

# Crow River

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**ENVIRONMENTAL SERVICES**

**Crow River** is located primarily west of the metropolitan area. The North Fork of the Crow begins at the Grove Lake outlet and the South Fork begins at the Kandiyohi Lake outlet. Both forks flow through agricultural land, forest, open spaces and small urban areas before joining together at the city of Rockford (forming the Crow River) and eventually discharging into the Mississippi River. Both forks are designated state water trails and the North Fork has been designated a Wild and Scenic River by the Minnesota Department of Natural Resources.

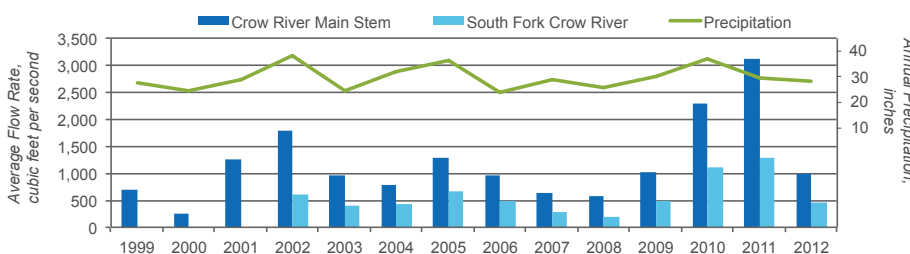
## Flow

Stream flow, or the rate of water flowing in a stream, affects aquatic life and the ecosystem. High flows can lead to flooding and erosion, and transport pollutants.

Both forks of the Crow River flow year-round and are influenced by how much rain or snow has fallen in any given year. Drain tile in agricultural fields may contribute to flash flooding and larger runoff events than generally observed in previous years.

Since 2003, the average flow of the main Crow River is 1,260 cubic feet-per-second and 580 cubic feet-per-second in the South Fork. At that rate it would take the main river 5, and the South Fork 10 hours to fill the Target Center in Minneapolis.

**Crow River Annual Flows and Precipitation**



## Nutrients

Nutrients, like nitrogen and phosphorus, are necessary for stream health. However, elevated nutrient levels, caused by materials like fertilizers, animal manure, pet waste or grass clippings, can cause excessive algae growth and harm aquatic wildlife, insects and fish.

The South Fork has the highest concentrations of of nitrogen (measured as nitrate) and phosphorus of all the streams in the Mississippi River basin, and the Crow River main stem nitrate and phosphorus concentrations are higher than the urban streams in the basin.

## Sediment

Sediment from poorly-managed construction sites or eroded stream banks and gullies can decrease the light available in streams and harm aquatic life. Another term for sediment is “total suspended solids.”

## FAST FACTS

**Major river basin:** Mississippi River

**Water source:** Surface water runoff

**North Fork length:** 157 miles

**South Fork length:** 113 miles

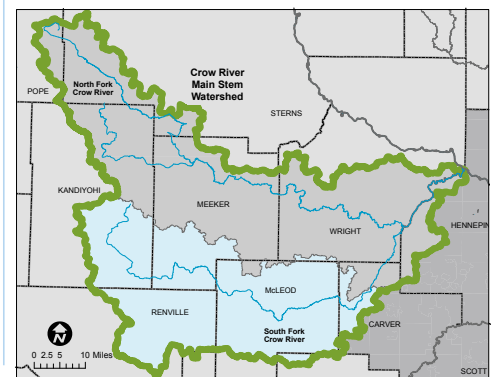
**Watershed area:** 2,508 square miles

**Watershed land use:** Agriculture, forests and grasslands, some urban

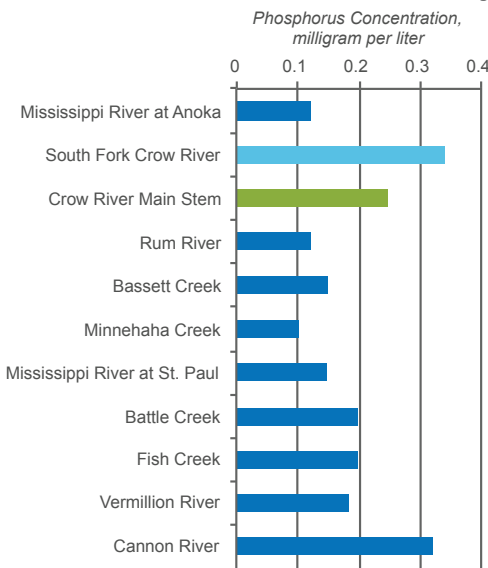
**Regional parks:** Crow-Hassan, Lake Rebecca, Baylor

**Cooperator organizations:** Wright Soil and Water Conservation District and Carver County

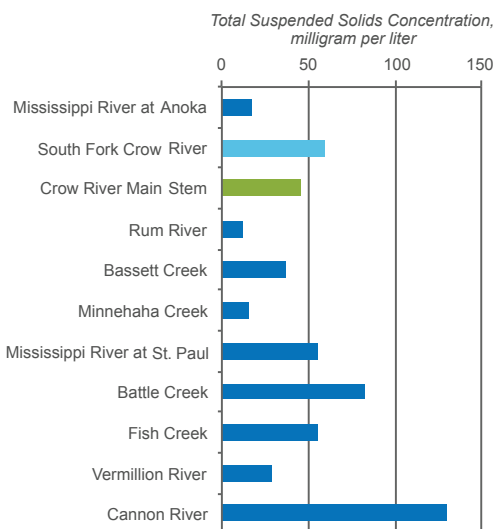
**Year first monitored:** Main stem 1998, South Fork 2001



**Median Phosphorus Concentrations in the Mississippi River and Tributary Streams, 2003–2012**



**Median Sediment Concentrations in the Mississippi River and Tributary Streams, 2003–2012**



**For more information**

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About Main Stem stream monitoring, contact Leigh Harrod: [leigh.harrod@metc.state.mn.us](mailto:leigh.harrod@metc.state.mn.us), 651-602-8085

Visit [www.metrocouncil.org/streams](http://www.metrocouncil.org/streams) for the full results of the Comprehensive Water Quality Assessment of Select Metropolitan Area Streams.

The Crow River South Fork carries an average of 55 million pounds of sediment into the Mississippi River each year. The main stem of the river carries 100 million pounds (enough to fill 3,030 15-ton dump trucks) of sediment into the Mississippi each year. These concentration levels are significantly lower than other agricultural streams in the basin.

**Chloride**

Chloride, one component of salt, is typically used for winter road, parking lot, and sidewalk maintenance and home water softening. Large-lot rural, residential areas also have many individual on-site septic systems to manage wastewater since there is no centralized sewage system. Failed septic systems can leak chloride into the groundwater and eventually pollute the stream.

The Crow River has significantly lower chloride levels than other streams in the Mississippi River basin, which reflects the rural nature of the region.

**Preserving our Creeks**

The following organizations work to maintain the Crow River watershed and improve the river water quality: North Fork Crow River, Middle Fork Crow River and Buffalo Creek watershed districts; Pioneer-Sarah and Elm creeks Water Management Commissions; Carver County Watershed Management Organization; the Soil and Water Conservation Districts for Wright, Carver, Hennepin, Kandiyohi, McLeod, Meeker, Pope, Renville, Sibley, and Stearns counties; and the Crow River Organization of Water Joint Powers Board.

These organizations work with private landowners, lake associations, cities and other groups to complete various improvement projects and activities, including:

- Carrying out and supporting watershed-wide water quality monitoring
- Providing loans for resident septic system upgrades and agricultural best management practices
- Restoring shorelines and wetlands
- Installing rain gardens, grassed waterways and water and sediment control basins
- Organizing and conducting river clean-ups

**Is the Stream Improving?**

Long-term data analysis and computer modeling indicate the Crow River’s water quality has improved because sediment, phosphorus and nitrate levels have decreased. However, since the Crow River’s level of nutrients, sediment and chloride are higher than the Mississippi River at Anoka, it could contribute to the degradation of the Mississippi River.

**Protecting the Region’s Water Resources**

This work supports the regional policies established in the Metropolitan Council’s Thrive MSP 2040 and Water Resources Policy Plan to collaborate with partners to promote the long-term sustainability and health of the region’s water resources, including surface water, wastewater and water supply.