There are a variety of effective ways to manage stormwater to help restore beneficial natural processes, enhance property value, and save money.

Riparian Buffer

Bioretention Basins

Porous Paving

Green Roof

Rain Gardens

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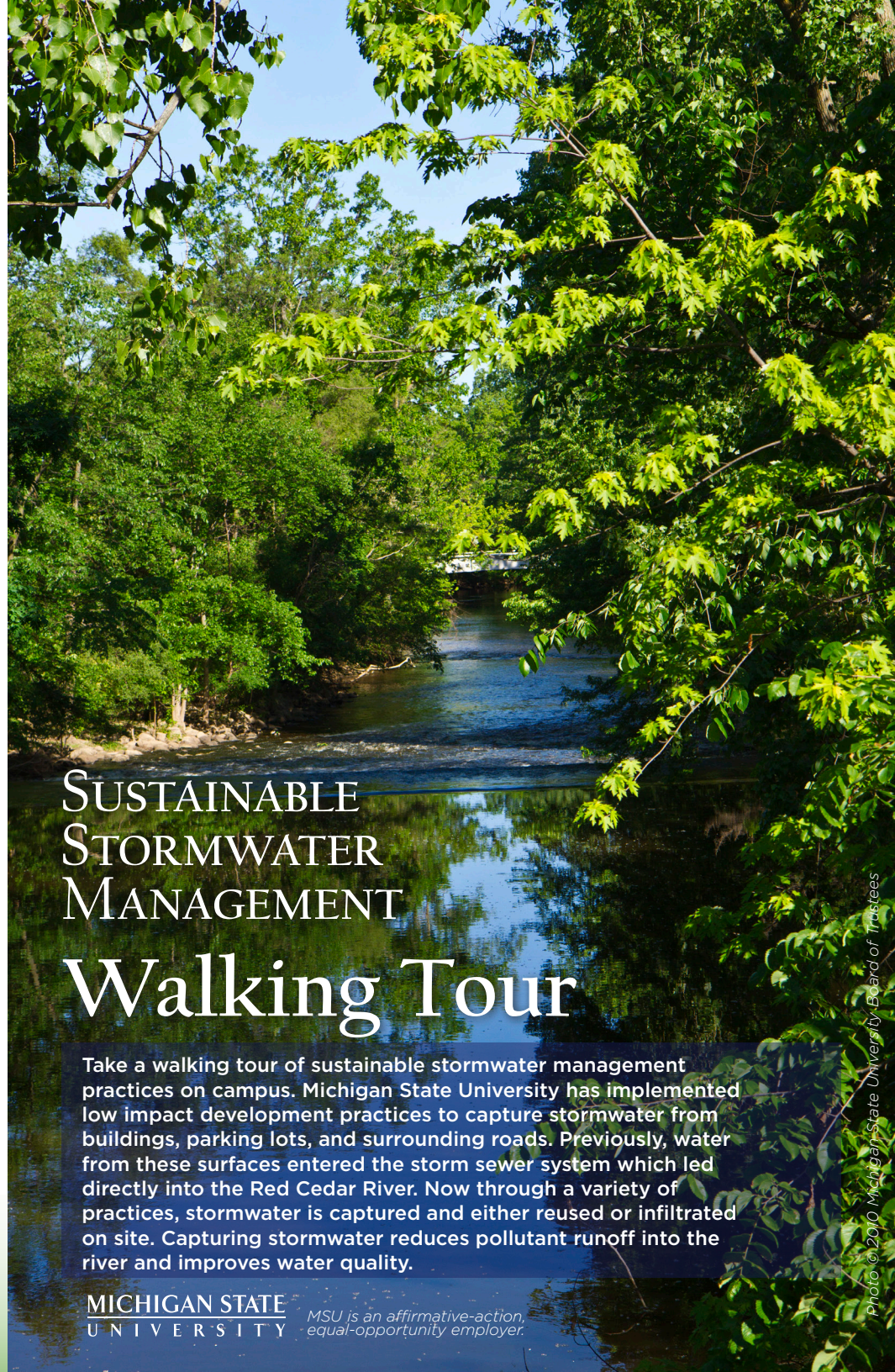

Sustainable Stormwater Management

Walking Tour

Take a walking tour of sustainable stormwater management practices on campus. Michigan State University has implemented low impact development practices to capture stormwater from buildings, parking lots, and surrounding roads. Previously, water from these surfaces entered the storm sewer system which led directly into the Red Cedar River. Now through a variety of practices, stormwater is captured and either reused or infiltrated on site. Capturing stormwater reduces pollutant runoff into the river and improves water quality.

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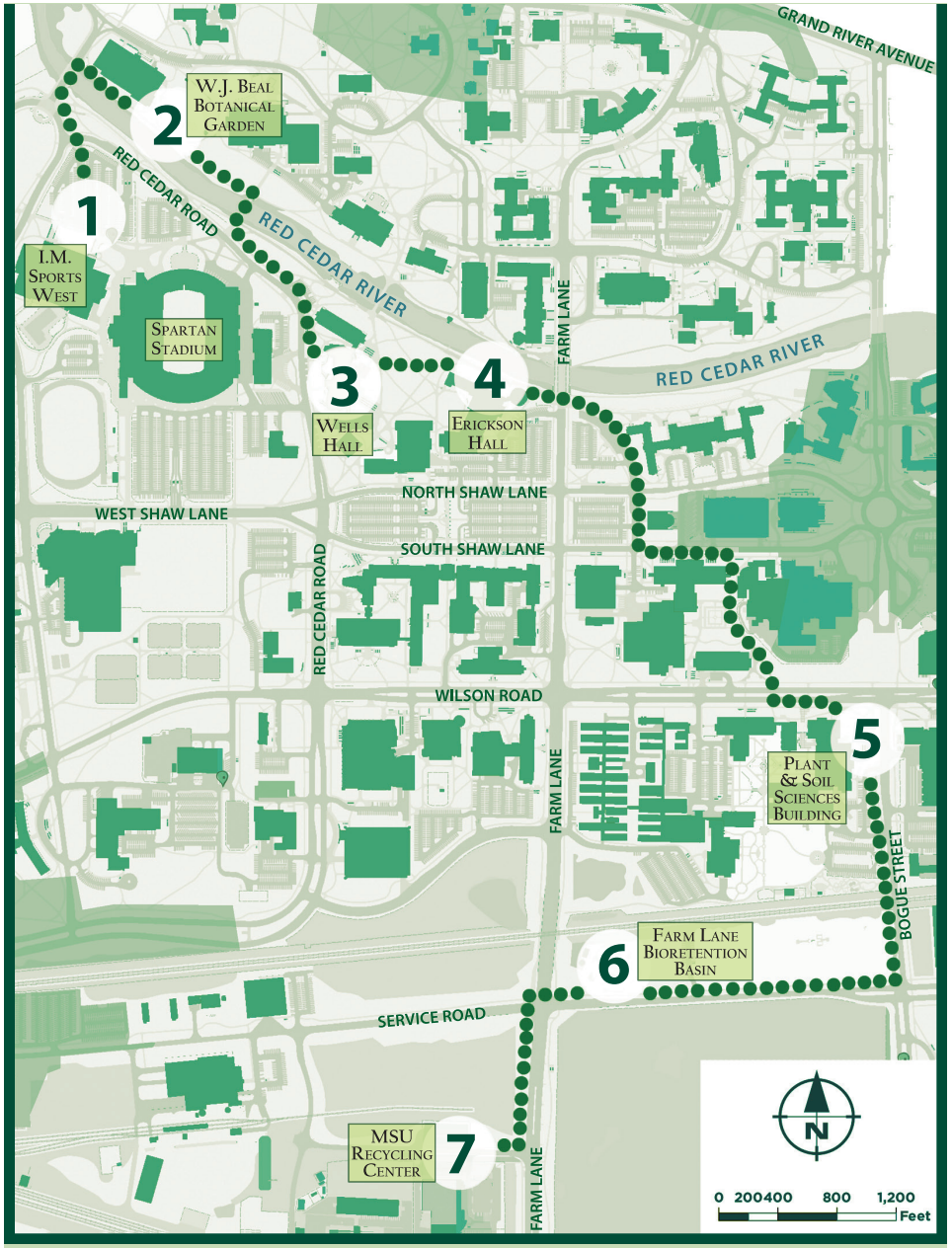
WALKING TOUR MAP



Use this map to guide you on your walking tour of the Michigan State University campus, and view seven examples of sustainable stormwater management practices devised to capture stormwater.

Stormwater that isn't properly managed flows over streets and other hard surfaces, washing pollutants into rivers and streams. Directing runoff to low impact development systems improves water quality by slowing runoff and allowing stormwater to infiltrate into the ground while plants and soils filter pollutants.

1. I.M. Sports West: Porous Asphalt

The universally accessible parking spaces located to the northeast of I.M. Sports West utilize porous asphalt as a way to manage stormwater runoff near the Red Cedar River. Pore spaces in porous asphalt allow water to infiltrate while still providing the strength to hold vehicles. As water drains through the porous asphalt, particles are filtered out before entering the soil below.

2. W. J. Beal Botanical Garden: Riparian Buffer

Along the north edge of the Red Cedar River, water flows from surrounding areas into the vegetated buffer. Riparian buffers act to intercept and reduce sediment, nutrients, pesticides, metals, and other pollutants in surface runoff. The buffers are also key in providing streambank stabilization.

3. Wells Hall: Green Roof

Take the stairs to the 2nd floor of Wells Hall to view the Green Roof. Plants and soil media on rooftops absorb water and can filter pollutants that would otherwise enter the Red Cedar River. Green roofs have additional benefits such as cooling the building, prolonging the life of the roof, and adding ecological diversity to an area.

4. Erickson Hall: Rain Garden

Water comes off the roof of Erickson Hall and drains into the rain garden. This water either infiltrates into the ground or is slowly released through the stormwater system before entering the Red Cedar River. Plant roots help this infiltration process by creating channels for the water to enter. Thus the amount of water reaching the Red Cedar River is reduced. This also benefits the river by lessening bank erosion.

5. Plant & Soil Sciences Building: Rain Gardens

Water coming from the roof of the Plant & Soil Sciences building runs over pavement and drains into two rain gardens. Plants absorb water, hold pollutants, and release oxygen and moisture into the air through transpiration. The soil media acts as a filter to help break down stormwater pollutants and cleanse the water before it enters the groundwater and/or waterways.

6. Farm Lane: Bioretention Basin

The Farm Lane Bioretention Basin serves as a facility to treat stormwater runoff from adjacent impervious roadways of Service and Farm Lane. Water that would normally flood the underpass beneath the rail road tracks is pumped up into the bioretention basin where common pollutants are removed during infiltration to allow clean water to leave the site. This site is also used as a research facility to enhance the use of bioretention as a stormwater management practice.

7. Recycling Center: Stormwater Management Systems

The recycling center contains several systems to manage stormwater on site. Runoff from the building rooftop is drained into an internal cistern system which treats the water for other uses. Porous asphalt, and rain gardens infiltrate and cleanse stormwater from the parking lot.