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GET INVOLVED!

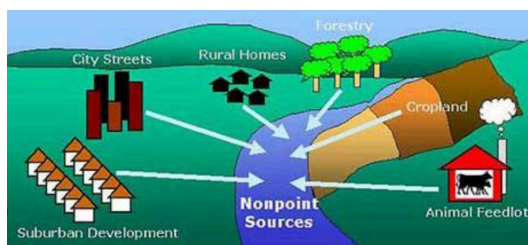
- Sign up for the newsletter.
- Attend one of the scheduled pop-up events.
- Go to the [Engage R1](#) webpage to see project updates and provide feedback.
- Volunteer to participate in planting days at the demonstration sites to experience implementation firsthand.

IMPROVING WATER QUALITY IN THE REGION

What is the Watershed Education Grant?

Region 1 Planning Council has received Section 319 Grant funding from the Illinois Environmental Protection Agency (IEPA) to conduct research and activities to educate and encourage local watershed stakeholders 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



Nonpoint source pollution is difficult to control because it comes from many different sources and locations.

Source: National Ocean Service

GET INVOLVED

Multiple opportunities are available to interested stakeholders.

- Sign up for the newsletter.
- Attend one of the pop up events planned for this program.
- Go to the [Engage R1](#) webpage to see project updates and provide feedback.
- Volunteer to participate in planting days at the demonstration sites to experience implementation first hand.

WATERSHEDS

QUESTIONS? CONTACT

Eric Tison

Project Coordinator

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Upcoming Events



Sunday 24 Mar 2024

Soil & Sediment Control

This program provides regulatory and technical information and resources to the development community for construction site erosion control.



Wednesday 24 Apr 2024

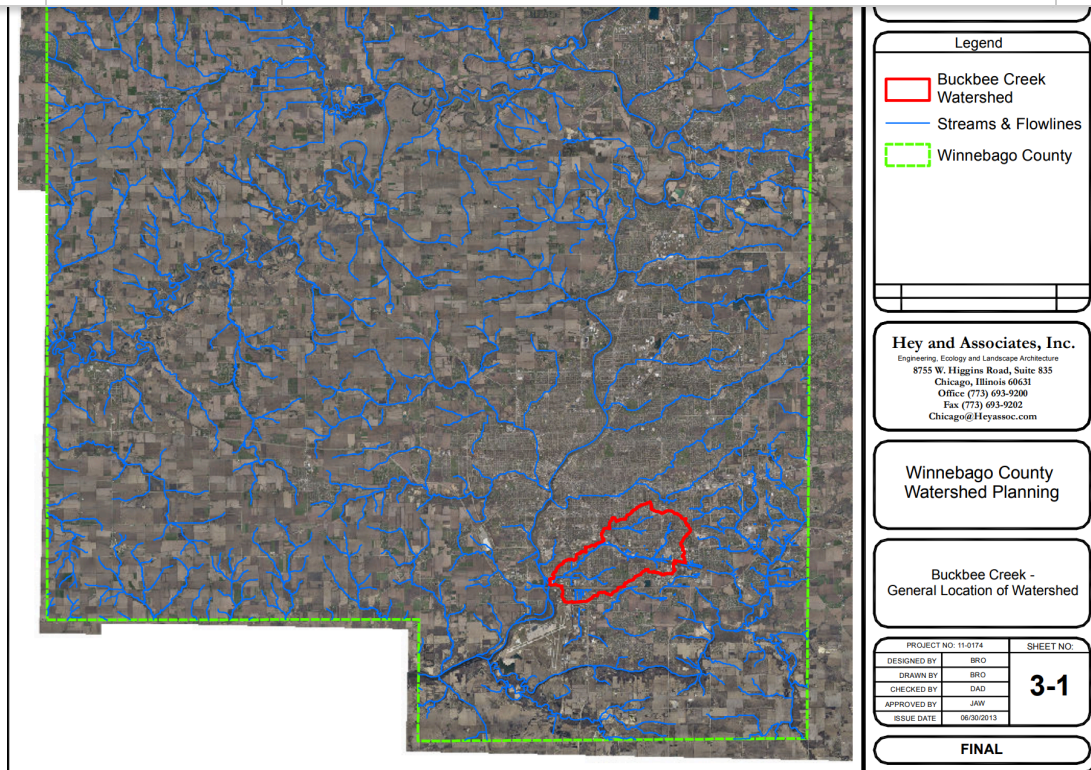
Rain Barrel & Tree Sale

All who order shade trees, evergreens, shrubs, specialty items, pollinator bundle packs, pollinator seeds, and rain barrels will receive educational materials on BMP practices for residential areas when they pick up their items.

More Information on webpage

[Engage R1](#)

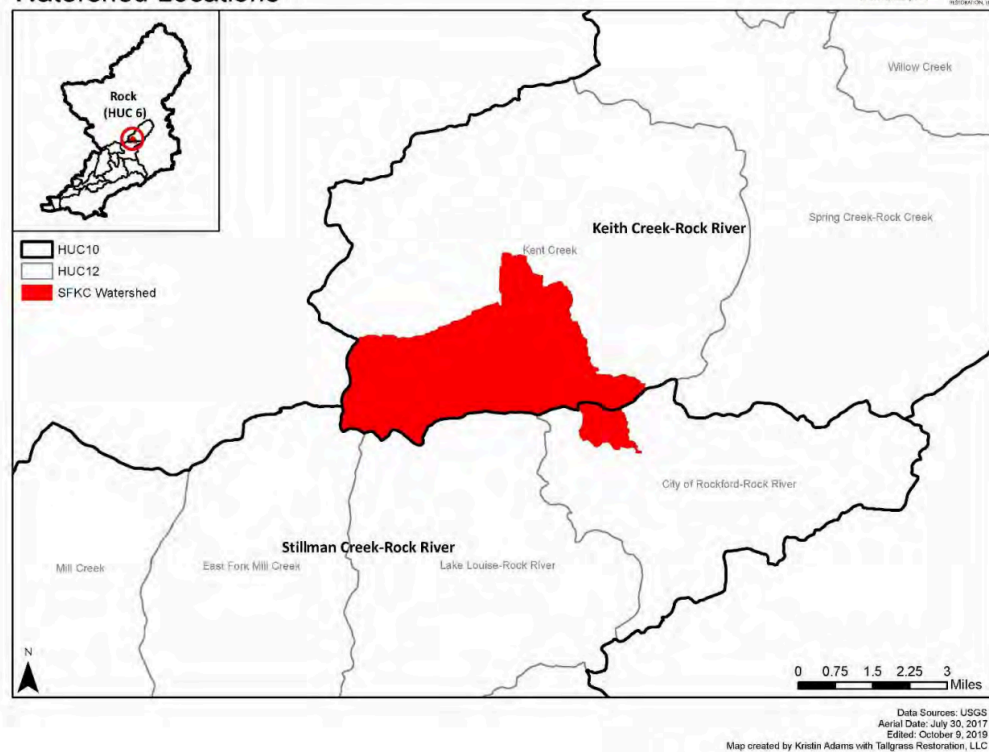
Sign up to volunteer!



The Buckbee Creek watershed

The Buckbee Creek watershed is located in south-central Winnebago County in northern Illinois. The watershed drains approximately 6.94 square miles (4,441.73 acres) of land into the Upper Rock River, which flows southwesterly, before joining the Mississippi River at Rock Island, Illinois.

South Fork Kent Creek Watershed Watershed Locations



The South Fork Kent Creek Watershed is located in Winnebago County in north-central Illinois. The watershed lies between Winnebago and Rockford. Levings Lake is found on the east terminal of the watershed, and U.S. Route 20 runs the length of the watershed from northwest to southeast.

Source: Olson Ecological

CAUSES OF POLLUTION IN WATERSHEDS

Nonpoint Source (NPS) pollution is the United States' main contributor to water quality concerns. The Illinois EPA identifies NPS pollution as the "primary factor limiting waters in Illinois from attaining their designated uses." NPS pollution is caused by water flowing over or through the ground, picking up pollutants, and depositing the pollutants into nearby waterways and groundwater. Common sources of NPS pollution include urban and construction site runoff, agricultural runoff, and resource extraction .

In Winnebago County, both Buckbee Creek Watershed and South Fork Kent Creek Watershed face stormwater runoff and nonpoint source (NPS) pollution concerns. Water sampling conducted in the region indicates a presence of NPS pollutants in



Source: Stormwater Management Commission

BEST MANAGEMENT PRACTICES (BMPs)

Best management practices (BMPs) are methods of managing stormwater runoff and mitigating pollution entering waterways by controlling peak stormwater runoff rate, improving water quality, and managing runoff volume. BMPs do this by capturing, storing, and filtering stormwater runoff. Common BMPs include bioretention basins (pictured above), bioswales, constructed wetlands, green roofs, porous pavement, retention ponds, and urban tree canopies. This project focuses on the implementation of a bioretention basin and a bioswale.



BIORETENTION BASIN

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. Also referred to as rain gardens, bioretention basins improve water quality and filter stormwater runoff through the use of engineered soil that removes solids, metals, and organic chemicals from stormwater runoff.

On average, bioretention basins filter out 77% of wastewater total suspended solids concentrations, 50% of total nitrogen, and 50% of total phosphorus.



BIOSWALE

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 demonstrate a high storm runoff storage capacity by removing up to 99% of surface and stormwater runoff.

Bioswales have flexible siting requirements, allowing installation within many sites, such as medians, cul-de-sacs, bulb-outs, and other public spaces or traffic calming strategies.

This newsletter 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.



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