Welcome to the UMD Rain Garden!

1 Interpretive Signs

Overview

The UMD Rain Garden is divided into four major plant zones. The ornamental zone is the burst of colors just beyond and to the right of the interpretive signs. Directly in front and partially hidden from view is the woodland zone. To your left and beyond the grassy mound is the wetland zone. The higher edges of the garden make up the dry zone. The rain garden and the rest of the southern half of the campus, as well as a portion of the surrounding neighborhood, is part of the Oregon Creek Watershed.

Protecting Oregon Creek

The UMD Rain Garden was built to help protect Oregon Creek by slowing, cooling and filtering the run-off water from the adjacent parking lot. It was designed and engineered as a bioretention pond and is composed of plantings, a drain tile system, and a water level control system.

A Beautiful University

The UMD Rain Garden was designed as a formal garden that would be attractive to the community and fit with existing campus landscape styles. Beyond the interpretive signs are clay-colored retaining walls that curve softly through the site. Wall edges provide crisp, clean lines. Woodchip paths wind through trees, shrubs, and mowed grass areas. To the right of the interpretive signs, near the driveway, are colorful ornamental plants like Daylilies, Sedum 'Autumn Fire' and some cultivated native plants such as Sneezeweed ‘Mardi Gras’ and Winterberry ‘Red Sprite’.

Now, walk over to the grassy mound to stop number 2.
**Grassy Mound**

From the grassy mound you have a full view of the path that storm water takes as it is absorbed by the rain garden.

Looking left, storm water from the parking lot flows first into the sediment basin, a 12-inch deep circular trap made of concrete. The sediment basin acts as a first-line filter for various debris and litter, which will be periodically removed as part of regular maintenance. Sediment sinks to the bottom of the basin and excess water then runs over its flat edges to flow evenly over the wetland zone.

Plants in the wetland zone have a high tolerance for water. Many are native to this region, while others have been cultivated from native plants or are non-native perennials. Native plants are an important part of a sustainable landscape design. Many are well suited for wet areas and can tolerate salts—an important quality if they are to survive in snow melt run-off from the parking lot.

**Sediment Basin (Optional)**

Follow the stepping-stones on your left to view the sediment basin more closely. After this, return to the grassy mound via the stepping-stones, and then walk left through the woodland zone to the water level structure.

**Water Level Structure**

The water level structure acts as a dam and is the termination point of the drain tile system installed in the rain garden. Dividers are installed each spring allowing UMD to set desirable subsurface water levels. When the water is held back in the drain tile, it acts as an underground irrigation system for the plants to use during dry periods. The dividers are removed each fall to lower the subsurface water levels and prevent the drain tile from freezing. Since standing water at the surface could breed mosquitoes, the dividers are set below ground level and excess water overflows into the Oregon Creek storm sewer.

Monitoring equipment can be installed in this system to record water flow, clarity and temperature. Water that moves through the rain garden and enters the storm water system via the drain tile and water level structure is cooler and slower moving. Sediments and pollutants are also reduced, providing cleaner water flows to Oregon Creek.

Walk now to the brick patio.

**Brick Patio**

As you look around, you will see many varieties of plants including trees, shrubs, ferns, flowering plants and grasses. This island in the rain garden represents a woodland area and the plants you might find in such an area. Pussytoes and Virginia Strawberries form the groundcover. You will also find Bracken Fern and Asters. Plants in the narrow strip of dry zone on your left have Yarrows and Black-Eyed Susans, which were chosen for their ability to thrive in dry conditions.

From this point, notice the transition from native and cultivated plants in the wetland zone to colorful ornamental plants in the ornamental zone near the interpretive signs.

**A Work in Progress**

Over a period of years the populations of plants are expected to move as they find the microenvironment best suited for their needs. We may see some plants disappear and reappear again as seeds germinate and conditions change. Insects and birds will frequent the area as the plants become established and begin to provide shelter and food. Maintenance of this area will include removal of unwanted tree seedlings and invasive plants such as quack grass and dandelions.

Many of these changes will be influenced by the way the rain garden system is maintained by UMD staff, such as manual adjustments to the water level, and effects of the de-icing materials and contaminants from the parking lot. The amount and timing of storm water received over the course of the year will also affect the plants.

The Rain Garden will always be a work in progress as nature takes its course and plants do what they do best—fit into the ecosystem.

Thank you for taking the UMD Rain Garden Self-Guided Tour! You may keep this brochure or leave it in the drop box at Stop 1 or 5.