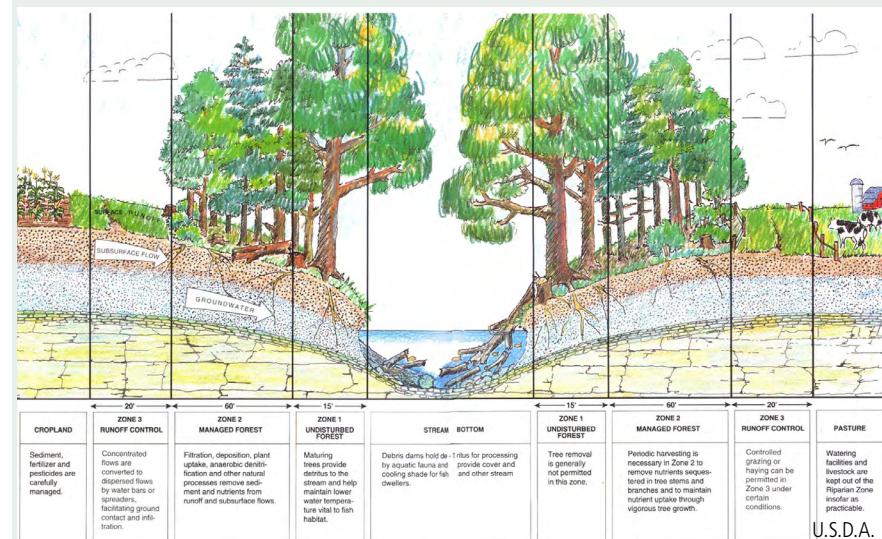


FALL 2015

CREDITS AVAILABLE



Green Infrastructure and Stormwater Management Speaker Series



Friday, September 11, 2015 / 10:30 a.m. – 12 noon /

Room 102 / Lancaster County Government Center

Forest Buffers and Stream Ecology: Research and Practice from the Stroud Research Center

1.5 credits (AICP CM & LA CES)

Speaker: Lamonte Garber, Stroud Water Research Center

<https://www.eventbrite.com/e/forest-buffers-and-stream-ecology-research-and-practice-from-the-src-registration-17794690398>

This presentation will review the current Best Management Practices for riparian forest buffers. This technique has been used for decades for its ability to filter contaminants from agriculture runoff and other land uses before those pollutants enter streams.

Attendees will learn what decades of research by the Stroud Water Research Center and other investigators have confirmed; that riparian forest buffers also play another important role: improving the health of the stream itself, thus enabling the stream to provide more ecosystem services for both humans and wildlife. Healthy streams process natural organic matter and pollutants more effectively than unhealthy streams.

Successful restoration of riparian forest buffers represents a cost-effective and long term option for enhancing water quality.

Co-Sponsored by:

**LANCASTER COUNTY
CLEAN WATER CONSORTIUM**

Restoring the Waters of Lancaster County and the Chesapeake Bay





Stream Buffer Planting | Matt Koffroth



Friday, September 25, 2015 / 10:30 a.m. – 12 noon /

Room 102 / Lancaster County Government Center

Lancaster County Watersheds: What Can Be Done to Achieve Local Water Quality Goals?

1.5 credits (AICP CM & LA CES)

Speaker: Matt Kofroth, Lancaster County Conservation District

<https://www.eventbrite.com/e/what-can-be-done-to-achieve-local-water-quality-goals-registration-17973592499>

This presentation will cover watershed basics, and explain how streams in Lancaster County are listed as impaired, what tools are used to fix "broken streams", and the need for long-term watershed plans to solve our watershed problems.

Learning Objectives:

- Local Water Resources and the threats to those resources both now and in the future;
- Watershed Implementation Plan elements and how these create a blueprint for fixing local streams and creeks in structured format;
- Grassroots efforts to educate residents and monitor their local streams and how these efforts are improving local watershed health. In addition, how these approaches by these groups can be used by local municipalities in their current stormwater regulatory requirements;
- The lessons learned from various watershed protection or restoration projects and the far reaching effects of these projects not only for Lancaster County Watersheds but the entire Bay Watershed as well, and
- What are the next steps for Lancaster County to delist our streams from the impairment list and how this could happen in a cost effective and timely fashion.

Friday, October 9, 2015 / 10:30 a.m. – 12 noon /

Room 102 / Lancaster County Government Center

Water Quality in the Susquehanna River: What Have We Learned Over the Past 30 Years?

1.5 credits (AICP CM & LA CES)

Speaker: Kevin McGonigal, Susquehanna River Basin Commission

<https://www.eventbrite.com/e/water-quality-in-the-susquehanna-river-registration-17973609550>

Is water quality improving in the Susquehanna River Basin? Are management actions making a difference? What are the next steps? These are a few of the questions that continually impact the decision making process surrounding the Chesapeake Bay restoration effort. Comprehensive water quality monitoring has been the means to answer these questions with the goals of quantifying changes in water quality and of helping to focus future management actions in the right direction.

Learning Objectives:

- Learn about the Susquehanna River Basin Commission (SRBC) and the Chesapeake Bay Non-tidal Water Quality Monitoring Network (NTN) and their role in the Chesapeake Bay restoration effort.
- Discover how local water quality fits into the context of the larger Chesapeake Bay ecosystem, related to the location and extent of nutrient and sediment conditions and changes across the watershed.
- Learn about current and historical nitrogen, phosphorous, and suspended sediment concentrations, loads, and trends at local monitoring sites (the Conestoga River and Pequea Creek) compared to others sites within the Chesapeake Bay Watershed.
- Attendees will have the opportunity to see actual effects of high flow events on nutrient and suspended sediment related to water quality both locally and regionally.
- Is water quality improving in the Susquehanna River Basin? Are management actions making a difference? What are the next steps?



Friday, October 23, 2015 / 10:30 a.m. – 12 noon /

Room 102 / Lancaster County Government Center

Using Trees and Technology to Meet Stormwater Management Requirements

1.5 credits (AICP CM & LA CES)

Speaker: Chris Peiffer, Plan-It Geo, LLC

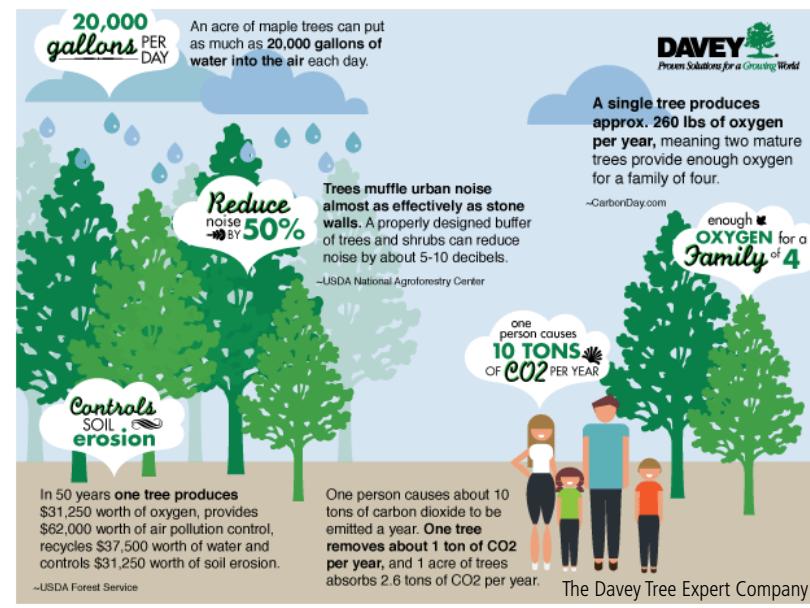
<https://www.eventbrite.com/e/using-trees-and-technology-to-meet-swmm-requirements-registration-18097072832>

Across Pennsylvania, forests and trees along streams, streets, in parks, yards, and throughout natural areas constitute a valuable urban and community forest. This resource is critical for the region's green infrastructure, contributing to environmental quality, public health, water supply, local economies, and aesthetic appeal. Urban forests provide "triple bottom line" benefits: social, economic, and environmental. From wildlife habitat to economic gains, trees are a valuable resource for protecting, managing and enhancing the quality of life of the region.

The presentation will describe the Urban Tree Canopy (UTC) process, results, and ways to utilize the data. It will describe how trees are captured in the Chesapeake Bay Model and the requirements set forth for this Best Management Practice in order to receive credit.

Learning Objectives:

- Using trees as a cost effective best management practice for stormwater management and the process and research to support this claim;
- Meeting Municipal Separate Storm Sewer System and Total Maximum Daily Loads requirements by planting and preserving trees;
- Tree reduction rates of pollution from urban stormwater runoff to support the Chesapeake Bay's Watershed Implementation Plan;
- Gaining local support and partnerships for achieving stormwater reduction goals; and,
- Online software applications for access to tree data and analysis community-wide



Friday, October 30, 2015 / 10:30 a.m. – 12 noon /

Room 102 / Lancaster County Government Center

i-Tree Tools: Overview of Software for Estimating Function and Value of Trees

1.5 credits (AICP CM & LA CES)

Speaker: Jason Henning, Ph.D., The Davey Institute and USDA Forest Service

<https://www.eventbrite.com/e/i-tree-tools-registration-18097876235>



The i-Tree suite of software tools was developed by the USDA Forest Service, the Davey Institute and their cooperators to help users assess and manage the structure, function, and value of urban tree populations. This presentation will focus on tools within the i-Tree suite that estimate tree functions associated with rainfall interception, avoided runoff, and the naturalization of stream flows in urban areas. Special focus will be given to i-Tree Hydro, recent updates to i-Tree Eco, and the new i-Tree Landscape tool. These tools allow for assessment of existing tree infrastructure, modeling of future conditions, and prioritization of future tree plantings at scales from the individual tree to the watershed.

Learning Objectives:

- Understand the tools in the i-Tree suite and which may best address a particular user's needs.
- Understand the benefits and limitations of the i-Tree Hydro model at watershed, municipal, and project scales.
- Explore methods for assessing existing and proposed tree resources to capture their function and value in an urban or community forest.
- Understand the top-down and bottom-up approaches to assessing forest structure employed in the different i-Tree tools.



City of Lancaster

Friday, November 13, 2015 / 10:30 a.m. – 12 noon /

Room 102 / Lancaster County Government Center

Green Infrastructure in the Urban Environment: What Can Municipalities Do?

1.5 credits (AICP CM & LA CES)

Speaker: Charlotte Katzenmoyer, City of Lancaster

<https://www.eventbrite.com/e/green-infrastructure-in-the-urban-environment-registration-18098177135>

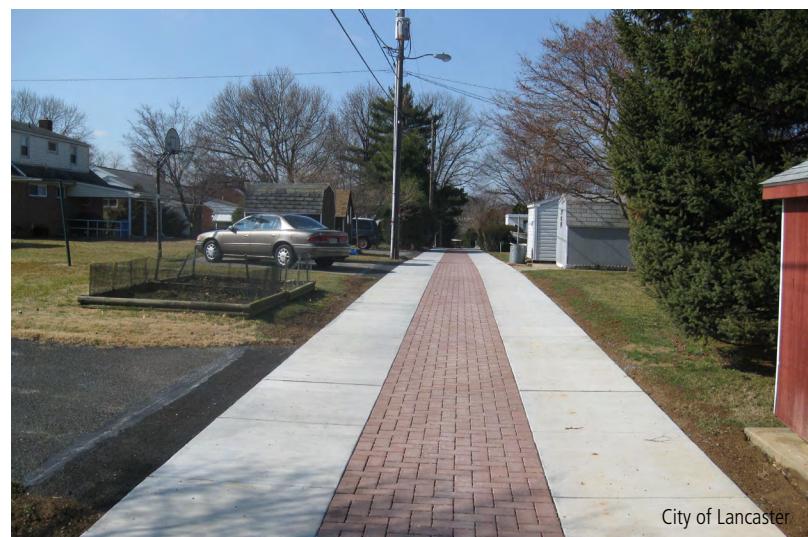
The presentation will detail the City of Lancaster's efforts to proactively reduce combined sewer system overflows by implementing economically viable, long-term strategies for mitigating the negative impacts on wet weather overflows on water quality. The presentation will provide an overview of the City's focus on installing green infrastructure technologies over the next twenty-five years.

Green Infrastructure project examples such as green roofs, porous paving, pervious paving, infiltration systems, bioretention swales, vegetated curb extensions, tree trenches and other technologies within parks, parking lots, streets, alleys and sidewalks, will be highlighted in the presentation.

Those attending the presentation will learn about the significant benefits of green infrastructure, including:

- The significant cost savings versus gray infrastructure;
- The strengthening of the community's economy and improvements to the health and quality of life for residents by linking clean water solutions to community improvements;
- The comprehensive response to multiple water quality drivers (e.g. TMDL, CSO and stormwater regulations) to maximize the value of the city's investment;
- The reduction of pollution from urban stormwater runoff to support the Chesapeake Bay's Watershed Implementation Plan; and,
- The challenges of implementing green infrastructure in urban environments with limited available green spaces.

Attendees will learn how all cities can maximize the value of their investments to meet multiple overlapping environmental regulations, while achieving lower costs and higher benefits from their infrastructure investments. In addition, they will learn how communities can implement streetscape improvements, rebuild outdated city parks, and repair public parking lots within a green infrastructure program. This can remove millions of gallons of runoff from combined sewer systems while making significant capital improvements which may otherwise be unfunded in many cash-strapped communities across the nation.



City of Lancaster



Friday, December 4, 2015 / 10:30 a.m. – 12 noon /

Room 102 / Lancaster County Government Center

Economic Ecology: Restoration of the Floodplain as an Alternative Solution to Regulatory and Environmental Challenges

1.5 credits (AICP CM & LA CES)

Speaker: Mark Gutshall, LandStudies

<https://www.eventbrite.com/e/economic-ecology-restoration-of-the-floodplain-registration-18098807019>

This presentation will demonstrate how municipal officials, developers, and professional consultants can deal with flooding, stormwater, MS4, Total Maximum Daily Load (TMDL), and the economic and environmental benefits achieved using floodplain restoration.

Several case studies will showcase “regional” examples of pollutant removal and flood reduction. Discussions will emphasize incentive based approaches for future funding. A common theme in this presentation is the restoration or manipulation of the floodplain that is an alternative solution to today’s regulatory and environmental challenges.

Learning Objectives:

- Understand how a project or plan will provide or protect our community assets (infrastructure)
- Understand how a project or plan will improve and build resilience into the local economy (flood reduction)
- Understand how a project or plan can improve or protect our natural resource assets (pollutant removal)

Questions about the series? Talk with

Mark Huber · 717-299-8333 · mhuber@co.lancaster.pa.us

Sign up for a session via link or contact

Latoya Westbrook · 717-299-8333 · Lwestbrook@co.lancaster.pa.us

This series is co-sponsored by:

LANCASTER COUNTY CLEAN WATER CONSORTIUM

Restoring the Waters of Lancaster County and the Chesapeake Bay



The Consortium is a forum for municipal officials, engineers, business and others to share resources and work in partnership toward compliance with the PA Department of Environmental Protection (PA DEP) and the U.S. Environmental Protection Agency (US EPA) Phase II Stormwater requirements. It is the mission of the Consortium to develop a proactive, efficient and cohesive countywide strategy to restore the waterways of Lancaster County, PA, ultimately resulting in compliance with federal and state regulations intended to reduce pollution and accelerate restoration of the Chesapeake Bay. It is the goal of the Consortium to bring all stakeholders to one table to design equitable policies and solutions. The Consortium will provide members with a variety of educational and informational materials and seminars. For more information, visit <http://www.lccwc.com>.