

Streamlines

Spring 2015



In This Issue...

Engaging the Next Generation: Interns, Restoration Projects, and Educational Programs

MS4s and You

Invasive Insect Threatens Forest Giant



GREEN VALLEYS
WATERSHED
ASSOCIATION

Protecting Northern Chester County's
Watersheds for 50 Years

**GREEN VALLEYS WATERSHED
ASSOCIATION at
WELKINWEIR**

The mission of Green Valleys Watershed Association is to protect, preserve, and restore the natural waterways of northern Chester County. We inspire, educate, and involve our community to make a difference for our generation and for generations to come.

Welkinweir

Our headquarters in East Nantmeal Township is a spectacular property which showcases our organization's Mission. Originally the home of founding members Everett and Grace Rodebaugh, the 197 acres of permanently preserved land feature a 55-acre arboretum, diverse wetlands, riparian forest but forest habitats. The property hosts many of our environmental education programs, along with an ever-growing collection of sustainability demonstration projects. [Visiting hours on page 4.](#)

1368 Prizer Road Pottstown, PA 19465

Phone (610) 469-4900

Fax (610) 469-4990

E-mail gva@greenvalleys.org

Web www.greenvalleys.org

Extended, online newsletter at:
www.greenvalleys.org/gva-3/streamlines

Board Officers

Ed Bacon, President

Allen Heist, Vice President

Don Hans, Treasurer

Jo-an Rechten, Secretary

Staff

Victoria Laubach, *Executive Director*

victoria@greenvalleys.org

Elaine Armbrust, *Bookkeeper*

elaine@greenvalleys.org

Michael Bullard, *Watershed Science
Coordinator*

mikeb@greenvalleys.org

Kelsey Stanton, *Communications
Coordinator & Watershed Restoration*

kelsey@greenvalleys.org

Margot Taylor, *Watershed Restoration
Coordinator & Nature Educator*

margot@greenvalleys.org

Dawn White, *Education Coordinator*

dwhite@greenvalleys.org

Cover Image:

*Schuylkill Acts & Impacts students learn about
water quantity at Welkinweir.*

© 2014 GVWA, all rights reserved.

From the Director: Take a Hike, Please!

With this beautiful spring weather comes the opportunity to once again enjoy all of the outdoor resources our *green valleys* have to offer. Stroll among the azaleas at Jenkins Arboretum; hike the forest trails in French Creek State Park; or explore the newly-finished sections of the Schuylkill River Trail. These and hundreds of other opportunities await you and your entire family!

Beyond the simple pleasures of "unplugging" and experiencing nature, hiking has been shown to have many health benefits. Even if you don't have time for a structured hike, it is beneficial for all of us to spend less time in front of the screen, and more time out in the green!

Yours in the watersheds,



Victoria Laubach
Executive Director



Recently spotted along the Horse Shoe Trail in Warwick County Park: Dutchman's Breeches (*Dicentra cucullaria*) brings smiles to nature lovers in early spring. Its name references the appearance of the flowers, which appear to dangle from the stem like a line of old-fashioned bloomers! What other delights will you encounter outdoors?

Save the Date:
Full Moon Walk & Picnic

Friday, July 31, 2015



Pack a picnic dinner and watch the moon rise over Welkinweir! Experience the wonder, mystery, and romance of a moonlit night.

We will host a moon-related program, a nocturnal walk through the arboretum, and s'mores around a campfire. Invitations will follow. [Please see our Programs Calendar on page 7 for more information.](#)

Save the Date:
Run for Green Valleys!

Saturday, September 12, 2015



Prepare to **run for your watershed!** Participants will walk, jog, or sprint through some of the most scenic landscapes of Chester County. Proceeds will benefit our Watershed Restoration Program.

Permitting MS4s and Improving Water Quality in Our Watersheds

An MS4 – or *Municipal Separate Storm Sewer System* – broadly defines sources of stormwater and nonpoint source pollution within a municipality. The Pennsylvania Department of Environmental Protection has begun regulating the pollution produced by MS4s through the long-standing National Pollutant Discharge Elimination System (NPDES).

Why NPDES Permits? A fundamental tenet of the Clean Water Act is that pollution sources are first identified; second, given an NPDES permit; and third, through the permit, pollutants are reduced to non-harmful levels. The NPDES permit includes a monitoring component and sets the total amount of pollution allowed – once permitted and monitored, these pollution sources are “in the system” and reductions are made as needed to meet water quality goals.

The earliest NPDES permits regulated point source pollution—for example, pipes from industrial facilities and sewage treatment plants. When these initial permits proved insufficient in cleaning up our nation’s waterways, the permitting program broadened to encompass many sources of pollution to our streams, and recently required municipalities to apply for NPDES permits for their MS4s.

What Does This Mean for Your Municipality?

Pennsylvania has almost 1,000 municipalities which are considered MS4s; with the exceptions of Warwick, West Vincent, East & West Nantmeal Townships and Elverson Borough, this includes all of northern Chester County’s municipalities. As such, they must develop a stormwater management program which incorporates ordinances devoted to stormwater mitigation, as well as goals & Best Management Practices that address the following six “**minimum control measures**”:

1. **Public education & outreach** – *increase community awareness of the land-water connection, and solutions to stormwater problems.*
2. **Public involvement & participation** – *engage citizens in direct action.*
3. **Illicit discharge detection & elimination** – *enforce waterway protection.*
4. **Construction site runoff control** – *prevent new erosion & sedimentation impairments.*
5. **Post-construction stormwater management in new development & redevelopment** – *long-term maintenance of stormwater facilities; opportunities for green infrastructure; Chester County’s Act 167 Stormwater Planning and municipal stormwater ordinances.*
6. **Pollution prevention and good housekeeping for municipal operations & maintenance** – *simple preventative measures and monitoring, tailored to each facility.*

GVWA Can Help

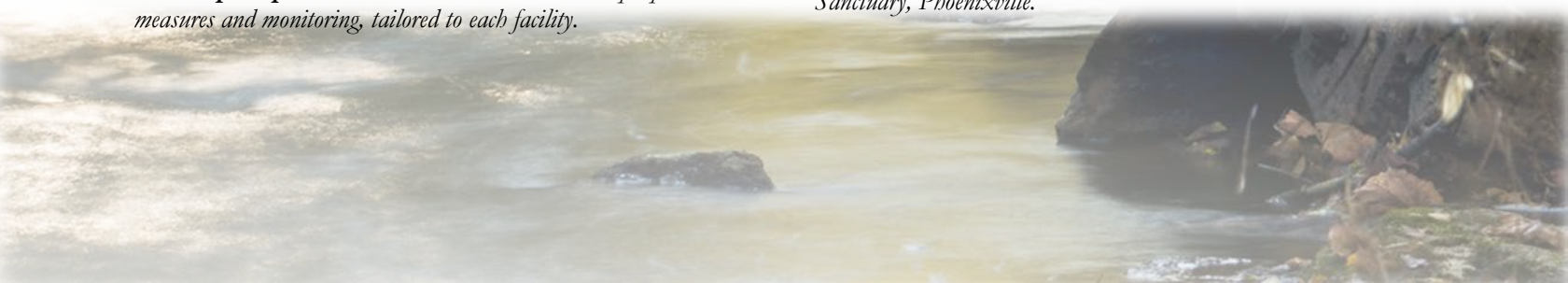
Each of the watersheds within GVWA’s stewardship area have distinct water quality issues. With the arrival of the MS4 program in our watersheds, municipalities will improve both their awareness of watershed issues and the concrete actions taken to prevent pollution from entering our streams. In each of the six control measures, GVWA has considerable past experience and current capacity. Our organization looks forward to achieving new improvements in the health of our watersheds. –*Michael Bullard and Kelsey Stanton*



New emphasis on preventing and correcting Erosion & Sedimentation failures at construction sites.



Green Infrastructure – porous paving and rain garden at Black Rock Sanctuary, Phoenixville.





French Creek Cleanup 2015

It has been another successful year for the French Creek Cleanup! We expanded our focus area to include an extra mile of the creek, from its confluence with the Schuylkill River upstream to Route 23. 28 volunteers, including Phoenixville residents, Green Valleys members, a Schuylkill Water Steward, and students from Camp Hill Special Schools, removed 50 bags of trash, six tires, and other items from the French Creek's banks. The event was part of the Great American Cleanup of PA™; PennDOT as major sponsor provided free cleanup supplies, litter hauling & disposal.

A second cleanup took place along Pughtown Road in East & West Vincent Townships. Green Valleys members Joan Baker & Ben James removed eight bags of trash and other items from the roadside. We would like to thank all of our hard-working volunteers for their dedication and energy, and the Phoenixville community for their support of our event! –Kelsey Stanton

Thank you!

We would like to thank all of the members of **Girl Scout Troop 419** for helping improve and protect wildlife habitat on West Vincent Township open space! Over the past three years, the troop planted 60 shrubs along a tributary to the Birch Run that will provide shelter and food for pollinators, birds, and small mammals.



Phoenixville Middle School Bioswale Update

The Phoenixville Middle School Environmental Club cares about conserving freshwater to protect wildlife like the fish in our streams. To do this at school, they helped replace a grass swale with a *bioswale* planted with native plants last fall. The bioswale mimics a meadow, slowing and absorbing stormwater back into the ground while trapping pollutants. These are normal functions of a healthy ecosystem that mowed lawn cannot replicate. The result is cleaner and less runoff in our streams.

We would also like to thank the employees of **Cerner Corporation** for planting nearly 200 trees at Welkinweir! These trees will restore forest canopy along Prizer Road and near the Pavilion.



The 850 square-foot bioswale outside the school's cafeteria window is now fenced to exclude deer. Strategically-placed natural logs direct rain water runoff and provide habitat for fungus and soil organisms. Then, with the help of the school's student Environmental Club and Envirothon Team, 650 grass and perennial plants have been installed. Native plants were selected that tolerate seasonally wet conditions and provide food & shelter for beneficial wildlife. "It is important to develop plant communities when building a native vegetative system. The community should model natural ecosystems with a diversity of species that fill various biological niches such as height, form, and food type. Native flora is necessary to support native fauna", explains Margot Taylor, GVWA's Watershed Restoration Coordinator and Club Instructor. The new Bioswale at PAMS is a constructed living system that will help protect the health of the Pickering Creek and its fish inhabitants. –Margot Taylor

Forest Giant Imperiled by Tiny Insect

A tiny insect with a taste for *Fraxinus* (Ash) tree species, the Emerald Ash Borer (EAB) is spreading through our forests, parks, and landscapes. Just 1/3 of an inch long, the larvae feed under the bark, effectively girdling the tree and killing it from the top down. EAB is **invasive** outside of its native range of northeast Asia. It threatens the entire North American *Fraxinus* genus, which includes 16 tree species in the US. It has killed tens of millions of Ash trees so far, and threatens to kill most of the 8.7 billion Ash trees throughout North America¹. According to [PA DCNR](#) and [Penn State](#), EAB has been confirmed in 57 counties, including Berks and Lancaster, as of May 2015.

Ash trees are an important component of our forests, particularly in riparian areas, as well as popular landscape and street trees. As a major forest tree, Ash is important to biodiversity, with, for example, 286 species of arthropods dependent on it; 25% of those arthropods are considered at high risk due to their degree of reliance on the Ash [tree](#)².



EAB on penny for scale.

The onset of EAB is expected to be devastating. At the Chicago Botanic Garden, experts had expected Emerald Ash Borer to “creep” across their property and take several years before affecting all of their Ash trees; instead, the insects came as a “smothering blanket” of millions of insects, affecting the garden’s entire 385 acres nearly within one year. What had been predicted as a five to ten year decline took less than four³.

Due to EAB’s rapid threat to ash trees, those with ash on their properties should inventory their trees and decide how they will respond: important, healthy specimens can be treated with pesticides; less important trees with potential to become safety issues should be removed prior to infection, as the borer makes trees dangerous to climb; or consider logging the trees off to salvage the valuable lumber and begin establishing new species. Any logging work should be carried out with minimal forest impact. www.emeraldashborer.info is an excellent resource with links to specific state agencies. At Welkinweir, we have selected ash trees for treatment against EAB; we utilize direct injection insecticide, which confines the pesticide within the tree.

Visiting Welkinweir

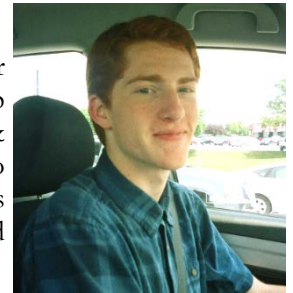
The grounds are open to visitors **Monday - Friday, 9 a.m. - 4:30 p.m.** Parking is available in the large parking lot west of the estate house. We may have special programs or private events occurring on weekends and we ask members who want to visit on the weekend, to **call during business hours** to inquire about availability. **We offer Saturday morning nature walks (see calendar) that are open to all.** We remind visitors bringing pets to **follow leash regulations and clean up after your dog (and encourage others to clean up after their dogs)** so that our policy of allowing dogs can continue.

There is hope!

According to Don Eggen, Forest Health Manager with DCNR, biological controls for EAB is being trialed across the northern tier of the commonwealth, where Ash is a valuable timber crop. Please see our online list of EAB resources at <http://www.greenvalleys.org/eab/>. –Victoria Laubach

Welcome to Our Interns!

Max Black is a resident of Chester Springs and former summer camp student. He is studying at Franklin & Marshall College, where he plans to major in Environmental Studies. In his free time he enjoys playing guitar and bass as well as hiking and camping.



After graduating with a Bachelor’s in Horticulture from Temple University, **Matt Rozanski** is joining us for another year as Welkinweir’s Horticulture Intern. Congratulations, Matt!

Carbon Monitoring & Research at Welkinweir

Project staff from the University of Washington Precision Forestry Cooperative have selected Welkinweir as one of the sites where they will be collecting field data on carbon stocks. Forests currently store vast quantities of carbon as cellulose. They gather this carbon by removing CO₂ from the atmosphere, and understanding the current forest stocks as well as the rate of CO₂ removal are important elements in assessing climate change.

Unusual Blooms at Welkinweir

Below: Rhododendron flowers are commonly in white, pink, purple, and rosy-red shades, but breeders are working to expand that range into warmer tones, especially yellow.



Left: The fragrant flowers of black locust (*Robinia pseudoacacia*) are often too high up in the tree to see up close.

Don't Delay! Register for Camp 2015 Today!

Spaces are still available in many of our summer camp weeks. We have many exciting activities planned! Find out at our second **Camp Open House on June 13, 9:30-11:30 a.m.** at the Education Building next to the visitor's parking lot. Register soon to secure a spot in your child's favorite camps!

Donors Still Needed for the Summer Camp Scholarship Fund

There are children from the surrounding community waiting for scholarships in order to attend a week of camp. *Can you help give them a week of nature education and memorable outdoor experiences?* A donation of \$125 will send a Kindergarten-aged child; and \$230 will send an elementary-aged child to camp for one week. Any amount is appreciated and will be combined with other donations. Donations may be sent to Green Valleys, attention "Scholarship Fund".



"Little Sprouts Nature Classes" Grow Future Environmental Stewards

Throughout the year, the youngest of nature lovers participate in interactive, themed programs at the Phoenixville and Henrietta Hankin public libraries. In 2014, over 230 children, ages 3 to 5, attended **Little Sprouts Nature Classes**, learning about animal adaptations, habitats, functions of trees, music in nature, and more. Through examination of pelts, feathers and other natural items, as well as stories, puppets, games, and take-home crafts, the children and their parents learn more about the natural world in their neighborhoods.

This year, Green Valleys expanded these programs to youngsters in the community through new partnerships with the Spring City and Chester Springs Public Libraries. Little Sprouts Nature Classes will continue this fall at all four libraries. For a schedule of all Little Sprouts programs, please visit the [Environmental Education Calendar of Events](#) on our website.



Environmental Programs Receive State Grant Funding

Summer Nature Day Camp and our middle school Environmental Awareness Clubs have received funding from the PA Department of Environmental Protection's *Environmental Education Program*. Two grants, totaling \$5,000, will support these two programs for grade-school students.

Thank you!

A big thank you to the following volunteers for their services this spring:

Tim Walsh and a group of 9th grade students and their instructor from the **Kimberton Waldorf School**, for trimming plants and pulling weeds in the visitor's lot flower beds and on the trails.

Eric Strasser, Master Naturalist, for preparing some summer nature camp lessons and trimming trails in preparation for spring school group programming.



Welcome Kristyn Kleman, Environmental Education Intern

Kristyn resides in Birdsboro and has a Bachelor's Degree in Biology, Marine option, from Millersville University. She is currently a graduate student at Nova Southeastern University of Florida pursuing her Master's Degree in Marine Biology.

Kristyn has experience leading 5th & 6th graders in environmental biology and conservation classes. Her professional research experience includes an internship in Greece, training volunteers ages 12 through 60 on protocol to collect behavioral data on wild dolphins. Kristyn has also taught Girl Scouts team-building and outdoor skills.

Kristyn will observe and lead pond ecosystem studies for visiting 6th grade classes from Owen J. Robert; assist in writing Summer Nature Day Camp lesson outlines; and lead nature camps as a Senior Counselor. She hopes that her work as an intern here will "instill a passion for the environment in the campers, backed by a sound education and memorable experience, in hopes that they might inspire others one day."

- Dawn White

Community Nature Programs Calendar

January - April 2015

Nature Programs at Welkinweir

Guided Nature Walks

Saturdays May 23 and June 13 – 8:00 a.m. Free.

Enjoy guided walks with naturalists from Valley Forge Audubon Society to search for a wide variety of wildlife. Bring binoculars and field guides if you have them. These walks are a great opportunity to enjoy Welkinweir on the weekends! Contact kelsey@greenvalleys.org for more information.

Summer Nature Day Camp Open Houses

Saturday, June 13 – 9:30-11:30 a.m.

Tour our camp facilities and grounds at Welkinweir and meet with the Education Coordinator to get your camp questions answered.

Penn Liberty Bank nature program series:

Perfect for families with children ages 5 and older. Refreshments are provided; bug spray and flashlights recommended. Fees per person: GVWA Members \$6, Nonmembers \$8. Advanced registration required no later than the Thursday before each program.

Fireflies!

Friday, June 26 AND Friday, July 10 – 7:30-9:00 p.m.

Discover the amazing lives of “lightning bugs” as we play a game to discover how and why they light up; study the insects themselves; and make a “firefly” to take home! *Bring a jar for catch & release of fireflies.*

Nocturnal Animal Hike & Campfire

Friday, August 7 – 7:30-9:00 p.m.

View nature at night at Welkinweir! Enjoy stories and s’mores at the campfire, then search for signs of nighttime animals, play sensory games, and learn more about nature in summertime.

New! Full Moon Walk & Picnic

Friday, July 31 – 6:30-9:00 p.m.

Pack a picnic dinner and watch the moon rise over Welkinweir! Experience the wonder, mystery, and romance of a moonlit night. Enjoy s’mores over a campfire following a nocturnal walk through the preserve and gardens. *Bring your own picnic materials. S’mores ingredients provided. Flashlights recommended. Families welcome! Contact gva@greenvalleys.org for more information.*

Library Programs: Little Sprouts Nature Classes

Ages 3-5 with caregiver. Free.

Register at Chester Springs Library by calling 610-827-9212.

Chester Springs Library Tuesdays 10:30-11:15 a.m.	<i>Look for more Little Sprouts Nature Classes on GVWA's online Education Events Calendar!</i>
July 21 <i>Things with Wings</i> August 18 <i>Sensational Senses</i>	

To learn more about upcoming education programs and to register for specific classes, please contact Education Coordinator Dawn White by calling 610-469-8646, or email dwhite@greenvalleys.org.

Please join us...

Your membership is an investment in clean water and healthy watersheds, for now and for future generations.

Name _____

Address _____

City, State ZIP _____

I would prefer to pay by:

Check (*made payable to Green Valleys*) Visa MasterCard
 Discover American Express

Credit Card # _____

Exp. ___ / ___ CID _____ Phone _____

E-mail address _____

Phone & e-mail needed to process credit card payments. We do not share your information with other charitable organizations.

Detach this form and mail with payment to:

**Green Valleys Watershed Association
1368 Prizer Road, Pottstown, PA 19465**

Online membership also available at <http://www.greenvalleys.org/>

Dues and contributions are tax-deductible. Green Valleys is a registered charitable organization. A copy of registration and financial information is available by calling 1-800-732-0999. Registration does not imply endorsement.

MEMBERSHIP includes newsletter subscription, notice of special events and programs, and reduced rate to special programs, workshops, and summer nature camp.

Membership levels (please check one):

- Individual..... \$45
- Family..... \$60
- Naturalist..... \$100
- Environmentalist..... \$250
- Protector..... \$500
- Preservationist..... \$750
- Steward..... \$1,000

I am a: New Member Renewing Member

Please send me information about including GVWA in my legacy planning.

Please notify me of Green Valleys volunteer opportunities.

E-mail: _____

I prefer to receive my copy of Streamlines via: Mail E-mail

Visit our website at www.greenvalleys.org

Spring 2015 Volume 51, Issue 2

1368 PRIZER ROAD | POTTSTOWN, PA 19465
NORTHERN CHESTER COUNTY
WATERSHED ASSOCIATION FOR 50 YEARS



Address service requested

Nonprofit Org.
U.S. Postage
PAID
Permit No. 82
Pottstown, PA