








Green infrastructure uses vegetation, soils, and other elements and practices to restore the natural processes required to manage water and create healthy environments.



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## What Can I do?


### Benefits of Green Infrastructure

 REDUCES FLOODING DAMAGE TO HOMES AND BUSINESSES	 IMPROVES WATER QUALITY AND LOWERS GROUND LEVEL OZONE	 REDUCES MUNICIPAL WATER USE THROUGH RAIN HARVESTING AND GROUNDWATER RECHARGE	 REDUCES THE URBAN HEAT ISLAND EFFECT AND LOWERS BUILDING ENERGY CONSUMPTION
 REDUCES COMBINED SEWER OVERFLOWS (CSOs) WHICH SEND RAW SEWAGE INTO WATERWAYS	 PROVIDES A COST EFFECTIVE SOLUTION FOR BOTH PUBLIC AND PRIVATE SECTORS	 CREATES AND RESTORES WILDLIFE HABITATS IN URBAN ENVIRONMENTS	 PROVIDES COMMUNITY RECREATIONAL FACILITIES AND IMPROVES PUBLIC HEALTH
 INCREASES SEWER SYSTEM CAPACITY AND RESILIENCE TO PEAK STORM EVENTS	 CREATES PERMANENT JOBS FOR CONSTRUCTION AND MAINTENANCE	 INCREASES PROPERTY VALUES DUE TO INCREASE IN TREES AND GREENERY	 REDUCES IMPERVIOUS SURFACES AND NATURALLY INFILTRATES STORMWATER

### Build and Maintain a Rain Garden

-  Pick a good spot!
  - Don't place it too close to your house, especially if you have a basement.
  - Avoid steep slopes and bedrock.
  - Check the soil to make sure water drains correctly.
  - Estimate the size of your rain garden with online tools (such as [nemo.uconn.edu/raingardens/sizemap.htm](http://nemo.uconn.edu/raingardens/sizemap.htm)).
-  Dig it up!
  - Contact [www.missdig.org](http://www.missdig.org) to make sure you aren't going to damage any utility lines.
  - Mark out the area where you want to install your rain garden.
  - Dig about 8 inches deep with a slope on either end.



-  Plant and maintain your garden!
  - Select hardy native species that look good to you.
  - Don't overcrowd! Your plants will grow and fill out your garden with time.
  - Plot your plants down and fill the space between them with a couple inches of mulch.
  - Water your plants immediately and weekly until they are sturdy!
  - Remove weeds and replace mulch as needed.



### Examples



#### Rain Gardens and Rainwater Collection

A rain garden can be beautiful as well as functional. Rain gardens are versatile features that can be installed in almost any unpaved space. Also known as bioretention, or bioinfiltration, cells, they are shallow, vegetated basins that collect and absorb runoff.



#### Planter Boxes

Planter boxes filter stormwater and reduce runoff from sidewalks, parking lots, and streets.



#### Bioswales

Bioswales are essentially rain gardens placed in long narrow spaces such as the space between the sidewalk and the curb. Bioswales are vegetated, mulched, or xeriscaped channels that provide treatment and retention as they move stormwater from one place to another.



#### Green Streets, Parking and Permeable Pavement

Green streets and parking lots combine more than one feature (permeable pavement, bioswales, planter boxes, and trees) to capture and treat stormwater. Benefits include mitigating the urban heat island and a more walkable built environment.



#### Green Roofs

A green roof system atop a building helps manage stormwater and reduce energy costs for cooling.



#### Urban Tree Canopy

City trees, or tree canopy, soak up stormwater, provide cooling shade and help to slow traffic.



#### Land Conservation

Land conservation helps reduce runoff, flooding, greenhouse gases and sewer overflows. Water quality and recreational opportunities improve. This can include planting native species and removing invasives.

#### Buffer Strips

A buffer strip is an area of permanent vegetation, often adjacent to a pond, lake, or stream, that helps control air, soil, and water quality.

### Install a Rain Barrel or Compost Bin



Rain barrels and compost bins will be sold during a special sale in March 2019. Find out more at [www.midmichrecycles.org](http://www.midmichrecycles.org)

### Plant native species!



Butterfly Weed



Purple Coneflower



Black eyed Susan



Trillium

### Remove invasives...

Learn more about invasive species in your community. In Meridian Township, visit <http://bit.ly/invasivity>



### Smart Lawn Care, Gardening, and More...

Learn more about ecological landscaping practices at <http://migarden.msu.edu>



### References

Dietz, M. (n.d.). UConn Rain Gardens "How To" Guide. Retrieved from <http://nemo.uconn.edu/raingardens>

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