

Lackawanna River Rain Garden

Outreach Program Application Package

Introduction

Who are we?

The Lackawanna River Conservation Association is a not for profit charitable and educational organization. The Mission of the LRCA is to promote the protection, restoration, conservation and appropriate management of the Lackawanna River and its watershed resources. The Mission is achieved by involving the residents of the communities in the watershed with the river and the natural and cultural resources of the watershed in mutually beneficial ways.

The LRCA works with individuals, large and small businesses, community organizations, schools and governments at all levels to promote our mission, protect and enhance the environmental quality and values of our river and its watershed.

Our Offices are located in RIVER HOUSE 2043 North Main Avenue, Scranton, PA 18508

Issues Affecting the River:

The water quality and aquatic habitat of the river have improved over the past 30 years. The river now supports a viable fishery for native trout and it is becoming more popular for paddle sport. The development of the Lackawanna River Heritage Trail on old rail beds and flood levees along the river is also opening the river for more recreational access and serving as a protective greenway to further enhance the aesthetic and ecological functions that the river provides to our community.

There are major initiatives to improve our sanitary sewer systems and other work underway to reclaim abandoned mine lands and address mine drainage pollution in our watershed. The presence of a large urbanized corridor along the river continues to be an unmanaged source of water pollution that degrades our river every time it rains or snows. This type of non-point pollution is known as urban stormwater.

The lifestyles, technologies and economic behaviors of contemporary human societies in developed and developing countries around the world remain a basic and critical threat to the earth's environment. The urban habitat of cities and towns features large areas of land covered with asphalt and concrete for our automobile centered transportation systems and large roof areas for our buildings and homes. These areas are known as "impervious surfaces".

Urban Stormwater Runoff

Impervious surfaces do not allow water to penetrate into the ground as it does on undeveloped land. They concentrate trace chemicals from the combustion of fossil fuels, sediments from the use of deicing and antiskid materials, pet waste, fast-food and plastic litter waste and items like cigarette butts. They concentrate the flow of water and increase its velocity so that it becomes urban stormwater runoff. It hits our rivers and streams with a powerful punch of pollution and sediment every time it rains or snows.

Because we all have a hand in generating urban stormwater pollution, we all need to have a role in reducing its impacts on our rivers and streams. The Federal Clean Water Act now requires local municipal governments in “urbanized areas” (towns and cities with a population density of 5000 persons per square mile or greater) to develop pollution reduction plans for their urban stormwater discharges. The Clean Water Act requirements are contained in regulations for what are referred to as “Municipal Separate Storm Sewer Systems,” MS4 for short.

All of our urbanized towns now need to have their MS4 systems permitted and inspected every five years. The requirements include Public Outreach, Education and Involvement Programs (POEP) to engage residents and businesses in “Best Management Practices” (BMP’s) to reduce the volumes and levels of pollution from stormwater discharges.

In the Lackawanna River Watershed, the LRCA is encouraging residents to consider several BMP’s that homeowners can install on residential properties to help capture stormwater and infiltrate it into the ground instead of letting it flow off their property to become urban stormwater runoff.

All urban homeowners are required to insure that the Rain Leaders or Downspouts that drain the gutters along the roofs of homes and garages do not discharge into cast iron standpipes at building foundations that are connected to the home’s sanitary sewer lateral. The simple act now required in most municipal ordinances to disconnect downspouts from sanitary laterals can effectively divert thousands of gallons of rainwater out of the combined sanitary & storm sewer systems that are common to many older communities.

Homeowners with an interest in home gardening and a modest level of “do it yourself” skills can take several “next steps” to utilize some of the diverted rainwater by capturing, saving and using it in a Rain Barrel to water their gardens and shrubbery beds.

The diverted rainwater can also be channeled into a low lying site in a back, side or front yard and be infiltrated to become ground water by installing a “Rain Garden” or a “Soakage Trench”.

What is a Rain Garden and why is it important?

A Rain Garden is a shallow depression that collects water and is often planted with native plants. A Rain Garden is intended to help infiltrate rainwater from your home's roof, sidewalks and driveway into the ground on your property so that it becomes groundwater and not urban stormwater runoff.

Rain Gardens, Rain Barrels and Soakage Trenches are practices that individual homeowners can adopt to reduce runoff and improve water quality. If more homeowners adopt these and similar practices, we can reduce urban stormwater runoff and improve the environmental quality of the Lackawanna River and its tributary streams.

Rain Garden Outreach Program Application Requirements

The LRCA has secured funding from the Pennsylvania American Water Company and allocated support from our own membership fund that will allow us to reach out to residents in "urbanized communities" of the Lackawanna River Watershed to select up to 10 homeowners and/or small business owners of residential scale properties to participate in this Rain Garden Program. (Property ownership can be confirmed by providing a photocopy of a recent real estate tax payment or pending bill.)

LRCA is using this step by step application process to Recruit, Qualify and Select interested applicants. The successful applicants will be eligible to have one half or up to \$500.00 of the documented cost of their Rain Garden reimbursed. They must show documented and qualified expenses for their entire project. (A list of qualified expense categories included below.)

The objectives of this program are to facilitate the development and installation of up to 10 Rain Gardens that can serve as educational demonstration sites that will further encourage neighbors and other local residents to install Rain Gardens on their own properties. Property owners must agree to allow LRCA to access their gardens, with permission by appointment, for educational purposes.

Interested homeowners/property owners should begin the application process by conducting some research on Rain Gardens and Stormwater BMP's followed by calling the LRCA for a very brief over the phone interview. If the over the phone interview indicates that the applicant is qualified, we will schedule an appointment for LRCA staff to meet with the homeowner and review the preliminary concept plans and location being considered by the homeowner for the Rain Garden Installation.

Following the interview and site visit, the applicant will be approved to complete and sign the project application forms. The application must include a scaled drawing of the proposed Rain Garden that includes its location on the property respective of property lines, building foundations, drainage grading and adjoining property structures. The project sketch plan should also include a proposed list of flowers, plants and shrubs that will be planted in the garden or in adjacent landscaped areas. Once the forms are received, reviewed and approved by LRCA, the applicants will be given a written authorization to conduct the Rain Garden Installation.

**Lackawanna County Urban
MS4 Municipalities**

Blakely Boro
Carbondale Township
Clarks Summit Boro
City of Carbondale
City of Scranton
Clarks Green Boro
Dalton Boro
Dickson City Boro
Dunmore Boro
Fell Twp
Glenburn Twp
Jermyn Boro
Jessup Boro
Mayfield Boro
Moosic Boro
Newton Twp

Old Forge Boro
Olyphant Boro
Scott Twp
South Abington
Taylor
Throop
Vandling
Waverly Twp

**Luzerne County MS4 Municipalities
(within the Lackawanna Watershed)**

Avoca
Hughestown
Dupont
Duryea
Pittston Twp
City of Pittston (Pittston Junction)

Rain Garden Outreach Program Qualified Expense Categories

The LRCA will reimburse selected Rain Gardeners up to one half, or up to \$500.00 toward expenses for the following goods and services directly related to the installation of a Rain Garden or Soakage Trench on their property.

Labor: Homeowner labor is not eligible for reimbursement. However please track and document your labor on this project to assist LRCA with reporting requirements for in-kind volunteer labor.

Contracted Labor: is reimbursable when included on a contractors invoice if such labor is used on the project. The services of a Registered Landscape Architect or other Environmental Science Professional are eligible for reimbursement.

Plant Materials: All perennial flowering plants, woody herbaceous plants, shrubs and trees that are installed in and adjacent to the Rain Garden and/or in, on and along the drainage ways installed to convey rain leader flows to the Garden are eligible for reimbursement.

Stone & Masonry Materials: Gravel, Sand, Drainage Rock, Cobble Stones, Flag Stones, Pavers, especially "Pervious Pavers," and Drain Aprons used specifically as part of the design and installation of the Rain Garden are eligible expenses.

Soils & Mulch: Imported subsoil, top soils, wood chip mulch and peat moss mulch are eligible expenses.

Pipes and conduits: Plastic, Terracotta drainage pipes and related materials to convey rain flows and stormwater to the Rain Garden are eligible expenses.

Other Landscape materials: Landscape timbers, ties, logs, geotextiles and construction fabrics are eligible expenses.

Tchotchkes: Decorative Pond Frogs and other decorative garden items are not eligible for reimbursement; however we will consider them eligible as part of the project matching requirements.

Soil Amendments and Plants

- 2 to 3 inches of organic rich material
 - Compost
 - Mushroom soil
- Native species
 - Nursery or self-propagated
- Mulch
 - Wood chips
 - Shredded bark
 - Stones

Sample Plant List

Sun

Acorus calamus - Sweet flag
Asclepias incarnata - Swamp milkweed
Carex crinita - Fringed sedge
Eupatorium maculatum - Spotted joe pye weed
Iris versicolor - Blue flag iris
Juncus effusus - Soft rush
Lobelia cardinalis - Cardinal flower
Panicum virgatum - Switchgrass
Rudbeckia hirta - Black-eyed susan
Sagittaria latifolia - Arrowhead
Sambucus - Elderberry
Scirpus paludosus - Cloaked bulrush
Symphyotrichum - American aster
Symphyotrichum novae-angliae - New England aster
Zizia aurea - Golden Alexander

Shade

Arisaema triphyllum - Jack-in-the-pulpit
Caltha palustris - Marsh marigold
Campanula americana - Tall bellflower
Carex lupulina - Hop sedge
Iris versicolor - Blue flag iris
Martensia virginica - Virginia bluebells
Onoclea sensibilis - Sensitive fern
Osmunda claytoniana - Interrupted fern
Phlox divaricata - Wild blue phlox
Solidago flexicaulis - Zigzag goldenrod
Symphyotrichum - American aster
Symphyotrichum novi-belgii - New York aster

- Almost any plant that can handle wet feet *and* dry conditions

LRCA Rain Garden Application Form

Applicants will be authorized to complete this form following the interview and site visit by LRCA staff

Name: _____

Street Address: _____

City/State/Zip: _____

Phone(s): Home _____ Mobile _____

E-mail: _____

Affiliations: Please circle if you are a member in good standing of one or more of the following:

- LRCA/LVC ● NEPA Rail Trail Council ● Countryside Conservancy ● Scranton Tomorrow
- The Greenhouse Project ● Carbondale YMCA ● Lackawanna Historical Society
- Everhart Museum ● Heritage Valley Partners ● Penn State Master Gardeners
- Penn State Master Watershed Steward ● Trout Unlimited ● North Branch Land Trust
- Other (Historic, Civic, Fraternal, Cultural, Recreation, Conservation)

Group Name: _____

Your Property tax ID #: _____

Property type (circle): Single Double Triplex Quad Residential commercial

Estimated Square Footage of Impervious Surface total: _____

Roof: _____ Sidewalks: _____ Driveways: _____

Estimated size of Rain Garden: _____

Name & contact info for Rain Garden Designer (If other than property owner) _____

Name & contact info for installation Contractor (If other than homeowner) _____

Please include: Scaled sketch of your property showing location of Rain Garden; Scaled sketch of the Rain Garden showing proposed location of plants; Proposed list of plants; Estimated budget for plants, labor and other reimbursable materials; Several Photos of home, garden, existing conditions. Return these documents in 10x12 envelope to: LRCA, 2043 North Main Avenue, Scranton, PA 18508 by mail, deliver in person or scan to pdf and email to director@lrca.org and lrca@lrca.org