

Rain Gardens

A rain garden is a low-maintenance garden in a shallow depression that uses rain water runoff from impervious surfaces (driveways, roofs, sidewalks, and other surfaces that don't absorb water) as its main water and nutrient source.

This is an example of a simple residential rain garden. Rain gardens vary in size and shape. Consider drainage patterns, size and quantity of surrounding impervious surfaces, and soil conditions when planning a rain garden. Well planned and maintained rain gardens can be a simple, beautiful, and effective residential landscaping element.



Volunteers from NDSU Landscape Design and Architecture Department digging this rain garden.

Beyond being low-maintenance, rain gardens have many important benefits that impact our community.

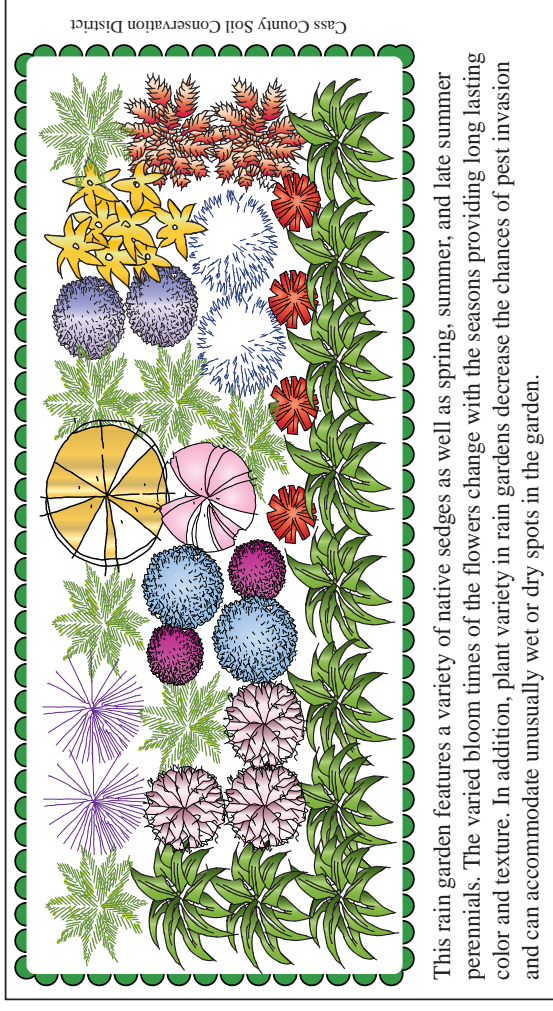
- Rain gardens absorb and filter stormwater runoff, reducing pollutants in our waterways.
- Rain gardens reduce flooding by decreasing the volume of water entering storm drains.
- Rain gardens help homeowners decrease their dependence on city or well water for landscaping by providing free, un-chlorinated water.

• Rain gardens reduce soil erosion by reducing the amount of surface water.

• Stormwater pouring off of roofs, pavement, and other surfaces is temporarily captured in the amended soil of rain gardens, cooled, and allowed to percolate into the subsoil replenishing groundwater aquifers.

Rain gardens rely on deep rooted plants to help infiltrate storm water and reduce erosion. Many of the native plants in this garden are also well adapted to handle both regular moisture found in our soils as well as short periods of inundation and drought.

In order to create the unique shape of the garden and to aid in proper infiltration, the top layers of clay soil in this garden were removed and replaced with a mixture of compost and sandy material. The shallow depression of the garden allows it to hold and infiltrate more water during storm events. The amended soil helps plants and subsoil to absorb water faster, reducing pooling. A properly constructed rain garden should drain completely in a short amount of time and does not contribute to mosquito breeding. In fact, rain garden plants often attract and create habitat for beneficial pollinators and mosquito-eating insects like dragonflies.



This rain garden features a variety of native sedges as well as spring, summer, and late summer perennials. The varied bloom times of the flowers change with the seasons providing long lasting color and texture. In addition, plant variety in rain gardens decrease the chances of pest invasion and can accommodate unusually wet or dry spots in the garden.