

Introduction to Green Landscaping for Clean Streams

The Rouge River suffers from high flow variability and stormwater pollution. As residential development has replaced open land in the headwaters, land use changes have increased the amount of impervious surfaces, reducing the land's ability to absorb and filter stormwater, causing unstable flows. The huge surges in flow that follow rain and snow melt cause stream banks to erode and sediment to be deposited in the river and downstream.

The quality of stormwater flowing to the river can be improved, and the quantity of water reduced, by employing Green Landscaping for Clean Streams techniques to retain, absorb and infiltrate rain water where it falls.

What is green landscaping?

Green landscaping is sustainable landscaping with goals to improve water quality and wildlife habitat as well as improve the appearance and value of a home or business. Green Landscaping makes use of native vegetation and the strategic placement of gardens to achieve the greatest ecological impact. Rain gardens, wildlife habitat gardening, native wildflower gardens, and streamside gardens are all components of green landscaping for clean streams.

Ecological benefits provided by Green Landscapes:

- Helps to stabilize flow
- Reduces streambank erosion
- Reduces the impact of flooding
- Provides wildlife habitat
- Reduces pollution from rain water runoff
- Improves water quality in local waterways
- Creates beautiful spaces to relax and enjoy



Traditional residential landscaping consists of a few shrubs and flowers around the home and a few isolated trees.



A landscape created with Green Landscaping for Clean Streams techniques may look like the landscape in the graphic (left). This environmentally sustainable landscape is designed to improve water quality and wildlife habitat. Plantings are clustered. Steep slopes are vegetated with deep-rooted native plants. Rain gardens retain water from the home's downspouts. Streamside vegetation reduces streambank erosion. Habitat is created for birds, butterflies and other wildlife.

What can you do to protect water quality?

There are several landscaping practices each of us can follow to protect water quality in our local lakes and streams. These are:

- **Replacing lawn areas with native plants.** The extensive root systems of many native wildflowers and grasses provide a way for rain water to soak deep into the soil, where it is cleaned and cooled before it trickles through the ground to a nearby stream. Another benefit of reducing lawn size is the reduction in pollution from lawn mowers and fertilizer and/or herbicide use. Moreover, native plants provide food and cover for butterflies, songbirds and other wildlife.
- **Disconnecting your home's downspouts.** Downspouts connected to the sewer system contribute a large amount of rainwater to an already overburdened system. Directing the flow into a vegetated area will reduce the amount of rain water flowing from your property.
- **Creating a rain garden.** Rain gardens are gardens designed to hold rain water for 24 to 48 hours. The saucer-shaped garden is dug lower than the surrounding area and planted with native wildflowers adapted to fluctuating water levels. The garden fills with water during rainy weather. Shortly after, water evaporates or is used by the plants. These beautiful gardens should dry up within 48 hours to prevent mosquitoes from breeding.
- **Reducing chemical use.** Lawn care chemicals are a leading source of pollution in our waterways. If use is necessary, take care to properly use these chemicals, always following manufactures' instructions.

Where to find native plants

A list of growers is available from the Michigan Native Plant Producers Association at www.mnppa.org. Growers closest to Southeast Michigan are listed below:

American Roots ~

www.americanrootswildflowers.com

Oakland Wildflower Farm ~

www.oaklandwildflowerfarm.com

The Native Plant Nursery, LLC ~

www.nativeplant.com

WILDTYPE Design, Native Plants & Seed LTD ~

www.wildtypeplants.com

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Deep-rooted Native Plants Protect Water Quality

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