

February 2017 Newsletter

Centre County Senior Environmental Corps

“Volunteers who monitor our water Quality”



Mission: The mission of the Centre County Pennsylvania Senior Environmental Corps (CCPaSEC) is to develop and support teams of senior citizens who gather and publish data on the quality of water in the streams of Centre County. Through public outreach, with the assistance of the Clear Water Conservancy, the Centre County Conservation District, Nature Abounds, and other environmentally concerned organizations, CCPaSEC seeks to keep the public informed of the importance of clean water and how the management of our civil and natural resources affects the quality of streams in the county.

February 8, 2017 Elections

CCPaSEC announces the election of Betsie Blumberg, who will take over for retiring President Lynn Hutcheson. Lynn served for two consecutive terms, during which the group took on additional sites and expanded its membership. Lynn will continue to support CCPaSEC as an executive board member. Betsie, who had served as Vice President, will be assisted by Ken Johnson as our new Vice President and ClearWater Conservancy Representative. Rob Fugate will continue as Treasurer. We are in need of a secretary. Duties are negotiable. Ella

Bashore, our outstanding secretary, bless her heart, has asked to be relieved of the monthly duty but says she will always support us. Thank you Ella.

Meeting Presentations

Students of Dr. Susan Brantley's GeoSC 413W class gave an excellent and informative presentation on their project on water quality at sites in the Beech Creek Watershed area in conjunction with CCPaSEC's Marcellus teams.

They reported on the results of their investigation of data for sites near a strip mine between the Middle and East Branch Big Run and studied the Avery Run passive treatment system for Acid Mine Drainage (AMD) remediation. They found that the changes in pH and total dissolved solids (TDS) over time in the sites downstream of the treatment system indicated that the treatment system was not working properly. They explained how a passive treatment system works and what factors may cause a system failure.

Their presentation included information on dissolved methane (a greenhouse gas) obtained from multiple samples collected by CCPaSEC's two Marcellus teams from 23 Beech Creek sites. They noted that over time, seasonal flow seemed to affect the methane concentrations as well as having a source of increased bacterial matter upstream (such as a wetland or beaver pond). They identified six sites with higher concentrations of methane that are located near the Avery Run passive treatment system and near coal and gas wells which may be factor in the methane concentrations.

Dr. Brantley said she would like to continue to have her students work with CCPaSEC on projects in the future.

A second presentation was given by Mary Ann Zimmerman from the Centre County Children and Youth Services. She addressed our concerns about our volunteer requirements for working with youngsters as a part of our education and outreach initiatives.

Would you like to help?



CCPaSEC has about 70 active volunteers serving on 11 teams who assess the habitat and collect water samples and to measure pH, conductivity, alkalinity, nitrate, sulfate, phosphate and determine water flow each month at 22 locations.

Two Marcellus teams monitor nine of 23 remote sites in the Beech Creek watershed each month and provide samples for PSU and LHU for analysis.

The monthly data is recorded in the CCPaSEC data base that is linked to our website at <http://www.ccpasec.org/> for our community, government and public use to provide a continuous reference source of our most important natural resource.

What better way to observe the health of our water than asking those who live in it year round? CCPaSEC teams have help in monitoring from natural Macro- invertebrates, those little insects and critters that (e.g. Mayflies, Caddis flies, etc.) populate our streams year round. The teams conduct two population surveys a year. You will find the results of those surveys on our website.

Our data is based on field level equipment not laboratory standards but is monitored by our Quality team to report its compliance with the Nature Abounds/DEP PaSEC Quality Plan. Our annual Equipment Check with Percent Recovery results for 2017 have been posted on our website.

You do not need a chemical background. You don't need to enter the water. The Retired Senior Volunteer Program (RSVP) provides insurance while on visits to our sites. Join a field team, or help us log data, take notes, manage emails, newsletters and training. Join us to meet new friends and share experiences. We provide training and equipment; it's easy, and fun.

In 2016, CCPaSEC members logged 2,757 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 in 2015 dollars* is \$64,956.

Meetings:

We meet monthly at 9:30 am in room 116 , Willowbank Building, Bellefonte. Please see our website for our meeting schedule, usually the second Wednesday of the month.