

MSU SUSTAINABLE STORMWATER MANAGEMENT WALKING TOUR



ERICKSON HALL RAIN GARDEN

Michigan State University (MSU) has implemented **green infrastructure** to capture stormwater from surrounding roads, parking lots, and buildings. Previously, water from these surfaces entered the storm sewer system, which led directly into the Red Cedar River. Now through a variety of green infrastructure practices, stormwater is captured and either reused or infiltrated on site. Capturing stormwater reduces pollutant runoff into the river, improving water quality.



DID YOU KNOW?

This rain garden contains plant species that are native to Michigan. Mulch and a rapidly draining soil media provide an optimal growing environment for these plants. This garden is **2,500 square feet**. Its drainage area is **5,606 square feet**. The water storage volume is **2,700 cubic feet**.

WHAT IS A RAIN GARDEN?

A rain garden is a form of bioretention that allows stormwater runoff to collect in a depressed area in the landscape. The water is taken up by plants and released into the atmosphere through transpiration or is infiltrated into the soil profile. The roots of the plants help this process by creating channels for the water to infiltrate.

This process stops runoff from entering a pipe that goes directly into the Red Cedar River, and pollutants as well as high water levels during major rainfall events are reduced.

HOW DO RAIN GARDENS WORK?

- 1 Stormwater coming from the Erickson Hall roof and adjacent patio enters the rain garden.
- 2 Water infiltrates into the ground. The soil media acts as a filter, which helps break down stormwater pollutants and purifies the water. It also reduces the volume of water reaching the Red Cedar River. This helps prevent bank erosion and flooding, promoting a healthier river environment for plants and animals.
- 3 Plants are able to uptake the water, nitrogen, phosphorus, metals, and other pollutants. Plants release oxygen and moisture into the air through transpiration.

You are an essential part of the Red Cedar Watershed, and your actions can help to protect our shared water resources. To learn how you can help, visit:

msu-water.msu.edu

MICHIGAN STATE UNIVERSITY | SUSTAINABILITY

Contributing Departments and Units

Biosystems Engineering
Community Sustainability
Horticulture
Infrastructure Planning and Facilities
Institute of Water Research