

# Respect Our Waters

## Green Infrastructure & Low Impact Design Fact Sheet

*Green infrastructure is a nationally recognized, impactful strategy for managing stormwater & is required in some new or re-development projects in some areas of Wisconsin*

**Fact 1: A proactive approach is essential to managing bacteria pollution. Green infrastructure improves water quality by serving as a defense mechanism and keeping harmful pollutants from entering the waterways.**

Green infrastructure captures rain where it falls. Allowing it to filter into the earth replenishing groundwater supplies. Soil and plants help capture and remove pollutants from stormwater in a variety of ways, including adsorption, filtration, plant uptake, and the decomposition of organic matter. These processes break down and capture many common pollution found in stormwater runoff, from oil to harmful bacteria found in pet waste.

**Fact 2: GI and LID can save developers and site owners money and increase their property values while also providing benefits to surrounding residents that improve their quality of life.**

Benefits can include:

- Reduced need for salt in snow and ice control
- Enhanced local air and water quality
- Improved community aesthetics and cohesion
- Mitigation of the urban heat island effect and noise pollution
- Increased opportunities for urban habitat and agriculture
- Lower energy consumption for heating and cooling

**Fact 3: The key to unlocking these benefits is choosing the right GI or LID strategies that are also appropriate for the site.**

GI strategies that help reduce stormwater runoff and removal of common stormwater pollutants include:

Rainwater Harvesting Structures: These structures capture water for future use. Rain barrels are often used on smaller properties while above or below-ground cisterns can be used on larger properties.

Rain Gardens: Rain gardens are designed to capture rainwater and divert it from becoming runoff. This is done by placing the garden in a location where water will run towards it, modifying the soil so that water can filter into the ground, and using plants that can tolerate moisture and also help water soak into the ground.

Bioswales: Bioswales are similar to rain gardens but they also function as channels to move water away from infrastructure while also allowing for infiltration. They are generally built on larger private or public properties, or in right-of-ways. They may have native plants or grasses planted within them.

Pervious/Permeable Pavements: Pervious pavements & pavers reduce runoff from parking lots, roads, or other paved areas. Gaps between pavers or within the aggregate allow water to filter into the soil beneath.

Blue/Green Roofs: Green roofs use water to nourish plants that are planted on the roof or in trays that are placed in grids on the roof. Blue/green roofs also store extra water for later use in cisterns or other devices.

Tree Canopy: Trees are green infrastructure too! Their leaves catch water before it hits the ground, allowing some to evaporate and some to run down into the earth more slowly. Their roots help absorb water and direct some of it down into the soil. The roots also hold soil in place so it isn't washed away.

For more information about GI and LI and how they can help prevent common stormwater pollutants from entering our waterways visit [www.respectourwaters.org/environmentally-sensitive-design](http://www.respectourwaters.org/environmentally-sensitive-design).