



Wolf Museum Residential Demonstration Project

As part of the Green Infrastructure (GI) plan the City of Lancaster encourages property owners to manage the, 'first flush', first 1-inch of rainfall on their property and not allow it to discharge to the combined sewer. The use of GI to reduce pollution and erosive flows supports the attainment of the Watershed Implementation Plan for the Chesapeake Bay and to improve water quality in the Conestoga River. The Wolf Museum demonstrates methods that support the GI plan and function as a model for future projects.

The Lancaster County Conservancy--in partnership with the Wolf Museum, adjacent property owners, and neighborhood volunteers--used multiple methods such as rain barrels, a rain garden, and dry creek to address storm water runoff coming from and onto the Wolf Museum property.

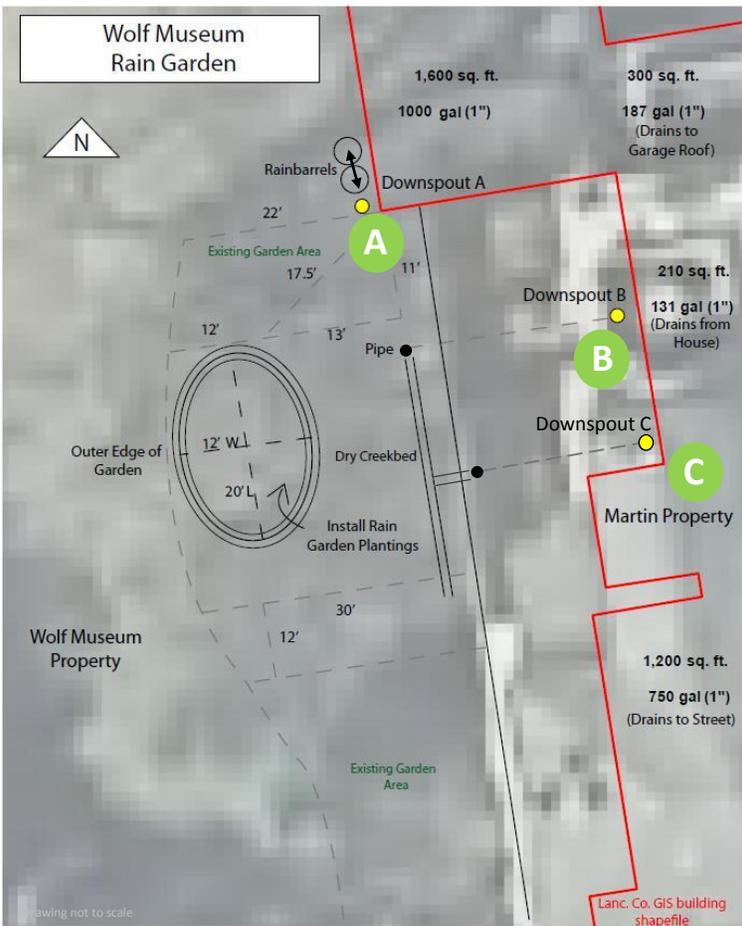


Figure 1

Downspout A is fed by approximately 1,500 sq. ft. of roof surface; during a 1 inch rain storm this would equal 938 gallons of water

The location of **2 Rain Barrels** and the **Rain Garden** addresses runoff from Downspout A. The rain garden was installed at least 10' from the foundation, in line with the downspout and slope to intercept the rooftop water. The rain garden was excavated to a depth of 18-20" and filled with a mixture of 40% topsoil from the site, 40% sand, and 20% compost for improved infiltration.

CREATING A RAIN GARDEN



Rain barrels connected to rain garden



Digging out the rain garden



Mixing the soil, sand and compost



Rain garden two months after planting



Dry creek capturing rainwater runoff

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Downspout B is fed by **approximately 210 sq ft.** of roof surface; during a inch rain storm this would equal **131 gallons of water**

Run-off from downspout B and C (See Figure 1) is directed into a dry creek / infiltration trench that was dug approximately 10" deep, 12" wide and 35' long to allow for slow infiltration. The design will minimize erosion from the discharge at the pipe and provide another method to slowly infiltrate rain water while adding an interesting feature in the landscape.

***About the Wolf Museum:** The Wolf Museum of Music and Art welcomes you to its botanical garden. For over fifty years the Wolf Institute provided piano and organ instruction for local residents and now serves as a museum of antiques, art, and music.*

Want to learn more about the Conservancy? Check out our website:
www.lancasterconservancy.org



WHAT CAN YOU DO?

Build a Rain Garden: Any size will help to infiltrate runoff from hard surfaces and reduce rainwater flowing into local waterways that eventually impact the Chesapeake Bay; use native plants to attract wildlife such as birds and pollinators

Add a Rain Barrel: Recycle the water with a rain barrel from your roof in your flower beds or within your landscape to keep water onsite

Create a Dry Creek and/or Infiltration Trench: A design using local rocks will add visual appeal to your landscape while slowing down runoff

Build a Dry Well: A subsurface storage area (excavated pit backfilled with stone) that temporarily stores and infiltrates stormwater runoff from rooftop structures

Reduce your Lawn: Add more native plantings especially deep rooted trees, shrubs, and herbaceous plantings to stabilize soil to help prevent erosion and reduce flooding

Protect Riparian Buffers: Volunteer to help protect a buffer near you; a riparian buffer is a wide strip of native vegetation along waterways that filter sediments and pollution