# Stormy Day Review



2020 Issue 2

# PLANTING DAYS







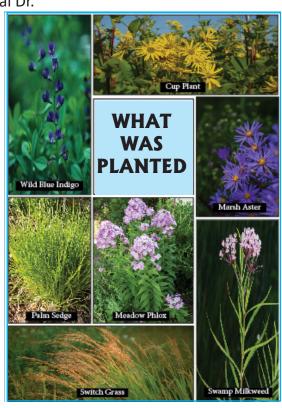


This Summer, small teams of volunteers planted over 2500 plants at the Meyer Industrial Drive bioretention basins over four days. The basins are a demonstration project for the Greater Bonne Femme Watershed Project and are open for the public to visit. These deep-rooted plants and amended soils act as a living filter by allowing water to soak in and remove pollutants, including oil, gas, road salt, trash, and other contaminants, from stormwater runoff, leaving Meyer Industrial Dr.

Clean water leaves the basins before entering Gans Creek, keeping the stream healthy and safe. At the same time, these basins provide a beautiful wildlife habitat for butterflies and bees to thrive. Rain gardens, wetlands, stream buffers, and ponds are some examples of other water quality features that can be used for treating and reducing stormwater runoff.

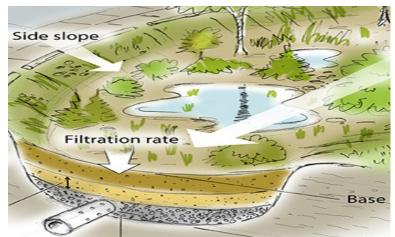
### Benefits of Bioretention Basins

- Protects communities from flooding and drainage problems
- · Improves air quality
- Provides habitat for wildlife including birds, butterflies, and insects
- · Filters pollutants out of stormwater
- Recharges groundwater, helping sustain adequate stream flow during dry spells



#### **Bioretention Basin Construction:**

A blanket of gravel was first placed in the bottom of the depression, which allows treated water to sink deep, recharging the groundwater systems. This was followed by a layer of soil rich in organic matter and has a high percentage of sand, which provides drainage. This soil is alive with bacteria



and fungi.

These bacteria and fungi play a large role in breaking down pollutants in the water and supplying nutrients for the plants. Deep-rooted plants that can thrive in both wet and dry conditions were planted into the soil. Finally, a mulch layer is added to help protect the plants and slow down runoff to prevent erosion. An outlet is placed in each basin to release excess water during intense rainfalls.

## What you can do at home: Build a Rain Garden

You can improve the runoff leaving your yard by installing a rain garden. Rain gardens capture stormwater runoff in shallow depressions and treat it with deep-rooted, water-loving plants. Collecting water and allowing it to soak into the ground slowly, rain gardens reduce the potential for erosion and minimize the amount of pollutants leaving your lawn. Planting your rain garden with native plants not only enhances the beauty of your yard but also provides valuable habitat for wildlife.

# Steps for Building



These six steps are a quick guide for growing your very own rain garden. To learn more about creating a rain garden and its many benefits, see the Rainscaping Guide on the Missouri Botanical Gardens website.



# Location:

Pick a low spot where water flows, at least 10ft from buildings.



Test the Soil: After a rain, dig a 6in by 6in hole in your spot. Fill the hole up with water twice. If the water does not completely drain, you need to choose another location or amend the soil.



# Prepare the Soil:

Physically remove the vegetation or cover the site with cardboard over winter. Remove soil and create a berm on the downhill side. Angle the sides towards the center.



# Design:

Depressions should be twice as long as they are wide. Make the garden around 8 to 10in. deep. The more clay the soil has, the larger the garden should be, underdrains can be used in soils that are very rich with clay.



Use native plants that can have wet feet, such as, milkweeds, marsh asters, or palm sedges. Space them out according to labels because they will fill in as they become established. For the first year, the plants will need 1 in. of water a week.

# Maintaining:

Mulch 2-3 in. thick, reapplying when needed. Water during dry periods. In the spring, cut dead vegetation few inches above the ground and trim perennials.

# Thursday, January 28th



"Kiss the Ground is an inspiring and groundbreaking film that reveals how to regenerate the world's soils, stabilize Earth's climate, restore lost ecosystems, and create abundant food supplies. Narrated by and featuring Woody Harrelson."

-Kiss the Ground

# Kiss the Ground Movie:

View at your convenience prior to the panel discussion. After you register, a link to view the film will be provided.

# **Interactive Panel Discussion:**

Regenerative Agriculture - A Win-Win for Productivity and Water Quality

Thursday, January 28th at 6:30 PM A virtual presentation link will be provided to you after registration.

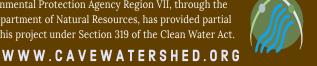
# REGISTER

ONLINE: forms.gle/iZB3gBLFMGkQ7G4E6

PHONE: (573) 886-4330

EMAIL: stormwater@boonecountymo.org

U.S. Environmental Protection Agency Region VII, through the Missouri Department of Natural Resources, has provided partial funding for this project under Section 319 of the Clean Water Act.



# Mark your Calendar

#### January 1st: 12:30 PM

First Day Hike:

Rock Bridge Memorial Park

#### **January 11-15th:**

Salt Awareness Week

Wisconsin Salt Wise: YouTube

#### January 12th:

Big Muddy Speaker: MO River Relief: Webinar

# January 25th:

Wilderness Management:

Online: University of Montana

#### January 28th:

Kiss the Ground

Film Screening and Panel Discussion:

Virtual

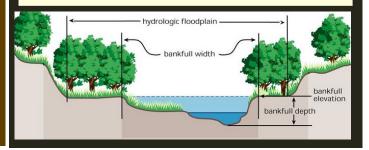
#### January 29th & 30th

Agroforestry Symposium Virtual: University of Missouri

# Stormwater Fact

# PLANT A STREAM BUFFER:

If you have a stream on your property, provide a natural buffer of native trees and shrubs along its banks to help filter polluted runoff, control erosion, and provide fish and wildlife habitat.



# **Quick Quiz**

Take this quick quiz and return it to Michele Woolbright Hickman in Resource Management or email your answers to stormwater@boonecountymo.org by December 15th. Participants can win a free travel mug!

1)	Name	one	type	of	plant	that	was	plante	d at	the	Meyer	Indu	ustrial	Drive	biore	etenti	on	basins

2)What is one benefit bioretention basins provide? \_\_\_\_\_

- 3) When maintaining a rain garden, when should you remove dead vegetation?\_\_\_\_\_\_
- 4) What event is occurring on January 28th? \_\_\_\_\_