

2015 DELAWARE ESTUARY WATER EDUCATION RESOURCE GUIDE

A directory for educators that
lists materials and programs available
through local non-profit organizations and
governmental agencies on topics
relating to water resources.

FIFTH EDITION

About The Delaware Estuary

All of us are connected to the Delaware Estuary, whether we live in Philadelphia, far upstream in Hancock, New York, or right on the Bay at Cape May, New Jersey, or Lewes, Delaware.

Estuaries are areas partially surrounded by land where rivers meet the sea. They are characterized by varying degrees of salinity and complex water movements affected by ocean tides and river currents. Estuaries are living places hosting more wildlife births than any other ecosystem in the world, with a wide range of habitats for many different species of plants and animals. These nurseries are not only vital to animal populations, but also to the human population that relies upon them for drinking water, industry, food production, and recreation. Estuaries are lined with vital wetlands that strain stormwater runoff from the land, absorbing a great deal of pollution from the water before it meets with rivers and bays.



A **watershed** is an area of land from which water above and below ground drains to a river or other body of water. The water that flows over the land's surface, usually from rain and snow, is called **runoff**. There are small watersheds, which receive runoff from a few acres into a creek, and large watersheds, which drain larger areas of land into a river. A large watershed is made up of many smaller watersheds, just as many small tributaries feed a large river. The Delaware River is fed by 216 tributaries and drains 13,539 square miles, including parts of New York, Pennsylvania, New Jersey and Delaware. Millions of people live within this large watershed, all of whom have an impact upon water quality each and every day.

The Delaware Estuary stretches from Trenton, New Jersey, and Morrisville, Pennsylvania, south to Cape May, New Jersey, and Cape Henlopen, Delaware, including all of the Delaware Bay and the tidal reaches of the Delaware River. A majority of the Estuary's five million people live in one of the regions three largest cities, including Philadelphia, Camden, New Jersey, and Wilmington, Delaware. This highly commercialized area hosts the largest freshwater port in the world, accommodates the second-largest petrochemical port, and is home to five of the largest East Coast refineries, with over 42 million gallons of crude being transported on the Delaware River every day.





However, the Estuary is also a vital ecosystem, creating habitat for more than 130 species of finfish, as well as clams, oysters, and crabs. The second largest concentration of migrating shorebirds in the Western Hemisphere is found in the Estuary, along with habitat for 15 different species of waterfowl, which total more than half-a-million individuals who either migrate through or spend the winter here. Also found in the Delaware Estuary is the largest population of spawning horseshoe crabs in the world.

The Delaware Estuary faces many environmental challenges. Thus, it is vitally important for ecology and industry to continually work together to protect the Delaware Estuary: a precious resource that means so much to so many. It's also essential for educators like you to share the message of the estuary and help connect students with our natural resources. Our hope is that this guide helps you identify key community partners that can help bring the estuary to life in your classroom.



About the Partnership for the Delaware Estuary

The Partnership for the Delaware Estuary (PDE) is a regional nonprofit established in 1996. Its mission is to lead science-based and collaborative efforts to improve the tidal Delaware River and Bay, which spans Delaware, New Jersey, and Pennsylvania. The PDE is one of 28 National Estuary Programs designated by Congress. These exist throughout the coastal United States to improve the health of estuaries. Its staff works with many partners to increase awareness, understanding, and scientific knowledge about the Delaware Estuary.



Delaware Estuary Water Education Programs at a Glance

Full descriptions of programs can be found under each organization's listing. Organizations are sorted alphabetically by state, with Delaware beginning on page 11, New Jersey beginning on page 33 and Pennsylvania beginning on page 54.

Program Opportunities



Speakers/Classroom Presentations



Field Trips



Onsite Projects/Installations for Schools



Wildlife Encounters



Teacher Professional Development



Curriculum/Lessons



Envirothon Participation



Volunteer/Internship Opportunities

		Preschool	Elementary	Middle School	High School	College & Adult	Program Opportunities
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P. 12	Alapocas Run and Wilmington State Parks						
P. 12	Artesian Water						
P. 13	Ashland Nature Center						
P. 14	Bellevue State Park						
P. 15	Bombay Hook National Wildlife Refuge						
P. 16	Brandywine Zoo						
P. 17	DE Aquatic Resources Education Center						
P. 18	Delaware Center for Horticulture						
P. 19	Delaware Forest Service						
P. 20	DE National Estuarine Research Reserve						
P. 21	Delaware Nature Society						
P. 22	Delaware Sea Grant / University of DE						
P. 23	Delaware Seashore State Park						
P. 23	Delaware State Parks						
P. 24	DNREC, Division of Water						
P. 25	DuPont Nature Center at Mispillion						
P. 25	The Kalmar Nyckel Foundation						
P. 26	Killens Pond State Park						
P. 27	Lewes Historical Society						
P. 28	New Castle Conservation District						
P. 29	Partnership for the Delaware Estuary						
P. 30	Prime Hook National Wildlife Refuge						

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		Preschool	Elementary	Middle School	High School	College & Adult	Program Opportunities
P. 31	Trap Pond State Park						
P. 31	Tri-State Bird Rescue & Research, Inc.						
P. 32	White Clay Creek State Park						
P. 33	Association of NJ Environmental Commissions						
P. 33	Bayshore Center at Bivalve						
P. 34	Camden Children's Garden						
P. 35	Center for Aquatic Sciences						
P. 36	Citizens United to Protect the Maurice River						
P. 36	Delaware River and Bay Authority						
P. 37	Delaware River Basin Commission						
P. 38	Delaware River Steamboat Floating Classroom						
P. 39	Friends for the Abbott Marshlands						
P. 40	Great Swamp Outdoor Education Center						
P. 41	Haskin Shellfish Research Laboratory						
P. 42	Jacques Cousteau National Estuarine Reserve						
P. 43	Marine Mammal Stranding Center						
P. 44	Musconetcong Watershed Association						
P. 45	Natural Lands Trust — NJ Preserve System						
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P. 47	NJ Audubon's Nature Center of Cape May						
P. 48	New Jersey Conservation Foundation						
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Delaware Estuary Water Education Programs at a Glance

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Field Trips



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Envirothon Participation



Volunteer/Internship Opportunities

		Preschool	Elementary	Middle School	High School	College & Adult	Program Opportunities									
P. 52	Watchdogs of the Watersheds, ft. Turtle Lady															
P. 53	The Wetlands Institute															
P. 54	Azavea															
P. 55	Berks Conservancy															
P. 55	Berks County Conservation District															
P. 56	Brandywine Conservancy															
P. 57	Brandywine Valley and Red Clay Valley Assoc.															
P. 58	Briar Bush Nature Center															
P. 58	Bucks County Audubon Society															
P. 59	Carbon County Environmental Ed. Center															
P. 60	Delaware River City Corporation															
P. 61	Delaware Riverkeeper Network															
P. 62	Destination Schuylkill River															
P. 63	Eastern PA Coalition for Abandoned Mine															
P. 64	Fairmount Water Works															
P. 65	Friends of the Wissahickon															
P. 66	GreenTreks Network/EcoExpress															
P. 67	Green Valleys Watershed Association															
P. 68	Heritage Conservancy															
P. 69	Independence Seaport Museum															
P. 70	John James Audubon Center at Mill Grove															
P. 71	Lehigh County Conservation District															
P. 72	Monroe County Conservation District															
P. 73	Montgomery County Conservation District															

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Field Trips



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Teacher Professional Development



Curriculum/Lessons



Envirothon Participation





















































































































































Volunteer/Internship Opportunities

		Preschool	Elementary	Middle School	High School	College & Adult	Program Opportunities									
P. 74	Montgomery County Green Lane Park															
P. 75	Morris Arboretum															
P. 76	Natural Lands Trust, Mariton Wildlife Sanctuary															
P. 76	Nurture Nature Center															
P. 77	Peace Valley Nature Center															
P. 78	PA Association of Conservation Districts															
P. 79	PA DEP, Bureau of Conservation and Restoration															
P. 79	PA DEP Coastal Resources Management															
P. 80	PA DEP Environmental Education Office															
P. 81	Perkiomen Watershed Conservancy															
P. 82	Philadelphia Water															
P. 83	Physicians for Social Responsibility															
P. 84	Riverbend Environmental Education Center															
P. 85	Schuylkill Action Network															
P. 86	Schuylkill Center for Environmental Education															
P. 87	Schuylkill Headwaters Association, Inc.															
P. 88	Schuylkill River Heritage Area															
P. 89	Silver Lake Nature Center															
P. 90	Stroud Water Research Center															
P. 91	Tidewaters Gateway Partnership, Inc.															
P. 91	Tookany/Tacony-Frankford Watershed Partnership															
P. 92	USFWS John Heinz National Wildlife Refuge															
P. 93	White Clay Creek Wild and Scenic River Program															
P. 93	Wissahickon Environmental Center															

Delaware Estuary Water Education Topics at a Glance























































































































































Below is a list of organizations that offer programs or materials for the following environmental-related education topics.

		Student Environmental Leadership	Stormwater	Water Quality	Watersheds	Wetlands	Marine/Coasts	Wildlife Ecology	Natural History
P. 11	Abbott's Mill Nature Center								
P. 12	Alapocas Run and Wilmington State Parks								
P. 12	Artesian Water								
P. 13	Ashland Nature Center								
P. 14	Bellevue State Park								
P. 15	Bombay Hook National Wildlife Refuge								
P. 16	Brandywine Zoo								
P. 17	DE Aquatic Resources Education Center								
P. 18	Delaware Center for Horticulture								
P. 19	Delaware Forest Service								
P. 20	DE National Estuarine Research Reserve								
P. 21	Delaware Nature Society								
P. 22	Delaware Sea Grant / University of DE								
P. 23	Delaware Seashore State Park								
P. 23	Delaware State Parks								
P. 24	DNREC, Division of Water								
P. 25	DuPont Nature Center at Mispillion								
P. 25	The Kalmar Nyckel Foundation								
P. 26	Killens Pond State Park								
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P. 28	New Castle Conservation District								
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P. 34	Camden Children's Garden								
P. 35	Center for Aquatic Sciences								
P. 36	Citizens United to Protect the Maurice River								

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P. 37	Delaware River Basin Commission								
P. 38	Delaware River Steamboat Floating Classroom								
P. 39	Friends for the Abbott Marshlands								
P. 40	Great Swamp Outdoor Education Center								
P. 41	Haskin Shellfish Research Laboratory								
P. 42	Jacques Cousteau National Estuarine Reserve								
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P. 48	New Jersey Conservation Foundation								
P. 49	New Jersey Division of Fish and Wildlife								
P. 50	New Jersey Sea Grant Consortium								
P. 51	Tulpehaking Nature Center								
P. 52	Watchdogs of the Watersheds, ft. Turtle Lady								
P. 53	The Wetlands Institute								
P. 54	Azavea								
P. 55	Berks Conservancy								
P. 55	Berks County Conservation District								
P. 56	Brandywine Conservancy								
P. 57	Brandywine Valley and Red Clay Valley Assoc.								
P. 58	Briar Bush Nature Center								
P. 58	Bucks County Audubon Society								
P. 59	Carbon County Environmental Ed. Center								
P. 60	Delaware River City Corporation								
P. 61	Delaware Riverkeeper Network								
P. 62	Destination Schuylkill River								
P. 63	Eastern PA Coalition for Abandoned Mine								
P. 64	Fairmount Water Works								
P. 65	Friends of the Wissahickon								

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P. 66	Green Valleys Watershed Association								
P. 68	Heritage Conservancy								
P. 69	Independence Seaport Museum								
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P. 72	Monroe County Conservation District								
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P. 93	White Clay Creek Wild and Scenic River Program								
P. 93	Wissahickon Environmental Center								

DELAWARE

Abbott's Mill Nature Center

15411 Abbot's Pond Road
Milford, DE 19963
www.delawarenaturesociety.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History

Organization Description:

Abbott's Mill Nature Center is part of the 313-acre Milford Millponds Nature Preserve along two tributaries of the Mispillion River. Abbott's Mill maintains miles of hiking trails, an interpretive center featuring live animals and taxidermy displays, an historic gristmill, and diverse habitats to explore. The Nature Center provides year-round education programming for schools, scouts, and the public and is operated by Delaware Nature Society, a private nonprofit membership organization that connects people with the natural world to improve our environment through education, advocacy and conservation.

Programs Offered:

Abbott's Mill Nature Center offers guided programs for schools/groups of all ages (\$4.00-\$7.00 per student), including; Around the Pond, Canoeing on Abbott's Pond, Exploring by Canoe, Fantastic Fish, Pond Diversity by Canoe, Pond Ecology, Pond Study, Pondering the Pond, Stream Ecology, Stream Study, and many more. Nature Center staff also deliver lessons at Slaughter Beach and Delaware Nature Society's Marvel Saltmarsh Preserve, including; Beach Discovery, Beach Ecology, and Seashore and Saltmarsh. Abbott's Mill offers week-long summer camps, seasonal activities for adults, children and families, and professional development training (fees vary, some opportunities free). There are also volunteer opportunities for individuals and groups such as Stream Adoption, Technical Monitoring, Certified Wildlife Habitat, advocacy support (see Delaware Nature Society listing in this guide) and more. See website for more details about these or other program and activity offerings.

Materials Available:

- DVD: "Protecting Our Water: Who's got the power?"
- Books for sale: Delaware's Freshwater and Brackish-Water Fishes: a Popular Account, Amphibians and Reptiles of Delmarva, Red Knot: A Shorebirds Incredible Journey.
- Trail Maps, Flora and Fauna Checklists, book and video library available to teachers and Delaware Nature Society members.
- DNS program guides for schools, groups and individuals/families (free)

Additional Information:

Ashland Nature Center and the DuPont Environmental Education Center have separate listings in this guide. Information about all DNS sites can be viewed on the web at www.delawarenaturesociety.org.

Contact: Matthew Babbitt, Manager

Email: Matt@delawarenaturesociety.org

Phone: (302) 422-0847

Alapocas Run and Wilmington State Parks

1021 W. 18th Street
Wilmington, DE 19802
www.destateparks.com



Audience: Preschool – Middle School

Environmental Topics: Water Quality, Watersheds, Cultural History Influenced By Water

Organization Description:

Find recreation, education, and sports and community events right in the heart of Wilmington. Connected by trails, these parks are the perfect place to relax, hike, picnic, or just enjoy the beauty of the Brandywine River.

Programs Offered:

Alapocas Run and Wilmington State Parks offer educational programs both in our parks and at your school. Programs range in age from pre-school through middle school and include multi-curricular topics related to the Brandywine Creek and its natural and cultural development.

Contact: Liz Androskaut, Programs Manager

Email: Elizabeth.Androskaut@state.de.us

Phone: (302) 577-7020

Artesian Water

664 Churchmans Road
Newark, DE 19702
www.artesianwater.com



Audience: Elementary – High School

Environmental Topics: Water Quality, Watersheds, Water Conservation

Organization Description:

Artesian Resources Corporation operates as the holding company of eight wholly-owned subsidiaries offering water, wastewater and engineering services. Artesian Water Company, the principal subsidiary, is the oldest and largest investor owned public water utility on the Delmarva Peninsula, and has been providing water service since 1905. We are an EPA WaterSense partner.

Programs Offered:

Since 1992, our fourth-grade “Water Conservation and Education Program” has been available to schools free of charge. Artesian also offers speakers for groups on a variety of water-related topics, tours of water and wastewater treatment plants, and our water education and conservation booth can be set up for community and environmental events. There is no charge for these programs.

Materials Available:

A variety of free handouts on water-related and conservation topics are available upon request. Handouts include water conservation stickers, rulers, leak detector tablets, sponges, conservation tips, EPA’s WaterSense materials, etc.

Contact: Joanne C. Rufft

Email: jrufft@artesianwater.com

Phone: (302) 453-7144

Ashland Nature Center

3511 Barley Mill Road
Hockessin, DE 19707
www.delawarenaturesociety.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

Located in northern New Castle County, Ashland Nature Center sits on 130 acres of woods, meadows, and marsh. The site is open to the public year-round and features walking/hiking trails, picnicking, a Butterfly House, replica Lenni Lenape longhouses, and an overnight lodge for schools/groups. Ashland Nature Center is headquarters for Delaware Nature Society, a private nonprofit membership organization that connects people with the natural world to improve our environment through education, advocacy and conservation.

Programs Offered:

Guided field trip and classroom based programs for schools/groups (\$6.00 per student unless noted otherwise): Aquatic Habitats, Exploring by Canoe (\$20/student), Marsh Magic, Pond Ecology, Pond Life, Stream Ecology, Stream Investigation Classroom presentation, Stream Life, Water Cycling, Watersheds & Stream Quality (\$7/student), and many more. Overnight facilities that accommodate up to 72 people. Week-long summer camp and science enrichment programs including 'Freshwater Aquatic Biology' for students entering grades 6&7 (fees vary). Seasonal activities for adults, children and families: guided programs at Ashland Nature Center and naturalist-led trips throughout the region and the world (fees vary, some opportunities free). Naturalist Certification series and professional development training (fees vary). Volunteer opportunities: Stream Adoption, Technical Monitoring, Certified Wildlife Habitat, advocacy support (see Delaware Nature Society listing in this guide) and more.

See website for more details about these or other program and activity offerings.

Materials Available:

- DVD: "Protecting Our Water: Who's got the power?"
- Books for sale: Delaware's Freshwater and Brackish-Water Fishes: a Popular Account, Amphibians and Reptiles of Delmarva, Red Knot: A Shorebirds Incredible Journey.
- DNS program guides for schools, groups and individuals/families (free)
- Resource guides

Additional Information:

Abbott's Mill Nature Center and the DuPont Environmental Education Center have separate listings in this guide. Information about all DNS sites can be viewed on the web at www.delawarenaturesociety.org.

Contact: Joe Sebastiani, Manager

Email: joe@delawarenaturesociety.org **Phone:** (302) 239-2334, ext. 115

Bellevue State Park

800 Carr Road

Wilmington, DE 19809

www.destateparks.com/park/bellevue/index.asp



Audience: Preschool – Elementary

Environmental Topics: Water Quality, Wildlife Ecology, Natural History

Organization Description:

Bellevue State Park has 323 acres with many amenities, a 1 1/8 mile fitness and walking track, the Delaware Greenway, picnic areas and pavilions, a catch and release fishing pond, equestrian stables, tennis center, community gardens, historic homes and barns. There is a very popular summer concert series and fall hayrides at this historic DuPont estate.

Programs Offered:

Programs are available for preschool through grade 5. All lessons align to state standards. Programs include trees, organisms, life cycles, ecosystems, soil and water based programs.

Contact: Claire Mickletz

Email: Claire.Mickletz@state.de.us

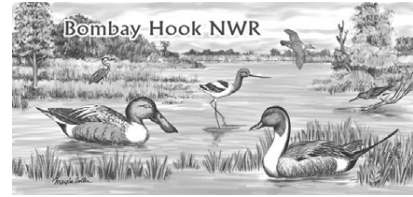
Phone: (302) 761-6963

Bombay Hook National Wildlife Refuge

2591 Whitehall Neck Road

Smyrna, DE 19977

<http://bombayhook.fws.gov>



Audience: Elementary – College and Adult

Environmental Topics: Water Quality, Wetlands, Wildlife Ecology, Natural History, Wildlife and Habitat Conservation

Organization Description:

The primary mission of Bombay Hook National Wildlife Refuge is to provide resting and feeding habitat for migratory bird species, while also maximizing habitat for resident birds, all other wildlife, and plant life. Our programs educate about wildlife, habitat conservation, and the National Wildlife System.

Programs Offered:

Bombay Hook offers hands-on nature studies for grades one through twelve, allowing students to experience the several habitats on the refuge – from tidal salt marsh to freshwater impoundments, upland fields, and forests. These programs are free to schools.

- Wildlife Tour of the Refuge: Tour includes description of management techniques used to enhance habitats, description of various habitats, history of the refuge, and identification of birds and other wildlife found on the refuge. Available for Grades 1-12. Refuge guide or teacher guided tour.
- Nature Walks: A total of five trails (three leading to observation towers) range from one quarter to one mile in length and emphasize wetland values, habitat distinctions, and wildlife identification. Available for Grades 1-12. Refuge guide or teacher guided walk.
- Habitat Studies: Four habitat studies are available for Grades 3-12 (water quality studies limited to Grades 5-12). These studies identify specimens found in these habitats and define the characteristics of each habitat. Groups can select from the following habitats: Freshwater, Brackish and Salt Marsh, Bay, and Forest.

Materials Available:

- Brochures and Lesson Plans
- Bombay Hook NWR General Brochure
- Bombay Hook NWR Bird List
- Bombay Hook NWR Auto Tour Brochure
- Boardwalk Trail Brochure
- Parson Point Trail Brochure
- Bear Swamp Trail Brochure
- Civilian Conservation Corps History
- Lesson Plan 1: Freshwater Investigation
- Lesson Plan 2: Salt Marsh Investigation
- Lesson Plan 3: Delaware Bay Investigation
- Lesson Plan 4: Forest Investigation

Contact: Tina Watson, Outdoor Recreation Planner

Email: tina_watson@fws.gov **Phone:** (302) 653-6872

Brandywine Zoo

1001 North Park Drive
Wilmington, DE 19802
www.BrandywineZoo.org



Audience: All Ages

Environmental Topics: Wildlife Ecology, Natural History, Conservation and Sustainability

Organization Description:

Delaware's only zoo, the Brandywine Zoo is located in downtown Wilmington, in Brandywine Park. Offering a variety of formal and informal learning opportunities throughout the year, from school tours and off-site outreach, to on-site family programs, youth workshops, scout programs and summer camps all focusing on wildlife, conservation, natural history and science. The Zoo features animals from around the world, from our Andean condors to our Amur tiger, in a small, learner-friendly setting.

Programs Offered:

- Discovery Tours are available year-round, and vary in format and topic. Programs range from Pre-K & K storybook programs to our STEM based, Animal Behavior Studies for middle and high-schoolers, which focus on teaching math and research skills through animal observations. Tour fee per person ranges from \$6-\$9/person, depending on the program, and includes Zoo admission.
- Traveling Zoo Programs are available year-round, and offer similar programming to our Discovery Tours formatted for your classroom or site. Traveling Zoo outreach programs range from \$175-400 per program, plus travel fees.
- Zoo Camps are offered in the summer and on school breaks, such as holidays and spring break. They range from ages 5-13, with new animal or nature-based themes each week. Mini and full day camps are available, and range in fee from \$120-300/week.

Materials Available:

Lesson plans which complement our Zoo programs are available on our website, and teacher loan kits, including our 'Suitcase for Survival,' are available for check-out.

Contact: Jacque Williamson, Curator of Education

Email: DNREC_Parks_ZooPrograms@state.de.us

Phone: (302) 571-7850

Delaware Aquatic Resources Education Center

4876 Hay Point Landing Road

Smyrna, DE 19977

[http://www.dnrec.delaware.gov/fw/Education/Pages/](http://www.dnrec.delaware.gov/fw/Education/Pages/Aquatic-Resources-Education-Center.aspx)

[Aquatic-Resources-Education-Center.aspx](http://www.dnrec.delaware.gov/fw/Education/Pages/Aquatic-Resources-Education-Center.aspx)



Audience: Elementary – College and Adult

Environmental Topics: Water Quality, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History, Horseshoe Crab/Shorebird Connection

Organization Description:

The Delaware Aquatic Resources Education (ARE) Center is located along upper Delaware Bay marshlands within the Woodland Beach Wildlife Area. It offers day and overnight meeting facilities via its rustic Mallard Lodge accommodations. On site amenities include a 940-foot saltmarsh boardwalk, pavilion, bird watching tower, catch & release fishing ponds, and access to a variety of Delaware Bay wetland habitats. Canoes, fishing tackle, sampling equipment, interpretive guides, and various activity kits are available to visiting groups.

Programs Offered:

Programs available through the Aquatic Resources Education Center (AREC) include: *Eco-Explorers* (salt marsh ecology) field trips for Delaware school groups at the fifth grade level (ARE-staff-facilitated to qualifying groups by reservation each fall and spring); *Take a Kid Fishing* programs at the AREC and selected freshwater pond venues around the state (for ages 6 and above, at various pre-scheduled times during spring and summer); *Leader Led* overnight wetland education-focused field experiences for various groups (upon completion of group leader training and via modest - \$50/day + \$50/night – rental fees for use of the Mallard Lodge facility); and horseshoe crab observation and learning experiences at nearby Delaware Bay beach locations (by request each May and June, pending staff availability, and with preference to visiting Lodge school groups). Access to AREC walking trails, salt marsh interpretive boardwalk loop, and other outdoor amenities is available to visitors year-round at no charge.

Materials Available:

ARE offers numerous resources for teachers, youth leaders and other educators. In-service workshops are a vehicle for access to major resources, including the award-winning *Green Eggs & Sand* (horseshoe crab-shorebird education) curriculum, use of *Wetland Activities for Delaware Educators* (WADE) interactive loan kits, and lesson plans for >50 activity kits available to Mallard Lodge groups. Additional resources, such as *Fun with Fishing* booklets for youth and *Wetland Restoration Guidebooks for Delaware Landowners* are also available.

Additional Information:

Volunteers are welcome and needed for sustaining many of these programs, especially *Take a Kid Fishing* and *Eco-Explorers*. Aside from modest fees for use of ARE facilities and certain workshop expenses, all educational materials and programs provided through the AREC are offered free of charge through grants from the U.S. Fish and Wildlife Service's Federal Aid in Sport Fish Restoration Program.

Contact: Gary Kreamer

Email: (302) 735-8665 **Phone:** Gary.Kreamer@state.de.us

Delaware Center for Horticulture

1810 N. DuPont Street
Wilmington, DE 19806
www.theDCH.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership

Organization Description:

We're a non-profit community resource organization dedicated to promoting knowledge and appreciation of gardening, horticulture, and conservation. DCH's two community program areas—Educational Programs and Greening Initiatives—focus on the greening of our urban environment and include educational programs for children, teens, and adults. Our work includes community gardens, public landscaping, roadside beautification, tree programs, and community events.

Programs Offered:

- Horticultural and Environmental Leadership Program (HELP): Environmental leadership program for middle school students. Participants earn a stipend while learning about environmental stewardship, urban agriculture, farming, and more. Fieldtrips, environmental service learning projects, and time on farm during two 3-week summer sessions.
- Urban Agriculture Education: Programs involving students of all ages in urban agriculture on our 12th and Brandywine urban farm. Programs can be tailored to fit the needs/interests of your organization.
- School Garden Assistance: School vegetable garden assistance through Healthy Foods for Healthy Kids, Inc.

Contact: Jeff Long, Farm and Community Based Education Coordinator

Email: jlong@theDCH.org **Phone:** (302) 658-6262 x. 124

Delaware Forest Service

2320 South Dupont Highway
Dover, DE 19901
www.delawaretrees.com



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Water Quality, Wildlife Ecology, Natural History

Organization Description:

The Delaware Forest Service manages two education centers located at Blackbird State Forest (New Castle County) and Redden State Forest (Sussex County). The education centers focus on the forest industry in Delaware and forest ecology. The education centers are open by appointments and programs are offered at no cost. The Forest Service also coordinates the annual Smokey Bear Fire Prevention Program and the Arbor Day Poster Contest.

Programs Offered:

Programs can be tailored to fit grade level and science units.

Materials Available:

Contact Ashley Peebles directly for more information about teacher professional development with Project Learning Tree (PLT). An environmental education curriculum for K-12 teachers developed to help teachers incorporate the environment into the classroom and get the classroom out into the environment.

www.plt.org

Contact: Ashley Peebles, Education Coordinator

Email: Ashley.Peebles@state.de.us **Phone:** (302) 698-4551

Delaware National Estuarine Research Reserve

818 Kitts Hummock Road
Dover, DE 19901
<http://de.gov/dnerr>



Audience: All Ages

Environmental Topics: Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology

Organization Description:

The Delaware National Estuarine Research Reserve (DNERR) is one of 28 National Estuarine Research Reserves across the country whose goal is to establish, protect, and manage natural estuarine habitats for research, education, and coastal stewardship. Established in 1993, it's a cooperative program between the State of Delaware and the National Oceanic and Atmospheric Administration. The DNERR has two main components, the Blackbird Creek Reserve in Townsend, DE, and the St. Jones Reserve in Dover, DE.

Programs Offered:

Are you looking for a fun and innovative way to connect your students to their science curriculum? Then the Delaware National Estuarine Research Reserve is the place for you!

We provide engaging, science based, hands-on learning experiences at both the St. Jones Reserve (Dover, DE) and the Blackbird Creek Reserve (Townsend, DE) for students aged K-16. Program topics include: watersheds, ecosystems, land and water, wetlands, organisms (fish, horseshoe crabs, shorebirds, mammals, etc.), and water quality and pollution. If you are interested in a topic that is not listed above, or you are unable to travel to us but still want a presentation, contact us and we will be happy to design a program that suites your needs.

All field trips and classroom visits are **FREE** and are scheduled on Tuesdays and Wednesday, September -June between 9 a.m. and 3 p.m. Contact our education coordinator today to schedule your students' estuary experience!

Materials Available:

The Reserve offers teacher professional development trainings throughout the year. Some of the most popular trainings include: Green Eggs and Sand, Project WET, and Teachers on the Estuary Trainings (TOTE). To learn more about these trainings visit our website. <http://www.dnrec.delaware.gov/coastal/DNERR/Pages/DNERRTeacherDevelopment.aspx>

In addition to workshops we offer educational materials and curriculum for teachers to use in their classrooms. Contact our education coordinator today for more information.

Additional Information:

In addition to the resources the Reserve offers there are resources and curriculum available from the entire NERR system at: <http://www.nerrs.noaa.gov/Education.aspx>

Contact: Maggie Pletta, Education Coordinator and Kimberly Cole, Reserve Manager

Email: Margaret.Pletta@state.de.us; Kimberly.Cole@state.de.us

Phone: (302) 739-6377

Delaware Nature Society

3511 Barley Mill Road
Hockessin, DE 19707
www.delwarenaturesociety.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History

Organization Description:

Delaware Nature Society connects people with the natural world to improve our environment through education, advocacy and conservation. Delaware Nature Society operates four educational centers including Ashland Nature Center (Hockessin), Abbott's Mill Nature Center (Milford) Coverdale Farm Preserve (Greenville) and the DuPont Environmental Education Center (Wilmington). Renowned for its educational programming and advocacy, Delaware Nature Society provides communities with the tools necessary to take action and protect the environment through land preservation and watershed stewardship.

Programs Offered:

- Stream Adoption: Volunteers in the Stream Adoption Program are concerned individuals, families, community organizations, businesses, youth groups, and school groups helping monitor the health of our streams. By adopting a waterway, volunteers make a commitment to survey, learn about, and care for that stream.
- Technical Monitoring: Established to supplement the State's monitoring efforts, volunteers in our Technical Monitoring Program monitor assigned sites on a monthly basis. Quality control is ensured through additional procedures.
- Certified Wildlife Habitat: Whether you have only a balcony or acres of land, you can help to make a difference for wildlife and water. The Certified Wildlife Habitat™ program, conducted through a partnership between the Delaware Nature Society and the National Wildlife Federation, provides official recognition for properties that meet five criteria necessary for wildlife: food, water, cover, places for wildlife to raise young, and wildlife-friendly landscaping practices.

Also other activities and opportunities.

Materials Available:

- Guided programs for individuals, families, schools and groups offered through our education centers; Ashland Nature Center (Hockessin), Abbott's Mill Nature Center (Milford) Coverdale Farm Preserve (Greenville) and the DuPont Environmental Education Center (Wilmington).
- Professional training
- Volunteer opportunities
- Resource guides

Contact Email: dnsinfo@delwarenaturesociety.org

Phone: (302) 239-2334

Delaware Sea Grant/UD College of Earth, Ocean and Environment

700 Pilottown Road
Lewes, DE 19958
www.deseagrant.org



Audience: Elementary – College and Adult

Environmental Topics: Stormwater, Water Quality, Watersheds, Marine/Coasts, Wildlife Ecology

Organization Description:

Since the University of Delaware was designated the nation's ninth Sea Grant College in 1976, the Delaware Sea Grant College Program's goal has been to promote the wise use, conservation, and management of marine and coastal resources through high-quality research, education, and outreach activities that benefit the public and the environment.

Programs Offered:

- Coast Day: This annual event showcases UD's efforts in marine research and education and to celebrate Delaware's ocean and coastal resources. Coast Day is held on the first Sunday in October, beginning at 11 a.m., at UD's Hugh R. Sharp Campus in Lewes. Admission and parking are free. <http://www.decoastday.org>.
- Campus tours: Free tours of the UD Hugh R. Sharp Campus in Lewes introduce visitors to marine research being conducted at the college. Available year-round and may be arranged to meet each group's special needs or interests. <http://www.ceoe.udel.edu/community/tours>
- Lectures and Workshops: The Focus on the Delaware Coast workshops and the Ocean Currents Lecture Series are available year-round, and cover a multitude of ocean-related topics.
- Teacher Professional Development: Single- and multi-day professional development opportunities are offered to in-service and pre-service teachers and informal educators throughout the year. Workshops typically include a mix of interactive presentations, scientist interactions, and hands-on activities.

Materials Available:

- Horseshoe Crab or Dogfish Shark Model: Full-color, three-dimensional models that can be cut out and assembled with tape in approximately 30 minutes. Suitable for 4th graders and up.
- Horseshoe Crab Bulletin: Full-color, six-page educational bulletin that reviews the biology, medical uses, and population trends.
- Educational bookmarks: Feature full color images on the front and interesting facts on the back.
- Data-based classroom activities: Cover topics such as heat capacity and sea breezes, these classroom-ready activities use real scientific data from Delaware.

Most materials are free for Delaware teachers.

Contact: Christopher Petrone

Email: Petrone@udel.edu

Phone: (302) 645-4308

Delaware Seashore State Park

25039 Coastal Highway
Rehoboth Beach, DE 19971



Audience: Elementary – High School

Environmental Topics: Water Quality, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History

Organization Description:

The Delaware Seashore State Park is situated between the Atlantic Ocean and Rehoboth & Indian River Bays.

Programs Offered:

We offer several different programs that can be tailored to different age groups. Some of the programs include marsh walk, seining the bay, squid dissection, estuarine ecology boat tour.

Materials Available:

Delaware State Parks teacher's guide

Contact: Laura Scharle

Email: Laura.Scharle@state.de.us

Phone: (302) 227-6991

Delaware State Parks

152 South State Street
Dover, DE 19901
www.destateparks.com/programs



Audience: Preschool – High School

Environmental Topics: Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History

Organization Description:

Delaware State Parks provides visitors with safe and enjoyable recreational opportunities, open spaces, responsible stewardship, and resource-based interpretive and educational services. We have a strong commitment to our customers, employees, partners, and future generations.

Programs Offered:

Delaware State Parks offers recreational and historical programs. Programs range from environmental testing in the field with hands-on experiments and STEM activities to field trips to beach parks as well as inland ponds paired with canoe and kayak excursions. Custom program creation is an option at all of our locations and can be conducted either in the park or at an appropriate site closer to you. We also provide job shadowing as well as internship and volunteer opportunities. Scout programs are available. Program fees vary based upon program elements, group size, and location. Grant and scholarship opportunities are available.

Entry continued on next page

Delaware State Parks, continued

Materials Available:

Delaware State Parks is the state partner for the Project WILD program. This program fosters responsible action toward wildlife and natural resources. A teacher's guide listing many of the programs we offer is also available at destateparks.com/school.

Additional Information:

We offer customized programs to accommodate your students' needs. These programs can be conducted either on school grounds or at a state park of your choosing. We provide programming for home school students as well.

Contact: Jonathan Wickert

Email: jonathan.wickert@state.de.us **Phone:** (302) 739-9184

DNREC, Division of Water

89 Kings Highway
Dover, DE 19901
www.dnrec.delaware.gov



Audience: Elementary – College and Adult

Environmental Topics: Wetlands, Subaqueous Lands, Environmental Laboratory

Organization Description:

The Division of Water manages and protects water resources through various programs by providing technical assistance, laboratory services, regulatory guidance and implementation, educational services, and performing applied research. Administers the water utility certification program and provides a link with external programs including the Delaware River Basin Commission and Delaware Emergency Management Agency.

Programs Offered:

Volunteer and student internship opportunities.

Materials Available:

Brochures and handouts on septics, wells, and topics displayed at the Delaware State Fair and Coast Day.

Contact: Karen Garrison

Email: Karen.Garrison@state.de.us **Phone:** (302) 739-9949

DuPont Nature Center at the Mispillion Harbor Reserve

2992 Lighthouse Road
Milford, DE 19963
www.dupontnaturecenter.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History

Organization Description:

The DuPont Nature Center is located at the mouth of the Mispillion River on the Delaware Bay. The shorelines surrounding the center represents one of the most important horseshoe crab spawning beaches and shorebird feeding areas in the world – all visible from the observation deck and by the live nature cam located on site. The center features interactive exhibits, live animals, and a wealth of information on the Delaware Bayshore Region.

Programs Offered:

The facility is a self-guided visitor's center but does offer structured field trip opportunities for schools and organizations. Groups are encouraged to pre-register early so the staff and volunteers can provide a quality experience while visiting. In addition to field trip opportunities, the DNC offers an Earth Day Celebration in April, the Peace, Love, and Horseshoe Crab Festival in May, and various fishing programs for youth in June, July and August. The programs are free and open to the public.

Materials Available:

Loan kits for hands-on learning about many of the inhabitants of the Delaware Bay; horseshoe crabs, shorebirds, fish, shellfish, and diamondback terrapins.

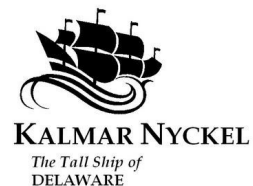
Contact: Dawn Webb Cox

Email: Dawn.Webb@state.de.us

Phone: (302) 422-1329

The Kalmar Nyckel Foundation

1124 E. Seventh Street
Wilmington, DE 19801
www.kalmarnyckel.org



Audience: All Ages

Environmental Topics: Marine/Coasts, Wildlife, Natural History, Delaware History, Christina River, Delaware Bay

Organization Description:

The Kalmar Nyckel Foundation is a not-for-profit educational organization chartered by the State of Delaware in 1986. The Foundation launched the *Kalmar Nyckel* in 1997. An authentic re-creation of the 17th-century vessel that carried the first permanent European settlers to the Delaware Valley, the tall ship Kalmar Nyckel serves as an educational outreach tool for thousands of students of all ages throughout Delaware and the northeast region. We offer different field trip experiences on the ship and in our new Copeland Maritime Education Center.

Entry continued on next page

The Kalmar Nyckel Foundation, continued

Programs Offered:

Educational sails and Maritime programming is offered in our new Copeland Maritime Center for “Students of All Ages.” We offer student sails (K-12) on the Christina River in Wilmington and the Delaware Bay from Lewes, DE. These sails and our Shipyard and Education Center field trips cover language arts, social studies, math, and science curriculum standards. We also offer a free “Starting A Colony” Economics program for 4th graders-8th graders that is brought and taught by Kalmar Nyckel Educators to schools throughout Delaware and beyond. We also offer Corporate Teambuilding and Decision-Making Sails, Scout and Camp Adventure Outings, and College and Adult Sails.

Materials Available:

The Kalmar Nyckel Guidebook, a comprehensive reference for all teachers and visitors is available online at our website: www.kalmarnyckel.com. We also offer complete Lesson Sets and units for History, Geography, and Economics on our website.

Contact: Virginia Hanna

Email: Virginia.Hanna@kalmarnyckel.org

Phone: (302) 429-7447

Killens Pond State Park

5025 Killens Pond Road
Felton, DE 19943
www.destateparks.com



Audience: Preschool – High School

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands, Wildlife/Ecology

Organization Description:

Killens Pond State Park offer educational programs both in our parks and at your school. Programs range in age from first grade through high school and focus on the local watersheds and ecology of Kent County.

Programs Offered:

We offer school field trips, outreaches, and public programs year round. In addition to focusing on the local watershed and forest ecology of the park, Killens Pond also hosts a native reptile and amphibian collection available for programs and outreaches.

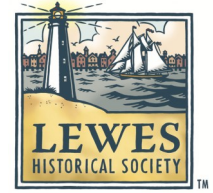
Contact: Rachel Phillos

Email: Raachael.Phillios@state.de.us

Phone: (302) 284-4299

Lewes Historical Society

110 Shipcarpenter Street
Lewes, DE 19958
www.historiclewes.org



Audience: All Ages

Environmental Topics: Watersheds, Wetlands, Marine/Coasts, Natural History

Organization Description:

Founded in 1961, the Lewes Historical Society advocates the history in the region by providing educational opportunities for visitors of all ages. Explore four centuries past and present where history comes to life within one historic district location. The surrounding tide-water area allows visitors to experience the effect Cape Henlopen has had on the past and its continuing effects on the local environment. Programs are designed to meet the needs of educators wishing to provide students with first-hand historically documented content material and unique, memorable experiences.

Programs Offered:

In Classroom

- *Where the River Meets the Sea*- The Founding of Lewes, the First Town in the First State. *Grade 3-6*
- *You Have to Go Out, but You Don't Have to Come Back*- The U.S. Life Saving Service in Lewes *Grade 4-6*
- *Fish Scales and Sea Chanties*- The Menhaden Fishing Industry of Lewes *Grades 4-6*
- *Brave Little Lewes*- The Bombardment of Lewes during the War of 1812 *Grades 8-12*

Life in Lewes

- 90 minute guided walking tour through **six** historically preserved buildings demonstrates how Lewes grew from a small settlement to a bustling seaside town.

Maritime History Tour

- Learn about contributions to navigation made by the Delaware Bay and River pilots. Witness the remnants of the maritime industries of Menhaden fishing and ship building. Understand the importance of the U.S. Life Saving Service in an area with over two hundred recorded shipwrecks.

Program Fees:

- School: \$1.00 per student; \$5.00 each homeroom teacher. There is no additional cost for additional teachers and chaperones. Suggested 1:10 chaperones to student ratio.
- Independent Group: \$1 Child (age 6-12), (listed programs are not recommended for age 5 and under), \$10 adult

Materials Available:

Curriculum guides are available at a cost of \$1 per student/participant.

Historic District maps and informational brochures are available at no cost to groups of 10 or more.

Additional Information:

If interested in a Waterways/Wildlife Tour (*weather dependent*) please contact the Director of Education for further details, available dates, content, routes, and pricing information.

Pre-school age programming is available seasonally, on-site only. Please contact the Director of Education to check if your preferred date is available.

New Castle Conservation District

2430 Old County Road

Newark, DE 19702

www.newcastleconservationdistrict.org



Audience: Elementary – College and Adult

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Soil and Water Conservation

Organization Description:

The New Castle Conservation District is a subdivision of state government under the Division of Watershed Stewardship at the Delaware Department of Natural Resources and Environmental Control. The District works with agricultural and urban landowners on natural resource related projects and programs to protect soil and water. The District is overseen by an elected board of supervisors.

Programs Offered:

The Enviroscope model is available for presentations about watersheds and a general program about soil and water conservation work is also available. A presentation about the Delaware Envirothon and one on Conservation Landscaping is available.

Materials Available:

The District keeps a supply of Soil and Water Stewardship Week materials. The theme changes from year to year but rotates between soil, water, forestry, wildlife, and other natural resource topics. Teacher guides, booklets for various grade levels, posters, and other materials are available. The District is a sponsor of the Delaware Envirothon. Information can be found at www.delawareenvirothon.org.

Contact: Rick Mickowski

Email: rick.mickowski@state.de.us

Phone: (302) 832-3100

Partnership for the Delaware Estuary

110 S. Poplar Street
Wilmington, DE 19801
www.delawareestuary.org



Audience: Elementary – College and Adult

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History

Organization Description:

The Partnership for the Delaware Estuary (PDE) is a regional nonprofit established in 1996. Its mission is to lead science-based and collaborative efforts to improve the tidal Delaware River and Bay, which spans Delaware, New Jersey, and Pennsylvania. PDE is one of 28 National Estuary Programs designated by Congress. These exist throughout the coastal United States to improve the health of estuaries.

Programs Offered:

We offer summer workshops for teachers to learn more about all aspects of the Delaware Estuary, including wetlands, watersheds and the urban water cycle. Through hands-on experiences, presentations and field trips, teachers will gain a better understanding of the estuary so they can translate that knowledge to students in the classroom.

Other programs include:

- Annual drawing contest in Philadelphia (December – February):
www.delawareestuary.org/art-contest
- Storm drain marking: www.delawareestuary.org/storm-drain-marking-program
- Volunteer freshwater mussel surveys: www.delawareestuary.org/activities_volunteer_mussels.asp
- Schoolyard Habitats program

Materials Available:

Free student-centered materials can be downloaded through:

<http://www.delawareestuary.org/kids-teachers>.

We also have an extensive amount of publications in many water-related categories. Please see <http://www.delawareestuary.org/literature> for full list of free downloadable resources.

Contact: Lisa Wool

Email: lwool@delawareestuary.org

Phone: (302) 655-4990, ext. 105

Prime Hook National Wildlife Refuge

11978 Turtle Pond Road

Milton, DE 19968

www.fws.gov/refuge/prime_hook/

Audience: All Ages

Environmental Topics: Student Environmental Leadership, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology

Organization Description:

Established in 1963 under the Migratory Bird Conservation Act "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." This 10,000 acre refuge is a mosaic of fresh and saltwater wetlands, forests, fields, and Delaware Bay shoreline that provide habitat for tens of thousands of waterfowl and shorebirds, the endangered Delmarva Peninsula fox squirrel, bald eagles, and countless mammals, reptiles, amphibians, fish, insects, and other birds.

Programs Offered:

Field trips interpreting the natural resources of the Refuge are available upon demand, however, self-guided trips are encouraged. Please call for reservations. No charge.

Contact: William J. Jones

Email: Bill_J_Jones@fws.gov **Phone:** (302) 684-8419

Trap Pond State Park

33587 Baldcypress Lane
Laurel, DE 19956
www.destateparks.com/park/trap-pond/



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History, Geography, Social Studies, History, Math, Science, Chemistry

Organization Description:

Trap Pond State Park is located in Sussex County, Delaware outside Laurel. We have a full service nature center with watershed and natural history displays. Trap Pond offers numerous environmental education programs, but specializes in watershed education.

Programs Offered:

Include, but not limited to:

Water Quality testing \$4; Power of Water \$4; Cypress Swamp Tours (Pontoon Boat, or Canoe/Kayak) \$4-\$15; Stream Hikes \$4

Materials Available:

Trap Pond can host teacher workshops/education. Cost runs from \$5-\$40 per teacher, but can often be covered through grants.

Contact: William Koth

Email: William.Koth@state.de.us

Phone: (302) 875-5163

Tri-State Bird Rescue & Research, Inc.

170 Possum Hollow Road
Newark, DE 19711
www.tristatebird.org



Audience: High School – College and Adult

Environmental Topics: Wildlife Ecology

Organization Description:

Tri-State Bird Rescue & Research is a licensed rehabilitation facility for injured, orphaned, and oiled native birds. We operate under state and federal permits, and our small staff is augmented by over 200 dedicated volunteers. Our busiest time of the year is from May-September when we receive over a thousand baby birds for care. Our volunteers and interns are vital to raising these baby birds and helping return them to life in the wild.

Programs Offered: Volunteer and Internship Opportunities Available

Contact: Julie Bartley

Email: volunteer@tristatebird.org

Phone: (302) 737-9543

White Clay Creek State Park

425 Wedgewood Road
Newark, DE 19711
www.destateparks.com



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Water Quality, Watersheds, Wildlife Ecology, Natural History, Geology

Organization Description:

White Clay Creek State Park offers a selection of programs covering geology, biodiversity, water quality, ecosystems and riparian zone studies. White Clay Creek State Park include four linked sessions with thirty seven miles of trails, historic sites and scenic vistas.

Programs Offered:

Popular Field Trips include Extended Geology, Living things of the Creek, Forest and Field, Steam Study/Explorers. In-school programs consist of Owl Adaptations, Pellets and Bones, Sensing Wildlife and Mystery Minerals. Programs fee range from \$4-7 per student. White Clay Creek State Park also offers Summer Day Camps, College Internships in Environmental Education, and a Summer Concert Series that draws thousands of regional visitors.

Materials Available:

A free Teachers Guide to Delaware State Parks is available online at; http://www.destateparks.com/downloads/school/PROG-EnvEdGuide_SinglePages-GUID0713.pdf

Contact: Barbara Woodford, Nature Center Manager

Email: Barbara.Woodford@state.de.us **Phone:** (302) 368-6560

NEW JERSEY

Association of New Jersey Environmental Commissions

300 Mendham Road
Morristown, NJ 07960
www.anjec.org



Audience: High School – College and Adult

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands, Marine/Coasts

Organization Description:

The mission of the Association of New Jersey Environmental Commissions is to achieve responsible and sustainable use of New Jersey's natural resources and protection of environmental health.

We are a statewide organization that provides leadership, education, and support for environmental commissions and other local boards and public officials, and partners with other organizations to advocate for strong state and regional environmental policy.

Materials Available:

For 45 years, we have been providing expert guidance, publications, funding, training, action kits, tools and resources to help educate and mobilize residents to be better environmental stewards. Our website hosts variety of information and ideas for action on topics such as native plant guide for stream health, habitat protection, water resource protection, and sustainable communities.

Contact: ANJEC Resource Center

Email: resourcecenter@anjec.org

Phone: (973) 539-7547

Bayshore Center at Bivalve

2800 High Street
Port Norris, NJ 08349
www.bayshorecenter.org



Audience: Elementary – College and Adult

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History, Plankton, Oysters, Renewable Energy

Organization Description:

The Bayshore Center at Bivalve was founded in 1988. Our mission is to motivate people to take care of the history, culture, and the environment of NJ's Bayshore region through education, preservation and example. We offer educational sail programs onboard the historic 1928 oyster schooner *A.J.*

Meerwald, guided education tours of a local 4,200 acre salt marsh, and guided educational tours through the Delaware Bay Museum and Folklife Center in the historic Bivalve Shipping Sheds.

Programs Offered:

BCB offers a 3-hour interactive hands-on Education Sail aboard the Schooner *A.J. Meerwald* from April through October. Programs cost \$800 and can accommodate up to 41 passengers including students, teachers and chaperones. Programming is available at our home port in Bivalve, NJ as well as various ports along the Delaware Bay and NJ Coast.

Entry continued on next page

Bayshore Center at Bivalve, continued

We also offer a Bivalve Discovery Bay tour (3-hours) which includes a guided wetlands walk (2-hours) and/or a tour of the Delaware Bay Museum and Folklife Center (1-hour). The full program cost \$190 for 20 students and \$375 for 40 students. This program can also be combined with an educational sail for \$1,000. BCB staff tailors programs to meet a school's need that may include maritime industry tours, math, or any particular discipline within estuary sciences. Also available are teacher workshops, adult and youth summer sailing camps, tailored education programs, and a public lecture series.

Materials Available:

To prepare and enhance student's experience onboard, a curriculum packet is emailed to the teacher. These materials cover the 'Learning Stations' that include watershed connections, schooner *A.J. Meerwald* and the oyster industry, estuarine species, oysters and oystering, water chemistry, plankton, renewable energy, and wetlands. This packet addresses New Jersey Core Curriculum standard in social studies, science, and mathematics. The 'what to expect onboard' section prepares teachers and students to get the most from their sail.

Contact Email: info@bayshorecenter.org

Phone: (856) 785-2060

Camden Children's Garden

3 Riverside Drive
Camden, NJ 08103
www.camdenchildrensgarden.org



Audience: Preschool and Elementary

Environmental Topics: Water Quality, Watersheds, Wetlands

Organization Description:

The Camden Children's Garden waterfront attraction is the hub of the Camden City Garden Club's community based programming. Now in its 16th season, the Garden remains an environmental playscape designed for children and families. It is special place not only for Camden residents, but also for residents of the Greater Delaware Valley Area to explore and discover the natural world. Our 4.5-acre garden features themed educational exhibits for children for creative and imaginative play.

Programs Offered:

- Interactive on-site lessons: \$55-\$70 for 30-45 minute lessons
- Distance Learning/Virtual Field Trip Opportunities: \$60-\$75 for 30-45 minute lessons
- Outreach Programs: \$85 for 45 minute program (additional \$50 for sites located outside 20 mile radius)
- Teacher Workshop Programs: \$60 for 1 hour program
- Field Trips: \$4/student – no rides; \$7/student – includes 2 ride tickets

Contact: Education Department

Email: education@camdenchildrensgarden.org **Phone:** (856) 365-9741

Center for Aquatic Sciences at Adventure Aquarium

1 Riverside Drive
Camden, NJ 08103
www.aquaticsciences.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology

Organization Description:

The nonprofit Center for Aquatic Sciences at Adventure Aquarium (CAS) is a leader in conservation-oriented research, environmental education, and community service both locally and globally. In performing its mission, the Center strives to be a responsible member of the community, assisting in its economic and social redevelopment by providing opportunities for education, enrichment and employment.

Programs Offered:

The Center for Aquatic Sciences at Adventure Aquarium conducts programs offsite through outreach programs to schools and community-based organizations as well as classes and tours onsite at Adventure Aquarium in a unique partnership to engage aquarium visitors in the wonder of the aquatic world. The Center also offers Teacher Professional Development workshops, overnight programs, summer camps, High School job shadows, and adult volunteer opportunities. Most programs are fee based. For pricing, please visit our website at aquaticsciences.org.

Materials Available:

Pre/Post activities for in-house and outreach lessons (free with program), teacher newsletters (free with email signup), Exhibit Companions and Guides for use at Adventure Aquarium (free for download at AdventureAquarium.com).

Contact:

Sharon Morrell, Senior Manager of Academic Engagement (Classes/Tours at Adventure Aquarium)
Susan Holmes, Manager of Partnerships and Professional Development (Teacher Professional Development)
Jack Carr, Senior Manager of STEM Engagement (Outreach Programs)
Linda Cairnes, Manager of Museum Engagement (Volunteers)

Email:

SMorrell@aquaticsciences.org
SHolmes@aquaticsciences.org
JCarr@aquaticsciences.org
LCairnes@aquaticsciences.org

Phone: (856) 365-0352

Citizens United to Protect the Maurice River and Its Tributaries, Inc.

17 East Main Street, Suite B
Millville, NJ 08332



Audience: Elementary – High School

Environmental Topics: Stormwater, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

Citizens United to Protect the Maurice River and Its Tributaries, Inc. is dedicated to protecting the watershed of the Maurice River and the region known as Down Jersey, thereby enabling current and future generations to enjoy the environmental, recreational, cultural, and scenic resources of the Wild and Scenic Maurice River and its tributaries. CU invites participation and fosters responsible stewardship. CU supports education, awareness, and informed decision-making utilizing field work, research, and advocacy.

Programs Offered:

We host Wild About Cumberland, a field trip in which half a day is inside and half a day is in the field. Students gain an understanding of our region's resources. There are two days each March dedicated to this experience. We put on weekly programs at a local YMCA camp, and host a summer enrichment program to a day on the river each summer. Our 300 page teachers' curriculum is on line at <http://www.cumauriceriver.org/downjersey/titlepage.html>

Contact: Celia Rodrigues

Email: celia.rodrigues@cumauriceriver.org

Phone: (856) 300-5331

Delaware River and Bay Authority

1200 Lincoln Blvd
North Cape May, NJ 08204



Audience: High School – College and Adult

Environmental Topics: Stormwater, Water Quality

Organization Description:

The DRBA is a multimodal transportation organization including Bridge, Airport and Ferry operations.

Contact: Francis Faunt

Email: Francis.Faunt@DRBA.net

Phone: (302) 379-6958

Delaware River Basin Commission (DRBC)

25 State Police Drive, P.O. Box 7360
West Trenton, NJ 08628
www.drbc.net; www.drbc-edweb.net



Audience: Elementary – College and Beyond

Environmental Topics: Water Quality, Watersheds

Organization Description:

The DRBC is a federal-interstate agency created in 1961 by compact legislation signed into law by President Kennedy and the governors of the four basin states with land draining to the Delaware River (DE, NJ, NY, and PA). It oversees a unified approach to managing an interstate river system without regard to political boundaries. DRBC programs include pollution control, water supply and conservation, drought management, flood loss reduction, regulatory review (permitting), watershed planning, and education/outreach.

Programs Offered:

DRBC tailors programs on an “as requested” basis to teachers and students, including the possible use of an EnviroScape watershed model for presentations to age-appropriate audiences. Please note: DRBC may not be able to accept all speaking/presentation invitations due to staff availability and budget limitations.

Materials Available:

- Ed. Web (www.drbc-edweb.net) - Helps teachers and students learn about the Delaware River Basin and general water issues. It features many useful links to other education-related sites, including lesson plans and field trip suggestions.
- Flyers on a variety of watershed-related topics (baseball rubbing mud, etc ...). Download from Ed. Web.
- Maps, Quiz and Puzzles – Download from Ed. Web.
- Educational bookmarks (horseshoe crab, bald eagle, and American shad. Limited quantities available.
- Customized packets for educators.

Contact: Clarke Rupert, Kate Schmidt

Email: Clarke.Rupert@drbc.state.nj.us or Kate.Schmidt@drbc.state.nj.us

Phone: (609) 883-9500 x260

Delaware River Steamboat Floating Classroom

D&R Canal State park (just south of the Inn at Lambertville Station)

Lambertville, NJ 08530

www.steamboatclassroom.org



Audience: Elementary – High School

Environmental Topics: Stormwater, Water Quality, Watersheds, Wildlife Ecology, Natural History, American History

Organization Description:

Come aboard steamboat “SPLASH” (Student Participation in Learning Aquatic Science & History) and embark on a voyage of learning! Professional crew helps you with environment-based teaching of science, social studies and/or technology. SPLASH boards in Lambertville, NJ and carries 35 passengers on covered and open decks. SPLASH is a real paddlewheel steamboat and a Coast Guard certified vessel. Programs include: watershed studies; macroinvertebrates; river chemistry; Shad Migration & the Environmental History of the Delaware River.

Programs Offered:

Environment based education in most school disciplines.

Materials Available:

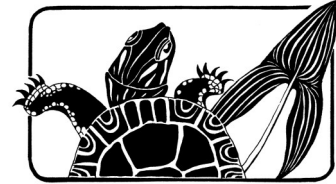
- 2-hour educational, fun trips from Lambertville, NJ, steamboat fare is \$22 per person.
- Project WET (Water Education for Teachers) class offered (check steamboatclassroom.org for details) for continuing education credit. Project WET (\$20) class includes steamboat ride.

Contact: Anne Tenaglia

Email: info@steamboatclassroom.org **Phone:** (609) 542-0311

Friends for the Abbott Marshlands

c/o D&R Greenway Land Trust
One Preservation Place
Princeton, NJ 08540
www.marsh-friends.org



Audience: Elementary – College and Beyond
Environmental Topics: Wetlands, Natural History

Organization Description:

The Friends for the Abbott Marshlands (Friends) is a grassroots organization, operating in partnership with D&R Greenway Land Trust to: facilitate preservation and protection of the Abbott Marshlands, promote Marshlands stewardship, and educate the public of the many varied and unique resources of the Marshlands. The Friends strive to partner with other agencies (public, nonprofit and private) to protect, preserve, enhance and promote the natural, historical and recreational resources provided by the Marshlands.

Programs Offered:

The Abbott Marshlands are a significant educational and scientific resource. They serve local schools and colleges as an outdoor laboratory for scientific and archaeological study. School groups ranging from kindergarten to graduate students visit each year. Wetland and Ecology classes from local colleges and universities, such as Mercer County Community College, Rider University, Rutgers University, and the University of Pennsylvania, regularly include study of these wetlands in their curricula.

Through the Friends for the Abbott Marshlands, programs, run by knowledgeable volunteers, are arranged on an ad hoc basis for elementary through college students. Programs include, e.g., natural history, wetland ecology, and spring plants, and are tailored to the class visiting. Incorporated are exercises to develop observational and experimental skills.

During October 2014, the Tulpehaking Nature Center, at Roebling Park, a Mercer County NJ Park, at the edge of the marshlands was opened. Programs for school groups can now be arranged by contacting Kelly Rypkema, naturalist and nature center manager. krypkema@mercercounty.org, 609-303-0704.

Materials Available:

Information about the marshlands and materials can be found at www.marsh-friends.org, under Resources. These include a slide program.

Contact: Mary A. Leck, Ph.D

Email: info@marsh-friends.org **Phone:** (732) 821-8310

Great Swamp Outdoor Education Center

247 Southern Blvd
Chatham, NJ 07928
www.morrisparks.net

Audience: All Ages

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

The Great Swamp OEC is part of the Morris County Park Commission's network of parks and educational sites and is located at the eastern end of the wilderness portion of the Great Swamp National Wildlife Refuge. With 2 miles of trails and boardwalks through forest, marsh, swamp, pond and stream habitats, it provides access to nature for all ages and many opportunities to see wildlife.

Programs Offered:

The GSOEC offers programs for schools, scouts, and the public year round, including field trips, badge programs, maple sugaring and apple cidery demos, summer camps, birthday parties, and special events. School groups can take part in hands-on lessons on a variety of natural history topics at a cost of \$125/up to 30 children for 2 hours, with optional 1 hour extensions, including meeting our live animals. Additionally, we offer outreach and assembly programs to bring nature right to your school.

Materials Available:

Pre and Post trip lesson plans are provided free of charge for all our field trip experiences. We also have maps and educational brochures available on natural history topics. Our center features interactive, hands-on exhibits and captive live animals for all visitors to enjoy for free.

Contact: Jenny Gaus-Myers

Email: jgaus@morrisparks.net **Phone:** (973) 635-6629

Haskin Shellfish Research Laboratory

6959 Miller Avenue

Port Norris, NJ 08349-9736

www.hsrl.rutgers.edu

Audience: Elementary — College and Adult

Environmental Topics: Water Quality, Marine/Coasts, Wildlife Ecology, Natural History

Organization Description:

The Haskin Shellfish Research Laboratory (HSRL), located at Bivalve and Cape Shore on the Delaware Bay, is a New Jersey Agricultural Experiment Station (NJAES) and a field station for the Department of Marine and Coastal Sciences (DMCS) both located at Cook College, Rutgers University. HSRL generates and disseminates research information directly applicable to all aspects of fisheries and aquaculture science, concentrating on species of commercial importance to New Jersey. The Bivalve facility has well-equipped laboratories for investigations on microbiology, histopathology, shell structure, shellfish physiology and pathophysiology, analytical chemistry, genetics, and biochemistry, as well as wet laboratory and docking facilities. A shellfish modeling program is also housed at Bivalve. A number of small research vessels support on-site investigations and periodic surveys.

The Cape Shore field station adjacent to the tidal flats of Cape May County is the location of a shellfish hatchery and grow-out site, and is the focal point for the HSRL oyster genetics program. In addition to supporting aquaculture development and research, the Cape Shore facility has served as a base for ecological studies ranging from mollusks to finfish, and including shorebirds and horseshoe crabs. It is also a base for training summer interns in marine biology, aquaculture, and ecology.

Two additional facilities are located in Cape May. The Fisheries Cooperative Center supports the offshore fisheries of New Jersey that are dominated by shellfish (scallops, clams, and squid). The New Jersey Aquaculture Innovation Center is a large aquaculture demonstration and research facility.

Programs Offered:

A feature outreach program of HSRL is Project PORTS: Promoting Oyster Restoration through Schools. This community-based oyster restoration program engages K-12 students and the general public in an authentic oyster restoration project and Bay science. Tours of the labs and facilities are available with no fee. We also can give presentations for your group.

Materials Available:

Handouts on the Delaware Bay

Information about oysters

K-12 Curriculum materials

Contact Phone: (856) 785-0074 ext. 4322

Jacques Cousteau National Estuarine Research Reserve

130 Great Bay Blvd
Tuckerton, NJ 08087
www.jcnerr.org



Audience: Elementary – College and Adult

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History, Climate Change, Advanced Technologies

Organization Description:

The Jacques Cousteau National Estuarine Research Reserve (JC NERR) is one of 28 national research reserves around the country created to promote the responsible use and management of the nation's estuaries through a program combining scientific research, education, and stewardship. It is a federal state partnership between the National Oceanic and Atmospheric Administration (NOAA) and Rutgers University.

Programs Offered:

Visitors can learn about the Jacques Cousteau Reserve through our free public exhibit, *Life on the Edge*, located upstairs at the Tuckerton Seaport in Tuckerton, NJ. The exhibit focuses on the importance of estuaries to plants, animals and all of us. Estuaries are habitats where rivers meet the sea - where fresh and salt water mix to create a unique and very productive ecosystem vital to life both on land and in the sea. These remarkable and productive places provide many environmental and economic benefits including a nursery ground for young fish and shellfish, a buffer against storm damage and flooding, a filter for runoff from human activities, and a shelter, refuge and source of food for many birds, fish, plants and wildlife. Through hands-on activities and multimedia components, visitors are able to explore the roles estuaries play in our daily life, a variety of aquatic life that call these places home, and what individuals can do to become stewards of this unique and important ecosystem.

Materials Available:

Programs and materials are tailored to formal and non-formal educators, coastal resource managers, municipal staff, non-profits, community members, families and outdoor enthusiasts. The cornerstone of all education programs is the translation of scientific data into information attendees can best understand and appreciate. Public programs are free and teacher training workshops range from ½ day to week long trainings which are either free or under \$50.

Contact: Melanie Reding or Lisa Auermuller

Email: reding@marine.rutgers.edu or auermull@marine.rutgers.edu **Phone:** (609) 812-0649

Marine Mammal Stranding Center

3625 Atlantic-Brigantine Blvd
Brigantine, NJ 08203



Audience: Preschool – High School

Environmental Topics: Student Environmental Leadership, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History, Marine Mammal and Sea Turtle Rescue and Rehabilitation

Organization Description:

The Marine Mammal Stranding Center, based in Brigantine, NJ, is a 501(c)3 non-profit organization formed in 1978 for the purpose of rescue, rehabilitation and release of sick and injured marine life.

Programs Offered:

Outreach programs vary according to the age group. Sample offerings of programs include: Sea turtles, seals, whales & dolphins; marine debris and its effects. All programs include power point presentations and artifacts of marine animals. Onsite programs at our facility include tours of the museum, beach walks and seining. We also offer mock-stranding courses so the students (and public) can learn what to do when an animal beaches itself. Fees vary, starting at \$50, and travel costs are added for off-site programs.

Materials Available:

Generally, we will mail one copy so that teachers can make their own additional copies.

Contact: Sarah Meile

Email: edummsc@aol.com

Phone: (609) 266-0538

Musconetcong Watershed Association

10 Maple Avenue, P.O. Box 113

Asbury, NJ 08802

www.musconetcong.org



Audience: Elementary and Middle School

Environmental Topics: Stormwater, Water Quality, Watersheds

Organization Description:

The Musconetcong Watershed Association (MWA) is a non-profit organization formed by residents of the Musconetcong River Valley in 1992. Our mission is to protect and improve the Musconetcong River and its watershed resources through education and outreach programs to local schools, landowners, and municipal officials.

Programs Offered:

The MWA watershed education program teaches students about freshwater ecology, groundwater and surface water, impacts of stormwater runoff and the historic and geological features unique to the limestone valleys in the Musconetcong and adjacent Delaware River Tributary Watersheds. Our program promotes a sense of stewardship for the environment that is rooted in knowledge of science, local ecology, and history.

Our in-class lessons cover topics such as: What is a Watershed, Land-use and Water Quality, and Monitoring our Rivers. The program can take place over the course of 1-3 days and includes a field trip to a local stream. This program is highly flexible, and may be used for a class studying water ecology, life science, or earth science. Fee: The MWA asks all schools who are participating in our program to contribute \$130 per class. The fee covers classroom sessions, fieldwork at the river and all materials.

Contact: Kyle Richter, Education and Outreach Coordinator

Email: kyle@musconetcong.org

Phone: (908) 537-7060

Natural Lands Trust – New Jersey Preserve System

2100 S. 2nd Street
Millville, NJ 08332
www.natlands.org



Audience: Elementary – College and Adult

Environmental Topics: Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History

Organization Description:

Natural Lands Trust is dedicated to protecting the forests, fields, streams, and wetlands that are essential to the sustainability of life in eastern Pennsylvania and southern New Jersey. Since 1953, Natural Lands Trust has preserved more than 100,000 acres, including 42 nature preserves totaling more than 22,000 acres. Today, millions of people enjoy the healthy habitats, clean air and water, bountiful recreational opportunities, and scenic beauty provided by the lands the organization has preserved.

Programs Offered:

Multi-year programs only, including kayak/canoe experiences, trail hikes, Atlantic Ocean and Delaware Bay visits.

Contact: Steve Eisenhauer

Email: Eisenhauer@natlands.org

Phone: (856) 825-9952

The Nature Conservancy, New Jersey

2340 Route 47

Delmont, NJ 08314

www.nature.org/newjersey**Audience:** Elementary – College and Adult**Environmental Topics:** Wetlands, Marine/Coasts, Wildlife Ecology, Coastal Restoration**Organization Description:**

The Nature Conservancy is an international non-profit conservation organization, whose mission is to conserve the lands and waters on which all life depends. The Nature Conservancy has protected over 50,000 acres of land throughout the state of New Jersey and maintains a number of preserves which are open to the Public. The Conservancy restores critical habitat in coastal and freshwater systems, providing benefits to wildlife as well as to local communities.

Programs Offered:

The majority of The Nature Conservancy's preserves are open to the public for wildlife viewing, nature photography, and hiking. For specific preserve locations, visitation information, and a schedule of upcoming volunteer or field trip opportunities, please visit our website www.nature.org/newjersey. Depending on staff availability, guided field trips or programs may be possible. In addition to events and field trips on our preserves, The Nature Conservancy offers environmental education and outreach programs at PSEG's Estuary Enhancement Programs Sites on the NJ shore of Delaware Bay focusing on the themes of ecology of coastal habitats and the multiple benefits that restoration provides to communities, fisheries, and the economy. These programs and access to lands managed by The Nature Conservancy are available free of charge.

Materials Available:

The Nature Conservancy's website www.nature.org has information on the lands, waters, and species the organization protects. NatureRocks is a global program inspiring families to explore nature by providing ideas and activities to get kids outdoors.

Contact: Damon Noe**Email:** dnoe@tnc.org **Phone:** (609) 861-0600

New Jersey Audubon's Nature Center of Cape May

1600 Delaware Avenue
Cape May, NJ 08204
www.njaudubon.org/centers/nccm



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History, Art

Organization Description:

The Center is a family oriented facility on the shoreline of Cape May Harbor. Natural history programs serve the regional communities, schoolchildren and seasonal tourists. Programs focus on awareness and understanding of coastal ecology and how it relates to human behaviors. A complex of buildings hosting exhibits, aquariums, classrooms, a lookout tower, nature store and restrooms. Display gardens, wildlife habitats with trail and picnic area comprise the grounds adjacent to the harbor.

Programs Offered:

Field trips at our center and adjacent Cape May Harbor emphasize the special habitats including, salt marches, mud flats, sandy beaches and shallow waters. A focus on ecosystems, connections, food webs, adaptations and habitats dominate but do not define our menu of program options. The unique relationship between shorebirds and horseshoe crabs, migration of birds and butterflies, and backyard habitat gardening constitute some of our most popular program themes. School groups will find a special, safe and enriching environment at our facility. Fees are based on a per program rate of \$125/lesson for a class of 25.

The general public can participate in seasonally scheduled programs including harbor safari walks and seining activity, bicycle tours, kayak eco-tours, nighttime beach walks, gardening workshops and private garden tours and so much more. Most programs are fee based, but priced at family affordable rates. A full calendar of programs can be found at www.njaudubon.org/center/nccm.

Materials Available:

All of our resources are available for review and loan to area teachers including a library of environmental education curricula and natural history objects (shells, specimens, limited live animals and marine creatures). Our Nature Store has many teacher's guides and materials for sale with a 20% discount for educators.

Contact: Gretchen Whitman, Center Director

Email: Gretchen.whitman@njaudubon.org

Phone: (609) 898-8848

New Jersey Conservation Foundation

170 Longview Road, Bamboo Brook

Far Hills, NJ 07931

www.njconservation.org



Audience: All Ages

Environmental Topics: Wildlife Ecology, Natural History

Organization Description:

NJ Conservation Foundation is a private, nonprofit organization whose mission is to preserve land and natural resources throughout New Jersey for the benefit of all.

Programs Offered:

We own 16 preserves throughout the state open to the public with trails. Our website includes descriptions of each site and trail maps.

Materials Available:

Songbird connection is a video and resource materials that describe migration of warblers and their stopovers in NJ.

Contact: Laura Szwak

Email: Laura@njconservation.org

Phone: (908) 234-1225 ext. 117

New Jersey Division of Fish and Wildlife

360 N. New York Road
Port Republic, NJ 08241
www.njfishandwildlife.com



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History

Organization Description:

The Division of Fish and Wildlife is a professional organization dedicated to the protection, management and wise use of the state's fish and wildlife. The role of the Division is to protect habitat and to manage all the state's wildlife for the benefit of the people of New Jersey.

Programs Offered:

- Sedge Island Natural Resource Education Center (fee)
- Project WILD, WILD Aquatic and Growing Up WILD teacher workshops (fee)
- Green Eggs and Sand teacher workshop (fee)
- Pequest Trout Hatchery and Natural Resource Education Center
- Trout in the Classroom
- Hooked on Fishing Not on Drugs
- Know the Bear Facts

Materials Available:

Wildlife of New Jersey Coloring Book (available online)

Contact: Karen Byrne

Email: Karen.Byrne@dep.nj.gov

Phone: (609) 748-4347

New Jersey Sea Grant Consortium

22 Magruder Road
Fort Hancock, NJ 07732
www.njseagrant.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History, Climate, Climate Change, Coastal Hazard Preparedness and Resilience, Marine and Coastal Technology and Engineering

Organization Description:

The New Jersey Sea Grant Consortium (NJS GC) advances knowledge and stewardship of New Jersey's marine and Coastal environment through research, education, and extension. The Education Program at NJS GC holds a wide variety of programs directed towards advancing greater understanding and stewardship of our state's marine and coastal resources.

Programs Offered:

- Field Trips grades Pre-K-12 and College level Fee based
- Professional Development Workshops Fee based
- Undergraduate and Graduate Courses Tuition based
- In-school and After-school Programs and Family Science Programs, Summer Day Camp, Curriculum Integration Services, Scout Badge Programs, Internships for pre-service educators.
- Ocean Fun Days Annual Open House at Island Beach State Park and Sandy Hook, each May- Free admission.

Materials Available:

Visit our website www.njseagrant.org under Education: Resources for Educators for free lesson plans and activities.

Contact: Rosemary Higgins, College and Special Programs Coordinator

Email: rhiggins@njseagrant.org **Phone:** (732) 872-1300 x.19

Tulpehaking Nature Center

157 Westcott Avenue
Hamilton, NJ 08610
[www.mercercountyparks.org/
facilities/tulpehaking-nature-center](http://www.mercercountyparks.org/facilities/tulpehaking-nature-center)



Audience: Preschool – Middle School

Environmental Topics: Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History, Archaeology, Native American History

Organization Description:

The Tulpehaking Nature Center is the main educational gateway to the Abbott Marshlands just three miles south of Trenton, NJ. Programs feature the Abbott Marshlands' 3000 acres of forest, wetlands, and wildlife, 19 miles of hiking and kayaking trails, and its standing as one of the most significant American Indian archaeological sites in the middle Atlantic region. The Tulpehaking Nature Center is a facility of the Mercer County Park Commission.

Programs Offered:

Join in interactive programs about science, nature and archaeology, explore exhibits, stroll through the marsh native plant garden, go birdwatching, bicycling and more. Be sure to check our calendar of events and visit!

- School Field Trips: \$4/person County School, \$5/person Non-county School
- Public Family Programs: \$5/person or \$20/family
- Private Group programs: \$60/group of 15 people County Resident, \$75/group of 15 people Non-county Resident.
- Scout Badge Workshops: \$60/group of 15 people County Resident, \$75/group of 15 people Non-county Resident. (2 adult chaperones free per 15 scouts.)
- Birthday Parties: \$150 County Resident, \$200 Non-county Resident. (Extra participants \$2 each. \$50 non-refundable deposit required.)
- Volunteer Programs: We want you! The Tulpehaking Nature Center is in need of some good volunteers with a love for nature and desire to share it with others. Greeters, Docents, and Trail Guides are all needed.

Contact: Kelly Rypkema

Email: krypkema@mercercounty.org **Phone:** (609) 303-0704

Watchdogs of the Watersheds, Featuring The Turtle Lady

622 S. Pompess Avenue

Cinnaminson, NJ 08077

watchdogsofthewatersheds.weebly.com

Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

WOW is a non-profit community based volunteer organization whose mission is to protect, preserve and restore the Delaware River, its tributaries and their watersheds, through education/outreach programs designed to encourage area residents to become active volunteers & advocates for the environment.

Programs Offered:

The Turtle Lady and her turtle friends are available for school or community group visits, providing lessons on everything environmental – customized for your particular age group or topic. Some of the programs we've done include: The Importance of snapping turtles, point and non-point pollution, human effect on wildlife populations, watersheds/stormwater management methods such as rain gardens and rain barrels, native vs. invasive plants, water quality assessment using macroinvertebrates, NJ/Burlington County history (a unit on Lenape culture is available, as well as Swedish-Dutch settlers, Revolutionary War, etc.), weather and climate change through animal eyes, and so much more. Marshall, the 100 pound African tortoise comes along to draw attention to the plight of his turtle cousins in the Pompeston Creek Watershed. Fee is usually \$50 per hour, discounts available for schools/non-profits.

Materials Available:

Lenape packet, rain garden and rain barrel brochures, safe paddling guide, native plant guides, macroinvertebrate guides – all free.

Additional Information:

We host Creek Camp each summer, the Annual Great Pompeston Rubber Duck Race, a variety of creek cleanups throughout the year, and provide graduation awards to a senior from each of the local high schools who has a record of community service.

Contact: Cindy Pierson

Email: turtlelady527@comcast.net

Phone: (609) 760-3223

The Wetlands Institute

1075 Stone Harbor Boulevard
Stone Harbor, NJ 08247
www.wetlandsinstitute.org



Audience: All Ages

Environmental Topics: Wetlands, Marine/Coasts, Wildlife Ecology

Organization Description:

The Wetlands Institute is a non-profit organization based in Stone Harbor, New Jersey. Our mission is to promote appreciation, understanding, and stewardship of wetlands and coastal ecosystems through our programs in research, conservation, and education.

Programs Offered:

The Wetlands Institute has a wide variety of educational opportunities for schools, non-formal educators and general admission visitors including:

- Environmental Education Field Trips
- Traveling Environmental Education Programs
- Science Education at Sea (SEAS) Programs
- Scout Group Programs
- Home school Lessons and Family Field Trips
- Group Outreach Programs
- Group Admission Rates
- Summer Nature Programs for Kids
- Undergraduate Research and Education Internships
- Volunteer Opportunities

Information including specific program descriptions, pricing, and registration/application information can be found on our website. Scholarships are available for worthy schools!

Materials Available:

In 2012, with support from the Disney Worldwide Conservation Fund, The Wetlands Institute hosted a select group of teachers for an intensive training as part of the Terrapin Conservation Project. These teachers worked alongside The Wetlands Institute staff, volunteers, and research interns from the Coastal Conservation Research Program to learn about Diamondback Terrapins and develop learning activities based on terrapin biology and conservation for their respective grades. These learning activities are available on our website for download and use in the classroom!

Contact: Brooke Knapick

Email: education@wetlandsinstitute.org

Phone: (609) 368-1211

PENNSYLVANIA

Azavea

340 N. 12th Street, Suite 402
Philadelphia, PA 19107
www.azavea.com



Audience: Middle School – College and Adult

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Urban Forestry

Organization Description:

Azavea is a certified B Corporation whose mission is to apply geospatial technology for positive civic and social impact while advancing the state-of-the-art through research. Azavea is the lead developer of OpenTreeMap, an open source software tool for engaging the public with managing trees and other green infrastructure. The firm also provides a range of services that include web and mobile software development, user interface and experience design, mapping, and spatial analysis.

Programs Offered:

OpenTreeMap is a collaborative platform for tree inventory, ecosystem benefit calculations, urban forestry analysis, and community engagement. Students, teachers and community members can explore the urban forest and contribute to the creation of a tree inventory for their campuses or neighborhoods. OpenTreeMap users can add tree records via a user-friendly map interface, update existing tree information, up-load photos of trees, and enter stewardship activities. OpenTreeMap also calculates the environmental impacts of each tree in the inventory to provide a clear picture of the positive benefits trees have on the world around them.

To sign up your school and create your own map, visit www.opentreemap.org. Students can also contribute to the Greater Philadelphia regional map at no cost by visiting www.phillytreemap.org. PhillyTreeMap is even available for iPhone and Android devices. Download the OpenTreeMap app through Google Play or iTunes and then select "See All Public Tree Maps" and "PhillyTreeMap" to begin!

Materials Available:

Recorded webinars are available at: <https://www.youtube.com/user/azavea> that demonstrate general use of OpenTreeMap and its potential for citizen science. Blog posts, tutorials, and other educational materials can be found on the OpenTreeMap resources page at: <https://www.opentreemap.org/resources/>. Subscription options are also available for organizations that want to create new tree maps specific to their campuses or neighborhoods. To locate existing tree maps nearby or to learn more about subscription options, please visit: www.opentreemap.org.

Contact: Deborah Boyer, Project Manager

Email: opentreemap@azavea.com **Phone:** (215) 701-7506

Berks Conservancy

25 N. 11th Street

Reading, PA 19601

www.berks-conservancy.org; www.greenberks.com;

ecoadventurecamp.com; www.greaterreadingtrails.com



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History, Land Use, Land Protection

Organization Description:

Nature is essential to our quality of life. The Berks Conservancy demonstrates that through land protection projects, partnerships, direct work on our watersheds, installation of best management practices, urban gardens, trail creation and management, and environmental education.

Programs Offered:

We are available to customize education programs, visits and field trips (typical cost \$4-5/student) to your specific needs both in your classroom and at our Environmental Exploration Center at Angelica Park in Reading PA.

We run 10 weeks of summer day camp for ages pre-school – high school.

We offer programming throughout the year for families, children & adults.

We are 1 of 3 GLOBE (Global Learning and Observation for the Benefit of the Environment) partner organizations in Pennsylvania available to do teacher training and support work for your classroom.

Materials Available:

State of the Environment in Berks annual reports (www.greenberks.com) and trail brochures

Contact: Kim Murphy, President; Kathy Seyler, Office Manager; Tami Shimp, VP for Dev. & Community Relations; Larry Lloyd, Senior Ecologist; William Ryan, Watershed Ecologist; Kim Lewis, Marketing

Email: info@berks-conservancy.org **Phone:** (610) 372-4992

Berks County Conservation District

1238 County Welfare Road, Suite 200

Leesport, PA 19533

www.berkscd.com



**BERKS COUNTY
CONSERVATION DISTRICT**

Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds

Organization Description:

The Berks County Conservation District is a local government agency, authorized by the Commonwealth, to serve the community in protecting soil and water resources.

Entry continued on next page

Berks County Conservation District, continued

Programs Offered:

Presentations on: “Where Does Our Water Go?” using hands on Envirosapes model, Municipal Stormwater, the water cycle, and preventing nonpoint source pollution. Staff makes every effort to make presentations at no cost, but a small fee may apply. High School and Middle School Envirothon Competition preparation visits are performed as requested in Berks County.

Materials Available:

Various grade appropriate materials and activity books on water, watersheds, and nonpoint source water pollution prevention are available.

Contact: Kate Keppen

Email: Kathryn.Keppen@berkscd.com **Phone:** (610) 372-4657

Brandywine Conservancy

Route 1, PO Box 141
Chadds Ford, PA 19317
www.brandywine.org



Audience: Middle School – College and Adult

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology

Organization Description:

The Brandywine Conservancy’s mission is to protect the water quality of the Brandywine-Christina watershed. We do this through land conservation, reforestation initiatives, agricultural best management practices, municipal land use planning, support for water protection ordinances, and public educational programs.

Programs Offered:

Programs and events are publicized on our website, www.brandywine.org. In addition, our community reforestation events are open to teachers, students and clubs who wish to learn how to plant and maintain trees that will become forests. See us on Facebook at [Brandywine.org](https://www.facebook.com/Brandywine.org).

We also work with the U of D in Shad in the Schools program.

The Brandywine River Museum is our institutional partner and offers group tours, for a fee.

Materials Available:

Maps of watersheds, material on shad, riparian buffers, invasive plants, and native plantings.

Contact: Beth Burnam, Natural Resources Planner; Seung Ah Byun, Water Resources Planner

Email: bburnam@brandywine.org; byuns@brandywine.org **Phone:** (610) 388-8396

Brandywine Valley Association and Red Clay Valley Association

1760 Unionville Wawaset Road
West Chester, PA 19382
www.brandywinewatershed.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History, Team Building

Organization Description:

The Brandywine Valley Association and Red Clay Valley Association are the oldest and second oldest small watershed organizations in the country. Their missions are to promote the restoration, preservation, conservation and enjoyment of the natural resources of the Brandywine and Red Clay Watersheds through educational programs, environmental studies, projects and technological advocacy.

Programs Offered:

On-site and outreach environmental education and team challenge programs are offered for students ages 4-18 throughout Southeastern PA and Northern DE. Prices per student range from \$5 to \$10. All programs are correlated to Pennsylvania and Delaware Academic Standards in Environment and Ecology and Science and Technology. Programs include habitat exploration, watershed & wetland programs, Native American history, team building, Brandywine Creek water quality studies and canoe trips. On-site programs take place at the Myrick Conservation Center, a 318-acre property located six miles west of West Chester and three miles east of Unionville, PA. Programs are also offered at our Saalbach Farm facility, just miles from downtown Coatesville, PA. BVA and RCVA also offer summer camp for ages 4-15, members & family programs as well as homeschool science programs. Visit our website for program and pricing details.

Materials Available:

In-service learning opportunities are available throughout the year for teachers. All training focuses on how to teach environmental education in an outdoor, hands-on, experiential manner using the Pennsylvania Academic Standards in Environment and Ecology. Summer internships are offered to college students in the science or education fields.

Contact: Jim Jordan

Email: water@bva-rcva.org **Phone:** (610) 793-1090

Briar Bush Nature Center

1212 Edge Hill Road
Abington, PA 19001
www.briarbush.org



Audience: All Ages

Environmental Topics: Stormwater, Water Quality, Watersheds, Wildlife Ecology, Natural History, Nature Play, Native Plants, Birds

Organization Description:

Briar Bush is a 12-acre woodland that includes a museum, pond, bird observatory cabin, nature playscape and seasonal butterfly house. The museum at Briar Bush contains live animals, a pre-school play space, hands-on exhibits, a simulated Pennsylvania cave, an observation beehive and more. BBNC provides environmental education to individuals and groups of all ages through on-site and outreach experiences.

Programs Offered:

Group Programs: Live Animal Programs, Guided Nature Hikes, Lenape Native American, Pond/ Invertebrate Study, Cooperative Games, Astronomy- Portable Planetarium, and more.

At Briar Bush: \$6-\$9/student (depending on length)

We come to your site: 1-hour @ \$85 plus travel fee, discounts for additional hours

StarLab Portable Planetarium @ \$250 for 2 hours, includes astronomy activities that get students up & moving.

We also provide curriculum specific, multiple visit contracts for schools.

Public Programs: Seasonal Open House Festivals (free), van trips, summer camps, guest lectures, birthdays, facility rental/weddings.

Contact: Patti Platt, Business Manager; Mellissa Eldridge, Public Programs Manager

Email: pplatt@briarbush.org **Phone:** (215) 887-6603

Bucks County Audubon Society

2877 Creamery Road
New Hope, PA 18938
www.bcas.org



Audience: All Ages

Environmental Topics: Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

The Bucks County Audubon Society is a non-profit organization founded as a chapter of the National Audubon Society and dedicated to education about the natural world with an emphasis on energy and resource conservation including the protection of birds and other wildlife and their habitats. Our 110 acre outdoor classroom supports diverse teaching environments for school, scout and community groups.

Entry continued on next page

Bucks County Audubon Society, continued

Programs Offered:

School programs available include Wetlands and Watersheds (any grade level), Insects and Habitats (any grade level), Archeology (grade 5 and up) and Predator and Prey (grade 3 and up) \$7/student, \$85 minimum fee. Other school programs are available, please call for descriptions. Custom-designed programs are also available for an additional fee. Community and public programs are given on varying dates, please visit our website for topics, dates and fees. Free weekly guided bird walks are held Saturdays beginning at 8am.

Materials Available:

Annual training to become a member of our teaching staff is held beginning in March. There is no fee however a 30 hour teaching commitment over the next twelve months is required. Classroom visits are available on many topics for all grade levels for \$150, please call for descriptions.

Contact: Diane Smith, Director of Education

Email: dianasmith@bcas.org **Phone:** (215) 297-5880

Carbon County Environmental Education Center

151 East White Bear Drive
Summit Hill, PA 18250
www.carboneec.org



Audience: All Ages

Environmental Topics: Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

CCEEC's goal is to instill students, visitors and local residents with the values, attitudes, and behaviors that will best conserve and improve our environment.

Programs Offered:

Live Eagles, Birds of Prey, Snakes & Reptiles, Bats: Fact & Fiction, The Changing Earth, Insects, Seeds & Plants, Food Chains, Stream Study. A variety of programs are offered, and are tailored to meet the needs of individual groups. Programs range in price from \$67-\$225 depending on location and number of participants.

Materials Available:

A loan library of books, videos, slides and natural specimens are available without charge.

Contact: Susan Gallagher

Email: cceec@ptd.net **Phone:** (570) 645-8597

Delaware River City Corporation

3460 North Delaware Avenue, Suite 306

Philadelphia, PA 19134

www.drcc-phila.org



Audience: Middle and High School

Environmental Topics: Wetlands, Marine/Coasts, Ecological Restoration

Organization Description:

DRCC was founded in 2004 to oversee the implementation of the North Delaware Riverfront Greenway Master Plan. We work with various city agencies toward the revitalization of the riverfront with a broad diversity of uses, including a prominent greenway with publicly accessible parks and open space, a continuous recreational trail, thriving businesses and industry, new residential communities, green connector streets to the adjacent neighborhoods, and an ecologically restored riverbank.

Programs Offered:

Birding at Lardner's Point Park

Habitat restoration and living shoreline tour of the seven habitat zones at Lardner's Point Park, including low and high intertidal marsh, wet meadow, dry meadow, moist scrub-shrub, dry scrub-shrub and coastal plain forest.

DRCC will work with school and other volunteer groups on hands on habitat restoration projects.

Contact: Alexia Sotirchos, Outreach Coordinator

Email: asotircho@drcc-phila.org

Phone: (215) 425-8350

Delaware Riverkeeper Network

925 Canal Street, Suite 3701
Bristol, PA 19007
www.delawariverkeeper.org



Audience: Middle School – College and Adult

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands

Organization Description:

The Delaware Riverkeeper Network gives voice, strength and protection to the communities and waterways of the Delaware River. Through independent advocacy, and the use of accurate facts, science and law, DRN works to ensure the rich and healthy future that can only exist with a free-flowing, clean, healthy and abundant with a diversity of life.

Programs Offered:

The Delaware Riverkeeper Network's annual Virtual Canoe Race is an educational multiple choice contest where middle and high School students have the opportunity to not only learn about the Delaware River, but also to win prizes throughout the competition. Participating youth are able to travel virtually along the entire stretch of the Delaware River from the comfort of their home! More information about our Virtual Canoe Race can be found at www.delawarivercanoeing.org.

Materials Available:

To inspire citizen action, the Delaware Riverkeeper Network provides citizens with the information, tools and training they need to make a difference for the River. For more information on materials currently available, check out the Resources section of our website, www.delawariverkeeper.org.

Additional Information:

The priority audience for the Delaware Riverkeeper Network's education and outreach efforts is the adult private citizen. Occasionally, we undertake teacher training activities that allow educators to enhance their efforts to incorporate environmental issues and advocacy into classroom instruction. The Virtual Canoe Race is our primary offering for middle school and high school students.

Contact Email: drn@delawariverkeeper.org **Phone:** (215) 369-1188

Destination Schuylkill River

4312 Main Street
Philadelphia, PA 19127
<http://manayunk.com/dsr>



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History, Urban Environment

Organization Description:

Destination Schuylkill River is a project of The Manayunk Development Corporation. We celebrate life along the Schuylkill River and seek to connect our communities to the river through planning, programming, and projects. With connections to a wide range of local recreational and environmental groups, we facilitate indoor and outdoor educational experiences for people of all ages to better understand the Schuylkill River watershed, and learn how they can help maintain it as a special natural place in the urban Philadelphia area for years to come.

Programs Offered:

- Partnerships to integrate watershed-friendly design and curricula into schools.
- Tours of local green stormwater infrastructure and urban-environmental history.
- Volunteering opportunities for trails improvement and community greening.
- Development of environmental art and interpretive signage along the Schuylkill River.
- Annual student art/photography competition.
- Seasonal events celebrating the spring and fall equinoxes, and the summer and winter solstices. PLAY Manayunk event in the spring (2015) celebrating environment and recreation in the Manayunk area.

Materials Available:

- Educational materials on area water trails, history of the Schuylkill River and Manayunk Canal, local land- and water-based recreational and environmental groups/event offerings.
- Assistance in developing and funding watershed curricula.

Contact: Kay Sykora

Email: ksykora@manayunk.org **Phone:** (267) 270-3073

Eastern PA Coalition for Abandoned Mine Reclamation (EPCAMR)

101 S. Main Street
Ashley, PA 18706
www.epcamr.org



Audience: Elementary – College and Adult

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Anthracite Mining History

Organization Description:

EPCAMR is a regional non-profit environmental organization that provides environmental education, outreach, community organizing, grant management, grant administration, and community development services to underserved coalfield communities throughout NE and NC PA's past mining impacted communities. EPCAMR also remediates streams and rivers impacted by abandoned mine drainage and reclaims abandoned mine lands. EPCAMR also provides technical mine mapping and GIS services related to surface and underground mines in PA.

Programs Offered:

See EPCAMR's website under Environmental Education.

Materials Available:

See EPCAMR's website under Environmental Education.

Contact: Robert E. Hughes

Email: rhughes@epcamr.org **Phone:** (570) 371-3523

Fairmount Water Works

640 Waterworks Drive
Philadelphia, PA 19130
fairmountwaterworks.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Drinking and Wastewater Treatment Plant Tours, Hands-On Science Lab

Organization Description:

The mission of the Fairmount Water Works (FWW) is to foster stewardship of our shared water resources by encouraging informed decisions about the use of land and water; educating citizens about Philadelphia's urban watershed – past, present and future – and collaborating with partners instills an appreciation for the connections between daily life and the natural environment.

Over the past 10 years, FWW has become the hub of innovative water and watershed education programming in the region.

Programs Offered:

Our Center offers educational opportunities for all visitors of all ages. In addition, FWW offers programs for school-age students (pre-K through college) and public programs for adults and families. We offer themed field trip opportunities for groups, intensive summer programs for middle and high school students, walking tours, public lectures/forums, volunteer and internship opportunities and a Saturday citizen science program for visitors. All programs integrate science, technology engineering, math and the arts.

Materials Available:

FWW provides professional and volunteer training opportunities. Our *Understanding the Urban Watershed* Curriculum Guide (Philadelphia-based and Regional Guide) and companion online teacher toolbox for educators is available through resourcewater.org. We also connect teachers, students, and the general public to guided tours related to environmental history as well as the ongoing watershed management through green stormwater infrastructure site visits throughout the city and region as well as drinking water and wastewater treatment plants facilities.

Contact: Ellen Freedman Schultz

Email: Ellen.Schultz@phila.gov **Phone:** (215) 628-0721

Friends of the Wissahickon

8708 Germantown Avenue
Philadelphia, PA 19118
www.fow.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

The Friends of the Wissahickon (FOW) is a 1,600 member, 501(c)(3) non-profit organization founded in 1924 with a mission "to preserve the natural beauty and wildness of the Wissahickon Valley and stimulate public interest therein." FOW works in partnership with Philadelphia Parks & Recreation to restore historical structures throughout the park, eliminate invasive plant species, monitor watershed management issues, and restore trails throughout the park system with its Sustainable Trails Initiative.

Programs Offered:

Free guided walks and talks for the public and small groups on a variety of environmental and historical subjects relating to the Wissahickon Valley.

Volunteers of all ages are welcome to participate in work days every Saturday morning throughout the park.

Adults over 18 are welcome to repair structures throughout the park every Tuesday or participate in the following training opportunities:

- Trail Ambassador Training - 8 week training course offered every Spring
Trail Ambassadors are park docents who aid and educate park visitors with anything from directions and safety needs to park's history, flora, fauna and geology.
- Volunteer Crew Leader Training - classes offered throughout the year
Crew Leaders are experienced volunteers who are skilled in leading volunteer groups in a park setting, experts in trail building and/or habitat restoration, able to share their knowledge and expertise with others, and committed to FOW's mission of habitat protection in the Wissahickon Valley Park.

Materials Available:

- Map of Wissahickon Valley - \$10
- Metropolitan Paradise: The Struggle for Nature in the City, Philadelphia's Wissahickon Valley 1620-2020 - \$85
- Four paperback volumes on the relationship between natural and urban environments.
- Archive of historical documents and photos (\$15 charge per use for non-Chestnut Hill Historical Society members)
- Checklist of the Birds of the Wissahickon (free)
- A List of Invasive Exotic Plants and Indigenous Plants in the Wissahickon Valley (free)
- A Homeowner's Guide to Protecting the Wissahickon Creek

Contact: Sarah Marley, Outreach Manager

Email: marley@fow.org

Phone: (215) 247-0417

GreenTreks Network/EcoExpress

1420 Walnut Street, Suite 1304
Philadelphia, PA 19102
www.ecoexpress.org



Audience: Elementary – College and Adult

Environmental Topics: Stormwater, Watersheds

Organization Description:

GreenTreks is a nonprofit video production and environmental organization that highlights environmental solutions to inspire actions within our community. We manage the website www.ecoexpress.org a free searchable video library for teachers.

Programs Offered:

Outreach programs to schools include professional development for adults about ecoexpress, storm water issues and climate change. We also are available for classroom visits with hands on activities relating to storm water management, climate change and watersheds. We also participate in Career Days. Fees vary.

Materials Available:

Teachers can access videos and their associated teacher materials on line, free of charge.

Contact: Anita Brook Dupree

Email: abdupree@greentreks.tv

Phone: (215) 545-5880

Green Valleys Watershed Association

1368 Prizer Road
Pottstown, PA 19465
www.greenvalleys.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

Green Valleys Watershed Association is a non-profit organization located in northern Chester County, Pennsylvania, in the Delaware River Basin. Founded in 1964, Green Valleys' mission is to *protect, preserve and restore the natural waterways of northern Chester County. We inspire, educate and involve our community to make a difference for our generation and generations to come.* Our headquarters, Welkinweir, is a 197-acre arboretum and nature sanctuary with ecologically diverse forest, meadow, pond and stream habitats.

Programs Offered:

For school groups, environmental education and watershed science-based programs on-site or at schools. Topics vary and address various academic standards. Fees per student vary from \$4 for 1-hour programs, to \$6 for 2 hour programs. After school Nature Explorers Clubs presented at specific schools, in conjunction with 3 school districts. Limited to certain number of participants in specific grades at each school. Fees vary.

For Scout troops, various topics based on Girl or Boy Scout badge requirements. Fees per Scout are \$10 per program.

For general public, night hikes to call for owls, study beaver and firefly behavior, and sensory activities, are offered three times per year. Preschool nature study classes offered onsite and at area libraries. Fees per person, per program, range from \$5 to \$7 for Green Valleys' members, and \$7 to \$10 for nonmembers. Programs at libraries are free.

Materials Available:

Various resources may be borrowed for pre-program, or follow-up activities to the programs.

Contact: Dawn White, Director of Environmental Education

Email: dwhite@greenvalleys.org

Phone: (610) 469-8646

Heritage Conservancy

85 Old Dublin Pike
Doylestown, PA 18901
HeritageConservancy.org



Audience: All Ages

Environmental Topics: Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

Heritage Conservancy's mission is to preserve and protect our natural and historic heritage. Heritage Conservancy is committed to being the region's premier, nationally accredited conservator. We are a community based organization dedicated to the preservation and protection of significant open spaces, natural resources, and our historic heritage. A champion of conservation best practices, Heritage Conservancy believes that everyone is responsible for stewardship and seeks to enlighten, engage, and empower others to help achieve this mutual vision.

Programs Offered:

Including bats and backyard wildlife habitat, Heritage Conservancy offers various in-school and on-site opportunities for learning. Educational-based field trips are available by appointment. Visit HeritageConservancy.org to learn more about us or call (215) 345-7020 to discuss your individual needs.

Materials Available:

A comprehensive set of teaching materials is available to support wetlands education in the classroom. These materials consist of 200+ pages of color handouts and an accompanying PowerPoint presentation that features Quakertown Swamp as an example of an important wetland area and vital ecosystem located in Bucks County, Pennsylvania. Educators can use these materials to integrate Environment & Ecology, Geography and Earth Science lessons while students learn about Quakertown Swamp in accordance with academic standards.

Contact Phone: (215) 345-7020

Independence Seaport Museum

211 S. Columbus Blvd and Walnut Street
Philadelphia, PA 19106
www.phillyseaport.org



Independence Seaport Museum

Audience: Elementary – College and Adult

Environmental Topics: Student Environmental Leadership, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History

Organization Description:

Learn about the region's rich maritime heritage at Independence Seaport Museum, located on the Delaware River--just a short walk from the Liberty Bell. Wander through galleries highlighting immigration, underwater exploration, and sea commerce; examine nautical art, artifacts, and intricate ship models; watch craftsmen building wooden boats; and explore the mighty Spanish-American War Cruiser Olympia, and the World War II Submarine Becuna - both National Historic Landmarks.

Programs Offered:

All programs are hands on and interactive. Highlights include Real Pirates of Philadelphia, Immigration, Early Explorers, and STEAM offerings such as Ecological Stowaways, Ecology on the Delaware, and Explosions, When Good Ships Go Bad. All lessons match state and national curriculum standards and include a visit to our historic ships! For more information visit www.phillyseaport.org.

Materials Available:

Pre and post materials are available at www.phillyseaport.org.

Contact: Kim Emmons

Email: kemmons@phillyseaport.org **Phone:** (215) 413-8626

John James Audubon Center at Mill Grove

1201 Pawlings Road
Audubon, PA 19403
johnjames.audubon.org



Audience: Preschool – Middle School

Environmental Topics: Student Environmental Leadership, Water Quality, Watersheds, Wildlife Ecology, Natural History, Wildlife Art

Organization Description:

Built in 1762 and listed on the National Register of Historic Places, Mill Grove was the first American home of artist and naturalist John James Audubon. Today, 175 acres of Mill Grove's original estate remains a haven for wildlife. The property includes nine miles of trails, and the historic home is a museum displaying original Audubon prints and artifacts. The John James Audubon Center is owned by Montgomery County and managed by National Audubon Society.

Programs Offered:

Onsite school programs include Birding with Binoculars, Wild about Birds, House Tour, Live Owl Presentation, Owl Pellet Dissection, Drawing with Nature, Stream Ecology, and Canoe Programs. Custom designed Scout programs available. Cost is \$8 per student with a minimum of 10 students. Canoe programs cost \$15 per student.

Onsite public programs include self-guided historic home tours, monthly free programming, seasonal events such as Holiday Open House and Sapsucker Festival, and canoe programs. Admission to historic home is \$5 for adults, \$4 for children (5-17), and \$3 for seniors (60+). Canoe programs cost \$15 per person.

Offsite school and Scout programs include Live Owl Presentation, Owl Pellet Dissection, and Water World: Water Quality Testing. Custom designed Scout programs available. Cost is \$150 per class with a maximum of 30 students. Large audience Live Owl Presentation programs are available for up to 300 students. Cost is \$350 for a one hour program.

Contact: Carrie Barron (Education Manager) and Janelle Wommer (Educator)

Email: jjac_education@audubon.org **Phone:** (610) 666-5593 ext. 109

Lehigh County Conservation District

4184 Dorney Park Road, Suite 105

Allentwon, PA 18104

www.LehighConservation.org



Audience: All Ages

Environmental Topics: Stormwater, Water Quality, Watersheds

Organization Description:

A dynamic partnership of 10 conservation professionals providing quality service to protect Lehigh County's diverse natural resources through leadership, technical assistance, education, land protection, promotion of sustainable development, and protection of water and soil quality.

Programs Offered:

- ENVIROSCAPE – hands-on activity that teaches all ages about water pollution – free of cost
- Stream Erosion Table – hands-on activity that teaches all ages about stream erosion – free of cost
- ENVIROTHON – program for High School and Middle School students which focuses on 5 environmental subjects – free of cost
- Water Cycle – hands-on activity that teaches all ages about the water cycle – free of cost
- Educational workshops on stormwater, rain barrels, etc. – cost determined on case by case basis
- Partnerships on grant opportunities including stream restoration projects, installation of rain barrels, rain gardens, etc.

Materials Available:

Brochures, calendars, pamphlets, etc. free of cost

Contact: Laura Hopek

Email: LHopek@LehighConservation.org

Phone: (610) 391-9583

Monroe County Conservation District

8050 Running Valley Road
Stroudsburg, PA 18360
www.mcconservation.com



MONROE COUNTY
CONSERVATION DISTRICT

Audience: All Ages

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History, Maple Sugaring

Organization Description:

The Kettle Creek Environmental Education Center is under the direction of the Monroe County Conservation District. We provide year-round environmental education programs for people of all ages. Our Center is dedicated to fostering community awareness through first-hand experience of the natural environment of the Poconos.

Programs Offered:

The Kettle Creek Environmental Education Center staff are dedicated to enriching your visit through "hands-on" natural history programs using the outdoors as our classroom. Each program will be adapted to the age level and abilities of your group and program lengths can be adjusted to fit your schedule. Although these programs are designed for use at our sites, they can also be done by the E. E. staff at your school or meeting place. It is possible to do activities at other suitable locations. We also offer slide programs and special environmental programs that may suit your needs. Our staff will be very happy to work with you to plan a program for your group.

- Standard Day Use - 3 hours or less.....\$ 3/student
- Standard Day Use - more than 3 hrs. (excluding lunch) \$ 5/student
- Tannersville Bog Tour.....\$ 3/student
- Slideshows or Assemblies..... \$ 50/program
- \$ 80/2 or more
- Out Of County Programs \$ 80/program
- \$100/2 or more

Contact: Roger Spotts

Email: rsmccd@ptd.net **Phone:** (570) 629-3061

Montgomery County Conservation District

143 Level Road
Collegeville, PA 19426

www.montgomeryconservation.org



**MONTGOMERY COUNTY
CONSERVATION DISTRICT**

Audience: Elementary – College and Adult

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Agriculture

Organization Description:

Established in 1957, Montgomery County Conservation District works to protect and improve the quality of life of the residents of Montgomery County and surrounding communities by providing, in cooperation with others, timely and efficient service, education, and technical guidance, for the wise use of our soil, water, and related resources. The district hosts the annual Envirothon, an environmental science event for local students at the high school, middle school and elementary school levels.

Programs Offered:

Presentations/workshops, Envirothon, volunteer and partnership opportunities

Materials Available:

Envirothon resource packets, wildlife and soil education kits, brochures, online resources

Contact: Krista Scheirer, Jessica Moldofsky

Email: kscheirer@montgomeryconservation.org

Phone: (610) 489-4506

Montgomery County Parks, Trails & Historic Sites—Green Lane Park

2144 Snyder Road
Green Lane, PA 18054
www.montcopa.org/pths



Audience: Preschool – Middle School

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

Montgomery County's Green Lane Park offers year-round education programs in addition to recreation opportunities including family camping, organized group camping, hiking, cross-country skiing, fishing, boating, boat rentals, picnicking, mountain biking, horseback riding, and bird watching on over 3,400 acres, including an 800 acre lake and two 30 acre lakes.

Programs Offered:

Programs for preschools, schools, home-school groups, scouts and general public offered year-round. School Program offerings include seasonal/sensory awareness (pre-K), wetlands and watersheds, aquatic ecology/macro-invertebrates, birds, insects, mammals, maple sugaring, milkweed/monarchs, white-tailed deer, birds of prey, All programs offered free-of-charge. Public programs include birding, maple sugaring, annual bird & wildlife festival, tree and wildflower walks, butterfly and insect walks, winter holiday craft programs, and many more.

Materials Available:

Lesson- appropriate handouts available for general public.

Additional Information:

Green lane park is a designated IBA (important bird area) in Pennsylvania.

Contact: Kevin Crilley

Email: kcrlley@montcopa.org **Phone:** (215) 234-4528

Morris Arboretum

100 East Northwest Avenue
Philadelphia, PA 19118
www.morrisarboretum.org



Audience: All Ages

Environmental Topics: Stormwater, Wetlands, Wildlife Ecology, Natural History

Organization Description:

Morris Arboretum of the University of Pennsylvania is a historic public garden and educational institution. It promotes an understanding of the relationship between plants, people and place through programs that integrate science, art and the humanities. The Arboretum is devoted to education, research, outreach, and horticultural display. As the official arboretum of the Commonwealth of Pennsylvania, Morris Arboretum provides research and outreach services to state agencies, communities and citizens of Pennsylvania and beyond.

Programs Offered:

The Morris Arboretum integrates art, science and the humanities in a 92-acre landscape of winding paths, streams, and special garden areas that holds thousands of woody plants, and some of Philadelphia's oldest, rarest, and largest trees. Over 150 classes and six conferences and lectures are available to the public annually.

Curriculum tours for school students include: Wetlands Exploration where students discover the function of wetlands and why they are so vital to nature; Interdependence, which shows students how important plants are and how we can take care of them; Secrets of Seeds uses flowers and seeds found at the Arboretum to teach plant reproduction. For our youngest visitors, 4 Seasons, 5 Senses makes connections between the seasons, plant growth, and how we perceive them. All tours are based on Pennsylvania Department of Education standards. A complete tour listing and pre-and post-visit activities for each tour are listed on the website.

Materials Available:

Pre- and Post-visit classroom activities are available for teachers online. Self-guiding tours and maps are also available online.

Contact: Lisa Bailey

Email: baileyL@upenn.edu

Phone: (215) 247-5777

Natural Lands Trust, Mariton Wildlife Sanctuary

240 Sunnyside Road
Easton, PA 18042
www.natlands.org



Audience: All Ages

Environmental Topics: Watersheds, Wildlife Ecology, Natural History

Organization Description:

Natural Lands Trust is dedicated to protecting the forests, fields, streams, and wetlands that are essential to the sustainability of life in eastern Pennsylvania and southern New Jersey. Since 1953, Natural Lands Trust has preserved more than 100,000 acres, including 42 nature preserves totaling more than 22,000 acres. Today, millions of people enjoy the healthy habitats, clean air and water, bountiful recreational opportunities, and scenic beauty provided by the lands the organization has preserved.

Programs Offered:

We work with teachers to apply what they are learning in the classroom in a general nature walk on Mariton's trails. We prefer to have our leaders work with groups of between 10 – 15 students while on the trail. Please call for pricing.

Contact: Tim Burris, Preserve Manager

Email: timburris@natlands.org **Phone:** (610) 258-6574

Nurture Nature Center

518 Northampton Street
Easton, PA 18042
<http://nurturenaturecenter.org>



Audience: Elementary – College and Adult

Environmental Topics: Stormwater, Water Quality, Watersheds, Marine/Coasts, Wildlife Ecology, Natural History, Earth Systems, Solar System and Planets, Habitats, Flooding, Atmosphere, Geology

Organization Description:

Nurture Nature Center (NNC) is a science-based community center located in downtown Easton, PA that provides dynamic educational programming on a variety of topics ranging from flooding to ecosystems to the solar system. Flooding is a central theme because NNC was developed in response to repeat flooding in Easton from 2004-2006. NNC hosts discussion forums, art galleries, and a large 6 foot suspended globe called Science on a Sphere where digital earth imagery is displayed.

Entry continued on next page

Nurture Nature Center, continued

Programs Offered:

NNC offers a range of programming: weekly Science on a Sphere (SOS) shows led by docents (free); weekend workshops on art and gardening are held almost monthly (costs range); environmental films and discussions are held monthly; SOS programming is available for school trips (\$5 per student with 20 student minimum); staff regularly go to local schools to deliver activity worksheets and films about flooding; and staff run hands on programs for scout and other student groups. Visitors can take in an SOS show and browse the art galleries at NNC. NNC is open to the public on Saturdays and Wednesdays from 10:00am-1:00pm, and Thursdays from 6:00pm-9:00pm. Please check our Events Calendar for a schedule of current programming.

Materials Available:

All materials are available by request or online: coloring workbook and DVD about flood education and awareness; guidebook for science and community centers about engaging dialogue about environmental risks; guidebook on STEM learning through science-based nature journaling for middle and high school teachers; a Lehigh Valley local food assessment; and much more. New content is being produced all the time.

Contact: Rachel Hogan Carr

Email: rhogan@nurturenature.org

Phone: (610) 253-4432

Peace Valley Nature Center

170 N. Chapman Road
Doylestown, PA 18901
Peacevalleynaturecenter.org



Audience: All Ages

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

Peace Valley Nature Center is an environmental education center and sanctuary dedicated to providing outdoor educational opportunities for people of all ages to promote a better understanding and appreciation for the world of nature. The Nature Center is a facility of Bucks County Parks & Recreation. The Friends of Peace Valley Nature Center is collaborative partner in providing environmental education.

Programs Offered:

Please refer to our website.

Materials Available:

Workshop available at posted times.

Contact: Gail M. Hill

Phone: (215) 345-7860

Pennsylvania Association of Conservation Districts, Inc. (PACD)

25 N. Front Street
Harrisburg, PA 17101
www.pacd.org



Audience: Elementary – College and Adult

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands, Natural History

Organization Description:

The Pennsylvania Association of Conservation Districts, Inc. (PACD) works to enhance locally-led efforts that support the wise use of the state's natural resources. PACD primarily serves as the collective voice for the state's 66 county conservation districts. They provide advocacy, education and training, program coordination and facilitation to districts and their constituents. PACD is a nonprofit, 501 C-3 organization. It receives financial support through dues, state and federal grants, and private and corporate donations.

Programs Offered:

In 1945, the state's legislators recognized the need to support grass-roots conservation efforts. As a result, the Conservation District Law was passed, and county conservation districts were formed. There are conservation districts established in 66 of Pennsylvania's 67 counties. Conservation districts implement a variety of programs, unique to the needs of their individual areas, and provide assistance for a range of issues such as:

- Abandoned Mine Cleanup
- Agricultural Land Preservation
- Chesapeake Bay Program
- Dirt and Gravel Roads Program
- Environmental Education
- Erosion & Sediment Pollution Control
- Floodplain Management
- Forest Management
- Nutrient Management Program
- Stormwater Management
- Waterway Protection
- West Nile Virus Surveillance Program
- Wildlife Management

Each district is led by a Board of Directors, comprised of individuals primarily from the agricultural and business communities. These volunteers work with district staff to enhance and protect natural resources in their home communities. To connect with your local conservation district, visit www.pacd.org/CD.

Materials Available:

PACD maintains a loan library of exhibits and audio visual materials, available for usage at no charge. Additionally, there are several printed materials such as fact sheets, brochures, etc. available for usage.

Contact: Robert Maiden, Executive Director; Brandy Hunter-Davenport, Director of Public Affairs & Education

Email: Robert-maiden@pacd.org; brandi-davenport@pacd.org **Phone:** (717) 238-7223

Pennsylvania DEP, Bureau of Conservation and Restoration, Nonpoint Source Management Program

400 Market Street, P.O. Box 8555
Harrisburg, PA 17105-8555
www.dep.state.pa.us



Audience: All Ages

Environmental Topics: Stormwater, Water Quality, Watersheds, Stream Ecology

Organization Description:

PA DEP's mission is to protect Pennsylvania's air, land and water from pollution, and to provide for the health and safety of its citizens through a cleaner environment. The Nonpoint Source Program works with local watershed groups, conservation districts, educational institutions, and local governments to restore polluted streams, lakes and rivers.

Programs Offered:

The Nonpoint Source Program can provide presentations relating to nonpoint source pollution and ways we can all work to reduce this type of pollution. We can fund efforts of local groups to implement practices to correct stormwater runoff problems in their communities including green infrastructure projects. We also can provide support to local groups who are interested in monitoring their local streams and lakes to determine the pollution status of these water bodies.

Materials Available:

Various materials available as listed on the DEP website.

Contact: Douglas A. Goodlander

Email: dgoodlande@pa.gov **Phone:** (717) 772-5642

Pennsylvania Department of Environmental Protection Coastal Resources Management Program

400 Market Street
Harrisburg, PA 17105-8465
www.state.pa.us



Audience: College and Adult

Environmental Topics: Watersheds, Wetlands, Marine/Coasts

Organization Description:

The Interstate Waters Office coordinates Pennsylvania's responsibilities as a member of interstate river basin organizations and helps develop strategies to utilize established river basin commissions and interstate associations as vehicles to advance partnerships. In the Delaware Estuary and Lake Erie watersheds, the Office coordinates and implements the Department's Coastal Resources Management Program (CRM), which is a federally funded and approved management program for Pennsylvania's two coastal areas.

Contact: Andrew Zemba

Email: azemba@pa.gov **Phone:** (717) 772-4785

Pennsylvania DEP Environmental Education and Information Office

PO Box 2063 RCSOB
Harrisburg, PA 17105
www.dep.state.pa.us



Audience: All Ages

Environmental Topics: Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History, Energy Education

Organization Description:

Environmental Education Grants

- DEP awards grants to colleges and universities, K-12 schools, county conservation districts, businesses and non-profit organizations, municipalities to do professional development, curriculum integration, hands-on lessons as well as covering costs associated with watershed education, energy, air quality, sustainability and other environmental education topics.
- This program is funded through a portion of fines and penalties collected by DEP.
- A total of \$1,825,000 was awarded to 466 schools, colleges/universities and organizations from the 2011 grant round through the 2014 round.

Programs Offered:

The Keystone Energy Education Program (KEEP)

- Keystone Energy Education Program (KEEP) is a series of free workshops designed to educate teachers, administrators and building managers about energy use, ways to save energy, and enhance student career development to include all energy technologies.
- Twelve workshops were conducted statewide in the fall of 2013 and spring of 2014.
- Through the workshops, 149 teachers, 43 facility managers and 32 administrators worked together to enhance curriculum and learn how to implement benchmarking through Energy Star Portfolio Manager.
- During 2011 and 2012, DEP's Environmental Education staff conducted 18 energy education workshops providing classroom content and resources to 360 teachers and non-formal educators.

Materials Available:

Follow topics links to find related resources: www.portal.state.pa.us/portal/server.pt/community/just_for_kids/13936

Additional Information:

DEP at Home Exhibit

- The DEP at Home Exhibit is a three-room life-size 20 x 30 foot model house, features a kitchen, bathroom/laundry room, "green building" materials corner and a new garage that features a EV (level 2) charging unit and a CNG sample fueling system. The garage also featured information about various transportation fuels, household hazardous waste, native plants and integrated pest management.
- Since the debut of the exhibit at the 2013 Farm Show, the exhibit has been featured at 15 home shows and major events, reaching over 1 million visitors.

Contact: Jack Farster

Email: jfarster@pa.gov **Phone:** (717) 772-1828

Perkiomen Watershed Conservancy

1 Skippack Pike
Schwenksville, PA 19473
www.perkiomenwatershed.org



Audience: Preschool – Middle School & College and Adult

Environmental Topics: Stormwater, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

The Conservancy works to conserve and protect water quality and resources through commitment to and leadership in environmental education, watershed stewardship and conservation programs. Educational programs for children from 3 years - middle school utilizes age appropriate, hands-on, minds-on programming to help students move from awareness to action. Conservation initiatives seek to partner with high schools and organized groups to increase awareness of stormwater management practices, riparian buffer maintenance and clean streams.

Programs Offered:

Preschool Science Programs include seasonal offerings and Animal Adventure Hours™, on- and off-site programs available. \$7.50 on-site/\$8.50 off-site

Elementary School Programs include Animal Adaptations/Sunlight Energy Flow/Field & Stream Communities and Watershed Education. Fees vary. Some programs can occur in school classrooms, others only on our site.

Middle School Programs focus on watershed education. On- and off-site. Fees vary.

All Conservancy programs meet the PDE Academic standards for Environment & Ecology.

The Conservancy's vast array of programs can be accessed by using the website.

Materials Available:

"Managing Our Water Resources, Stormwater Best Management Practices", DVD outlining 8 different BMP's that can be used in new or retrofitted developments. The DVD is available for a small shipping and handling fee. In addition our website is filled with information pertaining to watersheds and Best Management Practices.

Contact: Trudy Phillips, Director for Environmental Education

Email: tphillips@perkiomenwatershed.org **Phone:** (610) 287-9383

Philadelphia Water

1101 Market St., 5th Floor

Philadelphia, PA 19107

www.phila.gov/water

www.phillywatersheds.org



Audience: Elementary – College and Adult

Environmental Science: Stormwater, Water Quality, Watersheds, Drinking & Wastewater Treatment

Organization Description:

Whether providing safe water for residents to drink, supplying water for industries to manufacture goods, or protecting the region's water resources, serving our customers with quality has been our commitment throughout our nearly 200-year history.

Programs Offered:

Philadelphia Water (PWD) offers a wide range of programming on stormwater management, urban greening, and our diverse urban watersheds. PWD is also proud to offer tours of our drinking and wastewater treatment facilities.

For more programming opportunities please visit the Fairmount Water Works (FWW). An educational initiative of PWD installed in one of Philadelphia's most historic sites, the Fairmount Water Works, provides educational programs for groups and individuals of all ages. More information about the FWW is available on page 64.

Materials Available:

"Let's Learn About Water" activity book

"Philadelphia Schools & Their Watersheds" wall map

"Green City, Clean Waters" overview handout

Green Stormwater Infrastructure overview handout

"Beneath our Feet" - *Facts about Philadelphia's Water Delivery System* handout

"Find Your Watershed" (http://www.phillywatersheds.org/your_watershed/find_your_watershed)

Use our online mapping tool to learn more about the watershed(s) you live, learn and play in.

"CSOcast" (www.phillywatersheds.org/csocast) Philadelphia Water's online notification system for combined sewer overflows.

Contact: Chris Anderson

Email: Christopher.Anderson@phila.gov

Phone: (215) 683-3238

Physicians for Social Responsibility, Philadelphia

1501 Cherry Street
Philadelphia, PA 19102
www.psrphila.org



Audience: Elementary – College and Adult

Environmental Topics: Water Quality, Watersheds, Human Health Impacts

Organization Description:

PSR - a public health nonprofit organization - aims to protect the health of people, the environment and communities through education, training, direct service, and advocacy. Our two divisions – Violence Prevention/Youth Mentoring and Environmental Health – offer educational programs, training, direct service, and advocacy.

Programs Offered:

Nature to Nurture connects urban children with the benefits of nature through semi-structured play activities. Pharmaceutical Pollution Prevention projects and education are geared toward safer disposal of unwanted medicines at home. Safer energy work advocates for protecting health from extreme methods of fuel extraction (i.e. hydraulic fracturing or fracking). Recognizing that climate change is the most significant issue facing this and future generations, we educate about mitigation and adaptation strategies to protect health.

Materials Available:

Free downloads of fact sheets about fracking's impacts on health – focus on air pollution, water contamination and farmland – are available online. Access to fracking webinars are free. Information concerning safe disposal of medicines is available on our website and videos are on our Youtube channel.

Additional Information:

Fees may be associated with various programs. For speakers, PSR requests honoraria. PSR welcomes opportunities to jointly apply for grants.

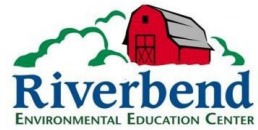
Contact: Cherie Eichholz, MA

Email: Info@psrphila.org

Phone: (267) 519-5299

Riverbend Environmental Education Center

1950 Spring Mill Road
Gladwyne, PA 19035
www.riverbendeec.org



Audience: Preschool – Middle School

Environmental Topics: Water Quality, Watersheds, Wildlife Ecology, Natural History

Organization Description:

Riverbend seeks to Grow Greener Children through our mission to teach environmental education principles to children in Southeastern Pennsylvania through a direct connection with nature, inspiring a respect for the natural world and action as aware, responsible and caring citizens.

Programs Offered:

Riverbend offers a wide variety of high quality education programs to schools in our region. Many schools will visit our 30 acre preserve in suburban Philadelphia for a field trip experience, topics can include Pond and Stream, Have to Have a Habitat and Watersheds. Schools that are not able to come out, or that want to expand their field trip, can choose to a Riverbend on the Road program in their classroom or a Field Trip to Your Schoolyard program.

Prices vary by program: \$6-11/student for field trips and \$80-125/hour for Riverbend on the Road programs.

Riverbend also offers professional development opportunities to teachers and extensive programming for schools in low-income areas of our region. Check out website or call for more information.

Contact: Stacy Carr-Poole, Director of Education

Email: scarr@riverbendeec.org **Phone:** (610) 527-5234

Schuylkill Action Network

Partnership for the Delaware Estuary
110 S. Poplar Street
Wilmington, DE 19801
www.schuylkillwaters.org



Audience: Elementary — College and Adult

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Marine/Coasts, Wildlife Ecology, Natural History

Organization Description:

The Schuylkill Action Network (SAN) is a collaboration of federal, state, and local governments, local watershed organizations, land conservation organizations, businesses, academics, and water suppliers that share information, expertise, and technology to help achieve the shared vision of clean water and a healthy environment for the Schuylkill River and its tributaries. The SAN seeks to achieve this vision through enhanced communication and collaboration, project implementation, and promotion of long-term stewardship.

Programs Offered:

- Schuylkill Action Students: is an initiative targeted at forming partnerships with schools to implement innovative stormwater management practices on school campuses to improve water quality in the Schuylkill River and protect drinking water and other aquatic resources. If interested in a stormwater project or educational component please contact Tom Davidock, (800) 655-4990 x109 for more information.
- Scholastic Water Protection Awards: is an awards program that recognizes schools, colleges, and universities working to protect drinking water sources through educational programs and land management practices.

Materials Available:

- [Let's Learn About the Schuylkill River Watersheds](#)
- [A Guide to Stormwater Management on School Campuses](#)
- [Understand the Urban Watershed: A Regional Curriculum Guide for the Classroom](#)

Additional Information:

More resources and information available at www.schuylkillwaters.org.

Contact: Tom Davidock, SAN Coordinator

Email: tdavidock@DelawareEstuary.org

Phone: (302) 655-4990 ext. 109

Schuylkill Center for Environmental Education

8480 Hagy's Mill Road
Philadelphia, PA 19128
www.schuylkillcenter.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

The Schuylkill Center inspires meaningful connections between people and nature. We use our 350 acres of forests and fields as a living laboratory to foster appreciation, deepen understanding, and encourage stewardship of the environment.

Programs Offered:

Watershed Education Programs On-Site \$5/student

- **First Look at a Pond** Grades pre-K—1, Explore one of our many ponds and find out what makes it such a special habitat.
- **Pond Community** Grades 2—3, Explore two unique ponds and learn about the variety of plants and animals that live there. Explore the relationships that exist between organisms and their environment. Find out how the pond ecosystem changes throughout the year.
- **Wetlands** Grades 4—12, Students will discover the secrets of wetlands as they experience first-hand the features and functions of this unique ecosystem. Learn to identify the specific characteristics of wetland plants and soils while collecting and analyzing soil samples and dissecting plant stems.
- **Water Survey** Grades 4—12, Discover the importance of water to all life. Trace the source of drinking water and factors that impact its quality. Hike to a pond or stream to perform a habitat assessment, chemical tests and a biotic survey to determine the health of the waterway.
- **Aquatic Ecology and Water Quality** Grades 4—12, \$10/student, Through laboratory investigations, a trail hike and a water quality study of a pond or stream, students will discover the importance of water to all living things.

Watershed Education Programs at Your School \$100/class + travel fee

- **What's with Water** Grades 3—12, This program is a comprehensive introduction to water as a natural resource and a thorough exploration of the water cycle.
- **Watershed Mapping Walk** Grades 3—12, Find your watershed address and where your drinking water comes from. Analyze the factors affecting it, and then explore your school's neighborhood to determine its impact on your water supply. Brainstorm ways to improve water quality through changing behavior.
- **Watersheds & Water Pollution** Grades 3—12, Students build a model watershed and learn how human behavior affects life there by following the journey of "Fred the Fish" as he attempts to survive in a polluted city river.
- **Wetlands & Water Quality** Grades 3—12, Students learn how these special ecosystems act as sponges, purifiers, buffers and nurseries. Students compare these natural cleaners to a water treatment plant by constructing their own water filter.
- **Water Quality Testing** Grades 3—12, Students model the work of scientists as they use a combination of chemical and biological tests to determine the water quality of a local waterway.

Materials Available:

The Schuylkill Center offers a variety of teacher/educator workshops (including *Wonders of Wetlands*, *Project Learning Tree*, and sustainable technologies) through which teachers can earn Act 48 credit hours. The Schuylkill Center is located on 350 acres of open space in Philadelphia, where the outdoors become the classroom, and a vast array of natural resources are available for teachers. Visit our website and calendar for details and a current schedule of programs for teachers and schools.

Contact: Camila Rivera-Tinsley

Email: scee@schuylkillcenter.org

Phone: (215) 482-7300

Schuylkill Headwaters Association, Inc.

P.O. Box 1385

Pottsville, PA 17901

schuylkillheadwaters.org



Audience: Middle School – College and Adult

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Legacy Mining, Abandoned Mine Drainage

Organization Description:

The Schuylkill Headwaters Association (SHA) is a 501(c)3 organization. We were founded in 1998 with the mission “to promote the environmental integrity of the Schuylkill River, its tributaries, and the watershed that lies within the boundaries of Schuylkill County.” SHA works to protect and enhance the headwaters of the Schuylkill River by educating residents about the Schuylkill River and by implementing projects to reduce and control pollution.

Programs Offered:

Partnerships with local public and private schools to enhance the classroom curriculum with hands-on activities, educational resources, community service opportunities, and field trips. Programs and projects are tailored to fulfill individual school requests. SHA provides opportunities for older adults to play active, visible roles in protecting and improving the environment thru the Schuylkill County Retired Senior Volunteer Program (RSVP). RSVP volunteers monitor the water quality of the Schuylkill River and its tributaries.

Contact: Bill Reichert

Email: wreichert@co.schuylkill.pa.us

Phone: (570) 622-3742 ext. 118

Schuylkill River Heritage Area

140 College Drive
Pottstown, PA 19464
www.schuylkillriver.org



Audience: Elementary – College and Adult

Environmental Topics: Watersheds, Natural History

Organization Description:

The Schuylkill River Heritage Area is a National and State Heritage Area encompassing the Schuylkill River watershed through Philadelphia, Montgomery, Chester, Berks and Schuylkill Counties. It uses conservation, education, recreation, historic and cultural preservation and tourism as tools for community revitalization and economic development. The organization's signature project is building and improving the Schuylkill River Trail. Its signature event is the annual Schuylkill River Sojourn, and signature attraction is the River of Revolutions Interpretive Center.

Programs Offered:

The River of Revolutions Interpretive Center, located in our headquarters, is available for small groups of students wishing to learn about the role the Schuylkill River region played in three revolutions: the American, Industrial and Environmental. The center features:

- A table with a relief map of the Heritage Area and touch screens with narrated tours of sites related to the three revolutions.
- Text, graphics, displays and video related to: the Philadelphia Campaign during the American Revolution, the region's coal mining and manufacturing history, and the environmental cleanup that saved the Schuylkill in the mid-20th.
- A large wall map detailing visitor sites, recreational opportunities, significant trails and other points of interest.

Space is small and reading is required for most panels. A nature walk along the section of Schuylkill River Trail behind the building could supplement a visit to the Interpretive Center. Reservations required. Free.

Materials Available:

Studies and reports associated with the Schuylkill River watershed are available on our website. We also have books and water trail guide maps available for sale on our website at www.schuylkillriver.org.

Contact: Laura Catalano

Email: lcatalano@schuylkillriver.org

Phone: (484) 945-0200

Silver Lake Nature Center

1306 Bath Road
Bristol, PA 19007

www.silverlakenaturecenter.org



Audience: All Ages

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History

Organization Description:

Silver Lake Nature Center is a 235-acre "natural treasure" in the heart of the southern portion of Bucks County, Pennsylvania. It has 4.5 miles of trails and forests, wetlands, and diverse plant life. Friendly, knowledgeable, professional staff provide educational and recreational programs. Located close to Philadelphia and just a short distance from I-95, the Delaware Valley exit of the Pennsylvania Turnpike, the R-7 Regional Rail line, and the SEPTA buses 128 and 129, the Center is easy to reach.

Programs Offered:

On-site field trips and outreach programs for schools and other groups (preschool through adult), Birthday Parties, Scout Programs, Kayak Trips, Free Guided Walks on Trails Sunday at 2PM, Birding Field Trips, PA master Naturalist Program provider, and much more!

Contact: Lorraine Skala

Email: silverlakenaturecenter@co.bucks.pa.us **Phone:** (215) 785-1177

The Stroud Water Research Center

970 Spencer Road
Avondale, PA 19311
www.stroudcenter.org



Audience: Elementary – College and Adult

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands, Water Quantity, Freshwater Ecology, Research, Restoration, Riparian Buffers

Organization Description:

We believe the future of freshwater starts right here with you! Since 1967, the Stroud Water Research Center's internationally acclaimed scientists and educators have been focused on one thing — fresh water.

While our research concentrates on streams and rivers —of equal importance is our ability to make the Center's research findings accessible to a broad audience of teachers, students, policy makers and others, with the goal of cultivating the public understanding necessary to protect, preserve and restore watersheds everywhere.

Programs Offered:

Through a combination of field and classroom instruction, as well as packaged curricula such as the Leaf Pack Network® program, the Center's educators use the watershed as the theme around which to discuss science, build stewardship and affect public policy.

A variety of programs and public lecture series for students, teachers, scout groups, watershed associations and conservation groups allows our educators and scientists to serve audiences ranging from elementary school children to adults. Come see us and get your boots in the water as we explore our local streams!

Materials Available:

Visit our STROUD EDUCATION website to find all kinds of fun and engaging freshwater education tools ranging from macroinvertebrate keys, images, videos and monitoring kits:
<http://www.stroudcenter.org/education/index.shtm>

Additional Information:

We also have funding for public schools to visit us through the EITC program (Education Improvement Tax Credit), so please contact us for more information!

Contact: Tara Muenz

Email: tmuenz@stroudcenter.org

Phone: (610) 268-2153 ext. 301

Tidewaters Gateway Partnership, Inc.

5556 Stump Road
Pipersville, PA 18947

Audience: College and Adult

Environmental Topics: Water Quality, Watersheds, Wetlands, Wildlife Ecology

Organization Description:

Water quality control/designation/SPW for Delaware River Tidewaters from Trenton to the ocean.

Contact: Richard H. McNutt

Phone: (215) 766-8668

Tookany/Tacony-Frankford Watershed Partnership

4500 Worth Street
Philadelphia, PA 19124
ttfwatershed.org



Audience: Elementary – College and Adult

Environmental Topics: Student Environmental Leadership, Stormwater, Water Quality, Watersheds, Wetlands

Organization Description:

TTF is dedicated to improving the health and vitality of our watershed by engaging our communities in education, stewardship, restoration, and advocacy. We provide educational workshops, tours, and hands-on service opportunities.

Programs Offered:

Educational workshops including Watershed Heroes and hands-on projects including native plantings and green infrastructure maintenance, stream and park clean-ups, storm drain marking, citizen water quality monitoring, and mussel surveying.

Materials Available:

Watershed and park maps; Green stormwater infrastructure project tour and maintenance information.

Contact: Julie Slavet

Email: Julie@ttfwatershed.org **Phone:** (215) 744-1853

US Fish and Wildlife Service, John Heinz National Wildlife Refuge at Tinicum

8601 Lindbergh Blvd

Philadelphia, PA 19153

www.fws.gov/refuge/John_Heinz



Audience: All Ages

Environmental Topics: Water Quality, Watersheds, Wetlands, Wildlife Ecology, Natural History, Junior Duck Stamp, Green Buildings, Youth Conservation Award

Organization Description:

Located in Philadelphia and Delaware Counties, the John Heinz National Wildlife Refuge at Tinicum was established in 1972 for the purpose of preserving, restoring, and developing the natural area known as Tinicum Marsh, to promote environmental education, and to afford visitors an opportunity to study wildlife in its natural habitat. The refuge is one of more than 600 refuges administered by the U.S. Fish and Wildlife Service.

Programs Offered:

Since its establishment in 1972, the refuge has worked with area educators to provide educational opportunities for their students. Our programs provide teachers with the information, skills, and resources to incorporate the environment into their curriculum and to utilize the refuge as an outdoor classroom as well as engage students in hands-on activities that inspire and connect them directly to nature. "Connecting People to Nature" is a national program and priority of the U.S. Fish and Wildlife Service.

Materials Available:

- Free field trip destination and bus funding program.
- Lessons available for download on our website.
- Loan box program.
- Professional development workshops (normally \$20 - \$30 per book).

Contact: Mariana Bergerson, Deputy Refuge Manager; Erika Scarborough, Environmental Education Specialist

Email: johnheinznrw@fws.gov **Phone:** (215) 365-3118

White Clay Creek Wild and Scenic River Program

182 Sawmill Road
Landenberg, PA 19350
www.whiteclay.org



Audience: All Ages

Environmental Topics: Stormwater, Water Quality, Watersheds, Water Wise Landscaping

Organization Description:

The White Clay Creek is a federally protected watershed. Our mission is to promote and support the preservation, protection, restoration, and enhancement of natural and cultural resources, and in addition, encourage a balance of recreational enjoyment of the White Clay Creek Watershed in Pennsylvania and Delaware.

Programs Offered:

Scholarships available to schools for field trips to Stroud Water Research Center or Delaware Nature Society. Summer internships, periodic volunteer projects.

Materials Available:

Watershed passports for the white clay creek and trail maps

Contact: Shane Morgan

Email: mpc@whiteclay.org **Phone:** (484) 716-6836

Wissahickon Environmental Center

300 W. Northwestern Avenue
Philadelphia, PA 19118
www.phila.gov/ParksandRecreation/environment/environmentaleducation



PHILADELPHIA
PARKS & RECREATION

Audience: Preschool – High School

Environmental Topics: Stormwater, Watersheds, Wildlife Ecology, Natural History, PWD Green Cities, Clean Water

Organization Description:

One of Philadelphia Parks and Recreation's two Environmental Education Centers. Located in the Wissahickon Valley Park, the center offers outdoor school programs, outreach programs, public programs, and summer camps.

Programs Offered:

On-site field trips, outreach programs, summer nature camps, watershed education, public programs including bird walks, plant walks, campfires, and special events

Contact: Patricia Fries

Email: wec@phila.gov **Phone:** (215) 685-9285

Additional Resources



Delaware Estuary Teacher Workshops

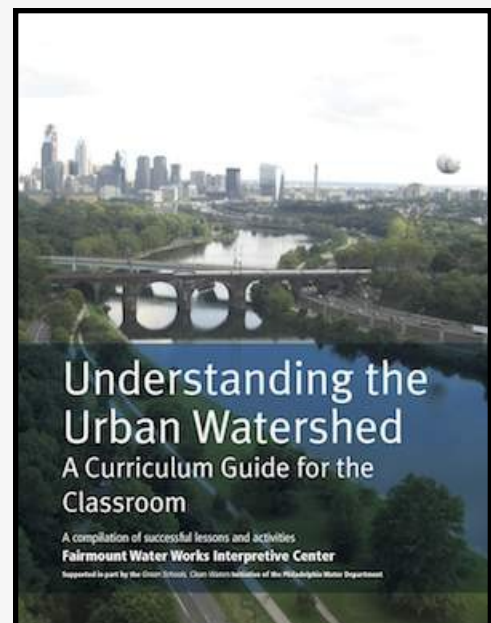
Educators from all walks of life are invited to attend our annual summer workshops. Learn practical, interdisciplinary ways to translate the environmental experience in your classroom while earning clock (professional development) hours in Delaware, New Jersey and Pennsylvania. Dates, topics and locations vary annually.

Find out more at:
www.delawareestuary.org/teacher-workshops

Understanding the Urban Watershed Curriculum Guide

Fairmount Water Works has developed an excellent curriculum guide with accompanying teacher resources titled "Understanding the Urban Watershed." This resource is available in two versions: Philadelphia and Regional. The guide includes a series of thematic units, each with its own objectives and hands-on lessons to help your students become active participants in 21st century solutions to urban water challenges.

Download the guide and access additional resources at:
resourcewater.org



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Partnership for the Delaware Estuary, Inc.
110 South Poplar Street, Suite 202
Wilmington, Delaware 19801
1-800-445-4935
www.DelawareEstuary.org

The Partnership for the Delaware Estuary, a National Estuary Program, leads science-based and collaborative efforts to improve the tidal Delaware River and Bay, which spans Delaware, New Jersey, and Pennsylvania.



Philadelphia Water Department
Public Education Unit
1101 Market Street, 3rd Floor
Philadelphia, Pennsylvania 19107
215-685-6300
www.phila.gov/water



Fairmount Water Works
640 Water Works Drive
(below the Philadelphia Museum of Art)
Philadelphia, PA 19103
215-685-0723
www.fairmountwaterworks.org

Celebrating 200 Years (1815 – 2015)

Hours:

Tuesday - Saturday: 10:00 AM – 5:00 PM

Sunday: 1:00 PM – 5:00 PM

Closed on City Holidays.

Admission is free and the Center is ADA accessible.

