

# Streamlines

Fall 2021

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**GREEN VALLEYS  
WATERSHED  
ASSOCIATION**

## Holiday Open House

Saturday December 11th,  
12 to 4 p.m.

Volunteers from the Herb Society of America - Philadelphia Unit, Valley Garden Club, PA Master Naturalists, and OJR Horticulture class will be decorating the first floor of the estate house for the holidays and the community is invited to visit. A selection of holiday-themed music and Christmas carols will be playing on the Skinner pipe organ periodically throughout the day. A large evergreen donated by Marsh Creek Tree Farm in Elverson will take center stage in the formal living room.



Light refreshments will be offered.



*We respectfully request that masks be worn while touring the house but are not required while walking the grounds, which will be open to the public during the open house.*

## Save the Date Organ Reveal!

Saturday May 7th, 2022

The restoration work on the Skinner pipe organ, Opus 742A, installed by the Rodebaughs

during construction of the estate house addition in the early 1940's, is drawing to a conclusion. In celebration of this milestone, we are planning an "Organ Reveal", the Saturday prior to Mother's Day.

Plans include organ concerts throughout the day and a display of the keyboard and pedals operating will be projected onto the entry hall wall as the music is playing. Limited tours to the third floor will be offered to view the multiplexer, pipes, and instruments that make up the complex instrument. The date of the reveal coincides with peak azalea bloom in the gardens and the grounds will be open to the public for walking and photography.



# Volunteer Opportunities

## In Spring 2022, two volunteer training opportunities!

**Schuylkill Water Stewards**, [www.schuylkillwaterstewards.org/apply](http://www.schuylkillwaterstewards.org/apply) will be offered on the following Saturdays: February 5 & 19, and March 5 and 19, from 1 to 4:15 p.m. to learn the skills you need to monitor and protect the health of local streams.



**PA Master Naturalist** training begins Wednesday March 30 and runs weekly until June 8, from 6 to 8:30 p.m. [pamasternaturalist.org](http://pamasternaturalist.org)

## Welkinweir: Horseshoe Trail Updates

In late September a crew from the Appalachian Conservation Corp returned to continue to work on improvements to the Horse-Shoe Trail as it traverses Welkinweir, focusing on the creating a gradual climb up the hill after crossing the stream. Volunteers from the Horse-Shoe Trail Conservancy helped to prep the area by clearing shrubby growth and vines as well as adding geo-textile and gravel to the stream approach to stabilize and provide better footing. Funding for the work this spring and fall is thanks to a Schuylkill Highlands mini grant funded by the PA Department of Conservation and Natural Resources, Chester County Parks & Preservation Conservancy Public Benefit Improvement grant, PECO, and AXA XL.

This winter we will be working with the Horse-Shoe Trail Conservancy on plans to reroute the trail section immediately east of the meadow and pond to eliminate the “fall line” (straight uphill) and associated erosion in this section of the trail.



GREEN VALLEYS WATERSHED ASSOCIATION MISSION 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 THIS GENERATION AND FOR GENERATIONS TO COME.

OUR HEADQUARTERS IS LOCATED IN THE FRENCH CREEK WATERSHED IN EAST NANTMEAL TOWNSHIP AT WELKINWEIR, THE FORMER HOME OF FOUNDING MEMBERS EVERETT & GRACE RODEBAUGH. IT IS FROM HERE THAT THE ORGANIZATION FULFILLS ITS PURPOSE OF WATERSHED PROTECTION, ENVIRONMENTAL EDUCATION, AND LAND STEWARDSHIP.

OPEN FOR VISITING MONDAY TO FRIDAY 9 A.M. TO 4:30 P.M.

### BOARD OFFICERS

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ON THE COVER:  
*FIELD CORN*  
*ZEA MAYS*

## GVWA Environmental Education Center Updates

Fundraising for the construction phase of the new EEC has begun! Generous donations by Harriet and Larry Stone, Carl and Sylvia Landis, and Art and Marge Miller are enabling us to kick off our fundraising in earnest.

An integral part of the Welkinweir Master Plan, this new facility will dramatically increase our ability to provide environmental education and science programs, host events, and showcase watershed-friendly design practices.

### GVWA EEC Features

**Adaptive re-use** of the current EEC building will reduce the environmental impacts of construction. The currently in-use floor space will become offices for staff and interns and also provide storage for supplies.

**Net zero energy** will be achieved with a proven mix of energy efficiency, solar electric generation, and geothermal heating/cooling.

**Rain water** from building roofs will go directly to infiltration beds underlying the porous paving outdoor meeting areas adjacent to new EEC, with the goal of 100% infiltration.



Macroinvertebrate Sampling with Alex and Pottstown Science Club

## New Watershed Educator

We are excited to welcome GVWA's new Watershed Educator, Alex Runde! Alex is responsible for existing watershed and environmental education programs as well as creating new programs! Drawn to the sciences through amateur storm-chasing and forecasting, Alex completed his undergraduate degree in hydrology at St. Cloud State University in Minnesota. After graduation he interned at Acadia National Park in Maine, working with the park staff to provide safe, educational, and fun experiences for visitors to the parks trails, beaches, and fishing areas. That experience prompted him to pursue his masters in environmental education at Florida Institute of Technology, which he completed this spring.

Alex enjoys being on the water whether it's fishing, canoeing, skimboarding, or surfing. He is moving ahead with engaging local students with our watershed science work - instilling in them an affection and appreciation of the natural world, and an awareness that they can do something to better their environment. Please drop him a welcome email or if you have questions or ideas for programs you'd like to see.

## Forest Biodiversity & Keystone Genera

In a publication last year, Doug Tallamy and co-authors describe the importance of *keystone genera*-- plants that are host to the majority of caterpillars across the United States. The publication is titled *Few keystone plant genera support the majority of Lepidoptera species*. Caterpillars feed on plants, and are in turn consumed by numerous other species. **Through the work of Tallamy and others, we now know that caterpillars are the primary means by which plant energy gets converted into forms other animals can use--therefore play a crucial and indispensable role in our local food webs.**



This work by Tallamy and other researchers has enormous importance in terms of both evaluating existing forests as well as in selecting material for restoration plantings. Forests having good diversity and with good representation from the keystone list will support the most stable and diverse populations of animals--including birds, reptiles, mammals and amphibians.

When selecting woody plant material for landscapes and restoration work, the majority of material should be selected from the *keystone genera* listed. Additionally, variations in the tree canopy, as well as developing layers of understory--small trees, shrubs and herbaceous ground plants-- are essential to creating wildlife habitat.

Want to do more? Doug Tallamy's *Homegrown National Park* ([homegrownnationalpark.org](http://homegrownnationalpark.org)) is a grassroots call-to-action to regenerate biodiversity and ecosystem function by planting native plants and creating new ecological networks.

### Top ten Keystone Genera

Oaks, Willows,  
*Prunus* (Cherries,  
Plums, etc),  
Birches, *Populus*  
(Poplars,  
Aspen, etc),  
*Malus* (native  
Crabapples),  
Maples,  
Hickories,  
*Vaccinium*  
(Blueberries,  
Cranberries,etc),

## In Search of Older Forests

Most of Chester County's former old growth forests were cleared in the 1700 and 1800s for tillage and pasture. Clearing these fields took enormous effort, first to remove trees, then move the field stones out to the fence lines, and then to level the soil into farmland. We see the results of that effort today throughout the watersheds, with pastures and fields of crops such as those on the cover.

But not all the lands were converted to tillage and pasture during this time period. Many patches of forests on steeper slopes were managed as a source of cord wood for charcoal making, while other patches of wetland forests and forests on very steep slopes will have escaped clearing because there was simply no good reason to do so. Inspection of 1937 aerial imagery shows mature forests in the areas described above at numerous sites throughout the watersheds. Since 1937, there has also been considerable regrowth of forest in some former farm fields as well as along riparian corridors. As a result of this history, our current forests are quite variable in terms of age, species distribution and very likely biodiversity.



GVWA is interested in knowing where these older forests--and even old growth forests--are present. Forests that have survived through to modern times *relatively intact* would be expected to support the healthiest watersheds and will be valuable repositories of rare species such as the Pink Lady's Slipper pictured. These are also lands that where present need to be identified and protected. A mapping project underway at GVWA will show where forests were present in the 1930s and forward for each decade through to today.

## Salt in Our Streams

**Chloride in our groundwater and streams is increasing, with the long term impacts to water quality and stream health unknown.**

Decades of salt application to roads and parking areas is responsible. Prior to the 1960s, de-icers including rock salt were not routinely used, but application rates have increased steadily since then, and we are seeing the results in the streams and groundwater. The data in the chart below is from the USGS, and show the long term trend observed in essentially all the streams locally where there is data available.



Salt Spill on PennDOT Maintained Road Along French Creek

### *Reduce Use!*

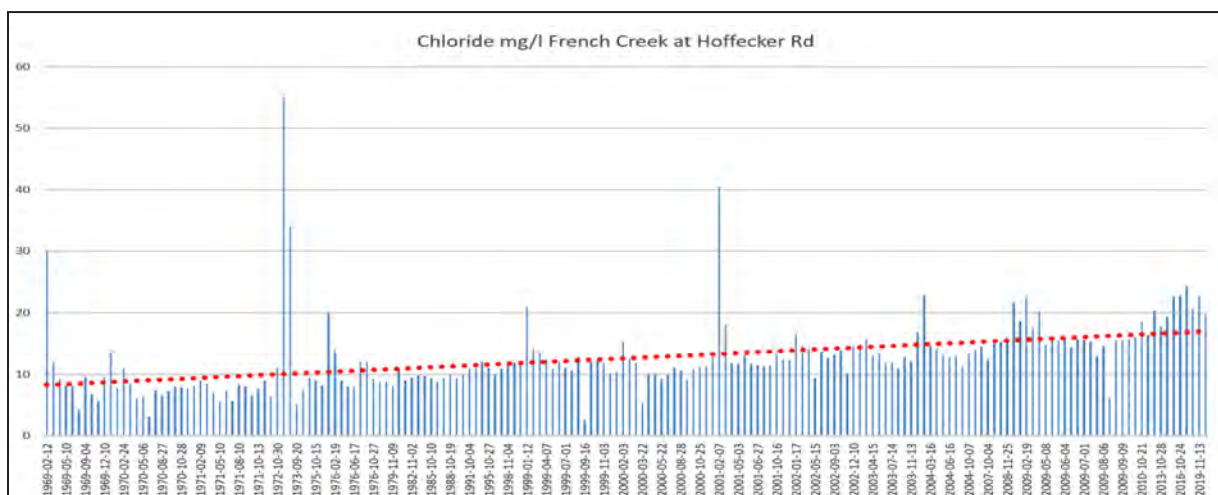
At home and business, perform thorough mechanical removal first, then use just enough melter to get snow and ice under control.

### *Report Spills!*

When you see misapplications like the example above, take a picture and report it to the township, county, state, or business owner. Some of the worst misapplications are occurring in business-owned parking lots by contractors.

### *Chloride Standards are Needed*

Most states, including Pennsylvania, have not developed chloride limits for surface waters except for public water supply withdrawals. Chloride can have harmful effects on macroinvertebrates, fish, and mussels. The trends seen in water quality data chart below are not the whole story. During wash-off events where spills like those above are mobilized by rain, chloride concentrations can spike to **very** high levels--with unknown consequences in our streams.



## *AXA XL Helps Green Valleys Keep the Streams Clean*

### **Long term volunteers are a key resource for keeping our watersheds clean.**

The Exton-based staff at AXA XL, a global insurance and reinsurance company, continues their decades-long commitment to Green Valleys. With a strong focus on corporate social responsibility, AXA XL's annual *Global Day of Giving* sets aside a day for thousands of employees world-wide to do volunteer work in their own communities. For 20+ years, local AXA XL employees have volunteered for Green Valleys, and the recent focus for cleanup and maintenance of areas along the Pickering and French Creeks, earned them the Ralph D. Heister award for volunteerism.



Pickering Clean Up--AXA XL Global Day of Giving

Greg Leinweber has managed a crew of volunteers to pick up trash and debris from the banks and roads along a 5-mile stretch of the Pickering Creek through East and West Pikeland Townships. Years ago, there was a large amount of trash to be removed from within the stream and around it, but over time Greg and his team have seen a significant reduction in the amount of trash in this stretch of stream and roads. Finds have included car parts, tires, furniture, construction debris and other items in and along the stream. Their efforts have paid off as this stretch of stream is much cleaner.

Marty Meadows has lead a yearly project maintaining of a section of trail along the French Creek in East Vincent Township. The site, a former meat processing plant, is now a young forest. The team adds wood chips to the trail, removes invasive plants, cuts back branches and weed-whacks where necessary. The team's efforts are greatly appreciated by the fly fishermen/women that frequent that section of French Creek. The serene setting is also perfect for enjoying quiet reflection, taking a stroll or just watching the stream meandering by. AXA XL and GVWA share a commitment to the environment and community involvement with benefits that will be enjoyed by the community for years to come.

THE HEALTH OF OUR WATERSHEDS  
HAS BEEN OUR FOCUS FOR OVER 50  
YEARS.

Green Valleys Watershed Association  
is located in northern Chester County,  
Pennsylvania, where our scenic watersheds  
are comprised primarily of Exceptional  
Value (EV) and High Quality (HQ) waters.  
These streams are in the top tier in  
Pennsylvania.  
They are a precious resource.

**JOIN US!**

**MEMBERSHIP** includes newsletter subscription, notice  
of special events and programs, and reduced rate to special  
programs, workshops, and Summer Nature Day Camp.

**Membership levels:**

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

I am a:  New Member  Renewing Member

- I am interested in including GVWA in my legacy  
planning.
- Please notify me of GVWA volunteer opportunities:

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

I would prefer to pay with:  Check (*payable to GVWA*)

Visa  MasterCard  Discover  American Express

Credit Card # \_\_\_\_\_

Exp \_\_\_/\_\_\_/\_\_\_ CID \_\_\_\_\_ Phone\* \_\_\_\_\_

Email address\* \_\_\_\_\_

*\*Phone & email needed to process credit card payments. We do not share  
your information with any other 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/support](http://www.greenvalleys.org/support)

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