

## 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, Chester County, is a spectacular property which showcases our organization's Mission. Originally home of founding members Everett and Grace Rodebaugh, the 197 acres of permanently preserved land features а 55-acre arboretum, ecologically diverse wetlands, forested riparian buffers, meadows, and forest habitats. The property hosts our many environmental education programs and features an ever-growing collection of projects that demonstrate sustainable practices.

Weekday visiting hours and information on page 3.

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#### Cover Image:

A monarch butterfly sips nectar at a Joe Pye Weed flower in the Children's Garden. It is vital that we protect the habitat and food resources needed by pollinators like the monarch.

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## From the Director

### "The Senate of the Commonwealth congratulates Green Valleys Watershed Association upon this special milepost in its proud history..."

The celebration held in honor of Green Valleys' 50 years took place on the beautiful evening of Friday, July 11, 2014. Over one hundred members of Green Valleys, the community, and former & present staff and board representatives enjoyed the summer atmosphere, company, and delicious food. State Senator John C. Rafferty, Jr. was in attendance, and presented a citation recognizing our history of service of the community. The Honorable Senator congratulated Executive Director Victoria Laubach and the Board, staff, and members of Green Valleys for the organization's accomplishments. Excerpts from the senatorial document are above and below. Board President Ed Bacon thanked everyone for their support for Green Valleys, and spoke eloquently of the role which our members have played in supporting the important work that we are doing and the need for continued support of this year's 50<sup>th</sup> Anniversary Challenge Fund.

"Green Valleys Watershed Association has developed a strong reputation for the highest quality

of service. By steady adherence to the principles of fairness, reliability and integrity, it has become a leader in the community and a model that is worthy of emulation..."



Yours in the watersheds!



# 2 Events Not To Be Missed!



Saturday, September 6, 2014 – Join the Fun, Run for Your Watershed!

The Run features a **5K Walk, 5K/10K Run,** and **Kids' Fun Run** along the scenic country roads surrounding Welkinweir. **We need both runners AND volunteers to make the Run a success.** The Run raises funds for our programs in watershed protection, education, and community outreach. **For more information see calendar on page 11, or go to www.greenvalleys.org/.** 



### Tuesday, October 14, 2014 50<sup>th</sup> Annual Celebration & Member Meeting

#### 5:00 - 8:00 p.m., Welkinweir Estate & Arboretum

Mark your calendars for a memorable evening of delicious food and wine in the fine company of Green Valleys supporters! Our 50th Annual Celebration will be held at the lovely Welkinweir Estate House in our gardens overlooking the valley with scenic fall views of the lake.

### Past Forward

Editor's note: in honor of our 50<sup>th</sup> anniversary and the people who brought us this far, we've gathered accounts from previous Executive Directors and Board Presidents in order to understand their perspectives during their times of service. We asked Susan Charkes to overlay their observations and create the following narrative. Enjoy!

If you could point a telescope back in time to 1964, the founding year of the Green Valleys Watershed Association (then called French Creek Watershed Association), you might jump back in surprise. Looking back at you through that telescope would be Everett & Grace Rodebaugh, Davis Knauer, and the other founders. From the beginning, the founders had their eyes on us – and beyond.

It's not just that they were visionaries, foreseeing the future: a time not unlike today, when the survival of the human species, if not the planet, depends on our ability to understand and protect large-scale ecosystems and watersheds. It is also that the founders comprehended that this all-important task is not, and never will be, focused on the present. "The efforts of the Association are obviously pointed toward the future...," President Rodebaugh declared in the very first newsletter.

The objectives of this organization were never modest. Its purpose was nothing less than "conservation in its broadest sense." The Association would "preserve the natural beauty and rural atmosphere"; "protect soil, water and timber;" and "aid in the development and coordination of land use plans in northern Chester County."

The goals sounded from the start of the organization continue to serve as guiding principles as Green Valleys heads into the everpresent future. Green Valleys' mission of watershed protection then, as now, begins with science as its basis, animated by love for place. The mission then, as now, is accomplished through partnership, planning, advocacy and community engagement – especially with the youth.

Conservation "in its broadest sense" means taking the long view, understanding that today's actions have long-term consequences; organizing efforts based how nature works, across political boundaries; and protecting a whole community, meaning all the relationships that matter: between people and land, and among people. Halfred Wertz, the Association's first Executive Director (1968-1973), put it this way: "a watershed association is people working together toward a better outdoor environment for the future."

From the beginning, the founders of Green Valleys had their eyes on us – and beyond.

How has Green Valleys created an organization that continually works toward a better future?

#### **Watershed Science**

From the beginning, Green Valleys made science the basis for everything we do. As physicist Lord Kelvin declared, "When you can *measure* what you are speaking about...you know something about it."

In 1964 the Association embarked on its "first major undertaking": a water quality survey of French Creek. "Resulting information will establish the precise condition of the Creek, against which be measured...and appropriate changes may recommended," explained Rodebaugh. The Association engaged researchers at the Academy of Natural Sciences Limnology Department, under the direction of pioneering environmental scientist Ruth Patrick, to assess French Creek's water quality by gathering data on the diversity of the aquatic community. The results showed it was "relatively healthy." Since the initial study, Green Valleys has surveyed water quality in all five watersheds in our stewardship area in northern Chester County. These baseline studies are an essential foundation for measuring changes to water quality. You can't point toward the future without having a place to start from.

We used this water quality data to obtain protected status for portions of the French Creek and other streams. On the other side of the ledger, water quality data has shown impairments to streams, providing the basis for advocating on behalf of better planning for development in growing municipalities, as well as for preserving land to protect water quality.

Over 50 years, assessments have expanded to include chemical and microbiological data, as well as habitat and land cover. Since 2010, data has been added to the mix, along with the use of GIS technology. Using digital maps, planners can visualize changes and predict future conditions in the watershed. Green Valleys' long history of watershed science, including both surface water and groundwater quality & quantity assessments, and other types of data, have earned us the respect of the community. We are a valuable partner in planning at both local and regional levels and an advocate for limiting environmental impact of land use.

#### Citizen Science and Science Education

Science isn't just for scientists. Engaging ordinary citizens in watershed science is a natural activity of a watershed association. Investing time in training and organizing volunteers pays off enormously in the future. (Continued on page 9)

# Stewardship & Biodiversity

#### Pollinators Threatened

**Pollinators**, those animals—bees, bugs, birds, & bats—that move pollen around, are essential to ecosystems and food production globally. Today pollinators face "multiple threats including habitat loss, pesticides, and diseases"<sup>1</sup>.

The scope of the problem was recognized by the Federal government in June 2014 with the creation of the Pollinator Health Task Force. We can help pollinators by providing the habitat they require. A 2011 article from Penn State Extension titled *Preserving habitat within watersheds, one yard at a time,* cites research from the University of Delaware and the Stroud Water Research Institute, that when native plants are the majority of the plants present, better ecosystem health, increased biodiversity and better survival of native insects in *both* stream and land habitats is demonstrated. This translates into better pollution removal in buffered streams, better water infiltration, better pollinator survival, and better habitat for wildlife.

The diversity of pollinators in our watersheds is astounding. There are over 4,500 different species of moths and butterflies in North America<sup>2</sup>, while in the United States alone, there are nearly 4,000 species of bees<sup>3</sup>! In addition, there are several thousand species of beetles & flies, a few wasps, 14 species of North American hummingbirds<sup>4</sup> and at least 2 bats<sup>5</sup> which pollinate flowers in the desert Southwest.

**Bring native plants to your backyard, and enjoy stunning displays of flowers & pollinators!** Many native plants can be found at local or mail order nurseries. Several public gardens hold annual plants sales that feature native plants. The key to sustaining pollinators is to support them throughout the year; include plants in your landscape which flower from early spring through late fall, to feed the largest variety of pollinators for the longest amount of time possible. Below are just a few excellent candidates for your pollinator-friendly garden:

Phlox (multiple spp.), early spring to late summer – wide variety of form, fragrance & color

Bee Balm, summer to early fall – aromatic foliage & long-lasting, tubular flowers

Purple Milkweed & Butterfly weed, midsummer to early fall – clusters of small, bright flowers yield pods of soft seeds; foliage contains milky sap; monarch butterfly host plants

Summersweet, late summer – upright shrub with fragrant, pink or white bottlebrush-like flower spikes; yellow fall foliage; sun to shade

*Ironweed*, late summer to fall – clusters of vibrant purple flowers atop tall, strong stems

Joe Pye Weed, late summer to early fall – tall, with large clusters of pink or lavender flowers

**Sunflowers** (multiple spp.), late summer through fall – tall perennial with sunny, daisy-like flowers; different species thrive in sun or shade, dry woodlands or open wetlands

Asters (multiple spp.), fall – clouds of daisy-like flowers with wide variety of form & color

Not all native plants make good garden plants. Common milkweed (*A. syriaca*), essential for all stages of the monarch butterfly's life cycle, can rapidly fill a garden with its underground rhizomes, so it is best planted in a meadow setting, along with goldenrod, a beautiful late summer-/fall-flowering native that can also colonize quickly. –*Victoria Laubach* 



Bumble bees on Butterfly Weed (Asclepias tuberosa)



Bumble bee on Purple Milkweed (Asclepias purpurea)



Female Tiger Swallowtail, dark form, on Summersweet (C. alnifolia)



Hummingbird Clearwing moth on Swamp Azalea hybrid

#### **Resources for Pollinator Gardening**

Pollinator Partnership. Selecting Plants for Pollinators: Eastern Broadleaf Forest Oceanic Province. <a href="www.pollinator.org">www.pollinator.org</a>
Penn State Extension. Conserving Wild Bees in Pennsylvania. <a href="pubs.cas.psu.edu/FreePubs/pdfs/uf023.pdf">pubs.cas.psu.edu/FreePubs/pdfs/uf023.pdf</a>
Penn State Extension. PA Native Plants for the Perennial Garden. <a href="extension.psu.edu/plants/gardening/fact-sheets/perennial-garden/pa-native-plants-for-the-perennial-garden">extension.psu.edu/plants/gardening/fact-sheets/perennial-garden/pa-native-plants-for-the-perennial-garden</a>

<sup>&</sup>lt;sup>1</sup> Barb Elliott, "Backyards for Nature" blog. backyardsfornature.org/?p=1199

<sup>&</sup>lt;sup>2</sup>"Butterflies and Moths of North America". <a href="www.butterfliesandmoths.org/learn">www.butterfliesandmoths.org/learn</a>

<sup>&</sup>lt;sup>3</sup>The Xerces Society. <u>www.xerces.org/pollinators-conservation/native-bees/</u>

<sup>&</sup>lt;sup>4</sup> National Audubon Society. birds.audubon.org/birdid/family/Hummingbirds

<sup>&</sup>lt;sup>5</sup>U.S. Forest Service. <u>www.fs.fed.us/wildflowers/pollinators/animals/bats.shtml</u>

### Watershed Science

### STEM Scholars Engage with Watershed Ecology and Sustainability Issues

This summer, over *five hundred* students in 6<sup>th</sup> through 9<sup>th</sup> grades from across the country came to Welkinweir for field trips to study watershed ecology. Focuses included two <u>keystone</u> species – the North American beaver, *Castor canadensis*, and the American chestnut, *Castanea dentate*. Sustainability topics included renewable energy, green design, and adaptive reuse of historical properties. Leveraging the vast science education opportunities at Welkinweir, our staff and area experts delivered a great experience for the scholars. The program, Envision's *National Youth Leadership Forum: Explore STEM*, is a six-day summer series held in cities across the country, introducing high-achieving middle school students - nominated for the program by their teachers or other academic program leaders - to STEM (Science, Technology, Engineering, & Mathematics) career fields.







### Investigating Legacy Sediments in French Creek

A joint study between Green Valleys and French & Pickering Creeks Conservation Trust has surveyed a potential major source of sediment loads in the French Creek watershed. Using historical documents, stream habitat assessments, and GIS analysis, we looked at 17 sites along the French Creek main stem, the Birch Run, and the Beaver Run where historical mill dams were once located. The survey found that at former mill sites where the mill dam's location can be identified, there are terraces of fine-grained, silty soils above the former dam. These terraces are consistent with literature descriptions of "legacy sediment" fill terraces under study in the nearby Conestoga River by Franklin & Marshall Professors Dorothy Merritts & Robert Walter.

Merritts and Walter pioneered the study of the legacy of historical mills in southeastern PA streams. Their research shows that dams associated with water-powered mills trapped sediments over a period of centuries. Prior to European settlement, soil erosion was negligible due to the extensive forest cover; forest-clearing and agricultural practices from about 1700 to 1850 accelerated erosion rates exponentially. During the same time period, mill dams emerged as a prominent feature on the region's streams, collecting and storing water to power mills, forges, and furnaces. There were at least 2,000 mills in Pennsylvania by the 19<sup>th</sup> century¹. Eroded soil accumulated in the still water of those numerous mill ponds, forming broad, essentially flat, silt terraces. When mills became obsolete and their dams failed, streams changed course, now cutting steep channels through the soft, "legacy sediments".

Ongoing erosion of these sediments is evident from the condition of the banks. Establishing the extent and rate of sediment mobilization will be the next step in understanding the impacts these sediments may be having on the French Creek. – *Michael Bullard & Kelsey Stanton* 



The French Creek near Rapps Dam, one of 17 sites historic mill sites studied for potential existence of legacy sediments. This section of stream was the site of at least seven mills from the Revolutionary War to the early 20<sup>th</sup> century.

This study was funded by the Schuylkill Highlands Conservation Landscape Initiative (CLI), under the PA DCNR.

<sup>&</sup>lt;sup>1</sup> S. Walton, *Geography, Landscape, and Mills.* Pennsylvania State University, Medieval Technology & American History project (2014).





### Students Embrace Their River

This June, ten high school students participated in a week-long trip of a lifetime. The students—two from each county within the Schuylkill watershed—kayaked, camped, and explored the Schuylkill River from its headwaters to its confluence with the Delaware River in Philadelphia, as part of the in-depth study and service expedition, *Schuylkill Acts & Impacts*, organized by the Schuylkill Headwaters Association. As they traveled, the team learned how humans have impacted the watershed; the ongoing efforts to reverse the negative effects; and to celebrate the river as a critical resource in our backyard. The students met with representatives from over 20 nonprofit organizations, government agencies and water authorities who work to protect water quality, and then applied their new knowledge in hands-on educational activities and service work, including water quality testing, assessing aquatic biodiversity, and removing invasive species.

Green Valleys was proud to be a sponsor and participant in the inaugural year of this inspiring program. During their travels through Chester County, where the program's focus was land conservation, the team visited Welkinweir to see firsthand the challenges and rewards of managing conserved land. Led by Executive Director Victoria Laubach, the students explored the property, learning its history; the importance of conservation easements in ensuring protection of important sites and biodiversity; and the issues facing land stewards, such as the re-emerging significance of co-existing with beavers, challenges of dealing with deer, and management of invasive plants.

The program sponsors shared a dinner round table with the students at the Schuylkill

River Heritage Center in Pottstown, where the *Acts & Impacts* team shared their favorite parts of their adventure. Several expressed surprise at the river's humble beginnings in the headwaters; travelling the length of the river gave them insight into its transformation over the miles that few of their peers have likely experienced. The evening closed with an inspiring presentation on the revitalization of the Schuylkill River by Chari Towne of The Delaware Riverkeeper Network and author of *A River Again: The Story of the Schuylkill River Project*.

Now at the end of their adventure, the Schuylkill Acts & Impacts team is compiling a video about the experience. Sierra Gladfelter, the program's creator and leader, expressed pride in the students' reactions to the program: "their deep interest in all that they were exposed to creates hope that youth are rising to the challenges our world presents them, if only we can teach them our history, inspire them to care, and give them the tools necessary to take action."—*Kelsey Stanton* 



# Continuing Education for Green Industry Professionals

On July 1 we hosted a *Pest Walk for Green Industry Professionals* workshop, organized by Nancy Bosold of Berks County Cooperative Extension. Penn State entomologist Greg Hoover and plant pathologist Gary Moorman guided participants through the extensive gardens at Welkinweir to find and identify insects and diseases, and determine whether management is necessary. The answer is no for most of the insects we found. These pests cause only minor cosmetic damage, and diseases are best avoided by selecting resistant plant varieties. Scouting is an important component of Integrated Pest Management (IPM) programs that seek to minimize pesticide use. Nancy also shared the EPA's new, strengthened pesticide labelling, which is designed to protect pollinators, especially bees. *–Victoria Laubach* 

### Visiting Welkinweir

The grounds are open to visitors Monday - Friday, 9 a.m. - 4:30 p.m. 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, and we encourage participating in these walks. 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.

### **Volunteers**

Watersheds.

### Join Schuylkill Water Stewards and Protect Our Streams

In 2014, Green Valleys and our partners in the region began a large-scale program to monitor the quantity and quality of water in our watersheds. With support from the William Penn

Foundation and additional funders, scientists from the

Academy of Natural Sciences, Stroud Water Research Center, and Chester County Water Resources Authority are working in our watersheds, collecting high-level data about the biological conditions of our streams.

As part of this program, Green Valleys is carrying out chemical, physical, and microbiological monitoring at over 40 sites, a number which will increase to over 60 by 2016.

With our partners, French & Pickering Creeks

Conservation Trust, Natural Lands Trust, Hay Creek

Watershed Association, Berks Conservancy, and Pennsylvania identifying the Audubon, we are establishing Schuylkill Water Stewards, a new program which will train volunteers to help monitor and protect water testing, water quality in the French, Hay, and Pickering Creek wildlife & their

**Schuylkill Water Stewards** is part of an innovative, science-driven initiative that seeks to increase our understanding of factors impacting water in our watersheds. The Delaware Watershed, which includes the Schuylkill River and tributaries like the French, Hay, and Pickering Creeks, provides drinking water for more than 15 million people and covers parts of Pennsylvania, New York, and New Jersey.

# Schuylkill Water Stewards Training Schedule

Training will be held in various locations in northern Chester County and in Berks County, and will include:

Healthy Watersheds and Healthy Communities – Thursday, September 11th, 6:30pm – 9:00pm

Water Sampling and Streamside Habitat Assessments
- Saturday, September 20th, 1:00pm - 5:00pm

Threats to Surface Water, Ground Water – Saturday, October 4th, 1:00pm – 5:00pm

The Role of Healthy Streamside Buffers – Saturday, October 18th, 1:00pm – 5:00pm

How Volunteers Can Make a Difference – Thursday, October 30th, 6:30pm – 9:00pm <u>Schuylkill Water Stewards</u> will play an essential role in the collection of the information we need to protect the quality & quantity of water in our watersheds. Volunteers for this

program will undergo comprehensive training and receive the tools and support they need to carry out the collection of high-quality data about the current health of the creeks and, ultimately, providing the data needed to measure the impact of land preservation efforts in the area.

Schuylkill Water Stewards will participate in a fun and engaging training program that includes both classroom and field-based education about topics such as the science of healthy watersheds, water sampling techniques,

identifying threats to streams, monitoring stormwater, and more. Once training is completed, volunteers will engage in water testing, report on stormwater events, observe aquatic wildlife & their habitats, and much more.

The initial class of volunteers will begin training on September 11<sup>th</sup>, 2014. Interested volunteers can visit www.schuylkillwaterstewards.org for more information and to apply for the program. Applications should be submitted by August 25<sup>th</sup>. Schuylkill Water Stewards is a collaboration of Green Valleys Watershed Association, French & Pickering Creeks Conservation Trust, Natural Lands Trust, Hay Creek Watershed Association, Berks County Conservancy, and PA Audubon.



# Phoenixville Afterschool Club Builds Fun, Experiential Environmental Awareness

2014 marked the 13<sup>th</sup> year for the Phoenixville Middle School Environmental Awareness Club, an afterschool program focused on connecting students to their water resources by engaging them in activities and field trips on water use, pollution sources & indicators, and advocacy. Ten students joined this year from 6<sup>th</sup> through 8<sup>th</sup> grades. Four returned for a second and third year! In the students' own words, here is why they join:

Nelson Gonzalez: "... I want to make the world cleaner and to discover things and explore nature,"; Tyler Speaker said, "...I like to study streams already so I think that would be fun...and I want to see how they clean water so people can use it for drinking,"; Club veteran Jacob Dupre "had a blast [last year]...making new friends and learning about the environment."

This year the program expanded to allow for more community field trips. Club kicked off with a visit to Pine Creek Park in West Pikeland Township, in 18" of snow! We hiked along Pickering Creek in tall rubber boots, learning how to "read" the winter landscape and assess stream habitats. The Club used the Dept. of Environmental Protection's Habitat Assessment Form, which evaluates a stream's physical structure. Using a mobile app Green Valleys staff developed to record and manage data, the students entered their results directly onto a handheld tablet. The students learned that we collect physical, chemical, and biological data from streams to assess their health.

To prepare the Club for stream studies, educators from the Stroud Water Research Center showed how to evaluate a stream's biological health using its aquatic insect populations. Students sorted and identified these macroinvertebrates and tried to predict the stream's quality based on the insects found.

Next the Club toured the Pottstown Water and Wastewater Treatment Plants, led by the professionals who run and manage each plant (*photo below left*). Students learned that drinking water is treated chemically, while wastewater is treated biologically. During the remaining Club sessions students often referred to these plant tours reciting facts they had learned.





We hiked the Pickering Creek Trail (photo below right), where the students applied their knowledge in assessing overall stream health. Fly fishermen were along the stream and allowed the students to observe different in-stream habitats based on where the fishermen chose to cast their lines. Staff demonstrated chemical water quality monitoring with instruments that measure pH, turbidity, and conductivity and discussed the results; students also identified macroinvertebrates.

Club ended with a visit to Mont Clare's Lock 60, the only operating lock of the former Schuylkill Canal Navigation System. A member of the Schuylkill Canal Association demonstrated, with the students' assistance, how to open and close a canal lock (*photo right*), while explaining the historical importance of the canal for the transportation of consumer goods. Afterwards the students explored the canal in canoes.

Phantom TV, Phoenixville School District's student media club, helped the Club develop an environmental message. Students could either speak on camera or work in the production room seeing firsthand how media pieces are created. The Phantom TV team composed a video of the 2014 Club experience which was distributed to Club members as a thank-you gift.

Three-year participant Chris Scholsman summarized the Club experience: "I love doing it as its fun being with all these people." We wholeheartedly agree! –*Margot Taylor* 



## Past Forward

(Continued from page 3)

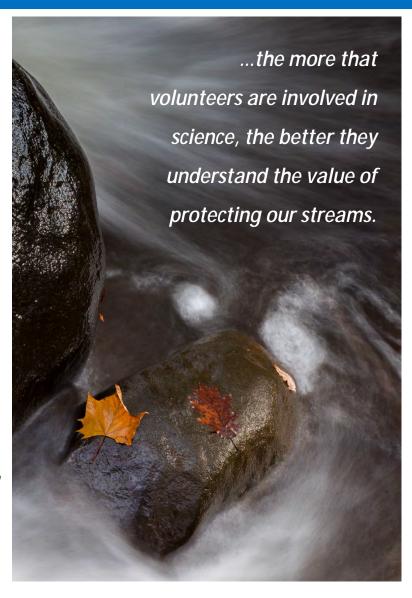
The more data we can collect the better we understand our watershed; and the more that volunteers are involved in science, the better they understand the value of protecting our streams.

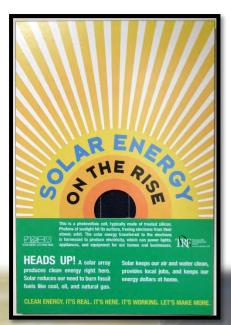
Over the years, the Association has tapped volunteer energy to gather scientific data. As early as 1968, area high school students were enlisted to monitor biological and chemical data in French Creek. In 1984, volunteers were organized to monitor Valley Creek. In our 50th year we are engaging volunteers with renewed vigor. In 2014 we initiated the Schuylkill Water Stewards, a volunteer citizen science program to monitor data on stream health throughout northern Chester County. This data will be essential to our work in the next 50 years as we "scale up" our involvement, partnering with the Delaware Watershed Conservation Program, the regional watershed protection effort funded by the William Penn Foundation.

And since our founding we have been educating our members and the community on watershed science – from hydrology to population biology, soil chemistry to pollinator services. We've done this through our newsletter, public meetings, participating in community events, and now online; on the Welkinweir grounds we demonstrate concepts that we describe in other media. Over time, we have adapted how we get the message out, but the message hasn't changed: our success depends on how well the people who live here understand how to protect it. – *Susan Charkes* 

In the next issue of *Streamlines*: how Green Valleys accomplishes its mission of protecting and preserving watersheds through *advocacy*, *partnerships* with both organizations and individuals, and the impact it has on the next generation of environmental stewards.

About the author: Susan Charkes works as a freelance writer/editor and communications consultant, and in nonprofit management, working with diverse organizational clients in Pennsylvania, Maryland, New Jersey and elsewhere. She is the author of The Wild Here and Now (Arboreality Press 2013), Outdoors With Kids-Philadelphia (AMC Books 2013) and Best Day Hikes Near (AMC Books 2010) and co-editor Philadelphia of Stewardship Handbook for Natural Lands in Southeastern (Natural Lands Trust, 2009). A graduate of the University of Chicago (BA English), she has also worked as an attorney (JD Columbia University), and in information management (MLS Rutgers University).





Solar PV Expert &
Sustainable Development
Fund Recognizes
Welkinweir's Renewable
Energy Efforts

Ron Celentano, Director, Sustainable Development Fund which provided partial funding of Welkinweir's solar PV system, presented us with a plaque recognizing our participation in the Million Roof solar project.

# September - November 2014 Nature Education Programs

For information and registration, please contact Dawn White at 610-469-8646, or e-mail <a href="mailto:dwhite@greenvalleys.org">dwhite@greenvalleys.org</a>.

Please see the online Green Valleys <a href="mailto:Events">Events Calendar</a> for more education program dates.



# Free Guided Nature Walks - Saturday mornings, rain or shine. Enjoy guided walks with volunteer naturalists to observe wildlife in our nature sanctuary. Bring binoculars and field guides if you have them. Ages 6 to adult. No experience required.

September 20, 8 a.m.

September 27, 8 a.m.

October 25, 8 a.m.

November 8, 9 a.m.

October 11, 8 a.m.

November 22, 9 a.m.

# Night Owls! Program & Evening Nature Walk Tuesday, September 9, 6:00-7:00 p.m.

Experience nature at dusk! Enjoy an evening nature walk with fun activities, a snack, animal story, and craft. Ages 3-6 with caregiver.

Fee per child: \$8 Green Valleys Members, \$10 Nonmembers. Free for caregivers. Spaces limited. Advanced registration required by **Friday, September 5.** 

## Children's Programs at Henrietta Hankin & Phoenixville Public Libraries

Children & parents can learn about nature together at local libraries, through stories, interactive demonstrations, animal artifacts, and crafts. Ages 3-5 with caregiver. *FREE*.

Schedules for both libraries will be available in August. Please call 610-469-8646 or visit <a href="http://www.ccls.org">http://www.ccls.org</a> to register for classes.



#### Little Wonders & Kinder Nature Classes at Welkinweir

Children & parents can discover the wonders of nature together with these fun and educational programs. Each class includes theme-based, age-appropriate activities, including a nature walk, story, and craft. Non-participating siblings are welcome. All class themes are independent of one another.

Fee per child: \$8 Green Valleys Members, \$10 Nonmembers. Spaces limited. Advanced registration required.

Little Wonders Classes (ages 2-3 with caregiver) Tuesdays, 10:00-11:15 a.m.

October 7 Time for Turtles
October 14 Forest Friends
October 21 Fall Harvest
October 28 Animals of Halloween

November 11 Animals of Halloween
Outstanding Owls
Animal Tales

Kinder Nature Classes (ages 3-5 with caregiver) Wednesdays, 12:30-1:45 p.m.

October 8 Time for Turtles
October 15 Forest Friends
October 22 Fall Harvest

October 29 Animals of Halloween
November 5 Outstanding Owls
November 12 Animal Tales



# 2014 Run for Green Valleys – Details & Registration

<b>Run for Green Valleys</b> : 5K Walk/Run, 10K Run, Kids Fun Run <b>Saturday, September 6;</b> Registration 8:00 a.m.  Kids' Fun Run starts 8:45 a.m.   5K & 10K start 9:00 a.m.	Pre-register by Friday, Sept. 5: 5K \$25   10K \$30 Race Day Registration: 5K \$30   10K \$35 Kids' Fun Run (Ages 12 & younger): \$5
Experience the beautiful green valleys we strive to preserve.  Runners of all ages are welcomefamilies bring your strollers and canine running partners (on a leash)!	Online pre-registration ends Thursday, Sept. 4. Visit: <a href="www.greenvalleys.org">www.greenvalleys.org</a> OR Detach form below and mail with payment to: 1368 Prizer Road, Pottstown, PA 19465.
Sponsored by:  Chester County Running Store  IRON CROSS ATHLETICS Home of CrossFit Phoenixville	Calling all Run volunteers: If racing isn't your passion, please help for 1-2 hours to give water to runners, direct parking, and cheer on competitors! Return the form below or call 610-469-4900.
RUN FOR GREEN VALLEYS Saturday	Sept. 6, 2014 REGISTRATION FORM
Circle your event: 5K WALK 5K RUN 10K RUN	CHILDREN'S FUN RUN (one form per person)
Name	M F Age on race day
Address	CityStateZip
Fee: \$ T-shirt (circle one): S M L XL Phone	
Payment (circle one): Check (payable to GVA) or Charge to: Visa /	MC / Discover / AmEx in the amount of \$
	Date: /
I am unable to participate but would like to donate \$ to support the work of Green Valleys Association.  With my signature I acknowledge that running/walking are inherently strenuous regarding my physical capabilities in this event and am following my physician's a running in traffic. I hereby waive all claims against Green Valleys Association, all event for any injuries, accidents, and any physical conditions I might suffer in the photographs, video, or quotes from me in accounts and promotions of any media.	Please contact me.  s activities and that no event is without risk. I have consulted with my physician advice. I also know that there will be traffic on the course and assume the risk for ll event sponsors, volunteers, and any personnel functioning with respect to the his event. I grant full permission for organizers to use my name, likeness, voice.
Participant Name:Signature	
Please join us Your mealthy	nembership is an investment in clean water and water water watersheds, for now and for future generations.
Name	MEMBERSHIP includes newsletter subscription, notice of special
Address	events and programs, and reduced rate to special programs, workshops, and summer nature camp.
City, State ZIP	Membership levels (please check one):
I would prefer to pay by:  ☐ Check (made payable to Green Valleys) ☐ Visa ☐ MasterCard	□ Individual
□ Check (made payable to Green Valleys) □ Visa □ Mastercard □ Discover □ American Express	□ Family
Credit Card #	□ Environmentalist\$250
Exp/ CID Phone	□ Protector\$500
	□ Preservationist\$750
E-mail address	☐ Steward
Detach this form and mail with payment to: Green Valleys Watershed Association 1368 Prizer Road, Pottstown, PA 19465	Please give to our 50 <sup>th</sup> Anniversary Challenge Grant: \$
Online membership also available at www.greenvalleys.org	E-mail:

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

Dues and contributions are tax-deductible. Green Valleys is a registered

calling 1-800-732-0999. Registration does not imply endorsement.

charitable organization. A copy of registration and financial information is available by



# Mark Your Calendars

for a memorable evening of delicious food and wine in the fine company of Green Valleys supporters *like you*.

Visit our website at www.greenvalleys.org

# **NOTUME 20' ISSUE 3 20WMEK 50M**

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