

Early nymph found May - July
Size: 1/4"



Late nymph found July - September
Size: 1/2"

Spotted Lanternfly Management for Homeowners Guide

Preventing Water Pollution is Everyone's Job!

Brian Vadino - Watershed Specialist

The Montgomery County Conservation District needs your help to prevent water pollution from entering our streams, lakes and rivers.

In Urban Environments

- Keep litter, pet wastes, leaves and debris out of street gutters and storm drains—these outlets drain directly to lake, streams, rivers and wetlands.
- Apply lawn and garden chemicals sparingly and according to directions.
- Dispose of used oil, antifreeze, paints and other



household chemicals properly—not in storm sewers or drains. If your community does not already have a program for collecting household hazardous wastes, ask your local government to establish one.

- Clean up spilled brake fluid, oil, grease and antifreeze. Do not hose them into the street where they can eventually reach local streams and lakes.
- Control soil erosion on your property by planting native trees, shrubs and grasses to stabilize erosion-prone areas.
- Encourage local government officials to develop construction erosion and sediment control ordinances in your community.
- Have your septic system inspected and pumped at a minimum every three to five years so that it operates properly.
- Purchase household detergents and cleaners that are low in phosphorous to reduce the amount of nutrients released into our lakes, streams and coastal waters.
- Install rain barrels and rain gardens to capture rainwater. Rain from rooftop areas or paved areas can be directed into the barrels and gardens rather than into storm drains.
- Help with local steam and park cleanup efforts and lend a hand with community tree plantings.

Agriculture

- Manage animal manure to minimize runoff to surface water and ground water.
- Reduce soil erosion and nutrient loss by using appropriate conservation practices such as cover crops, no-till farming, and ag BMPs (best management practices).
- Establish a sacrifice lot and perform rotational grazing to prevent overgrazing.
- Dispose of pesticides, containers and tank rinse water in an approved manner.
- Work with Montgomery County Conservation District and local watershed organizations to plan, install and maintain conservation practices on your farm. Grant funding may be available!

Forestry

- Use proper logging and erosion control practices on your forest lands by ensuring proper construction, maintenance, and closure of logging roads and skid trails.
- Protect water quality by preventing erosion near stream, lakes and ponds.
- Report questionable logging practices to your local municipality and Montgomery County Conservation District.

[Click Here](#) for more helpful tips on how to prevent water pollution at work, home and in our community! The above information was adapted from the United States Environmental Protection Agency.

TreeVitalize Watersheds Grant Program Summary

Brian Vadino - Watershed Specialist

The TreeVitalize Watersheds grant program provides funding to plant trees and shrubs along stream corridors, wetlands, adjacent upland areas, headwaters and naturalized stormwater basins. Through this program, dozens of such watershed restoration projects are conducted throughout the five-county Southeastern PA region every year.

The program receives funding from the Pennsylvania Department of Environmental Protection and corporate sponsor Aqua PA. The program is also supported through in-kind contributions from various partners. Montgomery County Conservation District partners with the Pennsylvania Horticultural Society to administer the program in Montgomery County.



In 2018, Montgomery County Conservation District assisted local project partnering organizations in completing 13 projects, through which the following results were achieved:

- **More than \$81,000 of grant funding invested**
- **3,887 native trees and shrubs planted**
- **18.96 acres restored**
- **More than \$91,000 of match from local partners**
- **2,351 volunteer hours reported**

The projects are helping to improve water quality, increase tree canopy, restore wildlife habitat conditions and improve quality of life here in Montgomery County.

Engineer's Corner: New Managed Release Concept

Gary Kulp PE - District Engineer

In December 2018, the Pennsylvania Department of Environmental Protection introduced the Managed Release (MRC). The MRC is a post-construction stormwater management (PCSM) strategy that involved the collection, storage, and infiltration of captured runoff through a best management practice (BMP) that is preferably vegetated and includes a portion of the captured runoff through an underdrain within the BMP, or from a pool protected from solar radiation. If the MRC BMP is not vegetated, then pre-treatment is required to meet water quality requirements. The MRC is intended to be used for project areas or subareas where infiltration is not feasible to meet regulatory requirements under § 102.8(g)(2). Figure 1 illustrates the components of a typical MRC BMP:

Figure 1: Managed Release Concept with Internal Water Storage (IWS) and Upturned Elbow for a Vegetated BMP

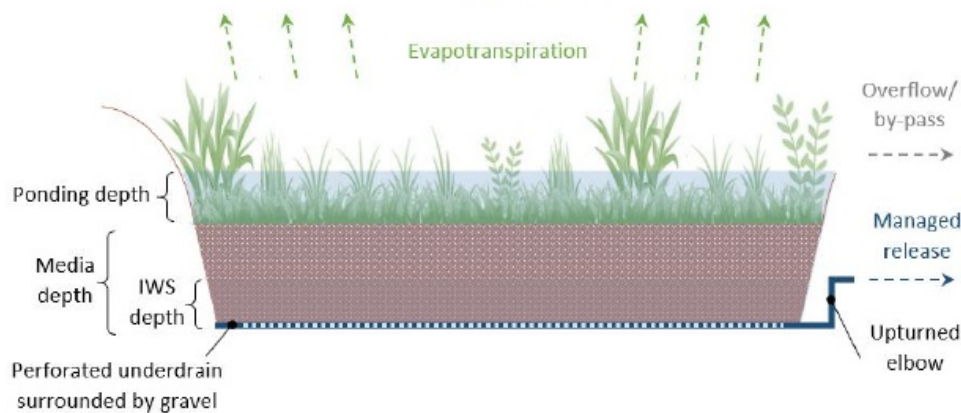


Figure 1: Managed Release Concept with Internal Water Storage (IWS) and Upturned Elbow for a Vegetated BMP

MRC requires storage (which includes the media void space) that temporarily impounds the captured runoff from storm events up to and including the 2-year/24-hour storm. The runoff is temporarily impounded for use by vegetation, filtered through a soil media or another acceptable pre-treatment device, infiltrated through in-situ soils to the highest degree feasible for a project site, and released through an underdrain and control structure at a rate similar to the lateral unsaturated flow movement to the receiving waters from undeveloped areas. An internal water storage is included in the design for further water quality and evapotranspiration (ET) benefits.

The MRC strategy may be used to satisfy Chapter 102 volume management requirements under 25 Pa. Code § 102.8(g)(2), regarding the net change in the pre- vs. post-development runoff volume from storm events up to and including the 2-year/24-hour storm ($\Delta 2$ volume). For projects that include infiltrating and non-infiltrating subareas and meet the applicability requirements, the MRC BMP can be combined with other volume reducing BMPs.

In accordance with 25 Pa. Code § 102.8(e), the person preparing the PCSM Plan shall be trained and experienced in PCSM design methods and techniques applicable to the size and scope of the project being designed. Due to the complexity of the design of an MRC BMP and the associated analyses, the Department of Environmental Protection (DEP) requires that a licensed professional engineer perform the design and analyses identified in this document.

The above information is taken from the MRC paper prepared by PA DEP; please see the paper for more detailed information, including the implementation of the 13 MRC Design Standards.

Cute and cuddly is not exactly what comes to mind for most people when they think of America's only marsupial. Opossums have a bad rap for being pesky rummagers of garbage cans and a toothy menace when they're cornered. With a mouth full of over fifty sharp teeth and an aggressive hiss, it's no wonder people find them distasteful. But contrary to popular belief, opossums are as beneficial to the environment and people as they are misunderstood.



There are several dozen species of opossum world-wide, but the Virginia opossum is the only species found on our continent. The name "opossum" was first given to the animal by Captain John Smith in his account of the Virginia Colony from 1608-1611. He derived the name from the Native Algonquin word, *apasum*, which means 'white animal.' As a marsupial, the opossum is unique from other mammal groups in that females give birth to small, honeybee sized young that they will carry in a pouch and nurse for 3-4 months until they grow strong enough to venture out.

Opossums have many unique qualities that have proven critically important to our environment and well-being. Primarily, they are expert tick exterminators and the unsung heroes in the fight against Lyme Disease. In a study done by the Cary Institute of Ecosystem Studies, it was discovered that a single opossum will eat an average of 5,000 ticks in a season. And if that wasn't incredible enough, these tough little guys are rabies-resistant due to their naturally low body temperature of 94-97 degrees, which makes opossums too hostile of an environment for the virus to survive. Even snakes don't have much luck taking down these environmental warriors because they are immune to the venom of every species in their natural habitat. As omnivores, opossums will take the opportunity to make a meal out of them instead.

Opossums might not be the most adorable of our native wildlife here in Pennsylvania, but they are essential members of our ecosystem that keep harmful pest populations under control and are unlikely to carry disease. Instead of shooing them away, we should welcome these docile creatures into our communities with open hearts and open minds.

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