

Freshwater Ecology

Tuesday, October 13, 2015
Lehigh University, Bethlehem, PA

Register on the web at: eventbrite.com



SCHEDULE OF EVENTS:



7:45 - 8:30 Registration and Coffee (STEPS Building Atrium)

8:30 - 9:45 **Welcome and Plenary Session (Packard Laboratory)**

Streams in Pennsylvania - a Historical View

Dorothy Merritts, Franklin and Marshall College

In light of Pennsylvania's 300 years of agriculture, resource extraction, and development, how do we approach stream restoration?

9:45 - 10:00 Break

10:00 - 11:15 **Morning Course 1 (STEPS Building)**

Session A —

Reptile and Amphibian Decline in the Lehigh Valley

Andy Curtis, Perkiomen Watershed Conservancy and John Becker

Addressing reptile and amphibian population decline and habitat loss.

Session B —

Streamflows and Storm Events

Josh Galster, Montclair State University

How stream and river levels respond to storm events in different watersheds and how storms are expected to change in the future.

Session C —

Return on the Environment

Geoff Reese, LVPC

A strong economy requires plenty of accessible, connected open space and a healthy environment. Learn what the Lehigh Valley Planning Commission is doing to protect our natural environment.

Workshops:

10:00 - 12:15

Macroinvertebrate Workshop

Lance Leonhart, and Bruce Idleman, Lehigh University

Using live samples and the scanning electron microscope, participants will learn about the identification and ecology of stream macroinvertebrates.

Attendance at this workshop will be limited. Please register early to assure your space in the laboratory.

Landscape Track*:

10:00 - 11:15

The Benefits and the Art of Stormwater Landscapes

Stuart Echols and Eliza Pennypacker, Penn State University

Rain gardens, bioretention systems and naturalized stormwater landscapes are growing in popularity and use. Learn about the benefits of these practices and how they can be artfully designed to add value to your community.

11:15 - 12:15 **Morning Course 2 (STEPS Building)**

Session A —

Requiring Buffers at the Municipal Level

Vincent Cotrone, Penn State Ext.

In light of changing protections of buffers on a state level, this session will present important information on buffer ordinances that municipalities can utilize to help protect water quality.

Session B —

Historical Trends and Future Projections of Seasonal Hydrology in the Lehigh Valley

Ben Felzer, Lehigh University

How regional hydrology and streams respond to changing climate.

Session C —

Designing Fun Sustainable Gardens

Bruce Crawford, Rutgers Gardens

Gardens that are deemed 'sustainable' have also gained the reputation of being dull or messy. This talk will examine various techniques that plants, water and Garden Architecture can be combined into a Fun and Sustainable Garden.

11:15 - 12:15

Watershed Based Green-infrastructure Opportunities

Mark Gallagher, Princeton Hydro

Examine how watershed-scale Green Infrastructure techniques including engineered solutions (rain gardens) as well as ecosystem restoration initiatives (flood plain enhancement) are important elements of watershed management relative to water quality and wildlife habitat.

12:15 - 1:30 **Lunch Break**

1:30 - 2:30 **Afternoon Course 1 (STEPS Building)**

Session A —

Stream and Drinking Water Testing - What is Healthy, and What is Not?

Bryan Swistock, Penn State University

Learn how to properly sample and interpret results from both stream and drinking water testing.

Session B —

Reaching Beyond the Choir

Walt Whitmer and Bill Shuffstall, Penn State Extension

Explore strategies for more effective community engagement. Learn how to reach a larger audience, gather effective input and engage the public.

Session C —

MS-4's Restoration

Geoff Reese, LVPC

What small urban areas can do to reduce their runoff, improve water quality, and decrease flooding concerns.

1:30 - 4:00

Watershed GIS Workshop

Claudio Berti and Scott Rutzmoser, Lehigh University

Working with publicly available information to build effective watershed GIS.

Attendance at this workshop will be limited. Please register early to assure your space in the laboratory.

1:30 - 2:30

Green Infrastructure Maintenance

Gerald Bright and Rachel Ahern, Philadelphia Water Department

Maintaining green infrastructure over the long term, after installation.

2:30 - 2:45 Break

2:45 - 4:00 **Afternoon Course 2 (STEPS Building)**

Session A —

State of the Lehigh Valley Streams

Gary Walters, Pennsylvania Dept. of Environmental Protection

A review of the health of the streams and rivers in the Lehigh Valley and what can be done to address water quality challenges.

Session B —

After the Dam Comes Down

Kristie Fach, Wildlands Conservancy and John Mauser, Martins Jacoby Watershed Association

Restoration of streams and their banks after dam removal; focusing on community collaboration and challenges.

Session C —

Forest Restoration in Bambi-land

Drew Gilchrist, DCNR Bureau of Recreation and Conservation

Deer grazing can stunt or entirely halt forest restoration in high-population areas; what can be done to help?

1:30 - 4:00

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2:45 - 4:00

Using Pesticides Near Water

Bryan Swistock, Penn State University

Learn about the importance of groundwater to Pennsylvania and management practices to protect groundwater from pesticide contamination.

* ISA Certified Arborist, PCH, PDH, Pesticide Credits and PA Landscape Architect CEUs available. Contact Kathy Salisbury at 215-345-3283 or kvs14@psu.edu for more information.

4:00 - 5:00 **Networking Reception**

 A green leaf next to the title indicates that the presentation will be made on a basic level. All other presentations will assume some background in subject matter.



Conference Organizers:

Watershed Coalition of the Lehigh Valley • Lehigh University Department of Earth and Environmental Sciences, Environmental Initiative
Penn State Extension • Northampton County Conservation District • Lehigh Gap Nature Center • Nurture Nature Center • Wildlands Conservancy

