

Why you should you get involved?

Everyone lives in a watershed.

1. The various types of nonpoint source pollutants targeted (Total Suspended Solids (TSS), Total Phosphorus (TP) and Total Nitrogen (TN)) have detrimental effects on Aquatic plant and animal health, and the general watershed.
2. This will therefore demonstrate how best management practices improve water quality from non-point source pollution, and how those practices can be utilized by you and an individual at home and/or work.

How to get involved:

Multiple opportunities are available to interested stakeholders.

1. Sign up for the newsletter on the Engage R1 webpage.
2. Attend one of the pop-up events planned for this program listed on the project webpage.
3. Volunteer to participate in planting days at the demonstration sites to experience implementation first hand.

Need Technical Support?

Property owners who require additional help with evaluating potential BMP improvements to their specific location can request technical assistance with staff from Olson Ecological Solutions.

For more information, or to schedule a consultation, please contact Olson Ecological Solutions, Alden O'Connor, via email at alden@olsonecosolutions.com.

For more information, scan the QR code below to visit projects webpage at bit.ly/EngageR1Watershed

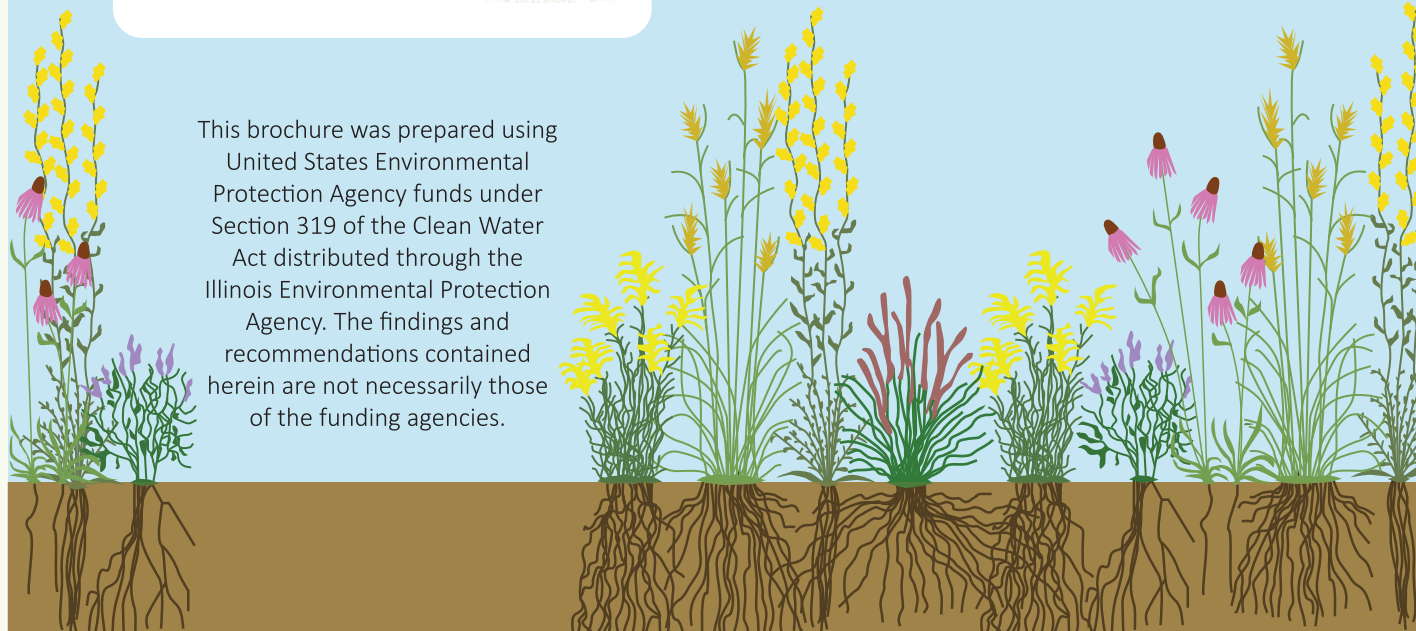


or contact Eric Tison Project Coordinator
ETison@r1planning.org | 815-319-4195



This brochure was prepared using United States Environmental Protection Agency funds under Section 319 of the Clean Water Act distributed through the Illinois Environmental Protection Agency. The findings and recommendations contained herein are not necessarily those of the funding agencies.

Your Watershed Your Wellness Your World



What is the 319 Watershed Education Grant?

Region 1 Planning Council (R1) has received Section 319 Grant funding from the Illinois Environmental Protection Agency (IEPA) to conduct research and activities to educate and encourage local residents and businesses to adopt non-point source (NPS) pollution control best management practices (BMPs).

The project includes the construction of two demonstration BMP projects; a bioretention basin in the Buckbee Creek watershed, and a bioswale in the South Fork Kent Creek watershed.

This project is being conducted in partnership with Illinois Environmental Protection Agency, Winnebago County, City of Rockford, Winnebago County Soil and Water Conservation District, Rockford Township, Rockford Park District, and Olson Ecological Solutions.

What is Nonpoint Source Pollution (NPS)?

This occurs when runoff from rain and snowmelt carries pollutants into waterways, and derived from the concept that there is no single point from which the pollution occurs.

What are Best Management Practices (BMPs)?

For this project, BMPs are tools, practices, and methods of stormwater management that control peak stormwater runoff rate, improve water quality, and manage runoff volume.



Rockford is rapidly growing. It was once farmland and small towns.

More construction = More impervious surfaces.

That means when it rains, less water is infiltrating into the ground water.

Instead, rain water moves over lawns, driveways, streets, etc.

Which all flows directly into our rivers and streams.

Best Management Practices

A Bioretention basin is a shallow, vegetated basin that hosts a variety of plants and typically includes an underdrain, which is a drainage feature installed underground.

On average, bioretention basins filter out 77% of wastewater total suspended solids concentrations, 50% of total nitrogen, and 50% of total phosphorus. They also remove nearly 100% of heavy metals found in stormwater runoff.



A bioswale is a stormwater control measure that uses bioretention to promote infiltration and filtration of stormwater runoff as it moves downstream. Bioswale design measures typically include engineered soil and an underdrain.

- They maximize the time water is stored to allow for the capture and breakdown of pollutants.
- Bioswales remove up to 99% of surface and stormwater runoff. Depending on intensity of stormwater flow and vegetation conditions, bioswales can reduce pollutants (TN and TP) carried in surface runoff by up to 99% and can remove anywhere from 47 to 86% of TSS.



What is a rain garden?

A shallow dug out garden bed:

- Dug down between 3-8 in depending on soil type.
- Area based off drainage area.

Planted with native perennials:

- Can be formal or informal.
- Provides food and habitat for the 3 big B's: Birds, Butterflies, and Bees.

Captures water from average storm events (1 to 3 inches).

Only holds water for 1 to 2 days after a rain event!

How does a rain garden fit into stormwater management?

Allows stormwater to penetrate the soil:

- Allows natural cleaning of pollutants.
- Returns to groundwater system.

Aids in flood prevention.

Reduces rutting and erosion of lawn, unpaved driveways.

A great way for homeowners to protect surface water resources.

Benefits of rain gardens

- Reduces runoff volumes and rates.
- Recharges groundwater and stream flows.
- Filter runoff pollutants.
- Can increase aesthetic value for the properties.
- Provides wildlife habitat.
- Typically low maintenance.



If you are planning on doing some gardening this spring, consider putting in a rain garden!