



... every drop counts

The South Grand Current

www.sgrwa.org

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MS4 – Water Quality Protection and You

By Doris Sherrick

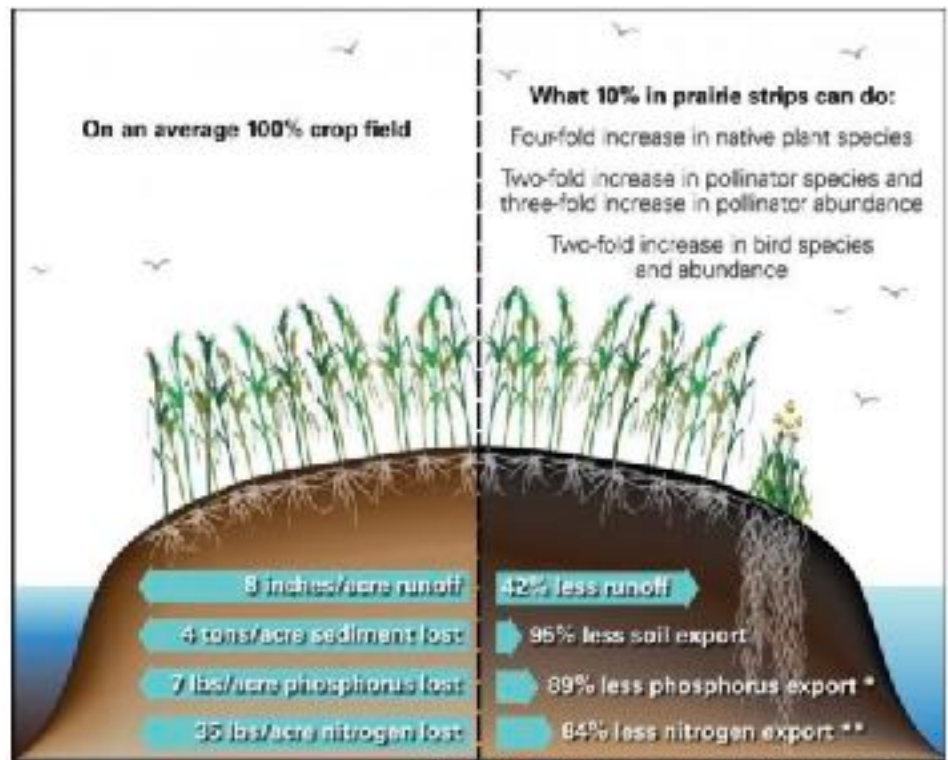
It is probably safe to assume that the term MS4 never pops up in your everyday conversations and it is not likely you spend much time pondering its meaning, nor is it often a hot topic of media concerns. However, it is very important for all of us to understand what MS4 is and to know our roles as individuals in complying with its requirements.

First, a definition. MS4 stands for Municipal Separate Storm Sewer System. MS4 is a federally mandated regulatory permit, administered by the Department of Natural Resources, for stormwater runoff (rainfall and snowmelt) in urban and other areas of high population density.

While management plans differ from one location to another, they all have the same basic focus areas considered essential for success:

- Public Education and Outreach
- Construction Site Erosion Control
- Public Participation and Involvement
- Post Construction Stormwater Management
- Illicit Discharge Detection and Elimination

Urbanized areas of a defined population, those adjacent to such urban areas, or other high-density entities are required to develop a stormwater management plan to address increased runoff and the pollution it carries. We all benefit from the regulation of stormwater runoff, through diminished downstream flooding and its accompanying property damage, safer roadways, reduced erosion, and from healthier streams and aquatic life through a decrease in the pollutants that get washed into them.



This illustration compares a crop field without prairie strip plantings and one with prairie strip plantings showing the many benefits of prairie plantings.

Stormwater runoff is the water that washes off our roof tops, flows across our lawns, streets, parking lots, sidewalks, construction sites, commercial development, and other surfaces. This runoff carries the pollutants present on these surfaces, untreated, directly to our waterways — creeks, rivers, lakes.

Ditches, basins, pipes, and storm drains are all part of the collection system of stormwater runoff. It is important to understand that runoff from all these systems drains directly to streams and not to a treatment plant.

Therefore, we must all work to ensure that nothing other than stormwater enters a stormwater drain — that means no leaves, grass clippings, motor oil, or any of the other numerous things that are sometimes put in stormwater drains. They all end up polluting our streams.

Other important actions to keep pollutants out of waterways include eliminating or reducing the use of the wide-variety of pollutants that stormwater runoff carries, such as: pesticides and fertilizers used in landscaping, and bacterial contamination from pet wastes. It is

important to pick up and properly dispose of these wastes.

Another highly important and effective action individuals, businesses, and public officials can take is to reduce stormwater runoff by keeping the water where it falls. This can be done through our landscaping choices—whether our private lawns, business landscaping, public and other spaces— by converting at least a portion of mowed areas to plantings of species native to our area. Native plants are those that grew in this area for millennia and whose beauty delighted the early European settlers but, over time, were replaced with the many changes in land use that included much impermeable land covering , and the use of alien species for landscaping and agricultural use.

In recent years, much has been learned about many of the important functions native plants provide including recognition and understanding that the long and complex root systems of native plants create a porous, sponge-like, highly absorbent soil that soaks up stormwater. This means plantings of



Home landscaping with native Missouri plants.

native plants keep more of the rain where it falls instead of rushing it off to the nearest ditch or stream. Not only do native grasses, flowers, and trees reduce stormwater runoff, they are also important for the health of the watershed in other ways including the crucial habitat they provide for native butterflies and other native pollinators, native birds that eat caterpillars and seeds, and many other species. And they provide us with much natural beauty and enjoyment.

Help improve the health of the watershed you live in by encouraging

your family and friends to join you in reducing the amount of lawn that is mowed, using native plants in landscaping, participating in stream cleanup events, eliminating or reducing use of pesticides and fertilizers, making sure only stormwater runoff enters storm drains, and to be an advocate for these practices.

Since its organization as a nonprofit 501(c)(3) in 2005, the South Grand River Watershed Alliance has provided a variety of educational activities and events, many involving volunteers, with locations in cities that use these activities to meet the education requirement of their MS4 plan. Page 4 features a few photos of the SGRWA in action. These activities are publicized through various media including SGRWA's Facebook and website: www.sgrwa.org.

You are invited to join us as we work toward a healthier watershed.

Resources:

<https://dnr.mo.gov/env/wpp/stormwater/sw-local-gov-programs.htm>
GrowNative.org

Trees and Shrubs For Your Landscaping

By Conservation Agent Phil Needham

With the spring planting season underway, now is a good time to consider including native Missouri trees and shrubs in your landscape plantings. Some species recognized as among the best for yards in western Missouri are featured below. The Missouri Department of Conservation (MDC) encourages all who plant trees and shrubs to go with native species and to especially avoid planting invasive non-natives species such as Bradford/Callery Pear.

TREES

White Oak (*Quercus alba*) and **Burr Oak** (a white oak species) (*Quercus macrocarpa*): A stately white oak tree provides many important environmental functions such as food value to wildlife and nesting and cover to critters. It would be hard to find a tree that offers more benefits to humans and wildlife than the white oak. The white oak is a host plant for an incredible number of butterfly species and other insects, and its acorns are a highly important food source for many wildlife species including song and other birds and many mammals. However, if you find acorns on your

lawn unacceptable, then the white oak is not a tree for you to consider planting. Also, since white oaks get very large, choose a planting spot with that in mind. In Cass County, the burr oak is a good substitute for white oak and is hardier. The burr oak is a “plant it and leave it” type of tree and weathers drought and flooding well. Burr oaks have a very wide, open-crown but do not have the stately full-limbed quality of the white oak.

Black Gum (*Nyssa sylvatica*): The black gum tree, while native to Missouri, is not native to this particular area of the state. In the wild it can be found in the Ozark woods on moist well-drained soils near the bottom of draws. It is not considered hardy in this part of the state, so if you decide to plant it in your landscape, understand that it will require some maintenance over the years. With its crimson red leaves in the fall, the black gum is a perfect yard tree. It will need watering during drought.

American basswood (*Tilia americana*): American linden is another common name for this species. Basswood is native to all of Missouri and is a very popular lawn tree in urban areas. It is found in moist, well drained

American basswood



soils and locally finds its niche along creeks and streams. It has golden-yellow leaves in the fall. If you want to plant a tree that benefits bees and other pollinators the basswood is a great choice.

Tip: consider not raking leaves in the fall, or at least leaving a leaf pile in a corner of the lawn through the winter to provide cover/habitat for many invertebrate species such as some butterflies and moths and many more that depend on leaf litter for their survival.

SHRUBS

Shadbush (*Amelanchier arborea*):- Also known as Downey serviceberry, is native to the area and is a great understory shrub/small tree. It puts out a beautiful display of sweet-smelling, white flowers in early spring and grows in a variety of habitats. As many as 40 bird species and many other wildlife species, enjoy its fruit. Serviceberry is a great replacement for the highly invasive Callery/Bradford pear that provides almost no benefit for wildlife.

Golden Currant (*Ribes aureum*): This shrub is like a gooseberry on steroids. It is thorn-less and has yellow flowers in the early spring that emit a



spaces. Among the attractions for landscaping with natives is that they are adapted to the local soils and growing conditions, do not need fertilizer, and rarely need watering.

The hard part of going native is the effort required to locate businesses selling Missouri native plants. Fortunately, an organization, Grow Native!, is dedicated to native species and provides much information on its website including a Resource Guide of suppliers of true native plants and seeds: www.grownative.org. So, get your shovel and ready a spot for one or more of Missouri's beautiful native shrubs and trees.



wonderful clove-like fragrance. The berries (currants) are edible by people or wildlife.

American Beautyberry (*Callicarpa americana*): The main attraction of this 3 to 6-foot shrub is the clusters of brilliant fuchsia berries that form along the leaf axils in the fall. Mature bushes are a landscaping showcase and are used by seed-eating birds and mammals.

These are just six of more than 100 native trees and shrubs available for landscaping by homeowners, businesses, and in public and other



South Grand River Watershed Alliance (SGRWA)

Mission

To promote the conservation, protection, and restoration of the South Grand River Watershed through education, advocacy, and community demonstration activities and projects.

The South Grand River Watershed Alliance is a 501(c)(3) non profit organization.

Water is the most critical resource issue of our lifetime and our children's lifetime. The health of our waters is the principal measure of how we live on the land.

- Luna Leopold

Programs, Events, Presentations, Meetings, and Membership

Check our website for information about SGRWA activities, programs, events, and membership.

Presentations

Presentations on watershed-related topics are available for your group or organization.

For meeting, and presentation information, contact us through our website:

www.sgrwa.org

SGRWA in Action 2020



SGRWA removes exotic invasive bull thistles and others at Peculiar City Lake prairie planting.



Peculiar Parks & Recreation removing invasive Callery pears preparing a site at J Hwy and School Road for a Highway Beautification Project. SGRWA partnered with Peculiar Parks & Recreation and MODOT, to put in a pollinator planting of native plants and shrubs partially funded by a MARC grant.



SGRWA working on maintenance at Justice Center rain garden.



Fishing derby attendees at Harrisonville City Lake learned about streams and many factors that impact their health at the SGRWA booth featuring a stream table.



SGRWA removes cattails from Rick's Memorial Rain Garden, Linear Park, Raymore, MO



Samples of local exotic invasive plants were available for attendees of the SGRWA invasive plant workshop held in Peculiar, MO



Summer blooms at a SGRWA prairie planting at Peculiar Lions Club.

SGRWA 2020 Membership

Name _____

Street Address _____

City _____ State & Zip _____

Phone _____ EMail _____

Memberships January 1 through December 31 New Member _____ Renewing Member _____

___ Individual (\$15)

___ Family (\$20)

___ Business/Organization (\$50)

___ Government (\$200)

___ Sponsor (\$300) *This level receives recognition on SGRWA FB Website pages*

___ Donation (\$ _____)

Dues and donations help fund our educational activities and maintenance/plant replacement of SGRWA projects

Make checks payable to SGRWA and mail to: SGRWA, 10807 E. 205th St., Peculiar, MO 64078

Option to join, renew, or donate online at www.sgrwa.org The SGRWA is a not-for-profit 501(c)(3) organization.

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