

2002 Environmental Education Grant Profiles



U.S. Environmental Protection Agency
Office of Environmental Education
Office of Public Affairs
Ariel Rios Building
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Washington, DC 20460

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SUMMARY STATEMENT

Annual grants awarded under the National Environmental Education Act (Public Law 101-619)

This report summarizes 207 environmental education grants awarded by the U.S. Environmental Protection Agency (EPA) during fiscal year (FY) 2002. The Environmental Education Grants Program was created under Section 6 of the National Environmental Education Act, and the first grants were awarded in 1992. EPA's Office of Environmental Education (OEE) manages the program. Grants of Federal funds over \$25,000 are awarded annually by EPA Headquarters and smaller grants by the 10 EPA regional offices, as described below.

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

In FY 2002, Congress appropriated almost \$2.8 million for the grants program which leveraged more than \$5.2 million in matching funds provided by grant recipients. Because Federal funds may not exceed 75 percent of the total funding for a project, each grant recipient is required to provide from their own organization or a partner organization a matching contribution with a value of at least \$1 for every \$3 provided by EPA. As in the current year, the total matching funds leveraged nationwide often exceed the required amount and surpass the total funding provided by EPA. The dollar amounts reported in this document identify the EPA funds awarded to the grantee and do not reflect the matching funds provided by the grant recipients.

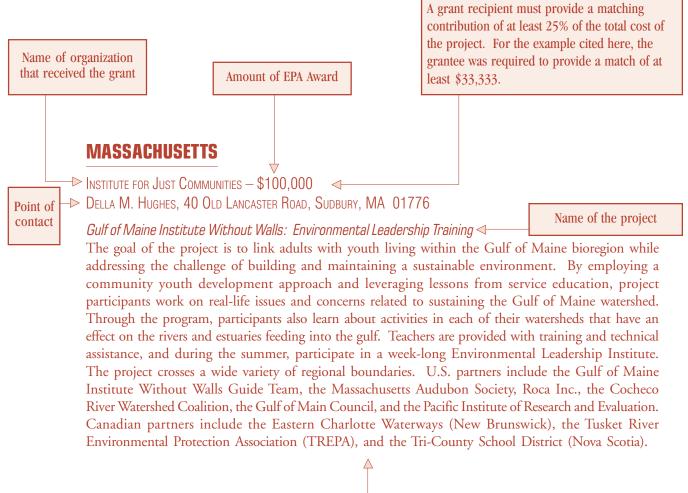
Congress directed EPA to focus on small grants of \$5,000 or less; therefore, the EPA regional offices make small local grants their first funding priority. In total, EPA's 10 regional offices awarded \$1,877,341 for an average of 20 grants each. The competition for grants intensifies as the amount of funding requested increases. In FY 2002, Headquarters funded less than 6 percent of the 283 grant applications received. Headquarters awarded 12 grants, for a total of \$907,378. Headquarters grants averaged approximately \$75,000; the smallest grant awarded was \$33,723; and the three largest awarded were for \$100,000 each.

EPA's annual Environmental Education Grants Solicitation Notice describes the solicitation, evaluation, and award process through which EPA arrives at final decisions about grant winners. The solicitation notice is published and available for review in the Federal Register. The solicitation notice and application forms may also be viewed online or downloaded from EPA's web site at www.epa.gov/enviroed/grants. The most recent solicitation notice also can be obtained by contacting EPA Headquarters or an EPA regional office. A list of EPA contacts is provided on pages 57 and 58 of this document.



USING THE GRANT PROFILES

The main section of this document provides profiles of environmental education grants awarded annually. 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:





Summary of the project

ENVIRONMENTAL EDUCATION GRANTS AWARDED BY EPA HEADQUARTERS

Alaska

University of Alaska Anchorage Environmental Natural Resources Institute (ENRI) — \$35,973 Elaine Major, 707 A Street, P. O. Box 92596, Anchorage, AK 99501

Adapting Anchorage Middle School Curricula with Alaska Stream Team Methods

In an effort to increase awareness of the connections between human activities and watershed health, the University of Alaska Anchorage's Environment and Natural Resources Institute (ENRI) has embarked on a project that provides broad-based hands-on environmental education opportunities to teachers and students in the Anchorage school system. The 1-year project incorporates science-based environmental monitoring tools into existing middle-school curricula for math and science. Under the project, teachers and students in grades 6 through 8 learn how systems are interconnected, how human activities affect watersheds, and how behavior changes can positively affect water quality. Teachers participate in a 2-day workshop where they learn about watershed and general ecosystem concepts and aquatic ecology principles. A newly developed Internet database encourages continued participation by providing a place to store, share, and view data collected by classrooms across the state. ENRI partners with the Anchorage School District, the Alaska Department of Environmental Conservation, the Municipality of Anchorage, and the Alaska Department of Fish and Game.

California

RESOURCE CONSERVATION DISTRICT OF MONTEREY COUNTY — \$92,000 EMILY HANSON, 744 LA GUARDIA STREET, BUILDING A, SALINAS, CA 93905

North Monterey County Soil Erosion and Nutrient Management Education

Through direct outreach to growers and landowners, local communities in the Elkhorn Slough watershed learn about the mutually beneficial relationship between resource conservation and sustainable and economically viable agricultural practices. The project targets the historically underserved, low-income minority growers by increasing public awareness and knowledge of best management practices, and by providing the resources to make informed decisions. The environmental issues addressed by this project are surface and ground water quality, enhancement of threatened and endangered wildlife populations, and protection of critical and unique coastal habitats. Supporting organizations include the Agricultural Land-Based Training Association; the Natural Resources Conservation Service; the University of California Cooperative Extension; the Monterey County Agricultural Commissioner Office; the Monterey County Department of Planning, Building and Inspection; and the Monterey County Department of Environmental Health.



Colorado

Denver Zoological Foundation — \$100,000 Sharon Schonhaut, 2300 Steele Street, Denver, CO 80205

Community Leadership Project: Teaching Urban Elementary Students about Nature

The Wonders in Neighborhoods program is created by the Denver Zoo and the Colorado Division of Wildlife as an outgrowth of the successful Wonders in Nature program. The project works with volunteer elementary schools to implement environmental service learning projects either on school grounds or in the community surrounding the school. The project encourages elementary school students to work with parents, businesses, and local agencies to define issues of importance to their local community and to put into practice what they learn in wildlife conservation education classes and visits to environmental education sites. The overall goal of the project is to reach low-income urban children and families who have had little or no access to environmental science education and who lack exposure to wildlife and natural places. Key partners for the project are the Colorado Division of Wildlife, the Colorado Department of Education, the National Wildlife Federation, 25 elementary schools in 10 school districts, and 29 environmental education visitation sites.

District of Columbia

ALLIANCE TO SAVE ENERGY — \$80,000 MARRILEE HARRIGAN, 1200 18TH STREET, N.W., SUITE 900, WASHINGTON, DC 20031

Green Schools Program in Philadelphia

The Green Schools program uses energy-saving actions to teach science, math, English language arts, and social studies to students in the nation's fifth largest school district. Through the project, schools receive training, instructional materials and tools, and ongoing program support. The project assists teachers with the design of service-learning projects and provides hands-on, real world learning opportunities correlated with the new Pennsylvania state education standards. Program partners include the School District of Philadelphia, the Municipal Energy Office, the U.S. Department of Energy Regional Office, the Pennsylvania Department of Environmental Protection, the Philadelphia Area Labor-Management Committee, and the Energy Coordinating Agency.

Georgia

UPPER CHATTAHOOCHEE RIVERKEEPER FUND, INC. — \$37,500
BILL CRAWFORD, 1900 EMERY STREET, SUITE 450, ATLANTA, GA 30318

Watershed Patch Project - Teaching Children to be Good Stewards of Their Watersheds

Using a modified version of the EPA's Girl Scout Water Drop Patch Project, the project expands on the successful Riverkeeper Youth Network to the headwaters of the watershed located in several counties of northern Georgia. The program involves rural students in grades 5 through 8 in a year-long, hands-on study of the Upper Chattahoochee watersheds. Teachers receive training and educational materials to support student efforts to perform chemical and biological adopt-a-stream activities, participate in a cleanup, attend environmental education field trips, and to learn how to assess the health of a stream. Other students are provided with an overview of activities they can do to protect and preserve local water resources. Partners include the Elachee Nature Center, Georgia Adopt-A-Stream, the Chestatee Watershed Association, and the Soque Watershed Association.



Illinois

ROCKFORD PUBLIC SCHOOLS No. 205 – \$97,817 Sharon Wynstra, 201 South Madison Street, Rockford, IL 61104

Collaboration Leading to Environmental Awareness in Rockford (CLEAR)

Using an interdisciplinary approach, the project incorporates the study of water resources in relation to science, social science, math, English, and communications. The project begins with a training institute for teachers held by museum educational staff and local conservation and ecology experts. The teachers subsequently develop a program that provides classroom instruction to students prior to field trips. Middle grade students are engaged in a series of classroom and field studies during which they learn about water resources. Key partnerships include the Burpee Museum of Natural Science and INSIGHT Communications. The Illinois Department of Natural Resources, the City of Rockford Water Division, and the Winnebago County Forest Preserve will provide additional training and technical support.

Massachusetts

Institute for Just Communities -\$100,000Della M. Hughes, 40 Old Lancaster Road, Sudbury, MA 01776

Gulf of Maine Institute Without Walls: Environmental Leadership Training

The goal of the project is to link adults with youth living within the Gulf of Maine bioregion while addressing the challenge of building and maintaining a sustainable environment. By employing a community youth development approach and leveraging lessons from service education, project participants work on real-life issues and concerns related to sustaining the Gulf of Maine watershed. Through the program, participants also learn about activities in each of their watersheds that have an effect on the rivers and estuaries feeding into the gulf. Teachers are provided with training and technical assistance, and during the summer, participate in a week-long Environmental Leadership Institute. The project crosses a wide variety of regional boundaries. U.S. partners include the Gulf of Maine Institute Without Walls Guide Team, the Massachusetts Audubon Society, Roca Inc., the Cocheco River Watershed Coalition, the Gulf of Main Council, and the Pacific Institute of Research and Evaluation. Canadian partners include the Eastern Charlotte Waterways (New Brunswick), the Tusket River Environmental Protection Association (TREPA), and the Tri-County School District (Nova Scotia).

Nebraska

Nebraska Alliance for Conservation and Environmental Education -\$50,365 Marian Langan, P. O. Box 85344, Lincoln, NE $\,68501$

Building Capacity for Environmental Education in Nebraska

This project addresses capacity building and education reform through the development of a comprehensive state Environmental Education Master Plan. The target audience includes environmental education leaders, informal and formal educators; legislators; state and federal agencies; business and industry; representatives of the Nebraska Department of Education; youth group leaders; and urban, rural, and agricultural groups. Workshops provide environmental education providers and users with training in a variety of topics. This project will establish the foundation to provide statewide professional training in environmental education. Support for the project comes from Audubon Nebraska; the Folsom Children's Zoo; the Geographic Educators of Nebraska; the Groundwater Foundation; Keep Nebraska Beautiful; Keep Lincoln & Lancaster County Beautiful - Lincoln-Lancaster County Health Department; Nebraska Project WET/Nebraska Project Learning Tree - University of Nebraska Cooperative Extension 4-H; Nebraska Project WILD - Nebraska Game and Parks Commission; the Nebraska Public Power District; the University of Nebraska Cooperative Extension - Thurston County; and the Urban League of Nebraska.



New York

CITY OF NEW YORK PARKS AND RECREATION — \$80,000 SARA HOBEL, 1234 FIFTH AVENUE, NEW YORK, NY 10029

The Natural Classroom: Education Reform Using New York City Parks

The Urban Park Rangers mission is to link urban dwellers and city school children to the abundant natural world in the 28,000 acres of New York City parkland. Incorporating materials collectively called "The Natural Classroom," the project focuses on teacher workshops to train school administrators and teachers. The programs apply key environmental education concepts to an urban setting and offer students the opportunity to make scientific and environmental observations; collect, record, and analyze data; and develop conclusions about the park ecosystems. By bringing environmental education into the city's parks, the project enables New York City schoolchildren to meet city-mandated performance standards. Key partners are the Urban Park Rangers, the City of New York Board of Education, and the National Geographic Society.

Ohio

OHIO STATE UNIVERSITY AT LIMA — \$33,723 LYNN SAMETZ, 4240 CAMPUS DRIVE, LIMA, OH 45804

At-Risk Youth and the Environment

This project builds on a successful hands-on integrated program for at-risk students in alternative education settings previously piloted in the area. The project engages students and their teachers at three local alternative high schools in an interactive model environmental education program that features research of local environmental issues. Students interact with local environmental professionals to identify target issues. Employing an interactive problem-solving approach, the goal of the program is to enable at-risk youth to become educated, involved environmental stakeholders within their communities. Students from the Lima City High School Science Department serve as mentors during part of the program. The Ohio State University at Lima is working in partnership with the Lima City Schools Science Department, the Lima City Schools Alternative School, Allen County Educational Service Center, and the Opportunity for Parenting Teens Program.

Texas

Texas A&M University - Corpus Christi — \$100,000 Jim Needham, 6300 Ocean Drive, Corpus Christi, TX 78412

Gulf Coast Environmental Education Program

Set in a region that is both environmentally rich and economically disadvantaged, the project delivers environmental education to a large and diverse group of citizens, including students in grades 5 through 7, teachers, senior citizens, and the general public. The goal of the 2-year project is to raise environmental awareness through a combination of youth summer camps, environmental education workshops for teachers, field trips for teachers and their classes, community events, and environmental expeditions for senior citizens. The project is designed to provide participants with scientific knowledge, raise awareness and understanding of key environmental issues, and impart enhanced analytical and critical-thinking skills. Key partners in the project include the Partnership for Environmental and Safety Outreach, the Corpus Christi and Flour Bluff Independent School Districts, the Texas Rural Systemic Initiative, and the Corpus Christi Community Advisory Council. Other partners include the Adopt-A-Wetland Program, the Texas State Aquarium, the CCA-CPL Fish Hatchery, the Padre Island National Seashore, Texas Parks & Wildlife, and the Sea Grant Program.



Utah

University of Utah - \$100,000 RAY BECKETT, 1495 EAST 100 SOUTH, SALT LAKE CITY, UT 84112

Training High School Science Teachers and Students in the Western States

Based on a successful pilot project that had been implemented in several Utah high schools, this project expands on that pilot's environmental research and training with science teachers and students in high schools in many western states. Through a combination of teacher training workshops and mentoring support provided by university students, high school students design and implement project proposals addressing environmental problems in their communities. Under the 1-year program, students interact with students in other states, conduct research, and prepare a report documenting their efforts. Science teachers from at least five of the nine western states participate in the training. The project represents a partnership between the Utah Engineering Experiment Station; the University of Utah College of Mines and Earth Sciences and the College of Engineering; the departments of education and environmental quality in the states of Colorado, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming; and the business community.



Grants Awarded by EPA Regional Offices

ALABAMA

LEGACY, INC. -\$9,663

H. Paige Moreland, P.O. Box 3813, Montgomery, AL 36109

Tools for Teaching Environmental Education in Alabama's Classrooms

"Tools for Teaching Environmental Education in Alabama's Classroom" is a series of workshops designed to target kindergarten through 12th-grade teachers from six geographical areas in Alabama. The workshop series is held in Mobile, Dothan, Decatur, Tuscaloosa, Clanton, and Anniston. Each workshop is tailored to focus on specific environmental issues relevant to a particular geographical area. The 3-day events are composed of four components: Ecology, Waste Management, Pollution Prevention, and Natural Resources. These four components are demonstrated with hands-on teaching strategies, content lectures from field experts, field trips to relevant sites, round-table discussions, and problem-solving activities. The objective of each workshop is to equip Alabama teachers with the tools necessary to bring environmental education into the classroom.

ALASKA

See page 3 for a profile of a grant awarded to the University of Alaska Anchorage Environmental Natural Resources Institute by EPA Headquarters.

Alaska Boreal Forest Council, Inc. — \$4,986 Melanie Muus, P. O. Box 84530, Fairbanks, AK 99708

Training Teachers to Tap into Spring (TIS)

Ten teachers are trained in two workshops that present activities unique to the Alaskan boreal forest while imparting key skills and concepts for creating sustainable conditions for the Fairbanks community. The curriculum focuses on place-based science and economic experiences, which help students develop a sense of stewardship for their forest home.

Calypso Farm and Ecology Center — \$5,000 Susan Willsrud, P. O. Box 106, Ester, AK 99725

Youth Farm and Ecology Program - Expansion into Low-Income Schools

This project expands on the existing Youth Farm and Ecology program to reach three low-income classrooms. The program provides experiential education in ecology and agriculture to elementary students in the Fairbanks North Star Borough School District with the goals of fostering interest in science and raising awareness of agricultural issues. Students and teachers participate in hands-on educational activities both in the classroom and on site at the Calypso Farm to learn the basic skills necessary for home and community gardening and the steps required for taking action in their own lives.

Fairbanks North Star Borough School District — \$24,986 Doug Crevensten, 520 5th Avenue, Fairbanks, AK 99701

Power Up! Develops Alternative Energy Study Sites in the Tanana Valley Watershed

Automated and manual data are gathered at three alternative energy study sites developed in the Tanana Valley watershed. Middle school teachers and students use the data as a basis for learning about wind and solar-energy design, application, and environmental issues. Project teachers adapt alternative energy lesson plans and conduct workshops for other middle school teachers.



Native Village of Afognak — \$24,425 Alisha Drabek, P. O. Box 968, Kodiak, AK 99615

Academy of Elders Science Camp

Participants at two 1-week sessions of the Afognak Academy of Elders Science Camp explore how to blend traditional and scientific knowledge into public science education. The camp enhances these sessions by allowing students to conduct environmental testing and to perform projects that will be demonstrated in the Kodiak Island Borough School District Rural Science Fair. Data reports are published on a project web page promoting public awareness. Goals of the project are to: (1) strengthen critical-thinking and confidence in math, science, and technology; (2) train teachers in environmental education methodology; (3) study and communicate environmental threats to the community; (4) demonstrate how the environment can serve as a launching ground for learning; and (5) provide Afognak students with the opportunity to learn directly from elders and to explore projects relevant to Native lifestyles and cultures.

Southeast Alaska Guidance Association (SAGA) — \$4,900 Kristy Falcon, P. O. Box 33037, Juneau, AK 99801

Southeast Alaska Guidance Association (SAGA) Serves Alaska Youth Corps

Training that focuses on environmental careers available to Alaska youth improves the environmental career placement component of the Youth Corps comprehensive training program. The training improves the overall understanding of environmental career opportunities, provides the skills necessary to successfully compete for these positions, and encourages graduates to pursue environmental careers. The emphasis of the training is on land management, water resource management, and biology.

ARIZONA

International Sonoran Desert Alliance — \$20,000
Nina Chambers, 201 Esperanza Avenue, P.O. Box 687, Ajo, AZ 85321

Community Stewardship of the Sonoran Desert Bioregion

This grant funds activities at the Arizona/Mexican border in the U.S. communities of Ajo and Gila Bend, the Tohono O'odham Native American community of Gu Vo, and the Mexican communities of San Luis Rio Colorado, Sonoyta, and Puerto Peñasco. International Sonoran Desert Alliance's Community Stewardship project provides teacher training in a bilingual curriculum about the Sonoran desert. It also provides for the construction of schoolyard and community habitat projects, allowing students and community members to track birds, insects, and animals. Partners for the project include Organ Pipe Cactus National Monument, Cabeza Prieta National Wildlife Refuge, and the Pinacate y Gran Desierto de Altar Biosphere Reserve.

ARKANSAS

Community Development Partnership — \$4,900

Judith Selle, 417 Fall Drive, Eureka Springs, AR 72632

Watershed Education Project

The Community Development Partnership is conducting a community-wide education project about the Lake Leatherwood watershed. This project informs Western Carroll County residents about the impact of pollution on the watershed, how topography affects water pollution, and what strategies are being implemented to clean up the watershed and the 66 springs in the Eureka Springs area. The project is delivered through the production and airing of public service announcements and a community-wide education program that invites local and state experts to present workshops to the public. Workshops are taped and aired on the local cable station and shown to other interested communities. Project partners include the Eureka Springs Parks Commission, the Eureka Springs Public Works Department, the National Water Center, and the Arkansas Department of Environmental Quality.



CONWAY PUBLIC SCHOOLS — \$4,650
DEBBIE PLOPPER, 2220 PRINCE STREET, CONWAY, AR 72032

Portable Interchangeable Environmental Education Units

This project helps area students and community members learn to be more conscientious of their choices when purchasing items and disposing of waste. This project raises awareness of the positive impacts of these choices, such as extending the life of the landfill and increasing recycling participation in the community and schools. The project consists of four portable interchangeable environmental education units that are designed for hands-on-learning and display at information booths, health fairs, leadership organizations and scout groups. Partners include the City of Conway and The Faulkner County Natural Resource Conservation District, with input from education specialists at the University of Central Arkansas.

Sebastian County Conservation District — \$18,400 Melissa Johnson, 3913 Brooken Hill Drive, Fort Smith, AR 72908

Conservation on the Move

This project is changing the way students and teachers think about the environment by implementing a conservation education program. This program consists of hands-on methods for teaching scientific technology, critical-thinking, problem-solving and decision-making. As teachers and students are educated about conservation of natural resources, they create a life-long awareness and knowledge to be passed on to the next generation. The program is presented through a 2-day workshop that includes instructional materials and guidance for each module. Sebastian County Conservation District's specialists visit educators monthly and as needed to provide assistance. Teachers who attend the workshop integrate the program into their classrooms. Partners include University of Arkansas, Division of Agriculture Cooperative Extension Service, and Arkansas Game & Fish Commission.

CALIFORNIA

See page 3 for a profile of a grant awarded to the Resource Conservation District of Monterey County by EPA Headquarters.

California Public Interest Research Group (CalPIRG) Charitable Trust -\$25,000 Sujantha Jahagirdar, 3435 Wilshire Boulevard, Suite 385, Los Angeles, CA 90010

Project WET Program for Southern California Schoolchildren

California Public Interest Research Group (CalPIRG) Charitable Trust's Water Watch Program partners with the Water Education Foundation to conduct teacher-facilitator workshops for project participants and college student volunteers on the Project WET (Water Education for Teachers) Program. Project WET facilitates and promotes awareness, appreciation, knowledge, and stewardship of water resources through the development and dissemination of teaching aids and programs. Participants and college student volunteers teach the Project WET curriculum in elementary schools (kindergarten through grade 6) throughout the southern California counties of San Diego, Orange, Los Angeles, and Santa Barbara.



California State University, Monterey Bay (CSUMB) — \$24,725 Laura Lee Lienk, 100 Campus Center, Seaside, CA 93955-8001

Integrating Environmental Education with Service Learning

California State University Monterey Bay (CSUMB) and the Return of the Natives (RON) Restoration Education Program combine their teaching methodologies of environmental education and service learning to teach local schoolchildren about environmental community service. The plan includes conducting training for 5 local kindergarten through 12th-grade teachers and 5 CSUMB students who are interested in teaching. Following training at 5 nationally recognized environmental education curriculum training sites, the 10-member team shares various curricula and incorporates ideas into a learning sequence. The team then facilitates staff development training using the learning sequence to reach a greater number of local kindergarten through 12th-grade teachers.

Calaveras County Water District — \$4,069 Kristin Coon, 423 East Saint Charles Street, P.O. Box 846, San Andreas, CA 95249-0846

Calaveras County Water District's Adopt-A-Watershed Program

Calaveras County Water District manages an Adopt-A-Watershed program based on the Streamside Community Primary Unit. The program involves teachers, elementary school age children, and their family members from each of the ten elementary schools located throughout Calaveras County. The project familiarizes participants with the Calaveras River and its tributaries. On field trips conducted along the river system, students examine evidence of plants, trees, animals, and other natural phenomena, and write their results in field journals. Students collect tiny insects and micro invertebrates from the river, examine them to evaluate the health of the river, discuss their observations as a group, and complete follow-up essays after the field trip.

Contra Costa Earth Day — \$5,000 Sheilah Fish, P. O. Box 4686, Walnut Creek, CA 94596

Earth Team Restoration Initiative

The Earth Team Restoration Initiative offers environmental community service and environmental education opportunities to high school students. The project identifies four sites near participating high schools in Contra Costa, Alameda, and San Francisco counties where restoration work will be performed over a 9-month period. A monthly restoration project, conducted at each site, fosters a sense of ownership and responsibility among participating students. Appropriate science curricula and service learning concepts add structure to monthly projects. Specific tasks include non-native plant removal, shoreline cleanup, water and bird monitoring, and native plant propagation. Project results and highlights are posted on an Earth Team website. Participating organizations include Youth for Environmental Service (YES) and eight leading San Francisco Bay Area environmental, educational, and restoration programs.

Ecological Farming Association – \$7,745 Kristin Rose, 406 Main Street, #313, Watsonville, CA 95076

Strawberry Grower's Conference

The Ecological Farming Association conducts a Strawberry Growers' Conference and Farm Tour for Central Coast growers, teaching them about successful post-methyl bromide production methods. Methyl bromide, which is currently in extensive use in strawberry farming, is directed to be phased out under the 1990 Amendments to the Clean Air Act. Outreach is directed towards underserved Latino and small-scale farmers in the strawberry production regions around Watsonville and Salinas, California. The project addresses concerns posed by the phase out of methyl bromide by educating growers about the environmental and health risks of different production methodologies and how to reduce these risks. Project partners include the nonprofit Agricultural Land Based Association of Salinas.



FOUNDATION FOR GLOBAL COMMUNITY — \$5,000 SUSAN STANSBURY, 222 HIGH STREET, PALO ALTO, CA 94301

Getting Going Growing

The Foundation for Global Community is engaging in a collaborative partnership with five local gardening and youth service organizations to create six sustainable school gardens in East Palo Alto, Palo Alto, Atherton, and Menlo Park, California. School gardens provide laboratories for project-based interdisciplinary learning. The garden project offers real-world experiences such as counting leaves on a stem and extrapolating yield-per-acre based on statistical sampling. A plan derived from a needs assessment guides each site in workshop staff development, curriculum selection, and technical support for teachers, students, and parent volunteers. Monthly on-site garden visits and community forums address assessment and support, information sharing, and problem resolution.

KLAMATH TRINITY JOINT UNION SCHOOL DISTRICT — \$5,000 PAM OLSON, P. O. BOX 1308, HOOPA, CA 95546

Norton/Weitchpec Elementary Schools GLOBE Project

Klamath Trinity Joint Union School District is working with the Yurok Tribe to establish the Global Learning and Observations to Benefit the Environment (GLOBE) curriculum at Jack Norton and Weitchpec Elementary Schools. Both schools are located in a remote area with scarce public services. Using GLOBE, students in kindergarten through 12th-grade can make scientific observations concerning climate and weather near their schools, interpret the data, and report findings via the Internet. The GLOBE curriculum is geared to improve academic achievement through environmental science activities.

Land Partners Through Stewardship (LandPaths) — \$4,991 Alison Peticolas, P. O. Box 4648, Santa Rosa, CA 95402

Watershed and Creeks in Our Backyard

Land Partners Through Stewardship (LandPaths) and its partners, Sonoma County Agricultural Preservation and Open Space District, California Fish and Game, City of Santa Rosa, Sonoma County Water Agency, Sierra Club, and Committee to Restore Santa Rosa Creek, are conducting a 3-day field trip for 22 third-through 12th-grade educators. The training is designed to build knowledge of creek ecosystems, develop skills for teaching in the outdoors, and integrate acquired skills and knowledge for classroom learning. Day one features an overview of watersheds and their interplay with land choices. The second day focuses on physical and chemical characteristics, such as channel cross sections, bank load, pH, and dissolved oxygen. The third day highlights biological features, such as invertebrates, fish, and riparian vegetation. LandPaths provides follow-up support throughout the academic year to help teachers to implement the "In Our Own Backyard" curriculum. Teachers from 16 schools in Sonoma County reach approximately 475 students and 200 parent volunteers.

Los Angeles Educational Partnership — \$25,000
Patricia Dung, 315 West Ninth Street, #1110, Los Angeles, CA 94015

Bring Back the Butterflies

Los Angeles Educational Partnership and its project partners, Los Angeles County Museum of Natural History, Baldwin Hills Conservancy, and Los Angeles Unified, join together to educate kindergarten through 12th-grade teachers in inner-city South Central schools in Los Angeles on a science curriculum called "Bring Back the Butterflies." The project introduces students to the museum's insect zoo and butterfly pavilion, and field research is conducted at the Baldwin Hills Conservancy property. The project fosters awareness of habitats in the city as dynamic ecosystems, and increases knowledge about the human impact on ecosystems. The project partners adapt existing standards-based science activities around urban parks while incorporating classroom and field lessons and resources.



SAN JOAQUIN ADOPT-A-WATERSHED SEA SCOUT SHIP #209 – \$5,000 LINDA DRIVER, 1545 ST. MARK'S PLAZA, SUITE 7, STOCKTON, CA 95207

Adopt-a-Watershed Training for Teachers

Twenty kindergarten through 12th-grade teachers are trained on the identification of environmental issues that impact the San Joaquin river delta. The sponsoring organization, in cooperation with the San Joaquin Office of Education, Lodi school district, storm water offices of San Joaquin County and City of Stockton, Boy Scouts of America, Stockton Sailing Club, and the national Adopt-a-Watershed organization, conducts a 3-day training workshop where teachers develop a plan (with student input) to implement service learning projects to address priority issues. More than 900 students participate in the program and share results with the community at local Earth Day observances.

Sonoma State University - \$4,989

RICHARD ZIMMER, 1801 EAST COTATI AVENUE, ROHNERT PARK, CA 94928

High School Students as Environmental Education Resources for Elementary School Classes

Sonoma State University and Waste Management Inc. (WMI), Sonoma County's largest waste collector, are coordinating a peer/team teaching approach linking seven Piner High School students with Biella Elementary School faculty to deliver waste management and recycling lessons to the lower-grade classes. A workshop taught by WMI provides background for the high school mentors and prepares them to work with the elementary school teachers to develop a set of grade school lessons. University staff and site administrators monitor and support the project over the 8-week presentation period.

TreePeople, Inc. -\$5,000

RICHARD WEGMAN, 12601 MULHOLLAND DRIVE, BEVERLY HILLS, CA 90210

TreePeople's Campus Forestry Program

TreePeople's Campus Forestry Program trains teachers to use a curriculum that turns a simple tree-planting project into a 3-month learning experience. The Schoolyard Explorers curriculum is a month-long unit plan consisting of five interconnected lessons that address academic content in math, science, language, and social studies. The Forestry Program's first objective is to help students and teachers work with the curriculum to gain awareness of environmental issues facing Los Angeles, such as air pollution, storm water runoff, water quality, energy consumption, and the role that trees play in the urban forest. The program's second objective is restoration of the urban forest itself. The grant allows TreePeople to work with teachers and students in 10 schools within the Los Angeles Unified School District. The end result is a student-designed recommendation for each school outlining the location and types of trees that should be planted.

YOLO BASIN FOUNDATION - \$5,000

CHERYL CHIPMAN, 45211 CHILLES ROAD, P.O. Box 743, Davis, CA 95616

Discover the Flyway Educator's Workshop

The Yolo Basin Foundation, with support from the California Department of Fish and Game and the Yolo County Office of Education, utilizes four full-day workshops throughout the school year to train 80-100 school teachers and informal educators on techniques to maintain, preserve, and restore wetland ecosystems. The program introduces educators to the importance of wetlands and provides wetland-related activities, training, and staff support to encourage teachers to lead their students in outdoor learning experiences in the Yolo Wildlife Area. The "Wild About Wetlands" classroom kit is available for replication in localities with similar environmental characteristics.



COLORADO

See page 4 for a profile of a grant awarded to the Denver Zoological Foundation by EPA Headquarters.

Colorado Alliance for Environmental Education (CAEE) — \$24,625 Mike Way, 15260 Golden Road, Golden, CO 80401

Develop Leadership Model in Colorado's Environmental Education Community

This project establishes a statewide model that provides continuity and clarity for environmental education through a set of minimum guidelines within reach of all programs. The Colorado Alliance for Environmental Education (CAEE) is gathering a representative cross-sectional team of environmental education leaders drawn from its networks of state and national contacts. This project tests and establishes environmental education program evaluation and assessment as a valid state environmental education capacity-building mechanism.

COLORADO ENERGY SCIENCE CENTER (CESC) — \$5,000
PATRICK KEEGAN, 1746 COLORADO BOULEVARD, SUITE 225, GOLDEN, CO 80401

Environmental Education Tools For Home Use

The Colorado Energy Science Center (CESC) is expanding a small energy efficiency education pilot project to educate as many as 2,000 students and to encourage them to improve the energy efficiency of their homes. CESC continues its successful collaboration with Colorado Mathematics, Engineering, Science Achievement (MESA) to provide access to 120 schools throughout the state. The project provides education for students, economic benefits for homeowners and the community, and reduced air pollution.

FRIENDS AT RIDGEWAY STATE PARK — \$5,000 JOHN YOUNG, P. O. BOX 149, RIDGEWAY, CO 81432

Interactive Education: Ecosystem Outdoor Classroom

The park provides a landmark outdoor classroom with fully handicap-accessible facilities at which thousands of rural students can experience nature first-hand. A 2-person environmental education team coordinates programs while extending the environmental education season by 2 months in both the spring and fall. The environmental education team increases the park's capacity to develop and deliver environmental education. This allows a larger, more diverse audience to participate in age-appropriate activities that challenge students to observe and investigate ecosystems, apply skills such as critical thinking, and reflect on the use of stewardship of the park's natural resources. The ultimate outcome is to create knowledgeable and skillful students who demonstrate improved academic achievement and who become stewards of the area's natural resources as lifelong learners.

Front Range Earth Force — \$9,975 Lisa Bardwell, 2120 West 33rd Avenue, Denver, CO 80211

Service-Learning Training on the Front Range

Through Community Action & Problem Solving (CAPS), middle-school aged youth and their adult leaders identify local environmental issues and work to create sustainable solutions to environmental problems. The program is aligned to state and national standards and incorporates best practices of service-learning, environmental, and civic education. The success of CAPS is the result of intensive training and local support provided for educators who implement the program in school-based or community-based settings.



NATIONAL AUDUBON SOCIETY OF COLORADO — \$5,000 SUSAN KIRKPATRICK, 3107B 28th Street, Boulder, CO 80301

Important Bird Area Youth Stewardship Project

This project provides at-risk youth a quality, environmental program in which the youth learn about habitat awareness through the conduct of hands-on activities that meet and supplement the stewardship needs of Fossil Creek Reservoir. The goal of the project is to introduce at-risk youth to ecological concepts and broaden their understanding of the role people play in caring for wildlife and habitat. The site of the project, Fossil Creek Reservoir, is an "Important Bird Area," as designated by the Audubon Society, and serves as a vital breeding, migrating, and wintering habitat for local birds.

Roaring Fork Outdoor Volunteers – \$4,000 J. David Hamilton, P. O. Box 1341, Basalt, CO 81621

Nature Field Trips, Trail Hikes and Fish Hatchery for Schools

This project provides additional staffing for environmental education field trips for various school groups in the Roaring Fork/Colorado River Valley. A secondary aspect of the program is to improve the condition of the Riparian Nature Trail through limited re-routing and additional signage.

Rocky Mountain Youth Corps (RMYC) — \$4,600 Gretchen Van De Carr, 2464 Downhill Drive, P. O. Box 775504, Steamboat Spring, CO 80477

Expansion of Environmental Education Programs

This program increases the number of youth participants served by existing successful environmental education programs. The Rocky Mountain Youth Corps (RMYC) serves an additional 40 conservation corps members by expanding to the local community youth corps programs. Fifty sixth graders and 10 high school students in the Yampa Valley Science School program are served with the addition of two school districts, Moffat County and Routt County.

CONNECTICUT

HISPANIC HEALTH COUNCIL, INC. — \$10,000 KAYA TOWNSEND, 175 MAIN STREET, HARTFORD, CT 06106

Local Environmental Health Education: A Teacher Training and Hispanic Youth Experience

Hispanic youth, ages 14-18 learn to monitor and assess their local environment under the guidance and tutorage of undergraduate students from Connecticut State University. Issues such as asthma and lead poisoning pose a significant danger to the health of many in Hartford's Hispanic community. Residents are educated about pollutants and how to reduce exposure to these health threats.

UPPER ROOM UNLIMITED, INC. — \$17,000 CRYSTAL EMERY, 900 CHAPEL STREET, SUITE 440, NEW HAVEN, CT 06530

"This Is Where I Live," Environmental Education Program for Inner-City Children.

Through an interactive play and a flexible menu of hands-on workshops in urban schools, this program delivers environmental awareness, education, and tools that help inner-city children understand and begin to solve environmental problems affecting their communities. An experiential field trip to a local nature area is included to complement and solidify the messages drawn from the play and workshops.



DELAWARE

Delaware Center for the Inland Bays — \$20,000 Edward A. Lewandowski, 467 Highway One, Lewes, DE 19958

Integrating Inland Bays Education with Delaware Science Content Standards

The project provides local students an opportunity to participate in outdoor learning activities at the James Farm Ecological Preserve, a 150-acre, county-owned property situated on the Indian River Bay near Ocean View, Delaware. The property has been under lease by the Center for Inland Bays since Fall 1998 for development as an ecological preserve. Educational programs offered at the James Farm target the Delaware Science Content Standards for seventh and eighth grade. This project intends to expand these programs to accommodate the demand for an increase in program capacity at the James Farm Ecological Preserve.

DISTRICT OF COLUMBIA

See page 4 for a profile of a grant awarded to the Alliance to Save Energy by EPA Headquarters.

Self Reliance Foundation – \$21,232 Johnathan Hilton, 529 14th Street, N.W., Suite 740, Washington, DC 20045

Asthma and the Environment

Asthma is a chronic disease with no cure, and its prevalence among children has been rising steadily for the past 20 years. The goal of this project is to create a bilingual, interactive, traveling exhibit to educate Hispanic children and their parents in a culturally sensitive manner about environmental asthma triggers and the impact they can have on the control and management of asthma. The project also seeks to educate the target audiences about preventive measures that will minimize exposure to environmental asthma triggers.

World Wildlife Fund, Inc. — \$11,224 Margaret Williams, 1250 24th Street, N.W., Washington, DC 20037 (Project in Alaska)

Living Planet Club

This 2-phase project supports the implementation of World Wildlife Fund's Living Planet Club in three Alaska native villages in the Bering Sea region. In the first phase, a team of specialists works with students and village educators to teach data collection methods, journaling techniques, mapping skills, and core ecological concepts. Secondly, the entire team relocates to a study site to conduct a rapid bioassessment, applying their newly acquired skills. Students then prepare exhibits to share their findings with the community. The data collected also serve as baseline information for monitoring long-term change in the area.



FLORIDA

FLORIDA COMMUNITY COLLEGE AT JACKSONVILLE (FCCJ) — \$18,685
DEBORAH MORRIS, 501 WEST STATE STREET, JACKSONVILLE, FL 32202

First Coast GreenWorks Education Initiative

The Florida Community College at Jacksonville (FCCJ) has partnered with the Jacksonville Electrical Authority (JEA) and the Duval County School District to promote public awareness and education in clean power generation technologies, particularly solar technologies. JEA, the regional public utility company, also has existing partnerships with both FCCJ and Duval County Schools to implement the GreenWorks program. This program arises from JEA's agreement to shift 250 megawatts of power generated annually to clean, renewable energy sources within the next 10 years. This project is focused on improving the teaching skills of high school and college teachers in the area of solar technology, in order to improve students' understanding of solar technology and their ability to make effective decisions concerning related energy and environmental issues. High school and college teachers participate in a summer workshop, regular meetings and collaborative activities throughout the academic year, including e-mail/listserv communication, and visits to their peers' classrooms. These activities prepare teachers to engage their students in classroom and laboratory activities, field trips, and career exploration activities. The project takes advantage of existing solar curricula and resources already in place as part of the First Coast Tech Prep Consortium.

Reef Relief, Inc. — \$5,000 DeeVon Quirolo, P. O. Box 430, Key West, FL 33041

Pump It. Don't Dump It - Educational Program for Florida Keys No Discharge Zone

This project supports a workshop and training session designed to explain and identify strategies to stop boaters from dumping sewage into the sea. It proposes a multi-faceted approach to educating local and visiting boaters, tourists and community members to new rules and procedures for pumping boat sewage into facilities at marinas rather than directly into the sea. Reef Relief will collaborate with other nongovernmental organizations and several local, state, and federal government and regulatory agencies. The program consists of one workshop to teach critical skills associated with making decisions on implementing EPA's new rules prohibiting sewage discharge in the no-discharge zone in the keys. The training is augmented by the installation of signs at the entrance to harbors, creation of radio public service announcements, and publication of informational brochures and flyers explaining the rules of the no-discharge zone and listing available pump-out stations in the region. Reef Relief has also created a database of distribution points for brochures and flyers.

GEORGIA

See page 4 for a profile of a grant awarded to the Upper Chattahoochee Riverkeeper Fund, Inc. by EPA Headquarters.

Driftwood Nature Center — \$5,000 Ann Marie Wilson, P. O. Box 20712, St. Simons Island, GA 31522

Adopt-A-Stream Program

Driftwood Nature Center is expanding its program to include the Adopt-A-Stream program to its curriculum. During the academic year, 5,000 fourth- through eighth-grade students from Georgia, Florida, North Carolina, and South Carolina visit the center for 3 days to learn hands on about its diverse ecosystem. Each visiting school specializes its learning experience by choosing from over 20 different courses, all geared towards Georgia's education standards, to supplement classroom curriculum. The Adopt-A-Stream program is included in these options. This hands-on, one-on-one program is filled with activities that teach decision-making, critical-thinking, and problem-solving skills for students and community members. Driftwood Nature Center has visits from an average of two school groups per week for 28 weeks of the year. Not only do the residential students participate, but the program is also offered as part of the Center's summer camp experience.



University of Georgia Cooperative Extension Service — \$21,635

John W. Worley, 621 Boyd Graduate Studies Research Center, Athens, GA 30602

Environmental Training for Confined Animal Feeding Operators

The goal of this project is to provide assistance to farmers in Georgia with confined animal feeding operations. The objectives for this project are to: (1) improve the county agents' ability to educate and assist farmers in their geographic areas through improved tools and dissemination of current information; (2) educate farmers so they will improve their environmental management and comply with current environmental regulations; (3) provide necessary knowledge and materials for farmers to work with county agents in the development of a plan to properly deal with animal waste on their farm; and (4) continue to provide technical assistance to farmers and county agents regarding animal waste issues and regulations. A training program is offered to farmers in a 2-day interactive seminar conducted by scientists and extension specialists from the University of Georgia and the Georgia Department of Agriculture. Continuing education and assistance is conducted by county agents at the local level. This assistance requires the enhancement of current Internet-based and printed tools. County agents also disseminate new information on regulations and environmental issues.

HAWAII

Tropical Reforestation and Ecosystems Education (TREE) Center — \$12,310 Pamela Davis-Lee, P. O. Box 8045, Kailua Kona, HI 96745

Environmental Restoration in Hawaii

The Tropical Reforestation and Ecosystems Education (TREE) Center on the island of Hawaii is conducting an adult education program on environmental issues affecting the native Hawaiian habitat. The grant provides funding for classroom lectures, hands-on projects on how to propagate endemic Hawaiian plants, field study, and a case study project to restore habitat with native plants. Restoration work is designed to assist in the completion of the interpretive site at the Kaloko-Honokohau National Historical Park. Project partners include Hawaii Department of Education and the U.S. National Park Service.

Waipa Foundation – \$4,450 Malinda Sandler, P. O. Box 1516, Hanalei, HI 96714

Waipa Compost Project

The Waipa Foundation, with support from the Kilauea Lighthouse Foundation, U.S. Fish and Wildlife Service, County of Kauai, and four local organizations focusing on persons of Hawaiian ancestry, are educating the community on the needs and procedures for composting. The project has a multiple audience focus, including elementary school youth, high school and college summer interns, and local residents and farmers. A composting curriculum titled "The Earth Machines," is available for distribution to fourth- and fifth-grade classes. Follow-up field trips to the compost site include demonstrations and hands-on activities and experiments in soil drainage and decomposition. The summer program provides training for high school and college interns to participate in projects for making, screening, and utilizing compost for erosion control. The project also promotes compost cooperatives for residents, farmers, and landscapers on techniques of composting and using compost resources in gardening.



IDAHO

IDAHO BOTANICAL GARDENS, INC. - \$1,920

ELIZABETH DICKEY, 2355 NORTH PENITENTIARY ROAD, BOISE, ID 83712

Idaho Wetlands Environmental Education Program for the Seventh Grade

This project supports the development of a wetlands environmental education program for seventh-grade science classes in the Boise area and assists seventh-grade teachers with meeting new state science curriculum requirements. A teacher's classroom kit provides the background necessary for student participation in a wetlands field trip. During the field trip to a pond, students learn how the site provides wildlife habitat while purifying storm water runoff. The students also participate in a field study to determine the health of the pond.

IDAHO ENVIRONMENTAL EDUCATION ASSOCIATION — \$24,186
DONNY ROUSH, 2211 SOUTH 2ND AVENUE, POCATELLO, ID 83201

A Model School Network for Achieving New Standards

The project implements the Environment as an Integrating Context for Learning (EIC) approach to environmental education in 8 to 10 "model" Idaho schools, in collaboration with the State Department of Education, Environmental Education Association, and the Environmental Roundtable. This alliance demonstrates an engaging and relevant pedagogy that meets or exceeds Idaho's new high school graduation standards, forms a network of EIC schools, and provides them with a 3-day orientation and curriculum mapping workshop, monthly full-day planning meetings, and quarterly site visits. The entire education staff (about 250 teachers and 25 administrators) in the selected schools are involved.

ILLINOIS

See page 5 for a profile of a grant awarded to the Rockford Public Schools No. 205 by EPA Headquarters.

LAKE COUNTY FOREST PRESERVE DISTRICT - \$5,000

NAN BUCKARDT, 2000 NORTH MILWAUKEE AVENUE, LIBERTYVILLE, IL 60048

Ecosystem Investigation Institute

The Lake County Forest Preserve District is conducting a 5-day ecosystem investigation workshop for third-through eighth-grade teachers highlighting three of the major ecosystem types in Illinois. The purpose of the workshop is to connect teachers with content and resources to strengthen their curricula dealing with ecosystems.

LAKE MICHIGAN FEDERATION — \$4,900

STEPHANIE SMITH, 220 SOUTH STATE STREET, SUITE 1900, CHICAGO, IL 60604

Great Lakes in My World

This project trains 25 teachers to use the "Great Lakes in My World" curriculum (kindergarten through grade 8). The curriculum is being revised to align with state learning standards and education reform, and includes problem-solving, project-based, interdisciplinary, and real-world learning experiences. Training takes place through in-service workshops.

WHEATON PARK DISTRICT - \$3,455

KELLY JOSLIN, 666 SOUTH MAIN STREET, WHEATON, IL 60187

Forging Partnerships Between Educators and Preschools in Suburbia

Forging partnerships between environmental educators and preschools in suburbia, naturalists are working with 20 preschool teachers and curriculum development professionals to refine the "Wetlands Wonders" program. The goal is to educate teachers on how to provide nature-based programs in the classroom and at a natural area. The project introduces experiential environmental education to as many as 400 preschoolers and their teachers.



WINDY CITY EARTH FORCE — \$10,000

JULIE E. SCHULTZ, 1400 S. LAKE SHORE DRIVE, CHICAGO, IL 60605-2496

Lake County Indiana Initiative

Windy City Earth Force is partnering with the Grand Calumet Task Force and Indiana Dunes National Lakeshore to develop activities for approximately 100 fifth- through ninth-grade students to prepare them for a community action project on an environmental issue of their choice.

INDIANA

CALUMET COLLEGE OF ST. JOSEPH — \$5,000

Mary Riley, 2400 New York Avenue, Whiting, IN 46394

Urban Environmental Issues in Northwest Indiana

A new course entitled "Urban Environmental Issues in Northwest Indiana" enhances the existing urban studies program. The goal is to encourage nontraditional, minority students to pursue careers in urban environmental management. The course encourages students to make informed decisions and take responsible action on environmental issues by developing critical-thinking and problem-solving skills.

FRIENDS OF INDIANA DUNES - \$4,775

KIM HOLSEN, P. O. Box 166, Beverly Shores, IN 46301

Junior Rangers Summer Biodiversity Camp

Friends of the Indiana Dunes, Indiana Dunes National Lakeshore and Indiana Dunes Environmental Learning Center are partnering to sponsor, organize, and expand the annual Junior Rangers Summer Biodiversity Camp. During the camp, youth ages 9-13 visit a variety of park ecosystems, help restore a prairie, collect seeds, remove invasive species, monitor water, and explore partnerships with industry.

Rensselaer Central Middle School — \$4.995

LANA ZIMMER, 1106 BOMBER BOULEVARD, RENSSELAER, IN 47978

Everyday Science

"Everyday Science" is a multi-disciplinary program aimed at kindergarten through 12th-grade teachers. The program seeks to broaden the education of elementary school children to include environmental studies. Through an in-service training, teachers identify goals and objectives that will lead to student-implemented stewardship projects.

IOWA

HARLAN COMMUNITY SCHOOL DISTRICT — \$14,100

Bernard Hermanson, 2102 Durant Street, Harlan, IA 51537

Student Water Quality Monitoring

This project involves monitoring the water quality of two water bodies. The public uses the data generated from this project to make decisions regarding the need and effectiveness of riparian strips and the continuation or alteration of streamside activities that could potentially affect water quality.



Iowa Natural Heritage Foundation – \$3,490 PENNY L. Brown, 7638 HICKMAN ROAD, DES MOINES, IA 50322

Walnut Creek Watershed

This film project takes viewers on a journey through the Walnut Creek watershed and teaches them how waste travels through a landscape familiar to them. The film displays land-use types recognizable by the students, and discusses how every land use impacts water quality in some way. A Walnut Creek Watershed display has been created and set up at conferences and meetings around the watershed and state.

IOWA STATE UNIVERSITY OF SCIENCE & TECHNOLOGY — \$24,655 Peggy Haafke, 2207 Pearson Hall, Ames, IA 50011

Take Responsibility for the Environment Where You Live

The goal of this project is to educate urban and rural citizens on the principles of properly fertilizing lawns and crops to protect the quality of water resources. Iowa State University Extension demonstrates appropriate fertilizer applications in three cities in Northwest Iowa. Farmers and agribusiness operators are learning how to reduce water quality degradation through the correct use of fertilizers. The project develops and presents a program for groups that demonstrates how each of us can make decisions that positively affect the environment.

Southern Iowa Forage & Livestock Committee - \$4,670 JOHN KLEIN, 603 7th Street, Corning, IA 50841

Students on the Land

This project provides a series of 10 to 16 field days on farm tours to demonstrate the latest livestock management methods. Each of these tours exhibit how grassland production and livestock grazing can be the superior alternative land use for environmental resource protection and economics in several working farmlands in southern Iowa.

West Des Moines Community School District — \$5.000 Doug Woodley, 2109 Grand, West Des Moines, IA 52065

School Integrated Pest Management Program

The West Des Moines School District is initiating a program to educate four focus groups (custodial staff, administrators and faculty, school nurses, and parents) about the impact of pesticide use on the environment and the alternatives of pesticides offered through integrated pest management techniques. These focus groups identify methods to reduce pesticide exposure to children. The project includes development of printed handouts for each of the focus groups along with a workshop for custodial staff. This environmental program educates teachers, students, parents and community leaders in the public about human health threats from environmental pollution, especially as it affects children, and how to minimize pollution exposure to preserve good health.

Western Iowa Technical Community College — \$5.000 CHRISTINE CASE, 4647 STONE AVENUE, SIOUX CITY, IA 51106

Integrating Environmental Education into English

The Western Iowa Tech Community College is integrating environmental education about hazardous household materials into its English as a Second Language (ESL) curriculum. The ESL teaching staff is developing multi-sensory lesson plans that include printed materials, videos, guest speakers and field trips. The plans include information about how to manage household toxins ranging from lead-based paint to automotive waste, such as oil and antifreeze. Activities are tied in with community environmental themes, such as weekly curbside recycling, annual Earth Day activities, and the biannual Toxic Cleanup Day.



KANSAS

CITY OF WICHITA — \$5,000

Jack Brown, 455 North Main, Wichita, KS 67202

Discovery Boxes

This project involves the creation of discovery boxes for use at the Herman Hill Environmental Education Center. These boxes provide educational outreach to classrooms, home schools, and scout groups, and contain information on water pollution, geology, hydrogeology, rivers, and streams. Discovery boxes include announcements to local public school systems, parochial schools, and home school organizations. The water and pollution education programs also are available to the public for use in community outreach programs.

Kansas City Community College — \$5,030 Dolores Daniels, 7250 State Avenue, Kansas City, KS 66112

Urban Environmental Outreach Program Community Nature Trail

This project involves refurbishing the community nature trail, gardening, and recycling. Students also participate in tree identification, which includes identifying similarities and differences between bark and leaves. During a schoolyard safari, students explore the schoolyard for signs of animal and plant life. Students also build different types of habitats along the nature trail and study animal activity. Teachers and the community attend workshops that include planting a butterfly garden, composting, recycling and laying of mulch, building bird/bat houses, and other environmental events.

Kansas City Community College — \$18,000 Linda Stewart, 7250 State Avenue, Kansas City, KS 66112

Outdoor Learning Environment

This project creates an outdoor learning environment that provides a safe place for young children to interact with nature. The project also increases interest and concern for the environment among early childhood educators through train-the trainer workshops conducted by the Early Childhood Education faculty. Educators receive hands-on environmental education curriculum for young children and take children on field trips to the outdoor learning environment.

Southeast Kansas Education Service Center – \$4,975 Brad Stefanoni, 947 West 57 Highway, Girard, KS 66743

Hands-On-Outdoor Tool (HOOT) Pack Programs for Students and Teachers

This project develops Hands-On-Outdoor Tool (HOOT) packs. These packs contain binoculars, field guides, magnifying glasses, and aquatic nets to assist students in exploration of the environment. Environmental education and teaching skills are also provided to classroom teachers. Students participate in field trips to an outdoor wildlife learning (OWL) site and summer day camps.

TOPEKA ZOO — \$9,000

CHRISTINE HADEN, 635 SW GAGE BOULEVARD, TOPEKA, KS 66606

Alien Invaders Outreach Program (AIOP)

The Junior League of Topeka and the Topeka Zoo are partners in the design and development of the Alien Invader Outreach Program (AIOP). The AIOP exposes learners to the impacts of invasive species on ecosystems and provides an opportunity to participate in service projects that lessen the effects of invasive species in the community. This highly interactive, 8-week outreach program engages students in the investigation of invasive species through live animal visits, pre- and post-visit activities, and workbooks for each participating student.



KENTUCKY

Bowling Green Independent School District — \$5,000 Susan Oglesby, 1800 Creason Drive, Bowling Green, KY 42101

Capturing Adventurous Voyages in our Environment

The grantee is partnering with the Western Kentucky University's Center for Water Resource Studies to develop and implement Project CAVE (Capturing Adventurous Voyages in our Environment). The goal of the project is to encourage students to focus on what is happening in their community and on their responsibility to preserve environmental quality. The quality of the drinking water in the Bowling Green community and in the surrounding counties has been a controversial issue. The project engages students at McNeill Elementary School to link their observations and findings with knowledge about their local environment and water quality. A 6-hour training session, facilitated by Dr. Ouida Meier from the Center for Water Resource Studies, is held at the school for all teachers. During the training, teachers learn how to utilize the school science lab effectively and how to conduct experiments pertaining to water treatment quality, as appropriate for each grade level. Dr. Meier and undergraduate biology students from the university provide guidance and assistance on a weekly basis throughout the project period.

JEFFERSON COUNTY PUBLIC SCHOOLS — \$4,964

DARLENE HORTON, P. O. Box 34020, Louisville, KY 40232

The Outdoor Classroom

The Outdoor Classroom for Chenoweth Elementary School provides students with an innovative classroom curriculum and opportunities for hands-on activities that support the curriculum and allow the students to see first-hand how they can impact the environment. Project activities include the creation of artificial wetlands, outdoor learning labs, and physical fitness stations for students who live in urban apartments, government housing projects, or other rental properties that do not have backyards. The students who participate in the program have never worked in a garden and have never had the opportunity to observe the life cycles of plants and wildlife. The school has a multi-phased, long range plan that includes an artificial wetland, a grove of trees, sections for various grass growth, a rotting log area, weather station, patches of native wild flowers, and various other habitat components. Students gain a better understanding of the science curriculum through real-life applications of textbook materials and laboratory activities. More than 50 percent of the 600 students participating in the outdoor classroom are considered at risk based on their eligibility for free or reduced-price meals.

Murray State University — \$22,993 Dr. Joe Baust, 321 Alexander Hall, P. O. Box 9, Murray, KY 42072

Model Environmental Education for Secondary Pre-Service Teachers

This project provides environmental education workshops in residential settings for 120 undergraduate students at the Murray State University, whose diverse majors comprise the secondary education component of the teacher education program. The workshops meet the demands of the national accrediting organization and the state of Kentucky. Key goals are to develop environmental education teaching skills and an understanding of environmental issues across the secondary education disciplines that are disjointed in the school curriculum.



University of Kentucky Research Foundation -\$5,000Jack Supplee, 201 Kinkead Hall, Office of Sponsored Programs/Forestry, Lexington, KY 40506

What is Forestry? Connecting Schools and Communities

The goal of this program is to connect education reform in Kentucky to existing natural resource education material and programs. The objective is to pilot, implement, and disseminate six units of study or educational models, for multiple grade levels, following the Kentucky Department of Education guidelines for resource and forestry issues. By developing standards and inquiry-based units of study that follow a 5-step learning cycle, teachers connect and integrate currently available curriculum materials in natural resource and environmental education into a cohesive, curriculum module. The units are developed by teachers, cooperative extension specialists, and other content experts. Education specialists provide training on the development of the units and cooperative extension, while other content experts provide expertise on science content issues. The program serves as a mechanism to encourage the use of existing resources, connect classroom environmental resources to teachers, introduce desired education models into the classroom, and to provide teachers with real-life examples to enhance students' conceptual understanding. The program is introduced through a 1-day workshop conducted in four areas of the state by the University of Kentucky Extension Service and partner organizations. Delivery of the program also occurs through established websites, as well as through a printed version due to inconsistent Internet access at schools across the state.

LOUISIANA

Administrators of the Tulane University Educational Funds — \$2,421 Thomas W. Sherry, 6823 St. Charles Avenue, New Orleans, LA 70118

Learning With Birds

Tulane University is conducting a workshop taught by professional ornithological scientists and educators facilitating bird-related, technologically innovative standards-based classroom and field activities. The 2-day workshop consists of a day of classroom/computer lab activities followed by a day of field activities that use existing environmental education materials. Birds make an ideal instructional subject because they are important to the local ecology and economy and are easily observed. The workshop directly benefits New Orleans urban kindergarten through 12th-grade teachers and their students by providing them with subject-specific (biology and environmental science) lesson plans and curriculum-development guidance based on the most current local standards. Partners include local and national universities, a local public school district, professional ornithological societies, and government agencies.

Shreveport Green — \$5,000 Yvonne Lee, 3625 Southern Avenue, Shreveport, LA 71104

Non-Point Source Pollution Education

This project is educating local youth about the human health threat of non-point source water pollution via classroom presentations, community fairs, and summer camps utilizing the water protection curriculum produced by Earth Force. The goal is to teach 1,000 youth in Caddo Parish about watersheds and how non-point source pollution affects them through a variety of water testing and hands-on activities. Providing the students the opportunity to participate in water quality service projects, such as storm drain stenciling and an inland waterway cleanup, reinforces the learning process. Partners include Caddo Parish Parks, Caddo Parish School Board, Earth Force, General Motors, Browning-Ferris Industries, and the Caddo Parish Sheriff's Department.



Teaching Responsible Earth Education (TREE) — \$14,650 Sue Brown, 1463 Nashville Avenue, New Orleans, LA 70115

Teaching Responsible Earth Education (TREE)

This project is a 5-day, 4-night Sunship Earth Education Program for the John Dibert Elementary School in New Orleans, Louisiana, an inner-city public school with a minority population of 94 percent. This population lacks knowledge about environmental issues and benefits greatly from a TREE's hands-on approach to environmental education. The program teaches basic ecological and life science concepts so that students gain environmental, problem-solving and creative thinking skills. Partners include Louisiana Delta Service Corps and the United Way.

University of Louisiana at Lafayette - \$5,000

COETTE ANZALONE, 104 UNIVERSITY CIRCLE, MARTIN HALL, ROOM 340, LAFAYETTE, LA 70503

Environmental Education Challenge: The Strongest Link

This project is designed to educate seventh through tenth graders in the areas of agriculture, water quality, soil analysis, animal science, aquaculture, horticulture or plant science. The program is designed to divide classrooms into five environmental stations. Objectives are to educate teachers and students about environmental issues and challenges in the region, and to develop materials and approaches for an effective regional environmental education program. Partners include Lafayette Parish School Board and Catholic schools in the area.

MAINE

Northern Maine Development Commission — \$14,414 Sigrid Houlette, 302 Main Street, P. O. Box 779, Caribou, ME 04736

Safe Home Drinking Water - Education of Private Well Owners in Northern Maine

This program is presented to various community organizations, family health groups, as well as the general public. Issues covered include contaminant threats to groundwater and their potential health effects, as well as the differences in drilled and dug wells. The program provides tools to change poor habits at home, such as inadequate care of septic systems, purchasing and disposal of household cleaners and agricultural chemicals, and testing of drinking wells at least every 3 years.

THE ENVIRONMENTAL SCHOOLS — \$2,250

MATT DUBEL, 2 RANDALL AVENUE, OCEAN PARK, ME 04063

Using Environmental Education to Reach Main Learning Results

This grant consists of three public school teacher workshops; one for kindergarten through second grade, one for grades 3 through 4, and one for grades 5 through 8. The workshops provide effective, practical activities selected from existing curricula for their ability to reach standards contained in the Maine Learning Results. The workshops include briefings on the ecological or environmental science behind each activity and are accompanied by written materials outlining the activities and additional resources.



MARYLAND

MIDDLE PATUXENT ENVIRONMENTAL FOUNDATION - \$14,240

CHERYL FARFARAS, 7120 OAKLAND MILLS ROAD, COLUMBIA, MD 21046

Linking Biodiversity and Urbanization in the Middle Patuxent Environmental Area

The project helps residents of Howard County, Maryland become better informed about the effects of critical land-use decisions on habitats and native species in the county. The objectives are to solicit community input about environmental issues of concern and to assess current community understanding of the issues.

Ward Foundation, Inc. - \$3,940

Tod Hall, 909 South Schumaker Drive, Salisbury, MD 21804

Maryland Summer Center for the Lower Eastern Shore

The Ward Museum of Wildfowl Art at Salisbury State University is dedicated to exhibiting wildfowl art and reflecting the heritage of the Eastern Shore of Maryland. The program is centered on educational reform, and targets selected fifth-, eighth-, and 12th-grade environmental science classes, as well as math performance standards for third- through eighth-grade students.

WILDLIFE HABITAT COUNCIL - \$14,000

MANDY CHESTNUT, 1010 WAYNE AVENUE, SUITE 920, SILVER SPRING, MD 20910

Wings of Wonder

The Wings of Wonder program educates students, teachers, employees, and community members about the conservation of migratory species through an inquiry-based curriculum on corporate habitats. Employee wildlife teams unite with local schools, as well as with corporate sites and schools in Latin America to study migratory birds and butterflies. The project also addresses capacity building and community issues.

MASSACHUSETTS

See page 5 for a profile of a grant awarded to the Institute for Just Communities by EPA Headquarters.

Cohasset Public Schools – \$3,892

JACK BUCKLEY, 143 POND STREET, COHASSET, MA 02025

Assessing the Gulf River - Student Monitoring of Water Quality in the Cohasset, MA South Coastal Watershed

This grant enables Cohasset Middle High School students to work as summer interns re-establishing water quality monitoring in the Gulf River, and to assist the Gulf Association in its goal of conducting a natural resources inventory (NRI) of the Gulf River Watershed. Archived water quality data (dating back 6 or more years) and data from the summer of 2002 are gathered and documented in a report that becomes part of the NRI document published by the Gulf Association.

HOUSATONIC RIVER RESTORATION, INC. — \$13,835

RACHEL FLETCHER, 113 DIVISION STREET, P.O. BOX 1018, GREAT BARRINGTON, MA 01230

Housatonic River Restoration Environmental Education Network

The network establishes a regional partnership of classroom educators and environmentalists to create quality, place-based water resource education and ensure a responsible and knowledgeable constituency of river uses. The network supports and provides curriculum guides and training for classroom teachers to encourage them to use the Housatonic River as a teaching laboratory for their students, while implementing curricula that are compatible with the Massachusetts State Education frameworks.



Keep Lowell Beautiful, Inc. – \$5,000 Frank Heslin, 32 Lowell Road, Westford, MA 01886

Keep Lowell Beautiful Litter Reduction Project

The "Keep Lowell Beautiful Litter Reduction" project combines interactive education programs and handson cleanups in the most highly littered areas of the city, where 20,000 Spanish and Khmer-speaking people reside. These neighborhoods have community organizers and groups that will assist with raising community awareness of the negative impacts of litter, developing solutions to the issue of litter in the neighborhood, and promoting a behavioral change toward litter.

Merrimack River Watershed Council — \$15,517
Beth Brazil, 600 Suffolk Street, 4th Floor, Lowell, MA 01854

Merrimack River Children As River and Environmental Stewards (CARES) Program

This program is a seventh-grade environmental education implementation program focusing on the Merrimack River and Salmon Brook watersheds. This project educates up to 22 seventh-grade teachers and as many as 1,000 students of Nashua, New Hampshire. The program includes specific community activities facilitated by the schools, such as field trips and watershed events to educate citizens residing in the towns within the Merrimack River watershed about the benefits of active watershed stewardship on public health and local environmental conditions.

NASHUA RIVER WATERSHED ASSOCIATION (NRWA) - \$5,000 MARY H. MARRO, 592 MAIN STREET, GROTON, MA 01450

Ayer Nature Trail and Watershed Monitoring Project

This project enables 100 fifth-grade students and 6 middle school teachers to work directly with the Nashua River Watershed Association (NRWA) scientist-in-residence. Once a month, the NRWA scientist visits each class, and facilitates hands-on participatory activities in the forest and at pond sites. Twenty-five parent chaperones also participate in the Explore-A-Pond Program, often learning as much as the students.

New England Aquarium Corporation — \$20,000 John Anderson, Central Wharf, Boston, MA 02110

The Mercury Story

This project engages public audiences to learn about mercury pollution and its prevention by designing a traveling exhibit and training program to support public education in each New England state. The components of this project are based on successful work previously conducted at the aquarium, including a mercury education day and thermometer exchange. During the first 6 months of its tour, families, school groups, and community leaders from across New England have the opportunity to interact with the exhibit and participate in a mercury education day.

Northeast Sustainable Energy Association (NESEA) — \$5,000 Christopher Mason, 50 Miles Street, Greenfield, MA 01301 (Project in New York)

Earth Smart Spending

The Northeast Sustainable Energy Association (NESEA) is conducting a regional energy conservation workshop for fourth-grade through high school teachers and school facility managers. The workshop takes place in Albany, New York and focuses on current technology and available consumer choices for heating, lighting, and transportation. The workshop enables participants to use educational resources and materials on energy efficiency, renewable energy, and clean transportation technologies. The mission of the program is to provide education about energy conservation choices that can be made at the institutional and personal level to prevent pollution through wise energy use.



Northeast Sustainable Energy Association (NESEA) — \$5,000 Christopher Mason, 50 Miles Street, Greenfield, MA 01301

Earth Smart Travel

This project is a pilot project promoted by the Northeast Sustainable Energy Association (NESEA) to provide support and training on environmental transportation issues to environmental education organizations, such as the Massachusetts Community Water Watch and Tanglewood 4-H Camp. In turn, these organizations bring the program activities back to the schools and students with whom they currently work. NESEA involves at least 24 new schools and 2,100 new students annually in interdisciplinary education on transportation issues.

OLD COLONY Y - \$4,800

Kenneth Klier, 320 Main Street, Brockton, MA 02301

Learning Environmental Awareness and Positive Attitudes (LEAP)

Project LEAP is an environmental education program developed for at-risk youth, ages 12 to 21. This organization, partnering with Champion Charter School and Youthbuild Brockton, provides 80 students from alternative classrooms the opportunity to learn outdoor skills that encourage healthy active lifestyles and that develop a better understanding of environmental issues, such as water quality and urban open space.

STONEHILL COLLEGE - \$10,000

Dr. Roger Denome, 320 Washington Street, Easton, MA 02357

Creation of the Campus Classroom

This project makes the wild spaces on Stonehill College's campus available for educational efforts of the college and kindergarten through 12th-grade school systems in the surrounding area. Five undergraduates, working for 10 weeks in the summer research program, produce a Field Guide to Stonehill College and make it available online and in print. Ten teachers from local school districts are trained in a summer workshop focusing on the use of the guide. Teaching collaborations between these teachers and Stonehill College are developed, which in turn bring kindergarten through 12th-grade classes onto the campus for education in environmental sciences.

THE BOSTON HARBOR ASSOCIATION — \$5,000

VIVIEN LI, 374 CONGRESS STREET, SUITE 609, BOSTON, MA 02210

Summer on the Harbor Education Program for Inner-City Youth

The Summer on the Harbor program provides middle- and high-school-age youth with a series of interactive activities, field trips, and hands-on science projects to teach them about the complex environment associated with the Boston Harbor and the Boston Harbor Islands. The goal of the program is to promote long-term environmental stewardship of Boston Harbor among inner-city youth. Students participate in restoration activities and projects, learn about environmental and public health issues, and explore environmental career opportunities associated with the harbor.

MICHIGAN

Huron River Watershed Council — \$5,000

Joan Martin, 1100 N. Main Street, Suite 210, Ann Arbor, MI 48104

Using Discovery to Engage Citizens in River Monitoring and Protection

Residents are educated about the impact of their activities on the quality of the Huron River. Through experiential learning and personal involvement, watershed residents develop ownership of and a desire to protect the river. They learn basic tenets of stream ecology and interpretation of river evaluation measurements.



LAKE SUPERIOR STATE UNIVERSITY - \$5,000

Dr. Barb Keller, 650 West Easterday Avenue, Sault St. Marie, MI 49783

Biological Contamination Investigation

High school students and their teachers work with environmental health students and faculty of Lake Superior State University and staff of district health departments to test for biological contamination and make recommendations to regulators about how the findings may affect human health.

Nottawaseppi Huron Band of Potawatomi – \$5,000 David Jones. 2221 1^{1/2} Mile Road. Fulton. MI 49052

Radon Action Bowling Tournament

By participating in a 1-day bowling tournament, tribal members are educated about radon and its health effects. Eighty percent of the tribe lives in counties designated as having a moderate to high potential for having radon that exceeds allowable levels.

MINNESOTA

CARVER COUNTY - \$5,000

JOE ENFIELD, 600 EAST FOURTH STREET, CHASKA, MN 55318

Metro Area Children's Water Festival

This water festival provides hands-on water education for 1,300 fifth-grade students in the Minneapolis - St. Paul metropolitan area. The festival gives students the opportunity to learn about the water cycle, ground and surface water, ecology, wetlands, and other related natural resources.

Eco-Education - \$4,995

KATHY KINZIG, 210 E. 10TH STREET, #375, St. Paul, MN 55101

Twin Cities Environmental Issues, Urban Teachers Network

This project provides environmental education in an urban area through a workshop series and the establishment of a support network for participants. A series of 2-hour workshops are held, along with one field trip, highlighting key environmental issues in the Minneapolis - St. Paul area.

MINNESOTA STATE HORTICULTURAL SOCIETY - \$12,000

VICKY VOGELS, 1755 PRIOR AVENUE, FALCON HEIGHTS, MN 55113

Community Gardening the Organic Way

The Minnesota State Horticultural Society has developed an educational series on organic gardening for Minnesota Green participants. Minnesota Green is a community outreach program that coordinates resources of horticultural-related organizations, state and local governments, and businesses to revitalize communities through plants. Feeding the soil, not the plants, embracing plant and community diversity, and working with the natural cycles in a garden are some of the basic principles of organic gardening that are taught in the series.

Prairie Country Resource Conservation and Development Area — \$4,490

Kylene Olson, 629 North 11th Street, Montevideo, MN 56265

Bringing Stream Biology Monitoring into the Classroom

This project includes a 2-day workshop designed to teach 18 teachers about biomonitoring methods and techniques. Staff conduct follow-up sessions with the teachers in their classrooms and in the field to help establish regular monitoring sites and to help with the identification of macroinvertebrates, such as mosquitoes, bloodworms, and dragon flies.



MISSISSIPPI

CLINTON COMMUNITY NATURE CENTER ASSOCIATION, INC. — \$6,622 Nellie Neal, P. O. Box 93, Clinton, MS 39060

The Teacher Connectivity Project

The Teacher Connectivity Project is a concept developed in response to the needs of individual and teacher groups seeking meaningful field trips for their students. The program goals are to: (1) encourage more teachers to visit the Clinton County Nature Center each year with their classes, and (2) provide materials and methods for meaningful, hands-on, field lab activities to teach on site. To effectively deliver this program, the center works with its informal network of science teachers to review and select environmental lab materials that coordinate with the curriculum currently used in grades 2 through 7. The criteria for selection places emphasis on the area's key environmental issues. A 1-day workshop is held for area teachers to inform them about the center and its programs and to introduce several field trip activities. During the conference, 10 "Nature Lab" activities are introduced and participants are asked to evaluate them for content and usefulness in teaching the subject matter.

Mississippi Urban Forest Council — \$5,800 Donna Yowell, 164 Trace Cove Drive, Madison, MS 39110

Ribbons of Green

This project is a linear green space program that helps students develop an understanding of how green space, community trees, and other natural resources contribute to better communities. An introductory brochure is sent via the Mississippi Department of Education to all high school environmental science, biology, and zoology teachers throughout the state. Teachers who indicate an interest are contacted and furnished with further information. All teachers who elect to participate are given a "Ribbons of Green" tool kit for their classroom. This tool kit consists of the necessary materials to implement the program within their local school. As part of this program, participating students inventory and map the linear green space in their community. A pilot for this program has been successfully established in one local area high school and the goal is to introduce it to teachers statewide.

MISSOURI

Bridging the Gap - \$24,831 Stacia Stelk, P. O. Box 10220, Kansas City, MO 64171

Leadership in Environmental Action Projects (LEAP)

The Leadership in Environmental Action Projects (LEAP) works with five teachers in grades 5 through 12 of the Blue Valley, Wyandotte County, Shawnee Mission, and Kansas City area school districts in Kansas using the solid waste curriculum developed by the Gateway Center for Resource Efficiency. The Gateway Center for Resource Efficiency and Bridging the Gap train teachers in 3 groups and then train four student leaders from each school in an 8-step problem-solving model that is applied to the solid waste stream in each school. The students assess their schools' waste streams, examine options, and select and implement solutions that can reduce their schools' waste stream. A final presentation of each team's projects is held in the spring semester at a student summit.



Crowder College — \$11,135 Art Boyt, 601 Laclede, Neosho, MO 64850

Solar BikeRayce USA Education Outreach

Solar BikeRayce USA is a competition targeting high school students with the mission of promoting education excellence and knowledge of renewable energy and energy efficiency through a hands-on project based learning experience. Four teacher/student workshops and on-line education materials are developed to educate teachers about renewable energy. Students are exposed to the concepts of renewable energy and energy efficiency while gaining experience in engineering and team-based learning. The education materials from the workshops and the Internet are widely used by teachers and student team members.

Ivanhoe Neighborhood Council — \$4,950

Jessie Jefferson, 3210 Michigan, Kansas City, MO 64109

Litter Bug Campaign

This project reintroduces the Litter Bug campaign to focus efforts on education, cleanups, and the development of community pride. It involves the participation of young children in preschool through grade 3. Newsletter articles, flyers, posters and street signs are distributed to promote the Litter Bug campaign.

Southwest Missouri State University – \$7,917

Janice Greene, 901 S. National Avenue, Springfield, MO 65804

Environmental Education Workshop at Bull Shoals Field Station

This project involves a workshop at Bull Shoals Field Station. Twenty sixth- through 12th-grade science teachers participate in a 2-day workshop on environmental education. Participants gain awareness and knowledge about environmental issues that are being addressed by modern scientific research methods, and learn skills necessary for creating an outdoor classroom.

MONTANA

BIRCH CREEK OUTDOOR EDUCATION CENTER — \$5,000
PAUL CLARKE, 710 SOUTH ATLANTIC, CAMPUS BOX 100, DILLON, MT 59725

K-12 Experimental Environmental Education Program

The 2002 Environmental Education Project is a multi-tiered project involving students, teachers, and administrators from town, rural, and tribal schools. It seeks to expand the teacher training opportunities by increasing the direct work with educators and student teachers of University of Montana-Western and Salish-Kootenai Tribal College. The program expands upon current conservation education offerings, and intensifies the cultural and social contribution to the community.

BITTEROOT ECOLOGICAL AWARENESS — \$5,000 SUSANNE MEIKLE, 615 PINCKNEY, HAMILTON, MT 59840

Fire Ecology Pilot Program

The Bitteroot Ecological Awareness Environmental Presenters Program allows local expert presenters to bring the natural world into the classrooms. The fire ecology program supplements text-based curricula with experienced-based learning. It gives teachers the support of experts to refine their environmental teaching, and provide resources to encourage locally-specific and community-based education around this important community issue. As a result of this program, the student population is more informed and more interested in the ecology of their home.



HELENA FOREST FOUNDATION — \$4,500 LIZ BURKE, 2880 SKYWAY DRIVE, HELENA, MT 59601

Senior Naturalist Program (SNP)

The Helena Forest Foundation, through the Senior Naturalist Program (SNP), promotes conservation and environmental stewardship within community youth organizations. The program has expanded into a year-round, after-school enrichment program. By drawing upon Montana's large resource of senior retirees and youth organization needs, SNP fosters cross-generational connections and an enhanced appreciation of natural resources.

Livingston School District 1 & 4-\$4,345Julie Handcock, 132 South B Street, Livingston, MT 59047

The Yellowstone River Project

During this program, students participate in both classroom and field activities focused on the Yellowstone River and its value to the community. The goal is to increase students' knowledge of and appreciation for the river and consequently improve future decision making about the Yellowstone River. To achieve this goal, the project is designed to train certified teachers through Project WET, the Montana Watercourse workshop. Project WET uses materials from the International Fly Fishing Center to design a 2-week program for second- through sixth-grade students.

MISSOULA COUNTY PUBLIC SCHOOL DISTRICT NUMBER 1-\$5,000 SUSAN ARTHUR, 215 SOUTH 6TH WEST, MISSOULA, MT 59801

Forest Outdoor Environmental Education Program

This program offers outdoor environmental education coordinated by the Missoula YMCA, in partnership with the U.S. Forest Service (USFS). During the program, community environmental issues are examined in depth, and teachers receive advanced training. Students' educational horizons are enhanced through a community-based partnership that supplements the formal curriculum.

Montana Environmental Education Association (MEEA) - \$24,500 Steve Eshbaugh, General Delivery, Bozeman, MT 59773

On-Line Environmental Education Database for Montana

This project improves and expands state environmental education programs using a sophisticated and comprehensive searchable information clearinghouse for environmental education resources. Based on the success of this program in Utah and Colorado, the organizational memberships have grown from 48 to 120.

NEBRASKA

See page 5 for a profile of a grant awarded to the Nebraska Alliance for Conservation and Environmental Education by EPA Headquarters.

Keep North Platte Beautiful — \$12,902 Sara Morris, 715 S. Jeffers, North Platte, NE 69103

Magic of Recycling

This educational program brings recycling and litter prevention awareness to the community and schools. The project includes school workshops, discussion sessions with teachers and the media, and presentations to businesses and government agencies.



University of Nebraska — \$24,666

Julia Torquayi, 303 Canfield Administration Building, Lincoln, NE 68583

Connecting Children to Environment

The program teaches children about the interdependence of the life cycle through developmentally appropriate activities and teaches early childhood teachers how to incorporate environmental education concepts and activities into their curriculum. This project involves 100 preschool-aged children and their families representing 16 different countries; 100 college students working towards degrees in child development, early childhood education, and elementary education; 20 toddlers and their families; and 5 toddler teachers. An interactive workshop is held for 100 participants, including early childhood teachers and in-home child care providers. Early childhood educators implement environmental education activities incorporating investigation, analysis and problem-solving, such as creating demonstration gardens. The final product is a framework for teaching environmental education concepts to young children. A summer solstice festival is held in June 2003.

NEVADA

University of Nevada, Reno — \$21,721 Richard Bjur, University of Nevada, Reno, CESE 199, Reno, NV 89557

Energy Education and Conservation Program for Hispanic Families

The College of Engineering at the University of Nevada, Reno seeks to create an Energy Conservation and Energy Education Program for Hispanic Families. Sixty upper-elementary level students in two designated classes are slated to participate in activities to explore energy and power and the application of those physical science concepts in real life, particularly as they relate to environmental issues and natural resources. By evaluating energy use in their homes, energy sources and their environmental impacts, and opportunities for saving energy, students can develop and present an educational program on saving energy to parent groups. Student mentors from University of Nevada, Reno assist at the school as outside experts to provide technical assistance and to foster interest among participants in engineering and physical science careers. Additional professional expertise comes from Sierra Pacific Power Company and the Desert Research Institute's Million Solar Roofs Program.

NEW HAMPSHIRE

APPALACHIAN MOUNTAIN CLUB (AMC) — \$4,983 TIM Breen, Route 16, P. O. Box 298, Gorham, NH 03581

Appalachian Mountain Club's North Country Schools Partnership

The Appalachian Mountain Club (AMC), partnering with the White Mountain Regional School District, focuses on using a community-based environmental education approach to curricula reform while meeting the teaching frameworks. The two groups work closely with the teachers in the district to promote the use of the local landscape as a resource for teaching and learning. Together, these organizations choose and develop several new curricula projects for the students in the district. In addition, this project helps AMC learn about the challenges and possibilities of playing a greater role in the education of students in the region.

School Administrative Unit #70 School District — \$11,870 John Aubin, 45 Lyme Road, Hanover, NH 03755

Way to GO! - A Transportation Initiative

This interstate school district, comprised of four schools in New Hampshire and Vermont, implements a program that heightens family and child awareness about the environmental implications of their transportation choices. The goals of the program are to create safe, walkable communities; maintain clean air with minimum pollution and CO₂ emissions; and promote ways to keep children healthy. The audience is primarily 800 elementary school children and their families, but the results of the project are distributed to the 6,000 taxpayers in Hanover and Norwich.



NEW JERSEY

Bridgewater-Raritan Regional School District — \$8,625 Katrina Macht, 844 Brown Road, Bridgewater, NJ 08807

Hillside's Habitats of New Jersey

This program develops the educational potential of an outdoor learning site, Hillside's Habitats of New Jersey. Hillside students, community residents, and students from East Orange learn how urban sprawl and habitat destruction are effecting the ecosystems of New Jersey and, specifically, the Bridgewater community. The school district's third graders work with other students and adults of the school's Outdoor Site Committee and environmental club. Together, they design activities for the district's third graders who come to the habitat as part of their course of study. Students also make presentations about the program to the school's Outdoor Site Committee and serve as guides for visitors to the habitat. The program, which focuses on the effect of human development on natural ecosystems, is of special interest to residents of New Jersey, the country's most densely populated state.

Citizen Policy and Education of New Jersey — \$5,000 John Weber, 400 Main Street, Hackensack, NJ 07601

Lead Poisoning Prevention

Because lead poisoning remains a significant threat to the health of children, the Citizen Policy and Education Fund teaches staff members of social service organizations and community groups across New Jersey to help their clients determine whether lead is present in their homes and identify ways they can avoid lead poisoning. The workshops focus on training social service and community organization staff because they interact with families considered to be at high risk for lead poisoning. Trainees attend a full-day workshop that teaches them about the sources, pathways, medical effects, prevention methods, laws, regulations, and tenants' legal rights regarding the presence of lead. Participants are encouraged to develop poisoning prevention strategies that relate specifically to the communities they serve.

EnvironMentors Project — \$19,000 Whitney Montague, 229 Lawrenceville Road, Lawrenceville, NJ 08648

New Jersey EnvironMentors Project

The EnvironMentors Project helps students become knowledgeable about the academic and career possibilities open to them in environmental and scientific fields. High school students develop an increased competency in science and mathematics through one-on-one mentoring with adults who hold degrees in and are employed in environmental fields. The students also participate in a program to facilitate their applications to colleges and universities. Monthly seminars on environmental issues of local relevance enhance their environmental literacy and help them identify opportunities to improve conditions in their neighborhoods. This project serves 80 public high school students in Trenton and Princeton who, through environmental presentations, reach out to 1,600 local elementary school students.



Greater Newark Conservancy — \$3,500 Robin Dougherty, 303-9 Washington Street, 5th Floor, Newark, NJ 07102

Environmental Health Education Program

The Greater Newark Conservancy conducts a series of workshops on environmental health for the annual 2-day conference of the Alliance for New Jersey for Environmental Education (ANJEE). Each day consists of workshops on topics including asthma, air quality, and lead poisoning in urban and suburban communities. The goal is to help the formal and informal environmental educators who attend the conference understand key issues in environmental health education. The workshop familiarizes participants with a variety of teaching techniques and community service project models so they can implement environmental health education programs at their schools and facilities. Workshop materials include those developed by the Environmental and Occupational Health Sciences Institute and the Northeast States for Coordinated Air Management's AirCURRENTS curriculum.

Greater Newark Conservancy — \$4,998 Robin Dougherty, 303-9 Washington Street, 5th Floor, Newark, NJ 07102

Environmental Health Discovery Box

The goal of this project is to teach second- and third-grade students about the connection between health and the environment. The Greater Newark Conservancy has created an Environmental Health Discovery Box that is available to teachers in Newark through a free loan program. The box enables teachers to present a course of study, lasting from 1 day to several weeks, on environmental health to a class. During the loan period, the teacher has use of the box's age-appropriate materials including lesson plans, teacher guides and all necessary materials, equipment, and supplies. The lessons focus on air quality, the respiratory system, asthma, toxins in the home, the circulatory system, and lead poisoning. The hands-on inquiry lessons correlate with state curriculum standards. The Conservancy provides one-on-one support for the teachers who borrow the box of materials.

THE PORT REPUBLIC SCHOOL DISTRICT — \$6,200 KIMBERLY SMITELLI, 135 POMONA AVENUE, PORT REPUBLIC, NJ 08241

The Bristow-Phillips Enrichment Project

Partnering with the Atlantic Audubon Society, Port Republic School students study the ecosystem of a 300-acre mixed woodland and cranberry bog in order to develop it as a wildlife preserve and study center. The acreage, a recent bequest to the New Jersey Audubon Society, serves as a field study resource for students and teachers who will work with the faculty at Stockton State College and Audubon staff to catalogue and investigate the flora and fauna at the site. In addition to developing an understanding of the ecosystem, students create and rehabilitate trails and look for evidence of the previous use of the site as a 19th century farm and lumber resource. The school population and neighboring community also benefit from workshops that are held over the course of the study.

Wetlands Institute -\$5,000

LUCINDA O'CONNOR, 1075 STONE HARBOR BOULEVARD, STONE HARBOR, NJ 08247

Expansion of the Junior Naturalist Program

As part of this program, the Wetlands Institute works with the Middle Township Public School System, The Cape May County Mosquito Commission, The Cape May Municipal Authority, Rutgers Cooperative Extension, and The Nature Conservancy to expand its Junior Naturalist Program to include economically disadvantaged students. Middle grade students participate in a week-long program that develops and supports their interest in science by providing them with in-depth opportunities to explore the natural world. Scientists and staff from the participating organizations provide guidance for the students' exploration, research, and discovery. The program helps students learn about New Jersey's natural habitats, understand the challenges humans pose to the natural world, and evaluate everyday environmental choices.



NEW MEXICO

New Mexico Mathematics Engineering Science Achievement, Inc. — \$20,000 Michael Garcia, 2808 Central, S.E., #122, Albuquerque, NM 87106

Summer Ecology Research Project

This project provides a high quality environmental science education to interested New Mexico Mathematics Engineering Science Achievement (MESA) teachers and students throughout the state. The goals and objectives of the project include providing prospective college students, especially rural and culturally diverse students, with exposure to environmentally related fieldwork and scientific research techniques; written and oral communications aspects of math, science and technology through the use of web pages; and written reports and oral presentations. The project also focuses on the importance of proper use and maintenance of natural resources by individuals and local economies, and provides enhanced teacher training to ensure the long-term sustainability of these classes. Training is conducted through workshops in a classroom setting and field trips. Key partners include the New Mexico Museum of Natural History and Science, the Albuquerque Public School District, and other New Mexico school districts with MESA programs.

THE FAMILY YMCA EARTH SERVICE CORPS — \$5,000 DIANA MARTINEZ, 1450 IRIS STREET, LOS ALAMOS, NM 87544

Environmental and Service Learning Program

This project's primary goal is to establish an environmental education platform that gives area youth the opportunity to develop their skills while providing meaningful service to Los Alamos and nearby communities. The program is conducted through formal classroom and hands-on, service-learning activities that include trail restoration in fire-damaged areas, grass reseeding projects, erosion control measures, natural spring reseeding projects, riparian surveys, and documentation projects. Partners include the U.S. Forest Service's Espanola Ranger District, Los Alamos County, Los Alamos Trails and Pathways Association, and a multiagency group known as the Volunteer Task Force.

NEW YORK

See page 6 for a profile of a grant awarded to the City of New York Parks and Recreation by EPA Headquarters.

Adirondack Council, Boy Scouts of America — \$5,000 Michael R. Martin, P.O. Box 2656, Plattsburgh, NY 12901

Development of Ecosystem-Based Education Modules for Residence Camp

The Adirondack Council of the Boy Scouts of America (BSA) develops educational programs for summer camps. Focusing on the ecosystems of the Adirondack Mountains, the modules cover acid rain, accelerated eutrophication in lakes due to human activity, nonpoint source pollution and the impact of introducing non-native species into the Adirondack ecosystems. The modules are designed to interest girls and boys in grades 3 through 5 at BSA and Girl Scouts of the USA residence camps. The program materials encourage young campers to understand their place within ecosystems. The modules are interactive and ecosystem-based, which makes them suitable for use at most residential camps.



Brooklyn Botanic Garden (BBG) — \$5,000 Kirsten Munro, 100 Washington Avenue, Brooklyn, NY 11225

The Internship Initiative

The Internship Initiative expands a successful Brooklyn Botanic Garden (BBG) program for high school and college students that increases their understanding of horticulture and introduces them to career opportunities. The initiative provides students, many from underserved communities, with a variety of intellectual resources, a positive peer environment, and caring, career-minded mentors. Interns who are Children's Garden instructors learn both gardening basics and the educational needs of youngsters. Science apprentices, who work with BBG staff mentors, use scientific methods and practices to learn more about a research topic. The school program interns rotate through BBG's education, horticulture, and library departments. Participants in the initiative are active environmental educators and learners while they explore career possibilities.

Constitution Marsh Audubon Center & Sanctuary – \$5,000 Eric Linc, P. O. Box 174, Cold Springs, NY 10516

Environmental Education and Steward Internship

This grant supports participation by college students in an intensive summer field ecology internship program at Constitution Marsh, a 270-acre Hudson River tidal marsh in Garrison, New York. Interns receive on-the-job training focused on developing their teaching skills, increasing their knowledge of natural history, and providing experience with day-to-day work in a wildlife sanctuary. Interns rotate through several areas of the sanctuary's operations while they learn about providing effective environmental education, perform tasks in wildlife and sanctuary management, and handle nature center administration. In addition, interns design and implement a research or education-based project during their tenure.

Council on the Environment of New York City — \$5,000 Michael Zamm, 51 Chambers Street - Room 228, New York, NY 10007

Training Student Organizers to Implement Energy Conservation Action Projects

Training Student Organizers is an action-oriented program that educates students about environmental issues, helps them develop citizenship skills, and provides opportunities for them to make positive contributions to the quality of life in their neighborhoods. The Council on the Environment works with the Manhattan Center for Mathematics and Science, a public high school in East Harlem, on a program involving 150 students. The students learn about energy sources; production, delivery and consumption; study strategies for conservation and alternative energy use; design classroom and school lighting conservation programs; and develop plans for strategies and projects to motivate others to play an active role in conserving energy.

Genesee Valley Board of Cooperative Educational Services (BOCES) — \$13,784 Robert Lynch, 27 Lackawanna Avenue, Mount Morris, NY 14510

Environmental Justice for Migrant Farmworker Students

The Geneseo Migrant Center partners with other migrant education agencies to develop a course for migrant farmworker high school students. The goal is to educate these students about the environmental health concerns that they and their families face. The environmental studies course includes topics such as pesticide use in the workplace and the health impacts of substandard housing and sanitary facilities. The project involves the development and dissemination of a portable 2-semester course for high school credit that students can pursue as their families pursue work in agriculture. The course meets state standards. Students are assisted by a cooperating teacher/mentor.



ITHACA CITY SCHOOL DISTRICT — \$4,992 ELIZABETH WOLF, 400 LAKE STREET, P.O. BOX 549, ITHACA, NY 14851-0549

Danby School of Agriculture and the Environment High School and Elementary Watershed Education Program

This project educates Ithaca High School and Tompkins-Seneca-Tioga Board of Cooperative Educational Services (BOCES) high school students about watersheds and encourages them to pursue environmental careers. Students conduct a comparative study of the local watershed by studying stream chemistry and the physical components of the ecosystems, and through plant and animal identification. They conduct their studies under the guidance of Cornell University faculty, scientists, environmental business people, and professionals involved in water-related environmental fields. These high school students share their observations with students around the world through the Global Observations to Benefit the Environment (GLOBE) program. They also teach fourth-grade students about watersheds at a half-day workshop.

MOHONK PRESERVE, INC. — \$20,565 GLENN D. HOAGLAND, P. O. BOX 715, NEW PALTZ, NY 12561

The Hudson Watershed Environmental Justice Project

The Mohonk Preserve and the Hudson Basin River Watch are working with the Youth Resources Development Corporation to address water quality and environmental justice issues with inner-city youth. The project targets seventh- and eighth-grade students from underserved communities. Program staff teach them about watershed issues in general, as well as about the importance of watersheds in the communities in which they reside. Students learn about how individual and community actions impact water quality. They investigate the water quality of a Hudson River tributary on Mohonk Preserve lands and water quality in their neighborhoods. Students gain a better understanding of the processes underlying water's movement, how pollution moves through a watershed, and how to determine stream health. The project combines in-school and field study components.

Research Foundation of the Plattsburgh State University of New York - \$5,000 Dr. Melinda Wu, P. O. Box 9, Albany, NY 12201

Exotic Species: What Local Governments Need to Know

The Technical Assistance Center at the State University of New York (SUNY) in Plattsburgh, New York, and the Center for Earth and Environmental Science conduct a 1-day workshop for local officials on Brownfields and exotic, non-native species. This workshop is offered to administrators in towns within the Adirondack region of New York, one of the largest tracts of wilderness in the United States. The workshop provides local officials in smaller communities with an understanding of the legal, financial, and environmental issues involved in redeveloping Brownfield sites. The workshop also focuses on the ecological consequences of, and strategies needed to deal with, exotic plant species invasion. The workshop enables administrators and managers to make informed decisions when responding to the effects of human interactions with the environment.

Research Foundation of the Plattsburgh State University of New York — \$5,000 Dr. Catherine Joyce, P. O. Box 9, Albany, NY 12201

Acid Rain and Exotic Species

The Center for Earth and Environmental Science, the Department of Elementary Education and the Technical Assistance Center of the State University of New York (SUNY) at Plattsburgh State are conducting a workshop on acid deposition and exotic species for junior and senior high school teachers in the Adirondack-Lake Champlain region of New York. The workshop updates regional educators on the continuing acid deposition problem in local ecosystems, helps teachers understand the nature and consequences of invasive species on ecosystems, and provides classroom activities to educate students about these environmental concerns. As a result of the workshop, participating teachers and students are better able to ascertain the consequences of these ecological challenges.



THE HORTICULTURAL SOCIETY OF NEW YORK — \$5,000

JENNIFER KLOPP, 128 WEST 58TH STREET, NEW YORK, NY 10019

GreenHouse Project

The Horticultural Society of New York is partnering with the New York City Department of Correction to work with female and male inmates at the Rikers Island correctional facility. This program includes two components: classroom sessions during which inmates learn about environmental issues, soil science and botany; and hands-on experience in horticulture and landscaping. The program also seeks to prevent recidivism by providing education and training in job-seeking and job-retention skills. These efforts have a successful track record. Recidivism for inmates in this program stands at just 6 percent compared to the average inmate rate of 65 percent. The program stresses environmentally-sound and natural systems of horticulture.

THE HORTICULTURAL SOCIETY OF NEW YORK — \$5,000

JENNIFER KLOPP, 128 WEST 58TH STREET, NEW YORK, NY 10019

GreenBranches Workshops

GreenBranches provides support for gardens at public library branches, especially those in low-income neighborhoods. The program provides the community with a green space that can be used for library programming, outdoor reading, and community networking. GreenBranches provides professional architects and designers who create a garden for the particular library branch. This project supports activities to increase neighborhood members' participation in the GreenBranches workshops. Participants learn about stewardship of the library garden and then apply what they have learned to other neighborhood environments. The workshop provides strategies to help participants practice horticulture in the large and small spaces in the city that are a part of their daily lives.

THE HORTICULTURAL SOCIETY OF NEW YORK — \$5,000

JENNIFER KLOPP, 128 WEST 58TH STREET, NEW YORK, NY 10019

Apple Seeds Teacher Training Workshops

The Apple Seed program provides hands-on environmental and horticultural workshops to teachers. Participants return to their schools equipped to conduct classroom activities that strengthen students' critical-thinking skills and self-esteem while improving their math and science literacy. Development of the Apple Seed Dozens Reference Guide, a supplement for the Apple Seed program, help teachers implement the program more effectively by providing additional teaching strategies. The reference guide is a part of the educational materials teachers learn to use as part of Apple Seed workshops.

The River Project, Inc. -\$5,000 Diana Dos Santos, Pier 26 North River, New York, NY 10013

Estuary Exhibit

This project educates the public about environmental issues associated with the Hudson River Park Estuarine Sanctuary and its relationship to the New York Harbor and the Hudson River Estuary. As part of its public education effort, the River Project develops an educational outreach kiosk. The materials selected provide a wide range of resources. The public has access to general information about the environment, specific materials relating to the Hudson River Estuary, government documents addressing local environmental programs, suggested activities for ways to improve the health of the estuary, and information about environmental educational resources for teachers and students.



Tompkins County Soil and Water Conservation District — \$2,516 Sherry Forgash, 903 Hanshaw Road, USDA Service Center, Ithaca, NY 14850

Soil & Water Quality Assessment: A High School Educational Program

This program educates high school science students and teachers on how to perform soil and water quality assessments. Workshops for teachers and students familiarize them with the background information, monitoring procedures, equipment that will be used, and techniques for monitoring and data collection and interpretation. Each school designates a monitoring team, selects sites, and develops a monitoring schedule. Stream testing takes place at locations identified by the Tompkins County Water Resources Council and the New York State Department of Environmental Conservation's Priority Waterbody List. Soil testing takes place at urban and rural sites. Students summarize their findings in a final report.

York College, the City University of New York (CUNY) Research Foundation — \$16,700 Antoinette Sumter, 94-20 Guy R. Brewer Boulevard, Jamaica, NY 11451

York College Environmental Stewardship Academy

York College has established an Environmental Stewardship Academy to encourage minority students to pursue careers in science, math, and technology. The academy focuses on environmental science. York College recruits actively in the community to enroll 20 junior high school students in a 2-part course of study. A 6-week summer program provides the seventh- and eighth-grade students with a total immersion experience in environmental science and career exploration. During the academic year, Saturday Environmental Stewardship Academy expands on the summer program by focusing on environmental stewardship and community service. Literacy, research skills and career exploration are combined in studies of waste management, biotechnology, urban wildlife, entomology, pesticides, and asthma.

NORTH CAROLINA

Environmental Education Fund — \$21,000 David Wojnowski, 1609 Mail Service Center, P. O. Box 25825, Raleigh, NC 27611

It's Our Water

Water has become a major concern throughout North Carolina and the nation. It is imperative that North Carolina citizens understand the decisions and actions that affect both water quality and quantity. One way to begin this education process is by giving every high school student in the state the opportunity for environmental literacy and offering the scientific background needed to make informed decisions about the complex issues related to water. This project consists of five modules, each containing a short video that introduces a water topic and shows real-life examples of current water issues throughout the state. Emphasis is on hands-on activities, such as Project WET, that reinforce concepts about water resources as the students investigate a stream near their school. Each module is designed so that skills and information gathered in one module are the foundation for the next module's content and skill development. All environmental science teachers in the state receive these materials. Partners for this project include the North Carolina Department of Natural Resources and the Department of Public Instruction. This is the opportune time to launch this endeavor because a new Earth/Environmental Science graduation requirement has been added to the state science curriculum at the high school level and affects thousands of students every year.



Mountain Retreat Association — \$5,000 Brooke B. Mallory III, 401 Assembly Drive, P.O. Box 969, Montreat, NC 28757

Raising Public Awareness Through Environmental Education

Every year, 30,000 visitors from across the United States and the world come to the Montreat community to attend retreats and conferences offered by the Montreat Conference Center. The Montreat community is nestled in a cove of the Southern Appalachians and is home to 630 year-round residents and 400 students attending Montreat College. Environmental matters and issues are often taken for granted by visitors, college students, and community members. The purpose of this project is to raise public awareness through environmental education projects that focus on ecological diversity, nature's fragility, and community environmental issues. The Mountain Retreat Association, Montreat College, and the Montreat Parks and Recreation Committee partner to design and install interpretive signs along established nature trails, identify and label representative tree species throughout the town, develop educational displays for existing trail head signs, and develop environmental education literature and programs for the public.

North Carolina Agricultural and Technical State University — \$11,160 K. R. Baldwin, 1601 E. Market Street, Greensboro, NC 27401

The North Carolina Agricultural Literacy Project - Environmentally Sustainable Food Production Systems

The goal of this project is to build the institutional capacity at North Carolina Agricultural and Technical State University to provide practical education about environmentally sound and sustainable agriculture. This project develops a model farm learning center on the campus of the college. The farm demonstrates environmentally sustainable farming practices to youth and adults. The farm serves as a site for field trips for elementary through high school youth, and demonstrates how farming practices impact the environment. Students from the Agri-science Education and Plant and Soil Science majors develop curriculum, provide instruction, and give tours.

University of North Carolina at Greensboro — \$5,000 Ann B. Somers, 312 Eberhart Building, P. O. Box 2617, Greensboro, NC 27402

Wolves Tracking Turtles

This project is a community-based turtle study that brings together a partnership of middle grade students, their teachers, parents, neighbors, and a university. Although they are considered a declining species, little is known about box turtle numbers. As part of the project, partners learn more about the local eastern box turtle population by conducting a mark-recapture study that includes tracking by radio telemetry and use of a global positioning system. The goals of the project are to: (1) use a real-world conservation problem to increase students', teachers', and community members' environmental awareness about how urban sprawl and habitat fragmentation impacts wildlife, (2) assist teachers in developing instructional skills and content that focus on environmental issues, and (3) help students improve their science skills while contributing to the body of knowledge about a species in decline. Activities include in-class projects as well as out-of-class activities on school grounds, neighboring properties, and at the students' homes. This project serves as a model for other schools interested in involving students in hands-on science with a conservation implication.



NORTH DAKOTA

DAKOTA SCIENCE CENTER — \$6,500

JENNIFER OCHS, 308 SOUTH 5TH STREET, GRAND FORKS, ND 58201

Interactive Children's Water Festival

The Dakota Science Center holds an Interactive Children's Water Festival to raise community awareness of the importance of water resources. Through hands-on activities and interactive demonstrations, students directly explore how water affects their lives and their environment. The goal is to increase the prudent use and protection of this precious resource.

Gateway to Science Center, Inc. — \$5,000 Elizabeth Demke, 2700 State Street, Suite 17, Bismark, ND 58503

Earth Wellness Environmental Festival

The Gateway to Science Center is holding its fourth annual Earth Wellness Environmental Festival in May 2003 with hands-on activities for fifth grade teachers and their students. The festival increases the teachers' and students' understanding of how their actions affect the environment, both positively and negatively. In addition, the festival is expanding to include a greater number of participants.

Upper Dakota Resource Conservation and Demonstration Council - \$4,400 Lena A. Bohm, 4215 Burdick Expressway East, Minot, ND $\,$ 58701

Interactive Mouse River Loop Envirothon Stewards

The regional Envirothon in north central North Dakota helps strengthen students' understanding of their roles as stewards of North Dakota's natural resources. This Envirothon is a model for other Envirothons within the state. The main objective is to combine in-class curriculum with hands-on field experience concerning the management of natural resources. This is accomplished by working with numerous partners and the National Canon Envirothon format to create a positive event for students and teachers in a multi-county area. The educational priorities address educational reform, teaching skills, and career development. The target audience is composed of students between the ages of 15 and 18 and high school vocational teachers.

OHIO

See page 6 for a profile of a grant awarded to the Ohio State University at Lima by EPA Headquarters.

CLARK CENTER ALTERNATIVE SCHOOL — \$5,000 ELIZABETH HOUCK, ROUTE 1, BOX 15, MARIETTA, OH 45750

Phase Two of the Butterfly Exodus Garden Enterprise

The grant supports the second phase of the butterfly exodus project. As part of the project, students plan, design, and build an observation deck near an existing butterfly land lab. The deck provides students, teachers, and outlying school districts with the opportunity to conduct environmental workshops. Students collaborate with teachers to plan and implement the first butterfly count.



ENVIRONMENTAL HEALTH WATCH - \$25,000

STUART GREENBERG, 4115 BRIDGE AVENUE, #104, CLEVELAND, OH 44113

Reducing Children's Exposure to Pesticide and Asthma Triggers

Parents of children with asthma and managers of residential and childcare buildings learn how to adopt integrated pest management methods. Educational sessions are organized in cooperation with neighborhood health centers and professional organizations of managers of residential buildings and child care centers.

GEAUGA SOIL AND WATER CONSERVATION DISTRICT - \$5,000

Mara Simpson, 14269 Claridon Troy Road, P. O. Box 410, Burton, OH 44021

Non-Point Source Pollution Awareness Program

The district presents programs and plans events to educate the public on three concepts: the detrimental effect improper disposal of hazardous waste has on streams, rivers, and lakes; watershed drainage and the important role Geauga County serves in water quality as home to the headwaters of four major rivers; and the role each individual plays in the understanding and prevention of all types of non-point source pollution.

OHIO STATE UNIVERSITY RESEARCH FOUNDATION — \$21,762 ROSSANE FORTNER, 1960 KENNY ROAD, COLUMBUS, OH 43210

Lake Erie Distance Education for the F.T. Stone Laboratory

The F.T. Stone Laboratory instructors are able to reach mainland classrooms in underserved areas and bring them on a virtual field trip to Lake Erie while integrating lessons into their science curriculum. An interactive seminar series about Lake Erie issues is also available to college students and the public.

Public Broadcasting Foundation of Northwest Ohio -\$7,390

KATHLEEN SMITH, 136 HURON STREET, P. O. Box 30, Toledo, OH 43697

Run River Run

About 400 people are participating in a series of 10 to 15 workshops during which they will learn how geography, geology, farming practices, and industrial activity affect the area's water supply, and what needs to be done to protect and improve it.

OKLAHOMA

CACHE PUBLIC SCHOOLS - \$5.000

ROBIN MUSE, 201 H. AVENUE, CACHE, OK 73527

Wonderful H20 - Friend or Foe? Hydrological Research Project

Under an interdisciplinary collaborative program, learning-disabled students participate as team leaders for teams of fourth- and fifth-grade students to study water in the classroom and gather field water samples over a 6-month period at 6 different sites in the Cache Creek. The program stimulates student interest in the environmental and environmental/health issues by providing a real-world context for learning while linking the classroom to the needs of the community. Also, the research allows the students to test the water both in the buildings at school and in the watershed area using a hands-on, learner-centered and cooperative-learning approach that investigates the problem of possible water contamination.



Osage County Interlocal Cooperative — \$24,163
Susan Frazier, 207 East Main Street, Hominy, OK 74035

Arkansas River Watershed Ecosystems Education

This project features the use of the model curricula of training resources from the Oklahoma Blue Thumb Program, the Council for Environmental Education, and the U.S. Environmental Protection Agency. The project includes training in field-based and lab-based water quality monitoring through a balanced series of expert presentations on environmental careers and local environmental issues impacting the watershed. It encourages reflection, analysis, and action concerning the impacts of the watershed's natural resources in regional economic development. Through its progressive integration of watershed education into secondary school science curricula, the project also serves as a catalyst for education reform in rural, northern Oklahoma. The 22-partner project serves students, teachers, community members in 12 school districts, totaling 2,136 students in grades 6 through 12 in 17 rural communities, 12,186 residents in five counties of 201,606 residents in a 10-county watershed area of 981,682 residents. Partners include 11 other school districts, the Oklahoma Department of Wildlife Conservation, The Oklahoma Conservation Commission, Oklahoma Project GLOBE, Bartlesville Professional Development Center, the U.S. Department of the Interior's Fish and Wildlife Service, and others.

Tulsa County Conservation District — \$11,500 Julie Hamilton, 5401 South Sheridan Road, Suite 201, Tulsa, OK 74145

Tulsa County Conservation Education Project

This project creates a community-based environmental education program that increases awareness and understanding of natural resource conservation and promotes the wise use of the natural resources of Tulsa County. The project implements hands-on conservation activities, workshops, and education events to educate and train teachers, educators, citizen volunteers, and students of all ages. To further strengthen the environmental education teaching skills of educators, teacher workshops are given for Tulsa County Schools and universities, and to informal educators. Partners include Oklahoma Conservation Commission, Natural Resources Conservation Service, Tulsa Area Conservation Foundation, Statewide Blue Thumb Program, City of Tulsa, Tulsa Parks Department, City of Broken Arrow, City of Owasso, City of Sand Springs, and City of Glenpool.

YMCA of Greater Tulsa — \$6,562 Laura Hailey-Butler, 2405 E. Skelly Drive, Tulsa, OK 74105

Go Global!

Camp Taktoka and the YMCA of Greater Tulsa present an experiential environmental education program targeting low-income schools and students. The Go Global program provides hands-on environmental education seminars during 2 school site pre-visits and a 2-day outdoor experience at Camp Taktoka. Environmental education curricula include migration, water quality, analysis, wetlands, and geology. The curricula teach field-based science concepts as they relate to the unique natural resources of northeastern Oklahoma. Because the instruction is hands on and meaningful for real-life, critical-thinking skills are enhanced and are transferred back to the students' home environments. Camp Taktoka's curriculum is able to take students from awareness to action. Partners include Oklahoma State Department of Education, Tulsa Volunteer Center, Corporation for National Service, City of Tulsa, and surrounding school districts.



OREGON

Hood River County School District — \$5,000 Shelley Hight, P. O. Box 920, Hood River, OR 97031

May Street Elementary School - Wild Bird Habitat and Outdoor Classroom

Students and teachers create a wild bird habitat and outdoor classroom at the May Street Elementary School. The wild bird habitat and the outdoor classroom are utilized in the study of life science to improve the understanding of watershed health with a focus on native bird species. The service-learning project encourages critical-thinking and science inquiry, as well as improves the connections that students make in their local watersheds, while contributing to the restoration of urban habitat for native bird species. Biologists and environmental specialists partner with the district to build the bird habitat. The program includes outreach to other schools in the district and families of the students.

Lower Columbia River Estuary Partnership — \$9,148
Tammy Sanders, 811 SW Naito Parkway, Suite 120, Portland, OR 97204

Crossing Boundaries Watershed Education Project

This program supports a network of teachers participating in hands-on, active, outdoor education along the Lower Columbia River. The program also helps to establish community/school partnerships to increase awareness of protecting watershed resources. Currently, a group of teachers are at various stages in the development of environmental education programs that focus on the Columbia River and its habitats as a component of the standard curriculum. The teachers have taken advantage of local resources, including forest sites adjacent to school property and local wetlands to utilize as study sites. The outcome of the program is a coordinated network of schools with organizational support and interaction that has an environmental education program as part of the standard curriculum.

Washington County Soil and Water Conservation District — \$4,950 Pam Herincks, 1080 SW Baseline, Building B, Suite B-2, Hillsboro, OR 97123

Tualatin Watershed Non-Point Source Pollution Education and Outreach

The project is designed to educate the public and students about community issues relating to water quality in the Tualatin Watershed. The interactive Enviro-Scape non-point source and wetlands models are demonstrated at 70 presentations, over a 12-month period, to elementary schools, libraries, landowners and community groups. A watershed workshop is held for teachers, and a parent-volunteer program is piloted in the Hillsboro area to sustain the project.

PENNSYLVANIA

AUDUBON SOCIETY OF WESTERN PENNSYLVANIA — \$3,400 Roy Lenhart, 614 Dorseyville Road, Pittsburgh, PA 15238

Pittsburgh's Outdoor Classroom: Fayette County School Program Scholarships

The project educates secondary school students about the effects of habitat degradation on wildlife resources and the tension between current land development practices and the preservation of natural resources. Students are involved in researching the topic through a series of informative classroom programs and hands-on, outdoor discovery programs.



Blacklick Environmental Education Center — \$4,750 Shannon Peterson, 411 Third Avenue, Johnstown, PA 15906

Opportunities for Educational and Wildlife Enhancement and the Vintondale Wetlands

The project strives to clean up acid mine drainage, reclaim 35 acres of abandoned mine land, and improve overall quality of life in the community. The project will create 7 acres of wetlands that explore all habitat and educational possibilities; enable community members to maintain the wetlands; engage area schools and other groups in wetlands and educational activities, and receive Wildlife Habitat Council certification. These goals are reached through hands-on activities to establish the wildlife and educational components of this site.

Borough of Central City/Shade Creek Watershed Association — \$7,000 Sharon K. Harkcom, 314 Central Avenue, Suite 201, Central City, PA 15926

Environmental Awareness in the Shade Creek Watershed

The project uses hands-on investigation to encourage youth in the area to investigate and implement solutions to environmental problems through presentations, public meetings, and local news reporting.

Eastern Pennsylvania Coalition for Abandoned Mine Reclamation — \$10,000 Robert E. Hughes, 485 Smith Pond Road, Luzerne Conservation District, Shavertown, PA 18708

Exploring Pennsylvania's Anthracite Watersheds Impacted by Abandoned Mine Drainage in Luzerne County

The project provides a county-wide teacher training program that includes a full-day, hands-on educational workshop on abandoned mine lands, the impacts of former anthracite mining practices on land and water resources, abandoned mine reclamation techniques, and cogeneration and its environmental benefits. Opportunities to network with local resources agencies and community groups are provided, and a county-wide field tour of several watersheds that have successfully completed reclamation and remediation projects is included. Core teachers are able to train other teachers and students on the regional problems associated with this issue.

PHILADELPHIA HEALTH MANAGEMENT CORPORATION — \$7,019
Tine Hansen-Turton, 260 S. Broad Street, 18th Floor, Philadelphia, PA 19102

Lead Safe Babies - Evaluation of a Primary Prevention Program Addressing Childhood Lead Poisoning
This program addresses lead poisoning. At nine nurse-managed health care centers in Philadelphia, evaluation is done through testing, data collection, and screening.

RIVERBEND ENVIRONMENTAL EDUCATION CENTER — \$4,000
TIMSHEL PURDUM, 1950 SPRING MILL ROAD, GLADWYNE, PA 19035

Global Learning and Observation to Benefit the Environment for Life-Long Environmental Learning

Global Learning and Observation to Benefit the Environment (GLOBE) links students, teachers, and the scientific research community together in an effort to learn more about the environment through student data collection and observation. The goal of the project is to target school groups and teachers in the Philadelphia area, provide hands-on learning about environmental issues, and provide a model program for other nature centers to emulate.



SHERMANS CREEK CONSERVATION ASSOCIATION — \$5,242

DEBRA H. SMITH, 385 DARK HOLLOW ROAD, SHERMANSDALE, PA 17090

Linking Communities Together Through a Local Watershed

The goal of the project is to expand community educational outreach and connect students with environmental challenges facing their community and the world. A district-wide approach to science is instituted that includes laboratory investigations, analysis of environmental data in the community, and participation in town meetings. Workshops for this program are coordinated through Dickinson College's Environmental Studies Department in conjunction with the West Perry School District.

THE VILLAGE OF ARTS AND HUMANITIES — \$8,812
KELLY TANNEN, 2544 GERMANTOWN AVENUE, PHILADELPHIA, PA 19133

The Village Environmental Education Partnership

The program teaches north Philadelphia children about the environment through the study of native bird species and creation of habitat for birds. By focusing on native bird species, participants gain an understanding about the interconnection of all life between individuals and the environment. The result is the creation of a replicable model for demonstrating the integrating of workshop-based and project-based instruction for effective environmental education.

PUERTO RICO

Conservation Trust of Puerto Rico — \$23,043 Myrna L. Robles, P. O. Box 9023554, San Juan, PR 00902

Understanding the Wonders of Puerto Rico's Bioluminescent Bays and Lagoons

Working with the University of Puerto Rico Sea Grant College and the Puerto Rico Department of Education, The Conservation Trust of Puerto Rico is developing a documentary video and accompanying teacher guide about Puerto Rico's bioluminescent aquatic ecosystems. The video familiarizes students with conditions necessary to maintain the microorganisms that produce bioluminescence. Middle and high school students learn about the interdependence of organisms in the lagoon ecosystems and the impact of shoreline runoff and coastline degradation. Educators review the video prior to final production to ensure its applicability to educational standards.

RHODE ISLAND

BLACKSTONE VALLEY RIVERS PROJECT — \$11,514
MICHAEL J. FERRY, ONE PINE STREET, MANVILLE, RI 02838

Blackstone Valley Rivers Project Aquaculture Program

Students from Woonsocket High School and Mount St. Charles Academy team up to research and raise fish in an aquaculture tank housed at Woonsocket High School. The objective of the program is for students to learn the developmental stages of various fish species found in the Blackstone River and to determine the water quality tolerance levels for these species. All fish raised are released into the river at selected sites.



University of Rhode Island - \$14,925

CAROL M. ENGLANDER, 305 MEMORIAL UNION, KINGSTON, RI 02881

The SMILE Program: Air Quality and Human Health Learning Experiences

The Science and Mathematics Investigative Learning Experience (SMILE) provides an academic enrichment program for minority and disadvantaged students in grades 4 through 12. The project uses existing environmental health science-based inquiry curricula and career exploration for SMILE participants. The basic units of the program are after-school SMILE club meetings held weekly that emphasize hands-on, inquiry-based learning in a relaxed atmosphere. Teachers review current curricula in air quality and human health during their professional development workshops.

SOUTH CAROLINA

Boys and Girls Club of the Midlands, Inc. — \$10,396 Sara Harden, 715 Betsy Drive, Suite B-7, Columbia, SC 29210

The Ultimate Journey

The Ultimate Journey program addresses a cross section of environmental topics, thereby equipping youth with the fundamental knowledge necessary to ensure their equitable treatment in environmental law, policy, and regulation. They learn and understand why the environment is so important to all of us. Participants see for themselves how ordinary, everyday actions have an impact on the natural world. Youth gain environmental knowledge from which they have the ability to explore negative environmental consequences derived from their own actions, as well as the actions of industry and government. Each session provides several interactive activities that allow leaders to select those that best meet the needs, interests, and abilities of club members. The progression of activities from one week to the next prepares members for the culminating event - a trip to a natural area they select and plan. This program encourages young people to be engaged and receptive to the world around them and has the potential to be replicated across the country in similar settings.

SOUTH DAKOTA

THE SOURCE: A BOYS AND GIRLS CLUB — \$22,500 CURTIS DUNN, 511 MAIN AVENUE, SISSETON, SD 57262

Environmental Education Health Choices for Youth

The project focuses on children's health in a structured yet informal program at the Source's three boys and girls clubs. The project also provides opportunities for staff of the Sisseton Wahpeton Sioux Tribe Office of Environmental Protection to network with the Source's native youth. The project focuses on hands-on learning to benefit the local environmental plan, thereby ensuring that future environmental choices for youth reflect responsible guardianship of their own environment.



TENNESSEE

GLOBAL VILLAGE INSTITUTE — \$5,000 ALBERT K. BATES, P. O. BOX 90, SUMMERTOWN, TN 38483

Ecovillage Children's Garden

This program provides an active education experience for children of low-income rural households and underprivileged inner-city residents in the mid-Tennessee region to promote a better understanding and appreciation of environmental issues. The Ecovillage Children's Garden is designed to immerse children in the benefits of cultivating sustainable lifestyles. Underprivileged children are housed, fed, and provided instruction about activities relating to the theme of creating and enjoying frugal lifestyles in harmony with nature. Children plan, plant, cultivate, and harvest organic gardens, sample water in wetlands, grid-survey forest biota, and monitor their own energy and waste through-puts. Families with children below established poverty levels make up 100 percent of the demographic mix, of which single-parent families represent 80 percent; 49 percent are from black single-parent families.

University of Tennessee at Martin — \$21,732 Ramona Nelson, 145 Gooch Hall, Martin, TN 38238

Meeting Curriculum Standards with an Environmental Education Program

This project brings together a team of teachers to align the Global Learning and Observation to Benefit the Environment (GLOBE) program with the Tennessee curriculum in grades kindergarten through 8, and develop implementation plans by which schools can integrate GLOBE into the required curriculum. A team of experienced GLOBE teacher/trainers meet in a 5-day session to complete the task of alignment and development. This team then conducts 3 GLOBE teacher training workshops for 63 kindergarten through eighth-grade teachers from 6 schools. These schools are located in both rural and urban settings in Tennessee. The newly trained teachers implement the GLOBE program during the upcoming school year. The final phase of the project involves the collection of pre- and post-data on the teachers and students, as well as control groups of non-GLOBE teachers and students. This data includes attitude surveys, assessment of content knowledge, and evaluation of the project.

TEXAS

See page 6 for a profile of a grant awarded to the Texas A&M University - Corpus Christi by EPA Headquarters.

AMERICAN YOUTHWORKS (AYW) — \$14,883 Paul Bond, 216 East 4th Street, Austin, TX 78701

Traveling Watershed Awareness Workshop

This project involves training two teachers from five participating schools in and near the Slaughter Creek Watershed and the City of Austin's Water Quality Protection Lands to use the American Youth Works Traveling Watershed Awareness Workshop in their classrooms. The workshop combines curriculum and information from the Texas Natural Resource Information System, the Barton Springs Edwards Aquifer Conservation District, and Austin's Water and Waste Water Conservation Department. Teachers learn how to present an important environmental topic using a set of hands-on tools, including a 3-dimensional model of the Slaughter Creek Watershed, Internet sites, and curriculum. The watershed travels to 5 elementary and middle schools and remains in each school for at least 2 weeks.



HOUSTON INDEPENDENT SCHOOL DISTRICT - \$5,000 ADA COOPER, 3830 RICHMOND AVENUE, HOUSTON, TX 77027

Project Butterflies are Forever: A Project to Teach Elementary School Age Children About Ecosystems

This project encourages elementary students at Askew Elementary School to study the environmental pressures affecting the populations of butterflies in Houston, Texas. The study makes students aware of human contamination of the environment. Students collect data through the observation of their own captive collection of butterflies, and through growing native plants at school. The students take several field trips to observe wild populations of butterflies living in natural settings. Entomology and botany experts present interactive programs from Rice University and students from the horticulture classes at Revere Middle School. Key partners are Dr. Carlos R. Solis, Ph.D. Rice University and Robin L. Hunter, Community Coordinator.

HOUSTON INDEPENDENT SCHOOL DISTRICT — \$4,536 Ada Cooper, 3830 Richmond Avenue, Houston, TX 77027

Project 3G: Getting Green at Grady

Using gardening as a focus, this project provides teachers with training and resources to integrate science and environmental education across the curriculum. Issues addressed are ecosystem protection and energy conservation. Teachers attend introductory workshops on environmental education, environmental issues, and integrated lesson planning. Lessons demonstrate how environmental science can be integrated into other subject areas while meeting required curriculum goals and objectives. Hands-on activities and inquiry-based learning in the garden are emphasized. The target teacher audience includes sixth-, seventh-, and eighthgrade teachers of science, mathematics, and language arts from Grady Elementary. Key partners include the Houston Independent School District Science Department, the Marcile Hollingsworth Science Center, the Houston Arboretum and Nature Center, and the Houston Chapter of the American Meteorological Society.

KEEP TEXAS BEAUTIFUL — \$22.035 Stacey George Cantu, 823 Congress Avenue, Suite 230, Austin, TX 78701

Waste In Place

This project hosts eight Waste in Place curriculum workshops and distributes Keep Texas Beautiful youth environmental education kits. Waste in Place is a hands-on youth environmental education curriculum. The interdisciplinary curriculum for grades kindergarten through 8 provides resource materials and handson activities for educators and students to examine their environment, including land, water, and air issues. The goals are to provide materials to increase the environmental awareness of educators and youth, to offer formal and informal educators a proven resource tool, and to provide regional workshops. The objectives include training educators through workshops offered in 8 locations in the state to reach formal and informal educators, and to reach thousands of youths. Partners include Texas Department of Transportation, Texas Natural Resource Conservation Commission, and Texas Forest Service.

RICHARDSON INDEPENDENT SCHOOL DISTRICT - \$5,000 Duana Kindle, 9501 Ferndale, Dallas, TX 75238

The Wildcat Wilderness

This project is an outdoor learning lab that provides students the opportunity to experience and discover the connections between science, nature, and humanity with an interactive, hands-on approach to learning. The use of the "Wildcat Wilderness" is integrated into classroom instruction with each grade level being assigned defined areas for planting and experimenting. Students are provided interactive time in the Wildcat Wilderness with their teachers, parent/community volunteers, high school peer helpers, garden club members, and guest speakers. The 695 students that attend Lake Highlands Elementary School benefit from the experience. Partners include Eagle Scouts, labor and construction provided by the Dad's Club, the Lake Highlands Elementary Garden Club, and financial and volunteer support of the Parent/Teacher Association.



Stephen F. Austin State University – \$11,300 Elyce Rodewald, P. O. Box 13000-SFA Station, Nacogdoches, TX 75962

It's a Wonderful World: Promoting Environmental Education Programs in Deep East Texas

This project promotes existing, teacher-tested, quality environmental education programs from 9 partners to 52 school districts in 11 counties. Using student participants, partners present environmental education programs to science teachers. The first method is a field day during which each teacher selects one program that best fits his or her curriculum. After the field day, partners provide subsequent, in-depth training to teachers, showing them how to incorporate the selected program in their courses. The concept is to develop a wide-reaching, cost-effective, collaborative effort to share the benefits of environmental education with teachers and students. The goals are to promote the use of existing, reputable environmental education programs, provide professional development opportunities for science teachers, and decrease duplication of existing environmental education programs in the region. The target audiences are 100 elementary and secondary school science teachers at public, private and home schools in 52 school districts in East Texas. Partners include Texas Forest Service, Texas Parks and Wildlife, Keep Nacogdoches Beautiful, Stephen F. Austin Secondary and Elementary Education Departments, Pineywoods Native Plant Center, Texas Forestry Museum, Texas Forestry Association, and Stephen F. Austin Arthur Temple College of Forestry.

UTAH

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

GLENDALE MIDDLE SCHOOL — \$5,000

DAVID ROBERTS, 1430 WEST ANDREW WAY, SALT LAKE CITY, UT 84104

Real World Environmental Science: Sea Monkeys and Other Mysteries of the Great Salt Lake

This project uses the Great Salt Lake as a demonstration site for under-represented seventh-grade students to gain hands-on environmental education experience. Minority and low-income students investigate brine shrimp, also known as sea monkeys, which are a key food source for over 4 million migratory birds. Brine shrimp are vulnerable due to salinity in the lake. Great Salt Lake is the fourth largest hypersaline lake in the world, a closed basin with no surface water outlet. The entire Wasatch mountain front, one of North America's fastest growing urban regions, drains into the lake. The project meets the State of Utah's core curriculum requirements while engaging students' curiosity and excitement about environmental science.

University of Utah – \$5,000 BILL Ernest, 1471 Federal Way, Salt Lake City, UT 84102

Field Biology Ecological Research

The Ecological Research Methods course is designed in part to be a survey of research methods, so each project is completed in 1 day. While the design is appropriate for exploring many types of research designs, students do not have time to gather enough data to answer all their questions about the natural world. By completing independent research projects, students are able to conduct in-depth research along the Wasatch Front on a topic of their choice. Reports from the projects are posted on the Red Butte Garden web site to make their findings available to students, teachers, and the community.



Utah Society for Environmental Education – \$25,000 Eric Chandler, 350 South 400 East, Suite G-4, Salt Lake City, UT 84111

Develop Programs and Materials in Utah's Environmental Education Community

The project goals are to establish a process to review Utah environmental education programs and materials in accordance with the North American Association for Environmental Education (NAAEE) guidelines and to increase the quality of environmental education programs and materials. A core team of 15 to 20 people who are experts in NAAEE Guidelines for Excellence are conducting a pilot project to review 8 to 10 environmental education programs.

VERMONT

University of Vermont and State Agriculture College — \$5,000 Beverly Blakeney, 340 Waterman Building, Burlington, VT 05405

Vermont Campus Greening Conference

The outcome of this project is the development of a set of shared goals for campuses to reduce environmental impacts and a set of initiatives coordinated with environmental agencies. The methodology is to hold a statewide conference that brings together state environmental agency representatives, students, faculty, and staff from the academic and operational sides of the 21 institutions of higher education in Vermont. While a number of institutions have recycling options, few have energy plans or purchasing policies that reflect government standards for environmental materials.

Vermont Forum on Sprawl — \$10,000 Sarah Judd, 110 Main Street, Burlington, VT 05401

On-line Community Planning Workshop

This organization, partnering with Chaplain College, offers an on-line community-planning workshop to help communities plan for future growth. The program provides public participation techniques, introduces successful development practices from Vermont and other states, explores settlement protection, and provides a model of bylaws that communities can apply to promote economic growth while reinforcing compact village and landscape patterns.

VIRGINIA

THE COLLEGE OF WILLIAM AND MARY — \$13,256
BRITT E. ANDERSON, P. O. BOX 8795, WILLIAMSBURG, VA 23287

Turning Adversity into Opportunity: Linking Environmental Education Programs to Virginia's Standards of Learning
This program strengthens the teaching skills of local primary school teachers by showing them how they
can enhance their science curriculum by incorporating environmental education programs into their
curriculum. The information gathered by this program is disseminated via teacher training workshops.
These workshops introduce federal programs to the teachers, illustrate how these programs help students
achieve science standards of learning, and provide teachers with information and materials that will help
incorporate the programs into their existing curricula.



University of Virginia — \$12,000

TANYA DENCKLA, 1644 RUGBY ROAD, P.O. BOX 400179, CHARLOTTESVILLE, VA 22904

Virginia Natural Resources Leadership Institute

This program brings together Virginia community leaders from all sectors to learn about major environmental issues and the impact of these issues on Virginia communities, ranging from health impacts to economic sustainability. The study also focuses on individual case studies and a wide range of methods that can be used to engage communities in collaborative problem-solving, productive dialogue, and resolution of environmental issues important to community health and sustainability.

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY - \$5,000 ALAN RAFLO, 100 SANDY HALL (0360), BLACKSBURG, VA 24061

Career Development Through Virginia's Service Training for Environmental Progress Program (Virginia STEP)

The project places two college students in one Virginia community to work on a water-related issue identified by the community. The students gain experience and skills in water resources, community organization, and public service.

WASHINGTON

911 Media Arts Center – \$22,500 Malory Graham, 117 Yale Avenue North, Seattle, WA 98109

STUFF: The Secret Life of Everyday Things

In this environmental educational program, 25 high school students explore the relationship between consumerism and waste production and their own consumption habits. They mentor with professional media producers to create a 10-minute video that takes a behind-the-scenes look at the production, distribution, and consumption of an everyday household object. The project increases the capacity of three organizations: the 911 Media Arts center (non-profit educational organization), King County Solid Waste (government natural resources agency), and Foster High School (public high school) to develop a strategic model for producing and delivering environmental education video projects on a county level.

CITY OF EDMONDS — \$5,000 SALLY LIDER, 700 MAIN STREET, EDMONDS, WA 98020

Schoolyard Habitat Network

The goal of this project is to promote and facilitate the creation of schoolyard habitats in kindergarten through 12th-grade schools in Edmonds and the surrounding community. Participation in the planning, design, implementation, and ongoing monitoring and maintenance of habitats provide teachers and students with the opportunity to connect with nature while achieving required academic goals. The project increases the awareness of teachers about other national habitat programs, helps individual schools assess their schoolyards for habitat enhancement potential, offers an educator workshop, and facilitates the network between local schools engaged in identical projects.



PACIFIC SCIENCE CENTER - \$21,423

Paula Williams, 200 Second Avenue North, Seattle, WA 98109

Lake Washington Watershed Internship Program

This project stimulates interest in environmental science careers by providing hands-on learning opportunities for high school student participants through a project-based watershed monitoring program. The strategy uses local surroundings to generate natural curiosity for the environment and teaches concepts of biology and environmental education. It is also designed to develop job skills, to investigate environmental science as a career option, and to encourage participants to pursue their interest in environmental science through college and vocational programs and careers in the field. The students use a local watershed to develop science process skills of observing, predicting, experimenting, and collecting and interpreting data and applying knowledge. The interns interact with elementary school students to investigate science concepts and to stimulate interest in environmental science careers.

QUILLAYUTE VALLEY SCHOOL DISTRICT — \$5,000 SHERYL SCHAAF, P. O. BOX 60, FORKS, WA 98331

Kids in the Creek

This project helps students understand the importance of water quality as an indicator of ecosystem health. Third- and seventh-grade students increase their knowledge and experience of how science works and occurs in the real world. They raise salmon in the classroom, place them in the creek, and monitor their progress. Comparative changes throughout the year are compiled and analyzed, which are then shared with nine other school districts via videoconferencing. Teachers become better trained in ecosystem protection, how to test and monitor its health, and how to engage students in true inquiry-based science instruction. The project is conducted by the Quillayute Valley School District (led by their Science Coordinator). Practical experience is provided by the Pacific Coast Salmon Coalition and the University of Washington.

STILLWATERS ENVIRONMENTAL EDUCATION CENTER — \$15,852

JOLEEN PALMER, 26059 BARBER CUT OFF ROAD, KINGSTON, WA 98346

Carpenter Creek Integrated Watershed Curriculum

Using existing watershed curricula, this project creates a "Supplemental Activities Guide" to augment the existing junior high science curriculum. The guide incorporates Critical Work Function Skills for environmental careers and the state's Essential Academic Learning Requirements. Activities are field- and classroom-based, project-oriented, and localized to this particular watershed. Teacher training workshops for about 20 teachers in 5 local schools are planned. Twenty-five volunteers are recruited and trained to assist teachers in the field and the classroom.

WEST VIRGINIA

CACAPON INSTITUTE - \$5,000

W. Neil Gillies, Route 1, P.O. Box 326, High View, WV 26808

Stream Scholars Summer Camp

The camp provides eighth-grade students with a mix of hands-on stream work, discussions, and writing centered around the topics of stream ecology. The camp encourages environmental careers and education to increase West Virginia's need for an increased rate of college attendance.



FRIENDS OF THE CHEAT -\$7,383

MEREDITH PAVLICK, 119 S. PRICE STREET, SUITE 206, KINGWOOD, WV 26537

Acid Mine Drainage and Watershed Awareness Education Program

The project raises awareness about the impacts of mining on local waterways. An acid mine drainage interpretive trail is developed that addresses environmental issues through interpretive materials found along the path. An environmental education awareness program is also developed to teach children about environmental issues in their area.

LIGHTSTONE FOUNDATION, INC. -\$5,000

ANTHONY E. SMITH, PhD., P. O. Box 73, Moyers, WV 26815

Watersheds and Their Communities

Lightstone's 600-acre organic farm serves as a dormitory, classroom, and laboratory for 1 week of intensive, experimental training that includes the study of plant and animal ecology and water.

POTOMAC VALLEY AUDUBON SOCIETY - \$11,728

KRISTIN ALEXANDER, P. O. Box 578, Shepherdstown, WV 25443

A Watershed Education Initiative for Eastern West Virginia

This project evaluates the effectiveness of a watershed program in the panhandle of West Virginia for future use as an outreach program by the Yankauer Nature Preserve. The program introduces fourth-grade students to the concept of watersheds, and explains why they are important and how to take care of them. Evaluation of the program focuses on students' knowledge of watersheds and related environmental issues and changes in attitudes towards the environment. Teachers evaluate the implementation methods of the program and identify areas for program improvement. The watershed concept is poorly understood by the Eastern Panhandle community at large. This program helps students and teachers gain awareness of the watershed concept.

WISCONSIN

ALDO LEOPOLD NATURE CENTER — \$20,273

KATHE CROWLEY CONN, 300 FEMRITE DRIVE, MONONA, WI 53716

Nature Net Online Directory

A teachers' statewide on-line interactive directory answers the question "Where do I go on a field trip?" The directory provides links to nature center programs throughout Wisconsin. A teacher is able to view an on-line map of Wisconsin, identify a geographic area of interest, and click on that area to obtain a list of links to nature center programs.

RIVER REVITALIZATION FOUNDATION, INC. — \$9.865

KIMBERLY GLEFFE, 200 N. JEFFERSON STREET, #201, MILWAUKEE, WI 53202

Take Me to the River

The River Revitalization Foundation, Inc. works toward increasing awareness and appreciation of the Milwaukee River among minority students in the Milwaukee Public School District. More than 300 students are reached through the project.





Superior School District — \$11,100 Peggy Smith, 3025 Tower Avenue, Superior, WI 54880

Superior Community-Based Environmental Education

Eight teachers in grades 7 through 12 work with 10 representatives from local businesses and government agencies to develop 3 classroom projects that integrate site-based learning into the district's environmental education curriculum. Prior to project design, the teachers visit community workplaces to learn about current environmental challenges, industry concerns, and the academic skills needed for employment. An important goal of the project is to strengthen the school program through the development of partnerships.

Wisconsin Association for Environmental Education — \$5.000 Paul Denowski, 223 Nelson Hall, UWSP, Stevens Point, WI 54481

Investigating and Re-establishing Midwest Environmental Education Regionalism

The Midwest Environmental Education Conference is an annual regional conference encompassing eight states, including Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio and Wisconsin. The goal is to assemble key environmental education leaders from each state to examine the current regional structure, and to explore the opportunities for increasing environmental education capacity on a regional scale.

WYOMING

NATIONAL AUDUBON SOCIETY OF WYOMING - \$5,000 VICKI L. SPENCER, 101 GARDEN CREED ROAD, CASPER, WY 82604

Volunteer Natural Training Program

The project creates a comprehensive training program for 25 volunteers who introduce visitors to the Audubon Center at Garden Creek. The volunteers are trained to provide natural history background and natural interpretation, and guide visitors throughout the facility. The volunteer naturalists expand the center's program to serve an additional 3,000 nonstudents each year.



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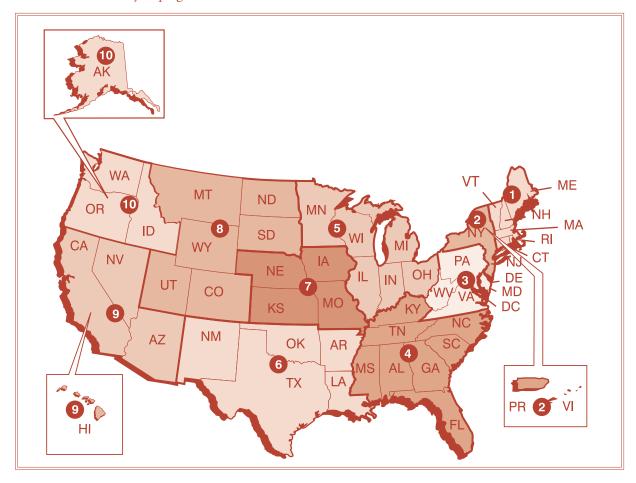
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