



# Rain Gardens

Rain gardens are attractive, landscaped areas planted with perennial native plants which don't mind getting "wet feet". Built in a shallow depression, the gardens are designed to increase infiltration allowing rain and snowmelt to seep naturally into the ground. Benefits of rain gardens are multiple: they recharge groundwater supply, prevent water quality problems, provide habitat for birds and butterflies, and are great looking landscape features.



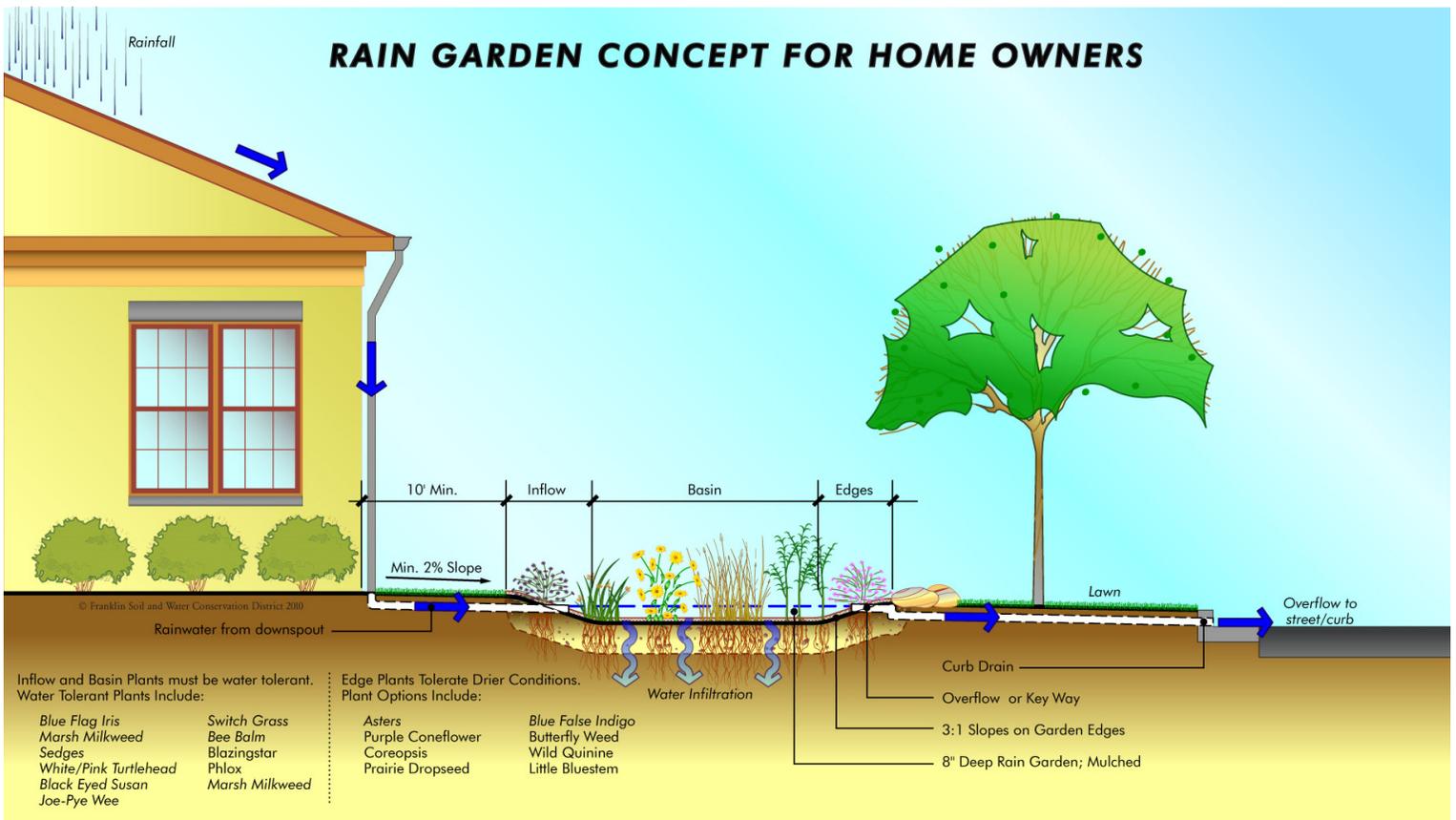
Image courtesy of  
Iowa NRCS

## Why Do We Need Rain Gardens?

As development increases, the ability of our environment to perform its natural processes decreases. This is because the natural landscape that was once able to absorb and clean storm water is covered by impervious surfaces. Impervious surfaces are simply surfaces that water is unable to penetrate, such as roads, rooftops, and driveways.

Increased impervious surfaces result in an increased amount of storm water runoff and an increased chance for pollution to enter our waterways through our storm sewer systems. Pollution that results from storm water runoff is called nonpoint source pollution. Studies have shown that up to 70% of the pollution in our streams, rivers and lakes is carried there by runoff from practices we carry out in our own yards and gardens! Some of the common nonpoint source pollutants from our yards that end up in our local waterways include soil, fertilizers, pet wastes, grass clippings and other yard debris.

Installing a rain garden may seem like a small thing, but if you calculate the amount of rain that runs off one lot, you might be surprised. Rain gardens capture the rain that usually runs off our property and allow it to soak into the ground. This helps minimize runoff and reduces the amount of nonpoint source pollution that enters our waterways. Rain gardens help our communities "bloom" making them more attractive places to live while maintaining watershed health.



### Design and Construction

Rain gardens work best in small to medium sized drainage areas. If the slope is over 5-10% a berm may be needed to hold runoff in the rain garden basin. The area is excavated to a depth of 6-10 inches (depending on the drainage area and soil percolation test) and the soil should be tilled about 6-12 inches to loosen the subsoil and allow for easier planting. An overflow is put in place to carry any excess water from a very heavy rain it to an appropriate outlet such as a storm drain or ditch. The inflow and overflow pipes are usually covered with a 4-10 inch layer of pea gravel or fist-sized stones to help disperse and slow the flow of water. Adding a 2-3 inch layer of compost is recommended to provide the soil with nutrients (since the nutrient-rich top soil was excavated out) and to improve infiltration. The rain garden is then planted with native, non-invasive plants able to withstand both drought and periodic flooding of their root systems. A layer of double or triple shredded hardwood mulch 2 inches thick will serve to further filter the incoming water, help keep moisture in, provide biotic breakdown of contaminants, and provide a weed barrier. The final depth of the rain garden will be between 4-8 inches deep after the compost and mulch layers have settled from the first couple rains.

### Resources:

- Central Ohio Rain Garden Initiative—[www.centralohioraingardens.org](http://www.centralohioraingardens.org)
- Toledo-Lucas County Rain Garden Initiative—[www.raingardeninitiative.org](http://www.raingardeninitiative.org)
- Greater Cincinnati Rain Garden Alliance—[www.millcreekwatershed.org/rain-gardens.html](http://www.millcreekwatershed.org/rain-gardens.html)
- Gaega Soil and Water Conservation District—[www.gaegaswcd.org](http://www.gaegaswcd.org)



**Franklin Soil and Water Conservation District**  
*Creating Conservation Solutions for Over 70 Years*

1404 Goodale Boulevard, Suite 100  
 Columbus, OH 43212  
 (614) 486-9613  
[www.franklinswcd.org](http://www.franklinswcd.org)