



## Northampton County Conservation District

### Act 48 Continuing Education Workshop:



# FUNdamentals of Stream Ecology

**Date:** Thursday, October 22, 2015

**Time:** 8:00AM – 4:00PM

**Location:** NCCD Office, Nazareth PA & Jacobsburg State Park

**Capacity:** 20 Teachers (most appropriate for middle & high school teachers)

**Registration Deadline:** October 8, 2015

**Includes a Stream  
Study Field Trip**



**Lunch will be provided!**



*A total of seven (7) Act 48 Professional Development Activity Hours will be granted to PA certified teachers upon completion of the course.*

“A river is the report card for its watershed.”

- Alan Levere.”

# FUNDamentals of Stream Ecology

The workshop will include instruction, discussion, field experience, and activities conducted by:

- Northampton County Conservation District (NCCD)
- PA Fish & Boat Commission
- Martins-Jacoby Watershed Association (MJWA)
- PA Department of Environmental Protection (DEP)

The workshop will provide educators with an introduction to topics such as Geomorphology, Ichthyology, Macroinvertebrates and Habitat Assessment and Restoration. Attendees will then spend the afternoon in the Bushkill Creek for a stream quality assessment.

The workshop will provide educators with curriculum based material. The content of this workshop meets the Pennsylvania Academic Standards for Science & Technology and Environment & Ecology for grades 4 through 12, including such topics as unified themes, earth sciences, watersheds, environmental health, and humans and the environment. **NCCD would also like to take this opportunity to announce that we have additional equipment available for teachers to borrow for stream quality assessments in Northampton County waterways.**

Financial and other support for this project is provided by the Pennsylvania Association of Conservation Districts, Inc. through a grant from the Pennsylvania Department of Environmental Protection under Section 319 of the Clean Water Act, administered by the U.S. Environmental Protection Agency.

## **Workshop topics:**

- Introduction to Streams and Fluvial Geomorphology
- Biological Stream Assessment: Macroinvertebrate ID
- Chemical Stream Assessment
- Habitat/Physical Stream Assessment

**Call or email NCCD with questions  
(610) 829-6276 / [northamptoncd@northamptoncd.org](mailto:northamptoncd@northamptoncd.org)**



**Registration and a \$10 fee are required for the workshop. Please complete the attached form to register.**

Please complete the form below and detach, include \$10 (cash/check), and mail the fee and registration form to the Northampton County Conservation District, Greystone Building, 14 Gracedale Avenue, Nazareth, PA 18064-9211. Please make checks payable to: Northampton County Conservation District. Upon receipt of your registration, a workshop packet will be sent to you with directions and additional details.

**Registration Deadline is October 8, 2015**

Name: \_\_\_\_\_

Organization/School: \_\_\_\_\_

Grade Level: \_\_\_\_\_

Are you a registered teacher with PA Department of Education? Circle YES or NO

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip code: \_\_\_\_\_

Phone: (\_\_\_\_\_) \_\_\_\_\_

Email \_\_\_\_\_

**Lunch will be pizza this year, if you require an alternative lunch option please feel free to bring your own; a refrigerator will be available. Please indicate if you will be opting out of lunch.**

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