



This Spring, we:

- Planted over **3,000 native plants** in 3 basins
- Reforested 2 acres with **2,000 native seedlings**
- Selected 15 students for the 2nd Annual Schuylkill Acts & Impacts trip
- Received a **\$3,000 DEP Environmental Education grant!**

Blue Mountain Green Vision Final Phase Complete

This May, the final phase of the “Blue Mountain Green Vision: Planting Rain Gardens for Community Change” initiative was completed. The project, which was funded through a Water Resources Education Network (WREN) grant and a Schuylkill River Restoration Fund grant, is meant to act as a demonstration stormwater BMP project that will hopefully inspire homeowners to replicate a similar project on their own properties. This project coincides with the first phase of the Blue Mountain Green Vision initiative, which was a stormwater basin that was retrofitted into a 5,000-square foot rain garden in the spring of 2014. Both projects are located along the Orwigsburg Lions 1.5-mile community walking trail that goes around the Blue Mountain campus.

Over the course of four days, the entire Blue Mountain Middle School eighth grade class worked together to plant over 3,000 native plants in the newly-constructed bioswale. They worked in three separate basins which when combined form the bioswale. The students prepared the soil, dug the holes, planted the plants, and eventually watered the plants. SHA was very impressed with their hard work! Now that the basins are planted, the native plants will quickly establish themselves and start doing their job right away, which is to help prevent erosion and soak up stormwater runoff. The specifically selected native plants will also provide habitat and food for native wildlife in the area, such as birds, ducks, butterflies, and frogs.

**Above: Students planting plugs in rain garden.
Left: Bottom basin after being planted. Right: Blue Mountain students diligently plant the rain gardens.**

(Story continued on page 2)

Photographs by Alexa Kramer.



Blue Mountain Green Vision

Along with planting the rain gardens, the eighth grade students also visited many other educational stations throughout the days. They learned about soil biology and how to take soil samples and perform percolation tests with members of the Schuylkill Conservation District and NRCS. At another station they learned how to identify trees and plants and also about the effects of invasive species with the Bureau of Forestry. A local expert taught about blue birds and how to make blue bird boxes, and then helped the students select proper locations to install the boxes around the school campus. An educator with the Department of Environmental Protection taught students how to identify mammals based on furs, skulls, and teeth. There were a lot of activities packed into the week, and the students got a lot of hands-on experience in environmental studies.

The middle school will be able to use these rain gardens as valuable learning tools far into the future. Also, the demonstration projects central to Blue Mountain Green Vision have the potential to act as a catalyst to inspire change in stormwater management throughout the immediate Orwigsburg Borough as well as in communities across Schuylkill County, who consider the Blue Mountain School District a role model and community leader.



Above: Blue Mountain student plants the rain gardens.

Photograph by Alexa Kramer

Spring Reforestation Efforts



On the first day of May, Schuylkill Headwaters Association, with help from many great volunteers, reforested two acres of abandoned mine land with 2,000 native seedlings. The tree planting took place on a plot of land owned by Mountaintop Coal near the Schuylkill County Airport. Roughly 35 volunteers were in attendance and worked hard for over 5 hours in the chilly weather to plant the seedlings. This Appalachian Regional Reforestation Initiative (ARRI) planting used the Forestry Reclamation Approach (FRA) in order to ensure the success of the tree planting. The goals of using this approach are to plant more high-value hardwood trees on reclaimed coal mined lands in Appalachia, increase the survival rates and growth rates of planted trees, and expedite the establishment of forest habitat through natural succession. By using the FRA approach, SHA has achieved an over 90 percent survival rate in these plantings over a span of 6 years. To date, this brings the total acres planted to approximately 36 acres with over 42,000 trees across the county!

OSMRE VISTA Alexa Kramer

Photograph by Jenna Fehr.

Spring Rain Garden Workshop and Walking Tour

On April 28, in conjunction with the Blue Mountain Green Vision project, a special Rain Garden Workshop and Walking Tour was held on the Blue Mountain School District Campus for the public. Schuylkill Headwaters Association and the Master Gardeners partnered to hold the evening event. The night started with an introduction by SHA, informing attendees about how the Blue Mountain project got started and how the eighth grade class was heavily involved. Next, the Master Gardeners discussed why rain gardens are beneficial to have on your property, how to pick a location and install a rain garden, and how to select native plants that will thrive in the rain garden. They discussed several different stormwater best management practices (BMPs) and explained the importance of having these BMPs on personal property.

After the indoor presentation, the group walked outside to the site of the rain gardens and got to see firsthand what they look like. They saw the newly constructed bioswale that was not yet planted and also the rain garden that was completed in 2014 and had one year to mature. SHA further explained the Blue Mountain projects, and gave attendees the opportunity to ask questions and get advice for what to do on their own properties to mitigate stormwater runoff and erosion problems.

At the conclusion of the program, painted rain barrels were given away to three lucky attendees. The barrels were donated by Yuengling Brewery and then the Blue Mountain High School Art Club painted the barrels and returned them to SHA to give away. The Art Club got to paint their own barrel and keep it on campus. Through the event, we hope to inspire a new community-based approach to stormwater management in the Orwigsburg community and other communities in the county.



Photographs
by Alexa
Kramer.

Thinking of installing a rain barrel on your own property?

Schuylkill Headwaters Association currently has 12 white barrels available. These barrels can easily be turned into rain barrels by purchasing a DIY kit with the proper fixtures. There is no cost for the barrels, but donations are accepted. To get a plain barrel for your own property that you can turn into a usable rain barrel, contact Alexa Kramer, Outreach and Education Coordinator, at outreach@schuylkillheadwaters.org or (570) 622-3742, ext. 119.

Gearing up for the 2nd Annual *Schuylkill Acts & Impacts Expedition*

On Saturday, July 11th, fifteen students from communities throughout the entire Schuylkill River Watershed will embark on a week-long expedition that starts in the headwaters of the river in Schuylkill County and ends 125 miles downstream in Philadelphia. This is the second year for *Schuylkill Acts and Impacts: An Expedition to Inspire Watershed Action*, and this year it is being led by Schuylkill Headwaters Association, Fairmount Water Works, and Take It Outdoors Adventures, along with over 20 partners and sponsoring organizations.

The final team was selected in May of 2015 and represents the diverse communities found within the five counties of the Schuylkill River Watershed. The participants include Yang Heppe (Freshman, Gillingham Charter School), Dominic Krammes (Freshman, Blue Mountain HS), Josh Ferraiolo (Freshman, Blue Mountain HS), Vanessa Colon (Junior, Conrad Weiser HS), Kayla Graff (Junior, Kutztown Area HS), Kylie Wirebach (Junior, Conrad Weiser HS), Michael Silver (Sophomore, Governor Mifflin HS), Evan Hanney (Freshman, Upper Perkiomen HS), Ryan Casola (Freshman, Upper Perkiomen), Sarah Scanlin (Freshman, Colonial HS), River Chesky (Junior, Colonial HS), Jordan Meriwether (Junior, Science Leadership Academy), Frankie Murphy (Freshman, Science Leadership Academy), Zach LaBoy (Junior, AIM Academy), and Jakub Zegar (Graduated Senior, Central HS).

On Saturday, June 20, the selected team met at the Eastern Mountain Sports store in Collegeville for a two-hour orientation with Schuylkill Headwaters Association staff, Fairmount Water Works staff, and Take It Outdoors Adventures guides. The orientation gave the students a chance to get to know one another before the expedition, but more importantly gave them some background information on what issues will be studied throughout the week. The students spent the afternoon participating in team building activities, getting an overview of activities for the week, and going over a packing list. The students got some physical activity in while doing the team building exercise, and also got to show a bit of their competitive sides!

The Schuylkill Acts & Impacts expedition will begin on Saturday, July 11 at Locust Lake State Park in the headwaters of the river. Since the 2014 pilot program was so successful, this year's trip will follow much of the same format as last year. First, the students will participate in a paddle school and go over safety for the three days they will spend kayaking on the Schuylkill River. In Schuylkill County, the Schuylkill Acts & Impacts team will be touring the No. 9 Coal Mine, located in Lansford, PA and discussing the history of anthracite coal extraction and its legacy along the Schuylkill River. They will also be visiting various abandoned mine discharges and treatment systems constructed by the Schuylkill Headwaters Association and Schuylkill Conservation District to do water quality testing. In Berks County, the students will study the impacts of agriculture on the Schuylkill Watershed. With the Berks County Conservation District, the team will visit several farms that have installed Best Management Practices (BMPs) on their properties and discuss how these actions have reduced pollution and erosion along tributaries of the Schuylkill River. The students will participate in a half-day service project in Berks County. In Chester and Montgomery Counties, the Schuylkill Acts & Impacts program will target the issues of development, sprawl, and land preservation. Students will interact with representatives from the Natural Lands Trust, Green Valleys Watershed Association, Schuylkill River Heritage Area, Valley Forge National Historical Park and Lower Merion Conservancy. Finally, in Philadelphia the Fairmount Water Works and Philadelphia Water Department will lead the students on a comprehensive tour of the challenges facing clean water in the city and demonstrate how these are being addressed through green infrastructure projects.

There is still
time to
sponsor a
student!
Contact
Alexa
Kramer at
oureach@sc
huykillhead
waters.org.

Over 25 different organizations, agencies, businesses, and individuals have contributed or will contribute resources – both financial and in-kind – to make this year’s *Schuylkill Acts and Impacts* expedition a success. We would like to express our thanks to the organizations, groups, and individuals who contributed over \$6,000 to sponsor students on the program. Thank you: Schuylkill River National and State Heritage Area, Reading Area Water Authority, Tulpehocken Trout Unlimited, Schuylkill Conservation District, Schuylkill Trout Unlimited, Green Valleys Watershed Association, Robert Kahley, Schuylkill County Conservancy, The Ashland Foundation, Lower Merion Conservancy, Partnership for the Delaware Estuary, and the Philadelphia Water Department.

We are still in need of organizations to sponsor a student, since the total cost of the expedition remains at \$15,000. If you would like to sponsor a student or a meal, please contact Alexa Kramer, Education and Outreach Coordinator, at outreach@schuylkillheadwaters.org or 570-622-3742 Ext. 119.

Bear Creek First – AMD Chalk!

This year the 14th Annual Bear Creek Festival was held on May 17th. SHA entertained attendees this year by letting them make their very own abandoned mine drainage (AMD) chalk! It was the first time doing this particular activity but it proved to be a success. The chalk was made by using a mixture of plaster of paris and dried iron oxide from an AMD treatment system. The mixture was transferred to a trout-shaped plastic mold, where it was left to harden for about 30 minutes. Through this activity, participants got to learn what abandoned mine drainage is, and also got to have fun using it. They all got to take home a piece of AMD chalk to remind them of the efforts of organizations like SHA who are trying to clean up the river and make people more aware of the environmental effects of AMD. We look forward to the 15th Annual Bear Creek Festival in 2016 and hope to see everyone there again.



Pavilion to Be Installed at Mary D AMD Treatment System

Schuylkill Headwaters Association was awarded a DEP Environmental Education grant to build a sheltered learning station at the Mary D AMD treatment system located in Schuylkill Township. The pavilion will be one of the first installments to the Mary D Outdoor Learning Lab, where local teachers will be able to bring their students for an outdoor hands-on learning experience. Many different topics can be studied at the Mary D system such as abandoned mine drainage, wetland plant identification, tree identification, macroinvertebrate studies, and water quality parameters like pH, iron, acidity, alkalinity, temperature, and dissolved oxygen. With the addition of a pavilion, or sheltered learning station, students and teachers will have a location to get out of weather conditions such as hot sun or rain, a place to eat lunch, and somewhere to sit and take notes or have class discussions. The pavilion will allow SHA to reach out to more schools and other groups who will now be able to utilize the Mary D treatment system as a learning tool. If you are a teacher or educator interested in setting up a tour with SHA at one of our AMD treatment systems, contact Alexa Kramer at outreach@schuylkillheadwaters.org or (570) 622-3742 Ext. 119.



CONTACT US:

P. O. Box 1385
Pottsville, PA 17901
570-622-3742, ex. 118

outreach@
schuylkillheadwaters.org

Upcoming Events

July 11-18, 2015—Schuylkill Acts & Impacts Expedition

The 2nd Annual Schuylkill Acts & Impacts: An Expedition to Inspire Watershed Action will start in Schuylkill County and conclude 125 miles downstream in Philadelphia. 15 students will be camping, kayaking, and most importantly learning about different impacts that affect the Schuylkill River.

Wednesday, July 8, 2015—MRAB Tour of Schuylkill County Sites

The Mining and Reclamation Advisory Board will be coming to Schuylkill County to take a tour with Schuylkill Headwaters Association and the Schuylkill Conservation District. Several different mining sites and treatment systems will be visited.

July 27, 2015-August 1, 2015—Schuylkill County Fair

Schuylkill County Fairgrounds, 2270 Fair Road, Summit Station, PA
Come enjoy high quality entertainment, excellent displays and a showcase of Schuylkill County agricultural products, crafts, and art. Free parking.

Saturdays and Sundays throughout the year, various times

Schuylkill on the Move 2015 Walks. Schuylkill on the Move (SOM) promotes positive steps towards good health through walking. For a schedule of guided walks, please contact Porcupine Pat at porcupinepat@yahoo.com or 570-622-3742, ext. 113.

Schuylkill Headwaters Association, Inc.

P. O. Box 1385
Pottsville, PA 17901
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