

Blue Mountain Green Vision

On Thursday, December 5th, 2013 students from Blue Mountain High School's Green Club met at the Blue Mountain Elementary East campus to evaluate the site of an existing stormwater retention basin for its conversion into a rain garden. Students took measurements of the basin's structure, noted areas that hold standing water, identified existing wetland plants, and tested ground infiltration. This research was part of the Blue Mountain Green Vision initiative, a collaborative effort between the Schuylkill Headwaters Association and the Blue Mountain School District to convert the middle and elementary school campuses into a series of sustainable rain gardens and an associated educational environmental trail. Over the course of the next five years, a series of projects will occur across the Blue Mountain middle and elementary school campuses in order to improve both the environmental sustainability of the school grounds, while reaching out to the wider Orwigsburg community.

The entire eighth grade class of 230 middle school students and 15 high school students representing the Green Club will be directly involved in the project. Throughout March and April, the eighth grade class will work in collaboration with high school Green Club mentors on planning the garden's design and plant composition. This will include sketching a design, researching native plants and their root hydrology, and contacting local businesses and potential community donors. Blue Mountain Middle School science teachers are also committed to building direct links between their curriculum content and the planning process associated with the rain garden project. Class discussions will include the water cycle, processes of erosion, local native plants, and the value of wetlands for reducing stormwater and flooding. This 18-week curriculum will constantly be linked and applied to discussions about the rain garden and its purpose.

The site of the proposed rain garden project is directly adjacent to a community walking trail, which is used heavily by Orwigsburg's residents year round. The proximity of the rain garden to the trail will greatly increase the project's reach, exposing hundreds of residents to the concept of a rain garden and its use for addressing stormwater and flooding on their own properties. The Schuylkill Headwaters Association is very excited to be a partner on this exciting project to green our community with the Blue Mountain School District!

If you are interested in getting involved in the Blue Mountain Green Vision project, by either offering advice on rain garden design or as a sponsor, contact Outreach & Education Coordinator Sierra Gladfelter at outreach@schuylkillheadwaters.org or 570-573-2093.



**Students examine erosion
'downstream' from their
school grounds**

**Get in on the 'greening'!
Find out what you can do at your school or on your own property to reduce stormwater!**

Hamburg High School's 'Peace Rain Garden' Project

The Schuylkill Headwaters Association is very proud of the progress being made by Hamburg High School teacher, Ms. Pamela Whitman and her 15 high school students dedicated to greening their school grounds with rain gardens! This past December, Hamburg high schoolers presented a PowerPoint to the district's school board about the benefits of retrofitting existing stormwater basins into biodiverse rain gardens. They also described their plan to initiate a 'Garden Buddies' program and partner with fifth graders from the Hamburg Area Middle School to assist with the planting process. The school board is fully supporting the effort and has granted Ms. Pamela Whitman and her students, self-dubbed the 'Peace Gardeners,' permission to move forward on planning and planting the first 5,000-square-foot rain garden this spring.

On Thursday, January 30th, Ms. Pamela Whitman and the Grounds Maintenance Supervisor Mark Fretz met with Schuylkill Headwaters Association staff and Kate Keppen from the Berks County Conservation District to discuss next steps. SHA is looking forward to serving as a mentor throughout the planning and implementation phases of Hamburg High School's exciting endeavor!



Hamburg HS 'Peace Gardeners' assess their site

Do Something Yourself! Join the Port Clinton River Clean-Up on Sunday, April 13 from 11:00 am- 1:30 pm



Remaining trash along the Schuylkill River in Port Clinton. We need you!

On Sunday, April 13, 2014 the Schuylkill Headwaters Association will partner with Penn State Schuylkill's Community Service Club to host a clean-up at the 'Rock' along the Schuylkill River in Port Clinton, PA. This past November, Penn State Schuylkill and Blue Mountain's Ecology Club students removed 57 garbage bags of trash from the site. Although 12 volunteers labored for over three hours, they were not able to remove all of the waste. The event on April 13 from 11:00 am to 1:30 pm will provide an opportunity to thoroughly 'sweep the beach' before the swimming season begins. The Schuylkill Headwaters Association is also hoping to prevent littering by partnering with the township to provide garbage cans.

To participate in the clean-up please contact Outreach & Education Coordinator Sierra Gladfelter at outreach@schuylkillheadwaters.org or 570-573-2093.

The Schuylkill Headwaters Association (SHA) is planning to improve two recently disturbed sites located outside the village of Tremont, PA by planting approximately 12,000 native hardwood trees on 16 acres of reclaimed mine land. To accomplish this, SHA will be hosting a National Civilian Conservation Corps (NCCC) team for two weeks in May 2014 to recover previously mined land to a natural state by planting native tree species.

The goals of this project are to address community needs by mitigating flooding in downstream communities, improving regeneration of the native Eastern hardwood forest, and encouraging best reforestation practices by local coal operators during reclamation. SHA will employ the Forestry Reclamation Approach (FRA), a technique that involves 'ripping' the soil to reduce compaction and aid in water retention. The previously compacted soil will be excavated in a grid pattern to improve aeration and create topography that will trap rain in small puddles to increase the survivability of trees. SHA has successfully been planting trees with volunteers in this way for five years and

we have contributed to approximately 34 acres planted with over 40,000 trees across the county. The survival rate of these trees has been around 90+

percent! However, without these best practices methods, the land would take hundreds of years to regenerate and may never return to an eastern hardwood forest.

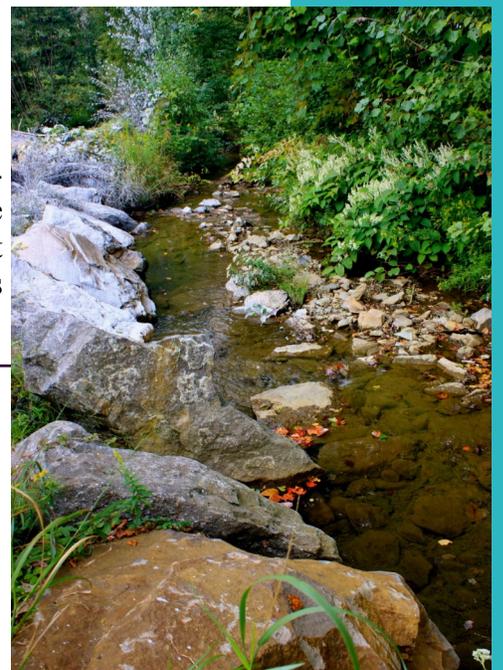


An example of a reclaimed mine site prepared for tree planting using the FRA approach. The furrows occur after heavy machinery rips the soil to loosen compacted earth and improve infiltration.

If you are a teacher interested in having your students plant trees alongside the NCCC team and participate in a day of service or if you are simply a concerned citizen interested in getting involved, please contact Outreach & Education Coordinator Sierra Gladfelter for planting dates and directions: outreach@schuylkillheadwaters.org or 570-573-2093.

Guess where this is? ...the headwaters of the Schuylkill

Just south of Tamaqua along Route 209, the Schuylkill Headwaters Association has its Bell Colliery Phase III abandoned mine drainage filtration system. Here, the Schuylkill River is so small you could hop across it, but our AMD filtration system is removing approximately two tons of iron every year. It's exciting to see such results so close to the source!



SHA Seeks an AmeriCorps VISTA position focusing on Developing the Silver Creek Environmental Education Trail and Recreation Park

The Schuylkill Headwaters Association (SHA) is in the process of applying for an AmeriCorps VISTA position to assist in its mission to involve a wider range of stakeholders in its conservation efforts and more effectively reach local students in watershed-based programming. Organized by the Appalachian Coal Country Team and the Office of Surface Mining, this AmeriCorps VISTA member will make a yearlong, full-time commitment to SHA. In return for their service, the AmeriCorps VISTA member will receive a modest living allowance, health benefits during their service, and an education award.



SHA has identified the continued development of the Silver Creek Environmental Education Trail and Recreation Park (SCEETR) and associated applied science programming as organizational priorities for increasing local student environmental literacy. Over the past five years, SHA has been working to convert the Silver Creek Abandoned Mine Drainage (AMD) filtration system located in New Philadelphia, PA into an educational park and walking trail that serves the local community. Silver Creek serves as SHA's primary destination for student tours, where we discuss our work addressing the legacy of AMD's impacts on the watershed and further conservation efforts needed throughout the county. During the Fall

2013 semester alone, SHA hosted over 125 students from county schools at Silver Creek.

SHA's long-term vision for the SCEETR and need for an AmeriCorps VISTA position involves more active stakeholder participation in creating a place that reflects both local needs for recreational green space and also Schuylkill County educators' desire for opportunities to execute applied education outside of the formal classroom. In addition to increasing general science literacy, curriculum at Silver Creek will expose youth to the field of environmental science through meaningful experiences that may inspire them to go to college or pursue careers, both locally and more broadly, in conservation.

The AmeriCorps VISTA position will assist SHA in moving its environmental and watershed-based education platform forward by expanding the organization's existing reach in Schuylkill County school districts and involving the community in the development and vision of the SCEETR. These activities will build the capacity of the community to take ownership of conservation projects that make Silver Creek a viable environmental field classroom. The VISTA will also nurture existing relationships with teachers, seeking their support and perspective on the direction and continued development of the SCEETR.

SHA will be actively recruiting local individuals to apply for this position over the course of the next several months. AmeriCorps VISTA members work with rural grassroots environmental leaders, partner with government officials, collaborate with environmental businesses, and explore a wide range of future career paths and opportunities in the process. Applicants are required to have a Bachelors degree, good communication skills, and the ability to work in a changing environment. For their service, VISTA members receive a monthly living stipend of \$850 (before taxes), health insurance, child care if eligible, student loan forbearance (with interest paid), and the choice of a \$5,550 education award or \$1,500 cash stipend upon term completion. For more information or directions on how to apply please contact Outreach & Education Coordinator Sierra Gladfelter at outreach@schuylkillheadwaters.org or 570-573-2093.

Schuylkill Acts & Impacts Expedition: Now Accepting Applications!

The Schuylkill Headwaters Association is excited to announce that it is now receiving applications for the 2014 *Schuylkill Acts & Impacts* expedition! This will be a weeklong service-learning program June 7th to the 14th, 2014 offered to a team of ten high school students from communities within the Schuylkill River Watershed. The expedition will involve a physical journey (by boat and van!) along the 120-mile Schuylkill River from its headwaters in the anthracite coal lands of Schuylkill County to its confluence with the Delaware River in Philadelphia. Team leaders from Outward Bound Philadelphia and the Schuylkill Headwaters Association will guide students downriver, illustrating the array of issues impacting water quality in the Schuylkill River through tours, programming, and applied service work designed to highlight issues in the watershed and offer hands-on solutions to the problem.

SHA is proud to be working with over 20 partners to provide environmental programming and full scholarships to all selected students! Target issues explored on the expedition will include; 1) the legacy of coal mining on water quality; 2) agricultural impacts including erosion and manure management; 3) the role of land preservation in watershed health; and, 4) the impacts of stormwater and impervious services on water resources. Students will paddle stretches of the river with biologists and conduct basic water quality monitoring, tour abandoned and active coal mines, visit farms to examine stream bank erosion, and walk Philadelphia's streets to witness the city's pioneering work at mitigating stormwater. Daily reflection and discussion will challenge participants to think about their own habits and use of water and provide them with tools to take action in their own stretch of the watershed!

Requirements and Expectations:

- *Students must be currently enrolled in high school (9th-12th grade).
- *Students must live in Schuylkill, Berks, Chester, Montgomery, or Philadelphia counties.
- *Participants and their guardian must complete all necessary medical and consent forms.
- *Selected students must participate in an orientation on Saturday, May 3, 2014.
- *Selected students must commit to participating in the entire weeklong *Schuylkill Acts & Impacts* expedition from Saturday, June 7 to Saturday, June 14, 2014.
- *Selected students must be willing to actively engage in environmental service work, team-building activities, and reflection exercises during the orientation and expedition.

APPLY NOW! Contact Outreach & Education Coordinator Sierra Gladfelter at outreach@schuylkillheadwaters.org or 570-573-2093 to receive an electronic application. **All materials must be submitted by 5:00 pm on Friday, March 21, 2014!** Applicants selected for an interview will be notified during the last week of March. Interviews by phone or Skype will occur during the last week of March through the first week of April. **Final selection of the *Schuylkill Acts & Impacts* 2014 team will be announced Tuesday, April 8, 2014.**

SPONSOR A STUDENT! SHA is seeking local stakeholders and environmental organizations to support a student from their community. We are very close to filling our funding gap and can get there with your generous donation! Please contact Outreach & Education Coordinator Sierra Gladfelter at outreach@schuylkillheadwaters.org or 570-573-2093 for details on joining the network of *Schuylkill Acts & Impacts* supporters.



CONTACT US:

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Upcoming Events:

The Schuylkill Watershed Congress- March 15, 2014

Montgomery County Community College—W. Campus, Pottstown PA
SHA will be a presenter, so come out to see us! This event connects organizations, businesses, and individuals who care about the Schuylkill River through a productive and creative exchange. Contact dm@delawareriverkeeper.org or 215-369-1188.

The 13th Annual Bear Creek Festival- May 18, 2014

Schuylkill County Fairgrounds—2270 Fair Road, Summit Station, PA
This is a great, free event for families, with children-friendly nature activities and opportunities to learn about where their food comes from! Contact the Schuylkill County Conservation District at 570-622-3742 x5; schuylcd@co.schuylkill.pa.us.

The 16th Annual Schuylkill River Sojourn-June 7-13, 2014

The Sojourn is a 7-day, 112-mile guided paddle from Schuylkill Haven to Philadelphia organized annually by the Schuylkill River Heritage Area. Participants can register for one day or the entire week. Registration opens April 1 for the full trip and April 15 for a section. Call 484-945-0200 or email sojourn@schuylkillriver.org.

Invisible River: Performance on the Schuylkill -July 12 & 13, 2014

Dance troupe Alie + the Brigade guide their audience downriver in canoes to witness a live performance on the river. Performers 'fly' from bridges over the Schuylkill River, sing from its shores, and bring this resource alive. Performances are scheduled for July 12 and 13, 2014 in Philadelphia's Fairmount Park. To attend contact Alie Vidich at alie@alieandthebrigade.org or 267-467-0657.

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