



PENNSYLVANIA MASTER WATERSHED STEWARD PROGRAM



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Krista Scheirer, Watershed Specialist, Montgomery County Conservation District



Watershed Specialists

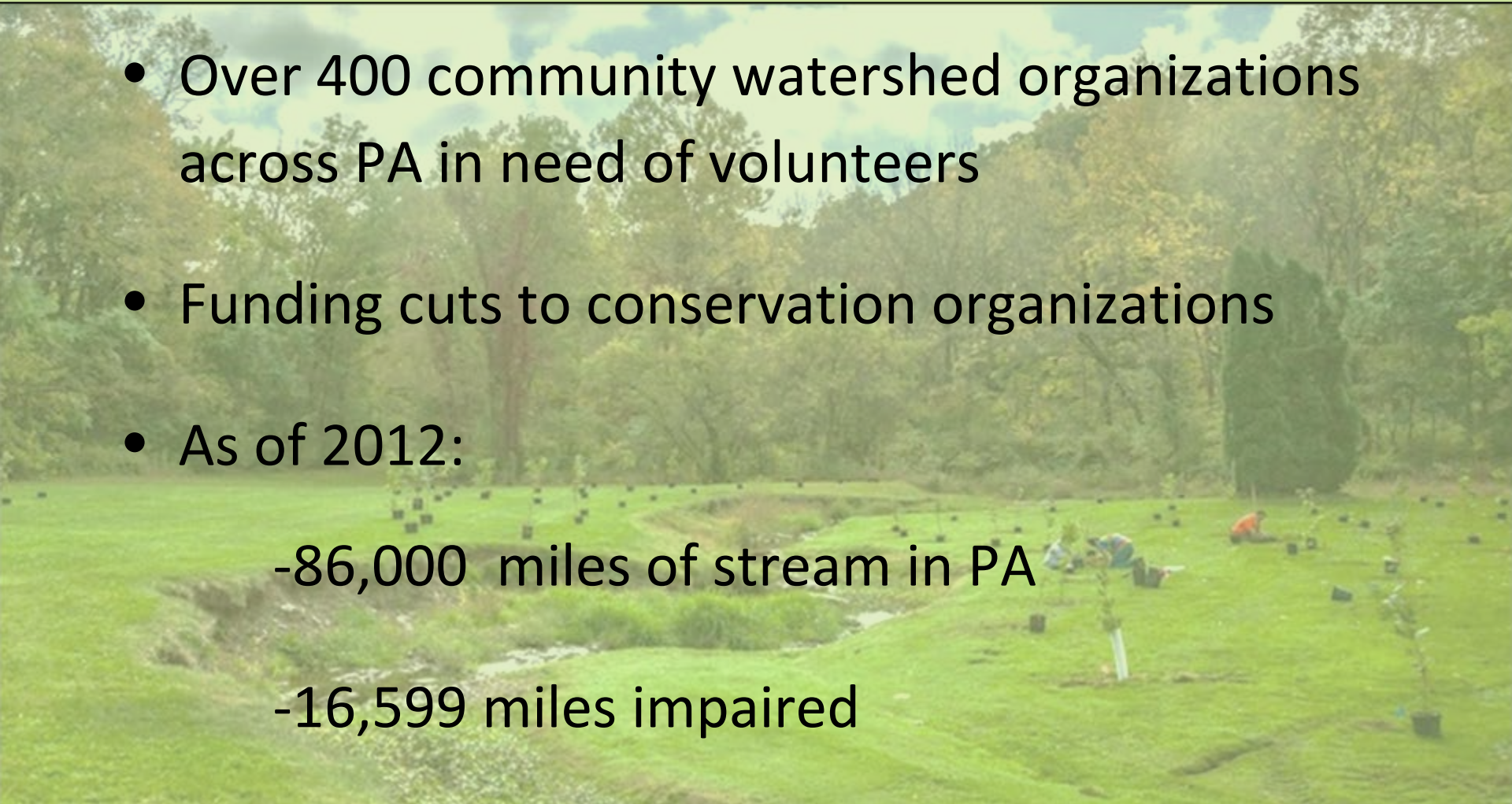
Work to improve the quality and quantity of surface and groundwater resources...

- Position created in 1999 to assist in the development of watershed organizations and grassroots watershed efforts
- Funded by state Growing Greener program and employed by CD
- Serve as key link between local efforts and state Dept. of Environmental Protection



Master Watershed Steward: Program Origins

- Over 400 community watershed organizations across PA in need of volunteers
- Funding cuts to conservation organizations
- As of 2012:
 - 86,000 miles of stream in PA
 - 16,599 miles impaired



Program Origins

- Inspired by Master Gardener Program
- Last year: 2,374 MGs across the state
 - Contributed 142,509 volunteer hours
 - Reached 474,953 residents directly
 - Value of their time= \$3 million
- Master Gardener program has a *waiting list* of volunteers

Program Origins

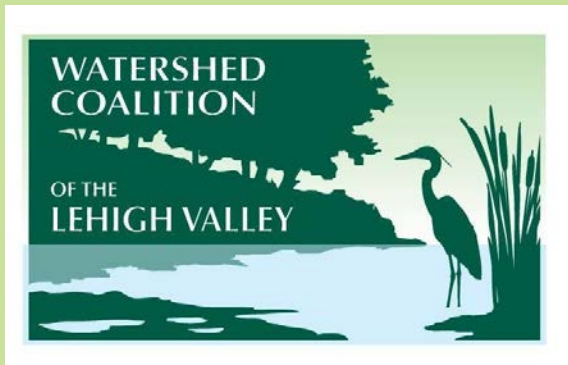
- Other land grant universities have Master Watershed Steward or Master Naturalist programs
- Texas and Florida, the country's largest programs, have over 8,000 and 5,000 trained volunteers already!



Program Origins

- Pilot program launched in 2013 in Lehigh & Northampton counties
- Montgomery County added in 2014
- Many partners!

Penn State Extension



Master Watershed Steward

Many states throughout the nation offer Master Watershed Steward volunteer programs through their land grant university extension services; these programs train citizen volunteers in the basics of water resource stewardship. Now Penn State Extension, with the help of other local environmental groups, is launching PA's own Master Watershed Steward Program.

Where is the Master Watershed Steward Program offered?

Currently, Penn State Extension offers the Master Watershed Steward Program in the following counties:

**Lehigh
Northampton**

How do I become a Penn State Master Watershed Steward?

If you live in the participating counties or would like to establish a program in your county, contact Erin Frederick at 610-391-9840 or elf145@psu.edu

PROGRAM PARTNERS



Northampton County
Conservation District



An OUTREACH program of the
College of Agricultural Sciences

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Penn State **Extension**

Master Watershed Steward Program

extension.psu.edu

PENNSTATE



Cooperative Extension
College of Agricultural Sciences

Getting Started

1. Assemble project partners

- Penn State Extension
- Conservation District Watershed Specialist
- Nonprofit Conservation Organizations

2. Secure funding for MWS Coordinator

- Current Master Gardener Coordinator or hire part-time Extension employee

3. Develop local program based on MWS model

4. Host MWS program public info meeting

5. Recruit stewards!

Program Requirements

- Volunteers receive 40 hours of training in water and natural resources
 - Field trips and classroom sessions



Training

- \$100 one-time fee
- Local professionals as instructors
- Sessions held at different locations



Training



PROGRAM PARTNERS



PROGRAM SPONSORS



Penn State Extension 2014 Schedule Master Watershed Steward Program Training

MARCH

SESSION

1

Orientation & Watershed Basics

Date: Wednesday, March 12th

Time: 6-8:30PM

Location: Fox Environmental Center
100 Illick's Mill Road
Bethlehem, PA 18017
www.illicksmill.org

SESSION

2

Wetlands, Riparian Ecology & Vernal Pools

Date: Friday, March 21st

Time: 6-9:30PM

Location: Jacobsburg State Park
400 Belfast Rd
Nazareth, PA 18064
<http://www.dcnr.state.pa.us/stateparks/findapark/jacobsburg/>

SESSION

3

Hydrologic Cycle, Groundwater & Climate

Date: Wednesday, March 26th

Time: 5-8:30PM

Location: Nurture Nature Center
518 Northampton Street
Easton, PA 18040
www.nurturenaturecenter.org

SESSION

4

Water Chemistry, Water Test Interpretation, Waste Water Treatment Plant Tour, Septic Systems

Date: Saturday, April 5th

Time: 9AM-3PM

Location: Upper Saucon Township Treatment Facility/Benchmark Analytics
4777 Saucon Creek Road
Center Valley, PA 18034

APRIL

SESSION

5

Stream Ecology, Macroinvertebrates, Fish, Dam Removal, Riparian Buffers & Stream Restoration

Date: Wednesday, April 9th

Time: 6-8:30PM

Location: Lower Mount Bethel Welcome Center
7701 Martins Creek
Belvidere Highway, Bangor, PA 18013

SESSION

6

Agriculture, Soil & Geology

Date: Wednesday, April 16th

Time: 6-8:30PM

Location: Northampton County Conservation District
14 Gracedale Avenue
Nazareth, PA 18054
www.northamptoncd.org

SESSION

7

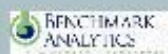
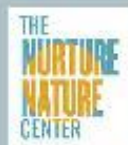
Stream Restoration, Stream Visual Assessments & Green Infrastructure in the Lehigh Valley Field Trip

Date: Saturday, April 26th

Time: 9AM-3:30PM

Location: Lehigh County Agricultural Center
4184 Dorney Park Road
Allentown, PA 18104
extension.psu.edu/Lehigh

PROGRAM SUPPORTERS



2014 Schedule Master Watershed Steward Program Training

MAY

SESSION

8

Flooding, Stormwater & Green Infrastructure

Date: Wednesday, May 7th

Time: 5 - 8:30PM

Location: Lehigh Gap Nature Center

8844 Paint Mill Road,

Slatington, PA 18080

www.lgnc.org

SESSION

9

Native & Invasive Plant Identification

Date: Wednesday, May 14th

Time: 5 - 8:30PM

Location: Trexler Environmental Education Center

4935 Orchard Road

Schnecksville, PA 18078

www.trexlernaturepreserve.org

SESSION

10

Paddling Trip down the Lehigh River, Recreational Use Discussion, History of the Region & Macroinvertebrate Sampling Exercise

Date: Saturday, May 24th

Time: 9AM - 3PM

Location: Allentown Canal Park

East Walnut Street

Allentown, PA 18109

JUNE

SESSION

11

State & Federal Agencies and Regulations, Communications Overview & Wrap Up

Date: Wednesday, June 4th

Time: 5 - 8:30PM

Location: Lehigh County Agricultural Center

4184 Dorney Park Road

Allentown, PA 18104

extension.psu.edu/Lehigh

SESSION

12

Final Test

Date: Wednesday, June 18th

Time: 6 - 8:00PM

Location: Lehigh County Agricultural Center

4184 Dorney Park Road

Allentown, PA 18104

extension.psu.edu/Lehigh

Program Requirements

- 50 hours of volunteer service to complete the program
- Each subsequent year: 20 volunteer hours and 10 hours of continuing education



Group Projects

- Created backyard stormwater management display
- Built demonstration rain gardens at a municipal building
- Built educational models





BUSHKILL TOWNSHIP Rain Gardens

A rain garden is an attractive environmentally-friendly way to improve water quality.

Designed as shallow depressions, rain gardens collect, absorb and filter stormwater that runs off your roof, driveway, or other paved areas. Rain gardens filter out pollutants such as fertilizers, oil, grease, sediment and pesticides while recharging groundwater supplies.

Benefits:

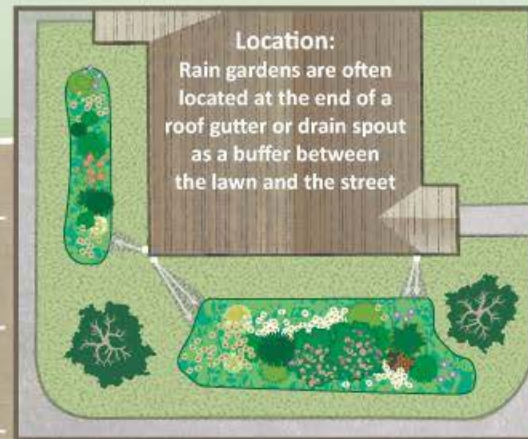
- manage runoff
- diminish erosion
- great filtration
- provide natural habitats
- curb appeal

Structural Considerations:

- size and depth - determined by run off quantity
- soil type - will determine infiltration rate and if the soil needs to be modified or a drain pipe added

Planting:

consider native plants that are naturally designed for specific regions



NATIVE PLANTS AND
RAIN GARDENS WORK WELL
TOGETHER NATURALLY

Here are a few suggestions:



Turtlehead



Swamp Milkweed



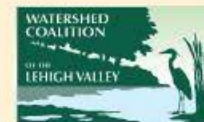
New England Aster



Cardinal Flower



Coneflower



This sign has been funded by the League of Women Voters of Pennsylvania Clean Education Fund through a Growing Greener grant from the Pennsylvania Department of Environmental Protection.

For more information on rain gardens, native plants, and wildlife habitat, contact your local cooperative extension.



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Example Projects

- Educational workshops
- Staffing displays at community events
- Riparian buffer restoration projects in partnership with county conservation districts
- Water quality sampling









09/17/2013



Penn State **Extension** MWS Network

Lehigh and Northampton Counties | November/December 2014

extension.psu.edu

This is the last newsletter of the year. We want to thank everyone for the incredible work the Master Watershed Stewards have accomplished in 2014 and we hope you all enjoy the holiday season!

Master Watershed Steward Business

HOURS: If you haven't yet, *please submit all of your volunteer hours and continuing education hours for the 2014 calendar year no later than January 15th.* You can turn your hours in by entering them into our Volunteer Management System, emailing **Erin** at elf145@psu.edu or by mailing a paper log to either county office. For the class of 2013, remember, you need 20 hours of volunteer service and 10 hours of update training (five of which must be Penn State approved) to be in good standing with the program. Also note that your educational contacts should only tally public contacts -- do not count other Master Watershed Stewards at committee meetings.

Science Fun Night: We are looking for volunteers to staff a booth at East Hills Middle School's Science Fun Night on March 20, 2015 from 5:30 - 8:30 PM. East Hills Middle School is in the Bethlehem School District. Last year, MWS volunteers took our macroinvertebrate buzzer board and live macroinvertebrate samples. We have those resources to offer again this year, as well as our groundwater model and Operation Think Tank game. If you'd like to participate in this event, please contact **Erin**.

Valley Flower, Garden & Pool Show: Each year our Master Gardeners set up an educational display at the Valley Flower, Garden and Pool Show at the Allentown Fair Grounds. This year, the topic will be green infrastructure and stormwater management, so we would love to have some MWS help! The show is scheduled for Friday, March 13th through Sunday, March 15th. The first planning meeting for the Flower Show has been rescheduled to Thursday, November 13th from 3:00 to 4:00 p.m. at the Lehigh County Extension office. If you can't make that meeting, but want to get involved, contact **Jean Federici** at federici.jean@gmail.com or **Mary Snyder** at docmsnyder@yahoo.com.

Coordinator's Message

By Erin Frederick

The stats are in! Here are our impact statistics from our program to date in Lehigh & Northampton counties:

Total number of volunteer hours: 1,373

Total number of direct educational contacts with adults: 298

Direct educational contacts with youth: 1,246

The impact we've made in such a short amount of time is absolutely incredible! These numbers are very important for us to continue to justify the program, so be sure not to under-report your hours. Great job to all and happy holidays!

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Current Snapshot

- 45 volunteers
- 1,042 hours to date, reaching 1,505 people (just Lehigh/Northampton)
- Montgomery County volunteers just starting
- Pending counties: York, Chester, Bucks, Berks, Monroe, Delaware, Philadelphia, Centre

Moving Forward

- Implement program in new counties
- Integrate with more community groups
- Develop official curriculum

