

## View of Sustainability:

# Positive impact of rain gardens

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It's wonderful when there are beautiful, simple solutions to tough problems. One such challenge is that we're building our world with more and more surfaces which shed water. We've gotten very good at getting water away from our buildings and into the storm sewers. This is necessary but it causes problems. There are ways to moderate the downsides.

So much water is leaving our properties and rushing into the streams and wetlands that it's causing erosion and reshaping of streams, clogging them with sediment. Runoff is often very warm as it's coming off hot surfaces, which is bad for fish eggs and more. The pollutants that come off our driveways, rooftops and vehicles also affect our waterways. In addition, less water is soaking into the soil, reducing 'base flow'; water that seeps sideways through

the ground, along seams of porous soil, slowly creeping to creeks and rivers. Base flow is what keeps the creeks flowing when it hasn't rained in a while. Creeks never used to dry up in the summer.

This affects our economy and quality of life: fishing and other types of tourism, reducing land values and causing expensive reshaping of infrastructure. It also leads to flooding, since, when there's a major rain event, so much water rushes into rivers and downstream, it causes hundreds of millions of dollars of damage.

How do we address it yet keep our properties beautiful? Rain gardens and French wells keep rain on our properties and can be ornamental additions. Rain gardens are the easiest. Basically, it's just a shallow, saucer-shaped garden, placed near a downspout so the water can be directed to it easily.

Building a rain garden is surprisingly simple. Where downspouts meet the ground, build up the soil a bit so it slopes away from the house. Carve a shallow channel, much like a miniature river. Line this dry creek with rubber pond liner and river rock to get it about three metres from the house. That's the safe distance. At the end of the dry creek, dig a shallow saucer about 30 cm deep. It can be as large or small as you want. Anything is better than nothing. It should be designed to drain away



▲ Without rain gardens, floods can form in yards or water can flow too rapidly into storm sewers.

through the soil in 24 to 48 hours. Most of the rain gardens we've designed are about two square metres but several are much smaller. Slope the sides with a very shallow grade. The soil excavated from the saucer can be used to build up along the downhill side.

Now, it's time for the exciting part — planting. Plants suited for a rain garden are unusual and interesting. They can stand spring flooding and summer drought. Included are such beauties as Blue Flag Iris, Sparkleberry, Potentilla, Switchgrass (for near the edges), Bowles Golden Sedge and Sneezeweed (which doesn't cause allergies — it was used to make snuff!). For bold texture, consider Marsh Marigold or Umbrella Plant. Be sure to plant Swamp Milkweed for the Monarchs and for late summer flowers. With these plants, you'll have flowers all season, berries in the winter and you're creating great habitat for interesting butterflies, pollinators and birds. Ironically, you may need to water it during dry spells for the first season to

help the plants establish but after that, it's clear sailing!

After planting, track down some hardwood mulch to cover the soil. Hardwood mulch doesn't float and will keep weeds down.

On a side but related note, regarding rain barrels, empty them a couple of days before a heavy rain or attach them to soaker hoses, spread through the garden, and open the valve a couple of days before it rains to empty them and then close it again to hold the rain. This way, you retain the rain and allow it to slowly seep in.

A rain garden is a small project with a HUGE positive impact and, when properly designed, by mixing textures and seasonal interest, makes an amazing addition to any property. Many folks don't see themselves as being interested in environmental solutions but this one is an easy sell. It might even inspire your neighbours. If you do a really good job, you'll even get envy...and isn't that the real purpose of a garden? **NEV**

*If you have any questions or want a rain garden schematic that you can customize to your property, email Sean at [sdjames@on.aibn.com](mailto:sdjames@on.aibn.com) and he'll send it.*



◀ Rain gardens hold and infiltrate water in a beautiful way, helping to preserve our creeks. It's important that they drain in 24 to 48 hours.