

EPA REGION IV
OFFICE OF PUBLIC AFFAIRS
ENVIRONMENTAL EDUCATION & PUBLIC OUTREACH



1992 ENVIRONMENTAL EDUCATION REPORT

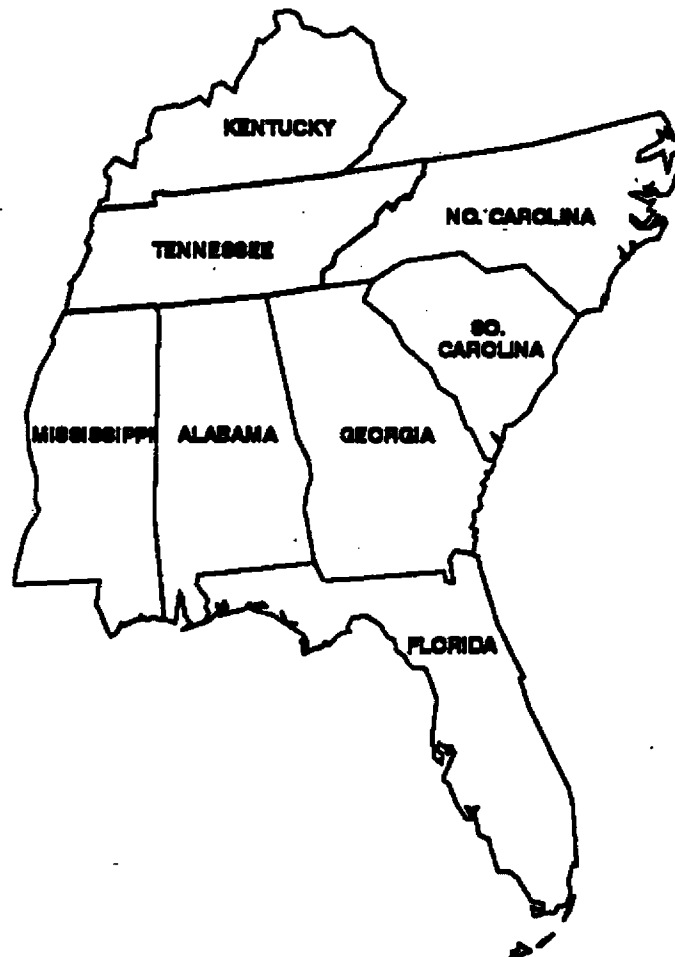


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EPA REGION IV 1992 ENVIRONMENTAL EDUCATION REPORT

INTRODUCTION

The Environmental Education and Public Outreach Staff was established in June 1991 in the Office of Public Affairs, EPA, Region IV. The main objectives of this staff are to:

- increase public understanding of EPA's mission and activities;
- promote public awareness of environmental issues;
- advance and develop environmental education and training; and
- solicit personal and corporate commitment to environmental protection through education and outreach.

BACKGROUND

On November 16, 1990, President Bush signed into law the National Environmental Education Act (Public Law 101-619). This law builds upon environmental education efforts previously undertaken by EPA and establishes formal communication and advisory links with educational institutions and other federal agencies.

Specific provisions of the law implemented by EPA Region IV include:

- awarding environmental education grants to support projects that design, demonstrate, and disseminate environmental education activities;
- awarding internships for college students and fellowships for in-service teachers to work with the professional staff of the federal agencies involved in environmental activities; and

- providing for national and regional awards that recognize outstanding contributions to environmental education.

ONGOING ACTIVITIES

To implement and administer a comprehensive environmental education and outreach program in EPA Region IV, the following activities have been established:

- Contact and cultivate working relationships with major educational, business and civic organizations, as well as print and broadcast media to disseminate information about EPA's operations and activities.

- Coordinate outreach activities to distribute environmental education information to the public at exhibits, expos and conventions at the local, state, regional and national levels.

- Coordinate a Region IV Speakers Bureau to meet public requests for speakers on environmental issues.

- Coordinate the Learning Environmental Awareness Program (LEAP) to target a program of education on the environment for teachers and students in grades K-12, and in non-formal settings such as museums, nature centers, 4-H clubs and other youth organizations.

- Coordinate the President's Environmental Youth Awards (PEYA) Program for Region IV to recognize youth projects that promote local environmental awareness and channel that awareness into positive community involvement.

- Staff a toll-free hot-line to respond to public requests for environmental information.

The following report is published by the EPA Region IV Environmental Education and Public Outreach Staff, Office of Public Affairs, based upon information provided by the EPA Region IV program offices, states and labs. The main purpose is to report on the state of environmental education in Region IV during 1992 and to share ideas and activities in education and outreach that others may use to build effective partnerships and further the goals of environmental education.

This report is not intended to capture all of the many educational efforts currently underway, but should provide a summary of some of the most significant outreach activities taking place in environmental education in Region IV. It should provide a good "snapshot" of Region IV's environmental education picture.

By sharing these environmental education activities and successes, we hope to generate ideas, facilitate communication among environmental education professionals, provide networks for information and resource sharing, facilitate the identification of gaps in environmental education resources and encourage strategies to eliminate them, and avoid the unnecessary duplication of similar worthwhile efforts. We hope to increase the success of environmental education in the Region and mobilize the public to greater environmental awareness and understanding and action.

U.S. Environmental Protection Agency / Region IV Organization

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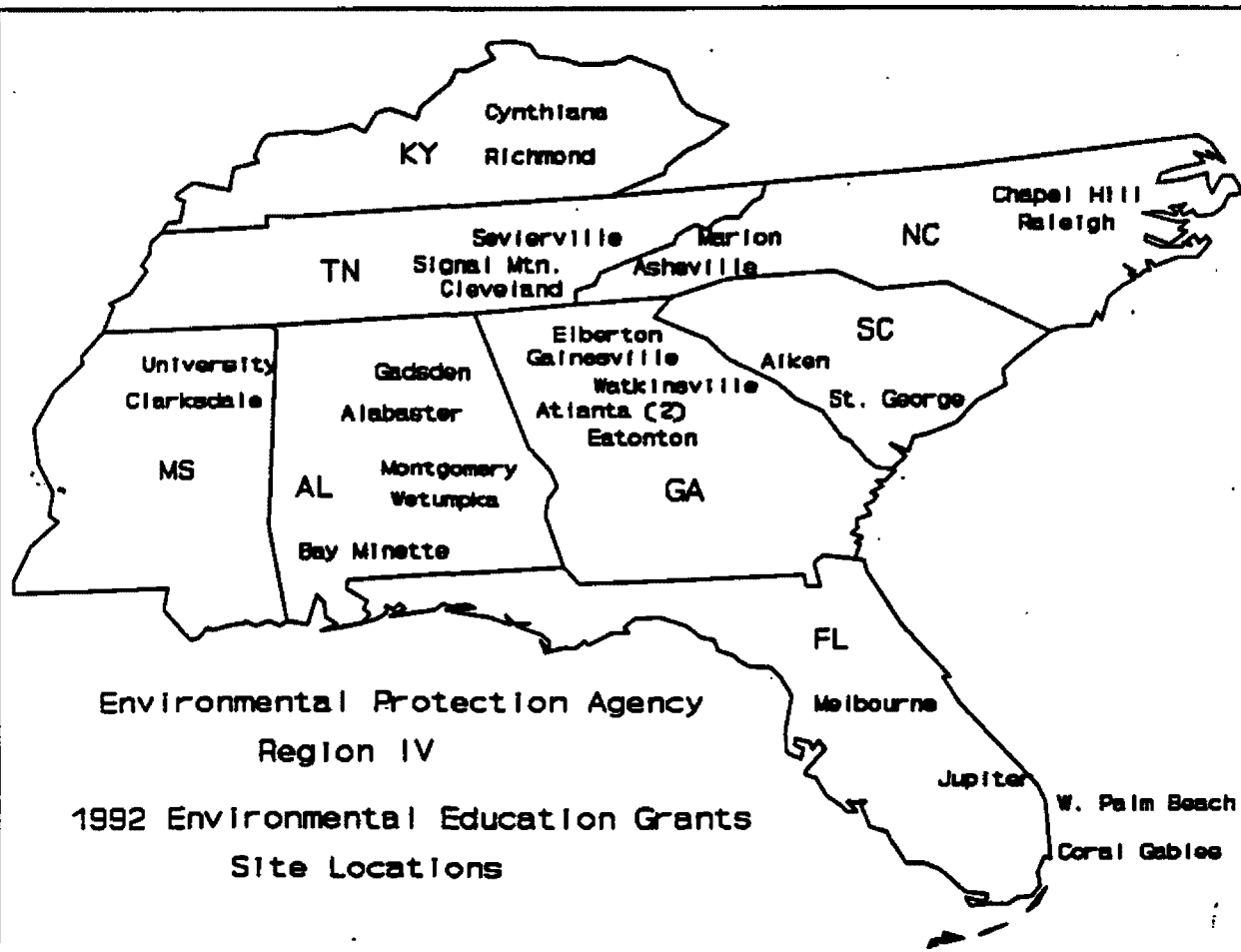
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• Education/Public Outreach Activities (SEE)
• National Environmental Education Act
- Grants (NDEA)
- Internships/Fellowships
- Awards



EPA REGION IV PROGRAM OFFICES

ENVIRONMENTAL EDUCATION & PUBLIC OUTREACH STAFF, OFFICE OF PUBLIC AFFAIRS

Environmental Education Grants

Contact: Norman Black/Jim Doyle, (404) 347-3004

In 1992, \$168,000 in grants were awarded to 27 eligible organizations for environmental education projects. Twenty-four of these awards were for \$5,000 or less and were made to K-12 schools, non-profit environmental and educational organizations and local youth organizations. Projects included a wide range of environmental education activities, which focused on all media (land, air, water and their interrelationship). Additionally, an \$87,500 grant was awarded to the Elachee Nature Science Center in Gainesville, Georgia to develop a mobile, interactive learning center for 6th-12th graders, which focuses on personal habits and choices, environmental costs and pollution solutions.

President's Environmental Youth Awards (PEYA) Program

Contact: Alice Crosby, (404) 347-3004

The PEYA Program recognizes youth projects that promote local environmental awareness and channel that awareness into positive community involvement. Winning projects receive an award from the President. The Region IV PEYA Program had 106 entries for 1992. Sixty-eight were eligible to be



A teacher at the Frank Porter Graham School in Chapel Hill, North Carolina, explains to visitors how the grade school's curriculum integrates environmental education into its curriculum. The school won a \$24,950 Environmental Education Grant in 1992 in order to complete a model environmental education center for use in the daily teaching program.



Joshua Johnson (right) is presented a \$1,000 savings bond certificate for his fourth grade class by Bill Scott, president of ABB Environmental Systems, as Kathryn Fox May, his teacher and Don Guiry, Region IV's Assistant Regional Administrator, (left) look on. Johnson represents his class at the Blue Ridge Elementary School in Evans, Georgia, which was the top winner in the 1992 President's Environmental Youth Awards. Mrs. May sponsored her class's entry in the competition.

judged on the national level. Approximately 11,000 PEYA applications are mailed out annually within the Region IV states. The 1992 PEYA award winner from Region IV was Kathryn Fox May and the 4th grade class of the Blue Ridge Elementary School, Evans, Georgia, with their project "Conservation Through Education - The 3 R's (Recycling, Restoring the Environment and Regenerating a Love and Appreciation of our Earth)". A regional award luncheon was also held on December 4, 1992 in conjunction with ABB Environmental Systems, Inc. to honor the winner and alternates.

Speakers Bureau

Contact: Alice Crosby, (404) 347-3004

The Region IV Speakers Bureau coordinates the services of more than 150 fulltime employees. Each media and program is represented. Created in 1990, this program sends EPA speakers on environmental topics to industry, community and civic groups, as well as to universities and public and private schools, K-12. In 1992, 34 presentations were made by volunteer speakers, and 24 locations were visited.

Environmental Education Mailing List Database

Contact: Jim Doyle/Alice Crosby, (404) 347-3004

The office maintains and updates, as needed, a computerized mailing list database of approximately 11,000 schools and environmental organizations in the region, which can be sorted by state and type of school for targeted mailings. It is



North Carolina and EPA environmental educators discuss an environmental education article in the "EPA Journal" at the EPA's booth at the exhibition held on November 16-18, 1992, in Raleigh, N.C. From left to right are: Linda W. Little, Ph.D., Director, North Carolina Office of Environmental Education (OEE); Richard D. Nawyn, Chief, Education and Outreach, Office of Public Affairs, EPA Region IV; Frank M. Redmond, Jr., Director, Office of Public Affairs, EPA Region IV; and Harriet Stubbs, Ph.D., Research Associate Professor, College of Education and Psychology, North Carolina State University and Sci-Link Master Teachers. The exhibit was held in connection with the conference entitled "Building a Shared Vision for Environmental Education in North Carolina", which is reported in more detail in the North Carolina section of this publication.

developing a database of foundations and other funding sources to assist unsuccessful EPA environmental education grant applicants in locating alternate sources of funding for their projects.

Earth Grams

Contact: Jim Doyle, (404) 347-3004

Earth Grams is a computer game based upon the popular Wheel of Fortune game show. It was developed as an educational tool for grades 4-12 at exhibits or for school presentations. Earth Grams are environmental messages, which

provide the solution to the puzzle. Another computer game called Earth Claws, in the Whodunit format, is being developed for the 7-12 grade levels.

Exhibits and Shows

Contact: Wesley Lambert, (404) 347-3004

As part of our ongoing outreach efforts, EPA Region IV takes part in exhibits, shows, fairs, festivals, expos and conventions whenever participation contributes to environmental education. Participation in 1992 included:

- Arbor Day Activities, Crabapple School, Atlanta, GA, Feb; 21

- Georgia Conservancy Youth Conference, Callaway Gardens, Feb. 28
- National Minority Env Career Conference, Atlanta, GA, March 21-24
- Env Waste Management Conference, Atlanta, GA, April 6-8
- Atlanta Braves Env Awareness Day, Braves Stadium, April 12
- Earth Day Awareness Expo, Underground Atlanta, April 23
- Earth Day/Month Celebration, SciTrek Museum, April 25-26
- Covington Clean & Beautiful, Covington, GA, April 26
- Env Day, Darlington Elementary School, Rome, GA, May 8
- Georgia PTA Conference, Columbus, GA, May 15-17
- EnviroMeet Conference, Tuscaloosa, AL, July 27-31
- Sunbelt Agricultural Expo, Moultrie, GA, Oct. 13-15
- N.C. Environmental Education Conference, Raleigh, NC, Nov. 16-18
- Gulf of Mexico Symposium, Tarpon Springs, FL, Dec. 10-12

EPA environmental education literature and posters are distributed during these events.

Public Notices, Meetings, Hearings

Contact: Alice Crosby/Lena Scott, (404) 347-3004

One hundred fifty-one public notices were issued, two public meetings and two public hearings were coordinated by this office during 1992. This included making all arrangements for the meeting facility, room arrangements, audio-visual equipment, handicap needs, court reporters, security, when needed, and provisions for follow-

up documentation. Also, a current computerized list of permit programs is maintained.

Volunteer Outreach Program

Contact: Wesley Lambert, (404) 347-3004

EPA employees are currently volunteering for a wide variety of programs in their local communities, including activities such as tutoring, science fair judging in the Atlanta Public Schools and Apple Corps and a mentoring program with Clark-Atlanta University. Brian Holtzclaw, an employee in the Waste Management Division, was honored as a winner in the Take Pride in America program, sponsored by the U.S. Department of Interior, for his volunteer efforts in 1992. We are also developing a volunteer bank, which is a list of organizations available where EPA employees can volunteer their services.

International Programs

Contact: Norman Black, (404) 347-3004

The office has acted as host for numerous groups of international visitors. The agendas for these visits generally include technical presentations from EPA Region IV staff, as well as an opportunity to receive and exchange information to strengthen international networks for environmental education. Visitors from countries hosted in 1992 included representatives from:

- Brazil (2)
- Bahrain (1)
- Chile (1)
- Czechoslovakia (6)
- India (5)

- Japan (1)
- Nepal (2)
- Russia (2)
- Sri Lanka (1)

Regional/State/Local Networks

The office established working relationships and partnerships with a number of federal, state, local and private sector organizations during 1992 to expand its environmental education and outreach efforts. These include:

- Geosphere Environmental Youth Camp was developed for 25-30 underprivileged middle school youth in the metro Atlanta area in partnership with the National Park Service, Georgia PTA Council's Environmental Education Committee and Geosphere Center. Curriculum included water quality, air quality, wildlife habitats and resource stewardship. The instructional activities met the Georgia Quality Basic Education Act core curriculum guidelines. The camp was a 3-day weekend activity beginning on a Friday, which counted as a regular school day for the participating pupils. Region IV plans to continue this partnership by adding coastal waters to the curriculum. Contact: Alice Crosby, (404) 347-3004

- Atlanta Braves Environmental Awareness Day was coordinated in partnership with the U.S. Fish & Wildlife Service, Georgia Conservancy, Georgia Department of Natural Resources, Georgia Wildlife Federation, National Park Service, U.S. Forest Service, U.S. Geological Survey, Nature Conservancy, Corps of Engineers, Atlanta Botanical Gardens, Save the Manatee Club, Zoo Atlanta, Turner Broadcasting System and National

Foundation to Protect America's Eagles. This event was held at the Atlanta-Fulton County Stadium during the opening week of the Atlanta Braves 1992 baseball season, with an estimated 50,000 in attendance. Contact: Wesley Lambert, (404) 347-3004

- **Shenandoah Environment & Education Center** is a business/education partnership established by Georgia Power Company in 1991. The National Environmental Education Act was featured in their Shenandoah Earth Minute segment, which is broadcast on more than 150 radio stations throughout Georgia.

Contact: Alice Crosby, (404) 347-3004

Other Education & Outreach Activities

- **Earth Day Awareness Expo at Underground Atlanta** was staffed by approximately 20 employees at 10 exhibit booths in partnership with the Georgia Nature Conservancy, MARTA, Georgia Lung Association and Campaign for a Prosperous Georgia. The office arranged for radio station V-103, in Atlanta, to broadcast live during the expo. Contact: Alice Crosby, (404) 347-3004

- **Earth Day/Month 1992** - in addition to displays at Underground Atlanta and SciTrek Museum during April, speakers gave presentations throughout the month during lunch and learn sessions on a variety of environmental topics. The office sponsored an Earth Day T-shirt contest, with an all-employee T-shirt day on Earth Day, and distributed about 800 dogwood trees, 500 packages of wildflower seeds donated by the Pennington Seed Company of Madison, Georgia, as well as posters and

environmental literature during presentations at local schools and other local Earth Day events.

Contact: Alice Crosby, (404) 347-3004

- **Sunbelt Agricultural Exposition, Moultrie, GA** - this agribusiness expo hosted approximately 203,000 persons and featured 817 exhibitors in 1992 that displayed all types of information from the latest techniques in farming to modern equipment. Our office coordinated six exhibits and 18 exhibitors from various media, including representatives from Air, Waste and Water Divisions and the Environmental Services Division in Athens, Georgia. This is probably the most intensive education and outreach effort to the agricultural community during the year.

Contact: Wesley Lambert, (404) 347-3004

- **Environmental education packages to teachers/students/public** - our office receives approximately 20-30 requests per week for environmental education materials. Approximately 300 packages were assembled and sent out in 1992 upon either phone or written request to be used as teaching aids, for reports, etc. Contact: Alice Crosby/Rae Hallisey, (404) 347-3004

- **Briefings & Presentations** - the staff responded to various invitations for speaking engagements about EPA's environmental education and outreach program to a wide variety of audiences in 1992. Organizations included: Atlanta Adult Learning Center, Atlanta, Georgia; State Public Information Officers Meeting, Atlanta, Georgia; Edison Electric Institute Educational Services Committee, Tampa, Florida; University of Central Florida, Orlando, Florida; SAMAB

Environmental Education Conference, Gatlinburg, Tennessee; and North Carolina Environmental Education Conference, Raleigh, North Carolina. We also delivered presentations at various staff and committee meetings throughout the year.

Contact: Alice Crosby, (404) 347-3004

- **Minority outreach programs** - the staff awarded a \$20,000 environmental education grant to Park Pride Atlanta, identified by former President Jimmy Carter's Atlanta Project as one in need of assistance and also served on the regional environmental equity committee. Contact: Wesley Lambert, (404) 347-3004

AIR, PESTICIDES AND TOXICS MANAGEMENT DIVISION

Clean Air Act Outreach

Contact: Doug Neeley, (404) 347-2864

A variety of outreach activities were conducted to inform the public, interest groups, industry and professional associations about new and emerging provisions of the 1990 Clean Air Act. These included provisions on transportation related air pollution and mobile source control requirements. A number of audiences were told about the opportunities to control mobile source emissions that exceed the mandates of the Act and provide allowances for future growth in urban nonattainment areas. Specific exhibits on mobile sources were set up during the year at several locations.

Examples of major presentations and exhibits include:

- Triad Planners - February 1992
- Cogeneration Society - March 1992
- Atlanta Gas Light Seminar for Industrial and Commercial Customers - April 1992
- Georgia Society of Professional Engineers - April 1992
- Geophysical Colloquium, Clark University - November 1992
- Exhibits at Underground Atlanta & Scitrek - May 1992

Air Toxics Early Reductions Program

Contact: Smart Perry, (404) 347-2864

Presentations were made about the program to reduce air toxics emissions early. This program targets sources subject to technology standards, which will be promulgated pursuant to the Clean Air Act Title III provisions, and allows a six-year compliance extension if enforceable commitments are obtained to secure air toxics emission reductions prior to the establishment of emission standards. Major presentations in 1992 included AT&T, Southern Bell, Georgia Power, R.J. Reynolds, Duke Power, and Polyken.

Lead Orientation Training

Contact: Leslie Cox, (404) 347-2864

Several classroom presentations were made in October and November on requirements for the national ambient air quality standard for lead, including techniques for detecting and abating problems with lead-based paint. The audiences included representatives from the Department of Housing and Urban Development, the American Lung Association, State/Local programs

and various contracting firms. These classes were hosted by the Georgia Institute of Technology Continuing Education Department.

Pesticides Outreach

Contact: Frederick Kerpel, (404) 347-5201

Region IV continued to conduct various outreach activities to target groups to assure that information about pesticides programs reaches the widest possible audience. The presentations and outreach included activities at large public gatherings, meetings of professional organizations, and information meetings with state agencies. The displays and the materials handed out at the meetings were chosen to fit the theme of the meeting or activity. Currently, exhibits are provided dealing with container reporting, labeling requirements, and cooperation occurring between EPA and the States. Future displays will address worker protection, mix/load sites, endangered species and ground water protection. Examples of major presentations and exhibits include:

- Earth Day at Underground Atlanta and the Sun Belt Agricultural Exposition, in Moultrie, Georgia (attracted over 200,000 people).
- Aquatic Plant Management Society Chapter Meetings in all States (1800 members attended).
- Cotton Council Meetings in Three States (150 persons).
- Agricultural Aviation Association Annual Meetings (500 members).
- International Poultry Exposition in Atlanta and the Grain Elevator Operators Meeting in Nashville (attracted

over 70,000 people including representatives from many foreign countries).

- Pest Control Operators Meeting (first of a series of planned meetings attended by over 200 people).

Stratospheric Ozone Depletion

Contact: Pam Adams, (404) 347-2904

Region IV conducted an extensive outreach program to inform State and Local agencies, the public and interest groups about the stratospheric ozone protection provisions under Title VI of the 1990 Clean Air Act. Seventeen major presentations on Title VI/stratospheric ozone depletion regulations were conducted. Several of these presentations targeted specific groups including contractors, service technicians, distributors, and utility companies. Various high profile meetings were attended including meetings sponsored by the South Carolina Governor's Office of Energy and Conservation; the National Restaurant Association Multi-Unit Architects, Engineers, and Construction Officers; the Alabama State Association of the Refrigeration Service Engineers Society; the Southern Florida Air Conditioning Association; and the Metro-Atlanta Air Conditioning Contractors Association. Other presentations also reached State/Local government agencies and/or educators including presentations given at the Florida Air and Waste Management Association meeting; the EPA/SCDHEC/Department of Nuclear Regulation/Savannah River Site quarterly meeting; Piedmont Technical College; Florence-Darlington Technical College; and

Pickens County Technical Institute. Region IV also responded to 2,650 telephone inquiries concerning Title VI and the regulations to be implemented thereunder. Title VI regulations were mailed upon request. Region IV responded to inquiries from a number of reporters and personnel appeared on two newscasts.

ENVIRONMENTAL SERVICES DIVISION

Contact: Cindy Kesler, (706) 546-3133

1992 Sunbelt Agricultural Expo

The Ecological Support Branch's staff presented an exhibit at the 1992 Sunbelt Agricultural Expo, in Moultrie, Georgia. The exhibit presented information on activities with non-point source pollution, the use of macroinvertebrates as indicators of pollution contamination and other general Ecological Support Branch activities.

High School Student Mentor

The Ecological Support Branch's staff served as mentor to a local high school student, who worked during the summer in its toxicity testing program.

Tours and Lectures

The Environmental Services Division's Support Branch's staff conducted tours and lectures for college students and classes about laboratory activities. These dealt with the division's laboratory

activities.

Environmental Youth Camp Presentations

Ron Barrow and John Williams, Environmental Compliance Unit/Water Compliance Unit and Don Schultz and Phyllis Meyers, Ecological Support Branch made presentations at the first Environmental Youth Camp, which was co-sponsored by the EPA and the U.S. Forest Service. In addition, Jerry Burger and Richard Guillot, Environmental Compliance Unit/Air Compliance, made a presentation about criteria-pollutant monitoring equipment. The presentations and hands-on activities were enthusiastically received by about 25 bright, Atlanta area middle school students.

Hazardous Waste Site Field Investigations Seminar

Rod Davis, Environmental Compliance Branch/Hazardous Waste Section, conducted a seminar entitled "Hazardous Waste Site Field Investigations" for the University of Georgia Environmental Health Science Department (EHSD).

Seminars about Hazardous Waste Regulations and Management

Bill Cosgrove, Environmental Compliance Branch/Hazardous Waste Section, conducted two seminars for the EHSD. One was entitled "EPA's Organization and Hazardous Waste Regulations" and the other "An Introduction to RCRA: Hazardous Waste Management Program."

Instructors for University of Georgia Session

Bill Cosgrove also served as an instructor for a two-week-long EHSD session entitled "Water and Wastewater Engineering." Mike Bowden, Environmental Compliance Branch/Air and Water Compliance Section, taught the session's water treatment part. John Williams, Louis Salguero and Antonio Quimones, also of the Air and Water Compliance Section, conducted the course's laboratory portion.

Presentations at Elementary School

Bill Cosgrove presented a lecture and discussion entitled "EPA and Pollution Control" to students at Oglethorpe County Elementary School.

WASTE MANAGEMENT DIVISION

Office of Solid Waste

Contact: Robin Mitchell, (404) 347-2091

"Gone with the Waste" Video

This video, developed jointly with Turner Broadcasting Systems, is intended to educate citizens in the Southeast about the solid waste management problems we face. It focuses on what we can do to help solve the problem by reducing the amount of waste generated, recycling as much as possible and making environmentally-sound consumer decisions. More than 200

copies of the video were distributed throughout the Southeast.

Southeast Recycled Products Procurement Conference

The staff have prepared for the second Southeast Recycled Products Procurement Conference, which was sponsored by EPA Region IV and the National Association of State Purchasing Officials on February 15-16, 1993, in Orlando, Florida. The conference provided purchasing officials from all levels of government and the private sector information on the availability, quality, and cost of recycled content products. Sessions dealt with products such as paper, plastics, glass, metals, spent fuels and building and construction materials. The "Ask the Procurement Official" session gave vendors an opportunity to ask government purchasing officials how their purchasing system works and what recycled products they want to procure.

Atlanta FEB Workshop on Recycled Product Procurement

EPA Region IV conducted this half-day workshop in cooperation with General Services Administration Region IV (GSA). The workshop was intended specifically for purchasing personnel in the Federal agencies belonging to the Federal Executive Board (FEB). It provided information on the requirements of the Federal Procurement Guidelines and recycled content products available on GSA Schedule.

Recycling Conferences

The Office of Solid Waste (OSW)

representatives attended recycling conferences at Cherokee, NC, Chattanooga, TN, Nashville, TN, Waycross, GA, Moultrie, GA, and Columbia, SC. It displayed the OSW exhibit at each and made available to all attendees publications concerning recycling and land-filling.

Solid Waste Management Assistance Grants

Several of the grants awarded by the OSW have educational components, including the following:

- Alabama Department of Environmental Management developed a comprehensive public education and outreach program on source reduction, recycling, and composting.
- Georgia Department of Community Affairs conducted a series of home composting training workshops and established composting demonstration sites throughout the state.
- Kentucky Department for Environmental Protection is developing curriculum for secondary science and social studies teachers.

Superfund

Contact: Betty Winter, (404) 347-2643

Coloring Book for 3rd-5th Grades about Landfill Hazards

In an effort to help the public, and particularly children, understand the need to save the environment by recycling and the grave hazards posed by landfills, the South

Superfund Branch created a 32-page coloring book entitled "The Superfund Team and Mother Mouse", which is aimed at the 3-5 grades. The coloring book has been a great success, and is featured at the new EPA Information Center in Washington, D.C.

Initially 100,000 copies were printed and 97,300 were distributed in 1992. A letter that told about the book's availability and a copy of it was sent in June to every elementary school in Georgia. Teachers welcomed the book as an environmental segment tool in their Science curriculum, and requests for it poured in. One feature teachers like is the page directed to "Mom and Dad." Superfund feels it educates the adults as well as the children.

A bonus from the book has been the requests for EPA scientists to visit the schools. Some Regional Program Managers have already fulfilled those requests. Many more requests have been passed on to other Region IV outreach programs. Region IX's Nevada office has requested permission to reprint the coloring book, and Fort McPherson, in Atlanta, Georgia, requested copies for their library.

Site-Specific Videos and 1993 Outreach Planning

The South Superfund Branch has also produced two site-specific "Success Story" videos for use at public meetings. The South Superfund Branch has completed plans to continue its educational outreach program to schools for 1993, and has begun to build a library of videotapes and materials for that purpose.

WATER MANAGEMENT DIVISION

Coastal Programs

Contact: Constance Alexander, (404) 347-1740

Indian River Lagoon

- Funded Indian River Lagoon Regional Environmental Educators Conference for environmental educators for five counties and coordinated participation by Environmental Learning Centers in five counties. As a follow-up, the program published a catalog about the conference to further an informational exchange. It also organized informational distribution and prepared a brochure to promote the centers with the general public and schools.

- Developed Train the Trainer Workshops designed to train the Citizen Action Committee's members about the problems associated with the estuary. This will enable the committee to inform the community about the National Estuary Program's purpose and goals.

- Watershed Action Committee Projects are small scale demonstration projects, which are followed up with technical reports. Their purpose is to bring local governmental agencies together to resolve environmental problems.

Tampa Bay

- Funded field trips for 700 pupils and parents to sites related to Tampa Bay's environment.
- Funded seven teacher workshops, which reached approximately 3000 children and several hundred teachers in the Tampa Bay area.

Sarasota Bay

- Florida Yard has worked to educate Florida residents about the benefits to surface water quality, groundwater resources and native wildlife habitat that result from yard vegetation that is native to each climatic area.
- Provided public education about storm water pollution and emphasized water conservation and reduced chemical use.
- Developed strong community and county involvement in measures to conserve the bay's ecology.

Florida Keys National Marine Sanctuary

- Six Water Quality Protection Workshops were sponsored with NOAA
- In cooperation with NOAA, EPA provides ongoing funding to develop videos about water quality for use by local television stations in the keys.

Near Coastal Waters Program

- The Volunteer Monitoring Program has successfully built consensus between EPA, Florida and Brevard and Volusia counties, in Florida.
- The Region's program participates in a network of outreach programs that focus on enhancing multi-media coordination.

OSV Anderson

The Region has sponsored tours of the Ocean Sailing Vessel (OSV) Anderson.

Coastal Program Section

- A brochure and display are being

prepared to support these programs and allow EPA to disseminate information about them to the appropriate governmental jurisdictions, interest groups and citizens.

- The section is spearheading the production of a video entitled "From the Mountains to the Coast", which will deal with issues that occur in the watersheds. A teacher's packet and an educational poster are also being prepared. The video, teacher's packet and poster will be designed for inclusion in the Water Sourcebook being developed by the Region's Water Division.

Environmental Equity

- The Coastal Program focuses on the National Estuary Program Offices, the Florida Keys National Estuary Program and the Near Coastal Waters Program to ensure the inclusion of environmental equity considerations in them.
- The program participated in the Region's Environmental Equity Conference in Atlanta, in September.

Drinking Water

Contact: Kristi Watkins, (404) 347-2913

Mobilization Program

The Mobilization Program's purpose is to communicate the importance of safe drinking water to public water consumers of all ages. To do this it carried out the following:

- Developed a comprehensive environmental education project entitled "LEGACY - Partners in Environmental Education" in conjunction with the State of Alabama. This educational

program involves State and Federal agencies, business, corporations, private organizations, universities, and public groups. Coca Cola, Georgia Pacific, the Cherokee Indian Tribe, Martin Marietta, and the International Life Sciences Institute have been approached to encourage broader participation.

- Developing a K-12 Water Sourcebook curriculum. The Water Sourcebook will lay out environmental factors pertaining to all water resources and will be compiled very similarly to a textbook with activities and labs, reference materials, and a glossary. The grade 3-5 draft edition of the Water Sourcebook was developed during FY' 92. Sourcebook is currently being reviewed for technical accuracy and field tested simultaneously in schools across the nation. Arrangements for field testing are being made.

- Sponsored a Poster Contest for Tribal students to commemorate Safe Drinking Water Week (May 3-9, 1992). This contest made tribal children more aware of the need for a clean environment in order to keep our drinking water sources clean.

- Sponsored exhibits at the Atlanta Summit Building to celebrate Drinking Water Week; at Underground Atlanta during Earth Week; at the International Life Sciences Institute's Safety of Water Disinfection Conference; at the Cherokee Indian First National Tribal Environmental Management Conference; and at the Southeast Sunbelt Agricultural Exposition.

Municipal Facilities

Contact: Kristi Watkins, (404) 347-2913

Legacy/Water Sourcebook

LEGACY, Inc. is a coalition of state and federal agencies, environmental associations, educators, interested individuals and industries whose objective is to promote statewide environmental education in Alabama for grades K-12. EPA has been active mainly in the development of a comprehensive Water Sourcebook. A summer workshop was held with teachers from across the nation to help prepare a draft for use in grades 3-5, which is now being field tested in schools across America and will be reviewed by the EPA for technical accuracy.

North Carolina Self-Help Project

The EPA has awarded a grant to the Rensselaerville Institute to assist two small communities in North Carolina, which have water and waste water system problems to restructure by sharing facilities and/or services with nearby water systems. The communities were chosen because they have the greatest number of separate systems in Region IV.

Alabama Training Coalition

This consists of organizations and agencies in Alabama, which provide training and assistance to water system operators. The coalition will assess training needs, develop a strategy to fulfill those needs and help implement training that improves systems' operations and is related to operator certification requirements. The Alabama Department of Environmental Management will be the coalition's focal point.

Pollution Prevention

Florida has been awarded \$100,000 to develop workshops and a video that address the health effects of lead, federal and state regulatory perspectives, the fundamentals of corrosion control treatment and water quality impacts. The video will help small and medium systems implement the Lead and Copper Rule. A software package will also be developed to help water systems optimize corrosion control, distribution system configurations and related subjects, and a 20-minute-long video will be made for use by small systems with no computers.

Technology Reference Book and Workshops

Region IV compiles a book listing every expert in the Region in Public Water Supply and Public Water Supply Supervision. The book may be used as a ready reference by the states. The Region will also host technology workshops for one-on-one technical guidance.

Technology Transfer Conference

Region IV hosted a semi-annual conference to allow Indian public water system (PWS) operators to share ideas about managing a small Indian PWS and get information from EPA they need to remain in compliance with federal drinking water regulations.

Electronic Bulletin Board

The Region has established electronic mail (E-mail) numbers for each of its eight states, and the states have successfully gotten information from E-mail. The Drinking Water Act (DWA) has also made the Certified Lab

Database available on the Drinking Water Bulletin Board. This database is now available to the state and Indian tribes in the Region.

A number of environmental education projects were submitted to headquarters for extra-mural funding. Those submitted include:

- The development and creation, in coordination with the Worldsong Children's Theater, of a 45-minute-long theater production to be featured during drinking water week. It would help young audiences understand the importance of water quality and drinking water.

- Coordinate with Atlanta and the Sci-Trek Museum to create a permanent interactive water exhibit for children. A scale model water treatment system to demonstrate the transition of "dirty" water to safe drinking water would be designed and built.

- Educate state legislatures and officials about the importance of implementing drinking water standards and encourage more focus on the state's capacity to effectively implement the Safe Drinking Water Act. The Region will hold a state-wide conference for legislators and officials to help accomplish this.

- Initiate a state-wide Adopt-A-Stream program in Georgia to be managed by the Georgia Rural Water Association (GRWA). The program would focus on educational information, training sessions and make on-site, hands-on technical assistance available to small and very small rural water systems by "Compliance Group Managers". These individuals would be volunteer students from higher education schools, who

would get academic credit for taking part. The managers would be trained by GRWA with help from EPA Region IV and Georgia.

Watersheds

Contact: Nancy Barron, (404) 347-2126

A Common Sense Guide to Rural Environmental Protection

The publication "A Common Sense Guide to Rural Environmental Protection" has been specially developed to provide farmers and rural homeowners with practical assistance in dealing with rural environmental problems.

The guide deals with common, rural, farm-related, environmental concerns, such as: safe drinking water from wells; the protection of underground drinking water sources; the proper disposal of wastes from septic tanks; excessive nutrients and toxins in rivers and lakes as a result of runoff with fertilizer and pesticides from agricultural crops, gardens and lawns; the management of wastes from concentrated animal operations; and wetlands.

Exhibits

The Watershed Unit exhibited at the following events:

- Sunbelt Agricultural Expo, Moultrie, Georgia
- Southeastern Resource Conservation and Development Association meeting, in Florida
- Co-sponsored exhibit at Land and Water 201 Agricultural Water Quality Conference, in Birmingham
- Co-sponsored exhibit at International Poultry and Egg

Exhibition, in Atlanta, Georgia

Wetlands

Contact: Jennifer Derby, (404) 347-2126

The Wetlands Planning Unit (WPU) outreach and education efforts have targeted specific groups within Region IV, including school age children, and the educational, landowners and developers, farming/forestry, and sand/rock mining communities.

Educational Wetlands Exhibit

WPU displayed an 8 ft x 10 ft educational wetlands exhibit at various events. Regulatory and planning unit personnel attended the events to answer questions and distribute educational materials. Some of the events attended include:

- Palmetto Sportmen's Classic, Columbia, SC, March, 1992
- Sunbelt Agricultural Expo, Moultrie, GA, October, 1992
- Wetlands Advanced Identification Program public meeting, Albany, GA, November, 1992
- National Boy Scouts of America Jamboree, Atlanta, GA, Nov. 1992

Wetlands are Wonderlands Posters and Activity Page

The WPU completed the mailing of 4,500 "Wetlands are Wonderlands" posters and activity page for pupils to elementary schools in counties targeted in the Region's High Risk Geographic Wetlands Areas. An additional 10,000 of these posters were received through an \$8,500 cooperative agreement with TVA.

Wetlands Coloring Book

The WPU issued a grant to the Georgia Conservancy to assist in the production of a wetlands coloring book, with a story-line, and description of the values and functions of wetlands.

Landowner's Guide to Forested Wetlands

The WPU is currently working with the US Forest Service and the Wetlands Regulatory Unit to publish a "Landowners Guide to Forested Wetlands". This guide will provide information on the 404(f) exemptions, Best Management Practices, and lists of federal and state agency contacts.

Two Interpretive Sign Series for Wetlands Trails

Two interpretative sign series for wetlands trails have been developed in cooperation with the TVA. They are entitled the bottomland hardwood series and the constructed wetland series, and will be available for distribution throughout the nation.

Wetlands Awareness Day

In connection with the yearly celebration of American Wetlands Month, in May, the WPU and Georgia Conservancy sponsored a wetlands awareness day at the Chattahoochee Nature Center in Roswell, GA. For the 1993 American Wetlands Month, WPU plans to develop a nation-wide wetlands travel guide series to increase the public's understanding of the wetlands.

Publicity

Working closely with the Office of Public Affairs, WPU developed press releases for all awarded FY 92 State Wetlands Protection Development Grants. In addition, WPU and the Soil Conservation Service produced a journal article featuring wetlands.

Informational booklet

An informational booklet for the private landowner will be developed to describe mechanisms to protect wetlands, including acquisition, incentives and disincentives and land exchange programs.

OFFICE OF POLICY AND MANAGEMENT

Contact: Caffilene Allen, (404) 347-7109

Pollution Prevention (Global Climate Change)

Region IV is actively implementing its pollution prevention program and global climate change (GCC) activities through both inreach and outreach projects. Specific activities include the following:

Save Energy & Save the Earth Campaign

"Save Energy & Save the Earth" brochures, which describe how pollution sources in the home can be eliminated, have been distributed at home shows, exhibits, seminars and through the "Earthwalk" program. More than 13,000 brochures have been distributed, often in person (by volunteers) to homes in Georgia. Garden clubs and churches have also recently

been included in the campaign.

Green Lights

This voluntary, non-regulatory program encourages American corporations to upgrade their lighting systems with energy-efficient technologies, but only where profitable. Region IV actively implements this program through seminars, press conferences, workshops, phone contacts, mailings, and scheduled corporate meetings. Dr. Cory Berish, Region IV's Green Lights Liaison, has presented information on the Green Lights program to such prospective members as Georgia Power, Atlanta Committee for the Olympic Games and universities.

Other Region IV staff members have also presented material on energy efficiency to more than 3,000 individuals.

Planet Protection Center Program

As a result of our efforts, Home Depot has developed advertisements that educate the consumer about pollution prevention and monetary savings. Currently, Home Depot distributes this material in 188 stores across the country.

Environmental Equity

Region IV currently works with the seven most active low-cost housing developers to link environmental equity with energy efficiency by including energy-efficiency in their designs. Southface, a nonprofit environmental organization which often assists EPA and which is noted for its affordable housing projects, is working with the Carter (Atlanta) Project on plans for the construction of more than 200 new homes within the next few years.

These housing plans were presented at the Environmental Equity conference held in Atlanta on September 14-15, 1992.

Reducing the Risk of Sea Level Rise in Region IV Coastal Counties

Various GCC studies indicate that the rate of sea level rise is expected to increase over the next 100 years. Many low-lying coastal areas and associated natural resources are at risk from sea level rise. An educational packet being prepared by Region IV will be distributed to those counties at risk from sea level rise across the Southeast. In the past year, Region IV staff members have also presented material on GCC and energy efficiency to more than 3,000 individuals.

OFFICE OF REGIONAL COUNSEL

EarthBond

Contact: Melissa Heath, (404) 347-2641, ext. 2267

Region IV has negotiated a cooperative project called EarthBond with CTSI, Inc., a California firm, to promote energy awareness and savings among homeowners. EarthBond will involve the distribution of energy- and water-saving information and products, as did the Earthwalk project, which was successfully undertaken in 1992 by the Region and Sierra Club. The project's costs will be underwritten by private sponsors. CTSI, which acted as project manager for a successful water-saving project, named "WaterWise", for a water management district in southern

California, will organize, promote and manage the project. The EPA will contribute educational and technical information and materials.

Environmental Equity

Contact: Carlton Waterhouse, (404) 347-2641, ext. 2276

The Office of Regional Counsel (ORC) supplied two speakers for a summer institute for African American junior and senior high school students. The institute, held in Waycross, Georgia, is an annual event, which is sponsored by Waycross College and Waycross area churches. The ORC speakers addressed environmental laws and regulations and environmental equity issues.

Red Clay Conference

Contacts: Victoria George; Carlton Waterhouse, (404) 347-3777

Spoke about solid waste landfill regulations and community and citizen right to know suits at a two-day-long conference in April, in Athens, Georgia, which was sponsored by the Environmental Law Association and University of Georgia School of Law.

Speakers

Made the following presentations about ecological, conservation and career subjects:

- Warren Jackson Elementary School, Fulton County, Georgia, to 50 second grade pupils
- Camp Creek Elementary School, Gwinnett County, Georgia, to 30 second grade pupils
- Tilson Elementary School, DeKalb County, Georgia, to 120 second grade pupils

- Kemp Elementary School, Clayton County, to 150 fifth grade pupils

Contact: Wilda Cobb, (404) 347-2641, ext. 2236

- Lawrenceville Elementary School, Lawrenceville, Georgia, to 25 fourth grade pupils

Contact: Matt Morris, (404) 347-3777

- Henderson Mill Elementary School, DeKalb County, Georgia, to 25 first grade pupils
- Camp Alterman, Dunwoody, Georgia, a summer youth camp, to staff

Contact: Mindy Waitzman, (404) 347-3777

EPA REGION IV RESEARCH & DEVELOPMENT LABORATORIES

EPA OFFICE OF RESEARCH AND DEVELOPMENT ENVIRONMENTAL RESEARCH LABORATORY, ATHENS, GEORGIA

Contact: Valeta Kate McDaniel, (706) 546-3524

Partners in Education

Since the Fourth Street Elementary School opened two years ago, the Environmental Research Laboratory (ERL), in Athens, has entered a joint agreement with the school to sponsor math and environmental-ecology, educational activities. The following activities were done in FY 1992:

- **Environmental and Ecology Science Camp:** Fundraisers to send six children to the Rock Eagle Summer Science Camp at Rock Eagle, Ga. This is a two-week-long science and ecology experience for 5th graders.

- **Nature Trail:** Fourth Street School pupils, faculty and EPA employees have completed a two-mile-long nature trail on the school's 20-acre campus. The pupils learn to make markers to identify various plants and trees in the natural habitat. During the summer, the trail was cleared and small side rails, bird houses, walk-overs, park benches and swings were built. These group activities exposed the pupils to the ecology of a habitat; importance of wetlands; beauty, balance and enjoyment of nature; landscaping and building skills; bird migration and

identification; forestry habitat; cooperative social skills; and hard work.

- **Faculty Tours:** The school's teachers and administrative staff have attended a four-hour tour of the EPA laboratory facilities.

- **Essay Contest:** The EPA sponsored the Young Inventors Contest with awards and recognition for the winners. All grades were encouraged to enter by describing their new ideas in essay and poster format.

- **Science Club:** EPA staff have demonstrated environmental science during the After School Program (in which working mother's children stay until 6 pm).

- **Nature Trail Teaching Manual:** A pupil manual describing the nature trail and showing detailed information about plants, trees, birds, etc., is being completed. Fifth graders will use it when they serve on the trail as guides for lower grade pupils.

Environmental Science Workshops

To meet the significant need for teacher skills training in the environmental science area from grades K-12, three workshops were planned, developed and held in July, August and September. They were:

- **Environmental Science Workshop for High School**

Teachers (grades 9-12) of biology, chemistry, earth sciences and physics: Twenty teachers from 18 county school systems completed this 7-day-long workshop at the Athens ERL. It was a cooperative presentation with the American Chemical Society. The teachers' positive evaluations recommended that all high school science teachers should take such a course. During the workshop the teachers got hands-on experience in innovative science-teaching methods that use ChemCom (Chemistry in the Community, written by the Education Division of the American Chemical Society). It is expected these teachers will be skilled enough to conduct a similar workshop to teach the method and content to other high school science teachers in their school systems or in neighboring counties.

- **Environmental Science Workshop for Middle School Teachers (grades 6-8):** This two-day-long workshop for 12 teachers was given in conjunction with the Oconee County School System and a science education project at the Middle School to bring awareness to 950 pupils. Six experts in Environmental Science presented about nine environmental issues. The teachers were then given curriculum materials from, and curriculum writing guidance by, the University of Georgia's Education Science Department's staff to enable them to create six lesson plans about each of the nine issues. They will use hands-on, cooperative learning and field trips as methods

to teach how classroom experience connects with the environment. Their pupils will be video taped doing a "Kids Environmental Talk Show" about each topic, and the shows will be broadcast in 1993 on Public Broadcasting.

- **Environmental Science Workshop for Elementary School Teachers** (grades 1-5). Science kits about environmental science have been prepared as teacher resource material for these grades. The EPA staff conducted several 1-day workshops during the summer for interested teachers.

Environmental Science Center for K-12 Curriculum Materials

ERL created, in FY 1992, a library of materials about environmental issues, which it makes available to the general public, as well as primary and secondary school teachers. Both free literature and borrowing privileges are offered. University of Georgia in Athens students make frequent use of the library, and graduate students at the University's College of Science Education make especially frequent use of it for thesis research.

WET WAY

ERL observed WET WAY (or "Reflections on Water") in November and December. This involved the visit of about 300 K-12 pupils and students to whom eight ERL scientists presented about various aspects of water as it affects human health and the environment.

EPA OFFICE OF RESEARCH AND DEVELOPMENT ENVIRONMENTAL RESEARCH LABORATORY, GULF BREEZE, FLORIDA

Contact: A.J. McElean, (904) 934-9231

Environmental Education Support

During FY 1992, the Environmental Research Laboratory (ERL), at Gulf Breeze, provided direct environmental education support to the Educational Research and Development Center at the University of West Florida, the Pensacola Junior College, the University of South Alabama and the Gulf Coast Research Center (for the National Science Foundation's Global Warming Conference). Support included specialized presentations, agency liaison and grant assistance. The ERL also hosted a technical program for 7th-9th grade minority pupils and students under a U.S. Department of Energy grant to the University of West Florida.

EPA OFFICE OF RESEARCH AND DEVELOPMENT ENVIRONMENTAL RESEARCH LABORATORY, RTP, NORTH CAROLINA

ORD Graduate Fellows Program (MOU with Clark Atlanta University)

Contact: Jewel Morris, (919) 541-4303

The ORD graduate fellows program provides up to \$22,000 yearly for students who plan to go into an environmental research or waste management related discipline at colleges and universities that are members of the HBCU/MI Environmental Technology and Waste Management Consortium. Participating in the ORD-RTP program are Clark Atlanta University, Florida A&M University, Florida International University, North Carolina A&T State University, Savannah State College, Shaw University and Winston-Salem State University. The training includes work in the ORD laboratories. The term for the graduate scholarships is one year and renewable for up to 36 months.

ORD Undergraduate Fellows Program (MOU with Clark Atlanta University)

Contact: Jewel Morris, (919) 541-4303

The undergraduate program provides students with up to \$9,000 a year for study in an environmental research and waste management related discipline. During the summer, support is provided for participation in 10 weeks of research at the ORD-RTP laboratories. The term of the scholarships is one year, renewable for up to 24 months.

ORD Research Apprenticeship Program (Co-op Agreement with Shaw University)

Contact: OSORD, (919) 541-2613

The ORD-RTP laboratories, with Shaw University (a HBCU) in Raleigh, N.C., provides training in science and mathematics to rising 8th-12th grade minority students. The program provides basic skills and experiences to students to encourage them to undertake careers in science or engineering. During the summers, students attend classes in science, math and safety training at Shaw. As seniors, students will have internships to work in the ORD labs. Students are selected for this program from the Gifted and Talented Science and Mathematics Program of the Wake County School System.

Research Triangle Scientist-Teacher Partnership

Contact: Rhoda Ritzenberg, (919) 541-2615

This model regional partnership with the North Carolina Science and Mathematics Alliance is designed to stimulate elementary school pupils in science and math. ORD staff scientists visit classrooms and conduct hands-on activities in areas of conservation, earth, life, space and physical science.

Roane State Community College Project RESTORE (Co-op Agreement)

Contact: Mac Wilkins, (919) 541-3651

The ORD-RTP, ORD-Athens laboratories sponsor, with Roane State Community College, "Project RESTORE: An Environmental

Restoration and Waste Management Academic Partnership Program" for the southeastern U.S. The program is for training environmental restoration and waste management technicians to implement procedures to control, track, reduce, store, or dispose of hazardous waste.

Science Fair Project Mentors (Pilot Program)

Contact: Larry Folinabee, (919) 541-6216

ORD scientists work directly with minority pupils from Guy B. Phillips Middle School in Chapel Hill, N.C., to encourage interest in the science fields. ORD-RTP volunteers meet with children after school to help them develop projects suitable for science fairs. The Phillips Parent-Teachers Association provides funds for materials.

Summer Science Camps (Pilot with Granville County School System)

Contact: Dr. John O'Neil, (919) 541-2613

The Summer Science Camp Project was developed to design and practice a multi-year educational "science camp" model that brings hands-on science experiences to approximately 70 pupils in grades 2-5 for a one-week period. In addition, approximately 25 elementary school teachers attended a one-week Summer Science Camp in June 1992. During the summer of 1993, Summer Science Camps are planned for 28 sites in four regional areas of North Carolina. Over a three-year period, the program is expected to reach 84 sites, impact more than 600 elementary teachers and reach more than 5,000 pupils.

SuperQuest: The North Carolina Connection (N.C. Supercomputer Center)

Contact: Dr. Gary Foley, (919) 541-2106

The SuperQuest program provides a focus for North Carolina high school students and teachers for education in computational science and high-performance computing. Five teams of four students and two teachers propose a science problem that can be solved using supercomputer technology. Students with the best research paper are eligible for scholarship monies.

HERL Training Agreement

Contact: Kathy Driver, (919) 541-7932

The Health Effects Research Laboratory (HERL) has a three-year training agreement with North Carolina Central University to identify promising graduate and undergraduate students in the science curriculum whose areas of interest coincide with areas of research ongoing in HERL. The program includes earning credit hours by working in the EPA laboratory. Four to six students are expected to participate each year in the program.

EPA REGION IV STATES

ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Contacts: Catherine Lamar, Public Affairs
Office, (205) 271-7709
Patti Hurley, LEGACY, (205) 271-7938

LEGACY: A new name and logo - "Legacy - Partners In Environmental Education" - was adopted in July for this program which represents a coalition of state and federal agencies, environmental associations, educators, interested individuals and industries whose objective is to promote a statewide environmental education program in Alabama for grades K-12. The name symbolizes the program's overall mission to provide future generations with a clean, healthful environment through environmental education.

Environmental Education Tag: The Alabama Legislature, in 1992 session, authorized a new, environmental license plate, which will cost \$50. The proceeds will support Legacy and its environmental education initiatives.

Model Recycling Program: The recycling program established by ADEM in June 1990 has become a model for other state agencies, public schools and colleges and universities. In connection with it, ADEM's State Recycling Coordinator made approximately 40 presentations to state departments, schools and colleges, civic clubs, professional organizations, local governments, etc., to give information and help to establish



A chemist (left) of the Alabama Department of Environmental Management (ADEM) explains to eight senior-level environmental scientists from southern Asia equipment used for inorganic analyses in ADEM's central environmental laboratory. The visitors spent four days in Alabama with state environmental management officials with whom they toured facilities. The Alabama visits were part of a three-week-long environmental study in America, which was sponsored by the Fulbright-Hays program.

programs to recycle newsprint, computer paper, glass and aluminum cans. Last year these departments and schools generated almost 8,000 tons of recyclable goods. Additionally, more than 50,000 pieces of material on recycling were distributed during the year.

Alabama Recycling Coalition: A statewide organization to promote waste reduction, reuse and recycling was established during the year. The non-profit corporation seeks to unite companies and individuals interested in, or engaged in, recycling activities in the state. The coalition's goal is to enhance the growth and development of all aspects of the recycling industry within the state through public

education programs, training seminars, publications and research projects.

Pollution Prevention: The Alabama Waste Reduction and Technology Transfer (WRATT) program, which uses the expertise of retired engineers and scientists to make recommendations to small industries for waste reduction, has helped numerous small businesses in the state to identify opportunities to reduce their waste streams. It has also been used as a model by Vermont, New Hampshire, Iowa, Mississippi and South Carolina in developing similar programs.

Newsletter: The ADEM bimonthly newsletter, which features articles designed to promote increased

awareness of significant environmental issues, is distributed to a wide variety of publics, including industries, public schools, colleges and universities, special interest organizations and legislators.

"Think Earth": The award-winning "Think Earth" program, a multidisciplinary environmental education package including animated video and educational units for students in grades K-3, was purchased by ADEM during the year and received widespread distribution based on requests from schools throughout Alabama and several surrounding states. Ciba-Geigy and Olin Corp., two Alabama chemical companies, purchased copies of the program and distributed it to schools in Mobile and Washington counties. Ciba-Geigy personnel meet with teachers and students to familiarize them with the program, to answer questions and to award certificates of completion.

National Environmental Education Act Grants (NEEA): Five Alabama schools and organizations were awarded federal funds totaling \$21,171 in the first NEEA grants award program. Projects funded ranged from establishing an outdoor learning center at an elementary school to a program that uses a puppet show and other theatrical enactments to enhance elementary students' understanding of environmental conservation.

Asian Visitors: Eight senior-level environmental scientists from India, Pakistan, Sri Lanka, Nepal and Bangladesh spent four days in Alabama interacting with state environmental management officials and touring a variety of industries

as part of a three-week environmental study in the U.S. The program was sponsored by the Bureau of Educational and Cultural Affairs of the U.S. Information Agency under auspices of the Fulbright-Hays program. Alabama was selected as a major focus for the study tour based on several factors, including its mixture of industries, climatic conditions comparable to those in South Asia and the state's legislative and executive environmental initiatives. In conjunction with this exchange program, Charles Horn, Chief of the ADEM Water Division, was selected as one of several environmental specialists from the U.S. to participate in a two-week trip to India and Nepal.

Adopt-A-Stream: This program, a cooperative venture of ADEM, People Against a Littered State and the Alabama Forestry Commission, enlists sponsors (schools, civic clubs, businesses, etc.) to clean an adopted stream crossing. The activity also involves reporting on the number of workers involved in each cleanup and the number of bags and types of trash collected. Signs identifying the sponsors are posted at each adopted stream segment.

Title III Workshops: Seven workshops were held throughout the state to familiarize industries and businesses with the reporting requirements of SARA Title III. The initiative was sponsored by the Alabama Emergency Response Commission, co-chaired by the directors of the departments of Environmental Management and Emergency Management.

Citizen Monitoring Programs: Citizens in the vicinity of Mobile Bay, Bayview Lake, Little River

and the Coosa, Cahaba and Tallapoosa rivers are actively participating in programs to monitor water quality parameters. The projects have been supported by state and federal funds, as well as through contributions from private industries and businesses. The program has proved to have a significant benefit in educating volunteers on water quality issues, in addition to providing ADEM with specific data on water quality indicators.

Public Information: As a regular service, ADEM provides brochures, pamphlets, fact sheets, videos and other informational and educational materials to government agencies and officials, environmental and special interest groups, civic organizations, church groups, teachers and students and interested individuals. During the 1992 fiscal year, approximately 1,400 requests were processed and more than 3,000 pieces of material distributed. Additionally, almost 900 requests for interviews and information from the news media were managed with 20 percent of these being from out-of-state. Speakers are also provided to a wide variety of audiences ranging from elementary schools to technical seminars.

Year of the Gulf: Alabama's celebration of the "Year of the Gulf" was launched with a meeting in Mobile in June attended by more than 130 individuals. Speakers included Governor Guy Hunt, U.S. Rep. Sonny Callahan, Dr. Douglas Lipka, Acting Director of EPA's Gulf of Mexico Program and Patrick Tobin, Deputy Regional Administrator of EPA Region IV. A steering committee has promoted and coordinated activities during the year in order to promote public awareness of the need to protect

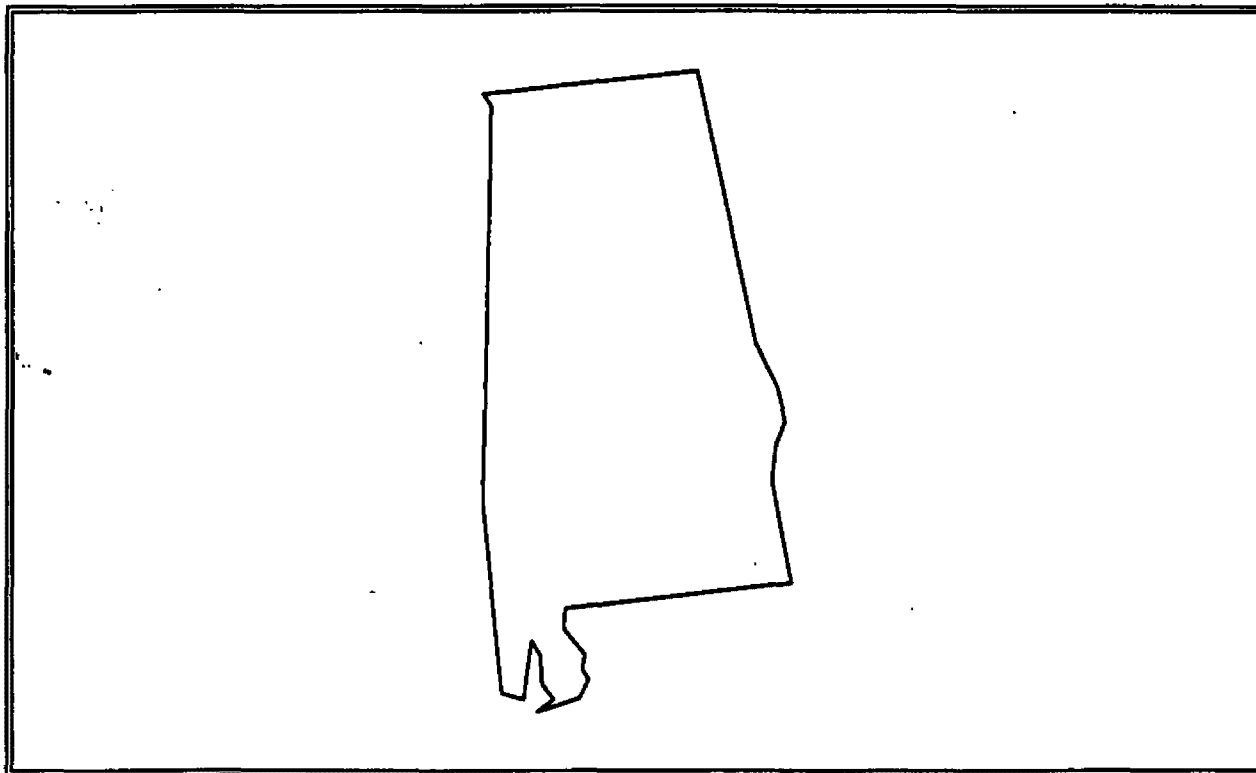
and preserve this significant ecological and economic resource.

Teacher Workshops: Three teacher workshops were held during the year that presented information on the problems of non-point source pollution and its prevention, as well as about the basics of water monitoring. They were attended by more than 100 elementary and high school teachers who will use the workshop information in the classroom.

Source Book: EPA Region IV, the Tennessee Valley Authority and ADEM have begun a five-year program to create a comprehensive water source book for grades K-12. Portions of the book, written for grades 3-5, are currently under review by a technical review committee.



The logo (shown above) for the Legacy program was unveiled in 1992. It exemplifies the program's mission, which is to provide future generations a clean, healthful environment through environmental education.

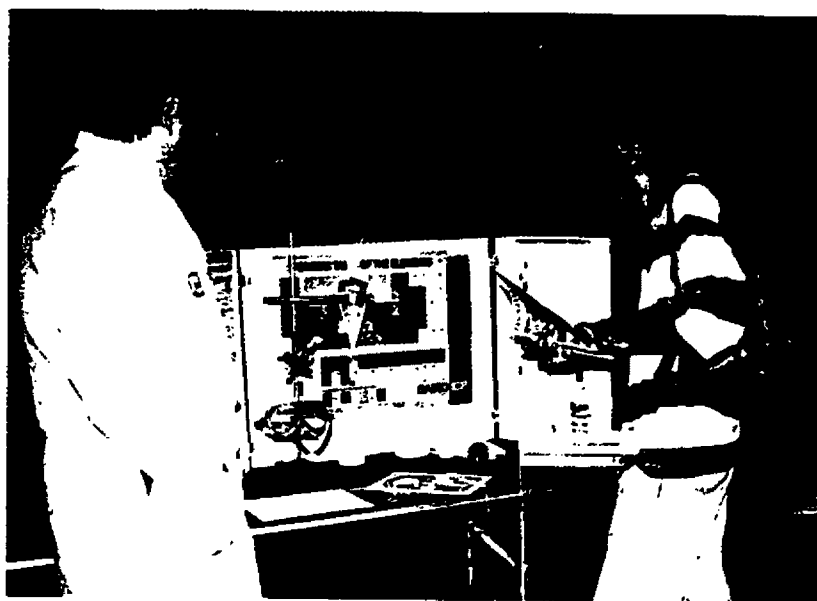


FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

Contact: Janine R. Rogers, (904) 488-9334

Speakers Bureau

The Department's Speakers Bureau provides speakers to schools statewide on topics that relate to protecting Florida's natural resources: the air, land and water. Specific topics have included: the water cycle, environmental law, global warming, air pollution, recycling, wetlands, used oil, the reuse of reclaimed water, waste reduction and pollution prevention, household hazardous waste and the geology of national parks.



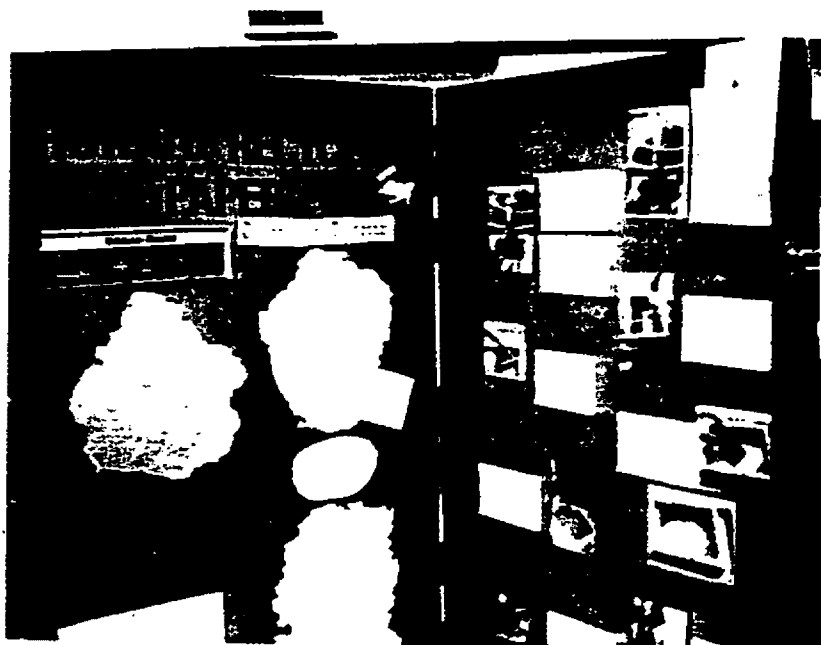
A chemist (left) of Florida's Department of Environmental Regulation shares his knowledge about environmental careers with a pupil during "Career Day" at Cobb Middle School in Tallahassee, Florida.

Partners for Excellence

Through Partners for Excellence, a

unique partnership that matches the needs of the schools with the resources of local businesses and

government agencies, Department employees serve as consultants for students who are in the process of producing science fair projects and as judges for school science fairs. Environmental Specialists also participate in the school "Career Days" to inform students about careers in the environmental sciences.



The science fair project shown above is entitled "How to Recycle Paper". It was submitted by a middle school pupil at Cobb Middle School in Tallahassee, Florida. Employees of Florida's Department of Environmental Regulation helped to judge the fair's entries.

Public Information

On a continuous basis, the Department provides brochures, pamphlets, fact sheets, videos and posters to the general public, other government agencies, environmental and civic organizations, and schools that request information on Florida's environment. Each year the Department sends the state's 67 school districts copies of a booklet for 4th, 5th and 6th grade pupils entitled "Your Environment: A Guide for Students", which was designed to inform them about Florida's natural resources. It also

sends them a booklet entitled "Classroom and Field Experiments for Florida's Environmental Resources", which was produced to help educators develop "hands-on" environmental projects for the pupils.

Laboratory Facilities

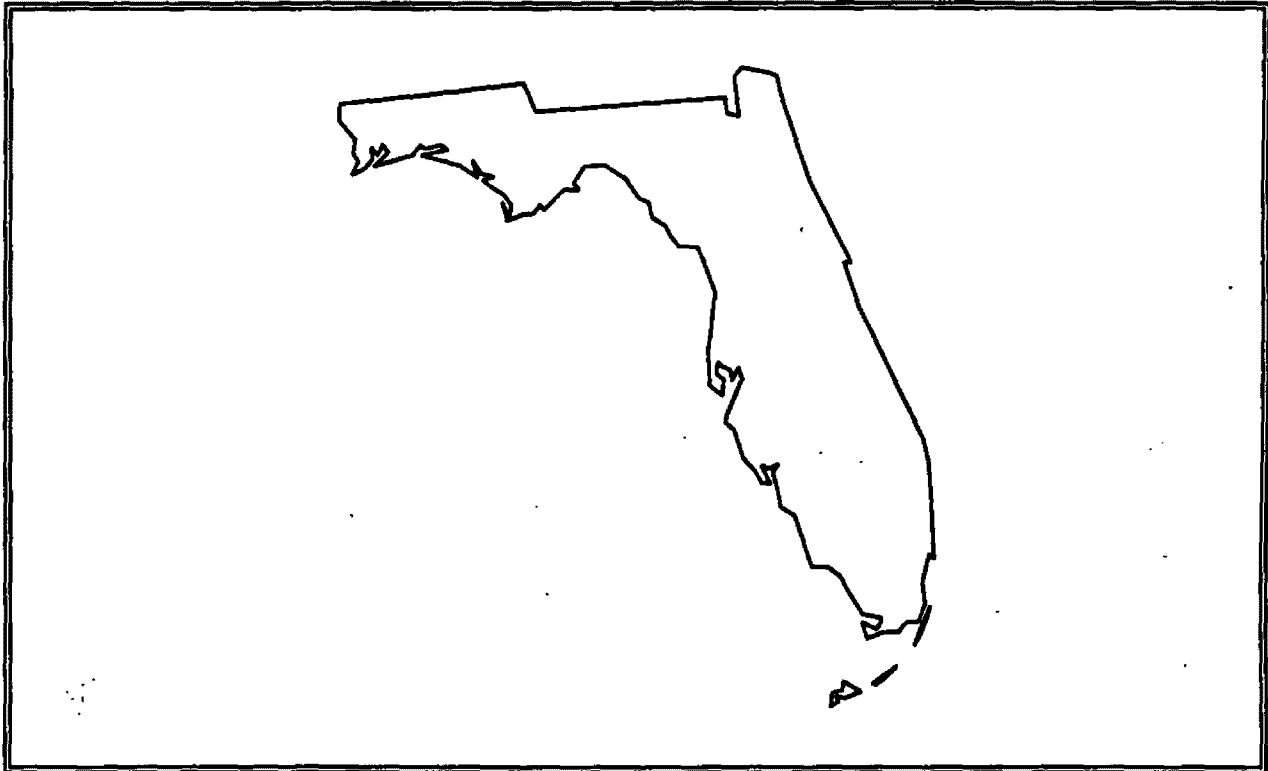
Tours of the Department's

laboratory complex are provided for school groups and other organizations. The Department provides a speaker before the tour to explain what an environmental lab is and what is done there.

Used Oil Recycling Education Project

The Department developed a Used

Oil Recycling Education Project, which is designed for grades K-12. It includes a complete curriculum that explains how oil is formed, produced and processed; what oil does inside an engine; the types of impurities that are added through routine motor wear; and why oil should be properly managed and recycled.



GEORGIA

DEPARTMENT OF NATURAL RESOURCES

Contact: Thomas D. Smith, (404) 656-4713

Public Information

Through nearly 300 publications, five films (VHS, Beta and 16 mm) and various slide presentations, Environmental Protection Division (EPD) staff provided written and recorded environmental information to thousands of Georgia citizens. The publications include pamphlets, manuals, reports, fact sheets and bookmarks. The video films include: Air: The Vital Resource; The Disposal Dilemma; Clean Water, Georgia's Treasure; Safe Drinking Water: Wellhead Protection in Georgia; and the Georgia Department of Natural Resources (DNR). Slide presentations cover the DNR, EPD, recycling, Project PETRO (waste oil recycling) and household hazardous waste.

During 1992, EPD's staff spoke to approximately 50-60 visitors to the office and, through telephone and in-person requests, distributed 4,000-5,000 pieces of environmental literature to Georgia's citizens.

In-House Library

EPD also maintains an in-house library of its publications, tapes and slides. These are available for use by citizens, groups and organizations. EPD's Information Officer operates the library during normal business hours, five days a week. Citizens, and others, who visit the office may view materials, make copies and speak with staff members about any environmental subject.



A staff member of the Environmental Protection Division (EPD) of Georgia's Department of Natural Resources tells children at a state park about environmental protection and nature. EPD staffers provide information about the environment to all members of the public and often serve as speakers about environmental topics for schools, civic organizations and senior citizens groups.

Voluntary Speakers Bureau

This program provides EPD speakers for lectures at workshops; luncheons; environmental workshops; colleges, high schools and grade schools; and for part-time instruction at Southern Technical Institute, in Marietta, Georgia. Through December, 1992, about 10-15 staff members had spoken at about 50 events.

Environmental Awareness

EPD held more than 40 public meetings and hearings for Georgia's citizens on environmental permit applications and environmental issues.

EPD also supports and assists numerous Adopt-A-Stream

programs in the state. Environmental education and information plans for 1993 include expanding the amount of educational materials, reaching more citizens through speaking engagements, meetings and hearings and educating more citizens about current and future environmental issues in Georgia.

Exhibits and Shows

EPD participates in environmental and educational events and shows to provide direct outreach to Georgia citizens. EPD has two display units: a table-top display and a stand-alone exhibit. EPD staff have developed numerous display-size photographs with accompanying captions, which feature all aspects of EPD's



Members of the Environmental Protection Division (EPD) of Georgia's Department of Natural Resources take from the South River water samples for use in determining the water's quality. EPD compiles the results of water analyses from all Georgia streams in a report it publishes bi-annually for the public's information and education. EPD has been designated by the U.S. EPA to administer all federal environmental protection programs, except wetlands protection.

environmental programs. The staff take the units to events in Georgia throughout the year. Some events in 1992 included:

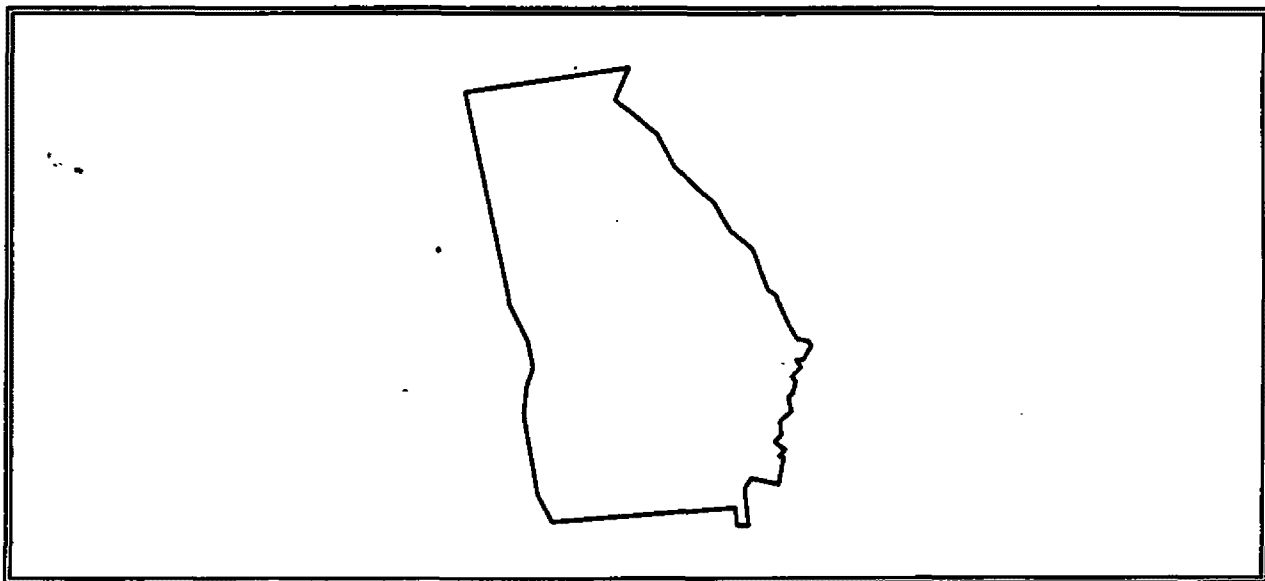
- Sunbelt Agricultural Exposition,

Moultrie, October 13-15

- Environmental Education Days, Macon Mall, Macon, August 8-9
- Environmental Awareness Day, Spellman College, Atlanta, October 23

- AT&T Environmental & Safety Fair, AT&T Communications, Atlanta, May 12
- Weekend for Wildlife, Sea Island, February 7-9
- Southeastern Safe Dams Conference, Atlanta, April 5-8
- Atlanta Braves Environmental Awareness Day, Atlanta-Fulton County Stadium, April 12
- Spring Fling, The Lovett School, Atlanta, May 1
- Black History Month, Sprayberry High School, Marietta, February 18 & 25

EPD also participated in the third, metro-wide Recycling Day in November. This consists of periodic collections in which citizens drop off recyclables (plastics, aluminum, glass, paint, paper products) at numerous locations in metropolitan Atlanta. EPD, the Georgia Department of Community Affairs, local Clean and Beautiful units and WXIA-TV (Channel 11) again sponsored the event.



KENTUCKY

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET

"From Rio to the Capitols - State Strategies for Sustainable Development": A national follow-up conference to the UNCED Earth Summit will be held May 25-28, 1993, in Louisville, Kentucky. Governors, legislators, state officials and others will meet to discuss how states can implement Agenda 21 and other agreements reached at the UNCED meeting in Rio de Janeiro.

Contact: Ann James, (502) 564-2611

STATE GOVERNMENT

SEEK

Contact: Julie Smither, (502) 564-5525

SEEK, or Students Exploring the Environment in Kentucky, is a joint effort of the Natural Resources and Environmental Protection Cabinet and the Department of Fish and Wildlife Resources, which sponsors environmental clubs in Kentucky's elementary and secondary schools.

Natural Resources and Environmental Protection Cabinet

Contact: Julie Smither, (502) 564-5525

Water: Water Watch Program; educational materials on water related issues.

Air Quality: Clean Air for Kentucky education program.

Waste Management: Speakers; educational materials and curriculum guides.



Young men at a Kentucky Forestry Camp learn the identifying characteristics of a dead rattlesnake they have found.

Division of Environmental Services: River Assessment Monitoring Project (RAMP), a water quality monitoring project for high school students.

Forestry: Project Learning Tree; classroom materials; film library; Jr. Forest Ranger Program.

Energy: Grade school calendar poster contest; educational materials.

Conservation: Statewide poster and essay contest; film lending library and newsletter.

Water Patrol: Boating safety programs; CPR classes.

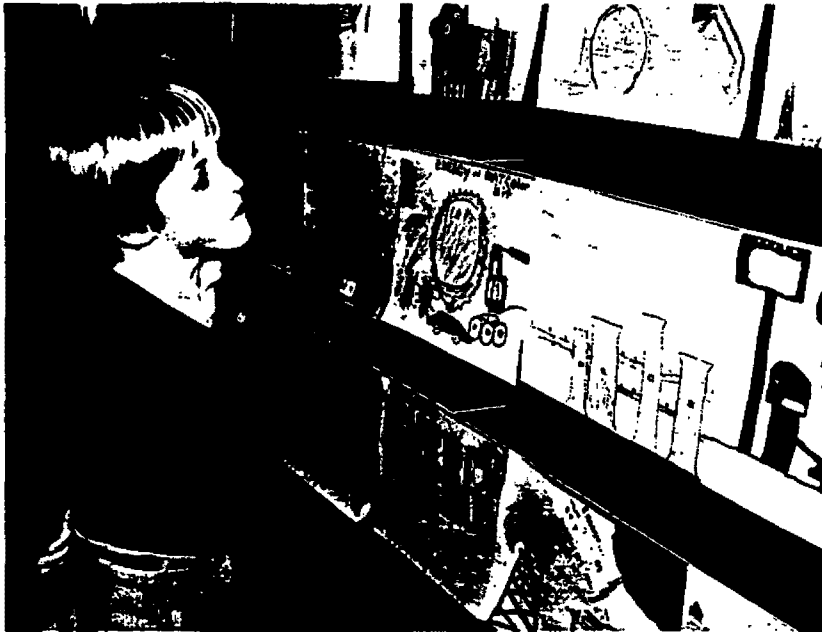
Nature Preserves Commission Fifth-grade science curriculum on Kentucky's endangered species.

Environmental Quality Commission: "State of the Environment Report".

Department of Fish and Wildlife Resources

Contact: Lynn Garrison, (502) 564-4762

"Kentucky Afield" nature magazine. "Kentucky Afield" weekly television show. Education officers serve most school districts to provide schools with nature programs. Coordinating agency for Project Wild.



A young participant looks over other entries in the Kentucky Division of Energy's poster contest.

Department of Parks

Contact: Carey Tichenor, (502) 564-5410, ext.246

Residential camps on environmental education and teacher training workshops.

UNIVERSITIES

Murray State University Center for Environmental Education

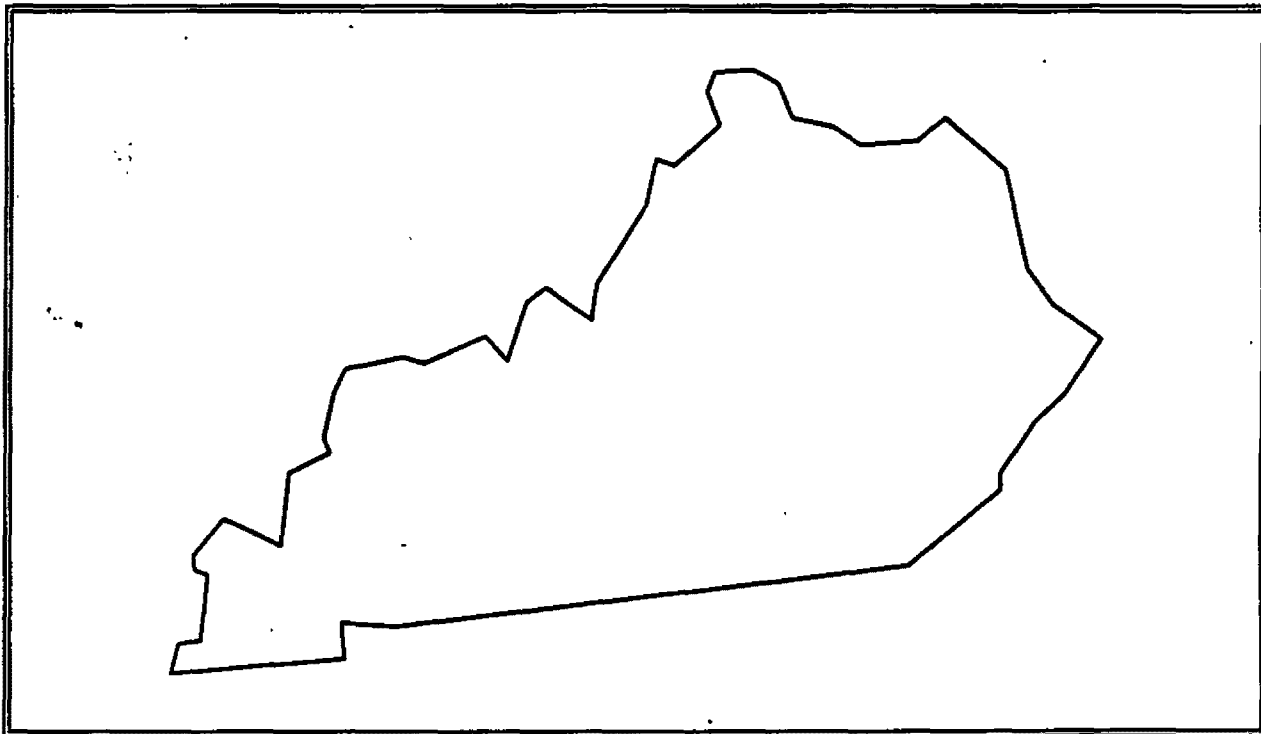
Contact: Ruth Jacquot, (502) 762-2534

Provides programs in local school districts. Provides environmental education training to pre-service educators. Conducts research and develops programs in environmental education.

Western Kentucky University Center for Math, Science and Environmental Education

Contact: Terry Wilson, (502) 745-3442

Provides programs in local school districts. Provides environmental educational training to pre-service educators. Conducts research and develops programs in environmental education.



MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Contact: Eleana Turner, (601) 961-5015

Non-Point Pollution Lesson Plans

The Department of Environmental Quality (DEQ) participated in a non-point pollution writing workshop for lower elementary teachers sponsored by the Mississippi Soil and Water Conservation Commission and the USDA Soil Conservation Service. Lesson plans have been developed and will be made available to teachers.

Back Bay of Biloxi Poster

The water quality management section has produced a four-color poster of the Back Bay of Biloxi, in



Laura Beiser, of Mississippi's Department of Environmental Quality (DEQ), Water Quality Management Branch, demonstrates an aquifer model at a groundwater education meeting for farmers. During the course of 1992, Ms. Beiser and other DEQ employees made similar presentations to farmers and rural home owners in 11 Mississippi counties as well as at schools, youth camps and other educational events.

an effort to educate the public about

ways individuals can help improve the water quality.



Taneka Norris (left) of Biloxi, Mississippi, talks with staff members of Mississippi's Department of Environmental Quality at the Year of the Gulf celebration in Pass Christian, Mississippi. The staffer's are (left to right) Stacey McIlwain and Becky Comyns of Mississippi's Office of Pollution Control, South Regional Office.

Photography Contest

A statewide photography contest was held to increase awareness of the importance of clean water. The winning photographs will be displayed during October 1993, the Month of Clean Water.

Speakers

The DEQ continues to provide speakers for schools, civic clubs, professional organizations, fire departments, environmental forums sponsored by law firms, church groups and other state and federal agency-sponsored events. The DEQ provided speakers and demonstrations for the Warren County Recycling Conference for students and for conservation

carnivals throughout the state.

Educational Materials

Requests for information are handled daily. In addition to mailing materials to numerous students of all ages, the DEQ Library provides assistance to researchers. Three brochures that

are widely distributed by the DEQ were up-dated during the year.

Exhibits

Mississippi Water Resources Meeting, Biloxi, Aug. 15-16
Mississippi State Fair, Jackson, Oct. 2-13
Jackson Metro Area Amnesty Day,

Jackson, Oct. 19

Mississippi Water and Wastewater Operators Annual Meeting, Jackson, April 6-8

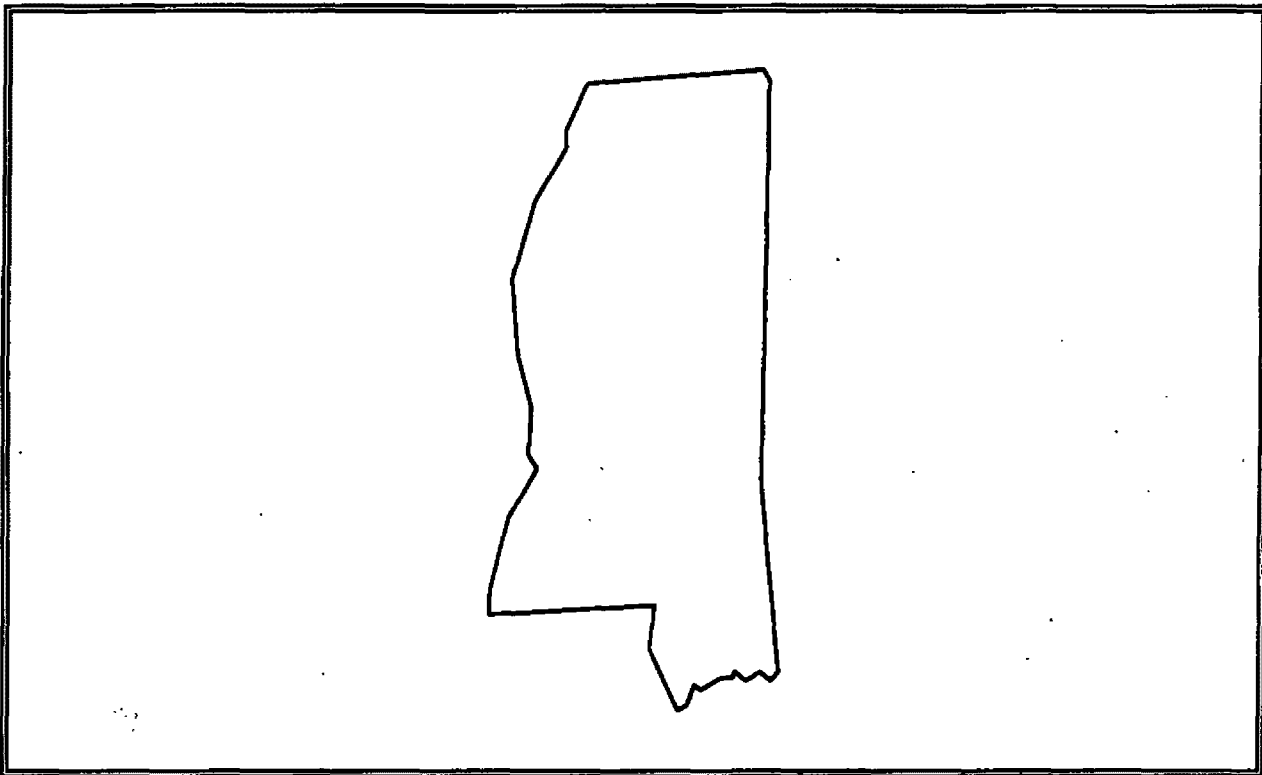
River Jamboree, Moss Point, May 2

Gulf Coast Fair, Biloxi, May 16-17

Jackson Zoological Park Earth

Awareness Days, Jackson, June 6-7

Mississippi Municipal Association, June 10-12



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES

Contact: Linda W. Little, Ph.D. (919) 733-0711

The Office of Environmental Education (OEE) in the Department of Environment, Health, and Natural Resources (DEHNR) was established in 1990. The Office serves as a clearinghouse for environmental information, especially that produced by the Department, for communities and school systems across the state, and it plans for future needs for environmental education materials and programs.

The Office works with the North Carolina Department of Public Instruction (DPI) to integrate environmental education into course curricula. It administers the Project Tomorrow Awards Program "Healthy Kids in a Healthy Environment" to encourage school children to discover and implement



The second place winners of the 1991-92 school year Project Tomorrow Awards Program (shown above the second, third and fourth from the left), proudly hold their awards. The program is aimed at encouraging schools to develop educational projects on school grounds. The winners are from the Hot Springs School, in Hot Springs, North Carolina. The program is administered by North Carolina's Office of Environmental Education.

ways to protect their health and environment. During 1992-1993, the Office, in conjunction with DPI, is offering an electronic conferencing system with an "environmental education conference" accessible by an 800

number to teachers in the state.

The Office maintains a computerized database of existing environmental education programs within DEHNR and has an information and referral specialist to respond to requests. The Office also maintains a speaker's bureau.

DEHNR's State Fair exhibit, which is seen by thousands, is coordinated through OEE. In 1992, it received recognition as the best exhibit in the non-commercial category.

"Building a Shared Vision for Environmental Education in North Carolina", a statewide conference based on the national conference coordinated by EPA in 1991, was the highlight of the year, with approximately 150 participants. The conference was sponsored by the OEE and EPA Region IV in conjunction with the Environmental Resource Program at UNC-Chapel Hill, the Sci-Link/Globe-Net

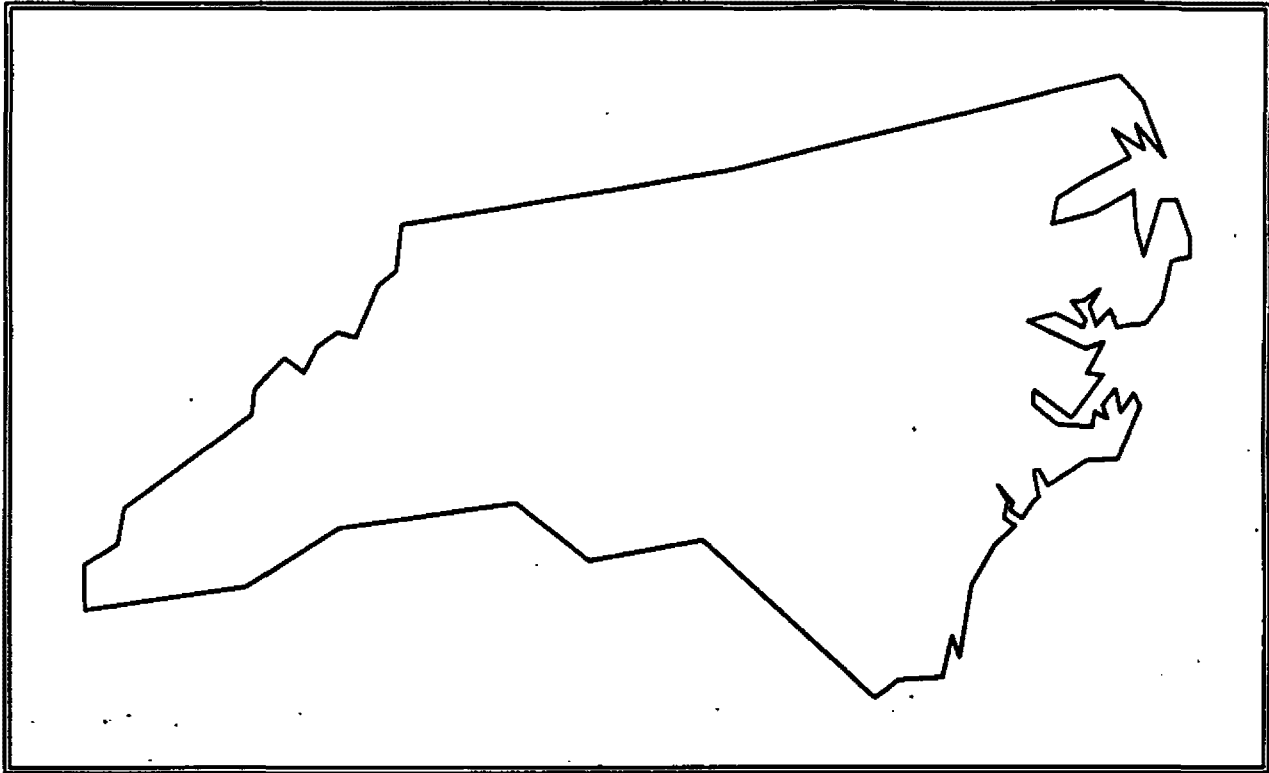


Environmental musician Rich Welsh entertains participants in North Carolina's conference "Building a Shared Vision for Environmental Education in North Carolina". This 1992 conference was the first state conference after the EPA's 1991 conference on the same subject.

Program at North Carolina State University and the Environmental Educators of North Carolina. A feature of the conference was a

session on "Partnerships to Develop and Deliver Environmental Education: A Sampler of North Carolina Projects", which was

designed to showcase successful programs and inspire others.



SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

Contacts: Thom Berry, (803) 734-5043
Jan Tuten, (803) 734-5041

For Your Information (FYI's)

These one-page fact sheets are for non-technical readers and present information about a variety of environmental subjects in understandable language. A telephone number is included on each sheet for those who want more information. Twenty-one FYIs have been published since 1990.

Fact Sheets

These publications examine issue-oriented environmental topics such as waste minimization and the State Superfund. They also address site-specific environmental concerns in lay language.

Glossary of Environmental Terms

This publication makes environmental terms understandable to the public. It is useful for ages from middle school up.

Lead: An environmental hazard to our children's health

This publication examines the laws and state and federal regulatory activities applicable to this major environmental threat to children.

Nonpoint Source Pollution Management Program

Contact: Phil Hayes, (803) 734-5038

Environmental Awareness



NASCAR driver Kyle Petty, spokesman for a South Carolina-wide program to promote used oil recycling, pours used oil into an approved collection tank during a public talk. Petty also appears in public service announcements, brochures and billboards, as well as on a poster, which was sent to schools. The program is sponsored by the South Carolina Used Oil Partnership, which was formed by South Carolina's Department of Health and Environmental Control, Santee Cooper (the state-owned utility), the South Carolina Department of Highways and Public Transportation and the South Carolina Petroleum Council.

Several pamphlets, fact sheets, posters and newsletters are available for citizens who request materials on Nonpoint Source pollution. Conferences are also held with students, teachers and others who come into the office for information.

In cooperation with Santee Cooper (the state-owned electric utility) the NPS pollution division answered more than 400 requests for environmental information by South Carolina seventh graders who were doing research for a Santee Cooper sponsored essay contest.

Plans for 1993 include expanding the amount of educational literature, speaking to more groups, developing "infomercials" relating to NPS pollution, evaluating the existing environmental education curriculum and doing the initial

development of a comprehensive plan to include NPS pollution curriculum in South Carolina's schools.

Glossary of NPS Terms

This booklet makes NPS pollution terms available to the public. It is useful for schools, concerned citizens, and environmentalists.

Fact Sheet

A fact sheet has been developed about NPS pollution.

Newsletter

A newsletter is published quarterly about NPS pollution in the East Cooper NPS Management Project. The newsletter spotlights volunteers involved with the program and gives an update of area activities.

that promote an awareness of NPS pollution.

Clean Water Conference

The "Forging Clean Water Partnership" conference, held in connection with the Clean Water Act's 20th anniversary, was attended by nearly 70 people who represented environmental, business, state, property and others interests concerned with protecting and enhancing water quality in South Carolina. Program topics included grassroots organizing, stewardship and the role of the public sector in protecting and enhancing the state's waters.

Turning the Tide Promotion

The NPS pollution staff, in cooperation with the Isle of Palms Fall Festival and 15 state and environmental agencies combined to do a Turning the Tide on Nonpoint Source Pollution exhibit during Clean Water Month. In addition to the environmental exhibitors, Steven Jordan, a nationally recognized watercolorist from the area created a poster relating to NPS pollution and the vitality of the area's shellfish resource. It was available to participants free.

Exhibits and Shows

The NPS division has two displays for continuous use. Approximately 15 exhibits have been scheduled during the year and plans are being made to exhibit at the Southeastern Wildlife Exposition, in February 1993, in Charleston, S.C.

Office of Solid Waste Reduction and Recycling

Contact: Richard Chesley, (803) 734-4957

An Overview of the South Carolina Solid Waste Policy and Management Act of 1991.

This publication is the non-technical, short version of the state's first comprehensive law dealing with solid waste. It includes a list of all the state's active municipal solid waste landfills and the department's solid waste consultants throughout the state.

Glossary

This publication defines solid waste and recycling terms in a simple, non-technical manner and is targeted at schools and the general public.

InfoSheets

These are one-page fact sheets on solid waste and recycling issues. The information is presented in an understandable, non-technical manner. Topics include solid waste, recycling, plastics, household hazardous waste and used oil.

RECYCLE South Carolina Newsletter

The RECYCLE South Carolina Newsletter is published every other month and addresses solid waste and recycling issues in the state. Each issue contains the latest solid waste and recycling news, including information on regulation updates, operator training and certification and recycling success stories. It is distributed to schools, local governments, recycling coordinators, solid waste administrators, opinion leaders and others. Beginning in the fall 1993, the newsletter will have an insert by and for students writing about

recycling programs at their schools.

Toll-free telephone line

The Office of Solid Waste Reduction and Recycling (OSWRR) established a toll-free line, 1-800-768-7348, to answer recycling questions.

Curriculum

OSWRR, along with a statewide teacher's committee and consultant, is developing a solid waste and recycling curriculum. The curriculum will be finished in January 1993 and piloted in selected schools from February to May 1993. The final product will be available to all school districts for the beginning of the 1993-94 school year.

Speaker's Bureau

OSWRR has made more than 100 presentations to schools, businesses, civic organizations and others.

Exhibits and Shows

OSWRR has two displays for continuous use. Participation in 1992 included Earth Day, Conservation Day at Riverbanks Zoo, Recycling Day, the South Carolina State Fair and the S.C. Recycling Association. Similar events will be staffed in 1993.

Information and promotional items on solid waste and recycling are available. Also, our office receives numerous requests for educational information each week.

Public-Private Partnerships

OSWRR has developed several partnerships to promote environmental awareness.

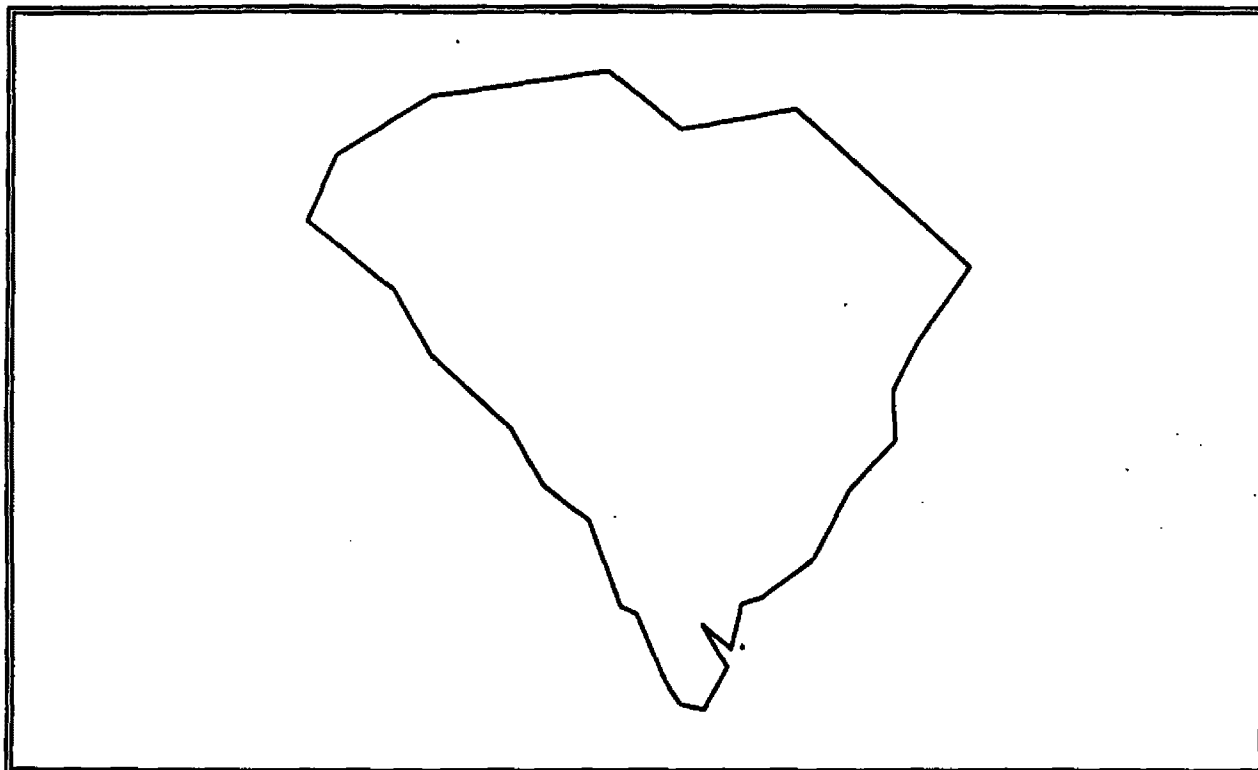
The S.C. Used Oil Partnership was formed to promote proper disposal of used oil. It consists of OSWRR, the S.C. Department of Highways and Public Transportation, Santee Cooper and the S.C. Petroleum Council. NASCAR driver Kyle Petty appears statewide in public service announcements for radio and television, in brochures and on

posters and billboards aimed at do-it-yourself oil changers.

OSWRR also formed an informal partnership with Columbia radio station WNOK-FM and its "Earth Buddies" promotion and the NPS Pollution Management Program and held a Super Recycling Day in September. The station also runs

30-second spots on recycling and solid waste management.

OSWRR formed an informal partnership with the local Pepsi-Cola affiliate to help sponsor an aluminum can recycling program at the University of South Carolina and several area high schools.



TENNESSEE DEPARTMENT OF EDUCATION

Contact: Cindi Smith-Walters, Ph.D., (615)
741-5774

Project CENTS

Project CENTS (Conservation Education Now for Tennessee Students) is a partnership of the state's Department of Education, Division of Forestry and Wildlife Resources Agency, and the Tennessee Conservation League and Tennessee Forestry Association. CENTS is an umbrella under which the award winning, K-12, interdisciplinary, environmental education programs, Project WILD, Aquatic WILD and Project Learning Tree are offered to teachers and youth leaders through free workshops. Activity guides and other aids, which focus on wildlife and natural resources, are furnished to supplement existing curriculums. More than 20,000 educators have been trained since 1984.

- CENTS programs and materials are offered to pre-service teachers in colleges and universities across the state.
- CENTS NEWS, a four-times a year, eight-page newsletter is sent free-of-charge to past workshop participants to update them on natural resource information, activities, free materials and more.
- WILDLIFE WEEK materials are distributed through the CENTS network.
- TSAP (Tennessee Students Against Pollution) CLUBs are fostered by the CENTS program



Teachers at the CENTS 1992 Summer Teacher Workshop at TVA's Land Between the Lakes participate in a stream study. Left to right are Teresa McClure, Nancy Smith, Mary Jane Pardue and Pat Moore.



Cindi Smith-Walters, Ph.D., Project CENTS director, leads students from the Charlotte Elementary School in the PLT activity "Plant Personification".

across the state. This network of students and educators work together to take action on environmental issues.

- EARTH AWARDS are offered through the Tennessee Environmental Education Association and judged with help

from CENTS. These grants are for environmental action projects and training scholarships.

- **TREE TRUNKS**, developed by the CENTS partners supplement existing teaching materials. Trunks contain a teacher guide, hand magnifiers, tree ID keys, videos, books, tree cross-sections and more, and are available to teachers and youth leaders on a free loan basis.

- **SUMMER EDUCATOR WORKSHOPS**, which last for a week or more, are held in two

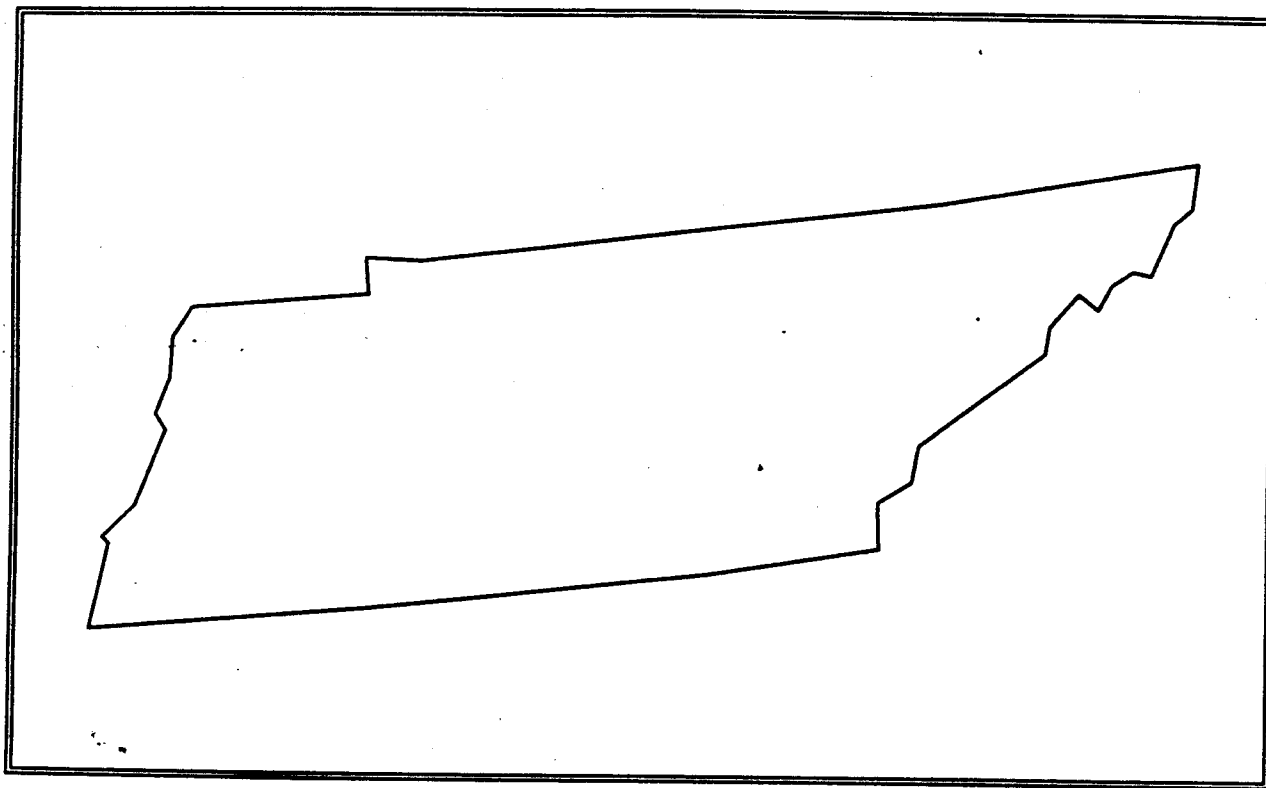
locations in the state. In 1992, four different residential camps were held for college credit in biology or education. Four workshops are scheduled in 1993.

- **SOLID WASTE EDUCATION** will begin, in 1993, state-wide through the CENTS program. A peer mentorship program will also be implemented.

- **RELEAF TENNESSEE** began in 1990 and provides teaching packets and tree seedlings to 4th grade classes state-wide during Arbor

Week. In 1993, more than 150,000 seedlings will be distributed and all 95 counties will participate. The goal is to plant one million seedlings by the year 2000.

- **OUTDOOR CLASSROOM WORKSHOPS** will begin in 1993 with the introduction of the **WILD SCHOOL SITES** booklet. This program will give classroom teachers and community leaders information and assistance to develop habitat enrichment projects and positive environmental action in their own communities.



ACKNOWLEDGEMENTS

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