

## Rain gardens absorb rain, avert it from Rouge River tributaries

Jo and Duff Michowski were the first residents in the City of Northville to work with Friends of the Rouge (FOTR) to install a rain garden on their front lawn at 350 Eaton Drive on June 2, 2019, with help from neighbors and FOTR volunteers.

Matthew Bertrand, restoration coordinator and landscape designer with Friends of the Rouge (FOTR) and Beth Rowley, landscape designer with Atlas Outdoors, designed the Michowski's rain garden and helped them select the plants and materials to construct it. Due to a grant, the homeowners only had to pay for half the cost of the materials, which included plants, landscaping bricks, mulch, compost, and a catch basin to retain and release excess water.

The grant was made by the Michigan Department of Environmental Quality's (since renamed EGLE) Nonpoint Source Program by the U.S. Environmental Protection Agency.

"The whole process couldn't have been easier, thunderstorm delays notwithstanding," noted Jo Michowski.

The Michowski's wanted to put their landscape to work to help solve problems with flooding. During major storms in prior years, their neighborhood had heavy flooding. Much of that excess water ends up in basements, sidewalks and streets. Their 100 square-foot rain garden has extremely sandy soil and can soak up more than 500 gallons of water in a one-inch storm.

Maintenance of a rain garden is similar to a typical garden. It can be constructed to be low, medium or high maintenance. Plants must be able to tolerate flooding for no more than 48 hours and also withstand drought. Lawn grass can also be used.

Eighteen demonstration rain gardens were built from 2015 to 2019 with the grant—half are residential and the rest are community-based, such as at schools and churches. Other rain gardens were installed at Salem Township Hall and Moraine Elementary School in Northville Township. Those rain gardens and the Michowski's keep rain water



*The Michowski's rain garden captures 500 gallons of water per heavy rainfall.*

*Photo by Jo Michowski*

from flooding and polluting Johnson Creek. With each rainfall, a typical residential rain garden absorbs upwards of 1,000 gallons of water while a community rain garden absorbs more than 4,000 gallons.

"People often think that heavy industry is the biggest source of pollution to the Rouge, but the number one problem is too much polluted run-off water during major storms. The flood waters also carry pollutants, such as metals and oils from our cars," said Bertrand. Flood waters disrupt creeks and rivers, destabilize banks and threaten private property.

Although additional grant money is not assured, Bertrand is educating people how to build their own rain gardens through the Master Rain Gardener Training Program. The goal is to build 1,000 rain gardens in the Rouge River watershed by 2025. A free, self-guided version of the course using recordings of past classes is available online at [TheRouge.org/master-rain-gardener](http://TheRouge.org/master-rain-gardener). This website also contains a PDF of native plants, shrubs, trees and flowers that are well suited for a rain garden, along with design tips and tricks.