

*Green Valleys Watershed Association*

*Fall 2013*

# *Streamlines*

*Holiday Cheer Celebration*

*Sunday, December 8*



*Fall Bird Seed Sale – flier inside*



*Annual Appeal*

## *Jamaican Holiday Raffle to support GVA!*

*Enter our Jamaican Holiday Raffle for a chance to win a one-week vacation for up to 10 persons at a private oceanfront villa in Jamaica.*

The Villa at Lookout Cove, near Little Bay, Jamaica, is a private Caribbean escape featuring a 5,000 sf villa and cliffside cottage, tennis court, secluded beaches, and a friendly and welcoming staff to take care of your needs. Enjoy island cuisine, sunsets over the ocean, snorkeling, deep sea fishing, and the option to take part in Jamaican night life in nearby Negril.

Tickets are \$50.00 each and may be purchased online at [greenvalleys.org/Jamaica](http://greenvalleys.org/Jamaica). The winner will be announced at our Holiday Cheer Celebration on Sunday, December 8, 2013. Proceeds benefit GVA.



## *Welcome our newest members to the Board of Directors!*

**Whitney Graham** holds a B.A. in English from Bryn Mawr College and a J.D. from Temple University's Beasley School of Law. She has been a practicing attorney at Graham and Mauer P.C. since October 2011. Her family has been actively involved with the organization for quite a long time and Whitney practically grew up with Green Valleys, attending the programs at the Meeting House, participating in summer nature camp and, just earlier this year, getting married at Welkinweir. Whitney is pleased to be able to contribute to the organization by serving on the Board of Directors.

**Don Hans** – For those people who have been members of the organization for any length of time, Don Hans should be a familiar name. He served on the Board of Directors from the late 1990's through the early 2000's, first as Treasurer and then as President. He and his wife Judi reside in North Coventry Township. Both Don and Judi are active in the community, where Don applies his financial acumen. He currently works for National Penn Bank. He holds a B.A. in Business from Ursinus College and an M.B.A. from Temple University.

**James McQuillan** grew up in Chester County. He received his B.S. in Business Administration at Providence College and his Master's in Business Administration from LaSalle University. He has worked for Siemen's Healthcare USA in Malvern since 1996, where he is currently Director, Marketing Databases. James lives in Weatherstone, West Vincent Township, with his wife and daughter. He and his family have participated in our Community Nature programs at Welkinweir and he has led Siemen's Green Team in restoring forested stream plantings along Valley Creek for the past three years as part of the Green Valleys Watershed Restoration program. He is very excited to take his participation in the organization to the next level by serving on the Board of Directors.

## *Upcoming*

*Our Annual Appeal will be arriving in your mailbox soon. We greatly appreciate your support of our work. Your support – through membership, programs, and special donations – is essential to the success of our Mission.*

*Thank You!*

*Our annual Bird Seed Sale flyer is enclosed, as well as being available for download on our website. Feeding the birds is a great way to connect with nature and support Green Valleys. Pool orders with your friends and neighbors to help us even more!*

# Watershed Science – Macroinvertebrate Monitoring

The populations of macroinvertebrates living in the streams are key indicators of the long term health of our watersheds. Usually abbreviated to “macros”, this categories of animals include hundreds of species locally. These animals create dynamic communities known as assemblages, which respond to change in water quality. Where the water is clean, and the stream bottom clear of silt and sediment, there is a wondrous diversity of **pollution intolerant** species; as water becomes increasingly impaired with sediment and nutrients, the macros communities shift toward less diversity and more **pollution tolerant** species. Macros populations therefore hold invaluable information about what stream conditions have been like during the previous weeks and months.

Macros are sampled from the stream according to various protocols and returned to the lab, where they are identified and counted. The kinds and number of animals found are then used in calculations which provide a relative score, ranging from least to most impaired. There are several groups over the past decades which have been involved in macros sampling in Chester County; notably Stroud Water Research, Chester County Water Resources Authority (CCWRA), and the PA DEP.

GVA staff and interns have devoted more than a thousand hours over the past two years in laying the groundwork for our own macros sampling program. We began by collecting forty years of macroinvertebrate counts and organizing them into spreadsheets. We also developed and tested a spreadsheet calculator to take the raw counts and give macros scores. With a list of the macros found over the past forty years in hand, we have assembled a preliminary macros handbook for northern Chester County, complete with photos--a tool we can now use to identify species we have collected.

With this preparation behind us, GVA began macroinvertebrate sampling this Fall.



Many macroinvertebrates complete their life cycle as flying insects, like this dragonfly photographed at Welkinweir



Students from Owen J Roberts High School's AP Environmental Science class visit Welkinweir to learn about macroinvertebrate communities. Zach Yodis (left) leads discussion.



## **Welkinweir: Eagle Scout Updates Trails**

Andy Mento completed his Eagle Scout project – trail marker signs along the Welkinweir white blaze trail and a bench on the upstream end of the property – this fall. Many thanks to Andy, his father, and the other scouts and parents who helped with this project.

*The mission of Green Valleys  
Watershed Association is  
to protect and preserve the  
quality and quantity of water  
resources in northern Chester  
County through stewardship,  
education and advocacy.*

**Welkinweir** -- Our headquarters in East Nantmeal Township, Chester County, is a spectacular property which showcases GVA's Mission. Originally home of GVA founding members Everett and Grace Rodebaugh, the 197 acres of permanently preserved land features a 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.

**1368 Prizer Road, Pottstown, PA 19465**  
**Phone** (610) 469-4900  
**Fax** (610) 469-4990  
**Email** [gva@greenvalleys.org](mailto:gva@greenvalleys.org)  
**Web** [www.greenvalleys.org](http://www.greenvalleys.org)

#### **Officers**

Ed Bacon- President  
Allen Heist- Vice President  
John Eldridge- Treasurer  
Jo-an Rectin- Secretary

#### **Staff**

Victoria Laubach- Executive Director  
[victoria@greenvalleys.org](mailto:victoria@greenvalleys.org)  
Dawn White- Nature Education Director  
[dwhite@greenvalleys.org](mailto:dwhite@greenvalleys.org)  
Michael Bullard- Watershed Science  
Coordinator  
[mikeb@greenvalleys.org](mailto:mikeb@greenvalleys.org)  
Kelsey Stanton- Watershed Restoration  
Specialist  
[kelsey@greenvalleys.org](mailto:kelsey@greenvalleys.org)  
Margot Taylor- Watershed Restoration  
Coordinator & Nature Educator  
[margot@greenvalleys.org](mailto:margot@greenvalleys.org)  
Kelley Deegan – Horticultural Fellow  
[kelley@greenvalleys.org](mailto:kelley@greenvalleys.org)  
Elaine Armbrust- Bookkeeper  
[elaine@greenvalleys.org](mailto:elaine@greenvalleys.org)

Cover photo: *Beaver Run* by Ed Bacon  
Dragon Fly photo: Darryl Moran

## *Fall Migrating Birds*

Attendees to our free, guided nature walks on Saturday mornings often observe a wealth of bird species. The walk on September 14, led by Rick Keyser of the Valley Forge Audubon Society, reported no fewer than 40 different species of birds! White-eyed Vireo, Rose-breasted Grosbeak (image, right) and Magnolia Warbler were among the fall migrants resting en route to their wintering grounds in the tropics, while residents like Cooper's Hawk, Great Blue Heron, and Belted Kingfisher made their appearance as well. Welkinweir's varied habitats, especially its extensive forest, provides essential shelter and food for nesting and travelling birds. For the complete VFAS bird list from September's nature walk, please visit



[valleyforgeaudubon.org/wingbeat.html](http://valleyforgeaudubon.org/wingbeat.html) and scroll down to "Field Report: Welkinweir, Sept. 14, 2013".

***Don't forget to order bird seed from GVA and feed the birds this winter! Order form is inside this newsletter.***

## *Nose Works at Welkinweir*



Welkinweir literally went to the dogs October 26-27 when we hosted two official "Nose Works" trials for the National Association of Canine Scent Work (NACSW). Many different dogs competed in the timed trials to search out botanical oils scents hidden in and around the estate house. NACSW trials are fun activities that build teamwork between dogs and their owners.

## *Drip Irrigation Saves Water*

When the opportunity to integrate Welkinweir's maintenance operations with GVA's mission presented itself, I jumped at the chance to make a lasting impact through my fellowship project. I chose to design and install a drip irrigation system in the gardens immediately surrounding the estate house. The benefits of drip irrigation systems include water conservation by slowly introducing water right at the plant root zone; reducing overspray and runoff caused by traditional sprinkler systems; minimizing the spread of plant diseases (reducing the need for spraying) by keeping foliage dry; and saving time and money. Though I had assisted with installation and maintenance of drip systems before, this was the first system I designed on my own. My familiarity with drip irrigation grew from workshops I assisted with as a garden educator intern last summer. I'm thrilled to complete a project that will benefit Welkinweir long after my fellowship ends.

*Kelley Deegan, Horticultural Fellow*

## **Welkinweir Fall / Winter Hours**

*Welkinweir's arboretum and surrounding natural lands are open Monday -Friday, 9:00 a.m. to 4:00 p.m. Weekends by advance reservation only. Call 610-469-7543 to schedule. For directions to Welkinweir please visit: [www.welkinweir.org](http://www.welkinweir.org)*

*Please respect the privacy of our residents by parking in the visitor parking lot near the pavilion and observing business hours. Arboretum and natural lands maps and visitor etiquette are available at the kiosks near the visitor parking lot.*

# Watershed Restoration

## *New Rain Garden teaches the importance of Giving Back to the Environment*

This fall, we teamed up with the Schuylkill Elementary School (SES) to build a Rain Garden on the school grounds. Fifth grade Envirothon Team students, teachers, administrators and facilities personnel from SES all helped to build the rain garden. The result is an all-school community project teaching the value of service and teamwork. The new plants - 750 native perennials and grasses, 40 shrubs, and 5 trees – and fresh topsoil and mulch have miraculously transformed the barren, wet, unusable space into a functioning ecosystem and living classroom.

A Rain Garden is a manmade, shallow depression in the landscape constructed to slow, capture and filter stormwater runoff. It is designed to model natural processes by collecting, holding and absorbing rainwater, and ultimately replenishing groundwater supplies. The soil and plants act as traps to capture water pollutants by holding them in the soil or absorbing them up in plant roots and stems. The cool part is the water is slowed, reducing the damaging effect of stormwater surges as well as cleaning pollutants from the stormwater, good for water quality and stream health. Additionally, new habitat is created for beneficial insects, small mammals and birds attracted to the garden's native plants. Rain gardens are an example of stormwater control Best Management Practices (BMP's).



GVA educators and technical staff presented three mini-lessons to the Envirothon students with hands-on demonstrations to explain the properties of infiltration, how soil and plant roots clean water, and structure of plant communities appropriate to build diverse habitats.

Creating Rain Gardens on school properties is a valuable opportunity to build awareness on stormwater issues, involve the whole school community, and nurture a culture of Giving Back to the environment, one school and one project at a time.

*Margot Taylor, Watershed Restoration Coordinator*



**Images:** Kelsey Stanton demonstrates the role of uncompacted soil in filtering pollutants from stormwater runoff (left); SES Envirothon students plant native perennial and grass plugs in the rain garden following each lesson (above); the new rain garden at work during a rain storm (below).



## *Partnership Connecting Students with Nature Continues to Grow*

Following the success of this spring's pilot programs with Elizabeth Barth Elementary School, we are continuing our new partnership with the Pottstown School District with two new programs, thanks to funding from the Pottstown Health and Wellness Foundation.

*After School Nature Explorers Club* is designed as educational enrichment, and will stimulate students' interest in outdoor activities and cultivate new respect for the natural environment, through fun, active and educational outdoor and classroom activities that will provide an alternative to other after-school activities. Nature Club began this fall for the district's middle school 5<sup>th</sup> graders, and next spring will be offered to 3<sup>rd</sup> grade students at Barth Elementary School.

*Ecosystem Exploration*, coming in spring 2014, will bring 4<sup>th</sup> grade classes from Barth Elementary to Welkinweir to explore forest and pond ecosystems and conduct a stream study, to support the teachers' curriculum instruction and student guidance. The field trips and after-school programs provide students with outdoor learning opportunities that promote environmental appreciation and the importance of stewardship, as they discover beyond their school and urban communities, enhancing the students' social and emotional well-being and encouraging healthy outdoor activities.



*Above: Students from Elizabeth Barth Elementary School pose in front of potted salvia and coreopsis flowers they installed to attract pollinators, as part of this spring's pilot nature education program.*

## **Dawn White Receives Environmental Education Certification**



Although I've worked in the field of Environmental Education for over 16 years, becoming a certified Environmental Educator (EE) was something I've wanted to do to further my professional development.

I applied through the Maryland Association for Environmental and Outdoor Education, an accredited program through the North American Association for Environmental Education (NAAEE). Pennsylvania's program is still in development.

As an applicant to the certification program I had to demonstrate mastery of the NAAEE's Core Competencies through various application components, including my resume, lesson plans for programs I teach, observations made by others of my teaching, a code of ethics, and a professional development plan. Following many hours of work over the winter with the support of everyone at Green Valleys, I received my Environmental Educator certification this summer. The entire process has helped me professionally, showing me my strengths as well as areas where I can grow and improve as I continue to create and lead environmental education programs for the many children and adults who enjoy our programs each year.

# Green Valleys Watershed Association Community Nature Programs

December 2013 – February 2014

For all program information and registration, please contact Dawn White at 610-469-8646, or e-mail at [dwhite@greenvalleys.org](mailto:dwhite@greenvalleys.org).

## Nature Programs at Welkinweir

### Children's Holiday Decorations Workshop (Education Building)

Saturday, December 7 10:00-11:30am

Children can make and take home ornaments made from natural items. We'll also make decorations for the estate house, which you can hang on the Welkinweir Christmas tree for the Holiday Open House. *Ages 8 to 13 with adult supervision. Fees for children only: GVA Members \$8, Nonmembers \$10. Advance registration required.*

### Nature at Night Hike and Campfire

Friday, January 24 7:00-8:30pm

(Severe weather date: Friday, January 31)

Search for nocturnal animals and test your own senses in the darkness during an evening walk at Welkinweir. Listen for great horned owls, look for animal tracks and examine animal artifacts. Enter a free raffle to win a bat box, then warm up by the campfire with GVA-provided refreshments. *For ages 6 to adult. GVA Members \$5 each; Nonmembers \$7 each. Space limited. Advance registration required.*

### NEW! Night Owls

Tuesday, February 25 6:00-7:00pm

(Severe weather date Thursday, February 27)

Youngsters will delight in fun activities as they experience nature at dusk! Bundle up for a short nature walk, then warm up inside with a snack, animal story and take-home craft. *For ages*

*3-6 with caregiver. Fees for children only: GVA Members \$8, Nonmembers \$10. Spaces limited. Advance registration required by Monday, February 24.*

**FREE Guided Nature Walks** on Saturday mornings will resume March 2014. Please look for our Winter 2014 newsletter.

## Little Wonders and Kinder Nature Classes

Little Wonders (ages 2-3 with caregiver) and Kinder Nature (ages 3-5 with caregiver) classes will continue March 2014.

## Little Sprouts Nature Classes

### At Henrietta Hankin Library

Mondays from 10:30 to 11:15 a.m.

December 9 – Amazing Reptiles

January 13 – Nature's Winter Wonders

February 10 – Wildlife Detectives

Advance, online registration required. Visit <http://www.ccls.org/> and click on "Find An Event".

### At the Phoenixville Public Library

Fridays from 10:00 to 10:45 a.m.

December 20 – Nature's Artists

January 10 – Winter Wildlife

February 14 – Creature Coats and Coverings

Advance, online registration required. Visit [www.phoenixvillelibrary.org](http://www.phoenixvillelibrary.org) and click on the "Kids Calendar".

## 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 \_\_\_\_\_

Township \_\_\_\_\_

I would prefer to pay by:

Check (made payable to GVA)  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 [www.greenvalleys.org](http://www.greenvalleys.org)

**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

Become a "Friend" with an additional contribution: \$ \_\_\_\_\_  
*tax-deductible, non-membership support*

Please notify me of GVA volunteer opportunities.

E-mail: \_\_\_\_\_

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

Visit our website at [www.greenvalleys.org](http://www.greenvalleys.org)

*Fall 2013  
Volume 49, Issue 3*

*1368 Pritzer Road  
Pottstown, PA 19465*



*Address correction(s) requested*

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