

CENTRAL OHIO RAIN GARDEN INITIATIVE

THE RAIN GARDENER



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www.centralohioraingardens.org

Homeowner/Engineer Builds a Garden

Submitted by: Jim Watkins

Watcon Consulting Engineers & Surveyors, LLC located at 83 Shull Avenue in Olde Gahanna partnered with the City of Gahanna to solve an ongoing existing drainage problem on Town Street.

My office is a corner lot that is located at the SW corner of Shull Avenue and Town Street. This area of Olde Gahanna has streets with no curb & gutter system to collect pavement drainage. Whenever it rained, the office parking lot and the Town Street area would flood with standing water for days. Larger rain fall events would flood route from the parking lot/Town street area to the office's rear yard and eventually percolate thru the existing soil. Needless to say, mallard ducks loved this area!

Sometimes it was embarrassing because some of my clients would get splashed by passing motorist on Town Street. I approached the City and suggested that a rain



garden idea could be a good possible solution to this existing drainage problem. The soils in my rear yard are very good in terms of percolation. A percolation test in the existing soils revealed a 20 minute drain time of an 8" diameter hole! The problem was trying to collect the water from the parking lot/Town street area to this new rain garden area.

In turn, the City responded with assisting me with collecting the pavement drainage from Town Street by building a new paved concrete gutter across my driveway and installing a new 6" storm pipe under Town Street. The result was that the new rain garden will now be fed by drainage from the new paved concrete gutter and 6" storm sewer. Hence, lemonade was produced by the lemon.

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2010 Fourth Quarter Calendar of Events

October

Oct. 8, 12:30-2pm: UDLL rain garden installation

This Friday, Oct. 8th, Franklin Soil and Water Conservation District and the Central Ohio Rain Garden Initiative will be installing a 500 sqft. rain garden at the Universal Design Living Laboratory at 6141 Clark State Rd. Visit www.udll.com for more information about the entire green home project. Contact Stephanie if you are interested in helping with planting that day (ssuter@franklinswcd.org).

Oct. 16, 1-3pm: Governor's Green Halloween

The Central Ohio Rain Garden Initiative will be one of the organizations featured at the Governor's Green Halloween event. This earth-friendly (and free!) outdoor event will feature activities, demonstrations, and discussions for adults and kids of all ages. An RSVP is required to paigebilotta@gmail.com. Hope to see you there!

Oct. 21, 6-8:30pm: Franklin Soil and Water Conservation District's Annual Banquet & Supervisors' Election

For more information or to register, visit www.franklinswcd.org.

Oct. 29, 9am-3:30pm: Olentangy Watershed Forum

For more information, visit www.olentangywatershed.org.

November

Nov. 11: Veterans' Day

Nov. 25: Thanksgiving Day

December

All kinds of holidays!

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Through Watcon sweat equity and through the help of Paul Lane and Conie Construction, we carved out a 2 foot bottom swale with 3 separate basin areas. The swale is approximately 70 feet long. The total tributary to this rain garden was over 2.5 acres. Due to the size of this tributary area, I had my doubts. Initially, I lined the bottom of the swale of approximately 8" of selected topsoil specially made for rain gardens. This soil is mixture of organic material, sand and topsoil. Then, I waited for a good gully washer to monitor the affects of the percolation of this new swale with this selected soil. After a large rainfall event, the swale held water for over 30 hours: too much for my standards.

In my mind, there was too much water feeding this rain garden and I was concerned with the draw down time. Therefore, with more Watcon sweat equity, I mucked out the selected soil from the bottom of the swale and cast it in the top of bank area for my selected vegetation. Then, I decided to line the natural sub-

grade of the swale with 4" of #8 gravel, and the lined the #8 gravel with 4" of river rock. Not only did the appearance look better, but also it functioned better with larger rainfall events. The drawdown time from bigger storms only last about 6 hours compared to 30 hours.

Next, my wife Karin became involved with the aesthetic part of the design and lined the toe of slopes and top of bank of the swale with selected vegetation for the rain garden. Some of the selected vegetation we installed was blue flag iris, hostas, black-eyed Susans, hydrangeas, little bluestem, Shenandoah switch grass, dwarf golden sweet flag, butterfly milkweed, and coreopsis.

In summary, the rain garden not only solved an ongoing drainage problem, but also, it will serve as a marketing tool for my new clients contemplating about alternative options for storm sewer design. It is true: when life hands you lemons, just make lemonade out of the situation.

Featured Rain Garden Project

Submitted by: Amy Dutt, Urban Wild

So, you don't have space for a rain garden, yet you still want to reduce the storm water that rushes from your site to the sewers and river? The Columbus Mennonite Church recently received the installation of a three-part solution to manage rainwater. A rain garden was installed where lawn space allowed. A rain tank and an infiltration trench were the two other storm water management practices that were installed in tight spaces.

FLOW (Friends of the Lower Olentangy) received a grant from Honda of America Mfg., Inc. to support their "Soaking-It-In" program. The Columbus Mennonite Church is FLOW's 2nd project site towards the goal of 10 demonstrations at public sites by 2012.

Urban Wild helped FLOW and the church evaluate the

different roof drainage areas then devise management techniques for the volume of water shedding off the areas in a storm event.

- A 350 square foot rain garden planted with woodland plants from Scioto Gardens soaks in the rainwater running off 2500 square feet of roof.
- An elevated 1,100-gallon rain tank installed by the Rain Brothers catches rain from over 2300 square feet of roof, which can be reused to water the churches many gardens.
- A gravel-filled infiltration trench (2 foot wide, 3 foot deep, 25 foot long) will slowly release rainwater (from 1800 square feet of roof and the sump pump) into the sub-soil. A topping of decorative stone makes the trench an attractive landscape feature.

Combined, the 3 installations at the Columbus Mennonite Church will manage over 100,000 gallons of rainwater a year, and may give you some ideas for your own yard.



Featured Plant – New England aster



This quarter's featured plant is New England aster, *Aster novae-angliae*. New England aster is a great addition to any rain garden, providing bright

color and a nectar source late into the season. The flowers attract butterflies and other pollinators and are a great specimen for cutting.

The foliage of almost any plant planted near this aster will complement it, as usually it's one of the last blooming flowers in the garden, although the flowers of goldenrod species (also a late-bloomer) will harmonize with the aster's yellow centers. When New England aster starts blooming, usually butterfly weed and wild quinine are still flowering, and will

help the violet of this species to stand out. Spacing plants about 24-30" apart is suggested.

New England aster is native to Ohio and thrives in full sun to part sun.

New England aster will grow anywhere from 3 to 6 feet in height. This aster can be cut back in late spring or early summer to reduce its overall height by the end of the season, also resulting in a bushier form.

Average to moist/wet soil is required, though most find it can handle the dry times just fine. Perfect for a rain garden!

Brook Run Project Update

The partnership neighborhood rain garden project in the Brook Run subdivision has entered its next phase. Sixteen residential gardens have all been completed, and the five rain gardens in the right-of-ways were completed last month. The right-of-way rain gardens collect the road drainage, which includes downspout water that is directed to the street. They have white tubes that have pressure transducers inside collecting water data and metal tubes that are collecting hydrocarbon data. The next phase of the rain garden project includes data collection, from the tubes within the rain gardens as well as the monitoring of the total storm water that flows through the neighborhood through the main outfall. Monitoring is also occurring in a control neighborhood to the north to see a comparison of storm water amounts between a neighborhood with rain gardens and one without. This is the first project of its kind in Ohio.



Funding for this project has been made available through the Ohio EPA's Environmental Education Fund and the Ohio Water Development Authority. Partners in this project include: Central Ohio Rain Garden Initiative, Franklin Soil and Water Conservation District, City of Westerville, The Ohio State University, and of course the wonderful, enthused Brook Run residents.

Did you know?

As of this printing, there are 144 rain gardens within Franklin County boundaries. They collect 4.3 million gallons of storm water per year. Several more rain gardens projects are underway and will be completed this fall. At this time in 2008, there were only 23 reported rain gardens.

Great job, everyone!

Don't forget to submit your rain garden online today!

www.centralohioraingardens.org

Rain Garden Planning – Management

Rain garden maintenance and management are usually very simple tasks, and they tend to be less intensive over time. The basics are pretty much like any other garden: water, weed, mulch.

Special attention should be given to rain gardens during unseasonable conditions, like this past summer. We had many, many ridiculously hot days but with good rains. This made conditions favorable for weed growth, and unfavorable for some of us to get our hands dirty in the hot sun. Weeding rain gardens in public areas should be kept up on a monthly basis, or as needed if the landowner can do it more often. If you have a rain garden in a public location, seek out watershed groups, garden clubs, Boy Scout troops, or the Franklin County Master Gardeners for possible weeding volunteers. Keeping up on public rain garden management is important to help attract homeowners to the aesthetic beauty of them. Maintaining a list of the plants that are included in the garden will be helpful to those who are weeding, so they know which plants to keep in the ground.

Rain gardens will need less mulch over time as the garden grows up and the plants fill in space. A general rule is to keep mulch at about a 2" depth to help keep moisture in and weeds out. Mulch takes a good while to break down, so you shouldn't need a full 2" every year you go to apply mulch.

During the first year of the rain garden, watering will be important to help get the plants established. Most plants need about 1" water per week, depending on the

species, so keep an "eye to the sky" to help assist the garden with water if needed. If the rain garden was planted in the fall, it will still need to be watered even if the temperatures are cooler. Most plants should be planted by the first week of October. This will give the roots time to get established before frosts and daylight get the plants started on dormancy.

Cutting back perennials in the fall is a common practice of many gardeners. Keep in mind, though, the many functions of using native plants in a rain garden before you get out your pruners or shears. Leaving the seeds up on a plant during the winter can help provide a natural seed source for birds. Dead foliage left up can also provide cover from predators. Foliage can be cut back in spring instead. If you haven't yet planted a rain garden and are considering it, you may want to include grasses and/or a shrub in your rain garden to serve as winter interest for you and good cover for wildlife.

The last task of the season is to be sure that you clear away any fallen leaves or debris near the water entry point of your rain garden. This will help ensure that water can still make it to your garden and not back up your downspout! A quick check every week will go a long way to preserving its proper function.

Positive note: If you haven't put in a rain garden yet and are learning all you can before installation, keep in mind that rain gardens should be self-sustaining after the first year. If you use native plants that are suitable for your garden, most of these management tasks won't be daunting or time consuming.

Submit Your Rain Garden!

Don't forget to register your rain garden with us! We are tracking all of the rain gardens installed in Central Ohio. This will help give us a total number of rain gardens, as well as the amount of storm water being collected. Visit www.centralohioraingardens.org to register your garden – click on "Submit Your Garden" on the top right-hand side. You will be able to enter information about your garden as well as upload a photo. Don't forget to remind your project partners or neighbors to register theirs!

Resources You Can Use

Central Ohio Rain Garden Initiative – www.centralohioraingardens.org
Ohio Utilities Protection Service (OUPS) – www.oups.org or (800)362-2764 or 8-1-1 "Call Before You Dig!"

Signs

A sign for a rain garden is a good idea to let your neighbors know that your garden has a purpose. CORGI sells rain garden yard signs for \$15, and you can fill in the amount of storm water collected per year on these signs. Please call (614) 486-9613 if you are interested.

