

Technical Memorandum: Being a Good Neighbor to Your Stormwater Basin



Native plantings are becoming an increasingly popular alternative to rip-rap or turf grass around stormwater basins. The Village of Montgomery requires naturalized plantings in these areas to provide stormwater management with natural beauty and water quality enhancement.

This flyer will help you better understand and appreciate the stormwater facility near your home. We hope it will encourage responsible stewardship, because having a naturalized stormwater facility can enhance your enjoyment and the value of your home!

Just as a vegetable or flower garden needs tending, stormwater wetlands and their prairie buffers need care. Keep in mind that cut flowers can't return seeds to the soil. Here are some ways you can



Treat wetlands and Buffers as gardens

These are not areas for composting or for disposing pet droppings, debris, or unused chemicals. Heaps of grass clippings don't decay; they smell foul, smother plants, and unbalance the system, which results in weeds.

Think of the buffer as a natural sun garden

Prairie plants love the sun! For the prairie to perform at its best (e.g., more flowering, healthier growth, etc.), limit planting trees in or near the buffer. The buffer should not have shade for more than half a day, and preferably much less.

Limit watering to your yard

Prairie plants aren't your typical garden flowers. Once established, they are drought resistant. Make sure your lawn sprinkling system is watering only turfgrass, not prairie buffer.

Expand native plantings into your yard

Wider is better when it comes to buffers. Unlike lawn grasses, native plants have deep roots that hold and in-

crease organic matter in the soil (which means it can act like a sponge during heavy rainfalls and absorb more water). So, feel free to plant natives in your own yards, but please don't plant ornamental perennials or non-native plants in the buffer.

Maintain the buffer

This area should not be converted to lawn or used as a site for swing sets, fences, or sheds. Native buffers filter nutrients and pollutants, discourage Canada geese, and slow the speed of surface runoff. In turn, this reduces invasive plants, algae, and erosion.

Once established, native plantings are "low maintenance," which makes them a cost-saving alternative to traditional turf. Native plantings are typically maintained by fire. This is nature's way of controlling weeds, fertilizing, and encouraging flowering. Keep this in mind if you're thinking of planting an evergreen near the buffer (they don't do well with fire!). Burns should be "prescribed" and conducted by professionals who have the proper training, safety equipment, and liability insurance.



Some rowdy plants need extra encouragement to go live elsewhere. This can be done by hand (cutting or pulling), herbicide application, or burning. Depending on the plant, more than one method may be needed.

If you don't know a plant, please don't pull it or apply herbicide. Instead, contact your association or the Village Community Development Department. A landscape maintenance company qualified and experienced with native systems should perform management activities.

"The view ... beggars all description. An ocean of prairie surrounds the spectator. This great sea of verdure is interspersed with delightfully varying undulations, like the vast waves of the ocean..."

W.R. Smith 1837



Use chemicals sparingly

Herbicides, pesticides, and fertilizers used in your yard wash into the stormwater system. Also, be careful how you use car cleansers, road salt, and motor oil, etc.

Keep an eye out for algae

Land use practices can affect native plants even if there is no direct disturbance. Nutrients that feed your lawn are the same ones that make algae grow. Algae are good warning flag indicators. If the water is covered with algae, the natural balance of nutrients has been upset. The most likely cause is excess fertilizers (including animal excrement). Don't confuse algae with tiny floating plants called duckweed (plants like tiny lily pads that are an important food for waterfowl!)

Be aware that mosquitoes may not be coming from the basin

Mosquitoes breed in rain gutters, pet feeding bowls, watering cans, etc. as well as in wetlands. Having a native buffer helps the wetland plantings function properly. A healthy wetland has a natural balance and control of nuisance animals and insects. The wetland and buffer will

be a home for dragonflies, butterflies, and birds that feed on insects like mosquitoes



What to Expect during Prairie Establishment from Seed

Year One

What is this, a "weed patch?" Be patient. The prairie is just a baby. It will have very little top growth (maybe an inch or two) because the plants are developing root systems that will ensure their survival.

Year Two

Hmm. Still looks pretty weedy. Don't give up! The prairie is just a toddler at this stage. You can expect rapid growth increases, and faster-growing flowers (like black-eyed Susan) and grasses may bloom.

Enjoy the open space and wildlife

Discover the animals, from large to small, that live there or visit. This can be one of the most enjoyable aspects of

living near a naturalized area. Encourage others to enjoy the seasonal changes in plants and animals.

Year Three

Ah, the awkward teenage years, neither here nor there. Most plants will flower profusely. The grasses should be evident and regularly interspersed across the slopes. Weeds will be less abundant (though like acne, they'll continue to pop up) as native plants really start to come into their own.

Year Four

Hey, maybe things aren't so bad after all. This is the stage when you can see the promise of the future. With a little management, prairie plants should be in control and well on their way to becoming a long-term stable community.

Year Five

Looking good! Your investment in patience has paid off with a landscape that will last a lifetime.

Benefits of Native Plants

Native wetland and prairie plants provide many benefits and functions as they beautify our stormwater basins. Native plantings...

Are more cost-effective than rip-rap or turfgrass due to minimal annual maintenance requirements.

Improve the soil's ability to hold water through their deep root systems, which reduces flooding.

Absorb wave energy before it reaches the shoreline and filter surface runoff, reducing erosion and sedimentation and improving water quality.

Encourage geese to stay in the water and off lawns, sidewalks, and driveways.

Reduce air pollution because they do not require regular mowing and they remove carbon (a contributor to global warming) from the air.

Above all, remember that a healthy naturalized stormwater basin needs neighbors who are good stewards.

Internet Resources for Prairies

Here are some internet sites with educational and interesting information about prairies, including what prairies are, why they are important, and the benefits they provide to our quality of life. This list is not intended to be all inclusive or to reflect preference for any organization.

<http://www.epa.gov/greenacres/nativeplants/factsht.html>

<http://www.epa.gov/reg3esd1/garden/why.htm>

http://www.dec.nsw.gov.au/small_business/landscaping/home.htm

<http://www.ci.mount-holly.nc.us/stormwat.htm>

<http://www.cartage.org.lb/en/themes/Arts/Civcarts/Naturallandscape/naturallandscaping/chap1/chapt1.htm>

<http://www.prairies.org/>

<http://www.inhs.uiuc.edu/~kenr/tallgrass.html>

<http://www.theprairieenthusiasts.org/>

<http://www.for-wild.org/>

<http://www.prairiepages.com/>

This site also contains links to other prairie information.

<http://www.conservation.state.mo.us/conmag/1996/mar/mr96van.html>

<http://www.stanford.edu/~rawlings/gronat.htm>

<http://dnr.state.il.us/lands/education/habitatposter/prairieflowers.htm>

<http://www.prairiesource.com/index.htm>