Adams County Conservation District

Franklin County Conservation District

Cumberland County Conservation District

Tri-County Watershed Meeting

South Mountain Partnership

Shippensburg University

Center for Land Use and Sustainability
Shippensburg University

Capital RC&D
Bridging Conservation Communities

Welcome!

Updates from the Conservation Districts

Adams County Conservation District
Cumberland County Conservation District
Franklin County Conservation District

South Mountain Partnership
Capital RC&D

Dr. Cornell

Shippensburg University Professor

SHIPPENSBURG UNIVERSITY

Center for Land Use and Sustainability

SHIPPENSBURG UNIVERSITY

Watershed Association Sharing

Tell us about your Organization

Project Name

Partners

Budget (Grants/Match)

Measureable Outcomes

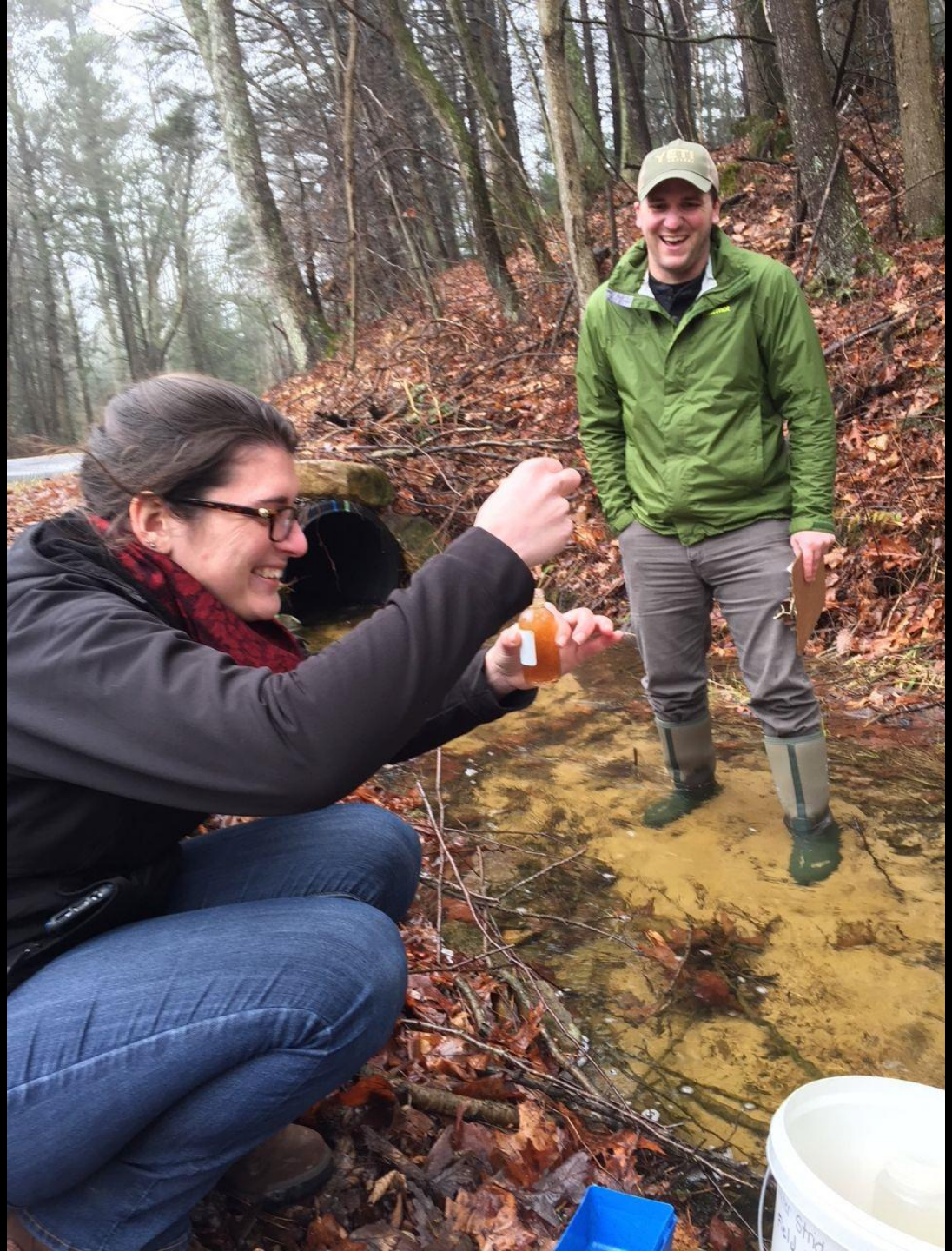
Advice/Lessons Learned

Adams County Trout Unlimited

Conewago Creek Restoration

Antietam Watershed Association

AWA Stream Monitoring Program



Conodoguinet Creek Watershed Association

A Long Way With Many Bends

A visual story about the Conodoguinet Creek, Conodoguinet Creek Watershed Association, and Conodoguinet Creek Water Trail

CLUS

Explore! | About the CCWA | The Creek and its Watershed | Geology | Agriculture | Riparian Buffers | About The Water Trail | Explore the Water Trail | Partners

A Long Way With Many Bends is a visual story of Pennsylvania's Conodoguinet Creek and Watershed, the Conodoguinet Creek Water Trail, and the Conodoguinet Creek Watershed Association.

Conodoguinet Creek flows 104.5 miles (168.1km) from high on the Kittatinny Ridge, down through the fertile Cumberland Valley, and into the Susquehanna River near Harrisburg. The name of the creek is borrowed from Native American words and means "*A Long Way with Many Bends*." This stunning natural resource is a regional attraction that offers residents and visitors meaningful economic, recreational, and environmental value.

The lower 40 miles of the creek comprise the Conodoguinet Creek Water Trail, which is a recreational trail meandering through agricultural lands, and small towns. This section is an important part of the Pennsylvania Water Trails Partnerships program.

The Conodoguinet Creek Watershed Association (CCWA) is a non-profit, environmentally concerned citizens group created to take appropriate action on matters that affect the welfare of the Conodoguinet Creek Watershed.

You can explore the Conodoguinet Creek and Watershed by watching videos, reading text, following links, and interacting with the geology and water trail maps. The story map is designed to feature topics regarding the Conodoguinet Creek Watershed such as the importance of watershed education, conservation, geology, agriculture, riparian buffers, and recreation. The spirit of multi-generational volunteerism among community and partner organizations is a theme throughout the story map.

This story map illustrates how community and volunteerism connect education and conservation principles to enhance the health of the Conodoguinet Creek Watershed. The health of our local watershed affects the water quality of the Conodoguinet Creek that flows downstream into the

conocreek.org
Cumberland County

Franklin County

Creek Cleanup Project

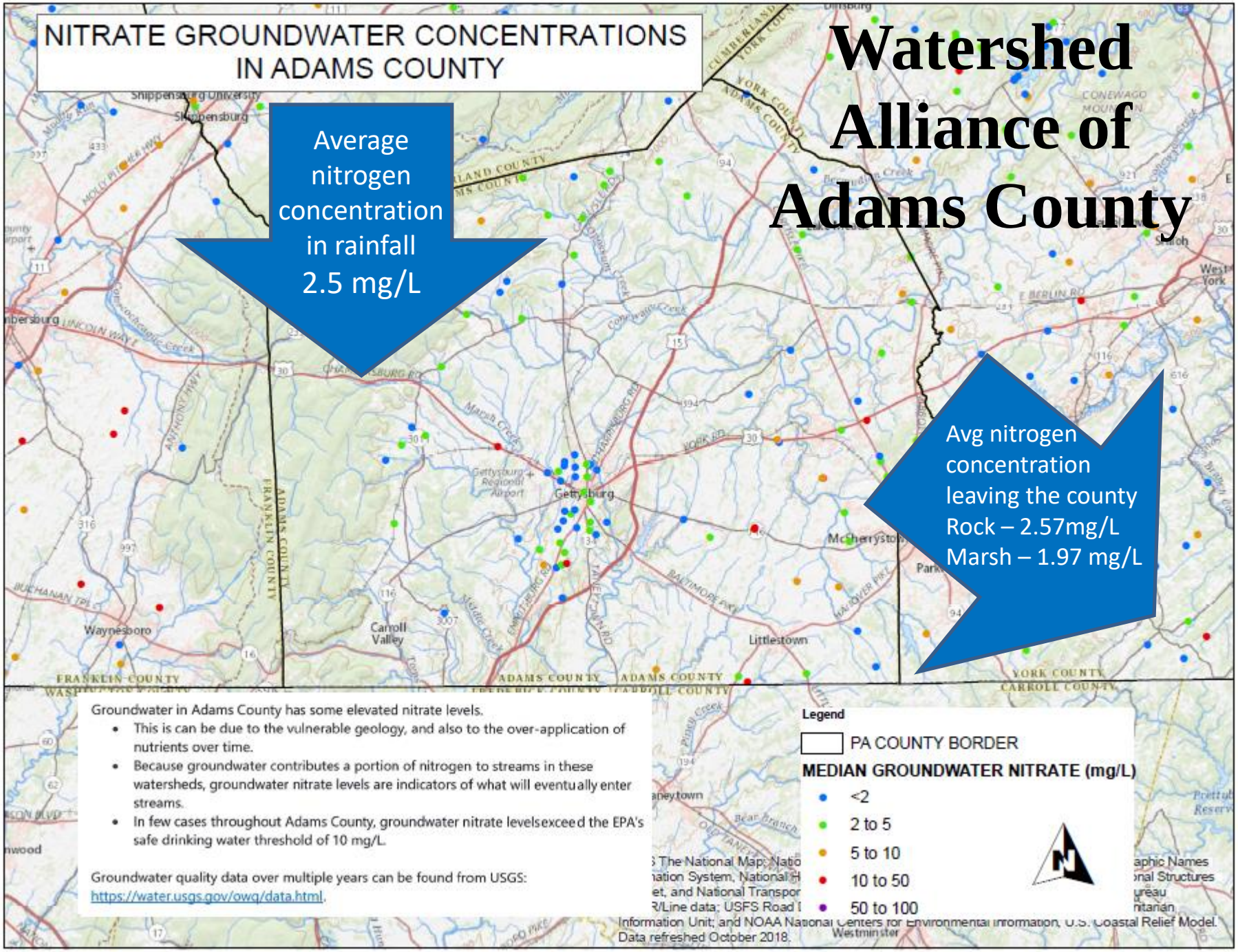
CCP

Pennsylvania

Middle Spring Watershed Association

Kiosk at Cumberland Valley Rail Trail

Watershed Alliance of Adams County



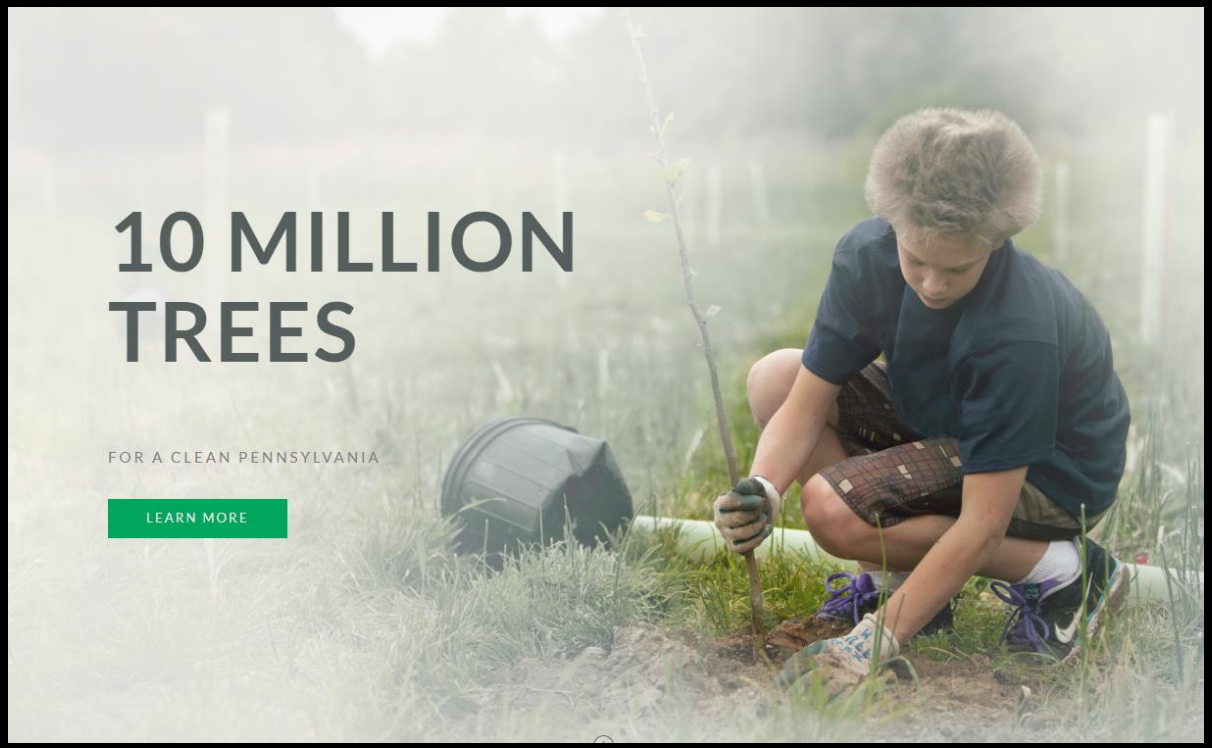
Groundwater in Adams County has some elevated nitrate levels.

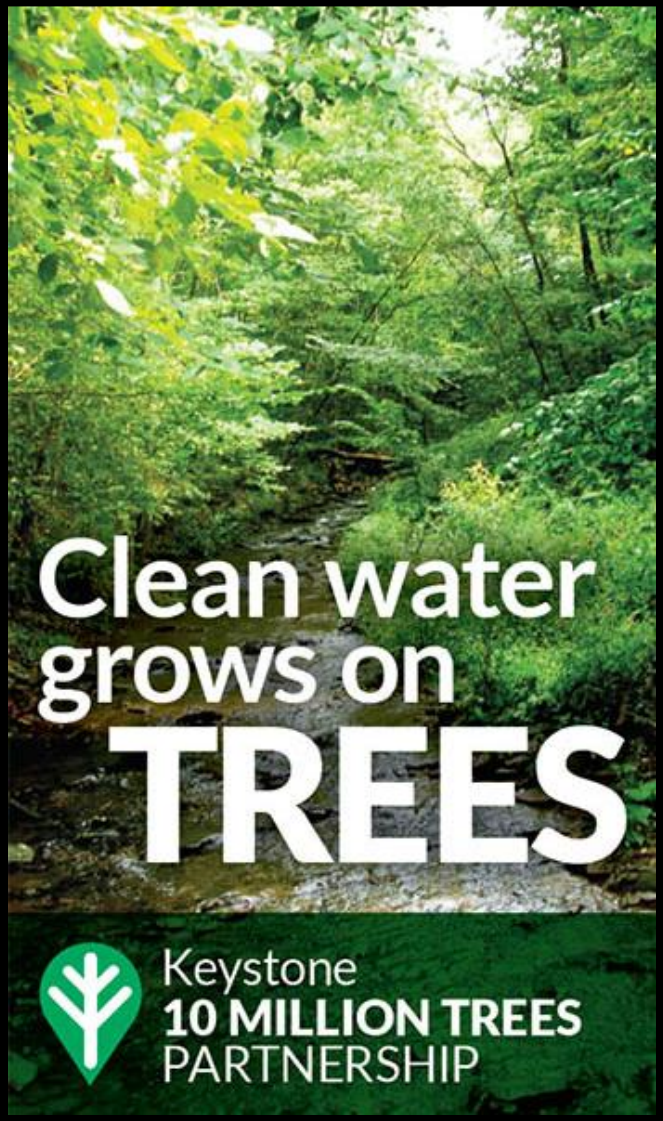
- This is can be due to the vulnerable geology, and also to the over-application of nutrients over time.
- Because groundwater contributes a portion of nitrogen to streams in these watersheds, groundwater nitrate levels are indicators of what will eventually enter streams.
- In few cases throughout Adams County, groundwater nitrate levels exceed the EPA's safe drinking water threshold of 10 mg/L.

Groundwater quality data over multiple years can be found from USGS: https://water.usgs.gov/owq/data.html.

Yellow Breeches Watershed Association
Cumberland County

Keystone 10 M Trees
Chesapeake Bay Foundation





Keystone
10 MILLION TREES
PARTNERSHIP

Alliance for the Chesapeake Bay Riparian Forest Buffer Program

We pay 100% of the cost of a riparian forest buffer. That covers trees/shelters, installation, livestock exclusion/watering if necessary, **and 3 years of maintenance**

Requirements:

- Minimum *average* width of 35'
  (can go down to 15', but must make up for it elsewhere)
- Signed landowner agreement, stipulates 25 year commitment

Contact Ryan Davis, Forest Program Manager:

757-377-3200, rdavis@allianceforthebay.org

DCNR
John Schwartzer

Networking

Panel Discussion
Forested Riparian Buffer Projects

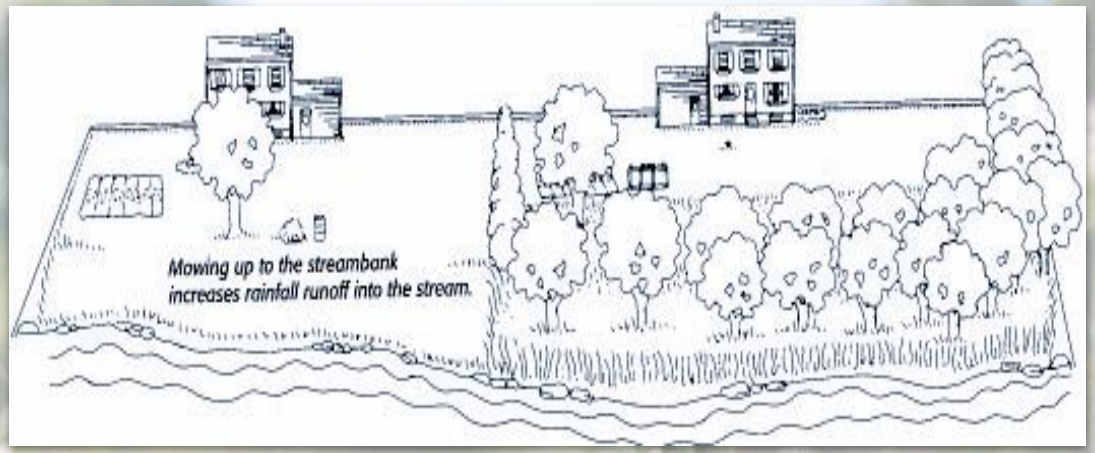
PA Buffer Initiative

The commonwealth has a goal of planting **95,000 acres** of riparian forest buffers statewide **by 2025** to improve waterways in Pennsylvania and the Chesapeake Bay

TREES!

- Reduction in air temperature by blocking sunlight
- Water evaporating from leaf surface removes heat energy from the air.
- Shade reduces surface heat – a natural air conditioner.
- Evergreen trees can reduce wind speeds – reduce heat loss from a home.
- Trees absorb and block noise and reduce glare.
- Trees absorb carbon dioxide and potentially harmful gasses
- Fallen (decaying) leaves provide nutrients, reduce soil temperature and soil moisture loss.
- Trees create an ecosystem – providing habitat and food for birds and animals.
- Tree canopy reduce water temperature in streams, ponds to enhance aquatic life and improve water quality
- 1 Deciduous tree can intercept 700-1,000 gallons of rain water annually
- 1 Evergreen tree can intercept >4,000 gallons of rain water annually
- Average of 60% of rainfall in PA forests is taken up by trees and transpired back into the atmosphere
  - When a forest is removed or harvested, evaporation declines while a stream receives additional water each year
  - The ever increasing conversion of forests to lawns and impervious surfaces (buildings, roads, and parking lots) continues to cause stream bank erosion and flooding that causes millions of dollars in damages

Riparian Buffers



Riparian buffers, and wetlands in general, act as a buffer against floods

- **<u>Slow down run-off</u> that enters the stream**
- **<u>Stabilize stream banks</u> with root systems**
- **<u>Absorb water</u> with root systems**
- **<u>Intercept rainfall</u> before it can reach the ground**

Multi-functional Riparian Buffers

A type of riparian forest buffer that provides opportunities for harvesting products such as nuts, berries, and woody florals

Potential Funding Opportunities

- Chesapeake Bay Foundation – Keystone 10 Million Partnership
- PACD 2018-2021 Multi-functional Riparian Buffer Sub-Grant
- Alliance for the Chesapeake Bay
- DEP Growing Greener Grant
- Conservation Reserve Enhancement Program (CREP)
- DCNR - Turf to Trees/Turf to Meadows

Ask us to look at your property and add your site to our potential project list!

Questions?