

# Streamlines

Spring 2016

## *In This Issue...*

*Stormwater and the Land-Water Connection*

*Workshop Series*

*Amphibian Fun Facts*

*Welkinweir Restoration Work*

*Camp Registration is Now Open*



**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, meadows, & 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.**

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**Cover Image:**

*Bloodroot (Sanguinaria canadensis f. multi-plex), grows wild in the rich, moist soil of shady woods. This ephemeral wildflower, a member of the poppy family, earned its common name for the toxic, reddish-orange sap in its stems and roots.*  
© Welkinweir, 2015.

*From the Director:*

***March is the month of awakenings in nature, conveying delightful sensory evidence – sights, smells, and sounds – that spring is finally on its way.***

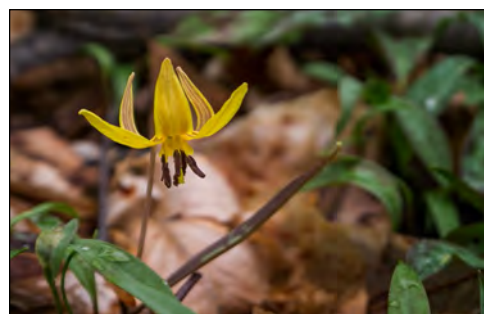
The earliest-blooming plants are often pleasantly fragrant, such as the native Vernal Witch Hazel (*Hamamelis vernalis*), luring us as well as early pollinators to them. Migrant birds return...and others re-emerge from winter habitat. The welcome calls of song sparrows and cardinals grace the air, while the drumming of woodpeckers proclaims to all their territorial ambitions. Soon starts the migration of amphibians as they make their way to the awakening pools and wetlands to perform their annual choruses, and we may even get a neighborly phone call to lend a hand assisting them across busy roads.

Spring unfolds slowly at first, gaining speed as the days grow warmer and longer. That is rather like our year here: quiet at the start, then suddenly a busy season is upon us! You will read about some of our busy work in the following pages, through our e-news emails, or on social media. ***Welcome, spring!***

Yours in the watersheds,



Victoria Laubach  
Executive Director



*Save the Date:*  
**Sunday, May 8, 2016**  
**Mother's Day Tea & Azalea Bloom Walk**



Savor a spring afternoon in the garden with family at our annual Mother's Day Tea. From the tented terrace overlooking Welkinweir's pond, guests will enjoy light fare, delicious hot and iced teas, and scrumptious desserts. Delight in the brilliant colors of spring while wandering the gardens surrounded by birdsong. *Proceeds from this event support historic Welkinweir and internship opportunities for students.*

*Save the Date:*  
**Saturday, April 23, 2016**  
**French Creek Clean-Up Day**

Make a difference for the watershed in your backyard! Join like-minded volunteers to remove litter from the French Creek near Phoenixville. We provide the clean-up supplies and refreshments. Contact [kelsey@greenvalleys.org](mailto:kelsey@greenvalleys.org) for more information.



**Clean-Up Day with Chester County Sierra Club**

Join members of the local Sierra Club chapter to clean up litter along their adopted stretch of Route 30 between Downingtown and Exton. Contact [jim.wylie@verizon.net](mailto:jim.wylie@verizon.net) for more information.



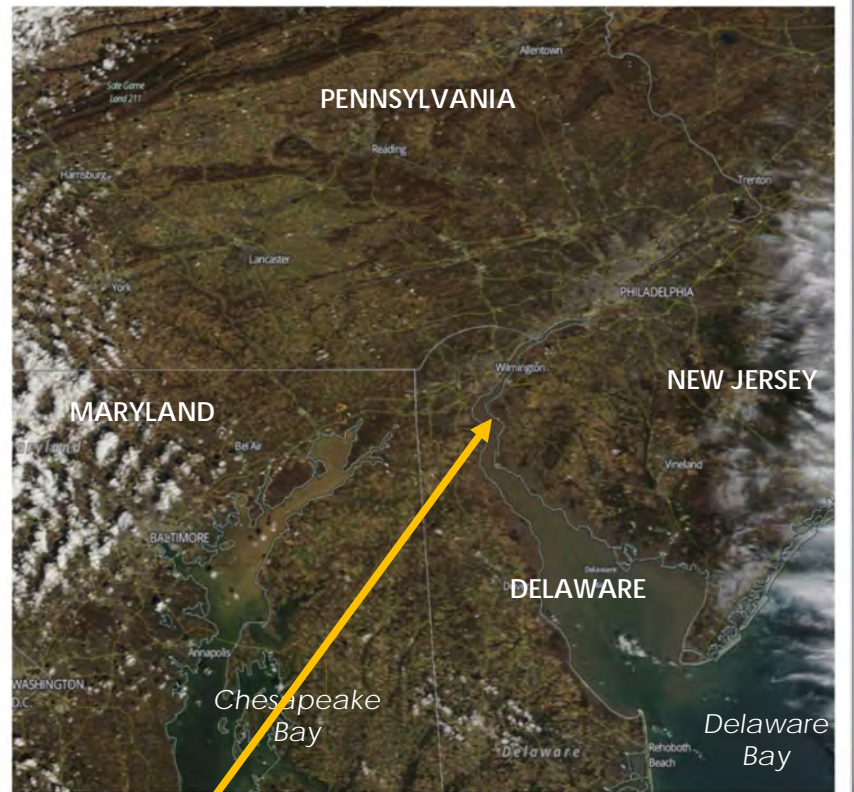
# The View from Above: Making the Land-Water Connection

The 2.5-inch rainstorm early on February 25<sup>th</sup> illustrates once again the impacts of heavy precipitation events on our watersheds. The downpour eroded croplands, cut new gullies along (and even through) roads, overloaded stormwater management controls, and carried huge quantities of sediments and other pollutants into our streams.

The sediment loads from this storm are so large that they are readily identified in satellite images taken six days later (pictured at right--sediment plumes entering the Chesapeake and Delaware Bays). Closer to earth, camera drones now allow us to readily identify and assess erosion hotspots such as the one pictured below in the headwaters of Beaver Run.

Sediment loads of this magnitude have devastating effects on the biological health of aquatic ecosystems. Fine sediments remain suspended in the water column, clogging the gills of fish and macroinvertebrates, while heavier sediments fall out and smother the natural stream bottom, disrupting many essential processes.

These sediments also become the primary reservoir of indicator bacteria and harmful nutrients.



Reducing the amounts of sediments entering our streams is a high priority for GVWA in the years and decades ahead. How do we accomplish this?

Features and soils in agricultural lands which are most erodible should be protected with permanent, vegetated ground cover, in the form of wide grass strips; the grass holds the soil in place and acts to trap sediment in stormwater. Winter ground cover should be planted where row crops are grown.

Where stormwater is concentrated by permanent infrastructure such as parking lots, roads, trails, or other features, Green Infrastructure provides the tools needed to slow down stormwater and infiltrate it for groundwater recharge.

At new construction sites, where the open ground is particularly vulnerable, there have recently been significant improvements in stormwater management regulations both at the state level (governing projects over 1 acre in disturbance in EV/HQ watersheds) and locally, with the new, more-stringent township stormwater ordinances under the County's Act 167 planning.

And of course, plant native trees, especially along riparian corridors. --Michael Bullard





## Workshop Series

As part of our work in the William Penn Foundation's Delaware River Watershed Initiative, we are working with our partners in the Schuylkill Highlands Cluster to organize landowner workshops. Introducing owners and managers of large properties to the latest Best Management Practices is one strategy to effecting meaningful change to protect water quality. We have participated in a number of workshops as well as hosting a workshop.

GVWA is presenting a **"Green Saves Green"** workshop with the Partnership for the Delaware Estuary (PDE) to target large property owners and managers - such as township managers and campus facilities personnel - and educate them on practices that improve water quality, reduce stormwater runoff, while reducing maintenance expenses. **Landowners and property managers are invited to the 5-hour workshop, which takes place on Wednesday, March 30 in Phoenixville.** Several professionals will present various strategies and successes in implementing better land stewardship practices, followed by a tour of green stormwater infrastructure examples. Lunch will be provided.

GVWA staff will once again present at the **Schuylkill Water Congress** in Pottstown. We will also be working with the Chester County Conservation District to present at their first farm workshop in northern Chester County. Last fall, GVWA and PDE organized a stormwater project tour for property managers, municipalities, and interested members of the general public, visiting rain gardens, stormwater basin naturalizations, infiltration best management practices, and sites where eco-friendly maintenance strategies were being practiced. *-Margot Taylor*

## The Amphibians Are Coming!

Across our region, thousands of spring peepers, wood frogs, toads, and more are awakening from their winter hibernation under logs, mud, or leaf litter, and migrating *en masse* to the nearest water body to attract mates with their deafening serenades. They are joined by salamanders and newts, some of whom will migrate over land while young before spending their adult lives under water. These are the amphibians of southeastern Pennsylvania, and they need your help!

### Did you know?

- **The woods in your backyard may host treefrogs!** Pennsylvania is home to two species of Gray Treefrog, a small frog that is difficult to see but makes its presence known by its distinctive summertime call.
- **Several frog species produce their own "antifreeze" to survive the winter!** These frogs fill their cells with a sugary solution to prevent them from freezing solid, then spend the winter in a state of suspended animation. When the ground thaws in the spring, so do the frogs!
- **The Pickerel frog is the only poisonous frog native to the United States;** it secretes toxic substances that deter predators and can irritate human skin.
- **Amphibians control pests.** According to Penn State University, a single American Toad can eat almost 10,000 insects over the course of a season, with the majority of their prey being classified as agricultural and/or garden pests.
- **Amphibians are sensitive to changes in their environment, and thus serve as important ecological indicator species. Globally, they are threatened by habitat destruction & degradation, introduced species, and the international spread of diseases.**

### How you can help:

Institutions and concerned individuals are working to monitor and protect amphibians in our area. They need the help of citizen scientists to understand where these creatures live and the apparent health of their populations. Where migrating amphibians are threatened by vehicles as they cross roads, groups of volunteers have organized to temporarily close roads and "escort" the animals on their journeys. **You can help by joining a nearby volunteer group, and by submitting amphibian observations to the Pennsylvania Amphibian & Reptile Survey (PARS) at [paherpsurvey.org/](http://paherpsurvey.org/).** *-Kelsey Stanton*



Spotted Salamander



Gray Treefrog



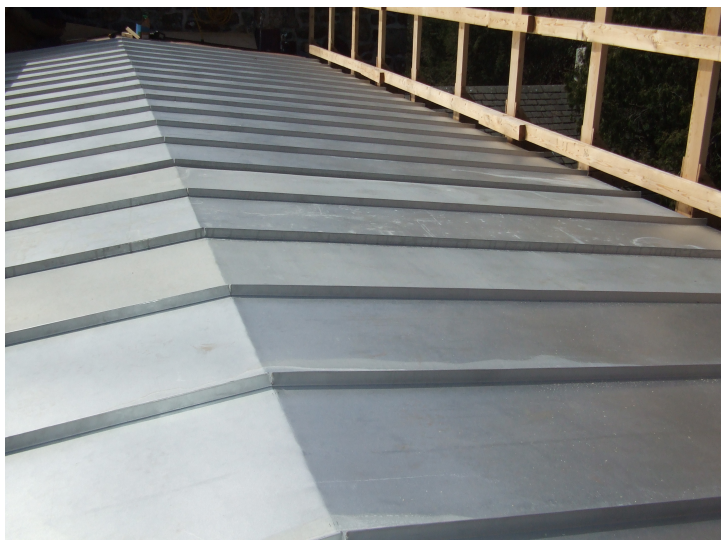
Pickerel Frog



## Restoration Work

When designing the addition to the original 1750 & 1830 farm house at Welkinweir, architect Fridjof Tobiessen used a parapet with two chimneys at each end of a flat roof to disguise the offset ridge lines between the old house and the new addition. Flat roofs are notorious for leaking and this one was no exception. Evidence of long term issues were there when Green Valleys took title to the property in 1997. During our 2000 *Conservation Assessment Program's Architectural Assessment*, this area was identified as a high priority for repair; the repair recommended was to rebuild with a slight pitch to shed water. **Due to the expense of this capital improvement it was a deferred maintenance issue, until we received funding from the National Trust for Historic Preservation's Louis Appell Fund and the Pennsylvania Historical and Museum Commission's Keystone Preservation Fund to begin this work.**

The timing of the receipt of these grants was critical to the organ restoration work that is occurring simultaneously - the organ pipes, instruments, player mechanism, and blower are located directly below the flat roof. Materials were selected in keeping with the rest of the solid construction of the building, including western red cedar rafters and marine Douglas fir sheathing. All previous roof penetrations were removed and repaired. The new roof material chosen was Revere's Freedom Gray--zinc-tin coated copper--that is durable, environmentally friendly, aesthetically pleasing, and will not cause copper stains on the



slate. This will ensure a long life for this rebuilt roof in keeping with our stewardship responsibilities for Welkinweir.

This work will also allow the restoration of the original 1940 colonial style railings. At some point in the 1980's, PVC railings replaced the originals; these "low maintenance" replacements were out of context and scale with the historic building. Photos from the Rodebaugh's collection along with shadow lines on the building stonework gave clues to the appearance and size of the original railings. Our challenge was to find the appropriate material to fabricate the replacement railings from. We needed a material that was extremely durable, since it will be exposed to all sorts of weather; many woods are durable but they are often harvested from environmentally sensitive areas, i.e. rainforests. Locally appropriate materials such as white oak proved to be too expensive, so we looked to the property itself and found a number of black locust trees that were in need of removal. Black locust has been called "the tree on which the US was built" for its extreme rot resistance and toughness. Wesley Greene of the Colonial Williamsburg Foundation has written an excellent article on the black locust wood that can be found here: <http://www.livescience.com/50732-black-locust-tree-shaped-the-united-states.html>

We greatly appreciate the support of our generous funders, enabling critical work that will protect the historic fabric of the building and restore a long missing, beautiful detail to this special building. -Victoria Laubach



## Visiting Welkinweir

The grounds are open **Monday - Friday, 9 a.m. - 4:30 p.m.** Parking is available in the large lot near the pavilion. We may have programs or private events occurring on weekends and we ask members who want to visit then to **inquire during business hours** about availability. We thank visitors bringing dogs for keeping them leashed and cleaning up after them.





Registration is open for summer camp and we have many exciting activities planned! Our days will be filled with nature walks, wildlife explorations, science experiments, outdoor games, and fun art projects.

### Dates and Details

**Duration:** Camps run weekly, **June 20 through August 12**. Each week has its own theme: campers can choose their favorite weeks to attend!

**Times:** Camps are Monday through Friday, 9:00 am-12:00 pm for ages 4 and those children entering Kindergarten; and 9:00 am-3:00 pm for campers in grades 1 through 7. Before and After Camp Care is available, as are field trip and overnight camping opportunities for older students.

**Discounts:** Members of GVWA save money each week! Early Bird and Sibling discounts are also available.

**Registration:** For fees, description of each camp week, and to register online, visit our [Summer Nature Day Camp](#) page online. Contact us at 610-469-8646 for paper copies of the brochure and registration forms. *Register soon to secure a spot in your child's favorite camps!*

### Open House

Attend one of the **Summer Camp Open Houses, April 17 and June 5, 2:30-4:30pm** at the Education Building next to the visitor's parking lot. The Camp Coordinator will be available to answer questions and show camp facilities.

### Summer Camp Scholarship Fund

The Scholarship Fund supports families who cannot afford to send their children to camp. We expect to receive up to 12 Scholarship applicants this summer, so donations to the Fund are greatly appreciated! Donations can be sent to GVWA, attn.: "Scholarship Fund". **To apply for a one-week scholarship**, submit an application, available on our website, or contact [dwhite@greenvalleys.org](mailto:dwhite@greenvalleys.org), 610-469-8646.

### **Welcome, Jesse Hart!**

Jesse, a senior at Ursinus College who is double-majoring in environmental studies and business & economics, is our new, part-time environmental educator. He brings his experience leading summer nature camp programs with him, and will teach the After School Nature Explorers Clubs at Owen J. Roberts and Pottstown School Districts.

## After School Clubs Bring Fun and Nature Awareness to Pottstown Schools

*"He loved Nature Club! He would come home and tell me all about what he learned and what he did," "My son has always been interested in exploring the outdoors. This was a great starter program for his age group."*

*—Moms of 2<sup>nd</sup> grade students at Franklin Elementary School*

Nature Explorers Club was piloted this winter at Franklin Elementary School with 12, 2<sup>nd</sup> grade student members. The children observed birds

with binoculars, searched for insects in the school's nature study area, and participated in games that taught them about predator and prey adaptations. Nature Explorers Club also continued at Pottstown Middle School, with a total of 30 5<sup>th</sup> graders participating in two different sessions.



### **Meeting Their "Wild" Neighbors**

New this year was a bird feeder project, designed to develop the students' observation skills. Club members installed hand-made plastic bottle feeders in their backyards, and recorded their observations throughout a 4-week period. Many students took notice of the different bird species using their feeders, as well as visiting squirrels. They discussed their findings during Club meetings, and the students learned, with the help of field guides, what birds they had observed. Parents of some students have reported that they now need to always have birdseed on hand so their students can observe the wildlife that visits!

### **Working Together Towards Water Pollution Solutions**

A favorite activity of both groups was one in which the students pretended to pollute their town's lake, and then used different materials to try to clean the water (*pictured above*). They portrayed various residents, dumping "wastewater", "trash", "pesticides" and other items into a bin of water that represented the lake. This activity engaged the students in critical thinking and teamwork, and taught them important lessons in pollution prevention. One parent reported that, as a result of this activity, her son is more conscientious about recycling his trash.

Nature Explorers Club is offered free of charge to families thanks to generous funding from the **Pottstown Area Health and Wellness Foundation**. -- Dawn White, Education Coordinator

***Many thanks to the Claneil Foundation*** for a 2-year, \$12,000 grant in support of our 2016 After-School Environmental Clubs in the Owen J. Roberts and the Pottstown School Districts.

# Community Nature Programs Calendar

## March - June 2016

### Nature Programs at Welkinweir

#### **Guided Bird Walks**

**Saturdays starting at 8:00 a.m. Free**

Join Valley Forge Audubon naturalists to search for birds and other wildlife at Welkinweir. Bring binoculars and field guides if you have them. Contact [kelsey@greenvalleys.org](mailto:kelsey@greenvalleys.org).

March 26	May 21
April 16	June 4
April 30 & May 7	June 18

#### **Little Wonders, Kinder Nature, & Night Owls Nature Classes**

Children and their caregivers can discover the wonders of nature together in these educational programs. Each class includes theme-based activities, including a nature discovery walk, story, and craft. *Non-participating siblings welcome. Fee per child participant: \$8 GVWA Members, \$10 Nonmembers. Advanced registration required.*

Little Wonders (ages 2-3) Tuesdays 10:00-11:15 a.m.	Night Owls (ages 3-6) Tuesdays 6:00-7:00 p.m.	Kinder Nature (ages 3-5) Wednesdays 12:30-1:30 p.m.
<b>April 5</b> "Nature's Music"	--	<b>April 6</b> "Nature's Music"
<b>April 12</b> "Feathered Friends"	<b>April 12</b> "Feathered Friends"	--
<b>April 19</b> "Spring Egg-citement"	--	<b>April 20</b> "Spring Egg-citement"
<b>April 26</b> "Trees Please"	<b>April 26</b> "Animals of the Night"	--

#### **Birds of Prey Up Close**

**Friday, April 1 – 6:30-8:00 p.m.**

Join us for an evening meet & greet with live birds of prey! We'll take a walk in search of visiting eagles and osprey, and examine artifacts to learn more about the adaptations of these master hunters. *For ages 6-Adult. Program runs rain or shine. Fees per person: \$6 GVWA Members, \$8 Nonmembers. Advanced registration required.*

#### **New! Butterfly Walk & Identification**

**Saturday, June 25 – 9:00-11:30 a.m. Free.**

Learn how to attract and identify some of the more common butterflies of our region, and then participate in a butterfly count. Contact [kelsey@greenvalleys.org](mailto:kelsey@greenvalleys.org) to register.

### Little Sprouts Library Nature Classes

*Ages 3-5 with caregiver. Free. Register at Chester Springs Library by calling 610-827-9212. Register at Henrietta Hankin & Phoenixville Libraries online at [www.ccls.org](http://www.ccls.org).*

Henrietta Hankin Library Mondays 10:30-11:15 a.m.	Chester Springs Library Tuesdays 10:30-11:15 a.m.	Phoenixville Public Library Fridays 10:00-10:45 a.m.
April 11 <i>Things with Wings</i>	March 23 <i>Spring Egg-citement</i>	March 18 <i>Spring Egg-citement</i>
May 9 <i>Animal Tales</i>	April 20 <i>Backyard Bugs</i>	April 15 <i>Backyard Bugs</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](mailto: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.*

Detach this form and mail with payment to:

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

Online membership also available at [www.greenvalleys.org](http://www.greenvalleys.org)

Dues and contributions are tax-deductible. GVWA is a registered 501(c)(3) 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



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*NORTHERN CHESTER COUNTY*

*WATERSHED ASSOCIATION FOR 50 YEARS*

# Spring 2016 Volume 52, Issue 1

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