

Iron Oxide Art at Artists Hand Gallery

If you stop by the Artists Hand Gallery anytime during the month of November, make sure to look at Evergreen Conservancy's Iron Oxide Art display. Proceeds from the sales benefit Evergreen. There are some amazing ceramic pieces, paintings, and a wooden bowl from Ron Moretti. Thank you to all the artists who donated pieces and thank you to the Artists Hand Gallery for allowing us the space!



Marion Center Lions

Malcolm and Kelly visited with the Marion Center Lions in October and gave a short presentation about Evergreen. Many of their members live near Tanoma, and they were happy to learn more about the organization. They treated us to dinner and made a \$25.00 donation. Thank you, Marion Center Lions, for your generosity!

New Grant Work

Kelly was hard at work doing grant applications for several different grants to help cover the costs of our new water wheel, the VISTA co-share costs, and a few other projects. We will keep you updated as we hear news.

Evergreen has just been awarded \$1000 from the Appalachia Reforestation Initiative – more info to come.

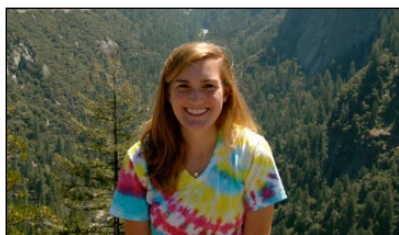
Vista Position

Kelly Cossey has now completed her one-year Vista volunteer position and has moved on to another position in Danville, Virginia. She did a great job and we wish her well in her new job. Brooke Esarey is taking over Kelly's responsibilities with a seamless transition.



Hello to Brooke

Hello! My name is Brooke Esarey and I am the new OSM/VISTA volunteer for the Evergreen Conservancy and Crooked Creek Watershed Association. I grew up in Indiana County and graduated from Blairsville High School in 2007. I completed my undergraduate studies in 2011 with a degree in Chemistry from Denison University in Ohio. I have since moved back to the area and will be finishing a Masters degree in Environmental Science and Management from Duquesne University this December. I have a passion for all things environmental—conservation, restoration, renewable energy, you name it! After working for two years in industry, I am excited for a change and look forward to a year of non-profit work while in this position. I can't wait to get started!



Goodbye to Kelly

Christmas Suggestions

Don't forget your dog and cat at Christmas. We will have quality 1 pound bags of dog biscuits for \$10.00 a bag, and cat nip toys for \$3.00 each. And don't forget your chocolate loving friends. We will be selling handmade chocolate - ¼ pound for \$5.00. Place your orders now! First come, first serve. Quantities are limited. Come to the Unitarian Church on Twolick Drive in Indiana on December 7th to do your Christmas shopping! Or see what we have to offer on our web site.

All proceeds from sales go toward our environmental projects or our environmental education programs.

Membership

July 1st was the start of our new 2013/14 membership year. If you have not done so already, please renew your membership and help support the important work done by Evergreen Conservancy.

If you think Environmental Education, water protection, and monitoring our county is important, and you support the many projects Evergreen is involved with, we need your support.

Evergreen Up-Coming Events Calendar:

December 7th, 2013

We will have a sales table at the UU Church. Come on out and purchase your Christmas presents at the annual Christmas Bazaar. There will be lots of handmade quality items there.

December 15th, 2013

Festival of the lights: Evergreen will once again be at the gates in Blue Spruce Park to help collect gate money. If you would like to volunteer to help take a shift and get in the holiday spirit, let us know.



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"Improving Our Quality of Life"

Fall Newsletter, 2013 #31

Geocaching 101 - Evergreen Conservancy Fall Event.

It was a cold November evening – November 8th. Some 40-50 individuals learned something new about geocaching – some more than others. It was Evergreen Conservancy's fall event. Sierra Davis and Tyler Allen kept middle schoolers' and seniors' attention with a powerpoint presentation about the history of geocaching, local geocaching activities, and how to get started.

Although Sierra and Tyler are college students they are not geocaching novices. Sierra is geology major and has been geocaching for about as long as geocaching has existed. Tyler Allen is also a geology major and is the Northeast Region Chief of the Boy Scouts.



After their presentation Sierra and Tyler led us outside in the cold darkness in search of hidden treasure. A passer-by would have seen an equal number of senior citizens and preteens with flash lights and smart phones following a mystical arrow. All eventually returned to the Blue Spruce Lakeside Center for light snacks and hot drinks.



September 6&7 - The First Northern Appalachian Folk Festival was a success!

On September 6th and 7th, the Northern Appalachian Folk Festival took over Downtown Indiana for a weekend full of great music, food, vendors and workshops. It was a huge success! Evergreen had a booth that included the renewable energy bike display. We had a lot of foot traffic, and many people stopping by to ride the bike and learn a little about Evergreen. Way to go, Cindy and all those who were involved, for putting on such a fantastic event. We can't wait until next year!



Septemberfest

On September 28th, Cindy and Kelly set up a table for Evergreen at Yellow Creek State Park's Septemberfest. It was a beautiful day at the lake, with free kayaking and canoeing, mountain bike rides, and a sailboat race. We sold a few items and talked to a lot of people!

EC Wins First Prize!

At the 12th Annual Ohio River Watershed Celebration Cruise Evergreen Conservancy took the top prize of \$500. The theme was "Working for Clean Water," and the EC display featured the telemetry dataloggers and stressed the partnership with the County's Emergency Management. Cindy Rogers, John Dudash, Joanne and John Ferraro and Kelly Cossey attended the event.

Evergreen Award - We need our Readers to Submit Names for this Award

Please think about a person or group that really deserves to be recognized for their stewardship of our environment. You can nominate them at any time. Send us information about that person and why you think they should be given our Evergreen Award. There is a form you can fill out on our web site or contact us directly with the information we need. We would like to present this award at our 2014 annual meeting in June.

OUR MISSION:

To advance the preservation, protection and stewardship of Natural, Cultural and Historical Resources in and around Indiana County, PA

Evergreen’s Website

www.evergreenconservancy.org

For The Latest News.



On Facebook

If you use Facebook, please go to our page and tell us if you like it. We can send you event notices and update you with current events! Become our Friend. [Like](#)



And on YouTube:

[About Evergreen Conservancy – crNa11j5J2M](#)
[Tanoma AMD Wetlands – yaGLM4Ob8Ks](#)
[Renewable Energy – S3VOATx0mRY](#)



Record number of volunteers turn out for fall trail clean up

Volunteers for Evergreen Conservancy’s October 26 clean up of the Hoodlebug Trail may have had to clear the frost off their windshield, but turn out they did. Twenty participated in a trail clean up that featured 11 IUP students mostly from Phi Etta Sigma Sorority

The trail appeared to be relatively clean as the group finished before 10:30. Most interesting was one party area that was littered with beer bottles and wrappers from various fast food establishments. Most interesting was the variety of brands of beer and that some bottles were never opened.

The large number of participants made it hard to estimate the number of bags filled but we believe nine.

The cross generation of volunteers enjoyed interacting with one another.

Thanks to Gabrielle Bradshaw, Emily Berg, Robin Dunlap, Kelly Cossey, John Dudash, Brooke Esarey, JoAnne and John Ferraro, Kiera Foster, Doris and Paul Hicks, Bob Lankard, Amanda Marks, Sarah McKinley, Haily Moody, Stacy Robertson, Timothy Slippy, Breanna Sullivan, Kayla Wentuth, and Catherine Zisk,

Chemistry Lesson: What is TDS? (and how is it related to Conductivity?)

by Brooke Esarey

In our last newsletter, we talked about conductivity in the article, “Dataloggers and water monitoring: what can conductivity tell me about water quality?” This issue we are going to connect conductivity to another measurement: Total Dissolved Solids (TDS).

TDS is a general measurement of the number of organic and inorganic particulates suspended in water. It includes many types of contaminants, like iron, calcium and magnesium, as well as nitrates, sulfates, and chlorides. Dissolved solids can affect the color and taste of water, as well as contribute to odor. High TDS is related to “hard” water, which can cause scaling, salty taste, and unsightly staining.

The EPA lists TDS as a secondary contaminate, meaning drinking water suppliers do not have to meet requirements for these contaminants. Instead, they list non-mandatory “secondary maximum contaminate levels” (SMCL) that can assist suppliers in providing high quality water to customers. The TDS SMCL is 500 mg/L.

In the last newsletter, we learned that conductivity is the measurement of how well water can carry an electrical current. Because conductivity and TDS are measurements relating to metals (cations and anions), we can estimate TDS if we know the conductivity using the following equation:

TDS = keEC – where ke is a correlation factor between 0.55 and 0.8 and EC is the electric conductivity in microsiemens/cm.

Our dataloggers collect conductivity measurements 24/7, so with that data we can estimate TDS. The more measurements we have about our water, the more info we have to protect it!

Environmental Education News

Stay tuned as we develop our schedules for the 2014 year. If there are programs that you would like to see scheduled please contact us at 724-471-6020 or through evergreenconservancy@gmail.com.

Sources: www.who.int/water_sanitation_health/dwq/chemicals/tds.pdf
water.epa.gov/drink/contaminants/secondarystandards.cfm
water.epa.gov/drink/contaminants/index.cfm
www.epa.gov/esd/cmb/pdf/JAG-TDSpublished.pdf

WHAT WE CONSERVE:

Wildlife Habitat • Stream Access • Scenic Vistas • Land in need of Restoration • Working Landscapes • Historic • Cultural Sites

Tanoma up-dates

Our new water wheel is in and running. It is supplying energy to our water aerators. The wind turbine and solar panels continue to run and generate electricity. We continue to monitor the water levels and chemistry with hand samples and our probe, which takes data 24/7.

The story book walk has been put away for the winter but you can still visit and walk the path to enjoy a beautiful fall day. If you came to our recent geocaching program, come out and find our geocache, GC208EA, “The Last Bridge”!



Water-Powered Generator

We’ve installed a new hydroturbine at Tanoma. It’s an Ampair UW 100 model of turbine and is ideally suited for good, fast flow in a shallow stream with no “head”– that is, water flowing with no significant drop in elevation. The water flow from the mine discharge is still coming out in the seasonally variable amount of 1500–2800 gallons per minute. The UW 100 looks a bit like the propeller of an outboard motor but works in reverse, taking the power from the water flow and turning it into usable energy. It will generate a continuous 24/7 100 W of electricity that feeds into our renewable energy system (which has both wind and solar generators as well) and powers our pavilion, shed, electric lawn equipment, and double-disk aerator. The aeration is intended to put dissolved oxygen into the mine discharge to speed up precipitation of the iron out of the water. There is some “irony” here (pun fully intended) in that the iron-polluted mine water is now being made to do work to clean itself up!

Dan Boone

Water Monitoring:

We have 33 data loggers in the streams at present. We just completed fall maintenance and recalibration of all the loggers.

If you are interested in becoming a water monitoring volunteer with this project, please contact us at info@evergreenconservancy.org. Time commitments vary, and we are looking for volunteers to come on our bimonthly (twice a month)downloads when their schedule allows!

Visit our web site to learn more about these projects... www.evergreenconservancy.org



The Aerator Pump is Powered by the Renewable Energy System.



Some of our data loggers are solar-powered.

Join Evergreen Conservancy Today!

Support the all-volunteer Evergreen Conservancy and its mission through your membership.

Name: _____ Phone: _____

Address: _____ E-mail: _____

City: _____

State: _____ Zip: _____

Membership Levels:

_____ \$15: Student	_____ \$25	_____ \$45	_____ \$70	_____ \$100
_____ \$1 Youth (17 and under)	_____ \$ Other	_____ \$75: Business/Org		

Additional Donation: \$_____

Complete this form and send check to:
Evergreen Conservancy, PO Box 0783, Indiana, PA 15701

