# Loudoun Environmental Education Resource Guide



November 2020 Edition



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#### Introduction

Spurred on by Richard Louv's book <u>Last Child in the Woods</u>, parents and educators across the nation are beginning to recognize the benefits of outdoor play for America's youth. A recent study found that children today spend an average of 6 hours each day in front of the computer and TV, but less than 4 minutes a day in unstructured outdoor play. Research shows that getting kids out in nature increases their physical activity, reduces loneliness, depression and attention problems and is essential to their cognitive, physical, social and emotional well-being.

#### What Is the Purpose of This Guide?

A number of public, private, and volunteer organizations and interest groups in Loudoun County include environmental education as part of their mission. The purpose of the

Loudoun Environmental Education Resource Guide (Guide) is to catalog these organizations and their programs/activities, educational materials and resources, training classes, and facilities where available. It is hoped that this Guide will be helpful to educators, students, parents, civic organizations, and businesses whenever they wish to find an organization or a facility that supports environmental education and/or action.

Information in this edition was provided by organizations that were active in Loudoun County as of October 1, 2020. For the latest updates, visit <a href="https://www.loudounnature.org">www.loudounnature.org</a>.



Collecting insects at the Rust Nature Sanctuary (photo courtesy Audubon Naturalist Society)

### What Is LEEA?

The Loudoun Environmental Education Alliance (LEEA) is a voluntary coalition of individuals representing nonprofits, schools, governments and corporations with a common interest in environmental education and stewardship in Loudoun County, Virginia. Formed in 2007, LEEA serves the shared interests of its member organizations, promotes environmental programs and outdoor experiences in the county, and provides links to resources for environmental education and outdoor recreation.

LEEA members comprise an extraordinary pool of expertise and knowledge which can be tapped to support your environmental literacy objectives. Several member organizations offer site resources that afford quality learning and recreational time in the outdoors. It is our hope that you not only find this Guide informative but that you make it a point to utilize what these organizations offer to meet the needs of your organization.

If you are aware of any other organizations that have resources of potential interest to local environmental educators, please contact us at <u>LEEA@loudounnature.org</u>.

#### LEEA's Mission and Vision

**Mission:** We foster environmental stewardship within Loudoun County by promoting education, cultivating collaboration, and inspiring community engagement. We serve residents of all ages, including educators, K-12 students, families and groups interested in environmental education.

**Vision:** We believe in an environmentally literate and equitable Loudoun County where values and community choices lead to the protection of the environment and natural resources for present and future generations. We envision easy access to meaningful environmental education experiences for all county residents.

## Sites for Outdoor Environmental Education Experiences

Loudoun County is fortunate to have a number of sites that offer outdoor environmental education programs and environmental experiences for families, children, and adults. The sites listed below offer regular environmental programs staffed by professional naturalists, natural areas and habitat to explore, and parking and bathroom facilities. Information on these sites is provided in the profiles in this Guide.

- Banshee Reeks Nature Preserve
- Blue Ridge Center for Environmental Leadership
- Broadlands Nature Center
- Claude Moore Park

#### What about Fees and Reservations?

While several organizations and businesses profiled in this Guide charge fees for their programs, especially if a professional naturalist or environmental educator leads the program, the majority of the programs are provided at no cost to requesting individuals or organizations.

Be aware that most facilities require an advance reservation for a group program or activity to ensure that both the facilities and the staff accommodating your visit are available. The organization of interest should be contacted when planning a field trip to determine its fee and reservation requirements.

#### **Loudoun Outdoors Guide**

A complete inventory of parks and publicly-accessible natural areas in Loudoun County is available in the "Loudoun Outdoors Guide" published annually by the Piedmont Environmental Council.

#### Banshee Reeks Nature Preserve

21085 The Woods Rd. Leesburg, VA 20175 Ron Circé, Preserve Manager, 703-669-0316 www.loudoun.gov/1277/Banshee-Reeks-Nature-Preserve

The Banshee Reeks Nature Preserve (BRNP) consists of approximately 695 acres of mixed habitats including woodlands, savannah fields, pollinator meadows, wetlands, and 2-½ miles of riparian habitat on Goose Creek, a State Scenic River. Visitors can experience these diverse habitats by hiking the approximately 20 miles of trails throughout the preserve. BRNP is also a great place to walk with the family, bird watch, have a picnic, and enjoy nature, but please keep in mind that your pets must be kept on a leash. The preserve's hours vary seasonally, so make sure to check the current hours on the Loudoun County website before visiting.

The preserve features a Visitor Center that opens one hour after the preserve opens and closes one hour before the preserve closes. In 2015, the display room was refurbished with museum-quality specimens of local flora and fauna. A honeybee display and visible hive provide an exciting inside view of the colony at work. This overlooks our pollinator garden that volunteers have tended over the years.

BRNP also contains two classrooms (the Education Annex and Carriage House) that can be reserved by contacting the preserve. Both classrooms contain audio-visual equipment, and other equipment can be made available by arrangement.

Restrooms are available at the Visitor Center and in the classrooms when they are open. There is ample parking for visitors, with space for 100 cars.

After hours activities may be approved and scheduled by contacting BRNP staff to obtain a permit. Please contact the Preserve Manager for more information about the preserve and its programs.

## Blue Ridge Center for Environmental Stewardship

11661 Harpers Ferry Rd.
Purcellville, VA 20132

<u>Darlene Lamoureux</u>, Operations Manager, 540-668-7640

<u>Spring Ligi</u>, Volunteer Coordinator

www.blueridgecenter.org info@blueridgecenter.org

#### **Mission Statement**

The Blue Ridge Center for Environmental Stewardship (BRCES) is a place where farming, nature, and history converge to show the connections between people and the natural world. The 894 acres are home to deep woods and streams, wildflower meadows, historic farmsteads, an organic farm, wildlife and farm animals.

## **Programs/Activities**

**Walking/Hiking:** BRCES has 10 miles of hiking trails open to individuals, families, groups, or school groups from dawn to dusk, 7 days a week.

**Bird/Wildlife Watching:** Monthly birding walks, annual butterfly walks and other family-oriented nature walks are conducted in partnership with Loudoun Wildlife Conservancy. A calendar of monthly programs is available on the BRCES website.

**Volunteer Opportunities:** Volunteers provide critical support for the Blue Ridge Center to protect, preserve, and enjoy nature. We are always eager to engage volunteers and offer a variety of opportunities including maintaining our pollinator and rain gardens, becoming a Trail Steward or Bluebird Monitor, leading or assisting with nature, farm, or history walks/events, and assisting with educational programs/materials. Group or scout project ideas are also welcomed.

**Partner Programs:** BRCES is happy to host volunteer groups to conduct their programs on BRCES land. We work closely with Loudoun Wildlife Conservancy, Virginia Master Naturalists, and more.

**Nature Play Area Under Development:** BRCES and partners are working to create an area for children to explore, play, and connect with nature. Completion targeted for Spring 2021.

**Camping:** Tent camping is available for groups and families by advance reservation only. Groups interested in doing a service project are welcome. Please email info@blueridgecenter.org for rates and booking.

**Organic Farming:** An organic farm is located on-site. For information contact Mountain View Farm at <a href="mailto:mvforganics@gmail.com">mvforganics@gmail.com</a>.

#### **Environmental Education, Training, Classes**

BRCES welcomes proposals for guest researchers to use the property as a laboratory. Researchers may be students, academics, partner public agencies, or individuals interested in the BRCES mission. Please email <a href="mailto:info@blueridgecenter.org">info@blueridgecenter.org</a> for more information.

## **Educational Materials/Resources**

Trail maps are available to use while on-site.

## Broadlands Nature Center - Staffed by Audubon Naturalist Society

21907 Claiborne Parkway Broadlands, VA 20148 Rachel Merino, Naturalist, 703-729-9726 www.broadlandshoa.org www.anshome.org

#### **Mission Statement**

The Broadlands Nature Center provides nature education and conservation in the Broadlands Community under the auspices of the Audubon Naturalist Society of the Central Atlantic States, Inc.'s mission statement to foster stewardship of the Washington region's environment by educating citizens about the natural world, promoting conservation of biodiversity, and protecting natural habitat. Broadlands is a National Wildlife Federation Certified Community.

### **Programs/Activities**

**Visiting the Nature Center:** The Nature Center is open to the public free of charge from 9 am to 5 pm Monday through Friday. Also open some Saturdays; check the Broadlands HOA website or call 703-729-9704.

**Family and Children's Programs:** Six- to eight-week programs are offered throughout the school year. Programs are offered for Parent and Toddler, Preschool, and Grade School Children. The second Saturday of each month there is a family themed program at noon followed by the feeding of our corn snake. Check our website under "Nature Center" for more information.

Scout Programs: Varied level Cub Scout, Boy Scout and Girl Scout eco-badge programs

**School Programs:** SOL driven, environmental education programs are available onsite for school group on topics that include birds, plant life, habitats life cycles, weather and many more. Outdoor programs are offered at the nature center throughout the year and in-school programs during winter. Family & Children's Nature Education Programs for various age groups.

**Summer Camps:** Summer Nature Camps for ages 4-12.

**Volunteer Opportunities:** Animal care for nature center exhibits and ideas for Boy Scout Eagle Projects.

### **Educational Materials and Resources**

**Natural History Expertise:** The ANS staff naturalist has expertise, and is in touch with experts, on a wide variety of local natural history topics and environmental issues.

**Field Guides:** Varied field guides for adults/teens.

**Nature Items:** Extensive, tactile environmental education items such as skulls, insects, flowers, etc., are on display. An informative indoor location for teachers and students alike.

**Reading Room:** Children's environmental education literature, puppets, puzzles and games.

**Eco Information Exhibits:** Exhibits for youth and adult audiences.

Live Animals: Reptiles, Amphibians, birds, etc. exhibited.

#### **Field Study Site**

Hands-on nature exhibit area. Open to the general public. Small area with a pond, forest, creek, wetland and meadow. Free Parking. Restrooms. Conference room for classes. Covered outdoor area for outside instruction. Some equipment used in programs not available for public use.

## Catoctin Creek Scenic River Advisory Committee

<u>CatoctinScenicRiver@gmail.com</u> 540-822-5092

<u>www.CatoctinScenicRiver.org</u> <u>www.facebook.com/CatoctinScenicRiver</u>

#### **Mission Statement**

The Catoctin Creek Scenic River Advisory Committee acts as the administering agency, under the Department of Conservation and Recreation, concerning the protection or management of the scenic river. The Committee may consider and comment on any federal, state, or local governmental plans to approve, license, fund, or construct facilities which would alter the natural, scenic or historic assets which qualified the river for scenic designation.

#### Claude Moore Park

21544 Old Vestal's Gap Rd. Sterling, VA 20164 Visitor Center, 571-258-3700 <u>Dodie Lewis</u>, Asst. Park Manager, 571-258-3704 www.loudoun.gov/claudemoorepark www.facebook.com/ClaudeMoorePark

#### **Mission Statement**

Claude Moore Park is a 357-acre Loudoun County Park providing protection for the natural habitat and cultural resources of the site while offering a variety of educational and recreational opportunities to Loudoun County citizens of all ages and abilities, and their guests.

## **Programs/Activities**

**School Field Trips:** Outdoor hands-on hikes and visits to the nature center for preschool through 12th grade. Programs are SOL based. Topics include ecology, pond studies, and seasonal changes. Inquire about other topics. Homeschool field trips/programs available.

**Nature Classes and Camps:** Experiential programs on a variety of nature topics for preschool through 8th.

**Scout Programs:** Nature hikes and badge programs for Girl Scouts, Cub Scouts, and Boy Scouts that cover animal, plant and conservation topics.

**Interpretive Programs**: Hikes and campfires for all ages focusing on the different habitats, plants, and animals that live in the park.

Visitor Center: Explore natural objects, books and displays in the Discovery Room. See live native reptiles, amphibians and fish. These items available: trail maps: flyers on the nature and history of the park; Bird, Animal and Plant checklists/photo pages for children which can be used for Citizen Science activities; Geocaching; Junior Ranger Program (for elementary ages).

**Summer Nature & History Intern Program**: Volunteer opportunity for teens (ages 13 to 18); habitat restoration, natural resources stewardship; site history exploration; nature and history camp counselors; career exploration.

**Volunteer Opportunities:** Opportunities for individuals, Scouts and other groups, and businesses include: Adopt-a-Trail program, natural resource stewardship, Earth Day Cleanup, Girl Scout Award projects; and Boy Scout Eagle projects.

**Discovery Grove Natural Play Area:** This outdoor area provides children a place to play outdoors with natural structures and materials. Children can climb, dig, make music, build and explore.

#### **Educational Materials and Resources**

**Professional Staff:** Staff members with educational backgrounds in wildlife and natural history and extensive experience in these areas are available to lead programs and to answer questions about nature.

**Frogshackle Nature Center:** Hands-on center for all ages with artifacts highlighting a wide variety of plants, animals, and rocks.

**Field Guides, Microscopes, Binoculars, Pond Study Equipment**: (3<sup>rd</sup> to 12<sup>th</sup> grades; adults) Pond materials include nets, ID keys, magnifying glasses, water-testing kits. Indoor and outdoor classroom space.

**Education Center:** Interactive classroom with focus on early childhood environmental education (ages 1.5 to 6), natural objects, puzzles, games, magnifier, storybooks.

**Visitor Center:** Trail maps, Nature Treasure Hunt; Bird, Mammal and Wildflower checklists; Leaf Bingo; Junior Ranger Program.

**Native Tree Interpretive Trail:** Self-guided nature trail booklet, marked trails with native trees identified.

### **Environmental Education Training Classes Offered**

**Project WILD**: For teachers and youth leaders to learn how to share information with children about wild animals.

**Project WILD Aquatic**: For teachers and youth leaders to learn how to share information with children about aquatic animals and habitats.

**Project Learning Tree**: For teachers and youth leaders to learn how to share information with children about plant and forest communities.

**Teacher Training:** Workshops coordinated with Loudoun County Public Schools. Topics are SOL based and have included pond study and watershed programs.

## **Field Study Site**

Eleven miles of interconnecting trails provide access to ponds, meadows, wetlands, and early succession through climax forests. Biodiversity plot. Parking. Restrooms. 2 outdoor pavilions. 2 classrooms. Outdoor amphitheater. Equipment available with scheduled tour.

#### **Educational Climate Solutions**

42708 Red Shale Ct. Ashburn, VA 20148 <u>Diana Weber</u>, Director, 703-350-9079 educationalclimatesolutions.godaddysites.com

#### **Mission Statement**

Educational Climate Solutions (ECS) works to reduce emissions that cause climate change from public school facilities through education and the implementation of policy and engineering solutions.

## **Programs/Activities**

ECS leads study pods in an outdoor classroom that focus on climate change education within the required grade level curriculum. Within the school facilities, ECS recommends policy and physical solutions to limit the release of greenhouse gases.

#### **Educational Materials and Resources**

ECS offers lessons to for grades 3-12 featuring the causes and effects of climate change as well as solutions that reduce greenhouse gas emissions. These lessons are applied to the existing math, science, and social studies required curriculum.

During distance learning, ECS provides short videos explaining the basic science of climate change as well as what can be done individually to reduce our carbon footprint.

#### Friends of Banshee Reeks Nature Preserve

21085 The Woods Rd. Leesburg, VA 20175 Jonathan Miller Kauffman, President, 717-825-5421 www.bansheereeksnp.org www.facebook.com/bansheereeksnp

For information related to the operation and management of the preserve, please contact: Banshee Reeks Nature Preserve (BRNP) Manager Ron Circé or call 703-669-0316.

#### **Mission Statement**

Our Mission is to ensure the future of Banshee Reeks as the region's premier nature preserve by (1) creating an informed and engaged base of members, volunteers and public supporters and (2) harnessing financial and non-financial resources to invest in BRNP's future as a premier nature preserve. We are focused on three major areas of support: Education and Outreach, Advocacy, and, Conservation and Preservation.

The Friends of Banshee Reeks is an all-volunteer 501(c)(3) organization working to enhance the ecological value and visitor experience of the preserve.

#### The Preserve

The Banshee Reeks Nature Preserve (BRNP) consists of approximately 695 acres of mixed habitats including woodlands, savannah fields, pollinator meadows, wetlands, and 2-½ miles of riparian habitat on Goose Creek, a State Scenic River. Visitors can experience these diverse habitats by hiking the approximately 20 miles of trails throughout the preserve. BRNP is also a great place to walk with the family, bird watch, have a picnic, and enjoy nature, but please keep in mind that your pets must be kept on a leash. The preserve's hours vary seasonally, so make sure to check the current hours on the Loudoun County website before visiting.

The preserve features a Visitor Center that opens one hour after the preserve opens and closes one hour before the preserve closes. In 2015, the display room was refurbished with museum-quality specimens of local flora and fauna. A honeybee display and visible hive provide an exciting inside view of the colony at work. This overlooks our pollinator garden that volunteers have tended over the years.

BRNP also contains two classrooms (the Education Annex and Carriage House) that can be reserved by contacting the preserve. Both classrooms contain audio-visual equipment, and other equipment can be made available by arrangement.

Restrooms are available at the Visitor Center and in the classrooms when they are open. There is ample parking for visitors, with space for 100 cars.

After hours activities may be approved and scheduled by contacting BRNP staff to obtain a permit. Please contact the Preserve Manager for more information about the preserve and its programs.

#### **Educational Programs**

FOBR hosts a series of educational lectures by local and regional experts, hikes and special events. Some past topics have included native plants, helping nature help itself, the goat project at BRNP, tick ecology, black bears, and pollinators.

#### **Volunteer Days**

The third Saturday of each month is Volunteer Day at BRNP. Beginning at 9:00a.m., a variety of indoor and outdoor tasks are available to meet a variety of volunteer skills. No registration is required, but an adult must accompany any children under the age of 18. Come bring your boots and gloves to connect with a wonderful corps of enthusiastic volunteers.

#### Virginia Master Naturalist Program

The Banshee Reeks Chapter of the Virginia Master Naturalist Program meets at the Preserve. For more information, see Virginia Master Naturalists - Banshee Reeks Chapter in this Guide, or go to <a href="https://www.vmnbansheereeks.org">www.vmnbansheereeks.org</a>.

## Friends of the Blue Ridge Mountains

P.O. Box 1002 Purcellville, VA 20134 Carole Napolitano, Education Committee Chair www.friendsofblueridge.org

#### **Mission and Vision Statements**

The mission of the Friends of the Blue Ridge Mountains is to preserve, enhance, and celebrate the Blue Ridge Mountains as a valuable resource and treasured space for present and future generations. The vision is that the Blue Ridge Mountains stand secure as a national treasure for all time—ancient and sacred space that is maintained as a model of natural and cultural preservation—a free and accessible destination for recreation, discovery, and renewal that inspires others to join and sustain our effort.

### **Programs/Activities**

#### Activities include:

- Annual Stewardship Volunteer Days at Blue Ridge Regional Park.
- Key partner with the Town of Round Hill and other conservation organizations in developing and implementing a sustainable landscape plan for Sleeter Lake Park (Round Hill).
- Partnership with the Nature Conservancy to plant trees in an effort to restore Virginia's "Founding Forest."
- Advocacy efforts to protect the mountains and the quality of life throughout the mountain ecosystem in target counties across the region.
- Scholarship program for regional high school students.
- Awards for Loudoun County Science Fair participants whose projects address mountain ecosystem-relevant topics.
- Annual Meeting and Member Celebration event including presentation of "Friend of the Mountain" award to individuals or entities whose efforts have significantly benefited the Blue Ridge.
- Collaborative engagement through the Blue Ridge Conservation Alliance, for which Friends of the Blue Ridge Mountains is a founding member.
- Participation in the Loudoun Preservation and Conservation Coalition.

#### **Educational Materials and Resources**

"Happenings Around the Mountain" (bi-weekly) features information and events as well as well-researched articles on topics of interest related to the Blue Ridge and its environs.

#### Goose Creek Association

P.O. Box 1178 Middleburg, VA 20118 info@goosecreek.org www.goosecreek.org

#### **Mission Statement**

The Goose Creek Association protects and preserves the natural resources, open space, historic heritage, and rural quality of life within the Goose Creek watershed, with emphasis on:

- Continued improvement of water quality and elimination of pollution within the Goose Creek watershed through certified stream water quality monitoring and the creation of riparian forest buffer zones.
- Protection of rural villages and roadways through the designation of Historic Districts in Loudoun and Fauquier counties.
- Advocacy of conservation easements and purchase of development rights in both Loudoun and Fauguier counties.
- Perpetuation of views and open spaces.
- Partnership with other like-minded organizations to achieve the above goals.

The Association does its work through an active board charged with monitoring stream water quality, proposed developments, legislation, zoning changes, and other actions that have potential impact on the environment and quality of life in the Goose Creek watershed in Fauquier and Loudoun Counties, VA, and sponsoring community forums that seek to forestall unwanted actions or encourage appropriate ones. The Goose Creek Association actively supports the work of other like-minded regional groups, both in spirit and with financial support. We work to facilitate a unified voice for conservation/preservation-minded citizens in the area.

## **Programs/Activities**

Stream Quality Monitoring, March Forum - Community workshop, Goose Creek Clean Up, Annual Meeting - June.

## Goose Creek Scenic River Advisory Committee

P.O. Box 56 Lincoln, VA 20160 Phil Daley, Chair GooseCreekScenicRiver@Yahoo.com

#### **Mission Statement**

The Goose Creek Scenic River Advisory Committee acts as the administering agency, under the Department of Conservation and Recreation, concerning the protection or management of the scenic river. The Committee may consider and comment on any federal, state, or local governmental plans to approve, license, fund, or construct facilities which would alter the natural, scenic or historic assets which qualified the river for scenic designation.

## Keep Loudoun Beautiful

P.O. Box 5 Leesburg, VA 20178 <u>Carrie-Anne Mosley</u>, Vice President, 703-475-0202 www.keeploudounbeautiful.org

#### **Mission Statement**

Maintain the natural beauty and visual quality of Loudoun County. Encourage and educate citizens to keep Loudoun beautiful by recycling and not littering. Promote public awareness of environment challenges and suggest solutions. Improve county trash disposal and eliminate illegal dumping.

## **Programs/Activities**

**April Clean Up Campaign:** Area leadersask residents throughout the county to conduct one clean up event within their area of the county. Results are reported to VDOT and the Commonwealth.

**Canoe Clean Up:** Annually county residents clean litter from 4-5 miles of both Goose Creek and the Potomac River banks. (Minimum age 8 years, large high school attendance.)

**School Educational Programs:** We speak at Loudoun County Public Schools and private schools, helping growing minds understand the importance of environmental stewardship.

KLB Adopt-A-Spot Program: We are asking for volunteers (individuals and shared housing groups) to commit to beautifying Loudoun by adopting a spot, block, pathway, park, road, parking lot, creek, or any publicly accessible area for 1 year. To adopt your spot please email <a href="mailto:info@keeploudounbeautiful.org">info@keeploudounbeautiful.org</a> and let us know the location of your spot.

**Monitoring and Reporting:** KLB members and area leaders monitor local, county and state enforcement of anti-litter and pollution ordinances. Report illegal dumping activity.

**Celebrating 50 Years of Service:** In 2022, KLB will celebrate its 50th anniversary of service to Loudoun County. In the coming months leading up to that date, the group has a number of special events planned to prepare us for this important milestone. Please see the website for more information.

#### **Educational Materials and Resources**

Our website offers a variety of resources for citizens who want to conduct their own litter clean up event or learn more about how they can help preserve Loudoun's beauty through reducing, reusing, and recycling.

## Loudoun County Department of Building and Development

1 Harrison St. Leesburg, VA 20175 mbad@loudoun.gov, 703-737-8728 www.loudoun.gov/bd-environment

#### **Mission Statement**

Through its natural, environmental, and cultural resources programs and initiatives, the Loudoun County Department of Building and Development is working to identify, protect, manage, and monitor Loudoun's natural, environmental, and cultural resources which are vital to the economic and environmental health of our communities and to our cultural heritage.

#### **Programs/Activities**

The Department offers several programs in environmental and cultural resources information with specific programs and teams assigned to environmental review, water resources monitoring, floodplain management, soils and geology, erosion and sediment control, wetlands, archeology and stormwater management.

#### **Educational Materials and Resources**

**Brochures:** Hydrology, wetlands, and stream assessment.

**Online Content:** Current hydrologic conditions, annual water resources monitoring, and interactive stream assessment mapping.

### **Environmental Education Training Classes Offered**

Demonstrations and activities at annual education events such as Family Stream Day and Earth Day @ Loudoun.

## Loudoun County Public Library

102 North St. NW, Suite A Leesburg, VA 20176 Kelly Senser, Library Assistant, 703-777-0323 library.loudoun.gov

#### **Mission and Vision Statements**

The mission of the Loudoun County Public Library (LCPL), the community's information center, is to provide free and equal access to a variety of library resources and innovative technologies to enhance the quality of life and meet the informational, educational, and cultural interests of the community. LCPL's vision is to build community by nurturing an environment where the joy of reading and learning is celebrated, people and ideas flourish, and The Golden Rule is a way of life.

## **Programs/Activities**

In a typical year LCPL hosts hundreds of programs for children, teens, and adults at its branches and in the community. Environmental education offerings are among them, including opportunities to explore the outdoors. See <a href="https://library.loudoun.gov/calendar">library.loudoun.gov/calendar</a>.

#### **Educational Materials and Resources**

In addition to having books, DVDs, nature backpacks, and other materials available for checkout at local branches with a valid library card (available for free), LCPL provides access to eBooks, eAudiobooks, eMagazines, comics, movies, TV shows, and music for computers, phones, and tablets. Library card holders also enjoy access to dozens of databases that host web-based courses and other learning resources. Visit <a href="library.loudoun.gov/siteindex">library.loudoun.gov/siteindex</a>.

#### Nature backpacks include the following:

- Pass for free parking/entrance to all Virginia State Parks
- Binoculars
- Outdoor skills card set
- Compass
- Tarp
- Paracord

- Leave No Trace reference cards
- Journal and pen set
- Port-a-bug container
- Dip net
- Star maps
- Pocket field guides

### **Environmental Education Training Classes Offered**

As part of its program offerings, LCPL occasionally partners with local community groups to host workshops on gardening, identifying wildlife, and citizen-science protocols.

### **Field Study Sites**

There are 10 library branches in the LCPL system, including a law library.

## Loudoun County Public Schools – Energy & Environment Team

1002-C Sycolin Rd., SE Leesburg, VA 20175 Mike Barancewicz & Susan Gerson, Energy Managers, 571-252-2960 www.lcps.org/domain/27217 eeteam@lcps.org

#### **Mission Statement**

The LCPS Energy & Environment Team (EE Team) will reduce the use of energy throughout the school system without impacting the educational environment while ensuring efficient and effective stewardship of public resources.

#### **Programs/Activities**

The LCPS EE Team includes all students, staff, parents and other community members who make up the totality of individuals who utilize LCPS sites.

As a cornerstone of the community we work to educate all members of the community. Although our main area of focus includes those activities that are internal to LCPS, participation in community events and activities is a part of what we do. Our team is open to being involved in any community outreach activity, some of the activities we have taken partin include: community fairs, festivals, and special events; farmers markets; home owners association events; business networking events; Boy and Girl Scout meetings; school-sponsored clubs; and career fairs.

Our participation in an event is set up on an as-requested basis. We can discuss the goals and needs of those who contact us and set up a presentation or hands-on activity that fits. All participation in events outside of LCPS is subject to availability.

In addition to having staff participate in events, consulting services can be made available in circumstances where a group is interested in having students participate in an activity. Our team can help to prepare students for involvement and coordinate event planning details with the appropriate LCPS administrative staff.

#### **Educational Materials and Resources**

Materials are often customized based on the need for the event or activity. Upon request, programs and materials can be presented in Spanish. The LCPS EE Team program administrators are the primary resource. Team administrators have a vast professional knowledge. The team administrators hold many professional licenses and certifications, including:

- Certified Business Energy Professional
- Certified Demand Side Management Professional
- Certified Energy Auditor
- Certified Energy Manager
- Certified Energy Procurement Professional
- Certified Sustainable Development Professional

LCPS does not have a materials budget to provide any consumable resources or products. However, hands-on learning equipment and materials are provided as part of programs as available.

## **Environmental Education or Training Classes Offered**

There have been many programs developed over the years in conjunction with various organizations. Some of the most popular educational training topics have been:

- Connecting the light switch to the environment Energy use reductions are environmental impact reductions
- Reduce, Reuse, Recycle, Rethink!
- Close the switch; turn on the light Electrical circuit basics
- Which bulb is better Life cycle cost analysis for the beginner
- Is that a hole in the wall, or is it nothing Building envelope and insulation made easy
- Vampire hunting Vampire electronics and their insidious effects

We strive to include energy basics including electricity generation, fuel sources, and connecting energy use to environmental impact in all educational partnerships in which we are included.

#### **Field Study Site**

LCPS has outdoor classrooms, certified wildlife habitats, educational gardens, and many other field study resources throughout Loudoun County. These sites are part of LCPS schools and are not generally accessible to the public. However, it is possible to coordinate the use of school facilities with not-for-profit entities.

#### Loudoun Soil and Water Conservation District

30 Catoctin Circle, SE, Suite H Leesburg, VA 20175 Suzanne Brown, Director Jennifer Venable, Education Specialist, 571-918-4530, ext. 109 www.loudounsoilandwater.org www.facebook.com/LoudounSoilandWater

#### **Mission Statement**

To provide leadership in recognizing and addressing soil and water conservation issues and problems, both existing and potential, and to promote and develop education and technical programs which will meet the agricultural and urban conservation needs of our District. Loudoun Soil and Water Conservation District is responsible for conservation work within the boundaries of Loudoun County.

## **Programs/Activities for Children**

**Classroom Presentations**: District staff are available for SOL correlated presentations on various conservation related topics including watersheds, soils and earthworms, recycling, and Conservation Jeopardy. An online version of our ENVIROSCAPE/WATERSHED demo is also available.

Conservation Poster Contest: The annual Conservation Poster Contest provides all Loudoun County students (K - 12) an opportunity to convey their thoughts about soil, water and related natural resource issues through art. The poster contest theme follows the annual National Association of Conservation Districts (NACD) Stewardship theme. Winners from each grade category compete at the state level, and eventually the national competition.

**Mini-grant Program**: The District offers a limited number of mini-grants (up to \$500) to Loudoun County teachers. The mini-grants are intended for projects that integrate soil and water conservation into any curriculum.

**Soil Tunnel Exhibit:** The District has a soil tunnel exhibit that is available to Loudoun County schools as a teaching resource. Students crawl through the tunnel and explore life under the soil and examine life above the soil. The exhibit can be used to teach subjects ranging from: plant and root systems, soils, and habitat and more. Schools can reserve the exhibit for up to two weeks at a time.

**Youth Conservation Leadership Institute:** YCLI is a great opportunity for high school students who are interested in environmental conservation and stewardship. This program allows participants to connect with local mentors in the environmental field while gaining leadership skills and volunteer service hours.

**Scout Patch Program:** The Scout Patch Program is open to Boy and Girl Scouts to further their interest and education in conservation topics.

**Student Scholarships:** To promote the education of Virginia citizens in technical fields with natural resource conservation and environmental protection, the Virginia Association of Soil and Water Conservation Districts Educational Foundation offers two scholarships to students on an annual basis.

**Field Days:** District staff leads students in hands-on conservation related activities at multiple stations.

**Storm Drain Marking:** District staff, in partnership with the Town of Leesburg and Loudoun County government, assist groups in storm drain marking to build awareness about stormwater impact on our streams, rivers, and the Chesapeake Bay.

**Youth Conservation Camp:** A week-long summer conservation camp for Virginia high school students (grades 9-12) on the campus of Virginia Tech sponsored by the Virginia Association of Soil and Water Conservation Districts. One or two students from each District are eligible.

**Arbor Day:** A celebration of trees which includes a poster contest and the county Arbor Day ceremony. Arbor Day is an annual event that showcases the importance of trees in the natural environment.

**Earth Day Celebration:** District staff assist in planning and promoting the annual Earth Day @ Loudoun event to increase resident awareness of the environment.

**Loudoun County Science and Engineering Fair**: The District sponsors three awards annually: James Rowley Award - Best Project related to Water Quality, Leslie King Award - Best Project related to Natural Resource Conservation, and the Jack Brown Award - Best Project related to Conservation/Environmental Related Concerns.

**Envirothon**: The District will sponsor and assist local school teams that wish to participate in Area/State Envirothon competitions.

#### **Environmental Education Programs/Activities for Adults**

**Rain Barrel Workshops:** The District offers Rain Barrel Workshops to Loudoun residents. Participants learn about the many benefits of rain barrels and make a rain barrel to take home. Pre-made rain barrels are also available for purchase.

**Teacher Training Workshops**: Training opportunities are provided to teachers to increase their awareness of natural resource conservation and to provide them useful resources to utilize in their classroom.

**Farm Site Visits**: District staff conducts farm visits to help landowners address natural resource issues on their property and help provide assistance through the Virginia Agricultural Best Management Practices Program.

**VCAP:** The Virginia Conservation Assistance Program (VCAP) is an urban cost-share program that provides financial incentives and technical/educational assistance to Loudoun County homeowners and businesses who install Best Management Practices (BMP's) in Virginia's Chesapeake Bay Watershed to create more watershed-friendly landscapes.

**Tree Planting**: In partnership with Loudoun County, this program helps fund the cost of planting streamside vegetative buffers on non-agricultural land.

**Septic Pump-Out Rebate Program:** Proper septic system use and routine care are vital to protecting public health, preserving our groundwater, lakes, streams and waterways, and avoiding costly repairs that can result from neglect. The District offers a \$50 rebate to Loudoun landowners towards the pump-out of their septic system.

#### **Educational Materials and Resources**

Web site, Facebook page, and YouTube channel for students.

#### Loudoun Water

44865 Loudoun Water Way Ashburn, VA 20147 <u>Erika Cuevas</u>, Outreach & Education, 571-291-7907 www.loudounwater.org

#### **Mission Statement**

Loudoun Water's mission is to work to ensure a healthy environment and high quality of life through effective and sustainable management of resources entrusted to our care.

#### **Programs/Activities & Educational Facilities**

**Student Outreach/Tours:** Grades 2-12 teachers and civic groups can request tours of the Loudoun Water's Aquiary, a term they created to describe their 3,500 square foot indoor education center and outdoor interpretive area. Children and parents can learn more about where their water comes from and where it goes once it leaves the drain. Also, learn about water conservation, watersheds, careers, runoff and other topics in greater detail as requested. The public is also welcome to visit during normal business hours for a self-guided walk through the exhibits. The outdoor trails are open Monday – Friday from dawn to dusk. Due to security reasons, tours cannot be offered of the Broad Run Water Reclamation Facility.

**Community Outreach:** Loudoun Water works with partners on various campaigns – Loudoun Watershed Watch, The Children's Science Center, Water Use It Wisely, EPA's WaterSense – to demonstrate good stewardship to help protect and conserve water resources.

#### **Educational Materials and Resources**

Loudoun Water provides free educational materials and demonstrations at community events such as SterlingFest, NOVA Stem, South Riding Fest, HOA events and many more.

### **Environmental Education or Training Classes Offered**

Loudoun Water partners with LCPS teachers, local Scouts groups, and community members in order to provide topic-specific presentations to students via classroom visit or virtual live presentations to classes/groups. Presentations range from Q&As and interviews with staff, to watershed model presentations.

#### Loudoun Watershed Watch

info@loudounwatershedwatch.org 703-777-0117

 $\underline{www.loudounwatershedwatch.org}\\ \underline{www.facebook.com/LoudounWatershedWatch}$ 

#### **Mission Statement**

Protect the water resources of Loudoun County through a synergy between citizens, private groups, county, and state agencies. LWW promotes environmental stewardship, stream monitoring, watershed management planning, and stream habitat protection.

#### **Programs/Activities**

**Family Stream Day:** Exploration of a local urban stream and hands-on discovery of the relationship between urban stormwater management, stream health, and the many ways you can help your local streams and environment.

**Catoctin Watershed Project:** LWW partners with Loudoun Wildlife Conservancy to provide educational programs and materials, and stewardship projects in support of the DEQ/DCR TMDL water quality restoration initiative in the Catoctin Creek Watershed.

**Project or Program Technical Assistance**: Volunteers assist with watershed and water quality projects, programs, and classroom lessons.

#### **Educational Materials and Resources**

**Loudoun Watershed Map**: A Map of Loudoun's watersheds showing the impact of local activities on water quality, and providing lively illustrations, word games, and lots of Q&A's is available for Grades 6-8.

**State of Loudoun Streams - 2002 and 2005 report:** Assessment reports of the health of Loudoun streams including detailed profiles of all major Loudoun watersheds

LWW Website: Water quality data, reports, and links.

## **Environmental Education Training Classes Offered**

**Water quality monitoring - Study Design:** Instruction in designing a stream monitoring study to assess the health of a stream for aquatic life, or to monitor the effectiveness of a benthic TMDL or other stream restoration projects

**Coliscan Easygel Bacteria Monitoring – Protocol and Study Design:** Instruction in designing a study to assess the bacterial water quality of a stream, or to monitor the effectiveness of a bacteria TMDL or other stream restoration projects.

## Loudoun Wildlife Conservancy

P.O. Box 1892 Leesburg, VA 20177 <u>Michael Myers</u>, Executive Director, 703-777-2575 www.loudounwildlife.org

#### **Mission Statement**

Loudoun Wildlife Conservancy inspires, motivates, and engages people to protect, preserve, and restore wildlife habitat in Loudoun County.

## **Programs/Activities**

**Education**: Loudoun Wildlife Conservancy hosts nature-themed speaker programs and field trips for youth and adults throughout the year. These offerings are designed to appeal to a wide variety of interests and skill levels. The Habitat Herald newsletter consists of articles featuring wildlife, habitat information, and our upcoming programs and events. It is printed quarterly and distributed to members, libraries, community centers, and other local venues and businesses.

The Peterson Young Naturalist Program informs and motivates young people to protect habitat and native species across Loudoun County. Loudoun Wildlife Conservancy has been partnering with teachers at Loudoun County Public Schools through this program since 2010. Together we facilitate nature education workshops to equip students with the skills that they need to get outside and record the local plants and animals that they observe. Every spring we present awards to students whose nature journals are exceptional in nature observation, drawing, and writing.

Citizen Science: With the help of volunteers, Loudoun Wildlife Conservancy tracks habitat health and species populations via our amphibian, bluebird, and stream monitoring programs. We also participate annually in the Audubon Christmas Bird Count (December) and the North American Butterfly Association Butterfly Count (August).

**Habitat Conservation**: Loudoun Wildlife Conservancy improves habitat for local wildlife through efforts such as planting trees, removing invasive species, and creating pollinator-friendly waystations through our Protecting Pollinators program. Trained ambassadors of our Audubon at Home program, which promotes the benefits of native plantings for wildlife, provide Loudoun County residents with free home landscaping consultations. Two annual Native Plant Sales are hosted in the spring and fall each year, and we host an annual Milkweed Sale. Loudoun Wildlife is an active partner with Plant NOVA Natives.

**Conservation Advocacy**: A voice for Loudoun's wildlife and habitats, Loudoun Wildlife Conservancy works to influence changes to both public and private environmental policies

#### **Educational Materials and Resources**

Loudoun Wildlife Conservancy offers an array of resources on its website that highlight local flora and fauna. These educational resources include checklists of the birds, butterflies, and dragonflies of Loudoun; a gardening for wildlife plant list; our Habitat Herald newsletter archives; and a map with descriptions of "Loudoun's Great Places" for wildlife-watching — among other informative materials. Books about plants and animals and mesh cages for rearing butterflies are some of the items available for purchase at our office or via our online store.

#### **Environmental Education Training Classes Offered**

In addition to speaker programs and field trips, Loudoun Wildlife Conservancy hosts occasional workshops on identifying birds, butterflies, and other wildlife. We also offer training to families and adults involved in our citizen-science efforts, so that these individuals are well familiar with the monitoring protocols associated with their respective programs.

#### **Field Study Sites**

**Morven Park**: Loudoun Wildlife Conservancy maintains an office in Morven Park, where the organization hosts regular nature walks. Please see the conservancy's website for office hours and walk details.

**JK Black Oak Wildlife Sanctuary**: Loudoun Wildlife Conservancy's vision for JK Black Oak Wildlife Sanctuary is to forever preserve and enhance its globally rare wetlands by protecting the sensitive vernal pools, unique geological setting, and the rich amphibian and wildlife populations. Additionally, to serve as a model and catalyst to conserve adjacent lands, and to create an ecologically significant sanctuary for the conservation and study of native wildlife.

## Morven Park – Morven Park Center for Civic Impact

17195 Southern Planter Lane Leesburg, VA 20176 <u>Jackie Ly</u>, Museum Engagement Manager, 703-777-2414 x6620 www.morvenpark.org education@morvenpark.org (for education program inquiries)

#### **Mission Statement**

Morven Park is a 501(c)(3) organization dedicated to preserving its historic 1,000-acres of open space for community enjoyment, educational programming, and equestrian sports.

#### How We Serve:

- **Education:** Empowering students to make an impact on their communities, Morven Park's Center for Civic Impact is changing the world, one student at a time.
- Equestrian: Morven Park is a premier equestrian venue for horses and riders of all
  disciplines, at all levels, offering the opportunity for all to train and compete at a worldclass facility and promote equestrian sports to the public.
- History & Preservation: Morven Park provides engaging programs to educate and enlighten visitors through its preserved historic landscapes, buildings, and culturally diverse collections.
- Healthy Community: Through its sporting events, hiking trails, open meadows, and beautiful gardens, Morven Park provides our community with scenic green spaces for athletics, relaxation and enjoyment.

#### **Programs/Activities**

Morven Park offers school and youth programs for the K-12 and educator audience. We believe that all youth need opportunities to prepare and practice for lives as citizens in a participatory democracy. Our elementary school programs build a strong foundation of personal responsibility, creative problem solving and environmental stewardship. We challenge students from kindergarten to fifth grade to be outstanding citizens as they explore their community, identify problems, and positively affect the world around them. Below is a sampling of available programs. Please check our website for new and expanding offerings!

#### **Woodland Explorers**

#### K & 1st grade - Aligns to Science, Math and Language Arts SOLs

During the lesson, students become explorers on the path to discovering why the woodland ecosystem is important and how they can help protect it. In a series of facilitated activities and challenges, explorers investigate the creatures of the forest from the tops of trees to the ground beneath decomposing logs. After completing the lesson students demonstrate a better understanding of local ecosystems and how they can help protect them.

This lesson is available in a digital format for the 2020-21 school year.

#### Meadows, Milkweed, and Monarchs - Oh My!

#### 2nd grade - Aligns to Science and Language Arts SOLs

Your 2nd graders can help save the endangered monarch butterfly! In this lesson, students investigate the life cycle, migration, and habitat needs of the monarch and consider how they can help protect this important and fascinating creature.

This lesson is available in a digital format for the 2020-21 school year and can extend into a PBL!

#### **Soil Scientists**

#### 3rd grade - Aligns to Science, Math, and Language Arts SOLs

After this lesson, your students will never look at dirt the same way again! Students become scientists as they investigate soil's unique properties, work in small groups to design and assemble healthy soil recipes, and learn how they can improve their soil at home or at school through composting.

This lesson is available in a digital format for the 2020-21 school year and can extend into a PBL!

### Field Study Site/Public Trails

The grounds of Morven Park encompass 1,000 acres of lawns, athletic fields, an equestrian center, wooded areas and boxwood gardens. Morven Park is home to the historic Gov. Davis Mansion, Winmill Carriage Museum, and Museum of Hounds and Hunting of North America. Visitors will also find several miles of hiking trails, accessible from the main parking lot where restroom facilities are nearby. Much of the property has been placed in conservation easement in order to preserve the open space for future generations. The grounds are open to the public from dawn to dusk during the year but check the website for updates before visiting.

#### **Volunteer Opportunities**

As a small non-profit, Morven Park relies on the generosity of our community to accomplish nearly everything that we do. The gift of time and energy, given freely by individuals or groups, ensures that the Park always looks beautiful, that our special events and competitions run smoothly, and our museums are properly researched and cared for. The gift of your time has immense value. Volunteers also serve as our biggest community advocates and supporters, helping to spread the word about our special corner of Loudoun County. Volunteer opportunities include Scout projects, trails clean up and habitat restoration projects for individuals and groups, and occasional gardening and event needs. Join our dynamic team of Morven Park volunteers as an MVP!

## Northwest Virginia Regional GREENetwork

Mark Pankau, Director

groups.google.com/g/greenetwork

#### **Mission Statement**

The mission of the GREENetwork is to promote environmental literacy and stewardship with environmental school clubs. As these school garden clubs grew in numbers and the Network became known beyond Loudoun County, the GREENetwork expanded to include club teachers and other interested educators in the counties of Fauquier, Warren, Clarke, Frederick and Winchester City Schools. The goals are to:

- Nurture environmental stewardship in the areas of sustainability, recycling, native plants, habitat protection/enhancement, water conservation and energy conservation.
- Provide pertinent and timely information to school club teachers as it relates to all things sustainable.
- Share school club information within the GREENetwork, including initiatives from other environmental organizations.
- Enhance the cooperation between school clubs and related outside groups.
- Foster a connection with nature through outdoor learning activities.
- Learn about natural resources and environmental issues in the northwest region.
- Participate in and develop workshops, summits and other methods of sharing sustainable and environmental education information.

#### **Programs/Activities**

- Co-host the Loudoun Student Environmental Action Showcase (SEAS) event.
- Present at the Virginia Association for Environmental Education (VAEE) conference on SEAS programming for other regions throughout the Commonwealth.
- Organize LEEA summits on environmental education for both teachers and students.

#### Piedmont Environmental Council

45 Horner St.
Warrenton, VA 20186
Gem Bingol, Loudoun & Clarke Land Use, 703-431-6941

www.pecva.org

#### **Mission Statement**

Safeguarding the landscapes, communities and heritage of the Piedmont by involving citizens in public policy and land conservation. PEC helps citizens to achieve four interrelated goals: understand and envision the Piedmont, protect what can be protected, respond to the forces of change, and direct growth to the right places. PEC's service area includes 3,538 square miles in Loudoun, Clarke, Fauquier, Rappahannock, Culpeper, Madison, Orange, Greene and

Albemarle counties. It also supports organizations with like missions and goals in surrounding counties and states.

## **Programs/Activities**

**Young Adults (19-25) Fellowship Program:** The Fellowship Program is a six-week program offering students a fully immersive, hands-on experience in PEC's nationally recognized, highly successful regional movement for land conservation and land use planning. The program offers an exceptional opportunity for college students to get firsthand experience with an organization that is recognized nationally for its highly successful model of land conservation and land use planning.

**Service Learning at Roundabout Meadows:** PEC owns land at Gilberts Corner with multiple educational opportunities. At the community garden, volunteers from around Loudoun help plant and harvest food that goes directly to Loudoun Hunger Relief. Our farmers coordinate with schools and families to provide volunteer opportunities as well as a variety of educational sessions throughout the year.

**Nature Trail at Roundabout Meadows:** There is also a natural area with a nature trail along the historic Old Carolina Road and through a section of the property next to Mt. Zion Baptist Church in Aldie. The trail will be open to the public and will also have occasional nature-based educational opportunities.

**Homeowners Association Outreach Program:** PEC has started a program to help HOAs shift to more environmentally and economically sustainable landscaping practices. PEC has had various programs and workshops on related topics in partnership with various local non-profits and Loudoun County staff.

Coordinated effort with School System & Local Government: PEC has provided support to local teachers at schools across the county and is open and willing to discuss opportunities to help teachers in a variety of ways.

**General Watershed Education:** Watershed and water quality improvement projects offer opportunities to participate in hands-on demonstration projects such as native tree, shrub and perennial planting and rain garden installations.

**Landowner Easement Parties:** Educational outreach to landowners regarding the benefits of conservation easements.

#### **Educational Materials and Resources**

"Go Native Go Local," a resource guide that helps individuals find nurseries, seed companies, native plant sales, pest and invasives managers, habitat management providers, landscape architects and designers who specialize in native plants, and wildlife rescuers

"Managing Land in the Piedmont of Virginia for the Benefit of Birds and Other Wildlife," a guide for landowners to preserve bird habitat, written by PEC staff in cooperation with the American Bird Conservancy.

"Loudoun Outdoors," a guide to Loudoun's recreational opportunities for hiking, wildlife watching, biking and boating, written by PEC staff.

"Loudoun County Buy Fresh Buy Local" guide is produced every other year in cooperation with Loudoun County and community partners. It is a handy resource for those who want to find local sources for their food.

"Field Guide to Common Wetland Plants of Virginia's Piedmont" A field guide to learn about common wetland plants like ferns, grasses, shrubs, and trees of the Piedmont region and explore how wetlands can be protected, mitigated, and restored.

Land Conservation and Land Use educational materials -- Charts and Graphs: Total Acres of Protected Land in the Piedmont, Acres Protected Last Year, Conservation Before & After the Tax Credit

Easements and Tax: Tax Benefits- Summary, Tax Benefits- Detailed Info, Virginia State Income Tax Credit, American Farm and Ranch Protection Act Landowner Resources: Free Information Packet, Steps for Landowners Who Wish to Donate an Easement , Virginia Outdoors Foundation Easement Guidelines, Virginia Outdoors Foundation Sample Easement, Virginia Outdoors Foundation Approval Procedures, Virginia Outdoors Foundation Consent Form, Open Space Lands Preservation Trust Fund: Financial Assistance for Family Farms.

## **Environmental Education Training Classes Offered**

**Sustainable Landscaping Workshops for Homeowners:** PEC coordinates this introductory workshop on healthier landscape management practices that reduce pollution, improve water quality and increase habitat.

**Tax Credit Seminars for Professionals**: Seminar for professionals who work with landowners whose land is under conservation easement.

## **Project Learning Tree**

National Office 2121 K Street, NW, Suite 750 Washington, DC 20037 information@plt.org, 202-765-3641 www.plt.org www.greenschools.org

#### **Mission Statement**

Project Learning Tree® (PLT) is an award-winning environmental education program designed for teachers and other educators, parents, and community leaders working with youth from preschool through grade 12. PLT advances environmental literacy, stewardship, and career pathways using trees and forests as windows on the world.

PLT provides educators with high-quality professional development, hands-on activities, and multi-disciplinary supplemental curriculum that can be easily integrated into lesson plans for all grades and subject areas to help teach youth about trees, forests, and the environment.

Since 1976, Project Learning Tree has been connecting kids to nature and taking students outside to learn. The program engages students in learning about the world around them; increases students' understanding of our environment; stimulates students' critical and creative thinking; develops students' ability to make informed decisions on environmental issues; and instills in students the commitment to take responsible action on behalf of the environment.

PLT is an initiative of the Sustainable Forestry Initiative. In Virginia, the program is supported and implemented by the Virginia Department of Forestry, the Virginia Forestry Association, and Virginia Polytechnic Institute and State University - College of Natural Resources.

## **Programs/Activities**

Connect Children to Nature! Project Learning Tree is a comprehensive, award-winning environmental education program that provides teachers and other educators, parents, and community leaders who work with youth, with high-quality instructional materials, professional development, and local, on-the-ground support.

- Encouraging children to spend time outside and play in nature can improve their creativity and imagination, classroom performance, and academic achievement, as well as their overall physical and mental health. PLT's fun and easy-to-do Nature Activities for Families can be used while exploring your own backyard, visiting a local park, or walking in the woods—as well as indoors! And our Pocket Guide: Seeds to Trees introduces early learners (ages 3-6) to nature, encouraging exploration and discovery through trees and forests, along with tips and tricks for working with this audience and their teachers. Learn more at <a href="https://www.plt.org/activities-for-families">www.plt.org/activities-for-families</a>.
- PLT program coordinators in every state offer local resources and assistance; ideas
  and encouragement for incorporating environmental education and outdoor
  learning into classrooms and other education programs; and connections to mentor
  teachers, community members, and resource professionals.
- Each year, 15,000 educators attend PLT workshops around the nation to learn how
  to integrate PLT into lesson plans for all grades and subject areas, and to make
  outdoor experiences part of their students' learning experience. PLT also offers
  online courses that can be completed anytime, anywhere.
- PLT's multi-disciplinary, hands-on lessons make teaching and learning fun! For example, over half the 96 activities in PLT's *PreK-8 Environmental Education Activity Guide* take students outdoors. PLT's secondary module *Exploring Environmental Issues: Focus on Forests* gets high school students exploring forests in their own communities. And, PLT's *Environmental Experiences for Early Childhood* engages children ages 3 to 6 in outdoor exploration and play. PLT keeps pace with

- educational trends by constantly updating and revamping its curriculum materials for example, to teach Science, Technology, Engineering, and Math (STEM), as well as the Next Generation Science Standards (NGSS) and Common Core State Standards (CCSS) for states that have chosen to adopt these standards.
- GreenSchools, PLT's service-learning program, inspires students to apply STEM to create greener and healthier schools by reducing energy and water use, improving their school site, recycling, and other projects that also save schools money.
- PLT's Green Jobs program helps youth ages 12-25 explore green careers in forestry
  and conservation. In addition to an activity guide, suitable for schools or
  community youth programs, an interactive quiz allows youth to answer a few
  simple questions online and get recommendations for a rewarding green career
  path that might suit their personality. Educators can try a version of the quiz at
  www.plt.org/greenjobsquiz to discover how easy it is to administer to youth.

For more information, visit <a href="www.plt.org">www.plt.org</a> and contact your Virginia PLT State Coordinator, <a href="Page Hutchinson">Page Hutchinson</a>, at 434-220-9037.

#### **Educational Materials and Resources**

PreK-8 Environmental Education Activity Guide: PLT's most popular resource for elementary and middle school contains 96 high-quality, fun, and engaging multi-disciplinary lessons on topics ranging from forests, wildlife, and water, to community planning, recycling, and energy. Each activity guides the learner through the process of awareness, understanding, challenge or consensus, and action using active involvement and hands-on experiences. Activities can be used individually, or they can be used with other activities as part of a conceptual framework. Each activity includes background and science content for teachers, correlations to Virgina's Standards of Learning, student assessment tools, reading strategies, STEM extensions, cooperative learning methods and suggestions for differentiated instruction to help teachers engage students with varying needs and talents. Learn more at <a href="https://www.plt.org/curriculum/environmental-education-activity-guide/">www.plt.org/curriculum/environmental-education-activity-guide/</a>.

**Energy & Society Kit:** This kit helps K-8 students learn about their relationship with energy, investigate the environmental issues related to energy's role in society, and develops their critical thinking skills for making decisions about their personal energy use. The kit contains an activity guide, an award-winning Energy & Me CD and dance DVD, and two sets of posters.

These energy education tools can be used in social studies, science, math, language arts, music, and physical education classrooms. Learn more at <a href="https://www.plt.org/curriculum/energy-society-kit/">www.plt.org/curriculum/energy-society-kit/</a>.

Environmental Experiences for Early Childhood: Over 130 hands-on experiences engage children ages 3 to 6 in outdoor exploration and play. Topics include exploring nature with five senses, meeting neighborhood trees, and experiencing trees through the seasons. The activities integrate investigations of nature with art, reading, writing, and math. An accompanying music CD or MP3 files encourage children to sing, dance, and move. The materials are aligned with the National Association for the Education of Young Children (NAEYC) standards and Head Start Child Outcomes Framework, and earned a Teachers' Choice Award from *Learning* Magazine. Learn more at <a href="www.plt.org/curriculum/environmental-education-for-early-childhood/">www.plt.org/curriculum/environmental-education-for-early-childhood/</a>.

E-Units for Grades K-2, 3-5, and 6-8: Treemendous Science! for grades K-2, Energy in Ecosystems for grades 3-5, and Carbon & Climate for grades 6-8 are all online. The e-units include step-by-step lesson plans and multi-disciplinary, hands-on activities constructed around NGSS, aligned with Common Core and the C3 Framework for Social Studies. They incorporate background information, downloadable student pages, assessment tools and rubrics. Winner of Learning® magazine's Teachers' Choice Awards for the Classroom in 2019 and 2020. Learn more at www.plt.org/online-environmental-education-units.

Green Jobs: Exploring Forest Careers: Help youth ages 12-25 explore green careers in forestry and conservation. This unit is designed for adults working with youth in settings ranging from community youth programs to school classrooms or as part of college and career prep. Four hands-on activities enable youth to practice managing forests and research forest jobs, and to explore the concept of sustainability by examining the United Nations' 17 Sustainable Development Goals. Youth can take a quiz to analyze their leadership and people-oriented skills as well as their STEM skills to match their personality type with career opportunities. Learn more at <a href="https://www.plt.org/curriculum/green-jobs-forest-careers/">www.plt.org/curriculum/green-jobs-forest-careers/</a>.

**Teaching with i-Tree:** Middle and high school students discover and analyze the many ecosystem services that trees provide and calculate the dollar value of these benefits using a free, state-of-the-art online tool. Learn more at <a href="https://www.plt.org/curriculum/teaching-with-itree">www.plt.org/curriculum/teaching-with-itree</a>.

Teaching Materials for High School: For high school educators, PLT's secondary modules challenge students to explore in depth the many facets of environmental issues. Hands-on classroom studies, research, and collaborative field investigations provide students opportunities to debate issues and engage with experts. PLT's secondary modules include Focus on Forests, Forests and Climate Change, Forests of the World, Places We Live, Municipal Solid Waste, Biodiversity, Focus on Risk, and Biotechnology. Learn more at\_www.plt.org/curriculum-offerings/high-school/.

Service Learning: PLT encourages students to take personal responsibility for the environment and improve their school, home, and neighborhood based on what they learn in the classroom. PLT's GreenSchools program inspires students to apply their STEM and investigative skills to create greener and healthier schools – and save schools money. Five PLT GreenSchools Investigations provide a blueprint for middle and high school student Green Teams to examine their school's energy use, waste and recycling, water consumption, school site, and environmental quality (such as indoor air quality, school transportation, and use of chemicals) – and establish benchmarks. Using the results of their investigations, students select, design, and implement one or more action projects, and measure their impacts. Learn more at <a href="https://www.plt.org/greenschools">www.plt.org/greenschools</a>.

#### **Environmental Education Training Classes Offered**

**PLT Workshops:** Consistently rated as one of the best professional development events that they have ever experienced, most educators attend a PLT workshop in their state because they were recommended to it by a colleague. Learn new teaching skills and become comfortable teaching outdoors. Receive PLT's instructional materials and supplements tailored to your state's standards. Practice modeling PLT activities and get tips for lesson planning specific to your educational setting. Earn continuing education credits.

PLT offers both online courses and in-person workshops tailored for specific grade levels and education standards, environmental topics, and formal and nonformal teaching situations. Approximately 15,000 educators attend a PLT workshop every year. Learn more at www.plt.org/trainings/attend-a-training.

Professional development is offered in person, online, and blended.

- **In-person trainings** include one-day workshops, after-school programs, in-service days, a series of classes spread throughout a semester, week-long institutes, and other models. These events are planned and conducted by trained facilitators and customized for specific grade levels, topics, and teaching situations. They help formal and nonformal educators learn how to integrate environmental education into their teaching and become comfortable teaching outdoors – in urban, suburban, and rural environments.
- An **online course** can be completed in your own time, wherever you are. Visit shop.plt.org for more information.
- Blended workshops are a combination of in-person and online, or synchronous and asynchronous sessions.

The start of the 2020-2021 school year was like no other. Educators, administrators, and parents were figuring out how to provide some combination of virtual and in-person learning experiences for students. We at PLT, like all of you, had to pivot quickly to the new reality. Most PLT state programs now offer professional development that combines safe, flexible online training with the personal experience that has been the hallmark of PLT for decades.

If you have never taken a PLT workshop or haven't attended one in a while, this might be a great time to dig in! You'll gain some solid techniques to adapt your teaching for the coming year. You will find that PLT can be a great addition to whatever subject you teach, and in whatever setting.

For more information about PLT Workshops in Virginia, visit www.plt.org/virginia or contact your Virginia PLT State Coordinator, Page Hutchinson, at 434-220-9037.

#### The Nature Generation

3100 Clarendon Blvd., Suite 400 Arlington, VA 22201 Loudoun County Office: 36903 Charles Town Pike

www.NatGen.org

Purcellville, VA 20132

Romany Sieferman, Communications Director, 650-922-6555

#### **Mission Statement**

The Nature Generation (NatGen) is a 501(c)(3) nonprofit organization whose mission is to inspire and empower youth to make a difference. We reach our nation's youth through innovative environmental stewardship programs in literature, science, and the arts.

## **Programs/Activities**

The Nature Generation has two main programs, described below:

## The Green Earth Book Award – Getting environmental books into the hands of young readers.

The Nature Generation established the nation's first environmental stewardship book award called the Green Earth Book Award. The annual award is given to authors and illustrators for children and young adult books that best convey the message of environmental stewardship. GEBA promotes books that inspire children to grow a deeper appreciation, respect, and responsibility for their natural environment. NatGen bestows awards in the following four categories: Cadmus Children's Fiction: novels for young readers up to age 12; Young Adult Fiction: books for readers from age 13 to 21; Children's and Young Adult Nonfiction: nonfiction books for readers from infancy to age 21; and Picture Book: books for young readers in which visual and verbal narratives. GEBA winners are announced on Earth Day each year and are awarded at an annual Spring Festival in coordination with Salisbury University. The Spring Festival offers educational tracks with authors and educations for families and children, citizen scientists, and teachers. Find out more at <a href="https://www.natgen.org/green-earth-book-awards/">www.natgen.org/green-earth-book-awards/</a>.

## NatGen Seed Grants – Engaging and informing youth about STEM, environmental literacy, and science-based truth.

NatGen Seed Grants are small-scale grants that can be used to fund start-up or ongoing projects. NatGen awards Seed Grants to schools, community centers, museums, libraries, military or veterans' groups, associations or centers, faith-based-organizations, and nonprofits. Through Seed Grants, NatGen looks for original projects that make a direct impact on the environment and involve children and young adults. Projects must inspire young people by using Green Earth Books in innovative ways in their projects. We want to showcase innovative ways to provide hands-on opportunities for youth and distribute our Green Earth books into communities and schools. To learn more about Seed Grants or read about past winners, visit: <a href="https://www.natgen.org/stem-seed-grants/">www.natgen.org/stem-seed-grants/</a>.

## Town of Leesburg – Department of Utilities

25 West Market St. Leesburg, VA 20176 Betsy Payne, Utilities Analyst, 703-771-2762 www.leesburgva.gov

## **Program/Activities**

Staff can visit various schools and groups within service area to talk about water conservation, watersheds, careers, etc. Tours of the water and wastewater treatment plants are available. Staff can assist with community events such as Family Stream Day, HOA meetings, etc. Town is a partner with Protect Your Pipes and Water Use It Wisely campaigns.

#### **Educational Materials and Resources**

Children's activity books, brochures and other materials to provide water conservation and proper disposal (what not to flush), etc.

#### Town of Purcellville

221 S. Nursery Ave.
Purcellville, VA 20132
Amie Ware, Parks and Recreation Division Manager, 540-751-2350
Stacie Alter, Water Compliance Officer, 540-338-2513

www.purcellvilleva.gov

## **Programs/Activities**

**Tours:** Tours of water supply and wastewater facilities are offered to high schools as an additional means to educate students.

Chapman/DeMary Trail: Approximately 2,000-foot wood chip trail along South Fork Catoctin Creek east of Hatcher Avenue near Hirst Road. Plant identification signage is along the path. Picnic tables are available and there are benches along the path. The Town of Purcellville holds the conservation easement on the land where the trail is located. The four partners for the Chapman DeMary Trail include the Town of Purcellville, The Nature Generation, Loudoun Valley High School, and The Piedmont Environmental Council. Parking is available behind the building at 205 East Hirst Road.

**Suzanne R. Kane Nature Preserve:** Approximately 2,400-foot nature preserve on both sides of South Fork Catoctin Creek between Hatcher Avenue and North 21st Street. Trails and plant signage are planned but not completed. Parking is available on 21st Street.

**W&OD Trail:** Regional Trail from Arlington to Purcellville ending at Train Station on North 21st Street. Complete distance paved bituminous and at some stretches in Loudoun County. The W&OD Trail is managed by NOVA Parks.

**Mary Foust Maré Pocket Park:** This small park is located behind 130 East Main Street. A gazebo with benches and picnic tables are available. There is parking in the Town lot at the northeast corner of Hatcher Avenue and Main Street.

Fireman's Field, Dillon's Woods, and the Bush Tabernacle: At 250 South Nursery Avenue. Skating rink, woods, and baseball field site for outdoor /indoor movies, music, and other events, such as Babe Ruth baseball in the summer. Picnic tables, a gazebo, and pavilion are located in Dillon's Woods at the south end of the property behind the baseball stadium. Fireman's Field is an historic site and a Conservation Easement and Restrictive Covenant is held by the Virginia Department of Historic Resources. Parking is available at the site.

**Hail to the Trail - Purcellville's Green Expo:** Held in the fall at the Chapman DeMary Trail. It features local environmental organizations that provide information and hands-on activities to engage families in nature and the environment. Attendees can explore the 10-

acre area which is considered to be the last stand of old-growth forest in the Town, meet local environmental experts, participate in fun hands-on activities to learn about nature and the environment, help plant trees, catch creek creatures, hear live music, learn about bugs, make nature art projects, see live animals, and participate in the Town's annual Arbor Day Celebration.

#### **Educational Materials and Resources**

**Rain Barrel Workshops:** Workshops for Town residents are occasionally held in cooperation with the Loudoun Soil and Water Conservation District. Rain barrels are equipped with fittings, made available for sale, and some instruction on their use is provided. The events are advertised in local papers and by press release.

**Educational Materials:** Town Water Resource Study and Water Conservation Plan are available for review. Various water resource, water pollution, and environmental brochures, as well as the Annual Water Quality Report are available. The Town is a partner in the EPA WaterSense program which provides educational materials about water.

#### Under the Sea

1004 S. Dickenson Ave. Sterling, VA 20164 Andrew Wilson, Director, 703-464-4763 www.touchthesea.org www.gepaquarium.org

#### **Mission Statement**

To promote awareness of the aquatic environment, through education, in order to encourage stewardship and conservation.

## **Programs/Activities**

For over 20 years, Under the Sea has traveled to schools in VA, MD, DC, DE, and WV to give amazing presentations about the aquatic world. In 2015, we opened a small public aquarium in Maryland - Glen Echo Park Aquarium, that focuses on the Chesapeake Bay and the tributaries that flow into it.

Our educators are marine biologists that excel in teaching about the ocean and bay. We bring live aquatic animals to schools, libraries, scouts, community centers, nature centers and more to teach about life in our rivers, bay, and ocean. Live animals we typically bring include crabs, sea snails, oysters, starfish, puffer fish, sharks, and many more.

#### Presentations include:

- **Under the Sea** A broad look at the life found under the sea, and how it fits together in the food web.
- Chesapeake Critters An excellent presentation on life in the bay and how humans impact it.
- Sharks Learn about these amazing predators and how they survive.
- Dissection Labs for Squid, Oysters, and Fish

#### Teaching formats include:

- Assembly We use a camera feed to zoom in our live animals and project them up on a movie screen. Up to 250 students
- **Classroom** A hands on, interactive presentation style that is good for up to 30 students
- Virtual presentations.

All presentations can be modified for any age group.

- Afterschool enrichment programs are available.
- Marine biologist speaker/lecture series available to civic groups: scouts, environmental organizations and more.

#### **Educational Materials and Resources**

Visit the websites provided as well as the Facebook pages <u>underthesea.sterling</u> and <u>gepaquarium</u>. For sample images, visit the Instagram site: <u>glenechoparkaquarium</u>.

## Virginia Cooperative Extension – Loudoun County

750 Miller Dr., SE, Ste. F-3 Leesburg, VA 20175 <u>Barbara Bailey</u>, Community Engagement Coordinator, 703-771-5386 www.loudoun.gov/106/Virginia-Cooperative-Extension---Loudoun

#### **Mission Statement**

Virginia Cooperative Extension (VCE) brings the resources of Virginia's land-grant universities, Virginia Tech, and Virginia State University to the people of the commonwealth. Understanding that knowledge is power, we place that power in the hands of Virginians and help them learn how to use it to improve the quality of their lives. Our Extension agents and specialists form a network of educators whose classrooms are the communities, homes, and businesses of Virginia where they bring research-based solutions to the problems facing Virginians today.

To better utilize our resources, we form collaborations with hundreds of public and private partners and volunteers who help us reach larger and more diverse audiences and leverage the impact of our work.

The mission of VCE Loudoun is to provide research-based education programs to promote residents' health, effective food systems, youth development, and environmental stewardship. More specifically:

- Improve food system resilience VCE Loudoun increases Loudouners'
  understanding of where their food comes from, how it is safely grown, prepared, and
  consumed, as well as its environmental, social, and economic impact.
- Teach life skills and reduce youth depression 4-H and other VCE Loudoun programs offer Loudoun's youth various activities and clubs that have been proven to reduce the prevalence of youth depression and enhance vital life skills.
- Enhance health and well-being of low-income families VCE Loudoun teaches English and Spanish speaking residents nutrition and physical activity best practices to reduce the rate of chronic disease and obesity.
- Increase sustainability of agricultural operations VCE Loudoun's education programs improve the sustainability of Loudoun's agricultural sector to include livestock, crops, and agripreneurs.
- **Promote environmental stewardship** VCE Loudoun educates residents on best practices to protect our natural resources, thus assisting the county government in complying with federal and state mandates.

#### **Programs/Activities**

The department offers educational programs designed to meet the needs of the Loudoun community in:

- Agriculture
- Commercial and Community Horticulture to include Master Gardener Volunteers
- Family & Community Sciences to include Master Food Volunteers
- 4-H Youth Development Ages 5-19: clubs and special interest groups
- SNAP Education for youth and adults

Environmental education programs and activities for adults and youth vary throughout the year and include:

- Conservation Best Management Practices for Commercial Horticultural, Forestry and Agricultural Producers,
- Conservation Best Management Practices for Homeowners
- Natural Resource Conservation Education for Children: Watershed, Soil and Plants

#### **Educational Materials and Resources**

Research-based fact sheets, educational brochures, and web-based educational opportunities are available at <a href="https://www.pubs.ext.vt.edu/">www.pubs.ext.vt.edu/</a>.

### **Field Study Site**

Parking, restrooms, classroom, and equipment are available at office site.

## Virginia Cooperative Extension – Loudoun County Master Gardeners

750 Miller Dr., SE, Ste. F-3 Leesburg, VA 20175 <u>Barbara Bailey</u>, Community Engagement Coordinator, 703-771-5386 www.loudouncountymastergardeners.org loudounmg@vt.edu

#### **Mission Statement**

Virginia Cooperative Extension Master Gardeners are trained volunteer educators who work within their local communities to encourage and promote environmentally sound horticulture practices through sustainable landscape management education and training. We are volunteers who have received extensive training under the auspices of Virginia Tech and the Loudoun County Cooperative Extension office to provide unbiased research-based horticultural information to the community.

#### **Programs/Activities**

**School/Community Gardens** – In partnership with LCPS School Nutrition Services, Master Gardeners provide educational assistance to teachers/parents/garden coordinators on building and maintaining school or community gardens.

**Children's Education** – Programs on gardening and the environment for school-age children and their families are provided upon request to classrooms and community groups. We also provide child-friendly activities at selected local Fairs and Festivals. Program requests can be made online at <a href="loudouncountymastergardeners.org/programs/childrens-program/">loudouncountymastergardeners.org/programs/childrens-program/</a>.

**Demonstration Garden** – The Master Gardeners' Demo Garden is open from March – October for growing and teaching; open for visitation year-round. All of the fruit and vegetables produced in the garden are donated to Loudoun Hunger Relief. Tours and/or presentations may be arranged upon request. Classes/workshops offered once a month on Saturday.

**Speaker Series** – Free to the public. Held on the 1st Thursday of each month at 7:00 p.m., January – November at Rust Library, 380 Old Waterford Rd NW, Leesburg, VA 20176.

**Help Desk** – Open March – November, Monday – Friday, from 9:00 a.m. – noon; December – February, Monday – Thursday, from 9:00 a.m. – noon. Call 703-771-5150 or email for plant identification, nutrient management recommendations, and problem diagnosis. Walk-in Help Desk assistance will resume when we are able to resume in-person staff post COVID-19. For more information, visit <a href="loudouncountymastergardeners.org/gardening-advice/help-desk/">loudouncountymastergardeners.org/gardening-advice/help-desk/</a>.

**Garden Clinics** – Saturday Mornings, May – September, Sterling/Dulles (Lowe's), Leesburg (Farmer's Market), One Loudoun, Ashburn; and Purcellville (Southern States).

**Speakers Bureau** – Extension Master Gardener Volunteers provide lectures on Environmental Stewardship and Value of Landscape topics to groups upon request. Speakers can be requested at <a href="loudouncountymastergardeners.org/programs/speakers-bureau/">loudouncountymastergardeners.org/programs/speakers-bureau/</a>.

**Community Events** – Extension Master Gardener Volunteers participate in many community events each year such as Hail to the Trail, Earth Day, Arbor Day and others.

Water Stewards Program – The mission is to contribute to the improvement of the environment in their communities through public education programs, demonstration sites, and establishment of programs regarding proper landscape management to ensure conservation of natural resources. Water Stewards offer pond, stream and erosion site visits (seasonal) with a personalized, educational report to follow.

**Tree Stewards Program** – Concentrate on educating the community on tree-related issues. They actively promote the social, economic, and mental health benefits of trees, choosing projects that serve the residents of the county.

**Healthy Virginia Lawns** – Program for homeowners that provides a written nutrient management plan for appropriate fertilizer and lime recommendations for lawns.

#### **Educational Materials and Resources**

Many publications related to gardening and the environment are available at the Virginia Cooperative Extension website: <a href="mailto:pubs.ext.vt.edu">pubs.ext.vt.edu</a>.

Information and links to other sources are listed under headings of Seasonal Alerts and Gardening Information at <u>loudouncountymastergardeners.org</u>.

## **Environmental Education Training Classes**

Site visits include stream/pond/erosion assessment. Full report on findings and best management practices issued within 2 weeks of site visit.

## **Field Study Site**

Master Gardeners' Demonstration Garden at Ida Lee Park, Leesburg, VA.

## Virginia Department of Wildlife Resources

7870 Villa Park Dr. Henrico, VA 23228 Suzie Gilley, Wildlife Ed. Coordinator, 804-367-0188 dwr.virginia.gov/education

#### **Mission Statement**

It is the mission of the Virginia Department of Wildlife Resources to:

- **Conserve** and manage wildlife populations and habitat for the benefit of present and future generations.
- Connect people to Virginia's outdoors through boating, education, fishing, hunting, trapping, wildlife viewing, and other wildlife-related activities
- Protect people and property by promoting safe outdoor experiences and managing human-wildlife conflicts

## **Selected Programs/Activities**

#### **Habitat Education**

dwr.virginia.gov/wildlife/habitat

**Schoolyard Habitat Workshops:** Half-day or full-day trainings for K-12 teachers on how to improve habitat for wildlife on school grounds and use the site as an outdoor classroom(no program fee).

**Wildlife Habitat Training:** Half-day or full-day trainings for Master Gardeners, Master Naturalists, and Soil & Water District staff on methods for improving wildlife habitat in a variety of settings and how to work with community members on special habitat projects (no program fee).

Conservation Landscaping Workshops: Half-day or full-day trainings for landscape designers, landscape architects, planning and zoning staff, developers and builders on how to apply conservation landscaping principles that improve wildlife habitat and water quality, such as by using native plants, reducing lawn, and applying Low-Impact Development techniques (no program fee).

#### Wildlife Education

dwr.virginia.gov/education/resources-for-teachers

**Project WILD Workshops:** The Project WILD Curriculum Guides are available to educators who attend 4-6 hours in-service workshops. Materials are correlated to Virginia Standards of Learning and the national standards. Workshops are available statewide at no cost.

#### **Other Outreach Programs**

dwr.virginia.gov/education

Outdoor Education for Families, Fishing in the Schools, Boating Safety, Hunter Ed., etc.

#### **Educational Materials and Resources**

"Habitat at Home<sup>®</sup>" brochures: Eight page glossy with habitat information and a plant list for the public.

Informational handouts available online at <a href="https://dww.virginia.gov/education">dwr.virginia.gov/education</a>:

- "Feeding Wildlife: Food for Thought"
- "When Wildlife Overstays its Welcome"
- "Providing Water in Your Habitat at Home©"
- "Bird Feeding Basics"
- "Get Ready for Spring: Build a Bird House"

Virginia Wildlife magazine: \$12.95 annual subscription for 12 issues available to general public.

### **Field Study Sites**

DWR operates 41 Wildlife Management Areas around the state which are open to the public for hunting, fishing, hiking, birdwatching and school field trips. For details and maps of individual sites, go to <a href="https://dww.virginia.gov/wma">dwr.virginia.gov/wma</a>.

## Virginia Master Naturalists – Banshee Reeks Chapter

P.O. Box 1102 Leesburg, VA 20177 <u>Susan Sims</u>, President vmnbansheereeks.org facebook.com/groups/85938625582

#### **Mission Statement**

The Virginia Master Naturalist (VMN) program supports a state-wide corps of volunteers providing education, outreach, and service dedicated to the beneficial management of natural resources and natural areas within our communities. In 2006, the Banshee Reeks Chapter became the first VMN chapter chartered in the Commonwealth of Virginia. Serving Loudoun County, the chapter home is at the Banshee Reeks Nature Preserve, nestled in the foothills of the Blue Ridge Mountains of Northern Virginia. The Banshee Reeks Chapter is an all-volunteer 501(c)(3).

#### **State-Certified Master Naturalist Course**

We offer an eight-month training course for community members interested in certification as a Virginia Master Naturalist. The course covers topics in biogeography, botany, ecology, ornithology, management and conservation of ecological systems such as wetlands, forest and

urban/suburban settings, as well as teaching and interpretive skills in citizen science. Courses begin in September.

## **Programs/Activities**

VMN volunteers are available to assist with educational programming, citizen science surveys and evaluations, and stewardship projects. Contact the Chapter to inquire about opportunities.

VMN volunteers support Banshee Reeks Nature Preserve, Audubon Naturalist Society, Audubon at Home Ambassadors, Plant NoVA Natives Initiative, Loudoun Wildlife Conservancy, native plant sales, bird walks, The Christmas Bird Count, bluebird box monitoring, bat monitoring at multiple sites in Loudoun County, Willowsford Conservancy educational programming, habitat restoration projects, Blue Ridge Center Education Action Team and a host of other volunteer projects.

## Virginia Resource-Use Education Council

c/o Suzie Gilley, P.O. Box 90778 Henrico, VA 23228 Suzie Gilley, Wildlife Ed. Coordinator, 804-367-0188 sites.google.com/view/vruec

#### **Mission Statement**

The Virginia Resource-Use Education Council is an interagency workgroup established in 1952 to assist educators in the teaching of Virginia's natural resources. The Council provides assistance to the Virginia Naturally program operated by the Department of Environmental Quality and staffs the interagency work group for the Chesapeake Bay 2000 Agreement.

### **Programs/Activities**

Chesapeake Bay Academies: Institute on the Bay for teachers – Grant funded, check for current status.

## **Educational Materials and Resources**

Educator's Guide to Virginia's Natural Resources: An online guide for science standards 4.8 and 6.9.

## Waterford Foundation, Inc.

40222 Fairfax St. Waterford, VA 20197 Stephanie Thompson, Executive Director, 540-882-3018 www.waterfordfoundation.org

#### **Mission Statement**

The mission of the Waterford Foundation, Inc. (WFI) is to preserve historic buildings and open spaces of the National Historic Landmark District of Waterford, Virginia and, through education, to increase the public's knowledge of life and work in an early American rural community.

## **Programs/Activities**

The 144-acre Phillips Farm is owned and preserved by the Waterford Foundation as an important contributing element of the Waterford National Historic Landmark. The farm is open to the public year round via a 1.5 mile interpretive trail and an interpretive pull-off area near the intersection of Old Wheatland and Milltown Roads. The Phillips Farm Committee of the Waterford Foundation always welcomes new members. Contact us to visit one of our monthly meetings to see if you would like to join us.

WFI partners with the Loudoun Wildlife Conservancy (LWC) in conducting demonstration projects in the following areas. Volunteers are always welcome. Please register with LWC (see above) if you would like to help out with any of these projects.

- Riparian habitat restoration of stream banks, controlling erosion, and improving habitat along the South Fork of the Catoctin Creek on the historic Phillips Farm property
- Invasive plant removal
- Water quality monitoring volunteers measure the quality of water in the South Fork of Catoctin Creek using aquatic invertebrates as indicator species
- Butterfly and bird observation and counts
- Blue bird population housing, monitoring and annual count
- Amphibian Monitoring Program

#### **Educational Materials and Resources**

The Phillips Farm interpretive trail is open year round during daylight hours. A comprehensive brochure and self-guided walking tour are available at the entrance to the Phillips Farm behind the Old Mill at 40105 Main Street, Waterford or online at <a href="https://www.waterfordfoundation.org/phillips-farm-land-use">www.waterfordfoundation.org/phillips-farm-land-use</a>. The natural and cultural history of the Farm is included. Groups must schedule access by calling 540-882-3018. Parking arrangements for a number of vehicles can be made in advance, otherwise there is limited parking at the mill and at the interpretive pull-off on Old Wheatland Road.

## **Field Study Sites**

The whole farm may be used as a study site. Please contact our office if you would like to explore this possibility. Restroom arrangements can be made elsewhere in the town. The South Fork of Catoctin Creek, floodplain, deciduous and coniferous woodland, meadows, hedgerows and old pastures are available for study.

## Wildlife Ambassadors

20371 Cockerill Rd. Purcellville, VA 20132 Becky Shore, 571-252-0036 www.wildlifeambassadors.org

#### **Mission Statement**

Wildlife Ambassadors is an educational outreach wildlife program where the animals are the teachers. The ambassadors are the backbone of our program creating a bond between humans and wildlife and nurturing future conservationists. We provide permanent sanctuary for the ambassadors which include animals that are non-releasable wildlife, displaced pets, and wildlife from other organizations or zoos.

#### **Programs/Activities**

Wildlife programs for schools, libraries, community centers, nature centers and more. Current programs include American Wildlife and Wild Habitats.

#### **Educational Materials and Resources**

Web site, Facebook page with wildlife videos, YouTube channel with wildlife videos.

