

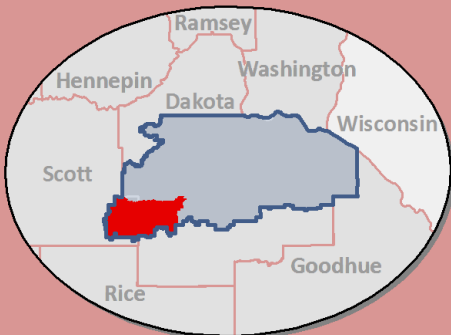


How can you improve local waters?



Upper Main Stem Subwatershed

Upper Main Stem Subwatershed



Includes:

- Elko New Market,
- New Market Township,
- Northern Eureka Township,
- Headwaters of the Vermillion River,
- All watershed areas in Scott County, and
- Upper main stem of the Vermillion River and all tributaries to it.

Strategies for a healthy subwatershed

The land area around the upper Vermillion River main stem (and smaller streams that run into it) make up the Upper Main Stem Subwatershed. The Upper Main Stem Subwatershed (shown in red on map, left) is part of the Vermillion River Watershed (shown in blue). Land and water in this area drain to the upper main stem of the Vermillion River.

The Upper Main Stem Subwatershed includes predominantly rural, large-lot residential, and commercial land use. Changes in land-use (from development, new infrastructure, or shifting farming practices) alter the natural flow of water. This allows rain water to move more quickly from where it falls. Increased runoff carries pollutants (such as sediment) to lakes, rivers and streams.

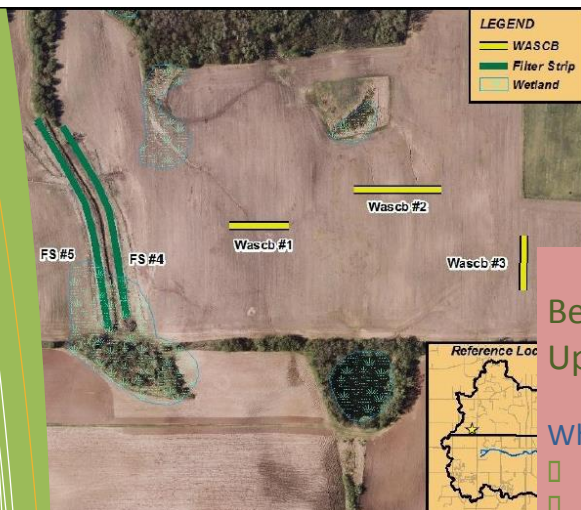
For example, urban roads, parking lots, and pavement allow stormwater (and pollutants) to quickly move to water resources. Overland flow from agricultural land also drains stormwater from fields into rivers and streams.

Practices that slow stormwater and soak up the rain can improve water quality.

Healthy land and water resources depend on everyone. Find out more about what you can do to improve the Upper Main Stem Subwatershed's water resources.

Project
Highlight
Vermillion
Headwaters
Subwatershed
Assessment

The best way to focus limited resources on water-quality improvement is to run diagnostics. Scott Soil and Water Conservation District (SWCD) completed a subwatershed assessment for the VRWJPO. The assessment identified areas in the Upper Main Stem Subwatershed where best management projects would do the most good.



VERMILLION RIVER WATERSHED
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Vermillion River Watershed
Joint Powers Organization

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The Vermillion River Watershed encompasses an area of approximately 335 square miles, including portions of two counties and all or portions of 20 cities, towns, and townships. The main stem of the river begins in southeastern Scott County in New Market Township flowing east through central Dakota County, passing over a waterfall in the City of Hastings, and then discharging to the Mississippi River both through a northerly flowing outlet near the City of Hastings as well as through a southerly flowing outlet near the City of Red Wing, Minnesota.

Best Management Practices (BMPs) for the Upper Main Stem Subwatershed

What are the water-quality issues?

- *E. coli* bacteria in streams
- Excess sediment in streams
- Intermittent stream flow – low or no water during dry seasons.

What are we (and partners) doing?

- **Locating sources of high *E. coli* bacteria** levels and working with landowners to reduce runoff.
- **Working with landowners** on best management practices to control erosion.

What can you do at home?

- Pick up and properly **dispose of pet wastes** in the trash.
- **Install a raingarden** to soak up the rain, filter pollutants, and provide habitat.
- **Install a rain barrel** to capture stormwater and use it to water your lawn and garden.
- **Disconnect your rooftop** from sidewalks and driveways by redirecting your downspout.

What can you do on the farm?

- **Keep livestock out of streams** and properly manage manure to reduce bacteria loads.
- **Install a grassed waterway**, a vegetated channel designed to move surface water across farmland without causing soil erosion.
- **Install water and sediment control basins** to collect sediment and hold water until it seeps into the ground.
- **Use cover crops** on cropland when the soil would otherwise be bare to reduce erosion and runoff pollutants. Common cover crops in Minnesota include rye and other small grains.
- Follow University of Minnesota Extension's [best management practices](#) for **nitrogen use**.

Visit our website for more information:

www.vermillionriverwatershed.org