

Centre County Senior Environmental Corps Newsletter September 2019



Gas pipeline installation in Beech Creek

Our Marcellus teams' dilemma

Dr. Khalequzzaman (Dr. K) informed us that Lock Haven University (and other universities) did not receive a grant for community support to continue lab testing of water samples. He had to discontinue his analyses at the end of August. We are hopeful we can find a lab help. In the interim, we are determined to supplement them, as best we can, with our own.

Dr. K developed extensive baseline and provided us a complete copy his lab analyses. Our two Marcellus teams have been conducting surveys in support of his research of the Beech Creek watershed shale area since 2010.

We met with Dr. K concerned over the loss of future lab analyses on Sept 4th. He wants us to continue our surveys to monitor long term AMD trends and suggested we test for iron and sulfate. He continues to advise us and offered to review our recovery plan and monitor our results.

Thanks to your generous contributions we have been able to purchase a new improved colorimeter with expanded test capabilities.

Phosphate and Nitrate are important for monitoring farm land and populated areas but those are not significant indicators of stream condition in the deep woods of the Marcellus Pennsylvania Wilds.

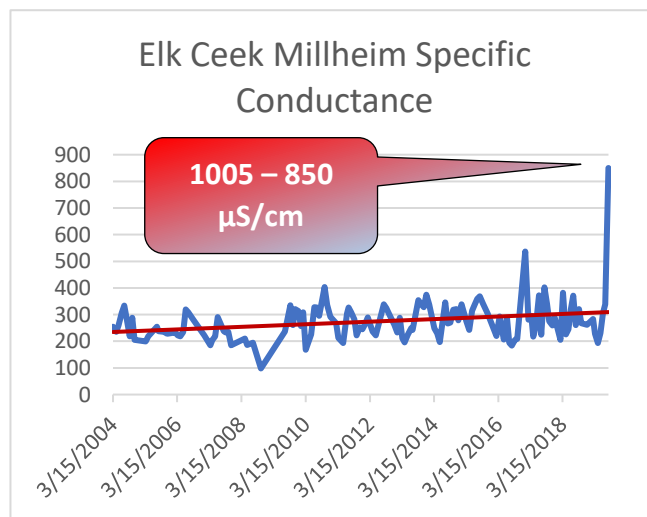
Dr. K suggested we focus our efforts on AMD, not so much on fracking as there are no new sites and the results of our work so far, have not indicated an issue. We may eliminate some sites in order to visit others more often. He identified Monument and Big Run as prime locations along with North fork of Beech Creek and Little Sandy Run.

For now, our teams will collect water samples to perform our own Iron, sulfate and alkalinity tests. If we see conductivity greater than 500 $\mu\text{S}/\text{cm}$ we can test for barium that may indicate new fracking issues. (re: Our April 2019 newsletter).

Our operational plan for the field surveys is to only visit 4 of the 26 sites each month (weather permitting) a reduction from the original 9 per month. The teams will continue to measure and report pH, water & air temperature, dissolved oxygen, conductivity, TDS, salinity and flow.

Our data, by necessity, will be diminutive and not be Lab level quality, but will continue to provide a long-term picture of the health of the streams in the watershed.

High specific conductivity seen at Elk Creek



Centre County Senior Environmental Corps Newsletter September 2019

CCPaSEC reported an abnormally high specific conductivity at Elk Creek in Millheim in August. The Elk Creek Narrows measure of stream specific conductivity was 1005 $\mu\text{S}/\text{cm}$, over two times as high as normal. The average specific conductivity at this site observed since 2004 is 270 $\mu\text{S}/\text{cm}$. The next day it measured 850 $\mu\text{S}/\text{cm}$. When the value goes nearly triple the normal values it suggests some kind of problem up stream. A large increase in conductivity is generally caused by a sharp increase in soluble mineral compounds dumped or leaked into the water.

The observation was reported to the Centre County Conservation District for further investigation.

The annual Centre County and Clearfield picnic

The picnic was held at the Spring Creek Park, State College on August 14. Attendees shared a pot luck meal, engaged in conversations and enjoyed walks in the beautiful park. Next year the picnic will be hosted by the Clearfield PaSEC.

It was a beautiful day for a picnic! About 30 members of the Clearfield and Centre County PaSEC's met recently at Spring Creek Park for the annual picnic. This year's hosts, the CCPaSEC, demonstrated use of their flow and DO meters.

A discussion was held regarding "grant applications" and funding sources with the Clearfield secretary.

CCPaSEC invited anyone from the Clearfield Group to attend one of the group's meetings to discuss in detail with Gary Moorman his process in applying for these grants, i.e. when to apply, where to apply, and details in writing the grants that increase success rates!

Meetings & Events

CCPaSEC

Our next meeting is September 11, 2019 - 9:30 AM at the Willowbank Building, Room 317, Bellefonte



ClearWater Conservancy

Managing for Healthy Forests and Wildlife Diversity Field Tour Sep 07, 9:00 AM – 3:00 PM Eagleville Road (proceed to end of road), Eagleville Rd, Howard, PA, Please RSVP



Centred Outdoors

Millbrook Marsh Nature Center Sep 15, 2:00 PM
Millbrook Marsh Nature Center, 548 Paddington Rd, State College, PA

Poe Paddy State Park Sep 22, 2:00 PM
Poe Paddy State Park, 1087 Poe Paddy Dr, Woodward, PA

**To join CCPaSEC call the Centre County RSVP
Retired and Senior Volunteer program.**

Phone (814) 355 6816

Monday thru Friday 8:30 AM to 5:00 PM

**To submit corrections or to contribute articles,
please contact Ken Johnson via our website.**

"Do not let what you cannot do interfere with what you can do." — John Wooden

Nature Abounds™ has been the primary sponsor and provider of equipment and supplies for CCPaSEC the. The ClearWater Conservancy and Centre County RSVP are major supporters. following have provided additional support funding for special equipment for one field kit: Financial support for this grant is provided by the Dominion Energy Charitable Foundation which is dedicated to the economic, physical, and social health of the communities served by Dominion Energy companies. Western Pennsylvania Conservancy: This grant program was administered by the Western Pennsylvania Conservancy in commitment to its core mission of conserving Pennsylvania's diverse ecosystems through science-based strategy, leadership, and collaboration.

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Centre and Clearfield county PaSEC August picnic



Rob (center) & Dan (not pictured) explains procedures to our visitors demonstrates how we use a dissolved oxygen meter while Lou (below) demonstrates the Flowwatch® meter to determine flow.



Lou uses the pole (left hand) with a meter rule to measure the stream depth and steady himself. He has the Flowwatch® meter in his right hand that is used to measure the velocity at intervals along the stream width.

We use a calculator, available on our website, to calculate flow (M^3/sec) using the depth and velocity measurements.

Well done Lou.














Rob (clipboard) answers questions about our methods

Flow meter



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HEAT EXHAUSTION		OR	HEAT STROKE	
Faint or dizzy				Throbbing headache
Excessive sweating				No sweating
 Cool, pale, clammy skin				Body temperature above 103° Red, hot, dry skin 
Nausea or vomiting				Nausea or vomiting
Rapid, weak pulse				Rapid, strong pulse
Muscle cramps				May lose consciousness 
<ul style="list-style-type: none">• Get to a cooler, air conditioned place• Drink water if fully conscious• Take a cool shower or use cold compresses			<h1>CALL 9-1-1</h1> <ul style="list-style-type: none">• Take immediate action to cool the person until help arrives <p>mjflynn</p>	
 Weather.gov/socialmedia Weather.gov/heat			 @SacramentoOES SacramentoReady.org	