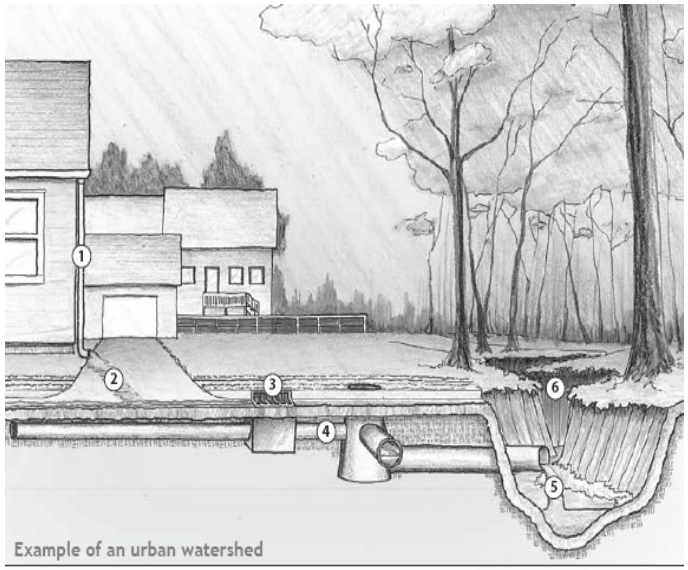
What is the Problem with Stormwater?

Stormwater is rain or melted snow that flows over the ground. In a forest, stormwater is reduced because precipitation is used by the trees or absorbed into the organic-rich soils. As a result, less rain or snow makes its way to streams or lakes, while groundwater supplies are replenished. Over time, more development and fewer forests have led to an increase in the amount of impervious surface area (rooftops, driveways, parking lots, roads). As more water flows through the landscape, this affects the health of our rivers and lakes.

Everyone Lives in a Watershed

Everyone lives in a watershed, which is the entire land area that drains to a particular water body. Consequently everyone's actions have an impact on water quality. Our streams, rivers, and lakes can be protected by implementing practices that reduce the volume of stormwater runoff. Removing impervious surfaces is not always practical. In contrast, easily adapted landscaping practices help to reduce stormwater volume through infiltration into the ground or evaporation through trees and plants.

Example of an Urban Watershed



Example of an urban watershed

1. Downspout
2. Untreated runoff
3. Storm drain
4. Sewer system
5. Untreated stormwater discharge
6. Urban stream

Lawn to Lake is a collaborative program to protect water resources in the Great Lakes region by promoting healthy lawn and landscape practices. With funding from the U.S. EPA Great Lakes Restoration Initiative, partners are coordinating a pollution prevention campaign addressing the needs of those responsible for lawn and landscape care in the Southern Lake Michigan basin. Collaborating partners include Illinois-Indiana Sea Grant, Lake Champlain Sea Grant, Safer Pest Control Project, and University of Illinois Extension.

Sea Grant Illinois-Indiana
IISG-12-29

Great Lakes Restoration

Sea Grant Lake Champlain
LCSG-12-10

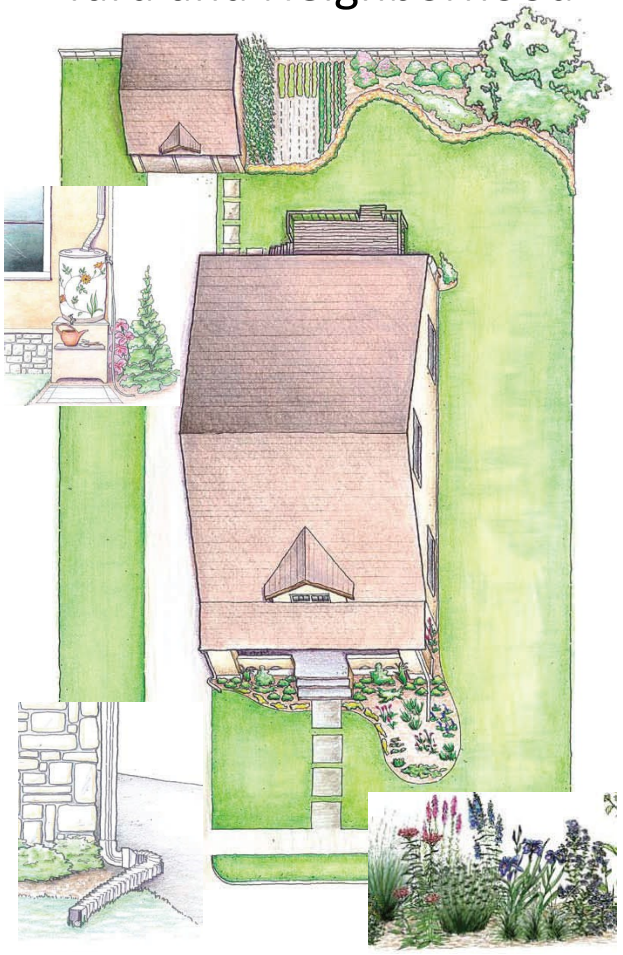
Find us on:

www.lawntogreatlakes.org

LAWN TO LAKE

Absorb the Storm

Create a Rain-friendly Yard and Neighborhood



Adapted from a Lake Champlain Sea Grant brochure

What can I do?

If you are interested in implementing stormwater best management practices (BMPs) that capture and absorb rainwater on your own property, you can 1) disconnect from the storm sewer and redirect downspouts into lawns or garden 2) maintaining healthy lawns 3) increase the number of urban trees and shrubs 4) install rain barrels and 5) construct rain gardens.

How can I get my neighbors involved?

Encouraging existing community groups to engage in neighborhood stormwater education and outreach projects is a first step. Finding partners within the community is also important, as well as using social marketing concepts to encourage the implementation of stormwater best management practices.

Practices for Capturing and Absorbing Your Property's Stormwater

Disconnect and Redirect Downspouts

If you have gutters and downspouts that drain roof runoff directly into the stormwater system or onto your driveway, then disconnecting and redirecting is an easy first step to creating a rain friendly yard. You can redirect your disconnected downspouts to the lawn, to rain barrels, or to rain gardens.

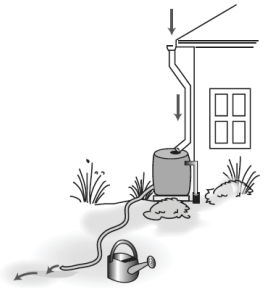
Increase Infiltration with a Healthy Lawn

Although a forest is the optimal cover for protecting water resources, a healthy lawn can help to absorb a significant amount of rainwater that would otherwise add to the stormwater problem. To create a healthy lawn 1) test your soil to fertilize correctly and determine if additional organic matter needs to be applied 2) choose a grass type that thrives in your climate and is adapted to conditions specific to your lawn 3) mow your grass with sharp blades and keep your grass height around 3-4 inches 4) leave grass clippings on your lawn to recycle nutrients and increase organic matter 5) if watering is needed, water in the morning 6) over seed to outcompete weeds 7) use integrated pest management (IPM) techniques to manage pests and 8) aerate when needed in May and June. If the soil needs additional organic matter, spread 1/4 inch of compost before aerating.

Provide Healthy Urban Trees

In addition to providing shade and aesthetics, urban trees and shrubs can reduce the amount of runoff that finds its ways to streams, rivers, and lakes. Tree leaves, branches, and bark intercept and absorb rainwater and reduce erosion by slowing rainfall before it hits the soil. In addition, the root system increases infiltration and storage of rainwater.

Rain Barrel Installation



Installing rain barrels requires that you have a roof that has gutters and downspouts. Where you decide to place the barrels will depend on the location of the downspouts and where you would like to use the water. There are two steps to installation: 1) setting up the barrel and 2) modifying the downspout.

Capture and Absorb Water in a Rain Garden

A rain garden is a bowl-shaped garden designed to capture and absorb rainwater that runs off impervious surfaces, including roofs, parking lots, and driveways. If you have a small lawn and a large amount of water to absorb, rain gardens are a good option because they absorb 30 per cent more water than the equivalent area of a typical lawn.