The Resource '99
A Special Environmental Education Supplement
Published by the Maryland Department of the Environment

ADOPT-A-STREAM

CONTACT: Matt Chasse
PHONE: (410) 260-8710
Email:  mchasse@dnr.state.md.us

This statewide program is designed to protect and improve the water quality of Maryland’s waterways, encourage active citizen participation in the monitoring and cleanup of the state’s waterways and watersheds. Adopt-A-Stream is a series of hands-on activities that are conducted for the DNR by Save Our Streams (SOS). SOS can be reached at (800) 448-5826.

AQUATIC RESOURCES EDUCATION GRANTS

CONTACT: Cindy Grove
PHONE: (410) 260-8710
Email:  cgrove@dnr.state.md.us

A reimbursement grant program for public/private schools and school systems. Grants of $1,000 per school and up to $4,000 per school district are available to conduct aquatics related projects. Five area regional mini-conferences are held during the school year attracting 80-130 teachers per mini-conference. The mini-conferences take place at outdoor education centers around the state. Offered through the Department of Natural Resources.

ARDKINS ARBORETUM

CONTACT: Ellie Altman
PHONE: (410) 634-2847

Adkins Arboretum is a 400-acre preserve on Maryland’s Eastern Shore dedicated to the conservation of the Delmarva Peninsula’s native flora. It borders Tuckahoe Creek near its headwaters and includes portions of one of the regions most significant forested wetlands. The Arboretum’s education program serves all ages, preschoolers to adults, and includes classes, workshops, and field trips about ecology, native flora, horticulture and natural history.

ALICE FERGUSON FOUNDATION

CONTACT: Karen J. Miles
PHONE: (301) 292-5665
Email:  HBFWeb@aol.com

Hard Bargain Farm is a 330 acre working farm along the Potomac River. Thousands of school classes visit the farm during the school year for day and overnight field trips. Our award-winning outdoor education curriculum addresses MSPSP outcomes. New! Interactive Web Site for Elementary School Teachers. Check out our new web activities, lesson plans, teacher resources, and games for students. Check us on the web at www.hardbargainfarm.org.

AUTOMOBILE CARE FOR THE ENVIRONMENT

CONTACT: Margie Wise, MDE
PHONE: (410) 631-3000
Email:  mwise@dnr.state.md.us

“Automobile Care for the Environment” is a multimedia instructional package designed to offer beginning drivers and their teachers an opportunity to explore their relationship with the environment and motor vehicles. This package stresses proper use, recycling and disposal of fluids. Copies will be provided to the Library Media Specialists of the Maryland county public school systems to distribute for use in the classroom. Additional copies are available for purchase from Environmental Hazards Management Institute (EHMI) by calling (603) 868 - 1496 or writing to EHMI, 10 Newmarket Road, Durham, NH 03824.

CRITICAL AREA FIELD TRIP

Contact: Duncan Stuart
Phone: 410-396-5902
Baltimore City Department of Planning program provides a detailed discussion and tour of Middle Branch Park and focuses on the Bay ecosystem and pollution reduction efforts in the Bay. The site is a reclaimed junkyard and now helps to showcase how humans can improve the urban environment. Presentation can be tailored for several age groups and/or interests. Please call 2-3 weeks in advance for preparation. The tour lasts approximately 2 hours.

CURRICULUM

CONTACT: Barbara Rice
PHONE: (410) 260-8531
Email:  brice@dnr.state.md.us

This Department of Natural Resources curriculum provides teachers with activities associated with Arbor Day and is targeted to 3rd grade students. Developed in conjunction with the MSDE. All 3rd grade students in Maryland receive a free tree seedling to plant for Arbor Day.

PARKS IN YOUR BACK YARD

CONTACT: Susan Patz
PHONE: (410) 396-7931
Program is a hands-on education program to help inner-city students understand the connection between their actions and the entire Chesapeake Bay Region introducing students to the concepts of ecology and conservation and focusing on the impacts of pollution in the urban setting. Outdoor classroom learning experiences can include ecological studies focused on water, soils and living organisms; restoration projects such as plantings, land and stream cleanups; data collection in the outdoors. Programs are now in place for the Gwynns Falls Trail/Leakin Park, Carrie Murray Outdoor Education Center, Westview-Middle Branch, Cylburn Arboretum and The Conservancy.

Baltimore County Water Pollution Program

CONTACT: Jeanne Armacost
PHONE: (410) 887-4488 ext. 251

Let's Be Partners...Water Pollution: What We Can Do to Reduce and Prevent It is a Baltimore County Department of Environmental Protection and Resource Management (DEPRM) program providing a variety of innovative environmental education opportunities focusing on pollution reduction and prevention. Program materials are available at no extra charge and are easily tailored to specific needs of each group. We appreciate your attempt to organize at least 20 people for each seminar.

Career, Education and Business Directory

CONTACT: Allison Anderson
PHONE: (410) 455-6149
Email:  aanders@neors.cat.cc.md.us

Environment Maryland, published by the Environment Project at Catonsville Community College, is a listing of over 1,000 private environmental companies, state and federal offices, environmental non-profits, and educational institutions offering environmental studies.

CARRIE MURRAY OUTDOOR EDUCATION CENTER

CONTACT: Corinne Parks, Director
PHONE: (410) 396-0808
Carrie Murray Outdoor Education Center in Baltimore City is one of the largest parks of its kind in the nation. The park offers year-round educational programming. The center is a bird of prey rehabilitation center and home for permanently injured birds of prey. Reptile and amphibian displays serve as educational tools for indoor instruction. Most of the activities require hiking through some of the parks 15 miles of hiking trails, meadows, wetlands, etc.
organizations, nature centers, and state agencies and others to join as partners to improve the water quality and habitat value of the Chesapeake Bay and its tributaries. Grant requests for up to $1,000 are accepted at anytime. Contact the CBT for deadline dates for requests over $1,000. CBT favors action-oriented projects with priority given to two principal areas: volunteer efforts, such as tree and wetland plantings, and education projects that promote behavior change toward the Bay. Check out our website (www2.ari.net/home/cbt/) for our newly developed CBT Grant Application and Guidelines Form for Schools. CBT raises support through Treasore the Chesapeake license plates sales, the Line 40 Checkoff on the Maryland Income Tax form, and private donations.

CHESAPEAKE WATER ENVIRONMENT ASSOCIATION

CONTACT: Don Jacobs
PHONE: (301)206-7415
Email: djacobs@wssc.dst.md.us

The Chesapeake Water Environment Association (CWEA) offers materials, speakers and tours related to water conservation, water treatment and distribution, wastewater treatment and pollution prevention. The Water Source Book comes in versions for grades 3-5, 6-8, and 9-12. Each comprehensive guide features more than 70 hands-on activities on drinking water, wastewater treatment, surface water, and wetlands. CWEA also offers H2O -TV - The Water Environment Curriculum Program for grades 5-9. This curriculum includes a separate program for groundwater, wastewater conservation, wastewater treatment and surface water. Each program comes with a VHS video, a teacher’s guide and student guides. Nature’s Way, Too is a video tour of a local wastewater treatment plant.

CLEAN MARINA INITIATIVE

CONTACT: Donna Morrow
PHONE: 410-260-8773
Email: dmorrow@dnr.state.md.us

The Maryland Clean Marina Initiative promotes the voluntary adoption of measures to reduce pollution from marinas and recreational boats. The Clean Boating Lesson Plan may be used by any instructor wishing to educate boaters about general pollution prevention measures. Four sections devoted to petroleum control, vessel sewage, wasste containment, and vessel cleaning and maintenance. Clean Boating Tip Cards are colorful, waterproof cards that list actions that boaters can take to help protect water quality.

CRACKING THE SHELL-FISH OYSTER MYSTERY

CONTACT: Chris Judy
PHONE: 410-260-8250
Email: cjudy@dnr.state.md.us

For middle school through college classes, adult groups and clubs. Available about once per month by request. Slide shows with overheads, and samples of oyster shells, spat. Can even dissect an oyster. Offered by the Department of Natural Resources.

EARTHSIENCE INFORMATION CENTER

CONTACT: Ken Schwarz
PHONE: (410)544-5525

Information to the public on maps, aerial photos, satellite images, and fossils among others. Offered by the Maryland Geologic Survey.

ECHO HILL OUTDOOR SCHOOL

CONTACT: Betsy McCown
PHONE: (410)348-5880

Echo Hill Outdoor School was founded on the Chesapeake Bay’s Eastern Shore in 1972. The Outdoor School provides students with positive educational experiences in an outdoor setting. Four programs are available for different group sizes, experience level and purposes. A Conference Center accommodates up to 80 guests in a variety of meeting formats - from informal, small group meetings to classroom, boardroom or theater-style events.

ENVIRONMENTAL FACT SHEETS AND BROCHURES

CONTACT: Chris Plummer
PHONE: 410-631-3012
Email: cplummer@mde.state.md.us

Fact sheets and brochures are available from the Maryland Department of the Environment on air pollution, recycling, smart growth, fisheries, water quality, toxics, school recycling, asbestos, lead poisoning, seafood safety, alternative fuels, ozone pollution, watershed, sewage treatment and wetlands, among others. Many available on MDE’s website www.mde.state.md.us Call for complete list.

ENVIRONMENTAL EMERGENCIES

CONTACT: Alan Williams
PHONE: 410-333-2950
Email: dachie9@juno.com

Learn about how Maryland responds to environmental emergencies such as chemical accidents and oil spills. A member of the Maryland Department of the Environment’s emergency response team brings emergency response truck and equipment to your site and does cleanup demonstrations. Grade 2 to adult.

ESTUARINE BIO INDICATORS SEINING DEMOS

CONTACT: Margaret McGinty
PHONE: 410-260-8630
Email: mmgcinty@dnr.state.md.us

Introduces biological indicators, what they are, and what they can tell us. A demonstration of sampling techniques used by the bio-indicator program follows. Discussion on the sampling area and a recap of the overall program is next. Can handle approximately 30 students, but prefer smaller groups. Program is conducted on the shore of estuarine tributaries. Available on a limited basis with adequate notice (at least one month). Warm weather months are preferable. Can also present information in the classroom with slides. Can also conduct fish identification training for groups of 5-35 people, held indoors and with sufficient notice (one month). Offered by the Department of Natural Resources.

FISH PASSAGE PROGRAM

CONTACT: Larry Leasner
PHONE: 410-260-8250

The primary goal of the Maryland Fish Passage Program is to remove or bypass all blockages and reopen spawning runs for migratory fish wherever feasible, thereby increasing populations of targeted species to near historic levels. Program personnel are available to speak and provide a slide show, video presentation, exhibit materials, literature, and if interested, an opportunity to visit a fishway. Also, discusses the Fish Passage Program as an integral part of the Chesapeake Bay restoration effort. Available according to staff schedule. One-month notice is needed. This is a program of the Department of Natural Resources.

FORESTRY EDUCATION SEMINARS

CONTACT: Will Williams
PHONE: 301-475-8551

Seminars on a variety of topics related to forestry geared to teachers, homeowners, and landowners. Topics include creating wetlands,
urban riparian restoration and estate planning for forest landowners. Offered by the Department of Natural Resources.

**FORESTS AT SCHOOL**

**CONTACT:** Mike Grant  
**PHONE:** (410) 260-8531  
**Email:** mggrant@dnr.state.md.us

In cooperation with the County and Baltimore City Forestry Boards. Aid schools in designing, planting and maintaining a non-landscaping forest on school property and encourages teachers to use that forest for study.

**FORESTRY AWARENESS MONTH**

**CONTACT:** Dave Reinecke  
**PHONE:** (410) 673-7507  
**Email:** dreinecke@dnr.state.md.us

Held in October. Half-day field trips to the Department of Natural Resources’ Wicomico Demonstration Forest for 4th grade students in Dorchester, Worcester, Wicomico and Somerset counties. Students learn about resource management.

**GEOLOGY LECTURES**

**CONTACT:** Ken Schwarz  
**PHONE:** (410) 554-5525

Lectures for all ages upon request. Presentations on mineral resources, geology of Maryland, rocks and minerals, map making and fossils. Offered by the Maryland Geologic Survey.

**HELEN AVALYNNE TAWES GARDEN**

**CONTACT:** Amy Henry  
**PHONE:** (410) 260-8185  
**Email:** ahenry@dnr.state.md.us

The garden, located in Annapolis at the Department of Natural Resources, offers regularly scheduled environmental education programs for children and adults. Programs offered include A Walk Through Maryland, Pond Exploration and Discover Nature (a program for children ages 3-5 with a parent to explore the natural world through a seasonal cast, nature story and walk through the garden.) Garden tours are geared to the interests and educational needs of the group.

**GROUNDWATER EVERYWHERE!**

**CONTACT:** John Verrico  
**PHONE:** (410) 631-3956  
**Email:** jverrico@mde.state.md.us

Learn about groundwater, how it moves and how it can become contaminated. Demonstration of model, 30-minute presentation by a representative of the Maryland Department of the Environment. Grade 3 to adult.

**HOWARD COUNTY EDUCATION RESOURCE MATERIALS**

**CONTACT:** Betsy McMillion  
**PHONE:** (410) 313-3406

The Howard County Department of Public Works has a variety of environmental education resources available for use by teachers and community organizations. Sample topics include: water quality, pollution prevention, lawn and garden information, backyard conservation, storm water management, recycling household hazardous waste, Adopt-A-Road program, and neighborhood environmental project ideas.

**LANDFILLS TODAY**

**CONTACT:** John Verrico  
**PHONE:** (410) 631-3956  
**Email:** jverrico@mde.state.md.us

Approximately 30-minute presentation using a model to demonstrate how modern landfills differ from old style dumps. Limit of 20 for presentations. All ages.

**LEARNING TREE**

**CONTACT:** Dave Reinecke  
**PHONE:** 410-543-1950

Project Learning Tree is a six-hour training program for K-12 educators. Adult leaders are trained to use an activity guide and learning materials that use trees to teach young people about diversity, interrelationships, system, structure and scale and patterns of change.

**LIVING CLASSROOMS FOUNDATION**

**CONTACT:** Heather Burnside  
**PHONE:** (410) 685-0295

Five hour interdisciplinary shipboard programs emphasize applied learning in the environment, math, science, language arts and history. Leadership and teamwork are key objectives as students work together to raise and lower sails, travel for marine life, conduct scientific experiments and explore the commerce, natural resources, and ecosystems of the Bay. Programs are available on the Patapsco River in the Spring and various other ports in the Fall. Visit our website at www.livingclassrooms.org.

**LIVING HISTORY PROGRAMS**

**CONTACT:** Dave Jurgella  
**PHONE:** (410) 260-8173  
**Email:** djurgella@dnr.state.md.us

Field personnel of DNR’s State Forest and Parks Service are trained, clothed and equipped to present Living History programs at state forest and parks or at your school during the academic year. Children learn history from authentic characters that range from Colonial Revolutionary war times through the 1930s. Half day program costs $250.00, full day costs $350.

**MARYLAND DEPARTMENT OF THE ENVIRONMENT WEBSITE**

www.mde.state.md.us

State-wide environmental information on current news issues, business and industry permit related advice, air, waste and water education fact sheets, maps and data. Online MDE Environment, MDE’s monthly newspaper.

**MARYLAND OFFICE OF PLANNING WEBSITE**

www.mop.state.md.us

County, municipal and state information on infrastructure needs, Smart Growth progress and local government planning provides those who want to learn about planning in Maryland with updated maps, data and background information and surveys.

**MY DNR WEBSITE**

www.dnr.state.md.us/mydnr

Visit Maryland State Parks and learn about Maryland’s natural resources all online. Take the DNR challenge. Online scavenger hunt, reserve a campsite, discover how trees protect the environment and learn how people with disabilities can enjoy nature, too. Website designed specifically for kids across the state. Program is available on Mondays and Tuesdays.

**OXFORD LAB TOURS**

**CONTACT:** Keith Lockwood  
**PHONE:** (410) 226-5988

K-College. For young children the program concentrates on a touch tank and large tanks containing various Chesapeake Bay fish and other aquatic life. For older groups, Chesapeake Bay ecology is explored through beach seining and by investigating oyster reef habitats, salt marsh communities, fish anatomy and physiology. Maximum group size is 50. Programs are outside.

**PATEXENT RIVER COMMISSION RESOURCES**

**CONTACT:** Meo Curtis,  
**PHONE:** (240) 777-7711  
**CONTACT:** Susan Overstreet,  
**PHONE:** (410) 313-2393  
**Email:** meocositis.curtis@co.mo.md.us

The Patuxent River Commission is creating a database listing environmental outreach organizations and stewardship activities in the Patuxent River Watershed. Organizations that are listed include programs on lawn care, volunteer stream monitoring, forest preservation and more. The database is available through schools, libraries and local environmental agencies. Will be a useful resource!

**PATEXENT RIVER NAVAL AIR STATION OUTREACH**

**CONTACT:** Joan Hinson  
**PHONE:** (301) 757-4814

Environmental professionals from the Patuxent River Naval Air Station in St. Mary’s County offer on-station or off-station environmental education programs on the Chesapeake Bay, erosion control, the water cycle, recycling, habitat, and forestry, just to name a few. Programs can be 20 to 30 minute discussions with hands-on activities, or daylong field trips tailored to teachers’ instructional needs. Presentations available to schools and groups in St. Mary’s, Calvert and Charles counties.

**PICKERING CREEK ENVIRONMENTAL EDUCATION CENTER**

**CONTACT:** Gia Marie Ristvey  
**PHONE:** (410) 822-4903  
**Email:** gristvey@pickeringcreek.org

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A sanctuary of the Chesapeake Audubon Society, Pickering Creek serves students on both sides of the Bay Bridge. Located on a 400-acre working tidewater farm near Easton, the site includes 100 acres of mature hardwood forests, tidal and non tidal wetlands, a mile of shoreline on a deep-water creek, a large children’s Imagination Garden and organic demonstration plots. The education program for pre-K to Grade 12 students includes field trips to the center, in-school visits, agriculture education and outdoor education program including a low ropes confidence building course. Evening and weekend programs are available as well as teacher training.

**Contact:**
Email: ctowle@dnr.state.md.us

A cooperative project between the Department of Natural Resources and the Outdoor Education Program of Anne Arundel County. For grades 4-8. Activity guide examines the issues of electric power generation in Maryland. This includes how and where electricity is produced, its transmission, and environmental impacts and energy conservation at home and in the school. Activities use a variety of teacher/learning strategies: small group cooperative learning, individual tasks, reading, lab investigations, mapping and models.

**Project Wild**

**Contact:** Cindy Grove
Email: cgrove@dnr.state.md.us

Project WILD is an interdisciplinary conservation and environmental education program emphasizing wildlife. The program is designed for educators of kindergarten through twelfth grade, and can be adapted for college/adult groups. Project WILD capitalizes on the natural interest that children and adults have in wildlife by providing hands-on activities that enhance learning in all subject and skill areas. Project WILD educational materials are provided to educators through practical, interactive, fun workshops.

**Recycle, Recycle**

**Contact:** John Verrico
Email: jverrico@md.dnr.state.md.us

A presentation by the Maryland Department of the Environment for kindergarten through Grade 5 on the importance of recycling and being careful about household hazardous waste.

**Upper Patuxent Curriculum from WSSC**

**Contact:** Pearl Lauffer, WSSC
Email: (301) 206-8100

The Upper Patuxent Curriculum: Our Water, Our Land, Our Community is a guide produced by the Washington Suburban Sanitary Commission and Maryland Save Our Streams. The multi-disciplinary middle school curriculum has ten units that includes lessons on the history, geology and soils of the Patuxent Watershed as well as water quality testing. The curriculum includes MSPSP outcomes, estimated times for each lesson, objectives and materials needed.

**Scalés and Tales**

**Contact:** Steve McCoy
Email: smccoy@dnr.state.md.us

Live animal demonstrations for all ages and locations, from state parks to classrooms to special events. Joint venture with the Maryland Department of Natural Resources and the Maryland Parks Foundation. Designed to develop appreciation for Maryland’s wildlife and the relationship between humans, wildlife and the habitat they share. Fee for program.

**Waste to Energy Facility Tours**

**Contact:** Dana Limpert
Email: dlimpert@dnr.state.md.us

“Wild Acres” provides information on creating habitat for wildlife in backyards. Interested participants can certify their backyards and receive the quarterly newsletter “Hubichat.” Offered by DNR to all ages.

**Upper Patuxent Curriculum from WSSC**

**Contact:** Ben Sanderson
Email: (301) 842-2155

Visitor Center on I-68 in Western Maryland with exhibits about millions of years of Maryland’s geological history, early transportation routes, and modern tools of the geologist’s trade.

**Sideling Hill Visitor Center**

**Contact:** Terry Galloway
Email: tgaloway@dnr.state.md.us

One-day workshop by the Department of Natural Resources in the spring and the fall to teach volunteers how to plant and maintain seedlings and saplings.

**Reforestation Wildlife Habitat Program - Baltimore County**

**Contact:** Robert Prangen
Email: (410) 665-5820 or 5991

The focus of this program is the execution of various tree and shrub planting projects, wildlife habitat enhancement and other conservation activities. The program provides a hands-on, problem solving activity for students to research, plan, develop, implement, maintain, and provide follow-up for developing a forest stewardship plan, collecting data and writing final reports.

**Recycling - Montgomery County**

**Contact:**
Phone: (301) 590-2818
Email: mrc@windsor.net

The Montgomery County Master Recycler/Composter Program offers recycling center tours where visitors can learn about recycling and reducing waste, how recyclables are sorted and what they become. To arrange a free tour call the Recycling Hotline at (301) 590-0046. The program also publishes The Recycler, a free monthly publication and has speakers available. Visit www.dpwt.com (select the solid waste services menu option)

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**BRESCO Waste-to-Energy Facility**

1801 Annapolis Road
Baltimore, Maryland 21230
Contact: Cyndi Hickman.
410-234-0808
Age: 8 years old and up

**Harford County Waste to Energy Facility**

1 Magnolia Road
Joppa, Maryland 21086
Contact: Bob Bradley
410-679-6200
Age: Middle School and above

**Baltimore City Compost Facility**

5800 Quarantine Road
Baltimore, MD 21226
Contact: Preston Cloke
410-354-1636
Age: Middle School and above

**Montgomery County Waste-to-Energy Facility**

21204 Martinsburg Road
Dickerson, MD 20842
Contact: Brad Crispell
(301) 916-3031
Age: Middle School and above

**Weinberg Education Center**

**Contact:**
Phone: (410) 685-0295,
Email: heatherb@livingclassrooms.org

This land based facility located on the Patapsco River in Falls Point, MD offers a variety of environmental educational opportunities. Starting with the Environmental Connections Program students use the labs to explore connections between the three most important elements of our ecosystem- air, water and land. An interactive mystery, Who Killed Rocky Rockfish, has students investigating the importance of the Chesapeake Bay oyster and its environment. For more information on these programs please visit our website, www.livingclassrooms.org