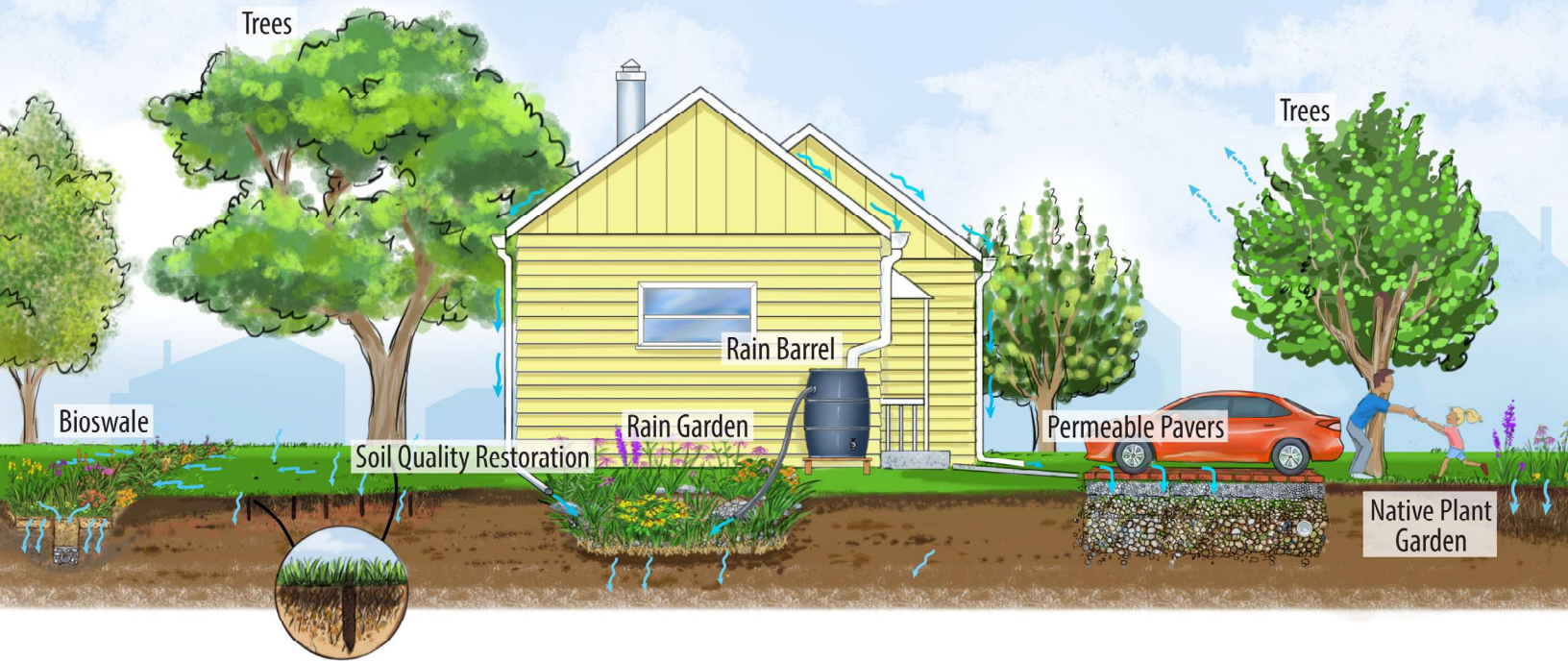


HOMEOWNER'S GUIDE

to Stormwater Management



Stormwater Runoff

Iowa's urban landscape is dominated by impervious surfaces such as streets, buildings, and compacted soil that can't soak up rain. Stormwater is rainwater and snow melt that drain off of these surfaces to the nearest storm drain or drainage ditch. This ultimately discharges to local streams and lakes. Excess stormwater contributes to local flash flooding. Pollutants collect on impervious surfaces and are washed away with runoff that drains to the storm sewer system.

No Treatment

Unlike wastewater, stormwater is not treated and flows directly into our waterways. Because of this, everyday actions in our yards can impact the health of our streams and lakes. Common sources of pollutants include pet waste, oil, grease, and gas from vehicles, trash, lawn clippings, sediment, fertilizers, and deicer salt.

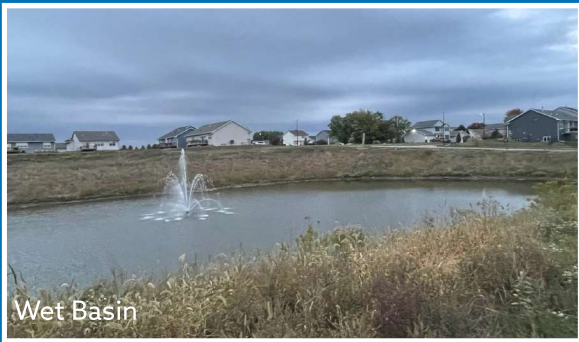


Stormwater drains off landscapes into street inlets connected to an underground stormwater sewer pipe system.

MANAGING STORMWATER IN YOUR NEIGHBORHOOD



Drainage Easement



Wet Basin



Dry Basin

Drainage Easements

Private properties in newer developments may have drainage easements recorded in legal documents. A drainage easement is a land area between or behind houses designed to safely convey stormwater drainage through neighborhoods. During heavy rains, these areas can look like a stream several inches deep as it flows to the nearest inlet, storm drain, or water body. If functioning properly, water will drain within a day or two.

The homeowner is responsible for keeping the easement area clear of obstructions. It is illegal to impede the flow of water in an easement by regrading or adding structures. Before building a garage, fence, or doing a major landscaping project, contact your local city or county planning and zoning department to check for drainage easements.

Stormwater Basins

Some neighborhoods will have wet ponds or dry detention basin that are used to manage the runoff from rainfall events. A wet pond will have a permanent pool of water. A dry detention basin will completely drain after a rainfall event. Both temporarily hold back excess stormwater runoff and release it at a rate that minimizes local flooding.

Homeowners that live near these basins play a role in the quality of water released from these structures. Prevent unsightly algal growths in wet basins by using phosphorus-free fertilizers on your lawns, and leave a vegetative buffer around the pond that is not fertilized and rarely mowed.

Plant native plants in the buffer around the pond to filter out excess nutrients from fertilizers and keep nuisance geese away!

FERTILIZERS AND YOUR LAWN

Most soils in Iowa have adequate amounts of phosphorus so no need to add more. Excess nutrients drain into local waterways and cause algal blooms that impact aquatic life. Fertilizer bags have three numbers on their labels (pictured left) in a # - # - # format. These numbers are the percentage of the three primary nutrients in the fertilizer: nitrogen, phosphorus, and potassium. Select fertilizers with zero phosphorus when purchasing fertilizer for your yard.



P-free Fertilizer

MANAGING STORMWATER IN YOUR YARD

POLLUTION PREVENTION TIPS

- Sweep lawn clippings back onto the lawn or compost them.
- Use only phosphorus-free fertilizers.
- Promptly clean up chemical spills and lawn fertilizers from pavement to prevent them from washing into the street and storm drain.
- Pick up after pets.
- Wash your car at the car wash instead of on your driveway.
- Don't wash off your driveway into the street.
- Don't dump anything into a storm drain.

CAPTURE AND SOAK UP RAIN WATER



Rain Barrels

Rain barrels are an easy and cost-effective way to start collecting and reusing rooftop runoff. Use the water for plants and gardens, wash exterior fixtures, rinse recyclables, and more!



Soil Quality Restoration

Soil Quality Restoration uses deep tine aeration (4 inches) plus a topdressing of 1/2-3/4 inches of compost and optional overseeding. The compost increases organic matter, creating a healthier lawn that soaks up more rainfall.



Rain Gardens

Rain gardens capture and temporarily pond stormwater that soaks into the ground. Use them to collect rainwater from downspouts and drainage from impervious surfaces and lawn areas. Native plants are often planted in rain gardens because of their deep root systems that improve infiltration.



Permeable Pavers

Unlike traditional pavement, permeable pavers reduce runoff. Gaps between pavers allow stormwater to drain down into an underground gravel chamber. The water is filtered, cooled, infiltrated or slowly released to the storm sewer system that drains to a local waterbody.

FUNDING OPPORTUNITIES

Many cities have funding available for installing these practices, some up to 50% or more for the cost of your project! Visit raincampaign.org or iowastormwater.org to find out if your city participates.

UPDATING **YOUR** LANDSCAPING?

CONVERT THE TURF

Consider native plants! Native plants existed prior to European settlement, are deep-rooted, hardy and adapted to Iowa's fluctuations in seasonal temperatures and precipitation. They can be easily integrated into existing landscaping, bring lots of color to your yard, and attract pollinating insects and birds! Native plants can be added into yards or existing gardens. Convert turf into an urban prairie by seeding or planting a strip to intercept runoff from your yard.



BENEFITS OF NATIVE PLANTS



Adapted to Iowa

Native plants are adapted to Iowa's climate and soils.

Increase Infiltration

These plants have deep roots that can soak up rainfall.

Reduce Runoff

They soak up more rainfall on your property instead of having it run off into the street.

Improve Soil Quality

Native plants improve soil porosity and add organic matter to your soil so that it can soak up more rain.

Reduce Maintenance

They require no fertilization and only require periodic high mowing in early spring or late fall after they are well-established.

Restore Critical Pollinator Habitat

Native plants attract a variety of butterflies, insects and birds.



LEARN MORE... DO MORE...

iowastormwater.org
raincampaign.org
cleanwateriowa.org



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