

# Rain gardens described as one way to restore nature's sponge

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The paving over of "nature's sponge" with buildings, parking lots, streets and sidewalks can, in part, be reversed with the creation of rain gardens on residential, commercial and institutional properties, Formecology Inc. owner John Gishnock III, of Evansville, pointed out. He spoke at the Winnebago County Land and Water Conservation Department's second annual Natural Shoreline Expo.

"We have a lot of flooding because the water has no place else to go," Gishnock stated. "A rain garden is the homeowner's answer" to the runoff water that would otherwise run very fast to creeks, streams, rivers and lakes, he said.

A properly created rain garden is a depression with a level floor, usually with a depth of 4 to 8 inches, that is placed on terrain (often lawns) to intercept and hold the runoff water from roofs that would otherwise quickly flow off the site, Gishnock explained. It is generally placed in the natural flow channel of an eave or underground PVC downspout, at least 10 feet from any building and outside the drip zone of any nearby trees, he noted.

Not only do rain gardens trap pollutants, but they also are an attractive addition to a property and provide wildlife habitat, Gishnock promised. "They restore the natural hydrology. A few cities even give a break on their stormwater runoff fee. One even pays for one-half of the cost of the plants for the rain garden."

As the owner of Formecology, which has been in business for 13 years, Gishnock said his goal is to have at least one of every five residential and commercial yards carrying out one or more practices that can be described as sustainable for the environment. He listed education, tours and imitation of



JOHN GISHNOCK III

clients who undertake conservation practices as three ways to strive for that goal.

Two specialties of his company are to use plants native to the region and to establish them in a rain garden with an aesthetically pleasing shape that complements the surroundings, Gishnock pointed out. "We want to create rain gardens with a very Wisconsin aesthetic."

As a generic guide for designing, building and maintaining a rain garden, Gishnock recommends the 32-page *Rain Gardens: A How-to Manual for Homeowners*. It is a joint publication of the University of Wisconsin Extension Service and the state's Department of Natural Resources that is also available for downloading from [cleanwater.uwex.edu/pubs/raingarden](http://cleanwater.uwex.edu/pubs/raingarden) or by calling 1-877-947-7827.

Looked at in one way, a rain garden is the opposite of a raised bed for raising vegetables or flowers, Gishnock remarked. But it is quite different from the detention basins that are widely used to capture and hold runoff water, he emphasized. "The term 'rain garden' wasn't coined until 1991."

A rain garden can be dug by hand or created with small equipment as a place for sediment to settle and for a great variety of plants to grow, Gish-

nock noted. Although many plants are suitable, the choices should also be sorted for which ones are appropriate for clay soil or for mostly sunny or shaded locations, he added.

What's important is that a rain garden can be fitted for a property of any size, Gishnock continued. He noted that for a large commercial or industrial property, the site is often referred to as a wet prairie or an infiltration bed.

For a single-residence property, "you're dealing with roof water, not with parking lot water," Gishnock pointed out. "So we build those rain gardens differently." Before any soil is moved, he said it is crucial to contact Digger's Hotline in order to have the location of all underground utilities identified and marked.

The size of a rain garden at a home will depend on the soil type and the rate of infiltration, which should be tested before site selection and construction, Gishnock stressed. For soil with a moderate draining or infiltration rate, he said the recommendation is to have a rain garden that's about one-third the size of the roof area that drains into it.

An important decision is how to tuck the rain garden into the existing shape and other features of the landscape, Gishnock stated. He showed pictures of how a large rain garden, installed in 2002, was designed to fit the property and an adjacent walkway at the Willy Street Co-op store in Madison.

"The rule is that the rain garden must be flat, even on sloping terrain," Gishnock noted. In some cases, he said

it might be appropriate to have two connected rain gardens at different levels.

Fill the rain garden with a variety of native plants that include some that are especially suited for the type of soil, Gishnock advised. He said the plants should also be selected for an attractive combination of color, size, texture and seasonal differences for major growth and flowering.

Gishnock strongly recommends starting with plants rather than seeds in a rain garden. For design and visual appeal, have repetitions of plants and give attention to the plant structure, he suggested. "Do not put one plant per square foot, but space them according to their normal size at maturity."

For plant selection, Gishnock mentioned those with seedheads that remain into the winter and the shorter or filler plants and grasses that hide a portion of the stems of tall vertical plants. Plants most often suited for those roles include the big bluestem, false indigo, joe-pye weed, New England asters, small rushes and sedges, while those to avoid include hostas and day lilies, he said.

Identify the plants with marking labels, use mulch to control weeds until the new plants are well established, to hold moisture and to stabilize the soil and remove dead stems in the spring, Gishnock advised. He emphasized that it is not the intent to have a rain garden filled with water at all times, but rather, to hold it for several days and thereby accommodate native plants suited for both dry and wet habitats.

Making a rain garden an attractive

site is certainly not limited to plant selection, Gishnock emphasized. He listed the possibility of embellishments such as stones, a birdhouse, a fence, a bench, other appropriate decorations and shrubs.

At the top of the scale in additional benefits from having a rain garden, Gishnock mentioned the attracting of tadpoles, dragonflies and maybe even

salamanders. He noted that because dragonflies like to eat mosquito larvae, this would help to relieve one of the concerns that some people have about a rain garden.

More information about Gishnock's company is available on the [www.formecology.com](http://www.formecology.com) Web site. Its e-mail is [info@formecology.com](mailto:info@formecology.com) and its phone is 608-882-6656.



**PIPELINE PROCEEDS** – Although not all of the legal issues raised by affected landowners have been resolved, construction goes on in east central Wisconsin for the 120-mile natural gas pipeline being installed for Guardian Pipeline. This scene is at U.S. Highway 151 and Town Hall Road, west of Chilton in Calumet County. (Photo by Ray Mueller)