



RAIN GARDENS

A rain garden is a bowl-shaped garden designed to capture and infiltrate stormwater runoff. They are created to receive water from natural rainfall, downspouts and/or rain barrel overflow and sheet flow from surrounding areas. Rain gardens are depressed areas that fill up with water when it rains. They have a specialized porous soil that can also hold water. Water fills the garden, then filters into the soil over a period of time after the rain. Water-loving native plants with deep roots help to soak up the captured stormwater. Rain gardens come in many sizes and varieties, from simple, small residential gardens to large-scale engineered bioretention practices.

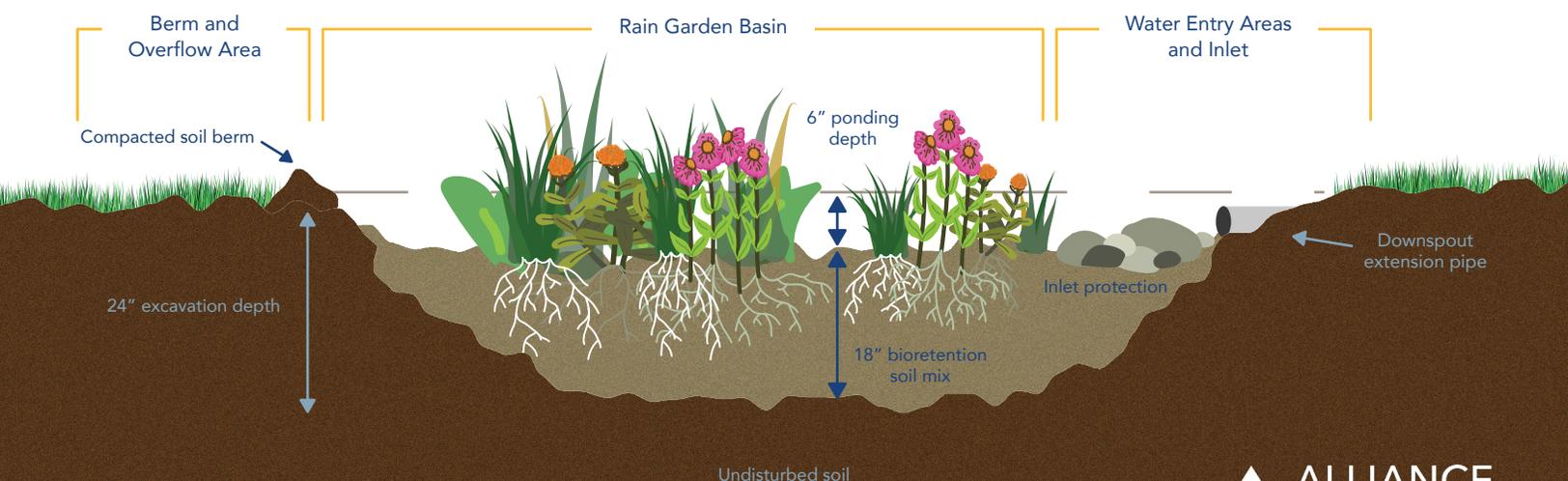
DID YOU KNOW?



RAIN GARDENS SOAK UP 30 PERCENT MORE WATER THAN AN EQUIVALENT PATCH OF LAWN.¹

BENEFITS

Rain gardens are most known for reducing stormwater runoff by helping water infiltrate into the surrounding soil. This means that they can help recharge groundwater resources and mitigate flooding in the area. In addition, rain gardens provide natural habitat for local wildlife, and will beautify your landscape.



SIMPLE RAIN GARDEN PLANTING

Installing a rain garden on your property is something most homeowners can do by following the steps below:

CHOOSE A LOCATION

- **Where to Install a Rain Garden:** a slightly sloped location that can intercept runoff as it flows across lawns or from impervious surfaces.
- **Where Not to Install Rain Garden:** Do not install rain gardens at the lowest point on the property and be sure to direct overflow away from foundations and impervious surfaces.

SOIL TEST AND UTILITIES: Once you have selected a location for your garden, contact Miss Utility to make sure there is nothing hidden under your proposed location. If no utility lines are found in the project area, you can begin a percolation test. The percolation test, or perc test, will help you determine if your soil has suitable drainage for a rain garden.

SIZING AND CAPACITY: Rain gardens should be designed to be no less than 1/10th the size of the contributing drainage area.

INSTALLATION

- **Excavation:** A typical rain garden should include 18" of bioretention mix and 6" of ponding depth.
- **Building a Berm:** Berms are constructed on the downhill side of the garden to raise it up to level with the uphill side.
- **Amending the Soil:** To ensure the garden drains properly, the soil should be amended with compost and sand to create a loose mix that both holds water and nurtures plants.

DOWNSPOUTS AND INLETS: When connecting a downspout to a rain garden, the pipe should have a gentle slope towards the garden. The end of the pipe should be surrounded by rocks to slow the water down and evenly disperse it.

MULCH AND PLANTS: The center of the garden should be planted with taller, water-tolerant plants while the sides of the garden should be more drought resistant. All plants should be native to the Chesapeake Bay watershed. Mulch should be a shredded, undyed hardwood, available at any hardware store.

MAINTENANCE

1. In the first year, focus your maintenance on weeding, watering, and debris removal.
2. As the plants fill in, they will be able to outcompete most new weeds. You will also find that the garden needs very little mulch. Some watering will still be needed during the summer.
3. With a mature garden, keep an eye on the ponding depth. Be sure to remove dead leaves and old mulch from the spillway and the garden bed to prevent the garden from filling in with debris.

Learn more at the Stormwater Maintenance Resource Center at allianceforthebay.org/stormwater.

SOURCES

1. Penn State Extension: extension.psu.edu/roadside-guide-to-clean-water-rain-gardens

LEARN MORE AND EXPLORE DIY RESOURCES AT
ALLIANCEFORTHEBAY.ORG/RAINGARDENS

