

MARLBORO RECREATION RAIN GARDEN

It starts with a dream

We looked to the Rutgers Cooperative Extension to verify the best location for our proposed rain garden, as it was outlined on a report from them for Marlboro Township. They are extremely knowledgeable and helped us learn more.



With coordination between the Environmental Commission and the Green Team, research begun. The Environmental Commission professional from the Township Engineer helped with design and the engineering side of making a rain garden purposeful in storm water management.

Bring together the stakeholders

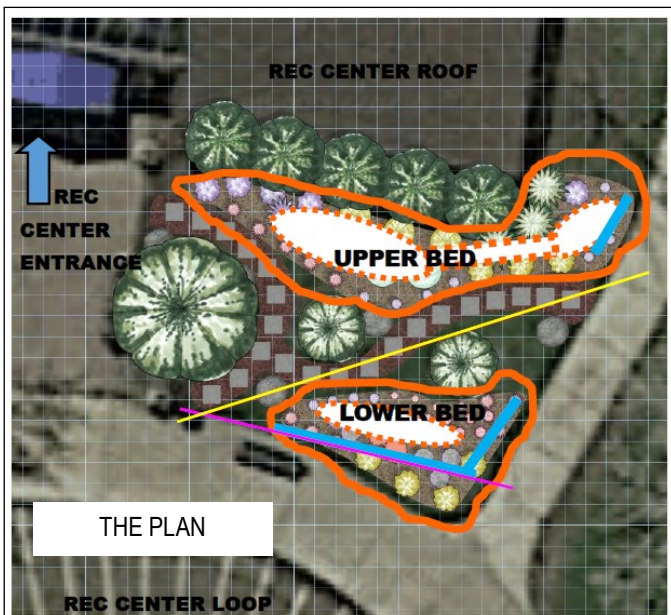
Township Administration, the Recreation Department, Department of Public Works, Township Engineer, Environmental Commission, and Green Team would all have a role.

Seek funding

Design was completed and a grant was applied for. The Association of New Jersey Environmental Commissions (ANJEC) came through with funding after reviewing our plans.

Several “perc” tests were done to check the soil to verify recharge.

Check before you dig! 811 for utilities mark-out was called with a scheduled date to mark the property. To maintain a valid read, it cannot be done too far in advance. We had some idea where utilities were, and our design reflected that, however, we did have to shift a small portion of the design to accommodate exact locations.



UPPER BED - should be graduated down to about 18 inches in its center as indicated. Where noted set aside dug out material)

LOWER BED - Remove the grass to expose the dirt about 18" down where noted set aside dug out material)

1/2 inches of sand will go in both depressed areas in upper bed—sand is by the rec side door

Using the dug out material, a layer of dirt goes above the sand layer, and a low berm should be created where indicated in blue, on the edge of each bed.

LEGEND:

- EXISTING TREE OR BUSH REMAINS IN PLACE
- AREA OF DISTURBANCE
- AREA OF DEPRESSION
- BERM
- GAS LINE
- ELECTRIC LINE

We created a plant list after consulting various sources including Rutgers Extension, Monmouth County Master Gardeners, our own Community Garden Chairperson, a Monmouth County Parks Naturalist, and the owner of Morganville Flower Farm, who donated most of the plant life., which includes primarily native draught and flood resistant plants.

We determined the best rain barrel for our purposes and added that to the garden, installing in advance. We also discovered that a rock border would be needed to keep dirt in place and scoured

Common Name	Botanical Name	Family name	size	Ciccor
Blazing Star	Liatris spicata	Asteraceae	1 gal	
Cardinal Flower	Lobelia cardinalis	Campanulaceae	1 gal	
Little Joe Pye weed	Eupatorium dubium	Asteraceae	2 gal	
Common Milkweed	Asclepias syriaca	Apocynaceae	not found	
Swamp Milkweed	Asclepias incarnata	Apocynaceae	1 gal	
	Panicum virgatum	Poaceae		
Shenandoah Switch Grass 'Shenandoah'		Poaceae		not found
Butterfly weed	Asclepias tuberosa	Apocynaceae		
Hello Yellow butterfly weed	Asclepias tuberosa	Apocynaceae		
Creeping Phlox white	Phlox subulata			

social media for who might want theirs gone. Found it on Craigslist!

THE PLANTS

Now the work really starts

Marlboro Township has a Municipally sponsored teen volunteer organization. The Teen Advisory Committee meets regularly, discusses leadership principals and interests in municipal operations, and also does volunteer work around town. With our focus on outreach for this demonstration project, we knew this to be a perfect fit, getting assistance while teaching the next generation the importance of sustainable initiatives and this natural form of storm water management.

A coordinator for several area Girl Scout Troops of varying ages, was seeking a project having to do with the environment. We got them on board and planned a date for a special event of planting and learning.

Before the Big Day

The project was explained to the Recreation Department (REC) who has been great partners and happy to see the results. The Department of Public Works (DPW) pulled through in a big way. DPW dug out the planting beds, no small task going 3-4 feet down and has helped a great deal with much of the really heavy lifting, including moving a dozen milk crates of garden stones!

Coordination of the plant beds was done with master gardeners, our Naturalist, Environmental Commission and Green Team. The plants, ornamental rocks to act as a border, additional soil and mulch were set in location by the team.

Let the fun begin

Planting was done in groups, with other activities happening through out including learning about composting and the importance of worms in the garden, introducing the benefits of the rain barrel including home usage and painting rocks for a rock garden.

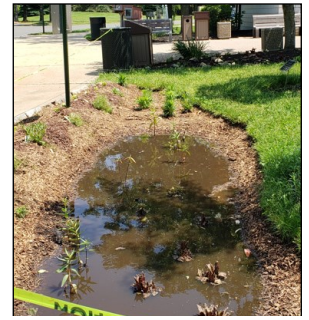
It was a long day with hard work, a natural package free snack of bananas and reusable water bottles filled with filtered tap water,. A learning experience all around, as we talked about the purpose and benefits of the rain garden, plastic reduction, and using re-usable bottles with filtered local water source.



PLANTING AND LEARNING

Then it rained

And rained and rained. The volunteers got out just in time! We checked the garden to see how it handled all that water, which is its main purpose. It functioned in keeping the water onsite instead of runoff into the street. We checked the next day and the pooling was still to great. Marlboro is known for “marl” a clay like soil and despite our many perc tests in different areas and conditions, the re-charge was just too slow and we had to face the facts that the soil would need to be remediated.



OOPS - STANDING WATER

A great learning experience

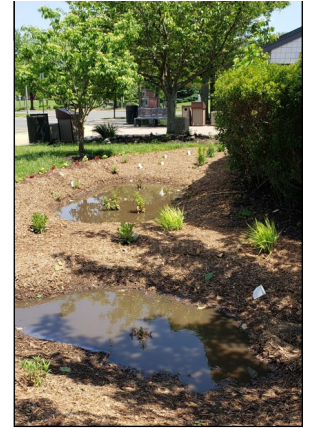
It wasn't quite back to the drawing board, because our garden lived up to its promise, however we knew it needed a little help. We brought in the Rutgers Cooperative Extension for guidance before making any major changes. We were happy to hear that we actually did really well, that the issue was not that uncommon and that it could be fixed... with more work.



HOW TO FIX

We found the right vendor through a quote process and making sure the materials were suitable. That vendor brought the ground material to just behind our garden.

We trenched between two sections so that the overflow would go to the lower garden portion. We set plants aside, dug out the planting beds, found the clay deep inside, mixed it with the compost and sand, put it all in place and re-planted.



Sounds easier than it was, but the Green Team worked with TAC volunteers as we taught them the reason for what had occurred as well as the methods for fixing it. It was painstaking labor, took over two days, but well worth it. Lessons learned; go for the soil boring AND the perc test!

Demonstration project

Due to its very public location, the rain garden has attracted attention from those using the REC center and raises awareness about



RE-PLANT AND RE-FILL



landscaping solutions to use at home, from plant choices to plant location, as well as rain barrel use and tips for sustainable irrigation and drainage. The garden now performs optimally with little to no standing water, catching runoff from the roof and sidewalk above, preventing runoff from going to the street and sewer, and allowing for ground water re-charge to be absorbed by plants and filtered by soil, just as nature intended.

The Marlboro Recreation Rain Garden Today