

The North Kingstown Free Library Rain Garden

What is a Rain Garden? A rain garden is a planted depression or a hole that allows rainwater runoff from impervious areas, like roofs, driveways, walkways, parking lots, and compacted lawn areas, the opportunity to be absorbed. This reduces rain runoff by allowing storm water to soak into the ground, rather than flow into storm drains and surface waters which causes erosion, water pollution, flooding, and diminished groundwater. Runoff from these types of areas can also carry litter and pollution into the nearby Academy Cove.



Why was this garden installed? The goal of this project is to intercept and treat through controlled infiltration, not only much of the roof run off from the Library building itself, but also the property's overland storm water sheet flow from larger scale weather events, both of which travel on the surface and enter Academy Cove untreated. There are few locations in this urbanized watershed to retrofit best management practices to control nonpoint source pollution, sedimentation, and erosion as well as promote the restoration of high quality waters. This project includes additional educational signage and literature, available in the library, as well as an enhanced pathway system designed to guide town residents and library patrons to the rain garden site for not only the educational experience it will afford, but also the ascetic beauty of the overall location.



Design features of the NKFL Rain Garden – At approximately 750 square feet, this cluster of rain garden structures has been sized to handle the first inch of runoff from non-porous surfaces and the surrounding lawn that drains naturally into the area. This first inch of rain typically carries the greatest quantities of pollutants. The plants chosen for the garden are native to the region and tolerant of these intermittently wet conditions. They have also been selected for appropriate mature sizes and heights that fit the specific requirements of the location in which they are planted. The selected plants, listed in this brochure, have been chosen to enhance the landscape beauty and attract and support wildlife and pollinators.

The North Kingstown Free Library Rain Garden Plantings List

fern leaf bleeding heart	day lily
jap painted fern	blue eyed grass
Lenten rose	clethra
Jacobs ladder	lung wort
brunner	autumn fern
lady fern	interrupted fern
goats beard	black snake root
astilbe	solomon's seal
cinnamon fern	turtle head
toad lily	corydalis
columbine	butterfly milkweed
foxglove	carex sedge
Siberian iris	cone flower
blue flag iris	tickseed
liriope	ghost fern
hostas	Christmas fern
dre's dagger fern	



Residential Rain Garden Guide

Rain gardens are literally sprouting up all over North Kingstown. The North Kingstown Town Hall and the Chamber of Commerce both have rain gardens. New developments, both residential and commercial, are including them in their landscape designs and older residential neighborhoods like Lake Drive and other School Street side roads have been "retrofitted" to include rain gardens as a low impact green method of handling stormwater runoff. Perhaps a rain garden is right for your home or neighborhood too.

Why should I create a rain garden?

Stormwater runoff carries pollutants and solid wastes directly to our storm drains, streams, rivers and ponds. Rain gardens allow stormwater to infiltrate slowly into the soil, which filters it as it replenishes the groundwater. This results in overall improved water quality as groundwater, in turn, feeds those same ponds and streams. Plants take up some groundwater and some may go into storage in the groundwater aquifer, thereby reducing the volume of runoff.

Selecting & preparing a site:

Site selection should be based upon an identified spot in your lawn or landscape where you can easily divert downspouts or driveway runoff. Avoid spots that are real shady or that have poor drainage. Also, rain gardens should be at least 10 ft. from buildings and septic drainfields. Size it to be about 20-30% of the area from which it is receiving runoff. It can be any shape you like, but keep in mind, the garden's center must be about 6 inches lower than the edges. In order for your plants to flourish, the rain garden should be able to drain within a few hours to, at most, a day after a rainstorm; so prepare the soil so that it can drain easily. If your soil is somewhat sandy it may only need to be loosened and mixed with mulch or compost. Clay or silty soils may need more preparation such as the addition of a bottom layer of gravel topped with a mix of sand compost and the native soil. Consult websites in the "**Rain Garden Resources**" section for more detailed information.

Selecting your plants

A rain garden can be simple or quite elaborate and design information can be located on the websites listed. Native plants are preferable as they are naturally better adapted to local conditions and will have a much better chance of flourishing. Chose plants that will provide color and interest throughout the growing season and make sure you take the amount of sunshine your chosen location receives into consideration during the selection process. Finally, plants that are beneficial and attractive to pollinators such as butterflies, bees, and hummingbirds can help to alleviate the pollinator crisis facing our world today. Once your garden is complete, you can enjoy it knowing you've done your part to not only protect your watershed, but also to help out the local pollinators upon which our flowers and food crops are so dependent upon.



Maintaining what you have created

Newly established rain gardens may need to be helped along during periods of drought by some intermittent watering, but once they are established, this is not generally a concern. The most important task is to try to keep your rain gardens free of weeds and other invasives and prune any shrubs and small trees you might select in order to keep them at an appropriate and healthy size and shape for their location. As the years go by and your rain garden plantings become truly well established, weeding becomes of minimal concern as your plants will, on their own will keep weeds at bay.

Rain Garden Resources

University of Rhode Island

<http://web.uri.edu/riss/take-action/simple-steps-at-home/rain-gardens/>

Northern RI Conservation District

<http://nricd.org/plantraingarden.htm>

Rhode Island Wild Plant Society

www.riwps.org

New England Wildflower Society

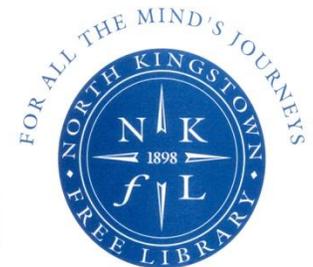
<http://www.newfs.org/store/buy-native-plants>

Low Impact Development Center

www.lowimpactdevelopment.org/raingarden_design/

Greenscapes Massachusetts

www.greescapes.org



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