

The Pennsylvania Senior Environment Corps




www.natureabounds.org



Our Mission:

Bringing People Together for a
Healthy Planet

To do so, we educate and
empower citizens to sustain their
community through
environmental stewardship

- ▶ We believe that with a healthy environment, a healthy economy and a healthy society will follow. All three aspects rely on the health of each other.
 - ▶ We also believe that everybody has something to contribute to the improvement of the planet, regardless of age, sexual gender, race, government party, etc...
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As of today, Nature Abounds has approximately 4,500 volunteers across all 50 states.



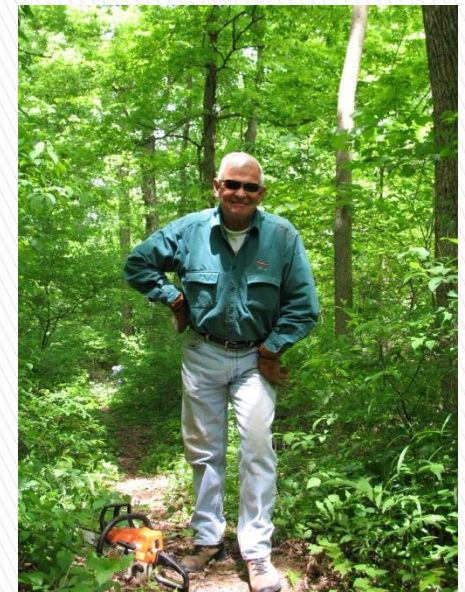
Nature Abounds™ currently engages citizen science volunteers in a variety of activities from water monitoring to wildlife surveys to monitoring ice.



IceWatch USA™



Watch the Wild™



SEC

IceWatch USA™



IceWatch USA™, a seasonal program of Nature Abounds, brings participants the opportunity to help scientists study how our climate is changing!

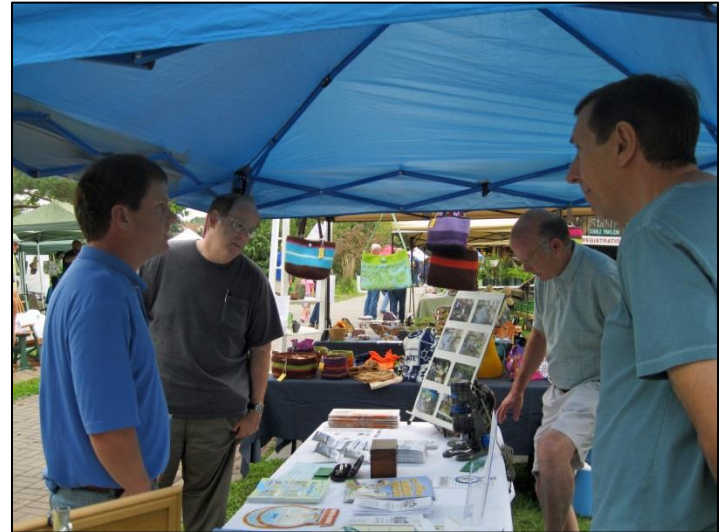
Participants choose a waterbody to observe whether it be a pond on your property, a lake at a local park, or a near-by river.

Watch the Wild™



- Watch the Wild™** is a year-round program of Nature Abounds. Participants choose a location to observe:
- a specific site, like your backyard, a nearby water body, or park,
 - or it be a route you commute on or a trail you hike frequently.

Ambassadors



Ambassadors reach out to the public, officials, and the media about a variety of topics:

- ▶ Turtles and Tortoises
- ▶ Climate Change
- ▶ Watershed Health

Knitters for Nature's Critters





**SENIOR
ENVIRONMENT
CORPS™**

Since 1991, the Senior Environment Corps program has been engaging senior aged volunteers in environmental activities. While coordinating on the national level, we work with groups like RSVP's, conservation districts, nature centers, etc... on the local level.



**SENIOR
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CORPS™**

Financial Supporters Since 2010:

- US EPA 319 non-point source program,
- PaDEP's Growing Greener Funds,
- The Foundation for PA Watersheds.
- Chesapeake Bay Trust

Pennsylvania SEC



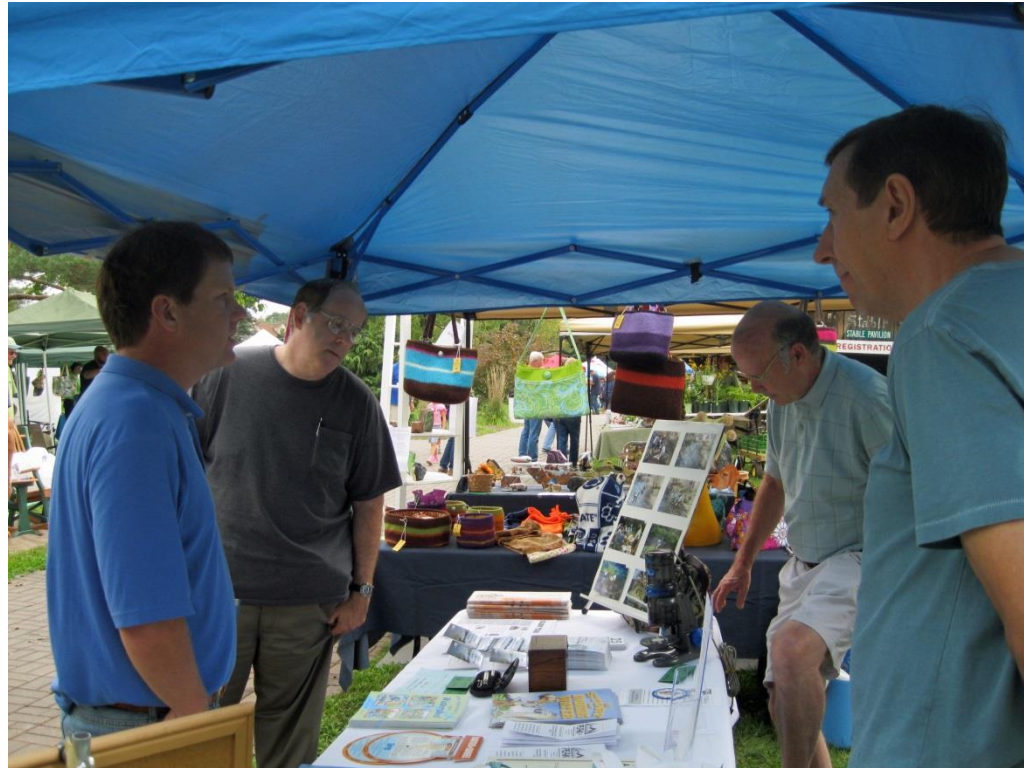
- ▶ To date, these trained volunteers have dedicated over 2,000,000 hours to protecting and restoring the environment.
- ▶ The estimated value of the PaSEC program is estimated at \$3,051,428.57 per year.
- ▶ SEC efforts in about 20 counties in PA.

2013 Western PA Environmental Award



So what do the PaSEC volunteers do?

Aid with environmental and community events



Mentor the next generation of stewards for the environment



Inform the public on topics such as watershed health, radon and recycling



Restore trails and cleaning up parks, waterways, and other natural areas



Identify and map abandoned oil and gas wells



Plant trees and eradicate invasive weeds



Monitor waterways,
creating baseline data,
assessing stream
habitat and surveying
macroinvertebrates
(insects), and helping
implement watershed
restoration projects




Assess riparian buffer areas, assessing EPA 319 sites and Conservation Reserve Enhancement Program (CREP) areas



Monitor abandoned mine drainage and for other contaminants in waterways



Local Hosts

- ▶ While Nature Abounds manages the program on the state and national levels, we partner with local groups like senior programs, conservation groups, nature centers, etc... to help coordinate at the community level.
 - ▶ In the Philadelphia area, we work with the Center in the Park Center and the Schuylkill Center for Environmental Education.
 - ▶ We are always looking for new host groups.
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SEC Water Quality Monitoring 2014



SEC Basic Parameters

- ▶ pH
- ▶ Conductivity
- ▶ Ortho-phosphate
- ▶ Nitrate
- ▶ Sulfate
- ▶ Dissolved Oxygen
- ▶ Iron
- ▶ Alkalinity
- ▶ Temperature
- ▶ Macroinvertebrates and Stream Habitat
- ▶ Other parameters dependent on the area




Basic Equipment

- ▶ Colorimeter
- ▶ Multi-parameter meters



Colorimetry is the measurement of color. The intensity of the color relates to the concentration, based on the instrument calibration. The Colorimeter measures transmitted light at 180 degrees to the light source. Two complimentary colors involved (green light and reacted pink color)

What Happens to the Data?

- ▶ Entered into the SEC Database (live Summer 2014)
 - ▶ Shared with EPA's WQX database
 - ▶ Accessible to the public, universities, watershed associations, agencies
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Other SECs

Nature Abounds has two new SEC groups in Maryland:

- one in the Baltimore area
- and one in Allegany County.

3 more groups ready to come on as SECs in Maryland.



We also have a SEC group in Huntsville, Alabama.

Center in the Park SEC

Some of the CIP SEC's projects:

- Found extensive bacterial contamination
- Partnered with local college
- Philadelphia Water Department
- Philadelphia PBS station documentary – "Knee Deep"



Any questions?



Our Contact Information:

Melinda Hughes-Wert/Nature Abounds

melinda@natureabounds.org

814-765-1453

Center in the Park SEC

sec@centerinthepark.org

215-848-7722

www.natureabounds.org