

Designer **Beth Riley** *Creates* Rain Garden

AT GIBBONS PINES PARK

Madison, NJ

January 2018

Beth Riley, owner of The Potted Garden was contacted by the Borough of Madison council representative Astri Baillie, requesting design assistance with a recent curb-cut created at Gibbons Pines Park located in Madison. The Borough created a break in the curb (known as a curb-cut) to allow stormwater to runoff from the street to enter a pre-engineered shallow depression. The objective was to create a rain garden allowing capture of stormwater runoff from the surrounding area. Rain gardens reduce runoff volumes and filter pollutants.

When curbs exist between impervious surfaces (roadways) and the location of the rain garden, a curb cut is needed.

The curb-cut completed by Madison, allows the water to flow into the rain garden. The image shows the pre-planned drainage area created by the curb-cuts, before the area was developed into a rain garden.

While the curb-cuts and the shallow depression existed, when Beth was contacted, the rain garden was yet to be developed. A weedy patch started taking over within the depression which was becoming unattractive to local residents. Beth donated her time and talent, immediately completing an onsite visit initiating an assessment and subsequent designs.



Beth developed a straightforward design, with reduced maintenance a key element and a garden format often desirable in smaller public parks. The design was reviewed by The Friends of Madison Shade Trees and through funding and donations was implemented, under Beth's direction, in June of 2018.

Native plants within a rain garden, control erosion by stabilizing soils and increase infiltration, leading to an overall improvement of water quality. Beth's native plant design was developed for the shallow depression (basin of the rain garden) and an additional collection of native perennials were curated for the sunny slope abutting the rain garden.



Basin



Slope at left and rain garden basin to right

The rain garden collection along this 75' swale includes:

- River Birch (*Betula nigra*)
- *Packera aurea* (Golden Ragwort) and *Dennstaedtia punctiloba* (Hay-Scented Fern)

The sunny slope above the rain garden includes a pollinator friendly collection of:

- *Amsonia hubrichtii* (Blue Star)
- *Asclepias incarnata* (Swamp Milkweed)

The second image shows Beth's process of laying out the plant materials based upon the design. The plant materials were installed in June with the assistance of Madison's Department of Public Works.

Rain gardens are planted with native plants, which serve to enhance both the aesthetic and the ecological quality of the



Spring 2019, 10 months after installation



Second year, spring foliage on River Birch grove and *Packeria aurea* sporting yellow blooms



Spring blooms prevail as *Amsonia hubrichtii* emerges on the sunny slope

space. A rain garden is a landscaped, shallow depression that captures, filters, and infiltrates stormwater at the source before it becomes runoff, with the potential of polluting waterways. When it rains, the rain garden will fill and within 24-48 hours following a rainstorm, the water will entirely infiltrate.

Rain gardens are a simple, cost-effective tool homeowners, municipalities, and schools can use to reduce stormwater runoff, improve groundwater recharge, and trap pollutants before they reach our waterways. A rain garden has two main goals. The first goal is to serve as a functional system to capture, filter, and infiltrate stormwater runoff at the source, and the second goal is to be an aesthetically pleasing garden.

Rain gardens are an important tool for communities and neighborhoods to create diverse, attractive landscapes while protecting the health of the natural environment. Rain gardens can be readily implemented throughout our communities to begin the process of re-establishing the natural processes of the land. They provide the opportunity to establish native plant communities to promote biodiversity and habitat for beneficial wildlife, as well as integrate necessary soil improvements and native plants adapted to periodic wet and dry periods mimicking our New Jersey natural landscape.

Gibbons Pines Park, a triangular corner and a gateway to Madison, at Gibbons Place, Woodland Road and Loantaka Way, was rescued from development in 1998 when builders, the Borough, and the Morris Land Conservancy declared the irregular tract and rear slope a passive public park. 🌿