Called a watershed, this area of land drains to the Lower Minnesota River. It covers 1,760 square miles, divided by the Minnesota River itself.

Lower Minnesota River area

The Lower Minnesota River watershed includes all water that drains to the Minnesota River, extending from Bloomington to Chaska, south to Le Sueur and west to the Sibley/Renville county line. Rivers in this watershed include Nine Mile Creek, Rush River, High Island Creek, and Sand Creek. Water quality concerns include biological conditions and pollutants that limit the health of aquatic life and suitability of water for drinking, swimming, and fishing. The MPCA is working with local partners and stakeholders to improve the health of rivers and streams in this area.

How can citizens get involved?

Citizens can get involved by granting permission to the MPCA to be on their land when monitoring biology and water quality. The agency encourages citizens to observe this monitoring work.

Residents can also help collect valuable data through the **Citizen Lake and Citizen Stream Monitoring Programs**. For details:

- Go to www.pca.state.mn.us/cmp; or
- Call 1-800-657-3864.

For more information

Visit the MPCA's website at www.pca.state.mn.us to learn more about stressor identification. Or call MPCA project manager Chandra Carter at 651-757-2264 or Bryan Spindler at 507-344-5267.

Minnesota Pollution Control Agency

www.pca.state.mn.us • 520 Lafayette Road N, St. Paul, MN 55155-4194 • 651-296-6300

Is your stream stressed?

Identifying factors that harm fish and other stream life is a key part of the watershed restoration and protection projects being carried out by the Minnesota Pollution Control Agency (MPCA) under Minnesota's *Clean Water Legacy Amendment*.

The MPCA will be working in streams in the **Lower Minnesota River** area in the next few years to gauge their health. Many streams suffer from stressors that harm fish and other aquatic life. These stressors may also affect recreation such as swimming and fishing.

Minnesota Pollution Control Agency

What does the MPCA examine to gauge the health of streams?

What conditions stress our streams?

How can citizens get involved?

The elements of stream health

The Minnesota Pollution Control Agency and Local Partners examine several interrelated factors to identify stressors. The goal is to maintain conditions in healthy streams and remedy the situation in unhealthy streams.

Stream Connections
Examples: dams, culverts and tile drainage

Hydrology
Examples:
stream flow and runoff

Stream Biology
Examples: fish and bugs

Water Chemistry
Examples: oxygen, nutrients and temperature

Stream Channel Assessment
Example: erosion

What conditions stress our streams?

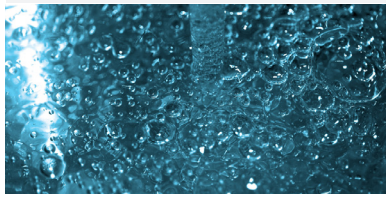
Several factors can stress the condition of habitats within our streams. Below are a few examples.

Too much sediment

Soil and other matter in water can make it hard for fish and other aquatic life to breathe, feed and reproduce. Sediment can also cover spawning areas and fill in parts of streams.

Low oxygen

Aquatic life needs oxygen dissolved in the water to breathe and survive.



Temperature

Stream temperature affects metabolism and the ability to get oxygen, especially for fish.

Lack of habitat

Habitat affects all aspects of survival for fish and other aquatic life. Habitat encompasses places to live, food to eat, places to reproduce and means of protection.

Too many nutrients

Excess nutrients, such as phosphorus and nitrates, can be toxic to aquatic life and cause algal blooms.