

SUNDAY CREEK

SPLASH

FALL 2005

Project Updates

There are many reclamation projects on the design table for our watershed that should be completed in the coming year.

- We have held preliminary design meetings for the Pine Run and Rodgers Hollow stream captures, and for the West Branch Headwaters discharges, stream capture and gob pile. Construction for these sites is scheduled to begin in the next 1-2 years.
- Plans are underway with the Ohio Department of Natural Resources and with the consulting firm ARCADIS to conduct a pilot study of the Corning discharge. The goal is to determine whether a particular technique may be feasible for treating the acid mine drainage originating from this minepool. Other parties are interested in reclamation and funding options for the project.
- We have secured a grant from the Office of Surface Mining to hire an intern in the fall. The intern will focus on feasibility and design for reclaiming the Truetown discharge. The Truetown discharge contributes an average of 4,344 kg/day of acid and 1,966 kg/day of iron directly into the Sunday Creek, making it the single largest contributor of acid mine drainage to the watershed.

This is a very exciting time for our watershed group, we are looking forward to seeing our AMDAT (Acid Mine Drainage Abatement and Treatment Plan), Management Plan, EPA 319 grants and preparation put into motion.

Why is Flooding More Frequent?



Over the past few years, flooding has plagued the Sunday Creek Watershed, causing costly damage to homes and businesses. Factors other than the weather may be playing a role in causing the increased flooding. Alterations in the natural environment can affect the frequency of flooding in a watershed. Mining, in particular, is one practice that has historically caused these types of alterations.

Mining that occurred before current environmental protection laws were instituted changed the contour of the land. Modifying the shape of the land alters where and how water flows. When the drainage pattern of the watershed is changed, water might be routed to developed areas or to places incapable of holding large amounts of water.

Changing the contour of the land is not the only way abandoned mines can cause flooding. Mined lands or gob piles that have not been replanted with vegetation have higher erosion rates than reclaimed land. Higher erosion rates result in more dirt shifting from the hillsides to the waterways. The extra sediment makes streams shallower by filling the stream channel. As a shallower stream can't hold as much water, flooding occurs with smaller amounts of rain. Storms capable of producing large floods occur more frequently.

Even after an area is reclaimed, the risk of increased flooding remains. Land reclaimed with grasses has a higher runoff rate than land reclaimed with trees and forests. Until forests replace the grasslands, higher runoff rates can cause flooding.

Decreasing future flooding is one of the important aspects of the Sunday Creek Watershed Group's mission. By planting trees, reducing erosion, and rerouting water away from mines, the SCWG is working to restore natural flood control.

Source: Ohio Department of Natural Resources. *Ask Before You Build: A Guide for Landowners, Developers, and Local Official to Better Assess Abandoned Mine Lands Before Building*, page 12.

Sunday Creek Watershed Group



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The Sunday Creek Watershed Group Newsletter is published winter and summer of each year with the help of our sponsoring agency Rural Action (www.ruralaction.org). Inquiries are welcome.



Dyana Fiediga, *Editor*

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This publication was financed totally or in part through a grant from the Ohio EPA and the US EPA, under provisions of Section 319(h) of the Clean Water Act.



Printed with soy ink on 100% post-consumer recycled paper by Tribune Quality Printing.

SCWG Teams Up with Athens H.S.

Chuck Simmons, Athens High School Ecology Teacher

The Sunday Creek Watershed Group teamed up with high school students to propel them to a statewide environmental competition in June. The Athens High School (AHS) 2004-2005 Envirothon Team, the Planeteeers, competed against 20 teams across the state in the 2005 Canon Envirothon, held at Hiram College June 12-14.

At the state competition, the team fielded questions relating to wildlife, forestry, aquatics, soils and environmental issues. This task was made easier with help from the Sunday Creek Watershed Group. Throughout the spring, the SCWG took the students on tours of the watershed to help them learn about water quality. Chemistry tests and aquatic animal collection and identification were completed at sites known to have good water quality as well as areas affected with acid mine drainage.

The Athens High School Envirothon Team would like to thank Cara Hardesty and Dyana Fiediga for their knowledge, guidance and continued support. Team members included: Mike Simpson, Zeke McLean, Clare Bruggeman, Stuart Lambert and Jessica Bennett. Advisors for the Envirothon Team are Chuck Simmons and Sabrina Stalder.

Working Systems

The Septic System Upgrade Cost-Share Program is steadily moving along with seven homeowners having completed an installation or upgrade to their septic system. Nine more have been approved by the Athens County Sanitarian, Marco Deshaises. The grant, which reimburses qualified homeowners 75% of the total cost up to \$4,500 dollars, ends in 2007. Eight spots are still open. If you are interested, stop by our office at 69 High St. in Glouster to pick up an application or give us a call at 740-767-2225.

Thank You SCWG Members

We would like to thank the following people and organizations for recently becoming members or renewing their memberships:

- Zach Beyers
- Dr. and Mrs. A.P. Smith
- Larry and Jane Schaenian
- Nancy and Richard Jackson
- Mary Stoertz

Do you know... how long that aluminum can you threw out of your car window will last? It could still be sitting along the road for up to 100 years from now. Litter takes longer to decompose than most people realize.

<u>Trash item</u>	<u>How long it lasts</u>
Aluminum cans	80-100 years
Cigarette Butts	1-5 years
Orange Peels	Up to 2 years
Glass Bottles	1 million years
Paper	2-5 months
Plastic bags	10-20 years
Plastic film container	20-30 years
Plastic Bottles	Indefinitely!
Styrofoam	Never!

See page 6 for more tips and facts.

SCWG 3rd Annual Spring Benefit Dinner

Cara Hardesty, Watershed Coordinator



Ben McCament passes the prestigious 'Keeper of the Fish' award on to Jo Frasure.

On March 19 we held our 3rd annual Benefit Dinner. We would like to thank the members of the Gloucester Moose for donating the upstairs of their Lodge for the event. Lasagna was served to the more than 80 folks who attended and who helped us raise over \$800.

One of the most important reasons for holding the dinner was to provide an opportunity to thank volunteers who have helped us throughout the year. Jo Frasure of Corning received the prestigious 'Keeper of the Fish' award. Jo has dedicated oodles of energy, time, materials, creativity, intelligence and experience in countless ways to our group. We are especially grateful for her help organizing various fundraising events, for being an active Vice-Chairperson and for keeping us on track as a watershed group.

Colorful and interesting items were auctioned at a Chinese Auction and raffle. We thank Dyana Fiediga for all her work soliciting and procuring these items from 34 local businesses. The fun continued throughout the evening during the reverse raffle- I'd tell you the details, but it's much more fun to experience it for yourself! We plan to continue the Chinese Auction and raffle tradition at future dinners. We hope you can make it for the food, fun and good company at our next one in March 2006!

Total Maximum Daily Load Study Completed

Cara Hardesty, Watershed Coordinator

The Ohio Environmental Protection Agency (OEPA) has completed the Total Maximum Daily Load (TMDL) study for the Sunday Creek watershed. A TMDL is required by the Clean Water Act of 1977, and establishes water quality standards on a watershed scale. Basically, the study sets water quality standards, which determine the amount of various pollutants that may enter a stream before they negatively impact aquatic life, and identifies streams that need to be cleaned up and/or protected from future pollution.

This was a long and detailed undertaking, involving a comprehensive study of the water quality in the Sunday Creek and its tributaries. This study involved collecting and analyzing water and sediment chemistry, bacteria, and conducting analyses of the physical habitat of the streams and the macroinvertebrate and fish communities found in them. These data, which were collected by the OEPA and our watershed group, were compared with historical data of our watershed, data from our watershed group and with standards from other watersheds.

Now that the total allowable load of pollutants has been determined, the goal is to work towards lowering these contaminant limits back to a level where streams are fishable and swimmable again, and to where the streams can support a healthy diversity and abundance of fish and macroinvertebrate species.



Locations of environmental monitoring stations within the Sunday Creek Watershed.

The electronic draft is available on the OEPA web site at:
<http://www.epa.state.oh.us/dsw/tmdl/SundayCreekTMDL.html>

Sunday Creek News in Brief

May 7th - Trash Pick Up

A total of 33 tires, 25 bags of trash, a couch and numerous old television sets (approximately 1 ton of trash) from Scenic Rd. in Drakes across from the Congo Run Reclamation site. 9 volunteers assisted in the clean up.



May 13th - OU Volunteer Trash Pick Up

6 Ohio University volunteers picked up trash on the side of Oakdale Rd. in Glouster Village and Glouster Township. 12 tires, 3 televisions and 12 bags of garbage were collected.



April 9th - Tree Planting

100 seedlings were planted near Trimble High School to reinforce the riparian zone. A total of 25 volunteers put in their hard work on a sunny weekend day to make this happen. As of August 1st, 83 trees were still alive.



Three-day Summer Watershed Day Camps

Camp I: June 28-30 in Chauncey had 9 participants!
 Camp II: July 5-6 in Corning had 12 participants!
 Camp III: August 2-4 in Glouster had 13 participants!

A big **"THANK YOU"** to everyone who volunteered their time and efforts to making each of these events a success!

The Forest Stewardship Workshop

Learning how to gather woodland data and how to manage woodlands wisely are valuable conservation skills. So the staff of the Sunday Creek Watershed Group was pleased to collaborate with Rural Action Sustainable Forestry in a recent workshop about oak ecology and tree regeneration. Fourteen area landowners came out to participate on the 24th and 25th of June.

The workshop, which included sessions at the Glouster Depot and at the Sleepy Fox Farm Bed and Breakfast in Homer Township, taught landowners how trained woodland stewards develop written management prescriptions. Participants also gained experience with topographic maps, aerial photos, forest inventory equipment, compasses and GPS units, and learned how these tools can be applied to woodland management.

Cost for the workshop was \$10 for members of Rural Action (which includes members of the Sunday Creek Watershed Group and Rural Action's Sustainable Forestry Program) and \$20 for non-members.

Interested in participating in a workshop like this one? Please contact Jessica Smith (Jessica@sundaycreek.org or 740-767-2225). Fieldwork will be completed in collaboration with Carlen Emanuel, a forest ecologist, during the end of September until mid October. Participants do not necessarily need tree identification skills to succeed. Additionally, Rural Action Sustainable Forestry Program has made some forest inventory equipment (diameter tapes, prisms, Biltmore sticks, surveyors tape, stakes) available to purchase or borrow.

SCWG Wish List

- Boots (kids & medium adult sizes)
- Waders
- Copying Machine
- Digital Camera
- Vacuum Cleaner
- CD-Rom Drive
- Canoe
- Extension cord
- Murelac paint in bright colors

Sunday Creek's New VISTA, Elizabeth Kruse



I joined the crew at the Sunday Creek Watershed Group in July 2005 as an AmeriCorps VISTA. Originally, I am from Fort Wayne, Indiana. I graduated just last May from Purdue University with a Bachelor's degree in chemistry. When I began at Purdue, I had planned on being a research chemist, but after a couple of summers of interning, I realized that being a traditional chemist was not for me. Maybe it was the fact that I had to wear lab goggles and a white coat all of the time that pushed me over the edge.

Eventually, I stumbled into an internship with the Indiana Energy and Recycling Office, which started my interest in environmental issues. After learning more about environmental policy and engineering, I chose to pursue a career in environmental law. However, before I gave my life and my soul to the legal profession, I decided to delay law school a year to gain more experience in environmental conservation and to dedicate a year to volunteer service. I was thrilled to be offered an opportunity to do just that through the AmeriCorps VISTA program and the Sunday Creek Watershed Group.

I have truly enjoyed relocating to this area. Once I got used to always driving uphill or around curves, I really started to appreciate the wonderful scenery here. I also enjoy the local arts, from bluegrass music to art galleries at Nelsonville's Final Fridays. I'm really excited about being here and working this year toward preserving the natural beauty of the Sunday Creek Watershed. Feel free to contact me anytime at Elizabeth@sundaycreek.org.

Re-announcing the 2005:

"Get Creative in Sunday Creek" Contest

Dyana Fiediga, AmeriCorps VISTA

Summer has come and gone and as winter approaches the leaves will soon complete their cycle and again add nutrients to nature's core. The time is now, and it is now that creativity should continue to flow as the leaves fall to the cold breeze winter brings in. We are happy to announce that the "Get Creative in Sunday Creek" contest deadline has been extended until November 18 to give the autumn lovers a fair chance to express themselves and their love and appreciation for the Sunday Creek. Again we want to invite you to capture this beauty on film, canvas, in words, or through whatever medium you choose!

Entries will be divided into three categories: photography, art and the written word. The winner in each category will have a poster made and distributed throughout the area with a reprint of their work. In addition, first place winners will receive a free Sunday Creek t-shirt and membership. We will feature the top 12 entries (four from each category) in a Sunday Creek calendar, which all 12 people will receive free.

As an added bonus, artists and writers in grades K-12 may also submit the same poems or artwork to River of Words." This annual international contest is always based on a watershed theme, and the next submission deadline is in February 2006. Please visit www.riverofwords.org to learn more.

For more information, including maps and additional sites, please visit our office at 69 High St. in Glouster or contact us at 740-767-2225. To submit an entry, e-mail us at scwg@frognet.net or bring it to the SCWG office.

Rules:

- Entries must arrive by November 18, 2005. Maximum 3 entries per person.
- All ages are encouraged to enter. Entries will be judged in separate age categories if a large number are submitted.
- Entries should focus on natural areas of the watershed, such as Sunday Creek and its tributaries, Burr Oak, Wayne National Forest, flora and fauna.
- Entries that use materials gathered in the watershed, such as wood or clay, also qualify. Some man-made structures, such as bridges, can also be depicted.
- Entries can be submitted digitally or as hard copy.
 - The art category includes paintings, drawings, woodwork, pottery, found art and sculpture.
 - The written word includes fiction, nonfiction, poetry and prose.



Tips & Facts



Litter found in the Sunday Creek Watershed.

Do you know...*(continued from page 1)*

Littering makes our environment unattractive and requires precious funds and energy for cleanup. Some litter like cigarette butts and electronic equipment can even release toxic chemicals to the environment. Despite this, cigarette butts are the most frequently littered item. Please remember to dispose of waste properly. Don't forget to recycle when possible, especially materials that do not readily decompose such as glass, aluminum, and plastic. If you are interested in learning more about waste and recycling in this area, you can schedule tours of the Sunday Creek watershed and the Athens-Hocking Recycling Center and the Athens-Hocking Reclamation Center Landfill through the Sunday Creek Watershed Group.

Properly disposing of waste is not only good for the environment, but its good for the local economy as well. The Athens-Hocking Recycling Program generates more than \$1.5 million dollars of economic activity annually in Athens and Hocking counties. Currently, 21 full-time jobs have been created by individuals in Athens and Hocking counties who sort out recyclables.

Bottom line: Be responsible for what you consume and where it goes afterwards!

Check out this web site: <http://home.frognet.net/~recycle/info.htm>

By: Elizabeth Kruse, AmeriCorps VISTA. Sources: Red Rock Canyon National Conservation Area and Athens-Hocking Recycling Center

Interesting Water Facts:

Availability

80% of the earth's surface is water.
97% of all the earth's water is ocean or seas.
2% of the world's water is frozen and therefore unusable.
1% of the earth's water is suitable for drinking water.

Measurements

One gallon of water weighs 8.34 pounds.
It takes 219 million gallons to cover one sq. mile with one foot of water.

People

Americans drink 50 billion glasses of tap water every day.
66% of our body is water. 70% of our skin is water.
75% of our brain is water. 83% of our blood is water.
90% of our lungs are water.

At Home

The average residence uses 107,000 gallons of water per year.
2-7 gallons water is used to flush a toilet.
2 gallons of water is used to brush your teeth.
25-50 gallons of water is used in the average five-minute shower.
On average, 9-12 gallons of water is used for an automatic dishwasher;
20 gallons water to hand wash dishes.

Food

Cows have to drink 4 gallons of water to produce one gallon of milk.
It takes 3.6 gallons of water to process a pound of meat.
It takes 9.3 gallons of water to process one can of fruit or vegetables.
It takes 10 gallons of water to make one can of soda.
It takes 11.6 gallons to process one chicken.
It takes 1,500 gallons to process one barrel of beer.

Other Products

It takes 5.4 gallons to make one board foot of lumber.
It takes 55 gallons to make one pound of synthetic rubber.
It takes 101 gallons to make one pound of wool or cotton.
It takes 1,360 gallons to make one ton of cement.
It takes 1,851 gallons of water to refine one barrel of crude oil.

Transportation

The steel in a 30-pound bicycle requires 480 gallons.
It takes 32,000 gallons of water to manufacture a car.

(adapted from www.nypirg.org)

Just Think! Every day can be Earth Day if you choose to spend your time and money in an earth-friendly manner. For instance, did you know what a difference using earth-friendly dish and laundry soap could make? Consider these facts:

- If every household in the United States replaced just one 28-ounce bottle of petroleum-based dishwashing liquid with 28 ounces of vegetable-based product (for example, the Seventh Generation brand available at Kroger and Trader Joe's), we could save 118,700 barrels of oil per year. That's enough to heat and cool 6,800 U.S. homes for a year! In addition to being safe for the environment, most vegetable-based cleaning products do not pose any chronic health risks.

- If every household in the United States replaced just one box of 42-load petroleum-based laundry powder with a vegetable oil-based laundry detergent, we could save 217,000 barrels of oil, enough to heat and cool 12,500 U.S. homes for a year!

- If you prefer liquid laundry detergent, you can still be eco-friendly. If every household in the United States replaced a 100-ounce container of liquid petroleum-based laundry detergent with a vegetable-based laundry detergent, we could save 200,000 barrels of oil, enough to heat and cool 11,400 U.S. homes for a year!

- You can reduce your use of oil products without even spending a single penny more. Next time you are at the grocery store and they ask the infamous question "Paper or Plastic?", make the renewable choice. Think about it! Most plastics are made from oil, which takes millions of years to be created, while paper can be recycled, composted, or burned cleanly for energy recovery.

Simple choices can add up! Always remember you can make a difference every day!

By: Jessica Smith, Project Assistant. Sources: NYPiRG Watershed, U.S. Environmental Protection Agency, Jefferson University, City of Norman Oklahoma, USGS, The Universities Council on Water Resources, American Water Works Association, Louisville Water Company

WATER SAVING TIPS!

You can protect the Sunday Creek in and around your own home. Here's how:

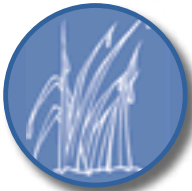


APPLIANCES An outdated showerhead wastes 20 extra gallons a day or 7,200 gallons a year - and that's just for one person! An average family of four can save 14,000-17,000 gallons of water a year by replacing pre-1993 toilets with new high-efficiency ones. High-efficiency toilets, washing machines and dishwashers not only save our rivers, they save us money.



VEHICLES Leaky cars leave drips or puddles of motor oil and other fluids on our streets and driveways. When it rains, these contaminants run down our streets, through the storm drains, and into our rivers. So clean the stains on your driveway or street and fix car leaks right away. Preventing polluted run-off will help keep our rivers and drinking water safe

One quart of motor oil can pollute 250,000 gallons of river water, so use a large pan if you are changing motor oil yourself. Never pour leftover oil down a storm drain or into the trash - instead, drop it off at your local hazardous waste center.



LAWNS Water evaporates quickly during the middle of the day. Remember, a lawn only needs 1 to 1.5 inches of water per week, and you can set out a can to measure for you. Watering less creates deeper, stronger roots and a healthier lawn. Or you could try letting the lawn go brown, as nature intended during summer months. Another option is to plant native plants.



HOUSEHOLD CLEANERS Choose safer, multi-purpose cleaners marked with only a "Caution" warning, rather than products with "Poison" and "Danger" on the label. Avoid chlorine, phosphate products and solvents like paint thinner.

Adapted from riversmart.org

Watershed Information from the OEPA

To acquire information pertinent to our watershed from the Environmental Protection Agency (EPA), our office has requested material the Clean Water Act of 1972 requires the EPA to collect and compile. We are also in the process of acquiring and summarizing information from the National Water Quality Inventory: Report to Congress (Section 305(b)), the List of Impaired Waters (Section 303(d)), the List of Permitted Discharges, Key Permits and Summaries of Discharge Monitoring Reports (Section 304) and Basin-wide Water Quality Plans (Section 208).

The following summarizes findings from a study conducted by the Ohio EPA in the summer of 2001:

- The primary point source dischargers for the Sunday Creek basin are the Trimble Township wastewater treatment plant and Buckeye Mine #2.
- Non-point discharges are primarily from mining and secondarily from agriculture (with greater agricultural impacts in the upper tributaries).
- Acid mine drainage (AMD) is a major source of water quality impairment, particularly downstream of the Corning and the Truetown discharges.
- The pH is below the acceptable value of 6.5 to meet warm water habitat standards throughout most of the mainstem. Iron downstream of the Corning and Truetown discharges exceeded agricultural water supply standards of less than 5 milligrams per liter.
- The West Branch, Pine Run and Congo Run subwatersheds are all impacted by mining, including AMD and subsidences.
- Diesel fuel and oil spills have occurred in several unnamed tributaries to the West Branch (three were found near Oakdale Road in Trimble Township between 1998-2002).
- The East Branch is not highly impacted by AMD. However, ammonia levels exceed warm water habitat criteria there, and one of the highest levels of fecal coliform bacteria was found at an East Branch sampling location. Both of these impairments are likely due to unrestricted livestock.

Sunday Creek Watershed Events- Fall 2005

Wednesday September 28th – Public Meeting

The SCWG will be hosting a public meeting at the watershed office (69 High Street in Glouster). The potluck begins at 6:30p.m., the meeting starts at 7:00 p.m.

Saturday October 15th - Trash Pickup

The SCWG will be hosting a trash pickup with numerous Girl Scouts from around the state. The site is yet to be announced. We will meet at the watershed office to begin at 10:00a.m. We will supply gloves and trash bags.

Wednesday October 26th - Public Meeting

The SCWG will be hosting a public meeting at the watershed office. The potluck begins at 6:30p.m. From 7:30-8:30p.m. Bryce Good, an engineer working on the West Branch headwaters project, will be presenting.

Saturday November 5th - Buckeye Trail Trash Pick Up

The SCWG is organizing a large trash pick up on the Buckeye Trail which runs through the Trimble Wildlife area until it meets up with Smoke Rise Ranch. We will meet at the watershed office at 9:00a.m. to begin. Wear boots, pack a lunch, and bring water. We will supply gloves and trash bags.

Friday November 18th - Get Creative Contest

Have your Get Creative submissions turned in by this date to be eligible to win a free Sunday Creek t-shirt and a free SCWG membership. Enter in one of three categories: art, photography, or written word.

Wednesday November 23rd - Public Meeting

The SCWG will be hosting a public meeting at the watershed office. The potluck begins at 6:30p.m. From 7:30-8:30p.m. Carlen Emanuel from The Nature Conservancy will be presenting about the American Chestnut and efforts to return it to this area.

Saturday December 10th – Tree Planting

The SCWG is organizing a large tree planting on the Congo Run Reclamation Site. We will meet at the watershed office to begin at 9:00a.m. Wear boots and bring a sack lunch, some water and a sense of accomplishment. We will supply gloves.

“Want to look really cool and support our cause? Buy one of our new T-shirts made from organic cotton and water-based dye for only \$15!”

For more information about any of these events, please contact the SCWG office at 740-767-2225 or e-mail us at scwg@frognet.net.

**Sunday Creek
Watershed Group**



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