

# 2003 Environmental Education Grant Profiles



U.S. Environmental Protection Agency
Office of Environmental Education
Office of Public Affairs
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## SUMMARY STATEMENT

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

This report summarizes 196 environmental education grants awarded by the U.S. Environmental Protection Agency (EPA) during fiscal year (FY) 2003. 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 non-commercial educational broadcasting entity.

In FY 2003, Congress appropriated almost \$2.7 million for the grants program which leveraged more than \$2.8 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 to seed community projects; therefore, the EPA regional offices make small local grants their first funding priority. In total, EPA's 10 regional offices awarded \$1,907,411 for an average of 18 grants per region. In FY 2003, Headquarters funded 6 percent of the 194 grant applications received. Headquarters awarded 12 grants, for a total of \$787,354. Headquarters grants averaged approximately \$65,000; the smallest grant awarded was \$41,765; and the largest awarded was for \$92.592.

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.



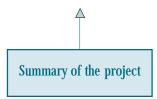
## **USING THE GRANT PROFILES**

The main section of this document provides profiles of environmental education grants awarded during FY 2003. 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. Presented below is an actual profile of a grant awarded by EPA Headquarters during FY 2002. This example illustrates the content and format of the profiles contained on the following pages.

A grant recipient must provide a matching



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).





# ENVIRONMENTAL EDUCATION GRANTS AWARDED BY EPA HEADQUARTERS

#### **California**

San Gabriel Mountains Regional Conservancy – \$55,350 Rick Thomas, P.O. Box 963, Glendora, CA 91740

Think River! Interactive Youth Watershed Education Program

Developed by the San Gabriel Mountains Regional Conservancy, this project educates students and teachers through hands-on lessons about watershed topics and includes visioning exercises to obtain the input of young people for a watershed management plan for the San Gabriel River. The "Think River!" program promotes collaborative partnerships with local municipalities, schools, clubs, and businesses and provides a forum for ongoing evaluation of the watershed education curriculum. The project includes a high school mentor program for 11th- and 12th-grade students, a teacher education workshop for 5th-grade teachers, and a youth watershed conference for 5th-grade students. The key partners in this project are the City of Azusa and a formal planning committee made up of representatives from local organizations.

#### Idaho

THE UNIVERSITY OF IDAHO — \$74,188 STEVE HOLLENHORST, P.O. Box 443020, Moscow, ID 83844-3020

Residential Environmental Science Education Center and Teaching Program

As part of this project, graduate students at the University of Idaho participate in a 2-week training program focusing on protocols developed by the Global Learning and Observations to Benefit the Environment (GLOBE) program. In addition, the project involves creating a residential environmental science school for hundreds of students in grades 4 through 8 that serves as a model program for math, science, and technology education. The graduate students subsequently serve as environmental education field instructors in a 10-week teaching residency at the residential environmental science school. The project supports ongoing efforts to implement a cross-disciplinary graduate course of study in environmental education and natural science. This project also increases the ability of Idaho schools to meet, math, science, and technology standards and promotes general awareness of environmental issues.

## **Kansas**

Kansas Association for Conservation and Environmental Education – \$68,914 Shari Wilson, 2610 Claflin, Manhattan, KS 66502-2743

Four-State Cross-Training for Environmental Education

This project provides an opportunity for state environmental education organizations in Iowa, Kansas, Missouri, and Nebraska to share their collective knowledge and expertise through a cross-training and planning initiative. The initiative involves establishing a four-state committee to organize a multi-state planning event that focuses on development of environmental education skills and sharing of knowledge and expertise. The committee is developing an environmental education action plan for each state that includes a list of priorities and a plan of action and is disseminating project reports to each of the states in EPA Region 7. The primary audiences for the project are the board members of the four state environmental education organizations. The partners in this project are the Iowa Conservation Education Council, Missouri Environmental Education Association, and Nebraska Alliance for Conservation and Environmental Education.



## **Kentucky**

Murray State University – \$92,592 Joseph Baust, 421 A Wells Hall, Murray, KY 42071-3318

Statewide Capacity Building for the Commonwealth of Kentucky

This project provides personnel at Kentucky's higher education institutions with the skills to develop and implement environmental literacy and environmental education programs in order to help build capacity locally and across the Commonwealth of Kentucky. Directors of established environmental education centers collaborate with the Kentucky Environmental Education Council (KEEC) to conduct a 2-day workshop that helps faculty members from each of Kentucky's state universities to develop individual plans for dissemination on their campuses. An interactive web site facilitates communication among project participants, and the sponsors provide technical assistance throughout the project. The project culminates with a second workshop that allows participants to share the plans they have developed and the actions they have taken as well as to reflect on outcomes. Partners for the project include the University of Louisville, Western Kentucky University, and the KEEC.

## **Maryland**

CATONSVILLE CAMPUS OF THE COMMUNITY COLLEGE OF BALTIMORE COUNTY — \$89,379 CHRISTOPHER FOX, 800 SOUTH ROLLING ROAD, BUILDING M, BALTIMORE, MD 21228

Community Education and Technology Initiative

The Community Education and Technology Initiative (CETI) addresses climate change and its potential effects on communities. This project is intended to educate high school students and teachers, community college students and teachers, and members of local communities throughout Maryland. The CETI includes two integrated activities designed to enhance understanding of climate change at the local level. The first activity, the "Beat the Heat!" competition, involves high schools and communities working in partnership to develop emission reduction or emission sequestering strategies. The second activity, the "Nine Lives" community forums, includes presenting 18 community-focused climate change education workshops at Maryland's community colleges. The CETI is sponsored by the Community College of Baltimore County Environment Project in partnership with the Maryland State Department of Education and the Maryland Association of Community Colleges.

## Massachusetts

Family Service, Inc. – \$62,493 Elizabeth Sweeney, 430 North Canal Street, Lawrence, MA 01840

Healthy Homes, Healthy Kids

This project involves training workers who provide direct services to parents in the northeastern Massachusetts communities of Lawrence and Worcester, which have many minority and low-income residents. The workers are trained to deliver environmental health education to parents of preschool children in order to reduce the children's exposure to toxic chemicals in their homes. The direct service workers attend an 8-hour workshop that provides environmental health education as well as strategies for dealing effectively with parents. Follow-up support is provided for the workers in two subsequent workshops. The workshops are based on curricula previously developed and tested by the project sponsors and the Toxics Use Reduction Institute at the University of Massachusetts at Lowell. The training and outreach project is designed to establish a sustainable pool of community workers with expertise in environmental health education and to reach hundreds of parents.



## Michigan

MICHIGAN STATE UNIVERSITY - \$45,884

Yu Man Lee, 301 Administration Building, East Lansing, MI 48824-1046

Public Education Project to Protect Endangered Species in Michigan

This project is initiating a program in southeast Michigan to educate the public about the destruction of habitat for and needless killing of the eastern Massasauga rattlesnake, an endangered species found only in that region of the United States. The project is intended to educate teachers and students, landowners who have reported seeing the snakes on their properties, and road maintenance personnel and other workers who may encounter the snakes. Workshops, personal consultations, and educational materials developed by the U.S. Fish and Wildlife Service are used to provide the public with the necessary skills to make informed decisions about coexisting with the eastern Massasauga rattlesnake. The training includes providing information about the positive aspects of the snakes, such as their usefulness in controlling rodent populations. Volunteers from a local resource network of naturalists assist with the project. The public is also informed through public service announcements, and students are reached through the Internet and workshops held in schools.

#### **Montana**

Montana State University – \$41,765 Matthew Kraska, P.O. Box 173490, Bozeman, MT 59717

Wildlife Education in Big Sky Program

The Wildlife Education in Big Sky (WEBS) program enhances the skills of middle and high school science teachers through a combination of field-based workshops and Internet-based courses. The curriculum provides teachers with information about climate change and its impacts on the wildlife and wild lands of the northern Rockies. The WEBS program trains middle and high school science teachers living in Idaho, Montana, and Wyoming. The program also trains teachers enrolled in the Masters of Science in Science Education program at Montana State University (MSU). Key partners in this teacher-training program include Glacier National Park, the Montana Environmental Education Association, the MSU Masters of Science in Science Education program, National Biological Information Infrastructure, and the Burns Telecommunications Center.

## **New York**

Teachers College – \$56,202

MICHAEL BITZ, 525 WEST 120TH STREET, P.O. BOX 139, NEW YORK, NY 10027

Alternative Pathways to Environmental Learning

The Alternative Pathways to Environmental Learning (APEL) project uses the arts as a pathway for educating inner-city students in grades 4 through 8 in New York City schools about important environmental issues affecting their communities. Direct and interactive programs for children and workshops for instructors are conducted to teach children about their environment and then design art and stories that demonstrate their understanding of environmental concerns. The stories present the information in a way that will interest other children. The materials generated are distributed in after-school programs and community outlets such as public housing developments, schools, and community centers. The partners for the APEL project are the Center for Educational Pathways and the After School Corporation.



#### **South Carolina**

University of South Carolina Research Foundation – \$60,690

Jeffrey Priest, Sponsored Programs and Research, USC Columbia, Columbia, SC 29208

Underrepresented Populations Learning in Nature's Kindergarten

Focusing on underrepresented populations, the Underrepresented Populations Learning in Nature's Kindergarten (UPLINK) project improves student achievement by providing real-world activities in a natural environment. This project involves use of a mobile classroom at the Silver Bluff Audubon Sanctuary in which students can collect, analyze, and summarize data that will enable them to make decisions about an environmental problem or issue. Students in grades 3 through 12 at schools in high-poverty areas participate in five project visits during the year: three visits to the Silver Bluff Audubon Sanctuary and two visits with the UPLINK instructor in their own schools. In addition to promoting student achievement, the project enhances students' interest in natural resources and exposes them to possible environmental careers. The UPLINK project is a cooperative effort between the Natural Resources, Science, Mathematics, and Engineering Education Programs at the University of South Carolina; the South Carolina Chapter of the National Audubon Society; and the Silver Bluff Audubon Sanctuary.

## **Virginia**

LYNCHBURG COLLEGE — \$74,960

JEFFREY CORNEY, 1501 LAKESIDE DRIVE, LYNCHBURG, VA 24501

Central Virginia's Meaningful Watershed Educational Experience

In an effort to enhance awareness and knowledge of watershed science, this project sends students and teachers from 26 elementary schools on a "watershed experience" field trip to Lynchburg College's Claytor Nature Study Center. The project provides hands-on environmental education lessons about watershed ecology and human impacts on water resources. This project improves students' standard-based academic achievement in the sciences. Over the course of the 2-year project, hundreds of students and their teachers will attend the watershed field trip. Teachers also will attend summer training workshops and receive curricular materials. This training is intended to help teachers incorporate environmental education themes into lessons on science and natural resources. Community volunteers also are involved in the project as field instructors. Lynchburg College is the primary sponsor of the project in partnership with the Lynchburg City Public Schools and Bedford County Public Schools.

## Wisconsin

RIVEREDGE NATURE CENTER, INC. - \$64,937

CHRISTINE KELLY, 4458 WEST HAWTHORNE DRIVE, P.O. Box 26, Newburg, WI 53060

Center for Regenerative Learning: A Regional Environmental Education Training Program

This project involves creating a Center for Regenerative Learning that offers a training program for volunteer environmental educators in southeastern Wisconsin. The training program is supported by a 3-month internship, a 24-month mentoring program, and an ongoing set of locally based continuing education courses. Designed using guidelines developed by the North American Association for Environmental Education, this training program, which is conducted by volunteers, equips middle-school educators with environmental decision-making skills and professional development opportunities that allow them to promote responsible environmental actions. Partners for the project include the Urban Ecology Center, the University of Wisconsin-Milwaukee Field Station, Lac Lawrann Conservancy, and Pier Wisconsin.



# **GRANTS AWARDED BY EPA REGIONAL OFFICES**

#### **Alabama**

University of Alabama at Birmingham – \$22,000 Alan Antenucci, 620 20th Street South, NHB 104, Birmingham, AL 35233

Birmingham Air Quality Study

The goal of this project is to enhance the student awareness, knowledge, and skills that are needed to make decisions affecting environmental quality by working with middle and high school teachers and their students. Textbooks often lack specific examples of how the information provided is of practical value. By moving away from a strictly textbook-based approach, student participants experience better performance on standardized tests, improved classroom management, increased enthusiasm for learning, and greater pride and ownership in accomplishments. The first step to achieving project goals was the adoption of the GLOBE curriculum in 2000 by the Birmingham City Schools. The project offers training workshops for 30 middle and high school teachers in the Birmingham area and provides equipment and supplies for their classrooms. The training and equipment enable the teachers and their students to gather air quality and atmospheric data using GLOBE curriculum protocols.

#### Alaska

Alaska Bird Observatory – \$5,000 Andrea Swingley, P.O. Box 80505, Fairbanks, AK 99708

Frosty Feathers of the Far North

This project uses activity-based lessons and teacher workshops to involve fourth- through eighth-grade students and teachers in scientific inquiries into black-capped chickadee behavior and ecology in Alaska. The harsh winter conditions present a unique challenge to teaching applied environmental science during the school year. The workshops enhance teachers' skills for teaching environmental subjects and conducting scientific inquiry in their classrooms. In the first year of the project, the lessons, combined with classroom visits by the Alaska Bird Observatory's education coordinator and implementation of a project web site, have educated approximately 272 students about environmental careers, the ecology of a common resident bird species in Alaska, potential environmental threats to birds, and how to conduct scientific inquiries.

Center for Alaskan Coastal Studies, Inc. – \$5,000 Marilyn Sigman, P.O. Box 2225, Homer, AK 99603

Youth Area Watch Teacher Training Workshop

The Center for Alaskan Coastal Studies, Inc. (CACS), is developing and coordinating the first 2-day training workshop for teachers involved in the Youth Area Watch (YAW) program, which is an environmental science and education program. This program stresses the involvement of students in real-world environmental research and monitoring through scientist-student partnerships. The focus of the teacher training workshop is to (1) provide participation in ecosystem-scale environmental monitoring and research projects, (2) familiarize teachers from 11 south-central Alaska communities with the science content and environmental education expectations for student learning that can be addressed through YAW activities, and (3) integrate the Chugach School District's science content and environmental education expectations for student learning into the YAW program for all participating schools. CACS trains teachers in Project GLOBE coastal data collection activities, and scientists introduce the environmental issues related to their research. The program serves as a model that can be extended to schools in other Alaska communities.



DIG AFOGNAK ACADEMY – \$20,000

JOHN LARSEN, 204 E REZANOF DRIVE, SUITE 100, KODIAK, AK 99615

Academy of Elders Science Camp Environmental Education Documentary

An intergenerational training camp for 10 teachers, 8 Alutiiq elders, and 36 students explores how to blend traditional and scientific knowledge in public education. The camp (1) examines environmental threats to the community and its resources; (2) strengthens students' critical-thinking skills and confidence levels in math, science, and technology studies; (3) trains teachers in methods for implementing environmental education; (4) takes advantage of firsthand knowledge from Alutiiq elders; and (5) explores projects that are relevant to rural survival and lifestyles and to native ingenuity. The Academy of Elders is making a documentary film about the training camp to educate people about the important environmental issues impacting the region. This documentary is to be made available to schools, shown at multiple venues, and aired on public access cable television. Following the completion of the camp, the students continue to work with experts in their fields of study, teachers, and elders to complete projects for a competition at the Rural Science Fair. Upon completion of the fair, the students' projects are publicized on the camp's web page and in the local media and are presented to tribal councils.

#### **Arizona**

Arizona Board of Regents - University of Arizona - \$17,834 Anne Browning-Aiken, P.O. Box 3308, Tucson, AZ 85722

ECOSTART and the San Pedro River

ECOSTART is a watershed-based environmental education program that builds the capacity of Sierra Vista elementary schools to educate their students about water conservation, basic ecological concepts, and bird and fish habitats associated with the San Pedro riparian corridor in southeastern Arizona. ECOSTART links University of Arizona educators, the Arizona Sonora Desert Museum, the Tucson Audubon Society, and Arizona Project Wet with Sierra Vista elementary school teachers and their students, the Sierra Vista Water Wise school program, and the Friends of the San Pedro. ECOSTART uses a series of teacher workshops and student and teacher field trips to address community and school needs for knowledge and understanding of the relationships between a geographic sense of place, ecosystem functioning, and natural resources.

Tucson Audubon Society - \$5,013

JENNIE DUBERSTEIN, 300 E. UNIVERSITY BOULEVARD, #120, TUCSON, AZ 85705

Proyecto Corredor Colibri

Proyecto Corredor Colibri (PCC) is a binational, collaborative project that works directly with communities in the Mexican portion of the Upper San Pedro Watershed. PCC focuses on natural and cultural resource conservation. Specific project goals include (1) capacity building among local residents; (2) conservation of biodiversity; and (3) development of ecologically, economically, and socially sustainable programs that stand as examples to communities throughout the watershed. PCC accomplishes its goals through environmental education and community outreach, research and monitoring, and economic diversification activities, seeking win-win situations for both communities and conservation.



#### **Arkansas**

UNIVERSITY OF ARKANSAS - \$20,109

LYNNE HEHR, 120 OZARK HALL, FAYETTEVILLE, AR 72701

Waste Not, Want Not - Environmental Issues of Waste Disposal

This pilot project engages 25 regional science teachers in Arkansas in an initial 5-day workshop that focuses on issues associated with toxic and nontoxic waste disposal and provides 15 hours of follow-up mentoring. The instruction and information received during this project allow the teachers to have a potential environmental education impact on 3,000 to 3,750 students each year. The workshop includes lectures; hands-on sessions; visits to the University of Arkansas campus; and field trips to Waste Management Tontitown Landfill, a sinking creek in the Savoy Watershed, a recycling facility, and a wastewater treatment plant.

#### **California**

See page 3 for a profile of a grant awarded to the San Gabriel Mountains Regional Conservancy by EPA Headquarters.

American Lung Association of San Diego and Imperial Counties – \$18,595 Janie Davies, 2750 Fourth Avenue, San Diego, CA 92103

Kids for Clean Air

The goal of the Kids for Clean Air program is to educate young people about the causes of air pollution and how individuals can take personal action to make the air cleaner. The program is targeted toward low-income elementary school students throughout San Diego and is an important pollution prevention and environmental literacy initiative. Through the program, students achieve an increase of at least 25 percent in their knowledge of how their lungs work, how contaminants affect their lungs, what causes air pollution, and what they can do to help create cleaner air.

California Academy of Sciences – \$5,000 J. Patrick Kociolek, Golden Gate Park, San Francisco, CA 94118

Wild City! Urban Environmental Education

Wild City! Urban Environmental Education activities are for fourth- and fifth-grade public school students in San Francisco communities where residents are traditionally underrepresented in the sciences. The project connects scientific and environmental concepts to everyday life and experiences in order to make learning science fun and interesting for children, many of whom have had little or no previous experience in the natural world. Wild City! helps participants (1) understand biodiversity at the species and ecosystem levels, (2) emphasizes the importance of local biodiversity as well as the problems facing biodiversity and possible solutions, (3) gives each child the opportunity to contribute personally to the preservation of biodiversity through a restoration or cleanup project, and (4) establishes a connection and a potential ongoing relationship between each child and the resources of the California Academy of Sciences.



California State University, Chico Research Foundation – \$10,000 Roxanne Baxter, 1163 East Seventh Street, Chico, CA 95928

#### Kids and Creeks

In the Kids and Creeks project, student activities include raising salmonids to the fry stage in the classroom, participating in riparian restoration field trips, and studying creek ecology. Fifteen classes raise salmonids in their classrooms and attend at least one riparian restoration field trip and one Creek Ecology Day field trip. California State University's objective is to provide teachers with in-service training workshops, materials, mentors, and field trips to support curriculum development. Teachers play key roles in planning field trip activities, especially Creek Ecology Days. In addition to 2nd- through 12th-grade teachers and students, at least 200 community members, including college students, parents, teacher's aides, and community volunteers, participate in the project.

Ecological Farming Association – \$10,750 Kristin Rosenow, 406 Main Street, #313, Watsonville, CA 95076

#### South-Central Coast Strawberry Conference Series

This project involves holding a Strawberry Conference Series and farm tour for south-central coast growers in spring 2004. The project's focus is on promoting successful post-methyl bromide production methods and on providing outreach to underserved Spanish-speaking and low-income growers. The conference series is similar to activities developed for Monterey and Santa Cruz Counties in 2002 with funding from EPA. The objectives of the conference series are to help farmers evaluate different production methods based on economic and environmental criteria and to increase their understanding of the tools, techniques, and resources available to help them make responsible production decisions for themselves and the environment. The goal of the conference series is for growers to implement practices that meet economic and management requirements while reducing negative environmental and health impacts.

Friends of Famosa Slough – \$5,000 James Peugh, P.O. Box 87280, San Diego, CA 92138

#### Rolling Wetland Laboratories

This project involves the purchase or fabrication of mobile research wagons and interactive wetland assessment tools. Together with presentations, these items provide students and the public with a better understanding of watersheds, water quality, and plant and animal communities. Moreover, the project furnishes teachers with a comprehensive, "turnkey" means of maximizing the educational value of Famosa Slough. The interactive tools help students develop problem-solving and decision-making skills and impart enduring impressions of watershed investigations.

Mattole Restoration Council – \$5,000 Chris Larsen, P.O. Box 160, Petrolia, CA 95558

#### Mattole Ecological Education Program

The Mattole Restoration Council is supporting career development projects for Mattole students. The council's Mattole Ecological Education Program is expanding its career development services for high school students, providing 25 in-class visits and five field trips for six Mattole Watershed public schools and hosting the annual Watershed Week event. Each of these components ensures that students receive an adequate level of ecological education and that they are exposed to potential careers in local and regional watershed restoration.



NORTH TAHOE MIDDLE SCHOOL — \$3,455 DAVID B. CURRY, 10096 OLYMPIC BOULEVARD, TRUCKEE, CA 96161

#### Community Water Watch

This cross-curricular, multidisciplinary, and cross-grade-level project is linking two school districts in two states to examine the environmental issues of different communities from the economic, political, social, and cultural viewpoints. The project is designed to improve the investigative skills of all the participating students and to encourage collaborative research on local, national, and global environmental issues. Community Water Watch focuses mainly on capacity building. Students from different communities connect with each other while studying environmental science. Students also work closely with partner agencies through use of web conferences, guest speakers, field studies, and field trips. Teachers involved in the project collaborate with one another and with the partner agencies.

Placer Land Trust and Nature Center – \$4,580 Linda Desai, 3700 Christian Valley Road, Auburn, CA 95602

#### Learning from the Land

The Learning from the Land outreach program provides a 1-day field study educational experience for fifth- through eighth-grade students at the Traylor Ranch Nature Reserve and Bird Sanctuary. The program addresses the history of local land use, stream and grassland ecology concepts, and restoration projects at the sanctuary.

Santa Barbara Zoological Foundation – \$5,453

Jill Rode, 500 Ninos Drive, Santa Barbara, CA 93103

#### The Zoo Explorers Program

The purpose of the Zoo Explorers program is to encourage students in grades 9 through 12 to pursue environmental careers. The program provides the students with opportunities to meet conservation professionals and participate in hands-on conservation projects. In the year-long program, Zoo Explorers meet with professionals involved in various aspects of environmental conservation. These professionals range from plant biologists to gorilla behavior researchers to zookeepers, and the students meet a different professional each month. In addition to listening to lectures given by the environmental professionals, the students participate in hands-on activities that allow them to actually practice conservation. Throughout the program, the students develop and implement conservation projects for their homes, schools, or community. The projects are implemented at the middle of the year, evaluated at the end of the year, and judged based on the students' development of the projects. The three students who display the best use of their critical thinking and problem-solving skills in their projects receive Youth Conservation Scholarships for college in the amounts of \$1,000; \$750; and \$500.

Save San Francisco Bay Association – \$10,000 David Lewis, 1600 Broadway, Suite 300, Oakland, CA 94612

#### Canoes in Sloughs Watershed Education and Community-Based Restoration Program

The Save San Francisco Bay Association launched this program in 1996 as the first experiential education program in the San Francisco Bay area that was "on the water" and tailored to middle and high school students. The hands-on educational and restoration activities offered through the Canoes in Sloughs program help to restore wetland habitat, improve water quality and the overall health of San Francisco Bay, and build understanding of and support for the bay and its ecosystems among a new generation of bay area residents.



SOUTH YUBA RIVER CITIZENS LEAGUE — \$5,000

JANET COHEN, 216 MAIN STREET, NEVADA CITY, CA 95959

River Teachers Science Docent Program

The goal of the South Yuba River Citizens League River Teachers Science Docent Program is to train volunteers to work with teachers in order to expand education about water quality and salmon habitat in local first- through sixth-grade classrooms. To accomplish this goal, the Science Docent Program is providing monthly training sessions for volunteer educators. Each of these workshops trains the volunteers to present an enjoyable, hands-on lesson related to water quality or salmon habitat that is consistent with California Content Standards. After each workshop, volunteers visit their partner classrooms in pairs to present the interactive lesson to the students. The lessons give students the opportunity to learn about the natural world while developing their skills for observing, communicating, investigating, and thinking critically about the environment. By the end of its pilot phase, the program is scheduled to reach approximately 20 volunteer educators, 300 first- through sixth-grade students, and 10 classroom teachers with three hands-on lessons on water.

TreePeople Inc. - \$2,000

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

Campus Forestry Program

The TreePeople Inc. campus forestry professional development program trains teachers to use environmental service-learning as a hands-on teaching tool through which state-mandated academic requirements can be taught.

TreePeople Inc. - \$10,000

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

CREEC Network for Los Angeles County

The project expands the California Regional Environmental Education Community (CREEC) Network for Los Angeles County, or "CREEC-LA." CREEC-LA is part of a statewide network supervised (and funded in part) by the California Department of Education, Office of Environmental Education. Through this clearinghouse network, public and private educators gain quick access to a wide range of environmental education providers to support their classrooms. These environmental education providers include nonprofit organizations, resource agencies, and commercial entities that offer educational programs, curricula, and materials. At present, CREEC-LA provides 8,000 Los Angeles County teachers with a database of 250 prescreened environmental education programs. During the 2003-2004 program year (September to August), CREEC-LA is doubling the number of resources in the database, and through a series of six leadership workshops, CREEC-LA is enhancing the effectiveness of the environmental education programs. At the same time, CREEC-LA is supporting the connections between programs and teachers through marketing and by providing one-on-one support to teachers.



## Colorado

Colorado Alliance for Environmental Education – \$25,000 Mike Way, 15260 Golden Road, Golden, CO 80401

Colorado Environmental Education Professional Development Initiative

This project ensures that people entering the environmental education community are grounded with a firm understanding of the fundamentals and guiding principles of environmental education. Secondarily, the project is helping the Colorado Alliance for Environmental Education to establish a sustainable process for future training and development of environmental education leaders in the state. The project is also helping to ensure that the guiding principles of the National Project for Excellence in Environmental Education are a focal point for Colorado's environmental education practitioners.

COLORADO ENERGY SCIENCE CENTER - \$5,000

Patrick Keegan, 1767A Denver West Boulevard, Suite 49, Golden, CO 80401

Connecting Energy Education in the Classroom to Real-World Problem-Solving

The Colorado Energy Science Center (CESC) is expanding its kindergarten through 12th-grade energy education initiative to support a cadre of at least 100 teachers and 1,500 students in the investigation of energy use and efficiency. In addition, CESC is providing professional development services for at least 50 teachers, implementing model classroom energy lessons, conducting at least 30 classroom programs, and hosting a public forum for at least 250 students to share what they have learned about home energy efficiency and conservation. Project achievements include more educated students, economic benefits for energy users, and reduced air pollution.

Colorado Wildlife Heritage Foundation – \$14,000 Elaine Sturges, 6060 Broadway, Denver, CO 80216

Colorado Study Buddy Stewardship Program

This project is helping young people learn about local ecology and is implementing local stewardship efforts that improve wildlife habitat and natural resources. The project pairs high school science classes one-on-one with elementary school classes (in grades 1 through 3) for a school year to study local ecology and implement a wildlife habitat improvement project. The older and younger students become "study buddies" as they visit each other's schools and classrooms, take joint field trips, participate in classroom science and literacy activities, complete a community stewardship project, and make a year-end public presentation for parents and community members. The project's main objectives are to help students learn and practice positive stewardship skills in order to improve wildlife habitat, increase the students' science and literacy skills, and increase the high school students' leadership and teaching skills.

EARTH WALK - \$10,000

Stacy C. Turnbull, 3607 Martin Luther King Boulevard, Suite 101, Denver, CO 80205

Service-Learning Expansion

This project is increasing students' awareness of environmental issues in their neighborhoods and community using the nationally recognized Earth Force curriculum, which guides students through a research-to-action, critical-thinking process. First students explore their community and learn about its resources. Then speakers from local agencies provide students with background information about a project related to environmental restoration. Next the students engage in the project and make presentations to the community about their findings. Earth Walk is providing service-learning opportunities to 80 students in northeast Denver and is expanding into additional schools.



Front Range Earth Force – \$24,750 Lisa Bardwell, 2120 West 33rd Avenue, Denver, CO 80211

#### GREEN Youth Action Initiative

This project is incorporating a low-income and culturally diverse audience–specifically, a growing Spanish-speaking community–into both new and existing environmental education and restoration efforts. Front Range Earth Force is providing training and an award-winning curriculum in both Spanish and English to 20 schoolteachers who work in low-income regions in the Denver metropolitan area. Participating teachers learn to teach science concepts using an educational model that focuses on (1) hands-on investigation of a local watershed, (2) analysis of data collected by students, (3) understanding of the policies and practices regulating behavior in the area, and (4) effective community engagement to preserve or improve the environmental health of the watershed.

Gore Range Natural Science School – \$5,000 Kim Langmaid, 400 Pine Street, P.O. Box 250, Redcliff, CO 81649

#### Science Outreach and Applied Research Community Issues Education

This project is expanding the Science Outreach and Applied Research (SOAR) watershed education program. This program provides students in Eagle and Lake Counties in Colorado with hands-on experience and ecological understanding of their local watersheds. The program enables the students to make informed land management decisions and to become stewards of the natural environment where they live. In addition, the program is monitoring specific sites in the Eagle River Watershed. The program is expanding to include a new sixth-grade class with approximately 100 students and their teachers, so it can establish two new monitoring locations in the watershed.

Growing Gardens of Boulder County – \$5,000 Ramona Clark, 3198 Broadway, Boulder, CO 80304

#### Neighborhood Compost Project

The Neighborhood Compost Project is increasing community awareness of and participation in composting by providing field trips, lectures, and workshops for individuals visiting the project site. This project is also integrating compost education into existing children and youth programs. In addition to providing education, the project is providing coordination for three businesses and approximately 1,200 individuals to compost their kitchen, lawn, and garden wastes, which would otherwise be sent to landfills.

Trees, Water, and People – \$7,270
Richard Fox, 633 Remington Street, Fort Collins, CO 80524

#### Pine Ridge Alternative Energy Education and Training Program

This program has grown out of a desire expressed by Lakota youth for increased awareness and knowledge of alternative energy solutions. The program is designed to teach students about energy alternatives that are environmentally sound, culturally appropriate, and economically beneficial. Specifically, the program is providing (1) environmental and alternative energy education to at least 100 students via workshops, (2) specific technology and skill training to at least 20 students who are interested in alternative energy careers via demonstration projects, and (3) service-learning projects designed to offer hands-on training to young people. The program is raising community environmental awareness and is helping disadvantaged families reduce their energy costs.



#### **Connecticut**

Progressive Training Association, Inc. – \$4,969
Warren Godbolt, 965 Fairfield Avenue, Bridgeport, CT 06605

Parent Empowerment and Education About Lead

The Parent Empowerment and Education About Lead (PEEAL) project promotes awareness and provides education among poor and low-income families in Bridgeport, which has the highest number of lead poisoning cases in Connecticut. The PEEAL project is aimed specifically at providing services for parents who have children under the age of six and are re-entering the community after incarceration.

Science Center of Connecticut – \$16,650
Hank Gruner, 950 Trout Brook Drive, West Hartford, CT 06119

Our Cities, Our Health: Summer Ozone Monitoring Network

Representatives of a partnership between the Science Center of Connecticut and the Boys and Girls Club work in seven urban areas of Connecticut to integrate an ozone monitoring project and a 5-week air pollution curriculum into each club chapter's education program. Scientists visit each club chapter at least once per week to work with children and to lead an activity with the assistance of Boys and Girls Club staff.

#### **Delaware**

Delaware Center for Horticulture, Inc. – \$8,000 Pamela Sapko, 1810 N. Dupont Street, Wilmington, DE 19806-3308

Horticultural and Environmental Leadership Program

The Horticultural and Environmental Leadership Program (HELP) is a community-based, cross-cultural environmental education and outreach program that teaches middle school students in Wilmington, Delaware, about prevalent environmental issues in their communities. HELP, which is conducted over 4 weeks during the summer, also seeks to develop the students' leadership skills through activities focusing on diversity and cultural competence, job expectations, self-esteem, team building, community activism, leadership, and personal and civic responsibility.

## **District of Columbia**

National Environmental Education & Training Foundation – \$20,000 Dena Imbergamo, 1707 H Street, Suite 900, Washington, DC 20006

EnvironMentors Project Inner School Academy

In partnership with Coolidge Senior High School, the Washington EnvironMentors Project (WEP) is developing the EnvironMentors Project Inner School Academy (EP-ISA), which is a structured, 2-year environmental science academic program. EP-ISA prepares students for college degree programs and professions in environmental science, natural resource management, and watershed protection. The academy includes in-school environmental curricula, an out-of-school mentoring and career awareness program, and workplace-based internships and provides significant financial support for college studies.



#### **Florida**

THE CONSERVANCY OF SOUTHWEST FLORIDA — \$5,000

JOSEPH COX, 1450 MERRIHUE DRIVE, NAPLES, FL 34102

Mangrove Conservation Station - A Discovery Zone

This project supports Mangrove Conservation Station - A Discovery Zone, which is a partnership between the Naples Nature Center (NNC) and the Collier County Public School System. The conservation station is an exhibit that includes a mangrove aquarium, an outline of issues related to restoration efforts, immersing activities, and an oversized mangrove diorama. The project goals are to increase awareness of the need to protect and sustain the natural environment, stimulate learning in students, and give them the opportunity to explore environmental issues and careers. To supplement the permanent exhibit, NNC is partnering with the public school system to develop a traveling exhibit using an existing curriculum developed in cooperation with the school system. The curriculum meets local school district, state, and national academic standards.

University of South Florida – \$22,015 Heidi Kay, 4202 East Fowler Avenue, FAO 126, Tampa, FL 33620

The University of South Florida (USF) Enviro Van Plan

The purpose of the University of South Florida (USF) Enviro Van Plan is to engage Florida high school students and their teachers in environmental and public health issues by bringing a mobile environmental laboratory to their schools. The Enviro Van Plan enables students and their teachers to use advanced laboratory equipment that would be unavailable to them in a typical high school classroom. The goals of the project are to (1) make science classes relevant and exciting by introducing students to state-of-the-art equipment, (2) introduce students to critical environmental and public health issues facing Floridians through interdisciplinary problem-solving curriculum modules, and (3) show students how they can make a difference in environmental health issues by presenting a variety of career paths. The results and lessons learned during the project are disseminated to other Florida teachers.

## Georgia

Georgia Department of Natural Resources – \$2,185 Brenda Bettross, 3723 Mistletoe Road, Appling, GA 30802

Programming Kits for Teachers and Volunteers

Throughout the year, school groups and other organized groups request outdoor educational programs provided by Mistletoe State Park. Most of these groups consist of approximately 40 children. Mistletoe State Park staff members develop programming kits for teachers and volunteers that provide the opportunity for larger organized groups to participate in their environmental education programs. Each kit contains a detailed lesson plan on an environmental topic, posters, activity sheets, and hands-on materials that provide a better understanding and respect for the environment. Orientation packets introduce teachers, group leaders, and volunteers to the opportunities that the programming kits create for larger groups.



Georgia Water and Pollution Control Association – \$2,750 Bryan Wagoner, P.O. Box 6129, Marietta, GA 30065

Water Works Environmental Training Workshop

This project provides a 2-day workshop that offers teachers information and practical training about the most important water quality and water resource issues facing Georgia today. Fifty secondary-level science educators from across Georgia have been given the opportunity to learn about water resource curricula during this training workshop. The workshop includes plenary sessions that highlight local and statewide water-related challenges as well as numerous hands-on sessions. These sessions are based on the Water Source Book curricula developed by EPA and other partners.

National Wildlife Federation – \$22,000

VICKI SEASTROM, 1330 WEST PEACHTREE STREET, SUITE 475, ATLANTA, GA 30309

Schoolyard Habitats and Community Outreach: Take It Home

The National Wildlife Federation's (NWF) Schoolyard Habitats and Community Outreach: Take It Home project is a model initiative to directly magnify the power of NWF's existing programs and resources by combining and delivering them in innovative ways and by using schools as gateways to increase community involvement. NWF targeted 12 schools to participate in this project. Five of the schools are in underserved and culturally diverse neighborhoods in inner-city Atlanta. For all 12 schools, NWF provides teachers with basic materials, guidance, and follow-up support. To fully implement and test the model, NWF works intensively with students, teachers, other school personnel, and community supporters at the five inner-city schools. The project's goal is to empower students and teachers to practice environmental stewardship as they come to understand that their health and well-being are directly linked to conservation of water resources, wildlife, and habitat.

#### Guam

University of Guam - \$8,900

JEFF D.T. BARCINAS, UNIVERSITY & COMMUNITY ENGAGEMENT, UOG STATION, MANGILAO, GU 96923

Micronesia Environmental Education Network (MREEN)

The Micronesia Regional Environmental Education Network (MREEN) serves as a link between environmental educators and outreach practitioners in the western Pacific region. Environmental educators in this region often face many problems not encountered by their mainland counterparts. Because environmental agencies and nonprofit organizations in the region are small, personnel working on education or outreach activities often work alone or in very small groups. Because of limited local resources, there is often nowhere for these personnel to turn when they are confronted with problems or looking for new ideas. MREEN attempts to overcome some of these obstacles by maintaining a support network of environmental education and outreach specialists who are working on similar issues under similar conditions. MREEN is currently (1) setting up an electronic archive of environmental education materials developed in and for the western Pacific region; (2) developing the MREEN web site to provide online access to the materials; establishing the MREEN "listsery," which connects environmental educators and outreach specialists throughout the region; and (3) developing a 1-day workshop on designing effective environmental outreach campaigns for Pacific islands.



#### Hawaii

University of Hawaii - Office of Research Services – \$19,480 Kevin Hanaoka, 2450 Dole Street, Sakamaki D200, Honolulu, HI 96822

Bioremediation for the Community

The objectives of this project are to (1) assist the community in becoming knowledgeable about environmental issues and environmental technologies such as bioremediation that may effectively solve local pollution problems and (2) educate students about environmental issues, encourage them to practice environmental stewardship in their community and to assist in formulating solutions for these issues, and introduce them to career opportunities in the environmental field. The University of Hawaii provides workshops for community members in the Ala Wai Watershed (including members of the Ala Wai Watershed Association) and works with the Malama I Ka Aina program in training kindergarten through 12th-grade teachers to implement environmental curricula for students in the Ala Wai Watershed. The workshops and curricula address environmental technologies such as bioremediation and their application to such problems as the contaminated sediment in the Ala Wai Canal. Supported by the schools and community, students construct a small-scale bioremediation project that is hosted and sustained by one of the schools or by community members in the watershed.

#### Idaho

See page 3 for a profile of a grant awarded to the University of Idaho by EPA Headquarters.

Idaho Environmental Education Association – \$4,950 Donny Roush, 2211 South Second Avenue, Pocatello, ID 83201

Coaches for Kids Using Their Environment as an Integrating Context for Learning

This project provides "coaches" with stipends that are used to acquire educational resources as each model school develops its Environment as an Integrating Context for Learning (EIC) investigations. The coaches are nonformal educators from each school's community who have technical knowledge and planning and facilitation skills, and offer connections to resources. The Idaho EIC Network addresses education reform by demonstrating a research-based method of meeting and exceeding standards. This method relies on community-based investigations and the incorporation of a community member into each teaching team. In the Idaho EIC Network, the Idaho Environmental Education Association, the State Department of Education, and the State Education and Environment Roundtable provide support for professional development as well as ongoing consultation and administrative support for eight school teams, each consisting of three teachers, an administrator, and a coach. With this support, these teams develop their own community-based investigations, which form the heart of the EIC method.

Palouse-Clearwater Environmental Institute – \$17,255 Gregory Fizzell, 112 West 4th Street, Suite 1, Moscow, ID 83483

Geographic Information Systems to Enhance Community Watershed Education

This project involves designing and implementing an Internet-based Geographic Information System (GIS) interface that is directly linked to Palouse-Clearwater Environmental Institute's (PCEI) existing web site. The system focuses on the Paradise Creek Watershed and provides the user with easy point-and-click access to information on PCEI's web site, other restoration sites, and to data on water quality, weather, soils, geology, and land use. Once the GIS system is complete, an education and training guide for kindergarten through grade 12 is to be designed and published for use by teachers and students. Teacher workshops, student outreach programs, and resident workshops are being conducted to field-test the GIS system and to highlight how the web-based tool can be used to enhance student learning and achievement.



### Illinois

Building Opportunities for Leadership Development - Chicago Institute — \$5,000 Shelly Field, 4865 North Ravenswood, Chicago, IL 60640

#### Calumet is My Backyard

This service-learning program connects 12 teachers and 125 students in public high schools to environmental issues in the Lake Calumet region of southeast Chicago. Through participation in the program, people become leaders and take responsibility for the condition of the Lake Calumet area. The program also allows the Building Opportunities for Leadership Development Chicago Institute to offer coordinated group training for teachers. The program is designed to become a model that can be duplicated in other schools and geographic areas.

CHAMPAIGN COUNTY FOREST PRESERVE DISTRICT — \$4,475 ERIN TAYLOR, 2573 S. HOMER LAKE ROAD, HOMER, IL 61849

#### Taking a Closer Look Workshop

The Champaign County Forest Preserve District is planning a 3-day workshop to instruct kindergarten through 12th-grade teachers about Champaign County's natural resources in terms of their history, current trends, and the future outlook. The workshop is a continuation of a previously offered pilot program. Workshop elements include hands-on field work and a multidisciplinary approach that is correlated with state learning goals and standards. Participating teachers receive a resource kit containing field guides, historical documents, posters, publications, and data collection tools that allow them to conduct lessons in their own classrooms.

Community Supported Agriculture Learning Center Inc. – \$24,316 Tom Spaulding, 1547 Rockton Road, Caledonia, IL 61011

#### Roots and Shoots

The Roots and Shoots program explores environmental and human health issues through the lens of the nation's food system. The program involves 50 children of ages 8 to 14 living in low-income urban neighborhoods, their families, 8 community organizations, and an additional 250 adults and young people. Participants in the program are offered opportunities to obtain fresh produce from community farms and through farmer's markets. The program also teaches participants how to grow their own produce. In addition, workshops are conducted to share the program model with other groups and organizations.

Interstate RC&D - \$5,000 Mark Jackson, 3020 East First Avenue, Milan, IL 61264

#### Project SMART Bus

Project Smart Minds Are Reading Thoroughly (SMART) Bus reduces illiteracy, educates young people, and promotes environmental careers through a series of presentations and hands-on activities. The project materials are kept on a bus that travels to communities in western Illinois and eastern Iowa. The bus, which is similar to a bookmobile, reaches about 2,000 students and 1,500 adults.



Northern Illinois University – \$24,726

Murali Krishnamurthi, Mail System, Dekalb, IL 60115

Teacher Training on Web-Based Environmental Management Systems

This project involves the design, development, and distribution of a web-based training program for high school and college teachers. In workshops focusing on environmental management systems, the program is used to train the teachers about creative approaches to pollution prevention in homes, communities, and businesses. Evaluators and a teacher focus group conduct program assessments before and after the training to determine whether learning goals are being met.

WHEATON PARK DISTRICT – \$7,685 Kelly Joslin, 666 Main Street, Wheaton, IL 60187

Forging Partnerships Between Environmental Educators and Preschools in Suburbia

Naturalists are expanding on previous work involving creation of a preschool version of the Wetlands Wonder program. The project is introducing hands-on environmental education for up to 800 preschool students and their teachers. Teacher training workshops are scheduled for fall 2003 and spring 2004. As an incentive, teachers who complete the training are invited to either participate in a complementary program at a local marsh or have a naturalist lead their students in an exploration of their schools' natural surroundings.

#### **Indiana**

Drifting Dunes Girl Scout Council – \$5,000 Marlene Cosby, 8699 Broadway, Merrillville, IN 46410

This Land is Your Land Initiative

The purpose of this project is to implement "This Land Is Your Land," an environmental education and environmental justice training initiative addressing community issues in northwest Indiana. The project involves providing instruction about the history of industrial pollution in the area, Lake Michigan's role in the area's development, lake water quality issues, wetland protection, solid waste management, and what citizens can do to ensure sustainable development.

Indiana Department of Environmental Management – \$4,990
Paula Smith, 100 North Senate Avenue, Indianapolis, IN 46206-6015

Environmental Education Lending Kits and Trunks

Since July 2002, more than 35,000 preschool and elementary school students around Indiana have been exposed to environmental education lending kits. Currently, 91 kits are being circulated by Indiana University and Purdue University's Teacher Resource Center. The Indiana Department of Environmental Management (IDEM) is adding materials to the kits on topics such as pesticides and indoor air quality. IDEM staff members are also promoting the kits at education conferences around the state.



Purdue University - \$18,391

TIMOTHY GIBB, 610 PURDUE MALL, WEST LAFAYETTE, IN 47907

Educational Network for Integrated Pest Management for Indiana Child Care Facilities

The purpose of this project is to raise awareness of pest control concepts among childcare providers across Indiana. A multimedia approach is being used to deliver educational messages and materials through workshops, presentations, brochures, web sites, and a technical support hotline. Purdue University is sharing the project model with other states in EPA Region 5. Other project partners are developing plans to integrate pest control concepts into existing childcare provider training. In addition, the partners are encouraging the childcare industry to adopt integrated pest management principles and are raising awareness of pest control issues among the general public.

St. Joseph County Health Department - \$5,000

MARC NELSON, 227 WEST JEFFERSON BOULEVARD, SOUTH BEND, IN 46601

Educating Water Well Installers about Managing their Water Systems

This project is educating approximately 1,000 St. Joseph County residents who are installing new or replacement water wells about the importance of water system management. The residents are informed about their legal obligations, groundwater issues, water pollution, water quality testing, and water system planning.

#### lowa

Eastern Iowa Community College - \$4,200

Dr. Ellen Kabat Lensch, 306 West River Drive, Davenport, IA 52801-1221

Connected by a River

The goal of this project is to educate middle school students about how to use real-life learning to increase their awareness and knowledge of environmental issues. Students develop the necessary skills to make informed decisions and take responsibility for their actions regarding the environment. The delivery method is four 1-day, 2-hour, after-school workshops conducted through the Iowa Communication Network. The students' teachers develop skills in integrating the Connected by a River CD-ROM into the classroom. Each middle school receives a Connected by a River CD server package to use in its classrooms.

IOWA DEPARTMENT OF NATURAL RESOURCES - \$18,750

Mark J. Slatterly, 502 East Ninth Street, Des Moines, IA 50319-0034

The Pollution Prevention Intern Program

The Pollution Prevention (P2) Intern Program places college graduate and upper-level undergraduate students in organizations for a 12-week period to help identify, evaluate, and implement environmental solutions for specific issues or processes. Selected interns receive 1 week of system-based P2 training from the Iowa Department of Natural Resources (IDNR) and then begin working on their respective projects. Host facility supervisors develop work plans to ensure management support, and IDNR engineers provide mentoring and technical assistance. The interns identify, research, evaluate, and assist in the implementation of alternatives for reducing waste, pollution, or toxicity at their host facilities. The overarching goal of the project is to reduce environmental pollution by educating college graduate and undergraduate students, businesses, industries, and institutions about environmental issues.



Iowa Recycling Association – \$5,000

DEWAYNE JOHNSON, 2742 SE MARKET STREET, DES MOINES, IA 50317

Student Waste and Recycling Audits

The objective of this project is to empower students to work with teachers; administrators; and food service, office, and custodial staff members to identify ways to reduce and recycle waste generated at their school. Iowa Recycling Association staff members are working with students to identify and target recycling and waste reduction opportunities. Students research the kinds of wastes being generated in their school and identify ways to reduce or recycle the waste or otherwise divert it from the local landfill. The project is being implemented for 15 classes.

SOUTHDALE IMPACT - \$3,300

BRIAN GEDIINSKE, 627 ORCHARD DRIVE, CEDAR FALLS, IA 50813

Southdale Environmental Education Initiative

The goal of the Southdale Environmental Education Initiative is to provide kindergarten through sixth-grade students with a variety of hands-on learning opportunities focused on the environment. The intent is to develop student activities that increase environmental awareness, generate enthusiasm, encourage family participation, and promote creativity and problem-solving skills. The students participate in a science fair, at-home energy and resource conservation projects, and recycling projects. Field trips are included as part of the educational experience.

West Branch Community School – \$10,000 Hector Ibarra, P.O. Box 627, West Branch, IA 52358

Hazardous Waste Awareness - Used Oil Filters

In this project, middle school students from rural schools learn about the process of recovering used oil from oil filters. The students bring used oil filters to the project site, and the filters are weighed before and after compaction. The students and other community members use hydraulic oil filter presses to study the amount of used oil that can be recovered by compressing the filters. Once the filters are compressed, about 90 percent of the used oil is recovered. The project is increasing public awareness of the environmental benefits of compressing used oil filters.

#### **Kansas**

See page 3 for a profile of a grant awarded to the Kansas Association for Conservation and Environmental Education by EPA Headquarters.

F.L. Schlagle Library – \$7,000

Paula Ellison, 4051 West Drive, Kansas City, KS 66109

Environmental Kits for Inquiring Students and Teachers

The objective of this project is to provide both tools and training to teachers that will enable them to perform successful scientific inquiries into environmental concepts with their students. The project is helping Kansas City science teachers to better train their students in environmental science and scientific investigation. The F.L. Schlagle Library is providing environmental science inquiry kits that can be checked out from the library. The kits contain information that guides students through the process of scientific inquiry into environmental subjects.



Kansas Association for Conservation and Environmental Education – \$24,500 Laura Downey, 2610 Claffin Road, Manhattan, KS 66502

Kansas Online Environmental Education Community

The goal of this project is to increase the environmental education capacity in Kansas by using electronic technology to create a comprehensive online environmental education community in the state. The project involves developing a database of environmental education providers, training opportunities, and resources to increase the state capacity to develop, deliver, and coordinate statewide environmental education programs. The database is also intended to promote the long-term sustainability of environmental education programs in Kansas. The project is enhancing the capacity to deliver quality, unbiased, science-based environmental education in Kansas.

South Central Kansas Education Center – \$5,091

Jason Kirchmer, 13939 Diagonal Road, Clearwater, KS 67026

Country Chemistry and Computers

The objectives of the Country Chemistry and Computers water quality workshop directly support the science curriculum standards set by the Kansas State Department of Education. The purpose of the workshop is to enhance the ability of sixth- through eighth-grade teachers to help students achieve these standards. The workshop is being conducted by the science coordinator at the South Central Kansas Education Center and trains teachers in the use of scientific equipment. Information about the workshop is being distributed to 50 school districts and posted on the center's web site. Each year from 2003 through 2007, about 20 teachers in 10 school districts are expected to benefit from attending the water quality workshop.

University of Kansas Center for Research – \$9,487 Gail Rooney, 2385 Irving Hill Road, Lawrence, KS 66044

Environmental Career Symposium 2003

This project is a collaborative effort between the University Career and Employment Service and the Environmental Studies Program at the University of Kansas and is intended to expand the environmental career opportunities available to college students. The symposium includes four activities to educate students about environmental careers, a career panel featuring four to six employers, a job search workshop, a career fair, and a guest speaker. The project is assessed by students, employers, and project partners through documentation of career development activities and through evaluations completed by participants.

## **Kentucky**

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

Kentucky Agriculture & Environment in the Classroom – \$10,700 Rayetta Boone, P.O. Box 814, Frankfort, KY 40601

Environment and Agriculture: Exploring the Issues

This project involves establishing a college course titled "Environment and Agriculture: Exploring the Issues" to address the food and fiber system as a component of environmental education. Specifically, this project is providing course work to help meet Kentucky's proposed environmental education endorsement. Initially a workshop is used to train 40 teachers who are seeking their master's degrees in elementary education from Murray State University in Murray, Kentucky. The workshop is a 3-day course that explores the connection between agriculture and the environment in our society. The project then provides live presentations, field trips to an area farm and ethanol plant, and hands-on activities that can be applied in the classroom.



### Louisiana

Louisiana State University – \$8,000 Gary Hansen, One University Place, Shreveport, LA 71115

High School Watershed Education Project

Louisiana State University offers workshops to teach scientifically sound techniques for water sampling and water quality monitoring, compiling field data, and conducting basic laboratory analyses. Field work is conducted in the Red River Education and Research Park, which is the site of cutting-edge environmental research led by Louisiana State University in Shreveport and other universities; business and industry; and city, state, and federal agencies.

Teaching Responsible Earth Education – \$15,755 Sue Brown, 1463 Nashville Avenue, New Orleans, LA 70115

Earthkeepers Project: Justice through Environmental Education

Two 3-day outdoor environmental learning programs are being held at Jean Lafitte National Park and Preserve and Barataria Education Center for 120 students, teachers, and volunteers from the New Orleans public school system. These programs include interactive, outdoor activities that teach the students about their responsibilities and tasks as "Earthkeepers." For example, the students' responsibilities include learning more about the earth, experiencing it in a new way, using their knowledge to create good environmental habits, and sharing what they learn with others. All the program components build on one another and are interconnected.

#### **Maine**

Cumberland County Soil & Water Conservation District — \$9,957 Mary Gilbertson, 201 Main Street, Suite 6, Westbrook, ME 04092

Empowering Students To Become Involved Citizens

Teachers in four pilot communities are trained to incorporate this environmental service-learning program into their local curricula through workshops, one-on-one guidance, and technical expertise provided by staff of the Cumberland County Soil & Water Conservation District. The program encourages high-school students to take ownership of local environmental issues through hands-on investigations of local watersheds. In addition to meeting local needs, the program is also in compliance with Maine's Learning Results.

University of Maine Geological Sciences Department – \$5,000 Molly Schauffler, 5717 Corbett Hall, Orono, ME 04469-5717

Maine Environmental Research Grid and Education (MERGE)

The Maine Environmental Research Grid and Education (MERGE) project is a collaboration between Maine's Environmental Research Grid and the Hutchinson Center. Project staff members develop and administer a series of workshops to show environmental educators and science teachers how to locate, download, and apply environmental data available on the Internet using the online Maine Environmental Monitoring and Assessment Program (MEMAP) Index as a starting point. As part of the MERGE project, teachers also develop pedagogic strategies for helping students use online data to investigate environmental questions that are meaningful to them and relevant to their communities.



## Maryland

See page 4 for a profile of a grant awarded to the Catonsville Campus of the Community College of Baltimore County by EPA Headquarters.

Harford County, MD - \$10,065

Mary Moses, 220 South Main Street, Bel Air, MD 21014

Household Chemical Safety Program for Youth

This program is providing 4,000 fourth-grade students with instruction in household chemical safety. The program's focus is on identification, safe use, and proper disposal of common household chemicals. Through this project, students develop critical thinking skills and important life skills by solving problems, making decisions, and creating presentations that showcase the knowledge they have gained.

RACHEL CARSON COUNCIL - \$5,000

DIANA POST, 10711 BERWICK ROAD, SILVER SPRING, MD 20904

Rachel Carson: A Real American Hero

This project is a training program that provides teachers with the necessary resources to educate their students about ecological issues such as the web of life, bioaccumulation, and integrated pest management. The program uses examples from Rachel Carson's life along with science, math, and writing lessons to develop each student's knowledge of ecological sustainability. The program also is designed to inspire students to become involved in environmental protection.

The Maryland Association of Environmental and Outdoor Education – \$4,950 Kate Clavijo, P.O. Box 71034, Chevy Chase, MD 20813

Environmental Education Fellowship Program

Focusing on how to increase the participation of minority students in the field of environmental education, the Environmental Education Fellowship Program is helping teachers to attract and retain student interest in environmental education. The teachers participate in a pre-conference workshop, conference sessions, and follow-up presentations to learn basic concepts related to science and environmental education and to become familiar with new methods to engage students in the field of environmental education.

THE MARYLAND ASSOCIATION OF ENVIRONMENTAL AND OUTDOOR EDUCATION – \$4,560 KATE CLAVIJO, P.O. BOX 71034, CHEVY CHASE, MD 20813

Environmental Education Research

This project involves conducting research related to the impact of comprehensive environmental education on student learning in Governor's Green Schools. The research findings provide insight into the role of environmental education in achieving the goals of educational reform. The research serves as a foundation for establishing the long-term sustainability of environmental education in Maryland schools and provides a model for how to examine the relationship between environmental education and achievement.



#### **Massachusetts**

See page 4 for a profile of a grant awarded to Family Service, Inc. by EPA Headquarters.

FALL RIVER PUBLIC SCHOOL DISTRICT - \$2,554

PAM TICKLE, 417 ROCK STREET, FALL RIVER, MA 02720-3344

Project Green Fever

This project targets 1,050 sixth-grade students in Fall River and focuses on environmental topics such as litter, recycling, and energy conservation. Six volunteers work closely with 19 sixth-grade teachers. Media coverage of this event reaches hundreds of additional residents.

Family Service, Inc. - \$9,648

ELIZABETH SWEENEY, 430 NORTH CANAL STREET, LAWRENCE, MA 01840

Healthy Kids

The "Healthy Kids" workshop is used to teach parents about the presence of toxics in their home environment, the impact of these toxics on their children's physical and mental development, and strategies to reduce the presence of toxics in the home. Bilingual/bicultural parent educators use curricula developed and tested by Family Service, Inc. This effort reaches approximately 200 parents, impacting the health of children in a cost-effective manner.

Saugus River Watershed Council – \$5,000 Nicole Cave-Luongo, P.O. Box 1092, Saugus, MA 01906

Outreach to Schools Project

The project's education coordinator visits schools in the ethnically diverse communities of Malden and Revere, Massachusetts, to teach 200 students about the current environmental issues and problems that affect them and the watershed as well as what they can do to help solve the problems. By having students work in small groups to perform interactive and hands-on activities, this intensive educational project makes a lasting impact on each student who participates.

South Shore Natural Science Center – \$5,600 Susan Cronin, Jacobs Lane, P.O. Box 429, Norwell, MA 02061

Good Things Come in Big Puddles

The South Shore Natural Science Center partners with Notre Dame Academy and the Norwell Conservation Commission to supplement an environmental education course with instruction about the importance of vernal pools and the certification process. The project is aimed at 11th- and 12th-grade female students who learn about the uniqueness of vernal pools and are exposed to possible environmental careers. Approximately 80 students in four classes are participating in the project along with three classroom teachers.

Taconic Chapter, Trout Unlimited – \$16,634 Herbert Rod, 100 Brookside Drive, Pittsfield, MA 01201

Yokum Brook Environmental Education Collaborative

The Yokum Brook Environmental Education Collaborative has partnered with Becket-Washington Elementary School, which is adjacent to an active river restoration project on Yokum Brook. Through this partnership, students receive a "living classroom" education in river ecology, the biology of fisheries, and ecosystem restoration. For example, the project encourages critical thinking about the Atlantic salmon's habitat and water quality requirements.



The Boston Harbor Association – \$5,000 Vivien Li, 374 Congress Street, Suite 609, Boston, MA 02210

The Boston Harbor After-School Education Program

This program provides inner-city youth (ages 8 through 12) with after-school opportunities aimed at promoting long-term environmental stewardship of Boston Harbor and the Harbor Islands. The program is expanding on the success of existing youth programs by creating a series of 12 hands-on environmental activities specifically designed to make use of the time after school.

University of Massachusetts, Boston Environmental Studies Program – \$16,404 Robert B. Beattie, 100 Morrissey Boulevard, Boston, MA 02125

Opening New Windows on Environmental Justice

The University of Massachusetts (UMass) in Boston is partnering with Alternatives for Community & Environment (ACE) to create educational videos focusing on environmental justice issues and associated improvements in local communities. To further the connection to the communities, UMass's Environmental Studies program actively recruits students who live in the neighborhoods served by ACE to be student interns on the project. The videos are used to educate the communities, are incorporated into classes at UMass-Boston, and may be used as part of a training unit on environmental justice for EPA.

Worcester Natural History Society (EcoTarium) – \$10,000 Jennifer Glick, 222 Harrington Way, Worcester, MA 01604

Teen Action Science Crew

The EcoTarium's multilevel, work-based program targets low-income, inner-city, minority teens in their third year of the Teen Action Science Crew (TASC) Ambassadors Program. The students focus on sustainability and environmental justice issues, building skills through program development, delivering public programs, assisting with training and mentoring other teens, and community outreach. TASC is part of the museum's Science Career Ladder, which includes a nested hierarchy of programs that serve young people from elementary school through high school.

## Michigan

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

Capuchin Soup Kitchen – \$2,500 Rick Samyn, 1820 Mount Elliot Street, Detroit, MI 48207

Kids for the Bees

Building on an existing honeybee apiary program, this project promotes entomology and apiculture science among students in selected Detroit public grade schools. Students learn about honeybee anatomy, beehive management, and honey production. Through hands-on activities in the classroom and in the field, students learn about bee habitat, natural pest management, and the importance of honeybees to the human food system and natural environment.



COMMUNITY ACTION AGENCY – \$5,000 CHRISTIE COOK, 3251 BECK ROAD, HILLSDALE, MI 49242

Writing on the Bean

As part of this project, approximately 300 middle and high school students visit public parks along Bean Creek near their schools. Younger students write about an aquatic insect of their choice, and older students search the water for macro-invertebrates. In addition, students conduct an inventory of native plant and aquatic species at all the public parks along Bean Creek. Using the inventory information, a watershed planning committee develops a web site containing a virtual tour of the watershed and prepares a pocket map identifying the parks and other public access sites. The back of the map details the native plants and aquatic life found at the sites.

MICHIGAN TECHNOLOGICAL UNIVERSITY – \$4,892 JOAN CHADDE, 1400 TOWNSEND DRIVE, HOUGHTON, MI 49931

Kids Make a Difference

The Kids Make a Difference program provides incentives for kindergarten through 12th-grade students, teachers, and youth groups to develop projects that promote environmental education, community service, and environmental enhancement. School classes and youth groups select environmental topics to study and to teach others about, or they design and implement projects that address environmental issues in their communities. Students share their projects through presentations to other students or by publishing articles in the newspaper. All program participants receive Earth Day award certificates and tokens of recognition. In addition, their names are entered in a drawing in which they could win an educational tool kit or an environmental education field trip.

Wildlife Unlimited of Allegan and Ottawa Counties – \$13,634 Travis Williams, A5678 143rd Avenue, Holland, MI 49423

Wetlands and Water Quality of the Macatawa Watershed

This project uses three-dimensional models of the environment called "enviroscapes" to teach students about watershed concepts and to demonstrate how people pollute water and how water pollution can be prevented. By using the models, students learn how everyone affects water quality and how they can help to prevent or clean up pollution. The classroom activities prepare students to study topography, plants, fish, buffers, and water quality when they visit ponds and wetlands. The project also builds responsibility by educating students about their role in watershed protection.

## **Minnesota**

CITY OF DULUTH - \$23,250

Carin Skoog, 411 West First Street, Room 208, Duluth, MN 55802-1192

Energy: Dollars and Sense

This project involves creating an interpretive exhibit and resource center at the main branch of the Duluth Public Library. The exhibit includes an interactive kiosk featuring an Internet site that is used to educate Duluth residents about energy production, use, and conservation. Also, the real-time and historical performance of a 2.4-kilowatt photovoltaic system located on the roof of the library is monitored and is displayed in the kiosk and on the Internet site. The site is enhanced by a variety of energy-related links and tools. The exhibit inspires critical thinking about the economic, environmental, and health issues related to energy consumption and resulting greenhouse gas emissions. Duluth residents are taught decision-making skills that help them to reduce energy-related pollution.



Heron Lake Watershed District – \$10,770 Jan Voit, P.O. Box 345, Heron Lake, MN 56137

Where Does this Drain?

This project is providing educational opportunities for students living in the West Fork Des Moines River Watershed. The project emphasizes the effects of nonpoint source water pollution and the benefits of pollution prevention, and it increases environmental awareness by showing the students how they can personally help improve their environment. Guided by project leaders, the students identify lakeshore properties in a certain area, collect environmental samples for analysis, present their findings at a public meeting, and create public education brochures.

Minnesota Lakes Association – \$5,000 Paula West, 19519 State Highway, 371 N, Brainerd, MN 56401

Educating Youth in Minnesota about Lake Ecology and Stewardship

The Minnesota Lakes Association is continuing work begun during Phase I of the Youth and Ecology Stewardship curriculum project. Phase II builds on the New Hampshire Department of Environmental Services lake ecology curriculum that was modified to educate more than 1,000 fifth- and sixth-grade students in Minnesota. An additional 500 students in at least six schools are studying under the new curriculum, which is tailored specifically to Minnesota. Students continue to learn about the specific types of lake ecology that they personally experience and about stewardship practices for lake protection. Phase II is improving academic achievement by exposing students to multidisciplinary environmental education concepts that are not routinely taught in their classrooms.

RIVER BEND NATURE CENTER — \$4,920 NALANI McCutcheon, 1000 Rustad Road, PO Box 186, Faribault, MN 55021

Developing a Community Environmental Education Initiative

Partnering with the Chamber of Commerce and the City of Faribault, the River Bend Nature Center is conducting environmental outreach to business leaders, government officials, and educators. Business guests at an afterwork event raise their awareness of the social, economic, and cultural value of natural resources and build an understanding of environmental threats and environmental protection. At a policy forum, government officials are introduced to the tools available for natural resource protection and discuss ordinances and other policies designed to preserve the environment. Another part of the initiative, a professional development workshop for educators, provides guidance and tools for incorporating local natural resource issues into classroom curricula.

## Mississippi

CLINTON COMMUNITY NATURE CENTER — \$7,036 Nellie Neal, P.O. Box 93, CLINTON, MS 39060

Teacher Support and Outreach

The purpose of this project is to provide local teachers with substantive assistance and technical training in order to facilitate and improve their use of the environmental education resources that are available at the Clinton Community Nature Center. The center has two goals for the project to (1) provide professional support for teachers who visit the center with their classes and (2) to include eighth- and ninth-grade classes in the center's network of nature laboratories and teacher support. "Buddy Kits" are being developed for distribution to teachers and students visiting the nature laboratories at the center. An outreach program is being developed to contact teachers who are not familiar with the programs offered. A conference is being planned to introduce 30 new teachers to educational opportunities at the center. A stipend is to be paid to each teacher who attends the conference to cover the cost of a substitute teacher.



#### Missouri

Area Resources Community and Human Services – \$25,000 Michael Nelson, 4236 Lindell, St. Louis, MO 63108

Community Access to Environmental Education

The goals of the Community Access to Environmental Education (CATEE) project are to (1) mobilize St. Louis residents and students to implement neighborhood projects designed to prevent air and water pollution and (2) increase the participation of schools, households, and businesses in recycling and solid waste reduction practices. The CATEE project has been divided into two methods of service delivery: school-based and community-focused.

KCPT Public Television 19, Inc. – \$5,000 Karen Mell, 125 E. 31st Street, Kansas City, MO 64108

Saving the Earth

Kansas City Public Television (KCPT) is developing and delivering a workshop that trains 35 teachers to integrate an existing environmental education resource, "e-Eats," into their curricula. About 400 students and teachers are using e-Eats to examine the connections between environmental health and human health. KCPT is also developing and publishing six new lessons for the workshop and for an e-Eats web site.

Meramec Regional Planning Commission – \$5,000 Tama F. Snodgrass, 4 Industrial Drive, St. James, MO 65559

Meramec Regional Children's Water Festival

The goals of the Meramec Regional Children's Water Festival are to provide an enjoyable, interactive, hands-on educational opportunity for middle school students and to promote aquatic environmental education. This festival is a 1-day event during which about 1,000 middle school students attend six sessions addressing various water-related issues. Each session lasts approximately 25 minutes. Between 25 and 30 different sessions are conducted by volunteers from different organizations. The festival focuses on protecting water resources from a variety of nonpoint sources of pollution to ensure safe drinking water and a healthy environment.

THE GREEN CENTER – \$5,000 SHELLEY WELSCH, 8025 BLACKBERRY AVENUE, St. LOUIS, MO 63130

Environmental Outreach to Youth

The Green Center engages 120 students of ages 6 through 18 who are living in environmental justice communities in real-world learning experiences that develop their critical-thinking and decision-making skills through service-learning activities. The goal of the project is to improve the access of this group of students to environmental education. The students receive training in community involvement, environmental stewardship, and community service, and they perform a community service project.



#### **Montana**

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

Montana Environmental Education Association – \$25,000 Steve Eshbaugh, P.O. Box 8065, Bozeman, MT 59773

Guidelines for Environmental Education Providers in Montana

In 2002, the Montana Environmental Education Association established focus groups for meetings across much of Montana. These ongoing meetings reach a diverse audience of environmental education providers over a large geographic area. The meetings are used to establish specific guidelines and a baseline understanding among environmental education providers based on the Guidelines for Excellence. In addition, the project is developing leadership in Montana's environmental education community and is increasing the skills, knowledge, and expertise of Montana's environmental education providers. The project is also increasing the legitimacy of environmental education in Montana and is laying the groundwork for a Montana environmental education certification program.

#### Nebraska

KEEP LEXINGTON BEAUTIFUL — \$2,559 CYNDI SMITH, P.O. BOX 70, LEXINGTON, NE 68850

Storm Drain Markers

The Storm Drain Markers project educates the public and addresses the problems associated with people's dumping of oil and other products into storm drains. Among other things, the City of Lexington provides the labor to apply the 500 curb markers, which say "No Dumping" in both English and Spanish. The goal of the project is to improve water quality by notifying city residents that dumping into storm drains is prohibited.

Nebraska Game and Parks Commission – \$4,850 Karen Palazzolo, P.O. Box 30370, Lincoln, NE 68503-0370

Wildlife Education Grant

The Nebraska Game and Parks Commission is purchasing Wildlife Education Trunks for distribution to six district offices. Each trunk includes animal furs, skulls, and bones; prairie plants; insect identification materials; outdoor education supplies; and related curriculum materials. The district offices are using the trunks for educational programs related to wildlife and conservation. The trunks are available for loan to schoolteachers, parents conducting home schooling, and other educators.

Solid Waste Agency of Northwest Nebraska – \$24,784 Frank Nemeth, 1010 East Niobrara Street, Chadron, NE 69337

Recycling and Composting Workshops

This project provides educational programs about recycling, material reuse, and resource conservation for civic organizations, schools, and workshops. The recycling training focuses on buying products with recycled content. School educational programs are conducted using video presentations and samples of recycled material such as compost, chipped glass, and crushed concrete. Backyard composting workshops provide community residents and students with an opportunity to learn about composting yard waste and food scraps. Students receive information about the items manufactured using tree products. The outcome of the project is a demonstration to the community about how to buy recycled products and how to recycle, reuse, and reduce waste materials.



The Groundwater Foundation – \$11,230 Susan S. Seacrest, P.O. Box 22558, Lincoln, NE 68542

Awesome Aquifers for Science Olympiad

The Groundwater Foundation has developed a groundwater-related event for high school students competing in a Science Olympiad throughout EPA Region 7. The foundation works with Science Olympiad leaders, coaches, and students. The students learn about groundwater and design and build groundwater flow models in Science Olympiad tournaments in Iowa, Kansas, Missouri, and Nebraska. The project increases high school students' understanding of groundwater concepts.

#### Nevada

Board of Regents - University of Nevada — \$12,704 Cindy Kiel, Office of Sponsored Projects, Mail Stop 325, Reno, NV 89557

Lake Tahoe Media Campaign

Scientists agree that the steady decline in Lake Tahoe's water quality is due to nonpoint source pollution. The Lake Tahoe Basin Executives decided that to save the lake, a strong effort is needed to educate all community members about how to reduce and eliminate activities that lead to soil erosion, sedimentation, and nutrient pollution in the lake basin. The goal of the project is to educate large numbers of local residents through a media campaign that has already been developed. A weekly television campaign is currently being conducted on the local ABC-affiliated news station (KOLO-TV in Reno) and is being supplemented with articles in local newspapers and on the Internet. The topics and content for the 90-second television news segments are being researched by the University of Nevada Cooperative Extension with input from the Lake Tahoe Environmental Education Coalition (LTEEC) Steering Committee and a Science Technical Advisory Committee of community, research, and agency experts. Project partners are also suggesting potential interviewees, appropriate graphics and locations for filming. Among many important educational messages are basic explanations of watershed hydrology, water quality parameters, sources of pollution, ecosystem management, and tips on proper installation of Best Management Practices (BMPs).

Environmental Leadership – \$18,318 Sonya Hern, P.O. Box 10786, Reno, NV 89510

Leaders of Waste Reduction

Since 1999, the goal of the Leaders of Waste Reduction (LOWR) program has been to influence the consumption, purchasing, and waste disposal habits of the tens of thousands of kindergarten through 12th-grade students in Nevada with classroom visits, field trips, and web-based educational resources. The focus of the LOWR program is being narrowed to grades 3 through 10. The program's objectives include (1) providing educational workshops and classroom presentations on waste reduction strategies and activities for over 900 students in grades 3 through 10; (2) maintaining and expanding the LOWR web pages to serve as comprehensive waste prevention and recycling resources for schools, educators, and students; (3) training and supervising student educators (juniors and seniors in high school and college undergraduates) to implement the LOWR curriculum; (4) educating younger students about the link between natural resource preservation and waste reduction; and (5) printing and distributing 500 color posters detailing what is recyclable in Washoe.



Nevada Division of Wildlife – \$10,000 Gene Weller, 1100 Valley Road, Reno, NV 89512

Trout in the Classroom

The mission of the Nevada Division of Wildlife is "to protect, preserve, manage, and restore wildlife and its habitat for their aesthetic, scientific, educational, recreational, and economic benefits to citizens of Nevada and the United States." The project is a partnership between the Nevada Division of Wildlife and the Northern Nevada Regional Service-Learning Coordinator and has two major phases: (1) an environmental service-learning and Project WILD Take Action environmental education and conservation program called Trout in the Classroom and (2) completion of an interpretive public nature study area to be used in conjunction with the first phase. Trout in the Classroom focuses on interactive, hands-on environmental stewardship training and development of real-life skills through the raising of Tasmanian rainbow trout eggs to the fry state in the classroom. Teachers, high school mentors, parent volunteers, and senior citizen volunteers are trained in service-learning and Project WILD Take Action techniques to teach hands-on science lessons in the participating classrooms.

## **New Hampshire**

Northeast Resource Recovery Association – \$12,000 Elizabeth A. Bedard, 9 Bailey Road, Chichester, NH 03258

Furthering School Recycling Through Student-to-Student Peer Matching

The Northeast Resource Recovery Association is partnering with New Hampshire the Beautiful, Inc., and is expanding its successful recycling efforts in New Hampshire schools to establish an active and varied peer mentoring program for school recycling. This program encourages students to learn about and advance recycling as a team, strengthens their commitment to recycling, and expands the amount of recyclables removed from schools.

University of New Hampshire - New Hampshire Public Television - \$4,998 Jahnay Pickett, 51 College Road, Durham, NH 03824

Teaching Skills for Multimedia Environmental Education

The University of New Hampshire and its partners train and support 250 teachers of grades 4 through 8 in the use of multimedia curriculum materials for environmental education. Five teacher workshops are offered in person and through an interactive videoconferencing system. Also under development are five engaging multimedia curriculum units with hands-on activities that are intended to improve students' critical thinking skills and environmental awareness.

## **New Jersey**

Camden City Garden Club, Inc. – \$4,994 Mike Devlin, 3 Riverside Drive, Camden, NJ 08103

Educating Home Gardeners about Water Management

The Camden City Garden Club, Inc., project is educating the public about the importance of efficient water use and the environmental impact of using water in a garden. The project encourages English- and Spanish-speaking visitors to tour the Cityscapes Garden. The garden features interactive signage about using water efficiently. Visitors are also given materials about efficient use of water and other environmentally friendly gardening practices. The gardening activities addressed also include mulching, plant selection, rain barrel use, and prevention of nonpoint source pollution.



COUNTY COLLEGE OF MORRIS - \$16,700

Dr. Jack M. Bernardo, 214 Center Grove Road, Randolph, NJ 07869-2086

Stream to Sea: A Workshop Series on Water Quality for Middle School Teachers

The primary goal of the Stream to Sea project is to improve the environmental education skills of sixth-through ninth-grade science teachers in northwestern New Jersey. The workshop series helps teachers implement environmental education programs at their schools with classroom lessons that meet New Jersey's Science Core Curriculum Standards. Using water as a theme, the New Jersey Statewide Initiative Regional Center at the County College of Morris conducts a series of teacher workshops and field trips using hands-on materials and activities. Teachers are then able to bring the skills gained to their students. For example, after teachers instruct their students about water pollution using classroom inquiry-based lessons, the students investigate a local pond's ecosystem, continue their investigation at associated streams, and study the streams as they flow to the ocean. The students analyze the water and study flow rates, currents, and the plants and animals living in the pond and streams.

Greater Newark Conservancy – \$5,143

ROBIN L. DOUGHERTY, 303-9 WASHINGTON STREET, NEWARK, NJ 07102

Distance Learning Program: "My City, My Responsibility"

The Greater Newark Conservancy is partnering with Verizon to educate eighth-grade students in urban centers in New Jersey about environmental issues in their communities. Participating teachers attend a seminar to develop the skills needed to explore communication technology and help students research environmental issues in their communities. The students develop a publicity campaign and associated materials to teach other students about urban environmental issues. The teachers use the Internet to share their lessons, experiences, and progress. By means of video conferencing, the students present what they have learned. The student presentations integrate communication, organizational, and critical thinking skills.

North Jersey Resource Conservation and Development Council – \$5,000 Christine Hall, 54 Old Highway 22, Suite 201, Clinton, NJ 08809

Tools for Community Resource Protection

The North Jersey Resource Conservation and Development Council is partnering with the Sussex and Warren County Planning Departments and the Upper Delaware and Wallkill Watershed Management projects to focus the attention of community representatives on natural resources, water quality, and smart growth. Participants in project workshops develop decision-making skills in the context of the competing demands for development and protection of the water supply and natural resources of Warren and Sussex Counties in northwestern New Jersey. The workshops also provide participants from all levels of municipal government with technical resource information and geographic information system (GIS) tools to help them implement resource protection practices in their communities.



North Jersey Resource Conservation and Development Council - \$5,000 CHRISTINE HALL, 54 OLD HIGHWAY 22, SUITE 201, CLINTON, NJ 08809

#### Stream Teacher Training

In this project, middle and high school teachers in Hunterdon, Morris, Sussex, and Warren Counties learn to incorporate biological and chemical field testing techniques into their science, math, and language arts classes. The project partners are the County Soil Districts in Hunterdon, Morris, Sussex, and Warren Counties; the New Jersey Department of Environmental Protection (NJDEP) Division of Fish and Wildlife; and the NJDEP Division of Watershed Management's AmeriCorps Watershed Ambassador Program. The partners provide three 1-day workshops on background information and associated inquiry-based lessons addressing watershed concepts, stream ecology, the value and function of riparian buffers (measures for preventing damage to and pollution of stream banks), and benthic macro-invertebrates (large invertebrates found at the bottom of a body of water). In addition, an overview of Project WET and Project WILD activities is presented. Follow-up sessions assess the benefits of the training and its implementation in classrooms.

RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY - \$18,500 Dr. Joan Ehrenfeld, 3 Rutgers Plaza, New Brunswick, NJ 08901

#### Watershed and Water Quality Monitoring Web Site

This project provides a web site where students and citizens can access information about watershed issues pertaining to most of New Jersey's urbanized watershed areas. The site is maintained in English and Spanish and has a section where volunteers can enter their water quality data. Watershed reports on the site are developed and maintained by the Rutgers University Center for Information Management to educate individuals about urban watershed issues such as flooding, nonpoint source pollution, degraded stream habitat, stream bank erosion, and limited riparian buffers. The web site is interactive and encourages critical thinking by helping users identify and implement solutions to urban watershed problems.

South Branch Watershed Association - \$6,225 Fran Varacalli, 41 Lilac Drive, Flemington, NJ 08822

#### The Explorer Project

This project provides an interactive web site that teaches students about the importance of protecting the land in the South Branch Raritan River Watershed to ensure better water quality and to maintain the health of the watershed. The project is intended to support middle and high school teachers in more than 80 schools in this watershed. In a workshop, teachers learn how to use a web-based Geographic Information System (GIS) to help their students analyze land use changes and use data sets. Workshop participants can use the web site to create activities that their students can complete in order to understand how to protect the environment in their communities.

TEANECK CREEK CONSERVANCY, INC. - \$5,000 Mary Arnold, 20 East Oakdene Avenue, Teaneck, NJ 07666

#### Hands Across the Creek

The Hands Across the Creek project provides an understanding of past and present open space and land use issues to seventh and eighth graders at Thomas Jefferson and Benjamin Franklin Middle Schools. Students examine the advantages of preserving open space to benefit air and water quality, providing contact with the natural world, reducing pollution, and enhancing biodiversity in Bergen County. Students learn about land use history, participate in eco-art and technology projects, and become involved in land use decision-making and environmental stewardship practices.



Wallkill River Watershed Group — \$4,000 Nathaniel Sajdak, 34 South Route 94, Lafayette, NJ 07848

Wallkill River Watershed Management Project

The Wallkill River Watershed Management Group is developing a calendar to provide monthly educational materials on watershed-related environmental issues such as water conservation, storm water management, point and nonpoint source pollution, and watershed management. The calendar has event and meeting dates as well as information designed to encourage stakeholders to get involved in watershed projects. Stakeholder groups; government officials at the federal, state, county, and municipal levels; and educational, environmental, and agricultural groups have worked together to produce the appropriate informational entries. The project fosters greater public involvement in the meetings and other gatherings associated with watershed stewardship.

#### **New Mexico**

Environmental Education Association of New Mexico – \$5,150 Mary Dwyer, P.O. Box 36958, Albuquerque, NM 87176

New Mexico Multi-Facilitator Training Program

Educators of kindergarten through 12th grade, non-government, and government agency personnel throughout the state are invited to workshops designed to develop their skills on sound educational practices. The New Mexico Multi-Facilitator Training Program is the first in a series of facilitator workshops designed to build capacity for the delivery of environmental education programs in New Mexico. The program is designed to increase the number of teachers across the state who know about natural resources and how they can integrate that information into effective classroom teaching strategies that focus on education reform.

New Mexico Department of Health – \$16,374 Ron Vorhees, 1190 St. Francis Drive, Santa Fe, NM 78502

Lead Poisoning Prevention for Expectant Teens and their Children

Teachers, other school staff members, and health care providers across New Mexico are attending workshops to learn how to teach expectant teens about the adverse effects of lead exposure before, during, and after pregnancy as well as ways to prevent lead exposure. Key partners in the project are the New Mexico Department of Education, the New Mexico Department of Health, and high school teachers across the state.

New Mexico Environment Department – \$10,000 Sandra Ely, P.O. Box 26110, Santa Fe, NM 87502

Public Outreach about Effects of Ground-Level Ozone in San Juan County

To teach fourth-grade students about the effects of ozone in San Juan County, the New Mexico Environment Department (NMED) is providing ozone educational activities for 28 elementary schools. NMED contacts teachers after these activities to provide follow-up instruction about lesson plan development and about how to lead students through exercises that demonstrate how ozone impacts their daily lives.



New Mexico Office of the State Engineer – \$5,000 Cheri Vogel, P.O. Box 25102, Santa Fe, NM 78502

Water Conservation Teacher Mini-Workshop

The Water Conservation Teacher Mini-Workshop project is designed to educate teachers about water-related issues in New Mexico and to supply them with water conservation educational materials for themselves and their students. The Office of the State Engineer is partnering with local municipalities to host a series of 10 to 15 workshops throughout the state. The priority for having a workshop goes to areas that have been most affected by drought and that do not have a water education program in place. Less populated rural areas are given the opportunity to partner with neighboring school districts in order to fill a workshop. Workshops specifically designed for teachers in early elementary schools, middle schools, and high schools are available.

SANTA FE CHILDREN'S MUSEUM – \$5,000 ELLEN O'DONNELL, 1050 OLD PECOS TRAIL, SANTA FE, NM 87505

Teen Educators in Earthworks

The goal of the Teen Educators in Earthworks project is to increase environmental literacy among families in Santa Fe and northern New Mexico. Approximately 4,000 people participate in the programs of the Santa Fe Children's Museum each year. The museum's Earthworks projects serve as living demonstrations of how a community can solve its inherent problems with land restoration while creating a context for hands-on environmental education. The museum's programs are free and have no registration requirements for community members.

#### **New York**

See page 5 for a profile of a grant awarded to Teachers College by EPA Headquarters.

Arm-of-the-Sea Productions, Inc. – \$5,000 Patrick Wadden, P.O. Box 175, Malden-on-the-Hudson, NY 12453

"Thinking Like a Watershed" Workshop

"Thinking Like a Watershed" is a participatory arts and ecology workshop for students of ages 11 through 16. The project is a partnership of three community-based organizations that host summer camp programs for urban youth. This project begins by developing the students' understanding of their role in the environment. Introductory sessions focus on watersheds and how they work, including the water cycle, groundwater movement, and nonpoint source pollution. The students then use multimedia materials to create paintings, sculptures, and masks depicting community environmental concerns. The students' creations are displayed as part of a pageant for other campers and the community. The pageant is also videotaped for viewing by future audiences.

Beczak Environmental Education Center, Inc. – \$4,000 Cynthia Fox, 35 Alexander Street, Yonkers, NY 10701

After School Environmental Club

The Beczak Environmental Education Center, Inc., brings children to the Hudson River to experience its beauty and learn about its history, science, and ecology. This after-school environmental club teaches students about the environment and what it means to be an environmental steward. The program targets students from the Yonkers neighborhoods with the lowest mean incomes. The fourth and fifth graders take part in interactive projects as they investigate both the river and their school environments. The students produce a poster display and a school-wide environmental improvement plan to share what they have learned with others.



Brooklyn Botanic Garden – \$5,000 Kirsten Munro, 100 Washington Avenue, Brooklyn, NY 11225

Sustainable Gardening - Phase II

This project is an initiative of the Brooklyn Botanic Garden's (BBG) community horticulture program, "Brooklyn Greenbridge." In this project, BBG extends sustainable gardening from pilot community gardens into surrounding underserved neighborhoods in New York City's five boroughs. The project expands use of native plants, facilitates partnerships between community gardens and community-based organizations, and involves community members in the environmental issues that they face. In addition to developing the understanding and skills required to improve their neighborhoods with sustainable gardens, the project participants develop the leadership skills needed to become more effective environmental stewards and leaders in their communities.

Catskill Center for Conservation and Development – \$10,000 Tom Alworth, P.O. Box 504, Route 28, Arkville, NY 12406-0504

The Catskills: A Sense of Place

The Catskill Center for Conservation and Development is training teachers in the Margaretville Central, Fallsburg Central, and Onteora Central School Districts to implement the lessons and activities found in five modules of "The Catskills: A Sense of Place." The modules are as follows: (1) Water Resources, (2) Geography and Geology, (3) Human History, (4) Culture and the Arts, and (5) Ecosystems. They are designed to teach students in grades 4 through 12 about the environmental and cultural assets of the Catskill region. The modules promote environmental stewardship as students learn about their watershed and the impacts that people have on watersheds and associated communities. Teachers learn how to incorporate the module lessons into their classroom curricula and correlate those lessons with New York State Learning Standards. In addition to workshops, the program provides ongoing support for the teachers.

FRIENDS OF CROTONA PARK – \$10,000 SAMANTHA STONE, 1591 FULTON AVENUE, BRONX, NY 10457

Crotona Park Watershed Public Education Campaign

This public education campaign focuses on Indian Lake in Crotona Park. The project combines a service-learning component for middle and high school students with outreach to the public. Students from the Phipps After School Program are studying lake water ecology and are conducting research on the microbiotic and macrobiotic biology of the lake and the New York City water supply system. These students also are developing a display based on their investigations for the Crotona Park Nature Center. Students from the Bronx Outreach High School are studying the New York City water supply system and are developing a display for the nature center that highlights human activities and their impacts on the watershed, Crotona Park, and the lake. The displays and other outreach materials developed by the students are used by summer camp volunteers to educate park visitors about important water issues.

Greene County Soil and Water Conservation District – \$4,900 Elizabeth LoGiudice, 907 Greene County Office Building, Cairo, NY 12413

Creekside Classroom Program - Phase 1

The Greene County Soil and Water Conservation District is partnering with the Catskill Middle School and the Cornell Cooperative Extension of Greene County to design and implement an interdisciplinary program focusing on Catskill Creek. The program involves 40 teachers at the middle school. A core group of teachers and the partners are developing lesson plans based on existing environmental education resources and are correlating the plans with New York State Learning Standards. The selected lessons and activities focus on riparian buffers, water quality, and biodiversity. Teachers and students are designing and planning a creekside celebration to share what they have learned with parents and community residents.



GUILDERLAND CENTRAL SCHOOLS - \$9,000 ALAN FIERO, 6072 STATE FARM ROAD, GUILDERLAND, NY 12084

#### Native Plant Restoration Program

The Pine Brush, an inland pine barren located near the Guilderland Central Schools, has lost significant acreage as the result of development. More than 850 students in grades 2, 7, 8, and 9 are restoring the native plant population to the Pine Brush by raising the plants in their classrooms and working in the community to place the plants in local gardens. The older students mentor the younger students and work with their teachers to increase public knowledge and understanding of the Pine Brush Preserve. The purpose of establishing native plant gardens in the community is to return native species to the Pine Brush ecosystem. Students study and survey the ecosystem to determine the progress of habitat restoration. Their written reports are submitted to the Pine Brush Preserve Commission.

HUDSON RIVER SLOOP CLEARWATER, INC. - \$4,874 CHRISTOPHER BOWSER, 112 MARKET STREET, POUGHKEEPSIE, NY 12601

#### Teacher Training for the Urban Estuary

This project provides 35 New York City teachers with methods and materials that they can use to teach their students about environmental issues associated with New York Harbor. The project includes a workshop to introduce teachers to the Hudson River's cultural and natural history as well as the ways that people have used and impacted the river's ecosystems. The teachers explore ways to apply what they have learned to their classroom curricula. Next, teachers attend a 1-day workshop in which they participate in smallgroup, interactive sessions focusing on the biology, cultural history, and current environmental problems of the Hudson River. At a follow-up meeting with each teacher, project staff help to customize studies of the Hudson River for the teacher's classroom curricula. This process includes establishing correlations with the New York State Learning Standards and identifying ways to help students improve their neighborhood environments.

OLD FIRST WARD COMMUNITY ASSOCIATION, INC. - \$5,000 Laura Kelly, 62 Republic Street, Buffalo, NY 14204

#### Community Environmental Education Demonstration

The Community Environmental Education Demonstration project educates the children and teenagers in the traditionally underserved areas of the Old First Ward community about ecological problems such as pollution, contaminated soils, and numerous Brownfields associated with industrial development in their neighborhood. The Old First Ward Community Center is conducting workshops that include field trips to the nearby Tifft Nature Reserve, local greenhouses, grain elevators, and polluted industrial sites along the Buffalo River. The workshop participants focus on community garden projects as a means to explore various environmental practices that can improve their quality of life and lower their contribution to Buffalo River contamination.



Pace University - \$14,000

Fred Zalcman, 78 North Broadway, E-House, White Plains, NY 10603

The Pace Energy Project: Power Scorecard and Education Outreach

The Pace Energy Project uses the Power Scorecard educational program to provide information about the electrical power industry and to encourage people to choose safer, more environmentally sound forms of energy. This program provides the public with information about their electricity options, such as "clean, green" electricity service. The Power Scorecard is a web-accessible educational tool that local organizations can access. Pace University is holding workshops to provide organizations with the opportunity to teach the public how to use the Power Scorecard. To implement the project in New York, workshops are held to discuss environmental issues in the community and electricity resources available to consumers. The objectives of the project are to establish web pages about the Power Scorecard that are specific to New York, train members of appropriate organizations, and develop a manual of existing information to assist consumers.

SOUTH STREET SEAPORT MUSEUM – \$18,000 YVONNE SIMONS, 207 FRONT STREET, NEW YORK, NY 10038

Marine Science for Visually Impaired Students

This project teaches visually impaired students in New York City about marine ecology and science. Students attend workshops aboard the South Street Seaport Museum's educational vessels, the Pioneer and Wavertree, to learn how people and pollution affect ecosystems. The sixth, seventh, and eighth graders participate in interactive learning processes and receive hands-on science instruction. As a result of the project, students develop a greater understanding of marine ecosystems and have a greater sense of stewardship. They learn problem-solving skills, analyze environmental information, study the factors involved in population growth, and are better able to draw conclusions from data. The overarching goal is to help the students become active members of their communities.

Teatown Lake Reservations, Inc. – \$13,280 Gail Abrams, 1600 Spring Valley Road, Ossing, NY 10562

Teatown Lake Reservations, Inc., Water Quality Education Program

This program teaches public middle and high school students in Westchester and Putnam Counties about water quality issues associated with their local streams. The program focuses on the Croton Watershed, which provides part of New York City's water supply. Teachers learn how to collect and analyze water quality data in order to identify troubled areas. Students and teachers then visit watershed streams to gather and assess the water quality information. As students learn about the watershed, they also discover their role as environmental stewards. The program includes holding a student conference and publishing students' water quality data.

WILDLIFE CONSERVATION SOCIETY – \$10,000 Lee Livney, 2300 Southern Boulevard, Bronx, NY 10460

#### Project Creek

Project Creek Restoration, Exploration and Education in Kings County (CREEK) is a partnership between the New York Aquarium and John Dewey High School. Project CREEK teaches students about environmental careers, environmental science concepts, marine science, tidal wetland ecology, and wildlife conservation. High school students attend a 1-day habitat restoration workshop, where they study endangered species and habitat loss in Brooklyn, New York. They study the environmental issues in Coney Island Creek. The program is geared toward a large, ethnically and socio-economically diverse school population.



#### **North Carolina**

ELIZABETH CITY STATE UNIVERSITY - \$5,000 Morris Autry, 1704 Weeksville Road, Elizabeth City, NC 27909

#### Education to Prevent Children from Lead Poisoning

Through this project, parents and other participants are educated about the issue of lead poisoning, which is one of the leading environmental health threats to children under the age of 6 years. The goal of this education and awareness project is to identify and reduce the number of children exposed to lead. The project is being implemented using various educational methods, including (1) a series of seminars and community forums aimed at specific target groups; (2) a media campaign using radio, television, and newspapers; (3) dissemination of lead hazard information through pamphlets, brochures, newsletters, bulletin boards, and booths and displays; and (4) design of lead hazard reduction plans for local governments. As a result of these efforts, there have been increases in the community residents' knowledge regarding sources of lead poisoning and in safety measures to reduce and eliminate lead exposures.

ENVIRONMENTAL EDUCATION FUND - \$21,998 JUDY POPE, P.O. Box 25825, RALEIGH, NC 27611

#### Earth and Environmental Science Institute

This project expands the Environmental Education Fund's successful summer institute to reach educators who have struggled to offer a viable earth and environmental science program. These educators are immersed in a week-long training session that is supplemented with subsequent mentoring sessions. The Environmental Education Fund has partnered with six other agencies, including the North Carolina Department of Public Instruction, to develop a curriculum-based, technology-rich, outdoor environmental education experience. The project provides real-life opportunities for participants to practice critical-thinking and problemsolving skills while making informed, science-based decisions as individuals and as teams. Based on evaluations and feedback received during previous institutes, the demand to expand this successful initiative is greater than ever.

Mecklenburg County Parks and Recreation – \$4.376 MAREK SMITH, 700 NORTH TRYON STREET, CHARLOTTE, NC 28202

#### Educators' Naturalist Weekend

The Educators' Naturalist Weekend provides 2 days of hands-on workshops for teachers and nonformal educators at the Mecklenburg County Nature Center. Participants are given resource materials for use in their classes, and the training enables the teachers to incorporate the lessons and projects into their curricula. Two different training tracks are offered. One track emphasizes creating and using an outdoor classroom, and the other focuses on integrating environmental education with art and literature. Teacher renewal credits and North Carolina Environmental Education Certification credits are offered.



North Carolina Association of Soil and Water Conservation Districts – \$5,000 Steve Bennett, 3800 Barrett Drive, Raleigh, NC 27609

North Carolina Envirothon Program

The North Carolina Envirothon program is organized by an independent steering committee and is operated under the North Carolina Association of Soil and Water Conservation Districts. The Envirothon is a hands-on environmental education competition for middle and high school students that involves most of the natural resource agencies in the state, environmental organizations, and private resource partners. The natural resource components of the competition include soils, forestry, aquatics, wildlife, and current environmental issues. The goals of the program are to (1) provide an environmental education opportunity for all middle and high school students, (2) provide the students with an opportunity to learn about and meet natural resource personnel, (3) provide student teams and teachers with a natural resource materials packet, and (4) get students interested in pursuing environmental careers when they attend college.

#### **North Dakota**

Gateway to Science Center, Inc. – \$5,000 Elizabeth Demke, 2700 State Street, Suite 17, Bismark, ND 58503-0669

"Earth Wellness" Environmental Festival

Gateway to Science Center, Inc., is holding its fifth annual "Earth Wellness" Environmental Festival in May 2004. The festival has hands-on activities for fifth-grade teachers and their students and is intended to increase their understanding of how their actions can affect the environment either positively or negatively. In addition, the festival is expanding to include a greater number of participants.

#### **Ohio**

Youngstown State University – \$21,285 Marcia Barr, One University Plaza, Youngstown, OH 44555-3355

Waste Minimization Workshop

In this project, fifth- and sixth-grade teachers from the Youngstown public and Catholic schools participate in "train the trainer" workshops that meet the Ohio Department of Education's technology standards. The workshops, with the participation of 11 public and 5 Catholic schools, provide an interactive chemistry demonstration and instruction on waste reduction and pollution prevention as well as ecosystem protection. The teachers learn how to access databases in order to determine what waste minimization regulations affect their schools. Tests are given before and after workshops so that project staff members can determine the training's effectiveness.

## **Oklahoma**

Energy Education Partnership – \$10,716 Keith Thomas, P.O. Box 53127, Tulsa, OK 74114

Impact of Coal Seam Natural Gas Exploration and Production

Students and teachers in the Farmington, New Mexico, area are participating in interactive lectures and visiting drilling sites under construction as well as active drilling sites to learn about the environmental impact of coal seam natural gas exploration and production. The project's goals are to educate the community about the exploration and production process and to encourage environmental understanding and careers. Students and teachers participate in chemical analyses of drilling fluids and produced water associated with the process. To ensure impartiality, an independent technician leads the project participants in the chemical analyses.



Tulsa County Independent School District #1 – \$20,881 Judy Fessenden, 3027 South New Haven, Tulsa, OK 74114

Remington Elementary's Center for Environmental Studies

The main focus of the Remington Elementary Center for Environmental Studies (RECES) is on interactive environmental education. The target audience is teachers, students, and the general community. RECES uses hands-on indoor and outdoor exhibits, working models, static displays, botanical gardens, and nature trail exhibits. This project incorporates an indoor aviary to further develop a self-supporting Center for Environmental Studies as a resource for both formal and informal education using energy and water resource management and protection as a springboard. The project proposes to increase the ability of teachers, parents, and other patrons to support children's information inquiries about issues regarding the impact and future of developing, using and managing energy and water resources in the local Mooser Creek watershed.

## **Oregon**

Corvallis School District – \$13,784 Kristin Erickson, 1555 SW 35th Street, Corvallis, OR 97330

Keepers of the Creek

Jefferson Elementary School is working with community members and organizations to develop, implement, and maintain a stream restoration project for the section of Dixon Creek that runs by the school. Providing a real-life laboratory for learning about the environment, the project teaches students and adult volunteers about the necessary steps and methods for restoring a stream to a more natural state. High school students monitor water quality and mentor elementary school students doing research. Elementary school students work with volunteers to plan and complete work on the creek site. Through community forums, Keepers of the Creek informs community members about the project and encourages them to participate and to apply some of the skills learned to additional areas along Dixon Creek and other local creeks. The project reaches more than 1,000 students and adults and is creating a model for other schools and community groups that are taking responsibility for the health of local streams.

Environmental Education Association of Oregon – \$21,857 Linda Rhoads, P.O. Box 15192, Portland, OR 97293

Building Capacity Through Leadership and Strategic Planning

This project builds environmental education capacity by enhancing the leadership skills of the Environmental Education Association of Oregon (EEAO) board members, implementing a strategic planning process for the organization, and developing a booklet of EEAO volunteer opportunities. The project integrates an all-day, facilitated strategic planning session for the EEAO board members; two facilitated strategic planning sessions for all EEAO members; a seminar designed and conducted to address the leadership development needs of the EEAO board members; and use of the EEAO web site and "list serve" as well as systematic outreach activities to distribute EEAO volunteer information. In addition to the EEAO board members, the parties served by this project include 150 to 200 formal and nonformal educators as well as representatives of natural resource agencies, nonprofit organizations, and industries throughout Oregon.



Lower Columbia River Estuary Partnership – \$9,537

Tammy Sanders, 811 SW Naito Parkway, Suite 120, Portland, OR 97204

Lower Columbia Region Elementary School Teacher Workshops

The Lower Columbia River Estuary Partnership (LCREP) is hosting eight elementary school teacher workshops in spring, summer, fall, and winter throughout the lower Columbia River region to prepare teachers to engage their students in environmental activities in the classroom and in the field. This project targets pre-service and current teachers in the LCREP study area, which includes Oregon and Washington and extends from the Bonneville Dam to the mouth of the Columbia River. Two sets of teacher workshops for 20 teachers each (one set addressing kindergarten through grade 3 and one set addressing grades 4 through 6) focus on local habitats, the plants and animals in these ecosystems, and habitat geology. The project is designed to provide teachers with the knowledge and skills to conduct field studies on school grounds and at nearby streams and wetlands. Teachers also learn to integrate the historical context of environmental issues into their curricula and to use maps to support learning. All participating teachers receive a notebook containing a number of activities, web site and curriculum resources, and a matrix that correlates the activities with Oregon and Washington state standards. Each participating teacher is assigned a partnering organization that assists the teacher with activities and field work following the workshop.

Parkdale Elementary School – \$3,800 Kim Bauer, 4880 Van Nuys Drive, P.O. Box 69, Parkdale, OR 97041

Fifth-Grade Water Quality Monitoring and Result Presentations

As part of a larger river basin study being conducted by the State of Oregon, two fifth-grade classes at Parkdale Elementary School are conducting comprehensive water quality monitoring for a stream near the school, analyzing the data, and presenting the results. Students generate charts and graphs and use computer applications for their presentations. A translator helps Spanish speakers in the community to understand the presentations. Approximately 40 students present the results of their work to other students at the school, at a community open house, at a press conference for local media, and to the Board of Directors for the Hood River Soil and Water Conservation District. The project exposes all Parkdale Elementary School students to the aquatic environment in Hood River County's upper valley and to the role that monitoring plays in assessing water quality and stream health.

Umpqua Basin Watershed Council – \$20,850 Nancy Geyer, 1758 NE Airport Road, Roseburg, OR 97470

Riparian Restoration and Fish Passage Improvement Community Education Program

The purpose of this program is to improve stream habitat conditions for the threatened coho salmon and other fish and aquatic species by encouraging landowner participation in on-the-ground projects. The program specifically targets landowners in areas where improvement of riparian conditions and removal of culverts and dams that block fish access to streams would have the greatest impact. The program uses five delivery methods: (1) mailing educational materials and "action sheets" to landowners in the target areas, (2) conducting five field trips to sites with target landowners and groups, (3) developing an interactive display and presenting it at six fairs or other events in the Umpqua Basin, (4) delivering at least 35 community presentations for target groups, and (5) writing educational articles for newspapers and community newsletters. The overarching program goal is to educate target landowners about the need, alternatives, and resources for restoring riparian areas and improving fish passages.



## **Pennsylvania**

GROUP AGAINST SMOG & POLLUTION - \$5,000 RACHEL FILIPPINI, P.O. Box 5165, PITTSBURGH, PA 15206

Diesel Education and Monitoring Program

The objective of this project is to educate the public about fine particulate matter and diesel pollution from vehicles that affect Western Pennsylvania's air quality and to encourage citizens to use this knowledge to make informed decisions and take actions on these issues. The project includes a public education program called the Diesel Education and Monitoring Program. Venues include church groups, community centers, nature centers, and college campuses. Beyond holding community meetings, the group will educate a wider audience by appearing on at least one Public Access TV station in the Pittsburgh area to educate viewers about particulate matter and diesel pollution from vehicles.

Intermediate Unit 1 – \$4,941

Pamela Hupp, One Intermediate Unit Drive, Coal Center, PA 15423-9642

Project Contain, Maintain, and Connect Outdoor Environmental Workshop

The goal of this project is to raise the level of environmental literacy of 20 elementary school teachers in school districts in Washington, Fayette, and Greene Counties. To achieve this goal, the project is providing an opportunity for the teachers to develop an understanding of basic environmental concepts, identify local environmental problems, develop lessons for their classrooms, and use testing apparatus in field experiences.

National Nursing Centers Consortium - \$15,000 Tine Hansen-Turton, 260 South Broad Street, 18th Floor, Philadelphia, PA 19102

Baltimore Lead Education and Awareness Program

The National Nursing Centers Consortium serves the Baltimore community by implementing the Lead Education and Awareness Program (LEAP). The program has two components that are designed to inform people about the hazards associated with lead: a home visitation program and community workshops titled "Community Lead 101." The two components of LEAP are implemented through two communitybased, nurse-managed health centers in Baltimore.

THE MAGIC WOODS - \$25,000 Matthew Craig, P.O. Box 81798, Pittsburgh, PA 15217

Magic Woods Television Series

The goal of the Magic Woods television series is to inspire a broad audience of preschool children towards a deeper curiosity, respect, and understanding for nature and the environment. The series promotes ecosystem protection through education by featuring environmental lessons within each episode. The subject matter, characters, and child cast members are specifically chosen to reach out and to be inclusive of children of all races, genders, and religious and socio-economic groups.



Urban Tree Connection – \$5,000

Saul Wiener, 5125 Woodbine Avenue, Philadelphia, PA 19131-2404

Pearl Street Neighborhood Garden Project

The objective of this project is to inform children from the Haddington neighborhood about the basic concepts of environmental science and the ecological importance of maintaining urban green spaces. To achieve this objective, the Urban Tree Connection has designed and developed a habitat-oriented teaching and learning garden. The project organizers work with children to cultivate the 3,300-square-foot lot and develop a "green" walkway.

#### **Puerto Rico**

Inter American University of Puerto Rico – \$15,000 Amaury Boscio Vargas, P.O. Box 363255, San Juan, PR 00936-3255

Promoting Environmental Careers Through an Integrated Approach

Inter American University of Puerto Rico is conducting seminars on environmental areas of study for the academic community and participating students. The course of study includes field trips to develop students' knowledge about the environment and assignments to develop their problem-solving and research skills. Students are focusing their studies on the Laguna Tortuguero ecosystem with the cooperation of the Ecotourism Office of the Municipality of Vega Baja. Students hold workshops to share their acquired knowledge of the environment with the Vega Baja community and present their work to the university community at the annual Congress of the Center for Environmental Education and Interpretation. These students complete both bachelor's and master's degrees in a total of 5 years.

#### **Rhode Island**

SAVE THE BAY, INC. - \$13,408

MICHELLE McAlpin, 434 SMITH STREET, PROVIDENCE, RI 02908

Urban Ecology Field Studies: A Pilot Program in Providence

Save The Bay, Inc., uses an educational model developed by Boston's Urban Ecology Institute to collaborate with Central Falls High School in order to enrich its Applied Biology and Chemistry class. Immediate project goals include increasing students' intellectual and social self-confidence, familiarizing students with the scientific method, and increasing urban students' commitment to environmental stewardship and civic leadership. A larger goal is to acquaint students with the connection between what happens in their community and the environmental health of the Narragansett Bay estuary and its watershed.

State of Rhode Island - Department of Environmental Management - \$16,848 Thomas Getz, 235 Promenade Street, Providence, RI 02908

Public Awareness Study

The Rhode Island Department of Environmental Management (RI DEM) is partnering with the Cambodian Society to identify ways to educate a large southeast Asian immigrant population about the potential health problems associated with eating fish caught in freshwater streams and the ocean that contain high levels of mercury and polychlorinated biphenyls. The per capita fish consumption of this group is high, and Rhode Island coastal waters have an abundance of blue fish and striped bass. The project is intended to ascertain the best mechanisms for informing the public and for identifying the community's environmental concerns. Approaches include brochures, cable television shows, public service announcements on radio and television, community meetings, and maps showing where people should not fish.



Woonasquatucket River Watershed Council – \$9,875
Jennifer Pereira, 532 Kinsley Avenue, Providence, RI 02909

Environmental Issues in Your Backyard

The Woonasquatucket River Watershed Council's environmental education initiative raises young people's awareness of sources of toxins in urban environments and provides critical environmental and health education to children in Olneyville, an underserved urban neighborhood in the Woonasquatucket River corridor in Providence, Rhode Island. As is the case in many impoverished and urban areas, children in Olneyville are exposed to lead, pesticides, and other potential health hazards every day. As part of the project, students are creating an educational video with the help of a local artist and are taking these messages back to their families and the broader neighborhood.

#### **South Carolina**

See page 6 for a profile of a grant awarded to the University of South Carolina Research Foundation by EPA Headquarters.

CLEMSON UNIVERSITY – \$22,076
BARBARA SPEZIALE, 300 BRACKETT HALL, CLEMSON, SC 29634

Youth Water Quality Education for South Carolina

This project provides environmental education about local water resources at summer day camps for 500 children of ages 8 through 14 and instruction for 50 teachers. The project uses a location-specific environmental education program called " $^4H_20$  - Pontoon Classroom/River Adventure" that is presented in both formal (middle school classroom) and nonformal (summer day camp) settings. The summer day camp experience reinforces and enhances the lesson plans used during the school year. The project expands and reinforces the children's understanding of aquatic environments. The instruction of in-service teachers is administered as a Clemson University graduate course called "South Carolina Water Environmental Education" for 25 middle school teachers and nonformal educators. All the educational activities meet the South Carolina Science Curriculum Standards.

NATIONAL WILD TURKEY FEDERATION – \$5,000 CHRISTINE ROLKA, P.O. BOX 530, EDGEFIELD, SC 29824

Land Management Workshop for Educators

The National Wild Turkey Federation (NWTF) continues to host a 1-day workshop for educators that emphasizes the importance of land management in enhancing wildlife habitat. This workshop focuses on sustainable forestry principles, which involve management of the forest to meet current needs without compromising the ability of future generations to meet their own needs. NWTF teaches educators about land stewardship ethics that integrate growing, nurturing, and harvesting of trees for creation of useful products with conservation of soil, maintenance of air and water quality, and preservation of wildlife habitat.

## **South Dakota**

CHILDREN'S SCIENCE CENTER – \$24,927

Julie Smoragiewicz, 501 East Street, Joseph Street, Rapid City, SD 57701

The Air We Breathe: Black Hills Air Quality and Its Impact on Health and the Environment

This project is integrating an interdisciplinary, after-school enrichment program called Nature's Elements with a hands-on, interdisciplinary, science-based, after-school educational program focusing on air quality issues. The after-school program integrates science and the humanities to study the environment and to focus on air quality as it relates to science and public policy. The curriculum also accommodates a variety of learning styles, including visual, verbal, and kinesthetic learning.



SOUTH DAKOTA CENTER AND AQUARIUM – \$4,820 Anne Lewis, 805 West Sioux Avenue, Pierre, SD 57501

Wonders of Wetlands on the River Teacher Workshop

This project is called Wonders of Wetlands (WOW) on the River and consists of a workshop using Montana Watercourse's WOW curriculum. The workshop includes an overnight field trip in which teachers kayak to a riverine wetland and engage in hands-on learning. The participants communicate the value of using the local environment as a classroom to their colleagues.

#### **Tennessee**

Global Village Institute – \$5,000 Albert Bates, P.O. Box 90, Summertown, TN 38483

#### Ecovillage Children's Kitchen

The Ecovillage Children's Kitchen is designed to introduce children from low-income families to the benefits of cultivating sustainable lifestyles. Underprivileged children are housed, fed, and provided with instruction about creating and enjoying frugal lifestyles that are in harmony with nature. Children plan, plant, cultivate, and harvest organic gardens; learn to prepare, cook, and serve healthy food; and monitor their own energy use and waste. Newly designed instructional courses and multimedia, hands-on projects take place in the whole-system immersion experience of the Ecovillage Training Center. The center provides pollution prevention training using interactive, multimedia exhibits; exploration of natural areas; exercises in composting and waste recycling; instruction in organic gardening; and demonstrations of water and energy conservation.

Granger County Board of Education – \$5,000 BILLIE ANN COMBS, P.O. Box 38, RUTLEDGE, TN 37861

#### Granger County Outdoor Science Classroom

This project involves transformation of an existing nature trail into an outdoor classroom. Instructors and their classes catalogue and label trees, test water quality, install a weather station, and clear trails to develop the classroom. Students participate in activities that involve problem-solving, hands-on learning, group decision-making, and service-based learning. Teachers are introduced to the project through in-service programs, tours of the teacher center located at the Soil Conservation Office, workshops, interactive programs, and field trips. This project is also conducted during after-school and summer programs.

Middle Tennessee State University – \$5,000 Myra Norman, P.O. Box 60, Murfreesboro, TN 37132

#### Backpack Biology

In the 1990s, the National Park Service developed a greenway along the Stones River in Rutherford County to allow "city folk" to enjoy nature hikes, walking, bicycling, and wayside exhibits that interpret natural and Civil War history. The Backpack Biology project extends the enjoyment of the greenway by developing educational backpacks about environmental topics. The backpacks are made available for checkout by educators and local residents using the greenway. These backpacks focus on topics ranging from environmental awareness to the river ecosystem. An environmental education training program is being designed and implemented in cooperation with partners to continue to enhance the project.



Swan Conservation Trust – \$5,000 Douglas Steveson, P.O. Box 162, Summertown, TN 38483

Rare Plant Protection on the Western Highland Rim of Tennessee

The mission of Swan Conservation Trust (SCT) is to "preserve and protect the watersheds and riparian forests of the Western Highland Rim of Tennessee." SCT initially focused its efforts in the watershed of Big Swan Creek and has been successful in protecting more than 2,000 acres of riparian forest and uplands through ownership and cooperative management. Through the project, SCT is expanding the education component of its mission by teaching the public about the native plant communities of the area and the threats to their existence. Using presentations, workshops, and field trips, SCT principally educates landowners, members of business and civic organizations, and school groups.

Tennessee Foundation for Agriculture in the Classroom -\$20,000 Chris Fleming, P.O. Box 313, Columbia, TN 38402

Planting Ideas: Harvesting Success

This project focuses on educating public and private school teachers about methods of using environmental and agricultural education materials to address state-mandated academic objectives. Teachers are trained in 1-day workshops held at 10 locations throughout Tennessee. The workshops are held in cooperation with the University of Tennessee and the Tennessee Board of Regents schools. Each school represented is eligible for a matching garden mini-grant to establish a hands-on learning laboratory. The mini-grant requires the teachers to form partnerships with their local extension services and Natural Resource Conservation Service. Project participants' continued progress is monitored by means of online updates of lessons used and reports of gains made by their students.

#### **Texas**

Central Independent School District – \$5,000 Susan Sanders, 7622 Highway 69N, Pollok, TX 75969

Teacher Training Using the Central Outdoor Classroom

Kindergarten through sixth-grade teachers are using the Central Outdoor Classroom to learn about inquiry-based science. Environmental studies of the forest ecosystem are examined through lessons and field experiences. Teachers work with scientists in various fields of study who are affiliated with the Texas Forest Service, the Soil Conservation Service, the Texas Commission on Environmental Quality, the Texas Parks and Wildlife Service, and other agencies. Visiting scientists assist in developing six field investigation units that focus on defining environmental problems, conducting research, and collecting and analyzing data.

Council for Environmental Education – \$13,000

Josetta Hawthorne, 5555 Morningside Drive, Suite 212, Houston, TX 77005

Migratory Bird Conservation Education in Schools

The Council for Environmental Education provides training for teachers in urban middle schools in the Houston area to help them implement classroom lessons and projects related to bird conservation. Teachers are trained how to use birds as a highly visible connection between urban children and the natural world and how to incorporate important issues affecting birds into their curricula. Both teacher and student training explore how to plan and conduct a school bird festival as well as how to initiate related service-learning projects involving bird conservation, biology, and migration. Schools are encouraged to work with a variety of groups to plan bird festivals.



Council for Environmental Education – \$16,788

Josetta Hawthorne, 5555 Morningside Drive, Suite 212, Houston, TX 77005

Water Education for Teachers School

Teachers in urban middle schools in the San Antonio area attend a series of workshops designed to help them incorporate activities from the Water Education for Teachers (WET) in the City Curriculum and Activity Guide into their own curricula. Teachers and community volunteers learn how to successfully mentor student-driven water stewardship projects and how to develop strong networks of local organizations and businesses in order to obtain technical and financial support for participating schools.

Groves Educational Foundation – \$6,000 Ianthia Fisher, 1105 Martin Luther King Jr. Blvd., Crockett, TX 75835

Youth, Adult, and Family Development

The Groves Educational Foundation is using several types of media to educate young people and adults about the importance of their environment. Project participants take field trips to historic sites in order to investigate the region's heritage and participate in community cleanups and interactive programs. The participants learn about the importance of keeping their community clean through involvement in handson activities such as community garden maintenance, pest control, and water conservation.

#### Utah

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

Utah Regional Capacity-Building Project

This project is building environmental education capacity by bringing together environmental education leaders and organizations, providing localized professional development opportunities for environmental education practitioners throughout Utah, and providing communication and networking opportunities for regional environmental education communities. The project involves conducting 1-day minienvironmental education conferences throughout the state. The mini-environmental education conferences provide professional development opportunities for environmental education providers in or near their hometowns. In addition, the mini-environmental education conferences are supporting capacity building efforts that are currently underway in Utah by facilitating communication, promoting sustained professional development, and offering leadership development.

## Vermont

Association of Vermont Recyclers – \$5,000 Karin McNeill, P.O. Box 124, Montpelier, VT 05601

Education for School Composting Programs

This project creates a statewide model for teaching Vermont school populations facts about the state's goal to reduce solid waste, and to teach techniques for beginning and sustaining a composting program. The project uses five theater shows and 10 workshops to target kindergarten through eighth-grade students interested in learning about composting.



Northeast Recycling Council, Inc. – \$21,155 Lynn Rubinstein, 139 Main Street, Brattleboro, VT 05301

New England Strategic Outreach and Education Plan

This project promotes reuse of materials and waste prevention among school and municipal government purchasing agents. The project focuses on developing critical thinking and problem-solving skills and applying them to understand the environmental benefits of reuse and waste prevention as well as how state and federal procurement laws apply.

Trust for Wildlife – \$5,000 Marshal T. Case, 127 Ehrich Road, Shaftsbury, VT 05262

Development of a Trail System

This project involves developing a trail layout and accompanying interpretive booklet for the 109-acre Southwest Vermont Middle School property. The effort is intended to familiarize students and faculty with the property, integrate use of the property into all subject areas of the seventh- and eighth-grade curricula, and promote wise use of the property as an outdoor laboratory. The interpretive trail and booklet are the focus for community awareness and involvement efforts.

## **Virginia**

See page 6 for a profile of a grant awarded to Lynchburg College by EPA Headquarters.

Coalition for Jobs and the Environment – \$5,000

Denise Peterson, 102 North Court Street, P.O. Box 645, Abingdon, VA 24212

Greening the Classroom: An Environmental Education Conference

Greening the Classroom is a project within the Learning Landscape Program that is currently offered to several schools in Washington County, Virginia. This pilot program is intended to help develop outdoor classrooms. The program provides workshops for kindergarten through 12th-grade teachers, home school teachers, and parents that focus on using wildlife habitats and ecosystem study areas as outdoor classrooms. This program fosters new teaching techniques, accommodates alternative learning styles, and encourages community involvement.

EARTH FORCE, INC. - \$24,769

Scott Richardson, 1908 Mount Vernon Avenue, 2nd Floor, Alexandria, VA 22301

Teacher Training about Watershed Health in the Lower Potomac

Earth Force, Inc., is providing materials and training to teachers in northern Virginia through a watershed stewardship program called the Global Rivers Environmental Education Network (GREEN). The Arlington Public School District provides expertise in academic standards; identifies participating teachers; and works with Earth Force, Inc., to ensure that participating schools support program activities. The goals of the partnership are to (1) create opportunities for middle school teachers to incorporate meaningful watershed experiences into their core curricula and (2) meet recently revised standards of learning (SOLs) that require students to understand watershed concepts, habitats, and health.



## Washington

EDUCATIONAL SERVICE DISTRICT 113 – \$20,672

KATHY JACOBSON, 601 McPHEE ROAD SW, OLYMPIA, WA 98502

River of Words: Catalyst for Watershed Education and Action

This is a year-long project in which over 45 teachers and 1,550 students in grades 4 through 12 are introduced to "River of Words," a watershed poetry and art project designed to challenge students to explore and interpret their local watersheds through the arts. Teachers participate in a 2-day "River of Words" teacher's institute and in a 1-day follow-up training session. Students receive instruction in the classroom and participate in field studies that incorporate water quality monitoring, art, and writing activities. Working with community partners, students also engage in watershed action projects. A "Student Congress" culminates the project and features opportunities for students to lead workshops and showcase their work.

KING COUNTY DEPARTMENT OF NATURAL RESOURCES AND PARKS — \$18,134 Lexi Taylor, 201 South Jackson Street, Suite 600, Seattle, WA 98104

Wheels to Water 2: Extending Water Quality Education to All King County Students

This project expands King County's Wheels to Water program, which promotes water quality education by providing free transportation for students to on-site environmental education programs covering topics related to water quality. King County increases the water quality-related knowledge and analytical skills of about 1,800 kindergarten through 12th-grade students and teachers across the county by maximizing the number of free bus trips offered, targeting and conducting outreach to schools with the highest proportions of low-income and culturally diverse students, increasing the number of sites that the program serves, broadening the range of services offered, and expanding the geographic areas served.

Longview School District – \$9,935 Ann Cavanaugh, 2715 Lilac Street, Longview, WA 98632

Wake Robin Virtual Visitation Project

Through the purchase and installation of scientific monitoring devices at the Wake Robin Outdoor Learning Center, every classroom in the Longview School District has computer access to round-the-clock data from the site. This information is used to provide a context for math and science instruction. Training for 25 teachers offers strategies for using inquiry to connect classroom lessons to the data. Critical-thinking and problem-solving skills are emphasized as 500 students study stream conditions, plant and animal life, and the impact of human development on the site over time. Regardless of weather conditions or funding for field trips, the school district's students have direct connections to the natural world that help to educate them.

Olympic Park Institute – \$12,903 Ian Miller, 111 Barnes Point Road, Port Angeles, WA 98363

Gateway Communities Initiative

In this outreach program, over 500 students on the Olympic Peninsula learn about the environment and their own connections to the natural world through discovery-based science instruction and a variety of stewardship activities designed by Olympic Park Institute's environmental educators. The field science curriculum is introduced to rural and tribal students in their own communities. The program also expands the reach of school-based programs, gives young people a broad and informed base of options for resolving environmental issues in their communities, and promotes environmentally responsible behavior among the participants. The program includes a series of school visits and outdoor, inquiry-based, holistic learning experiences with the students.



Salish Seas Expeditions – \$5,000 Lori Mitchell, 647 Horizon View Place NW, Bainbridge Island, WA 98110

Girls on the Sound

Girls on the Sound (GOTS) is a 3-month program for seventh- and eighth-grade, low-income girls living in inner-city Seattle. The program teaches critical-thinking and decision-making skills, fosters self-confidence, and encourages interest in environmental and marine science careers. Students design their own marine research projects, participate in a kayaking expedition that introduces them to Puget Sound, receive mentoring from environmental scientists, and take part in a 3-day research expedition aboard a 61-foot-long sailboat in Puget Sound. Throughout the program, participants, staff members, and GOTS mentors meet weekly for 2 hours away from the classroom. The students get to know one another and themselves in challenging exercises; are introduced to the scientific method, marine science, and Puget Sound issues through hands-on experiments; and conduct research on the Internet and using local news sources. The environmental scientists who visit the classroom help each student to frame and organize a research project, give water quality lectures, and are available for contact as potential role models in the sciences.

Woodland Park Zoo – \$10,000 Dave Hill, 601 North 59th Street, Seattle, WA 98103

Wild Wise

Wild Wise (WW) is a free outreach and education program in which middle school students are equipped with the skills of a naturalist, explore the outdoors looking for wildlife, and work on real science projects in their own communities. WW combines interactive, multimedia curricula with outdoor science experiences. The classroom portion of the program takes students on a virtual visit to five major Washington habitats and uses examples of conservation success stories to demonstrate wildlife observation and data collection skills. Students also learn how to observe and identify wildlife, the importance of mapping, how observations become data, and how to use data to help identify conservation issues and save species. Through its promotion of science, geography, and math skills, the program fulfills state-mandated Essential Academic Learning Requirements for fifth- through seventh-grade students. Teachers are provided with comprehensive WW curricula, maps and descriptions of local natural areas that are customized for each school visited, and training workshops and conferences.

## **West Virginia**

CACAPON INSTITUTE – \$8,408
NEIL GILLIES, ROUTE 1, BOX 326, HIGH VIEW, WV 26808

Internet-based Watershed Learning Center

This project involves development of an Internet-based Watershed Learning Center for teachers and students on the Cacapon Institute web site. The learning center allows teachers to engage students with more substantive exercises over longer periods than is possible in the context of brief classroom visits. It also increases the number of students that teachers can reach in a cost-effective manner. The learning center is an effective resource that can be readily scaled up to serve teachers and students over a greater portion of the Appalachian region.



GLENVILLE STATE COLLEGE - \$9,686

LORALYN HILTON-TAYLOR, 200 HIGH STREET, GLENVILLE, WV 26351

The Little Kanawha Watershed Project

One objective of this project is to revise the educational goals of the laboratory component of a general biology course at Glenville State College. A second objective is to expand environmental science research opportunities for undergraduates at the college. Currently, the undergraduate research course consists of predominantly literature research, but as students make a transition into the new curriculum, this course will become an independent research course where students will design and conduct their own independent research projects. The grant provides funding to establish a watershed-based environmental research program to provide research experience to all interested undergraduates.

LIGHTSTONE COMMUNITY DEVELOPMENT CENTER – \$7,060
ALEXANDER STRUMINGER, HC 63, Box 73, Moyers, WV 26815-9502

New Technology Applications for Watershed Environmental Field Data Gathering

To enhance a college-level course called "The Human Environment: Watersheds and Their Communities," the Lightstone Community Development Center is introducing new technology applications such as field collection of environmental data using handheld devices and field test kits and field mapping with Geographic Information Systems (GIS). These technological advances are helping to enhance the science curricula in the school systems in West Virginia and Virginia as well as the curriculum at a regional 2-year college.

THE CHILDREN'S TREE HOUSE CHILD DEVELOPMENT CENTER — \$5,000

JOYCE LEONARD, RURAL ROUTE 1, BOX 166, SHEPERD GRADE ROAD, SHEPERDSTOWN, WV 25443

Outdoor Environmental Learning Center

The Outdoor Environmental Learning Center project involves creating an outdoor learning space where the public, children, and their parents can learn about human health threats associated with environmental pollution. The project gives special emphasis to providing information about how pollution affects children and how human exposure to pollutants can be minimized in order to preserve good health.

THE MOUNTAIN INSTITUTE — \$5,000 ELIZABETH BYERS, 100 CAMPUS DRIVE, LA 108, ELKINS, WV 26241

Thematic Weekend Workshops in Environmental Sciences

This project addresses two major needs within the West Virginia science teacher community that have been identified by the West Virginia Science Teacher Association: (1) a need for more opportunities to receive field training in environmental sciences and (2) a need for better hands-on approaches to field and classroom teaching in general. The project is addressing these needs by providing teachers with hands-on training in workshops titled "Mountain Biodiversity" and "Changing Upland Watersheds."



#### Wisconsin

See page 6 for a profile of a grant awarded to Riveredge Nature Center, Inc. by EPA Headquarters.

RIVER COUNTRY RC&D COUNCIL, INC. - \$25,000

HEATHER AMUNDSON, 1304 N. HILLCREST PARKWAY, SUITE B, ALTOONA, WI 54720

One on One Intensive Grazing Education

This project is providing intensive, hands-on grazing education to farmers and landowners within a 22-county area. Farmers and landowners are educated in grass management, use of grazing animals as management tools, pasture and paddock layout, watering and fencing systems, and other tools necessary to implement a successful grazing system. The one-on-one project could serve as a model anywhere in the Midwest where there is potential to graze livestock.

University of Wisconsin Stevens Point – \$4,839 John Heusinkveld, 2100 Main Street, Stevens Point, WI 54481

Youth Environmental Leadership in Riparian Zone Management

Young people from the Tomahawk and Lac Du Flambeau tribes are working together to create a coalition that identifies riparian forest management issues, monitors environmental factors, and analyzes data. The coalition, which was created by Treehaven, also carries out a community support action plan. Goals of the coalition include increasing student and teacher awareness of the components necessary for a healthy riparian ecosystem, bolstering knowledge of scientific sampling techniques, and encouraging community involvement in environmental preservation.

Waterloo School District – \$7,797 Connie Schiestl, 813 North Monroe Street, Waterloo, WI 53594-1175

Waterloo School District Environmental Education Project

Supported by the Waterloo School District, this project encourages high school students to restore a shoreline habitat that was damaged when an unsafe dam on the Maunesha River was removed. The students learn how to design a habitat and grow some of the plants needed for the restoration. They are also building an interpretive walking path along the shoreline for community education purposes, and they are conducting soil and water sampling during the project. The high school students pass on their knowledge during field trips with middle and elementary school pupils.

## **Wyoming**

AUDUBON WYOMING - \$5,000

VICKI L. SPENCER, 400 EAST 1ST STREET, SUITE 308, CASPER, WY 82601

Wildflower Garden at the Audubon Center at Garden Creek

The goal of this project is to create a garden area where young children and adults can view native wildflowers, butterflies, and birds in an outdoor setting. The approximately 8,000-square-foot garden area is composed of four distinct zones: a garden designed to attract butterflies, an area designed to attract birds, an area of native grasses, and a desert-like area. Pathways allow visitors to walk among these zones and observe a wide variety of plants along with the butterflies and birds those plants attract. Because the garden area is close to a parking lot and classroom facility at the Audubon Center, young children and the elderly can view the plants and animals without having to hike out into the prairie.



NATIONAL AUDUBON SOCIETY - \$10,000

VICKI L. SPENCER, 400 EAST FIRST STREET, SUITE 308, CASPER, WY 82601

Audubon Wyoming and You: Making a Difference for Birds

The purpose of this project is to create an educational video in order to increase awareness and knowledge of environmental issues affecting bird species and populations in Wyoming. Project goals include introducing environmental education and citizen science programs to individuals throughout the state, showing people how they can get involved in these programs to make a difference in the environment, and helping people learn how to make informed decisions and take responsible action in order to protect valuable resources.



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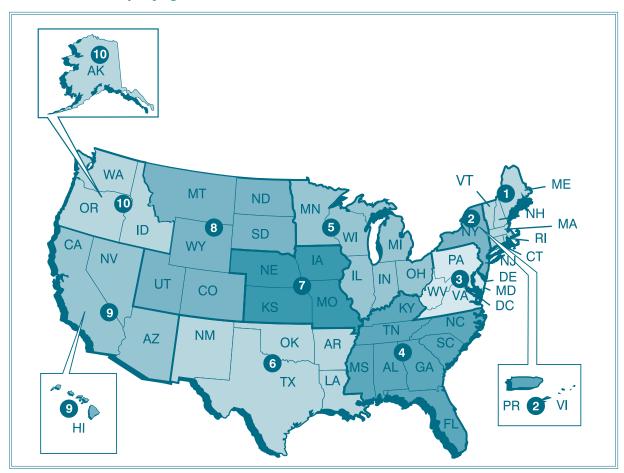
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