# Streamlines

Spring 2022

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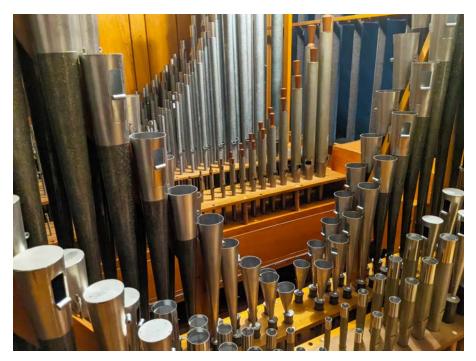
### Welkinweir's 1928 Skinner Organ Fully Restored

#### You are invited to attend our Organ Reveal and Open House & Garden on Saturday May 7th from 11 a.m. to 3 p.m.

Experience the range of sound of this orchestral organ now fully restored to its original glory! One of a just a handful of functioning Skinner residential organs, the Opus 742A has just completed an extensive restoration. Thanks to a generous donor, the restoration work on this 1928 marvel began in 2014 and has taken a full 8 years to complete. The restoration has been a complex and meticulous process of bringing all the working parts back to original condition, while at the same time preserving nearly 100 years of graceful aging.

Opus 742A came to Welkinweir in 1941. Everett and Grace Rodebaugh had been researching home organs for their expansion of the

East Nantmeal farmhouse which they had purchased in 1939. They began a correspondence with Ernest Skinner who told them of two of his instruments that were available - one in Boston, and one in New York. Opus 724A was originally installed in the Park Avenue apartment of a wealthy NY stockbroker, and the instrument had been put up for sale when the building was slated to be torn down. They purchased the New York instrument and it was disassembled, brought to Pottstown via rail, and re-installed by factory technicians into the new residential addition.



The Rodebaugh's long time organ curator, Brant Duddy, maintained the organ from the early 1970's through 2014 and was "instrumental" in connecting us not only with the restoration specialist, but with a very generous donor, whose passion for these instruments lead to the funding of essentially the entire restoration.

As a tribute to this marvelous machine, the dedicated experts who have brought this organ intact through to the present day, and the incredibly generous funding which made the recent restoration possible, we are planning organ concerts throughout the day. A video display of the keyboard and pedals in operation will be shown in the entry hall wall, highlighting some of the modern technology which is enhancing the 1928 electronics. Limited tours to the third floor will be offered to view the multiplexer, pipes, and instruments that make up the complex instrument. This is a rare opportunity to see "behind the scenes" to an area of the building not normally accessible to visitors.

> The grounds will be open. Visitors are welcome to bring a picnic to enjoy under the tent overlooking the great pond!

### 2022 Spring Celebration

Join us for a wonderful evening among friends on Thursday May 5th from 5:30 p.m. to 8 p.m. After a two year hiatus, our annual fund raiser is back! The event coincides with peak azalea bloom in the gardens! The Rodebaugh's were members of the Valley Forge Rhododendron Society and avid collectors of spring blooming azaleas and



rhododendron. Azalea Lane is densely planted with brilliantly-colored, mature specimens of azaleas, representing some of the best azalea breeding work of the 1950's, 60's and 70's - Glenn Dale, Knap Hill, Gabe, Satsuki, and Robin Hill hybrids to cite a few. You'll find flowers that are marginated, striped, flecked, and dotted - so be sure to bring your camera!

Enjoy a casual, early evening event featuring wine, cheese, and chocolate, while we honor this year's Green Valleys' Lifetime Achievement Award winners.



We will also be previewing the first in a series of videos being produced by Freshwaters Illustrated on behalf of our local watershed partnership, the Schuylkill Highlands

Cluster. These videos are highlighting the work we are doing in our area to protect and restore streams and their surrounding watershed lands. We are very excited about this series of videos and look forward to sharing previews with you at the Green Valleys Spring Celebration!

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**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 FULFILS 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 CHRIS ORZECHOWSKI, PRESIDENT MARGE MILLER, VICE PRESIDENT SUE HUGHES, SECRETARY **Rob Blumenthal**, Treasurer Allen Heist, Past President AMY AUWAERTER, ANN BURLEY, Diana Cormack, James Kerr, John MATTHEWS, KEVIN ORANGERS, JO-AN Rechtin

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ON THE COVER: BROOK TROUT (SALVELINUS FONTINALIS) Freshwaters Illustrated

## Green Valleys Summer Camps -- 2022 Upgrades!

#### Otters

With this all-new summer camp age group, we are now hosting campers from ages 12 to 15. This group is one of the areas in GVWA's overall environmental education program where we have identified growth opportunities. Expanding the age range we are working with at camp improves our opportunities to include STEM topics. Otters features more science and skill-based instruction than previous camp programs. For example, during the Geology Week of July 4th, this group will experience the same field trip and hands-on learning which we are providing as part of our adult Pennsylvania Master Naturalist class.

One of our most popular weeks, the Science of Survival, will challenge campers to think outside the box. After learning fishing, gathering, shelterbuilding, and fire-starting skills, overnight campers at Welkinweir will have an opportunity test these skills. Meals are provided, of course, but who knows what camper ingenuity may come up with?

#### *Scholarships*



Thanks to a generous donor, Marilyn Dommel, and contributions from camp parents to the scholarship fund, we will be able to offer 9-12 scholarships (depending on the ages that apply) to students who would not be able to attend summer camp otherwise.

#### Field Trips

The Herons (ages 10-11) and Turtles (ages 8-9) get some fun field trips as well. The Herons will be kayaking on the Schuylkill River during the weeks of June 27th and July 25th, as well as animal observation and team building at the Barn Nature Center, also on the week of July 25th. The Turtles get a farm operations tour and a hayride during visits to nearby Lundale Farm in the June 20th and August 8th weeks. As always, all age groups get to learn from our expert guest presenters, who often utilize the varied landscapes of Welkinweir to engage and teach the campers.

## Welkinweir Volunteer Opportunities!

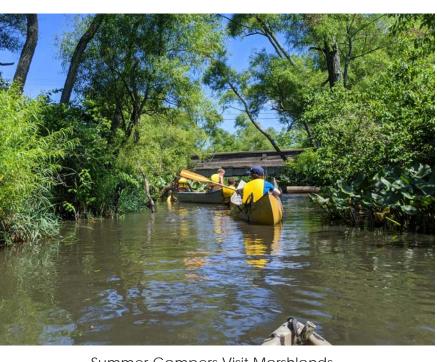


Volunteers Vanguish Invasives & Vines at Welkinweir

along the path descending from the west side of the Visitor Lot. Where you see all of the invasives and vines cut off and dangling at head height, you can know that those are some of the trees given new life by our amazing teen volunteers!

#### Nature and Children

The outside world is a space where children grow healthier in myriad ways. The physical, emotional, and cognitive benefits from time spent in nature are of great value and there is simply no substitute for these experiences. Yet many studies are showing that children are spending less time outdoors and correspondingly more screen time. Green Valleys is committed to expanding our outdoor programs as rapidly as possible, and we forecast a big jump in program delivery with our new education building. Thank you for your support!



This spring we invited teens to come volunteer at Welkinweir. Our Spring Session lasted eight weeks and a total of twelve teens signed up for the program. The teens did a tremendous job of clearing away invasive vines and other plants which were smothering and girdling native trees. Each service session would start with a "Five Minute Lesson" on a broad range of topics such as: what makes plants invasive (and some removal methods), the basics of plant identification, the care given to Welkinweir by people such as the Rodebaugh's and the Lenape, how the history of the land informs stewardship practices, and even how to make a proper pruning cut.

This year's volunteer work has focused

Summer Campers Visit Marshlands

### Brook Trout!

Native trout still spawn in the headwaters of a few of our cleanest creeks! Running through intact forests, these pristine creeks are time capsules from a pre-European settlement landscape, and the survival of limited populations is both an inspiration and a call to action. Starting from these few headwaters, brook trout could reclaim lost range, but only if we work steadily to preserve and expand the clean cold water habitat they require.

Brook trout spawning takes place in October and November. These incredible images of local spawning were collected by staff from Freshwaters Illustrated as part of their work to produce videos for the Schuylkill Highlands Cluster (SHC) of the Delaware River Brook Trout Spawning in Local Headwaters Watershed Initiative. These videos are currently in production,



and will highlight the watershed protection work being done by SHC partners, and the iconic species we are working to protect.

# Stream Bank Erosion at Legacy Sediment Sites

Legacy Sediments (LS) are a major source of sediments in our watersheds. Recent research has significantly improved our understanding of how and when LS built up along our stream corridors. Beginning in the early 1800s, rapid upland erosion from agriculture released massive amounts of sediments during storms into the corridors along streams, and some of that sediment accumulated as large flat terraces behind mill dams and anywhere the water slowed down. The flat LS terraces are now eroding, giving back the sediment they stored over the past centuries. Accumulation of sediments on the top of these terraces is still occurring as well.

Research in local watersheds and nearby watersheds in the Susquehanna River is showing that approximately half of the sediments found in local streams are coming directly from bank erosion of LS. This represents an important opportunity because research is also showing that working to halt erosion at LS sites will be more direct and cost effective than other approaches to reducing sediment pollution. This does not mean other work to reduce non-point source pollution should be set aside, but rather that we now have a new approach to improving water quality which may be used in concert with existing methods.

The picture below illustrates the challenges which LS sites present. This healthy riparian buffer planting is no match for the intrinsic instability of these LS sites; the green tube is one of many vigorous young trees in this picture that were installed about ten years ago, and now washing away. Elsewhere in the watersheds, at non-LS sites, riparian buffer creation and protection remains a highly effective approach.



Riparian Buffer Plantings on Legacy Sediments--Pickering Creek

# Stormwater Monitoring Challenges

When Hurricane Ida brought devastating flooding to parts of the Delaware Valley last year, it also brought the reminder that climate change is intensifying storms of all kinds. As Ida passed over an exceptionally warm Gulf, the storm grew from a Cat 1 to Cat 5 in just 24 hours. This very rapid intensification is driven by ocean temperatures, and the warming oceans are creating conditions for this intensification far more often than in the past. Our warming atmosphere also holds more water vapor than in the past, with this moisture both an essential ingredient for hurricane growth and also increasing precipitation amounts. When all this water is moving through our streams, flooding is the result, and in Ida's case this meant drinking water plant shutdowns, water rescues, flooded buildings, property damage and severe stream bank erosion.

The severity of flooding in some local watersheds has been worsened by explosive development in the headwaters of these streams over the past several decades. We understand this qualitatively, but we lack the local data to quantify these changes and show the impact that development is having on our watersheds . We also have very limited data on the amount of sediments flowing through our watersheds. Sediments are a major cause of stream impairments that we need to address, but we really can't move forward effectively without a clear understanding of the mechanisms, timing and severity of these events. More data is needed!



Heavy Sediment Loading in the Birch Run--Hurricane Ida

### Monitoring Solution Provides Data

This spring we will be expanding the initial network of EnviroDIY monitoring stations in the Pickering to include two new stations in the South Branch of the French Creek and four more stations in the Birch Run. We had hoped to get these out earlier, but due to component revisions/chip shortages it was not possible to finalize the configuration of the stations. For more information on technical details of these stations, visit EnviroDIY.org.

These stations collect data on water depth, turbidity, temperature and conductivity. With this equipment we can measure tons of sediment passing these stations per hour--essential data for understanding current loadings and developing targets for reduction. These same stations will also provide high resolution data on stormwater flows as well as precise and accurate data on chloride from winter de-icing. The picture at right shows the wiper on the self-cleaning turbidity sensors; previous sensors did not have a wiper and consequently required too much maintenance.



Self-Cleaning Turbidity Sensor



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

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	
□ 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:

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Online membership also available at 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.