



By John Imes

# GREEN OPTIONS for stormwater recycling

**H**omeowners, leading developers and communities are increasingly turning to natural drainage systems including the use of rain gardens, native landscape and bio-swales to capture and re-use stormwater before it enters waterways.

Polluted runoff is a major problem in areas where streets, sidewalks and buildings are designed to shunt water off their surfaces as quickly as possible. Impervious surfaces create streams of water that wash away oil, heavy metals, pesticides and fertilizers from city streets and suburban lawns. This water goes into storm drains and from there, directly into lakes, streams and rivers without treatment.

Wetlands act as living filtration systems to remove such pollutants from the water, but it is very difficult to create wetlands in highly developed areas. Rain gardens act as mini-wetlands by providing landscaped depressions to catch and absorb runoff and allow it to slowly seep into the ground. Choose a rain garden location that typically receives a lot of water — areas next to paved surfaces, near downspouts or under rain gutters. Dig a shallow depression in your chosen location to help channel the water into your garden and irrigate the plants.

You can plant a combination of shrubs and flowers and there are many different species to choose from. In Wisconsin, blueflag iris, great blue lobelia and cardinal flower can be planted together to make a bright and colorful rain garden that enjoys lots of sun.



## Zero runoff streets?

- As an alternative to traditional stormwater culverts and piping systems, the Village of Shorewood Hills is creating natural drainage systems using native landscape and “bio-retention” basins that will look like gardens but capture and filter runoff.
- Leading developers are also utilizing low-impact strategies and green infrastructure to reduce stormwater impacts, while creating more livable places to work and play. For example, Common Wealth Development’s proposed Garver Arts Incubator near Olbrich Gardens will be a model for sustainable renovation and preliminary plans show a variety of systems for stormwater management, including a bio-swale to filter runoff from a porous pavement parking lot and the use of cisterns and an extensive green roof for capturing rain water for irrigation.

Pussy willow, red-osier dogwood and black chokeberry are some of the possible shrub choices that would do well in our climate. The UW-Madison Arboretum and local garden stores have planting guides and other resources to help you learn about the different native plants and communities.

Rain barrels are excellent for collecting stormwater for landscape irrigation and help replenish aquifers that contain our drinking water deep underground. During a 1-inch rainfall, the roof over a two car garage will produce more than 400 gallons of runoff! Rain barrels also save energy because water pumping by utilities uses large amounts of energy. ▲

— *John Imes is Executive Director  
for Wisconsin Environmental Initiative [www.wi-ei.org](http://www.wi-ei.org)*

## Green-it-yourself resources

- UW Arboretum Native Plant Sale  
Saturday, May 9, 2009 from 9 a.m. until 2 p.m.  
More than 100 species of quality prairie plants, woodland plants, shrubs, vines and trees are available for purchase under one tent. Experts will be on hand to answer questions. Proceeds support Arboretum projects. <http://uwarboretum.org/>
- Sustain Dane patented “eco-friendly” RainReserve™ rain barrels allow individuals the opportunity to reduce storm water runoff, keeping our waterways cleaner and healthier.  
[www.rainfordane.org](http://www.rainfordane.org)