKE CITY, UT 84107

Water Quality Education

The primary purpose of the water quality education project is to educate area students about water quality in the watershed. Two elementary, two junior high, and two high schools within a five-mile radius of Decker Lake participate in the project, and eight local businesses help support it. Under the project, elementary school students learn about the threats to human health posed by environmental pollution, while the junior high and high school students participate in a volunteer water monitoring program. Outreach efforts and a media campaign designed by the students spread the message about environmental issues and pollution of the watershed.

SOUTH SANPETE SCHOOL DISTRICT - \$4,874

ELLEN WALKER, 39 SOUTH MAIN, MANTI, UT 84642

Sanpete Native Plants and Range Issues

The Sanpete Native Plants and Range Issues project improves students' awareness and understanding of range quality and improves teachers' knowledge of environmental issues. It gives students hands-on work and problem-solving experience in the environmental area. The project involves 75 students, 4 full-time teachers, several part-time teachers, and other staff members in field trips to local range lands and in planning for and operation of a greenhouse. Under the project, teachers attend workshops designed to help them integrate environmental issues into their curricula, and students complete the 4-H range evaluation project. The primary partners in the project are the Sevier Valley Tech Building Trades Program; the School to Careers program; the Sanpete County Extension Service; the Forest Service, U.S. Department of Agriculture; Spring City Elementary School; and a local private company that markets seed of native plants.

UTAH SOCIETY FOR EE - \$21,000

TIM BROWN, 350 SOUTH 400 EAST, #G64, SALT LAKE CITY, UT 94111

Environmental Education Evaluation Initiatives

Environmental Education Evaluation Initiatives, a project that involves 4,000 teachers, increases communication and cooperation among various providers of environmental education throughout the state of Utah. It provides a standardized evaluation instrument and other improvements of evaluation tools currently in use. Workshops conducted to disseminate the materials are supplemented by telephone and electronic communications. Among the numerous entities involved in the project are the Utah State Office of Education, the National Energy Foundation, Red Butte Garden and Arboretum, Utah Project Learning Tree, Utah Project WET, Utah Ag in the Classroom, Utah Project WILD, Utah State University, Canyonlands Field Institute, and Four Corners School of Outdoor Education.



UTAH STATE UNIVERSITY - \$4,961

SHARON OHLHORST, FOREST RESOURCES, OLD MAIN ROOM 112, UTAH STATE UNIVERSITY, LOGAN,
UT 84322-1415

Sense of Place

This project is designed to develop educational partnerships and activities that help families discover or rediscover a sense of place in their local natural environment. The community-based project targets single-parent, low-income, and minority families in the Cache Valley area who have children between the ages of 4 and 14. It offers outdoor opportunities through which families can develop a connection with the land. The families also develop observational and interpretive problem-solving skills and gain proficiency in critical thinking, and are exposed to general education in environmental topics. Primary partners in the project are Utah State University; Logan Canyon Nature Center; the Forest Service, U.S. Department of Agriculture; and the Bridgerland Audubon Society.

VERMONT

AMERICAN LUNG ASSOCIATION OF VERMONT - \$3,570

JANET RILEY FRANCIS, 30 FARRELL STREET, SOUTH BURLINGTON, VT 05403-6196

Open Airways for Schools

Open Airways for Schools is an asthma-management program that provides cost-effective asthma education to school-age children who have asthma and to their families. The target audience lives in the most rural section of Vermont, known as the Northeast Kingdom, which has a total population of 59,648 in 2,410 square miles, including approximately 1,972 adults and 1,077 children with asthma. The project trains school nurses to implement the program, which targets children between the ages of 8 to 11. Among other activities, children receive take-home assignments to complete with their parents.

FOOD WORKS - \$5,000

TODD COMEN, 64 MAIN STREET, MONTPELIER, VT 05602

Community Park for Teaching Local Ecology Project

This project focuses on helping teachers develop seasonal units of hands-on activities for use in teaching local ecology in the outdoor laboratory of Hubbard Park, a 185-acre city park in Montpelier. Students gain a greater knowledge of the diverse habitat by constructing learning centers and interpretive displays. The target audience of the project is low-income students between the ages of 6 and 18 who live in Montpelier.

VERMONT CENTER FOR THE BOOK - \$9,153

SALLY ANDERSON, P.O. BOX 441, CHESTER, VT 05143

Mother Goose Meets Mother Nature Project

The Mother Goose Meets Mother Nature Project uses picture books, discussion, and activities to bring environmental issues to life for pre-school children, their parents, and the professionals who work with them. It trains 30 early childhood educators from 10 communities to focus on



the effectiveness of works of children's literature as vehicles for environmental education and to organize and facilitate parent programs for 200 at-risk families. The Vermont Center for the Book works collaboratively on the project with the Vermont Institute for Natural Sciences, the Stewardship Institute of Shelburne Farms, and the Vermont Department of Libraries.

VIRGINIA

NEWPORT NEWS PUBLIC SCHOOLS - \$4,777

LARRY VOUGHT, 12465 WARWICK BOULEVARD, NEWPORT NEWS, VA 23606

Family Center Environmental Research and Action Projects

The goal of this project is to encourage students and their families not only to become informed about environmental issues, but also to become involved in efforts to resolve those issues. The project emphasizes hands-on learning that promotes exploration and understanding and includes river cleanups, design and installation of a wetland or backyard habitat, study of household water quality issues and measures to improve air quality, and study of the effects of pollution on human health. Directly participating in the project are 550 kindergarten through fifth-grade students in Newport News. Families who are involved in the project through their children prepare reports on their activities that are aired on the school's cable television channel.

PORTSMOUTH PUBLIC SCHOOLS - \$19,042

CATHERINE ROBERTS, P.O. Box 998, PORTSMOUTH, VA 23705

Oyster Restoration

This program for seventh-grade students helps replenish the oyster population in a tributary of the Chesapeake Bay. Activities provided under the program focus on educating students from at-risk, low-income backgrounds about environmental issues and improving teachers' skills in environmental education. In addition to mathematics and science skills, activities encompass the disciplines of English and history, along with language arts and communication skills. The project is a partnership effort of the Portsmouth public school system, the Chesapeake Bay Foundation, and the Virginia Marine Resources Commission.

PROJECT UNDERGROUND - \$5,000

CAROL ZOKAITES, 620 McDANIEL DRIVE, CHRISTIANSBURG, VA 24073

Project Underground

Project Underground introduces teachers of kindergarten through grade 12 to karst environments, with their sinkholes and systems of interconnected caves. Teachers learn about those fragile environments and the need to protect them as human populations in karst areas increase and draw on their underground water resources.



ROCKBRIDGE AREA CONSERVATION COUNCIL - \$4,310

MICHAEL VAN NESS, P.O. BOX 564, LEXINGTON, VA 24450

Waste Watchers at Central

This project teaches kindergarten through third-grade children how to solve the problem of excessive waste at home and at school. The experimental education program features an interactive puppet show, activities to be carried out at home, investigative field trips, and a litter cleanup project. Beginning with the puppet show "Save the Trashasaurus," the program provides a series of lessons on decision-making and critical-thinking skills. Children learn how to make and manage a compost pile; evaluate their families' waste management habits; and prepare suggestions for their parents about ways to reduce, recycle, and reuse waste materials at home.

TAZEWELL SWCD - \$5,000

PATRICIA NEEL, 552 EAST RIVERSIDE DRIVE, NORTH TAZEWELL, VA 24630-9573

Tazewell Education Program

The goal of this project is to increase the level of awareness and understanding of conservation among young people and farm communities in Tazewell County. The project examines issues associated with conservation, management of solid waste, and litter prevention. It exposes participants to adopt-a-watershed programs and teaches best management practices for agriculture, targeting primarily small-scale, part-time farmers through workshops. The key partners in the conservation education program are the Tennessee Valley Authority; Tazewell County; the Tazewell County Schools; the Natural Resources Conservation Service; and the New River Highlands Resource, Conservation, and Development Council.

VIRGINIA INSTITUTE OF MARINE SCIENCE - \$5,000

JANE LOPEZ, P.O. BOX 1346, GLOUCESTER POINT, VA 23062

Development of Internet-Deliverable Environmental Education Units

This project trains teachers to develop educational activity units that are offered over the Internet. Availability of the units is publicized through local and national newsletters and conferences. The project is conducted by the staff of the Chesapeake Bay National Estuary Research Reserve, which is managed by the Virginia Institute of Marine Science, and the College of William and Mary.

WASHINGTON

ADNA SCHOOL DISTRICT - \$4,769

DEBBI DAVIS, P.O. BOX 148, ADNA, WA 98522

The Tech Prep Program

Tech Prep enhances students' understanding of environmental careers and transfers classroom learning to actual field work. Ninth-grade students in a small rural community, as well as special needs students, participate in the program. Students perform extensive water quality testing and produce a database of the information that they have compiled. The project aims to improve water quality in local streams, thereby increasing the number of salmon that return to those streams to spawn.



BAINBRIDGE ISLAND SCHOOL DISTRICT - \$15,000**BRENT PETERSON, 8489 MADISON AVENUE NE, BAINBRIDGE ISLAND, WA 98110***Bainbridge Island Wildlife Corridor Study*

Integrated into the existing watershed education program in Bainbridge schools, the Bainbridge Island Wildlife Corridor Study supports an ongoing effort to identify and preserve an islandwide wildlife habitat corridor. Activities conducted under the program include workshops, in-field data collection, and exhibits at public events. Participants are working with partners in the program, including government agencies and community organizations, to develop a database of components of the wildlife habitat and species observed in areas to be included in the wildlife corridor. The primary audience of the program is students in grades 4 through 12 in the Bainbridge Island School District and their teachers.

CENTRAL BASIN AUDUBON SOCIETY - \$3,348**JOYE LUCAS, EDUCATION COMMITTEE, 2129 SOUTH BELAIR DRIVE, MOSES LAKE, WA 98837***Lakeview School Arboretum and Wildlife Habitat*

Under this project, an arboretum and wildlife habitat was constructed on the grounds of Lakeview School for use as a laboratory for observing and investigating the interrelationships among birds and other wildlife and their habitat. Wildlife biologists, refuge managers, and nursery staff conduct workshops in the new "living lab." Students use the laboratory to observe and investigate habitats of the Columbia River Basin and to draw conclusions and solve problems related to those habitats. The project targets the school's fourth- to sixth-grade students, 25 percent of whom are minorities and 31 percent of whom are children of low-income families.

CONFEDERATED TRIBES OF THE CHEHALIS - \$5,000**RIO LARA-BELLAN, CHEHLIS TRIBAL LEARNING CENTER, P.O. BOX 536, 420 HOWANUT DRIVE, OAKVILLE, WA 98568***Chehalis Tribal Learning Center Workshops*

This project provides environmental education to young people from 8 to 12 years old who live on the Chehalis Indian Reservation and in the community of Oakville. Participants learn about management of water resources, treatment of solid waste and wastewater, recycling and composting, restoration and management of habitat, fisheries, and wetland conservation, and explore air quality issues, as well. The young people attend workshops conducted by environmental professionals and participate in field trips during the summer.

COLUMBIA RIVER EXHIBITION OF HISTORY, SCIENCE AND TECHNOLOGY - \$4,975**GWEN LETH, P.O. BOX 1890, RICHLAND, WA 99352***Environmental Summer Science Camp*

This community-based program educates students and their parents about the environmental issues that affect the Columbia River. The science camp program, of which examination of cleanup efforts at the nearby Hanford Nuclear Reservation is an integral part, is designed to show youngsters that study of the environment is science and that science is fun and accessible.



The program reaches 105 fourth-, fifth-, and sixth-grade students and their families and places special emphasis on reaching families that home-school their children.

THE GIRAFFE PROJECT - \$5,000

LAURA RUDD, 197 SECOND STREET, LANGLEY, WA 98260

Eastern Washington Giraffe Project

The Giraffe Project focuses on the use of environmental education to advance the goals of education reform, informing teachers, students, parents, and community leaders about the threats to human health posed by environmental pollution and making the public aware of the environmental issues that affect their communities. The program works with before- and after-school child care sites, each of which develops and implements an environmental community service project. Young people taking part in the program, which targets students in kindergarten through 12th grade, learn to identify the issues that have the greatest effect on their environment and to apply problem-solving skills in addressing those issues.

KITSAP CONSERVATION DISTRICT - \$17,051

CARLA PIZZANO, 817 SIDNEY AVENUE, PORT ORCHARD, WA 98366

Kitsap County Fair On-Site Agricultural Waste Composting Demonstration Project

The Kitsap County Fair On-Site Agricultural Waste Composting Demonstration Project addresses the effects on water quality of management of livestock waste and creates an awareness of the benefits to both farm and community of the composting of livestock waste. The Conservation District provides a demonstration exhibit at the Kitsap County Fair that both educates the community and manages the livestock waste generated at the fair. The project is intended to increase understanding among officials of local jurisdictions of the benefit of taking a leadership role in addressing such environmental issues and to encourage members of the community to adopt the role of resource stewardship related to decisions about land use. Among its target populations are owners of livestock operations in the county, as well as the support services and interest groups associated with the farming industry.

LOCAL GOVERNMENT INSTITUTE - \$5,000

DON MORRISON, 4009 BRIDGEPORT WAY WEST, SUITE E, TACOMA, WA 98466-4326

Local Official Problem-Solving Skills Enhancement Project

This project adapts existing environmental information and curricula to the environmental education needs of members of the city council and planning commission of a small city in the state of Washington.

METROPOLITAN PARK DISTRICT OF TACOMA - \$5,000

TOM WEATHERS, 1919 S. TYLER, TACOMA, WA 98405

Environmental Education and Career Awareness for Multi-Cultural Schools

The Environmental Education and Career Awareness for Multi-Cultural Schools program provides a model for environmental education and career awareness programs for multicultural schools. The model, which is intended to increase knowledge, provide hands-on opportunities,



and promote environmental justice, is intended for use in schools that have large multicultural populations, specifically in three fourth-grade classes located in economically disadvantaged communities in the Tacoma School District and six classes of junior and senior high school students in the Bethel School District. Teachers receive training through workshops and students gain experience through service projects and strengthen their awareness of environmental careers.

PACIFIC SCIENCE CENTER - \$5,000

CAROLE HOFFMAN, 200 SECOND AVENUE NORTH, SEATTLE, WA 98109

Family Science Career Awareness Workshop

The Family Science Career Awareness Workshop is a new program designed specifically for underserved populations that reaches primarily low-income, culturally diverse girls, ages 6 to 12. The five workshop sessions, reaching 60 children and their families, focus on increasing interest in careers in environmental science.

PULLMAN SCHOOL DISTRICT #267 - \$4,800

STEWART HIGGINS, DISTRICT ADMINISTRATION, LARRY AND HALL DRIVE, PULLMAN, WA 99163

Pullman School District Teachers' Workshop

Under this program, wetlands, flood plains, and streams are used to integrate education in biology, agriculture, mathematics, language arts, geography, civics, and technology. The program draws on existing curricula in soil morphology, production of greenhouse gases, and qualitative analysis of vegetation. Various aspects of the program will involve all students, from kindergarten through 12th grade, enrolled in the Pullman School District, which has a 14 percent minority population.

YAKIMA VALLEY OPPORTUNITIES INDUSTRIALIZATION CENTER - \$4,977

MARY JANE VUJOVIC, 815 FRUITVALE BOULEVARD, YAKIMA, WA 98902

Household Hazardous Waste Neighborhood Education Project

The Household Hazardous Waste Neighborhood Education Project strengthens the capacity of the Lower Yakima Valley Rural Enterprise Community to both develop and deliver quality environmental education programs and public education in environmental issues of significant concern to the community. To do so, the organization provides customized educational programs to Spanish-speaking adults who have limited proficiency in English and limited literacy in their native language. Five bilingual and bicultural members of the AmeriCorps Program, along with 25 volunteers from the community, are trained to serve as household hazardous waste educators. The AmeriCorps members and volunteers in turn educate 100 adults in one-on-one and small group sessions.



WEST VIRGINIA

LITTLE EAGLE CHILD CARE CENTER - \$5,000

LISA SHAWYER, P.O. Box 1208/STOP 900, MARTINSBURG, WV 25401

Kids Discover Nature's Gifts

The participants in the Kids Discover Nature's Gifts program, ages 4 to 12, establish observation sites and wildlife feeding stations in various ecological habitats. A computer database of information collected by the students themselves allows the students to compare their results with other documented information and study both differences and similarities.

PINE CABIN RUN ECOLOGICAL LABORATORY - \$5,000

NANCY AILES, ROUTE 1, Box 328, HIGH VIEW, WV 26808

Reducing Non-Point-Source Pollution Committee

This project educates the community about issues related to non-point-source water pollution. The goal of the project is to work through the newly established Watershed Stakeholder Advisory Committee and with the community to reduce pollution in the Lost River and Cacapon River watersheds. Using methods learned during monthly meetings, the members of the committee reach out to their respective communities to implement agreed-upon strategies to reduce non-point-source pollution. The project targets members of the community who represent every significant category of river user throughout the watershed.

POTOMAC HEADWATERS RC&C REGION, INC. - \$5,000

ROGER BOER, 1450-6 EDWIN MILLER BOULEVARD, MARTINSBURG, WV 25401

Groundwater and Public Health

Under this project, local government officials, teachers, migrant workers, students, and the general public learn about the relationships between the quality of groundwater and public health and about the specific threats to public health that have been identified in Berkeley County, West Virginia.

WISCONSIN

BLACKHAWK COUNCIL OF GIRL SCOUTS - \$2,900

JULI SPECK, 2710 SKI LANE, MADISON, WI 53713

Increasing Environmental Programming in Girl Scouting

The Blackhawk Council of Girl Scouts is using a series of workshops and training sessions to enhance and expand its environmental education program. Training courses conducted by naturalists provide troop leaders with teaching skills, seasonal information, and supplementary environmental education activities designed to promote environmental awareness and stewardship attitudes. Leaders receive resource materials, field guides, and information about natural history that they can incorporate into the programs they conduct with their scouts. A corps of volunteer naturalists assists the troop leaders, and supplementary training enables volunteers to lead nature hikes, organize day camps programs, and create environmental service



projects. The effort also includes workshops on the Project WILD, Project WILD/Aquatic, and Project Learning Tree curricula. The workshops and training sessions reach more than 200 leaders and other volunteers.

KEEP GREATER MILWAUKEE BEAUTIFUL, INC. - \$5,000

MARGO ANNE KUISIS, 1313 W. MOUNT VERNON AVENUE, MILWAUKEE, WI 53233

Learning Side-by-Side

Keep Greater Milwaukee Beautiful, Inc. provides an interactive learning experience for students and teachers that fosters an understanding of pollution prevention, waste management, and concepts related to water quality. The organization conducts workshops in which teachers learn how to incorporate environmental education into their lesson plans under existing curricula. The workshops increase teachers' knowledge of pollution prevention, waste management, and water quality. Students participate in hands-on field trips and take part in pre- and post-visit classroom activities. The project reaches 25 elementary school teachers, 15 secondary school teachers, and 1,600 to 2,400 students.

LAC COURTE OREILLES BAND OF LAKE SUPERIOR CHIPPEWA - \$4,970

DAN TYROLT, ROUTE #2, BOX 2700, HAYWARD, WI 54843

Environmental Awareness Education Project

This project establishes an environmental education and awareness program within the Lac Courte Oreilles tribal community. To spark the interest of the community, the program addresses environmental issues related specifically to reservation policies and conditions. Under the project, materials related to pertinent environmental issues are developed, collected, categorized, and distributed. The program also offers members of the community training in composting and recycling and workshops on groundwater contamination. The tribe produces an environmental newsletter, conducts public forums, and prepares radio announcements to educate members of the community about issues that affect their daily lives. More than 3,000 members of the tribal community benefit from the project.

WISCONSIN ACADEMY OF SCIENCES, ARTS, AND LETTERS - \$4,883

GARY LAKE, 1922 UNIVERSITY AVENUE, MADISON, WI 53705

Environmental Education Through Children's Literature and Television

Formal and informal educators participate in a week-long summer institute designed to showcase the wide variety of resources available to support environmental education efforts. Participants are immersed in children's literature, television, and activities. They participate in activities chosen from existing curricula to increase their level of comfort with environmental issues and concepts. The 30 educators who take part in the program reach some 3,000 or more students.



WYOMING

MAGIC CITY - \$4,121

JOHN FIRESTONE OR MARY ROZMAJZL, 1750 WESTLAND ROAD, #166, CHEYENNE, WY 82001

Eco Center Recycling

Students and members of the general public learn about recycling and the need to keep our environment clean for ourselves and wildlife through the Eco Center project. School groups tour the Eco Center facility to learn first-hand. They view recycling exhibits at the center and receive recycling decals they can display to demonstrate their commitment to the concept. The project reaches approximately 225 students a month, some 15 percent of whom are African American or Hispanic. The Wyoming Game & Fish Department is a partner with Magic City in the project.

TETON SCIENCE SCHOOL - \$3,662

APRIL LANDALE, BOX 68, KELLY, WY 83011

Project WET Workshops

Project WET teaches experiential natural science to people of all ages in the greater Yellowstone region. Participants in the program include 20 teachers of kindergarten through 12th-grade programs, 16 graduate students, and 16 Girl Scout leaders. The project provides three training workshops for environmental educators through the program, which is accredited by Utah State University, the University of Wyoming, and Prescott College.

UNIVERSITY OF WYOMING - \$5,000

DUANE KEOWN, BOX 3992, WYOMING HALL, LARAMIE, WY 82071

Wild Wonderful Wyoming

This project provides an environmental education manual for use in elementary schools in the entire state of Wyoming and parts of Montana and Nebraska. The manual focuses on training and materials that teach about the environment and natural resources. The curriculum is the work of 53 teachers who collaborated in its development. State resource management agencies, environmental organizations, the University of Wyoming, and Wyoming schools are partners in the project.

WYOMING RECYCLING ASSOCIATION - \$5,000

LESLIE GNIDINGER, 250 LINCOLN AVENUE, LANDER, WY 82520

Solid Waste Education

This project provides a solid waste education program for the Wind River Indian Reservation, serving a low-income minority population of approximately 14,000. Student workbooks and do-it-yourself educational packets are distributed to offices, classrooms, and homes; educational pamphlets, posters, and promotional materials publicize the program. Workshops for teachers, office workers, and the general public, along with a Recycling Expo, round out the effort to curb improper disposal of hazardous waste on the reservation. The University of Wyoming's Conservation Connection, the Wyoming Department of Environmental Quality, and the Wind River Recycling Coalition are partners in the project.



WY ASSOCIATION FOR ENVIRONMENTAL EDUCATION - \$4,750
WILLIAM EDWARDS, 520 HARVARD LANE, CHEYENNE, WY 82009

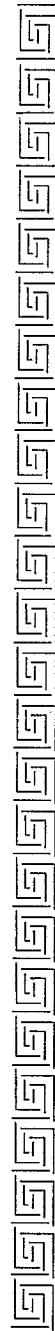
Environmental Education Master Plan

The Environmental Education Master Plan seeks to improve environmental literacy. The project focuses on direct mailings, newsletters, workshops, conferences, and public meetings to strengthen environmental knowledge among students, teachers, and other adults. The Governor's Office of the State of Wyoming; the Wyoming Department of Education, Department of Agriculture, Department of Environmental Quality, and Game and Fish Department; and the North American Association for Environmental Education collaborate on the project.



CHART: RATIO OF APPLICATIONS TO AWARDS

Region	Applications Received \$5,000 or Less		Awards Made \$5,000 or Less		Applications Received \$5,001 to \$25,000		Awards Made \$5,001 to \$25,000		Total Applications Received		Total Awards Made	
	#	Amount Requested	#	Amount Funded	#	Amount Funded	#	Amount Funded	#	Amount Requested	#	Amount Funded
1	99	\$482,208	20	\$93,443	39	\$744,967	6	\$94,270	138	\$1,227,175	26	\$187,713
2	101	\$468,694	22	\$95,219	76	\$1,314,523	5	\$94,781	177	\$1,783,217	27	\$190,000
3	62	\$286,479	21	\$97,250	51	\$906,971	6	\$88,750	113	\$1,193,450	27	\$186,000
4	68	\$323,133	21	\$100,402	68	\$1,286,920	6	\$84,598	136	\$1,610,053	27	\$185,000
5	93	\$412,860	21	\$100,480	69	\$1,284,790	4	\$89,520	162	\$1,697,650	25	\$190,000
6	68	\$317,112	22	\$100,537	34	\$1,213,952	5	\$89,713	102	\$1,531,064	27	\$190,250
7	50	\$230,266	15	\$69,571	44	\$843,393	7	\$120,420	94	\$1,073,659	22	\$189,991
8	28	\$129,411	14	\$63,587	30	\$496,198	7	\$112,990	58	\$625,609	21	\$176,577
9	52	\$252,464	19	\$97,758	49	\$874,445	5	\$92,242	101	\$1,126,909	24	\$190,000
10	62	\$301,200	20	\$93,637	59	\$977,630	6	\$96,362	121	\$1,278,830	26	\$189,999
All Regions	683	\$3,203,827	195	\$911,884	519	\$9,943,789	57	\$963,646	1,202	\$13,147,616	252	\$1,875,530
HEADQUARTERS												
									272	\$25,296,140	13	\$1,248,588
									1,474	\$38,443,756	265	\$3,124,118



Notes



EPA REGIONAL ENVIRONMENTAL EDUCATION COORDINATORS

Region 1 — CT, ME, MA, NH, RI, VT

KRISTEN CONROY

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JFK Federal Building (RPM)
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Phone: 617-565-3618
Fax: 617-565-3415
E-mail: conroy.kristen@epamail.epa.gov

Region 2 — NJ, NY, PUERTO RICO, VIRGIN ISLANDS

TERRY IPPOLITO

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Region 3 — DE, DC, MD, PA, VA, WV

NAN IDES AND LARRY BROWN

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Region 5 — IL, IN, MI, MN, OH, WI

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Region 6 — AR, LA, NM, OK, TX

JO TAYLOR AND ED CURRAN

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Region 7 — IA, KS, MO, NE

ROWENA MICHAELS

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Region 8 — CO, MT, ND, SD, UT, WY

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

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Region 10 — AK, ID, OR, WA

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