

# Centre County Pennsylvania Senior Environmental Corps Newsletter

## September 2021

### CCPaSEC President's Report

In 2020, CCPaSEC members logged **2041.4 hours of volunteer service** in their mission to gather and publish data on the quality of water in the streams of Centre County. **The value of those hours to the community\* is \$54,444.14, in the past 7 years (2014-2020), \$435,700.44.** CCPaSEC works with several organizations, universities and youth groups to carry out projects benefiting Centre County watersheds.

\* <https://www.independentsector.org/volunteer-time>

***“Volunteering for Future Generations”  
is about monitoring changes by Ken Johnson***

Pennsylvania is second only to Alaska in the number of natural clear-water surface streams. Water is our most precious natural resource. Huge sums are being spent worldwide in efforts to produce palatable water for agriculture purposes necessary to feed the expanding populations. The federal government on August 16 2021 [declared the first water shortage](#) on the Colorado River, announcing mandatory cutbacks next year that will bring major challenges for Arizona farmers and reduce the water allotments of Nevada and Mexico.

All of us are stakeholders in the quality of our streams. Our area has seen the results of acid mine drainage and is now undergoing changes due to urban development, deep well gas exploration (fracking) and new gas pipelines. These activities can impact local streams. CCPaSEC volunteers have been monitoring our local streams for our community since 2002.

We are fortunate in Centre County but who is watching? Many areas in Centre County including Ferguson and Potter Townships are being “developed”, a process that often changes drainage and reduces rain water surface absorption. Example [Orchard View](#) at 170 Apple Orchard View. A few acres of valuable open land that may disrupt drainage and prevent rain water absorption.



### ***Volunteering for future Generations***

Our work is made possible by ClearWater Conservancy, the Centre County Conservation District and the Centre County RSVP.

To connect or make a gift today:

Call: 814-237-0400 Click: email:

[clearwater@clearwaterconservancy.org](mailto:clearwater@clearwaterconservancy.org)

Mail: 2555 N. Atherton St. State College, PA 16803 Your gift keeps our working flowing!

***Thank you for your generous support!***

Pennsylvania hasn't the resources to collect and analyze samples of all her many streams. As concerned volunteers **we took on the task** to help fill the gap by monitoring key streams in Centre County. Our mission is to inform the public and our county leadership of the quality and health of those streams.

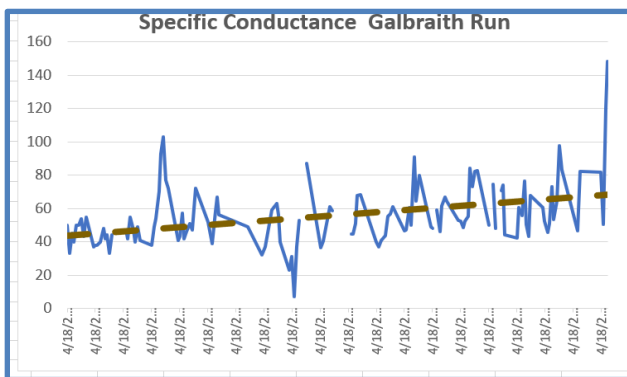
**"Volunteering for Future Generations"** is about monitoring **changes** in our environment. More specifically, about changes in our Centre County streams. Our primary goal is to document changes that may indicate an issue to be investigated. That means we should strive for quality of measurement.

Granted we are not scientists. Well, not most of us. Our field surveys still should to be conducted with similar care. We have the privilege of using some of the finest field test equipment available. We should strive to do the best we can with those tools.

Our Equipment checks indicate issues with equipment maintenance that would produce erroneous readings and may mask real changes. Repetitive tasks can become too routine. It's a form of entropy, a slip-sliding into unintended carelessness and disorder. We can tend to lose direction and purpose and not notice changes.

**Changes may happen over a long period of time, and escape notice.** Review the charts in our data base to compare current data with what's happened over the long run.

**Note the dashed trend line shown below.**

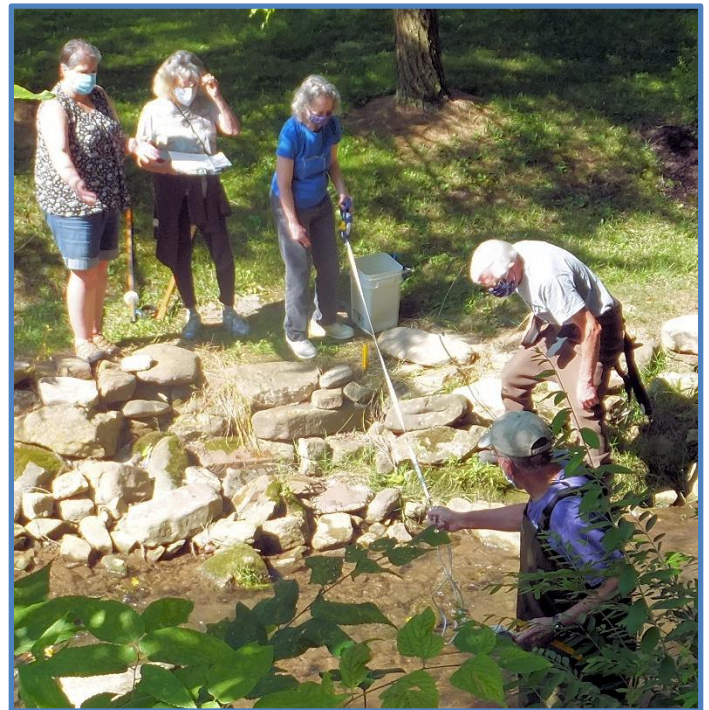


Our PaSEC activities are a truly priceless opportunity for social contact and as a beneficial and purposeful outdoor activity. Newbies should learn not just how to use them, but how they work and how to care for them.

"Making a contribution" is a primary goal for all of our new members. One way is to have them help you as you perform a measurement or analysis. Instead of a demonstration, encourage them to actually participate with you in performing a task, coach them, ask if they have questions.

**We recommended everyone print page 5 to keep with you as you plan and conduct your surveys**

### Team 8 at Lick Run in Howard



Susan Sapp, Mick and Joyce McKay, Robb & Jerry Dittman sample Lick Run in Howard Pa. The stream empties directly into Sayers Lake at Bald Eagle State Park. The 5,900-acre Bald Eagle State Park is in the Bald Eagle Valley of northcentral Pennsylvania. The 1,730-acre lake laps the flanks of Bald Eagle Mountain, surrounded by forests, fields, and wetlands.

[Bald Eagle State Park](#)

## Marcellus Team 13



## Team 1 monitors Galbraith Gap and Slab Cabin streams



(Left to right) Ken Hoy, Laurie Jeffreys, Scott Matto, Dave Bechdel, Dave Truesdale, Carolyn Hatley. Carolyn Hatley, Laurie Jeffreys and Ken Hoy are part of the original PaSEC team that started in 2002.

Our mascot, Izzy is Dave Truesdale's pet. She adds much pleasure to our outings. While we are collecting valuable information about our streams this group also knows the value of combining business with pleasure!

Dave travels a long distance to help Team 1. He relocated from Bellefonte to Mifflinburg in early 2021. Dave was our Team 14 lead and supported several other team's surveys. – Carolyn Hatley



Thursday  
September 16, 2021:  
(Left to right) Rob Fugate, Genie Robine, Dan DeLotto and Kathi Ferrigno, sampled two sites, Twin Run, and Hayes Run in the Beech Creek Watershed. It was their eighth round of chemical sampling and monitoring; and

second Benthic analyses of the year.

We got fair ratings on both streams on Thursday. We had a lot of Stoneflies and Crayfish from group 1 but Genie always says we don't have enough diversity to make it up to the good Category. We have group 1 and group 2 species and a large quantity of them, but practically nothing from group 3, not even midges. Genie says anybody looking at the actual data would realize that these are good streams. – Dan DeLotto

*We have two teams monitoring the Beech Creek watershed. The teams collect up to 9 water samples each month that are analyzed by the PSU CP-AES Laboratory for Isotopes and Metals in the Environment. Please see our website for the 22 Marcellus Region Sites.*

## PA Master Naturalist Class

This is the second year PaSEC has been asked to teach a session on Citizen Science to the PA Master Naturalist Class to be held at Shavers Creek Environmental Center. The session will include History and Overview of Organization, website for data, teams, training, <http://www.ccpasec.org>, field instruction and analysis of samples. The group will break into small teams and analyze water samples to better understand what PaSEC does in the field.

ClearWater Conservancy partnered with the PA Master Naturalists to offer to bring the state wide program to a Centre County for the first time in 2020. Because of its success once again the state wide program is being offered in Centre County. For information go to their website <http://pamasternaturalist.org>. PA Master Naturalists is a non-profit organization dedicated to building a corps of dedicated volunteers who engage in

protecting Pennsylvania natural heritage through outreach and service.

Carolyn Hatley, Vice President and Co-Leader of Team 1 and Resource Advisors Genie Robine, Dan DeLotto and Gary Moorman will be conducting the session. Kelle Kersten, who completed the Master Naturalist Program in 2020 and a recent member of PaSec will be participating in the session. – *Carolyn Hatley*

### Upcoming events

Statewide Watershed Conference  
November 7-8, 2021



**Registration is open** for the combined hybrid (in-person/virtual) Statewide Conference for Watershed Organizations on November 7-8,

2021 at the Wyndham Gardens Hotel and Conference Center in State College, PA.

Early bird in person registration starts Tuesday, August 31 and ends on Friday, October 8. Full conference tickets are only \$90, single day tickets are \$50. Virtual tickets are \$30.

If you need financial assistance to attend, please contact Tali MacArthur at [tmacarthur@pecpa.org](mailto:tmacarthur@pecpa.org) for scholarship information and an application.

<https://pawatersheds.org/watershed/attend-event/>



**CLEARWATER**  
*conservancy*

#### Fall Meeting and Celebration

Oct 17, 10:00 AM – 1:00 PM

Millbrook Marsh Nature Center, 548 Puddintown Road,  
State College, PA 16801

Join us for an afternoon at the barn at Millbrook Marsh with friends, tasty food, and hot drinks as we celebrate local conservation efforts. Meet and elect board members, tour Millbrook Marsh, and learn about ClearWater's current and future efforts. Outdoor event, no cost to attend, open to all. [Register](#)

### In the NEWS

#### **Recognized: The Sharpsburg PA Ecodistrict**

in Pennsylvania has been recognized with EcoDistrict Certification, joining Millvale and Etna to become the third certified community in Southwestern Pennsylvania's Triboro Ecodistrict—and the world.

[Sharpsburg Ecodistrict the World's Third EcoDistricts Certified Community | Planetizen News](#)

The EcoDistricts Protocol and certification processes are administered by a Portland, Oregon-based nonprofit organization called EcoDistrict. Certified communities must commit to prioritizing equity, resilience, and climate protection at the heart of every decision; form collaborative community governance; create an implementation roadmap to guide projects and programs; and track and measure impact over time. Fourteen other communities are currently pursuing certification.

The Sharpsburg Ecodistrict effort began in 2016 as a means to address environmental, economic, and equity concerns. Like other communities in the Pittsburgh region, Sharpsburg is experiencing a transitioning economy with market pressure pushing from neighboring communities. A large-scale riverfront development project is currently underway, which has the potential to impact community character and affordability. This is all occurring while climate change is intensifying existing environmental challenges such as flooding and poor air quality.

The Sharpsburg Ecodistrict established a vision planning process in 2017 to create a roadmap and tools to guide the community's future. This document, the [Sharpsburg Community Vision Plan](#), acts as the guiding vision for the Sharpsburg Ecodistrict. Several organizations have come together to form the Sharpsburg Ecodistrict Collaborative

*Special "thank you" to teams 1, 8, and 13 for their help with our newsletter. - Ken*

## CCPaSEC Procedure Review

### Our safety regulations are to protect you:

Don't take chances. Observe the weather, dress appropriately and limit time in the stream. Do not wade in water over knee deep or heavy flow and use a pole.

- **Procedures:** Please follow our procedures for consistency. However, experience teaches. Procedures can and should be updated. ***“Inform Ralph of your observations and recommendations to share with the other teams”.***
- **Expiration dates:** Always check the reagent expiration dates. ***“Call Dan for new supplies before you go out”.***
- **Proper calibration** and storage of the pH/conductivity meter is important. For consistency, it's best to time your readings. For pH, use the same time interval as you used to calibrate the meter. You cannot obtain consistent results with dirty probes. Sample cells & lid cleaning is important. Keep them and the matching lids separated and be sure to use the right sample cell for each test. Inspect the colorimeter sample cell compartment. **It needs to be spotless in order to properly register the absorption spectra.**

- **Equipment Check:** Inspect and assure the probes on the pH and dissolved oxygen instruments are clean (each and every use) so that the measurements will be consistent and accurate. ***“Several DO probes needed replacement in previous equipment checks”.*** The oxygen levels measured by those instruments with contaminated probes have to be questionable. ***If in doubt, call Dan, the Fix-it man.***
- **Flow:** Flow and concentration go hand in hand. Assure the flow meter turbine is freely turning, is orientated parallel to the flow and it is set to the proper depth and units of measure. **Set the spacing intervals evenly because our flow calculator assumes they are.**
- **Data Management:** Please note unusual results or happenings. Did you observe any changes in the stream? ***Report any large change to our CCPaSEC leadership for review and possible need for action.***
- **Have a doubt?** Ask someone experienced. If you wonder why an observation looks odd or why the instrument is behaving strangely ask your team leader for help.