Home Construction Agency Launches Rain Garden Solutions

By Eric Lambert, Construction Director at Habitat for Humanity - Greater Columbus

Habitat for Humanity - Greater Columbus has started to implement rain gardens in the lawns of a few urban homes with the potential for storm water runoff challenges. We have implemented two gardens so far, with another one on the way. In these rain gardens, we have created a water collection area with a slow release valve system that allows the water to pool during heavy periods of rain. The water is being slowly released in to the area garden which we have planted with native plants that thrive in wet ground and absorb water as well as a covering of mulch for further absorption.

Our hope is that these new rain garden features being built on existing in-fill lots will reduce excess flow of rain water in to street storm water systems that are already challenged. In addition to helping to reduce street and storm water system flooding, the homeowners will enjoy the benefits of the visual appeal, the elimination of standing water to reduce mosquito breeding, and the added attraction of butterflies and other beneficial insects to the garden plantings.

As Habitat continues to install rain gardens as solutions to street storm water challenges, we will gain even more first-hand experience on the benefits of urban rain gardens which will drive our future landscape and neighborhood planning. The report from our homeowners so far is extremely positive, and the children especially love the gardens. It’s a perfect way for us to educate and instill a sense of protection of the environment in even the youngest members of our Habitat families!

2st Quarter Calendar of Events

March - September
COSI Water Exhibit
From COSI’s website: WATER explores where water occurs on Earth, how it’s used, and how we can become better stewards of our water planet. WATER is designed to engage all learning styles through hands-on and digital interactive elements, videos, wall panels, models, specimens, and live animals. More information and ticketing can be found at: http://www.cosi.org/exhibits/water

May
May 16th: Franklin Soil and Water Rain Garden Kit Pick-Up
If you ordered a rain garden kit through Franklin Soil and Water’s annual spring sale, pick up is at their office (1328 Dublin Rd., Ste. 101 Columbus 43212) between 8:30am and 4:30pm.

May 11th & May 12th: Chadwick Arboretum Spring Plant Sale
This annual plant sale offers all kinds of plants for sale: rain garden plants, native plants, shrubs, trees, bog plants, rain barrels & accessorites, and much more! Visit http://chadwickarboretum.osu.edu for more information, including a plant list.

July
July 27-29: Midwest Native Plant Society Conference
This conference features fantastic speakers, field trips, and vendors - all focusing on native plants! Hosted at the Bergamo Center in Dayton, OH. Visit http://www.midwestnativeplants.org/ for more information.
Featured Project: North Congregational United Church of Christ

North Congregational UCC (at 2040 Henderson Road in Columbus) has constructed three rain gardens in the past 8 months. The church building has been added onto several times and features numerous varied rooflines and drainage conduits. After discovering some old drainage tiles had collapsed, we received an estimate of $8000 to repair those pipes connecting downspouts to the street. Instead, the rain gardens were selected as an option to enhance the landscape and watershed, at about one-eighth of the cost. Native species have been chosen for planting in the gardens, with help from the Blue Thumb Guidebook (from Franklin Soil and Water Conservation District).

Stephanie Suter was very helpful as a sounding board as we calculated the garden sizing and layout. The east garden by the entrance doors features a curved basin with shrubs and flowers and a “dry streambed” of stones salvaged from the excavation. We ordered a rain garden informational sign this spring for that area. The west garden is long and narrow and shallower, featuring a windbreak row of 13 arborvitae and some deciduous shrubs and a raised platform for a rain barrel by the downspout. The north garden will include plants from a “kit” batch ordered from Franklin Soil and Water District springtime sale. Overflows for the gardens were part of the design, but we don’t expect to see that happening very often. An 85 gallon rain barrel (or two) by the north garden will divert some of our roof water for use in a vegetable garden maintained by church members which serves a local food pantry.

North Church has had a Green Team working for several years to improve the eco-footprint of the church and lead by example. We have planted native shrub seedlings from Soil and Water District sales in many of the past 5 years to enhance the landscape (if the mowers and bunnies leave them alone). An energy audit of the church building helped us prioritize internal upgrades to steward our resources more wisely. Covered bike parking racks have been added near the east entrance. More efficient windows have been installed in key locations, and insulation and air sealing work is being tackled bit by bit. “We are doing these things because we believe we are all connected, and that actions like this will make a positive difference in the community and world.” The paybacks are financial and ethical, exactly what sustainability is about!

Check out our Sister Initiatives:
Greater Cincinnati Rain Garden Alliance (Mill Creek Watershed Council of Communities)
http://millcreekwatershed.org/rain-gardens.html
Marietta Region Rain Garden Initiative (Friends of Lower Muskingum River)
http://www.muskingumriver.org/rgcleanriver.html
Toledo-Lucas County Rain Garden Initiative (Lucas Soil and Water Conservation District and American Rivers)
http://www.raingardeninitiative.org/
Chagrin River Watershed Partners
http://www.crwp.org/LID/rain_gardens.htm
Athens, OH (Athens Soil and Water Conservation District)
http://www.projectplant.org/raingardens.html

(Contact us if you have an initiative started and it’s not listed here: Stephanie Suter at ssuter@franklinswcd.org)
Rain Garden Planning: Solving Drainage Issues? Not every time...

A common misconception is that a problem area where water might stand for a few days is a good location for a rain garden. More often than not, it is not a good idea to put a rain garden here. Rain gardens are designed to drain within 24 hours of a rain event. In an area that has poor drainage, or has too much water leading to that area to properly drain well, is unlikely to drain within that 24 hour period necessary for a rain garden to function well.

Problem areas with poorly draining soil have a few things going on: likely a high water table during seasonal wetness, perhaps compacted soil, and probably soil particles that are just too small and close together to be able to let water pass through and in between them (like a very clayey, unaggregated soil). Other factors may lead to the situation: too much water flowing to the problem area for the soil to handle, a perched water table, a broken tile or water line somewhere, previous land use (like a parking lot is underneath), a natural spring or seepage, etc. In any event, excavating out the topsoil and creating a depression in this area is very unlikely to all of a sudden create a well draining garden area.

There are some remedies that can help alleviate a situation like this, though. Sometimes the area can still be planted with deep rooted plants, preferably with more extensive root systems like trees and shrubs. The area is likely to still stay a little damp even with the extra uptake the plants can provide. Finding the source of the problem is the best answer to help lead to the solution. If there’s an excess amount of water coming to your problem area see if it can be redirected. Take a look around and find out if there are any impervious surfaces that are creating sheet flow and running “downhill” to this area, like a nearby garage, shed, or other structure without gutters. A lot of times the storm water runoff from these areas can be captured “uphill” of the problem area through the use of a rain garden or rain barrel. Minimizing the amount of water entering the poorly drained area will help.

In other instances, a remedy might be to check for any type of nearby outlet, like a storm drain or swale. These can get clogged up with leaves, yard waste, or excess soil. The outlet could be used as an overflow to the problem area if the water can get to it. Creating a dry streambed or small swale directed to the outlet may prove to assist in the water flow. If this works, check the percolation rate of the soil once it seems to be working regularly. If good drainage has prevailed, installing a rain garden to intercept the water here can help infiltrate the water and the outlet can still serve as an overflow. An example of this was done at the Annehurst Elementary School rain garden in Westerville. A large amount of water was flowing to an area that couldn’t be drained properly because of the distance and incorrect grading of the closest storm drain. Putting in a rain garden and tapping into the existing storm water line for overflow has immensely improved the drainage of this area.

Again, checking the source of the poor drainage is always the best bet to help correctly “treat” the problem with the right solution. Planting lists for poorly drained areas can be obtained from your local Soil and Water Conservation District or local nurseries and garden centers. If you’re unsure of the problem, seek guidance and even go out to the area during a heavy rain to see if you can tell what’s going on to be sure you put the right practice in the right place.
Featured Plant: Turtlehead
White or pink turtlehead is a great rain garden plant to be located within the middle section of the garden where it’s not receiving the most amount of excess water but will receive it more often than the outskirts of the garden. Turtlehead blooms in August and September and has either white blooms (*Chelone glabra*) or dark pink blooms (*Chelone obliqua*). Butterflies are attracted to this native plant’s snapdragon-like flowers.

Turtlehead grows between 2 and 4 feet tall. It does very well in part shade but can also tolerate full sun if the soil is kept a little more moist.

Resources for the Homeowner
Winter is a great time to start planning for a rain garden. The Central Ohio Rain Garden Initiative has many resources to help in the planning process. The main resource is our website: [www.centralohioraingardens.org](http://www.centralohioraingardens.org). This is a “one-stop-shop” for all things rain garden related, and it includes: sizing information, steps to building a rain garden, considerations, planting lists, case studies, pictures of rain gardens across central Ohio, and an area to submit your rain garden to our tracking system once it’s completed. Other educational and technical resources available include:

- Quick Guide to Planning and Installing Rain Gardens
- Brochures
- Rain Garden yard signs (sold for $15 each through Franklin Soil and Water)
- Planting lists
- *The Blue Thumb Guide to Raingardens* (sold for $18 through Franklin Soil and Water)
- Electronic versions of other rain garden manuals
- Requests for workshops

Cost-share grants available
There are several cost-share grants available to residents from partnerships that Franklin Soil and Water Conservation District has with municipalities and Franklin County. Applicants must be residents within one of the municipalities listed below. Franklin County residents with low-to-moderate income may also qualify for a cost-share grant through June 30th. The cost-share program exists as an incentive for installing a rain garden on residential properties. The grants allow residents to turn in their receipts for plants, compost, and mulch. Amounts to be reimbursed vary from location to location. Contact Stephanie at (614)486-9613 x125 if you would like more information and are a resident of the following locations: Franklin County Townships (low-to-moderate income bracket), Westerville, or Gahanna.

Don’t forget to submit your rain garden online today!
[www.centralohioraingardens.org](http://www.centralohioraingardens.org)