

# Stream Stewards

Prince William County  
2013

*Created for concerned citizens  
interested in acting to protect  
clean water resources from  
Prince William to the  
Chesapeake Bay*



**Homeowner Shoreline Stabilization  
with Harry Wiggins**  
Saturday, September 14, 10:00 to 11:30, am

**Restoring Aging Pipes and Ponds Talk  
with Clay Morris**  
Thursday, September 5, 7:30 pm

**Restoring Aging Pipes and Ponds Walk  
with Clay Morris**  
Saturday, September 7, 10:00 am

**Sudley Place: Community Partners  
for Clean Water Talk, with Julie Flanagan**  
Thursday, October 3, 7:30 pm

**Tree Planting! K9 Gunner Memorial Dog Park  
and Stormwater Pond**  
Sponsored by PWCA, Fairfax Water, PWC  
Parks and Occoquan Supervisor Mike May  
Saturday, October 5, 10:00 am

**Organic Matter in Streams and Rivers Talk  
with Jake Hosen**  
Thursday November 7, 7:30 pm

**Agricultural Land, Streams and Buffers Tour  
with Jay Yankee**  
Saturday, November 9, 10:00 am

***Prince William Conservation Alliance  
Fairfax Water  
Partners for Clean Water***

# Stream Stewards

## *Because We All Live Downstream*

Whether you live right next to a stream or miles away, your actions affect water quality. PWCA's Stream Stewards provides you with information and ideas to improve your community, protect our public drinking water supply and help ensure a sustainable future for our children.

Stream Stewards pairs evening lectures with field tours to illustrate key concepts at familiar locations close to home. Topics cover the biology, dynamics and physical characteristics of streams, and consider the role local waterways play in ongoing efforts to save the Chesapeake Bay.

We know costs to comply with EPA standards will be huge, especially in older areas developed before stormwater management was required.

We know the benefits are significant. Imagine your community with clean streams and reservoirs, with more trees and less flooding... places where frogs and other aquatic critters can thrive.

Please join us for some or all Stream Stewards programs to find out more about streams, wildlife and how public and private investments are improving clean water resources from Prince William County to the Chesapeake Bay.

## **Tree Planting! K9 Gunner Memorial Dog Park and Stormwater Pond**

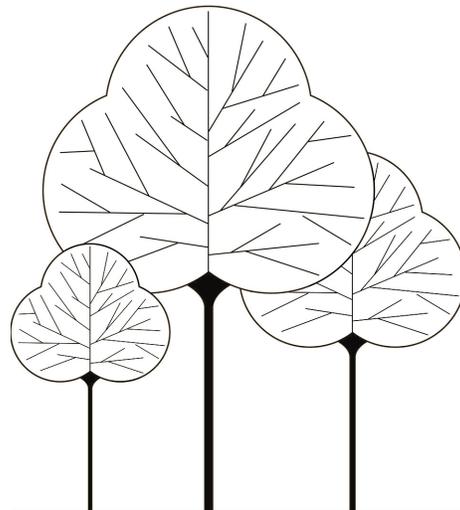
Saturday, October 5, 10:00 am at the K9 Gunner Memorial Dog Park  
Minnieville Road by Colby Drive, 13012 Sturbridge Drive, Woodbridge  
RSVP appreciated to [alliance@pwconserve.org](mailto:alliance@pwconserve.org), 703-499-4954

*Sponsored by Fairfax Water, Prince William County Parks,  
Supervisor Mike May and Prince William Conservation Alliance*

Help make your community more attractive and slow the flow of stormwater runoff. This planting includes areas surrounding the popular K9 Gunner Memorial Dog Park and adjacent slope leading to the parking lot and dry stormwater pond. Trees and shrubs will be on hand. Bring a smile and a shovel. Work tools appreciated. Lunch is provided.

Trees are our last and best defense against pollution. They increase the amount of water that filters into the soil, reducing runoff and increasing groundwater infiltration. This protects streams, recharges aquifers and supports a consistent flow of drinkable water.

Nonpoint source pollution comes from so many places you cannot simply point a finger and say there's the problem. It comes from our backyards, schools, malls, parking lots and roads... and it is the biggest source of water pollution nationwide.



**The best time to plant a tree  
was 20 years ago.  
The second best time is now.**

**Pipes & Ponds in Older  
Communities Talk**  
with Clay Morris

Thursday, September 5, 7:30 to 9:00 pm  
Bull Run Unitarian Church, Manassas

Retrofits add new parts to old, poorly designed stormwater systems to help prevent flooding and protect clean water resources. In Prince William, projects focus on needs to address issues at stormwater ponds in older communities.

Stormwater management ponds are ubiquitous with urban development, but not all are created equal. Initially, ponds were designed to control flooding due to the increased runoff. Later, they were designed to remove pollutants as well.

Over the last few decades, much has been learned about increasing the efficiency of stormwater management. Now, as part of the Chesapeake Bay clean up, localities are challenged with finding ways to retrofit ponds to better protect clean water resources, neighborhoods and public infrastructure.

Please join us to learn about the choices, constraints and benefits of restoring stormwater infrastructure.

**Pipes & Ponds in Older  
Communities Walk**  
with Clay Morris

Saturday, September 7, 10:00 am to noon  
Mullen Elementary School, Manassas

Prince William is upgrading older stormwater facilities throughout the county. Projects are generally funded by the stormwater fee, which collects \$37.10 /year for single family homes, \$27.85/year for townhomes and \$18.02/ 1,000 sq ft. for commercial development.

One current project next to Mullen Elementary School will convert a dry stormwater pond into a constructed wetland. This will increase the biological uptake of nutrients, resulting in cleaner water flowing from land into the stream. Please join us to tour this exciting project for yourself.

**Homeowner Shoreline Stabilization**  
with Harry Wiggins

Saturday, September 14, 10:00 to 11:30, am  
3525 Waters End Trail, Woodbridge

The Occoquan Reservoir shoreline is subject to substantial erosion due to stormwater runoff and historically poor stormwater management. Most of Prince William's Occoquan Reservoir shoreline is privately owned; landowners play a critical role in protecting the shoreline.

In the fall of 2012, Harry Wiggins completed a shoreline stabilization project on 533 feet of privately-owned shoreline in Lake Ridge, with support from Fairfax Water and Prince William County Public Works.

Another project is now planned for the fall of 2013, utilizing the same materials along 240 feet of additional shoreline. Please join us for an on-site tour and discussion of techniques used and lessons learned. Copies of the plans and budget will be available for review.

**Sudley Place – Community Partners  
in Clean Water Talk**  
with Julia Flanagan

Thursday, October 3, 7:30 to 9:00 pm  
Bull Run Unitarian, 9350 Main St., Manassas

Prince William County Watershed Management Branch is partnering with Sudley Place Townhomes Association to construct two rain gardens within their common area and reforest nearly 3 acres of riparian corridor stretching for over 1000 linear feet of the intermittent stream flowing through their community.

The effort is both environmentally beneficial and educational as the residents of this older development, built in the 1970s, join with the county to bring the first features within their community designed specifically to clean storm water at its source before it reaches Bull Run. Come learn about this endeavor and perhaps join the community planting day planned for a Saturday following the talk.

## Organic Matter in Streams Talk with Jake Hosen

Thursday, November 7, 7:30 pm  
Bull Run UU Church, 9350 Main St., Manassas

Organic matter is the energy currency of food webs; the carbohydrates, proteins, fats, and other compounds that all living organisms need to survive are composed of organic carbon. Everything in a stream is food for some organism, from the muck in the bottom of the stream (it's called detritus) to the fish we might want to eat.

Much of the stream food web is invisible to us, including bacteria that skim dissolved organic matter from the surrounding water and are subsequently consumed by other microorganisms, such as ciliates. As organisms process the organic matter they eat, much of it is respired, returning to the atmosphere as carbon dioxide.

Please join us to learn about complex food webs of streams and how the stream in your backyard is linked to global carbon cycles and climate change.

## Agricultural Streams and Buffers Walk with Jay Yankey

RSVP for directions to meeting location  
Saturday, November 9, 10:00 am

With more than 30,000 acres of agricultural land in Prince William County, keeping sediment and nutrient runoff from farms from entering our local waterways remains a very important issue.

Prince William Soil and Water Conservation District works closely with many farmers in the county to see that adequate buffers are restored or maintained to help filter pollutants from adjacent crop and pasture land. These vegetated buffers also serve as important wildlife habitat.

On the tour we will see both grass and wooded buffers, some that have been established for years and, in comparison, some recently completed. We will talk about how the Chesapeake Bay Preservation Act plays a role in the preservation and restoration of buffers. We will also showcase the incentive programs available to landowners interested in restoring agricultural buffers.

## Stream Steward Speakers

**Julia Flanagan** is the Prince William County Arborist, Watershed Management Dept. You can see the results of some of her early projects at Vet's Park and Cloverdale Park.

**Jake Hosen** is a doctoral candidate at the University of Maryland. Jake researches the chemistry of compounds that fuel the growth of stream microbes and how changes in microbial activity influence streams in the Parker's Creek watershed on land protected by the American Chestnut Land Trust.

**Clay Morris** is an Environmental Engineer with Prince William County Environmental Services, and has a background in restoration ecology and natural resource management. Clay is part of the award-winning stream restoration program in Prince William County.

**Harry Wiggins** is a hiker who has traveled 1,260 miles on the Appalachian Trail. He maintains a section of the trail along the Occoquan River and at Prince William Forest Park.

**Jay Yankey** is the District Manager of Prince William Soil & Water Conservation District. He also farms part-time growing 50 acres of grain crops, produce and bedding plants, which he sells to the public through his market stand on Glenkirk Road.



**Prince William Conservation Alliance**  
PO Box 6351  
2241-F Tackett's Mill Drive  
Woodbridge, VA 22192  
703-499-4954, [alliance@pwconserve.org](mailto:alliance@pwconserve.org)  
[www.pwconserve.org](http://www.pwconserve.org)