What’s Happenin’• • • • • • @ Canalway Center

We are well underway with our 2014/2015 Environmental Heroes session. We survived the long days of our two week summer session in August.

Our first day, August 4, involved some getting acquainted games, how to take and report the daily weather conditions, visiting our solar tins, exploring the bike trails and visiting the vernal pond that we have designated as the CEI Pond. Not bad for a first day!

We didn’t find any snakes at the solar tins but it wasn’t a total loss. We found some other nature friends hanging out on neighboring foliage.
On the way to the CEI Pond we explored various plant life and found some tiny amphibian friends along the way.

Vernal ponds (also called ephemeral, temporary, or seasonal ponds, pools, or wetlands) are areas that do not contain water year-round. Instead, these areas fill with water seasonally, usually with the onset of spring (vernal) or fall rains, and then dry up in the late summer. Vernal ponds are one of the most critical amphibian habitats.

Many predators of amphibians live in permanent bodies of water, including fish, invertebrate predators, and even other amphibians, such as American Bullfrogs and Northern Green Frogs. Many of Ohio’s amphibian species rely on the relative safety that temporary pools offer for egg-laying and the development of their larvae.
Day two we spent some time inside going over the tools we use to help us in our data gathering. Later we hit the trails to another vernal pond we call the Fire Pit Pond. This pond was pretty dry, mainly mud.

We had a little trouble with the tape measure after we measured the site.
Our third day was awesome! Mike Durkalec, a Cleveland Metroparks Aquatic Biologist, came to talk about Ohio wetlands and let us actually participate in collecting a variety of species from what we call the Frog Pond.
Our fourth day included a visit to the southerly plan of NEORSD where we learned how our wastewater is treated and sent back to Lake Erie. Here are the steps to our clean water:

1. First the water is screened to remove floating debris.
2. Next it is pumped to large settling tanks where heavy particles sink to the bottom. The grease that floats to top is skimmed of and removed.
3. Then comes the addition of microorganisms that basically live only to consume food particles and germs.
4. After a final bit of settling, chemicals remove any harmful bacteria.
5. Finally, the treated water is released to the Cuyahoga River and Lake Erie.
6. The solid waste created during treatment makes its own journey through processes that remove liquid, reducing the amount of sludge or biosolids. The remainder is either incinerated or hauled to a landfill for proper disposal. New technology even allows the burning process to generate electricity to further conserve resources.
This is where the water is pumped back into the Cuyahoga River.
From the sewer district site we walked to Bacci Park to have lunch and head back to Canalway Center, following the path along the canal to observe and log any wildlife we came upon.
The final day of our first week was jam packed with site activity. We hit the solar tins toward the end of our day where a garter snake was found at one tin - which got angry at Tyler and bit him - and a beautiful milk snake was found at another tin.
The day started out with our hike to Oxbow Overlook and the Cuyahoga River, along the way observing and logging any wildlife.
We reach the top of Oxbow Overlook. First a little lunch break, then we dive into drawing our surroundings. A good journal gives as much detail as possible. Any pictures you can provide simply adds another dimension to help the reader “see” your subject as you do.
September 9, 2014. Our first week of the 2014/2015 session. We hit the canal sites for some water testing.
September 23, 2014. We check our solar tins and hit the Frog Pond.
October 7, 2014. A visit from Jim Bader, Executive Director of CWRU’s Gelfand STEM Center & Biology Faculty. Jim gave us an in-depth look at wetlands. Some of the items touched on included key wetland characteristics and functions: hydrology, hydric soils, hydrophytic vegetation, water purification, flood abatement, stabilize shorelines, fish and wildlife habitat.

We learn conductivity measures the ion level in water. Alkalinity determines some measure of ions, relates to conductivity. You should not place pH probe and conductivity probe in water samples at the same time. Resistance is opposite of conductivity-resistance to flow of electrons.
October 14, 2014. Today consisted of some telemetry practice and hitting the solar tins in hopes of finding some of our crawling reptilian friends.
On our way back from the solar tins, eagle-eye Fox spotted a young DeKay’s Brown Snake in the gravel parking lot.
Lily puts our little DeKay’s Brown Snake in a sock to weigh him while Swazi and the rest of the team journal our find.
October 21, 2014. Just like the mail...nothing stops an Environmental Hero. Here we are braving the rain and cold to get our water quality data at Frog Pond and then warming up inside while we start some research projects.
October 28, 2014. Another rainy day. Our group hit Canal Site #1 today. The rain made it almost impossible to complete our data pages. Our data sheets got so wet, we ended up rewriting them when we got back to the center. Ugh! Later, Swazi helps put out our trip cameras.