



# Bassett Creek

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**ENVIRONMENTAL SERVICES**

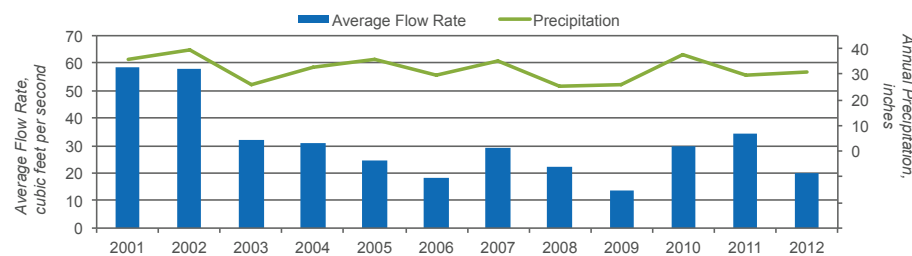
**Bassett Creek** is an urban creek located in the north central metropolitan area. It begins at the Medicine Lake outlet and runs through a number of parks along its path, providing habitat for wildlife and the opportunity for recreational activities, before flowing through a storm tunnel under downtown Minneapolis and discharging into the Mississippi River.

## Flow

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

Bassett Creek flows year-round and is highly influenced by discharge from Medicine Lake and storm sewers, along with how much rain or snow has fallen in any given year. Since 2003, the average flow in Bassett Creek is nearly 25 cubic feet-per-second. At that rate, it would take Bassett Creek 10 days to fill the Target Center in Minneapolis.

**Bassett Creek Annual Flows and Precipitation**



## Chloride

Chloride, one component of salt, is typically used for winter maintenance of roads, sidewalks, and parking lots, and for home water softening. While all of the Mississippi River urban streams have high concentrations of chloride, Bassett Creek is the highest, which reflects the dense network of roads and highways in the watershed.

## 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.

Bassett Creek has a similar average concentration of nitrogen (measured as nitrate) to the other streams with urban watersheds in the Mississippi River basin. Phosphorus concentration in Bassett Creek is lower than most of the other streams in the basin.

## FAST FACTS

**Major river basin:** Mississippi River

**Water source:** Surface water runoff

**Length:** 13 miles

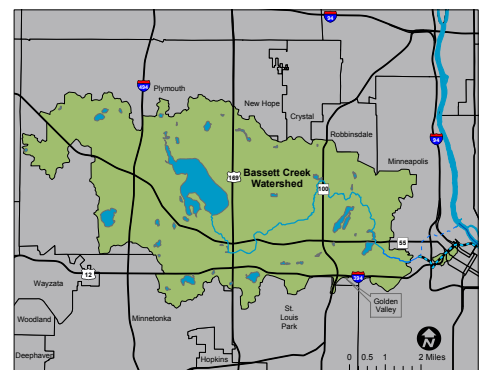
**Watershed area:** 38.9 square miles

**Watershed land use:** Mostly urbanized

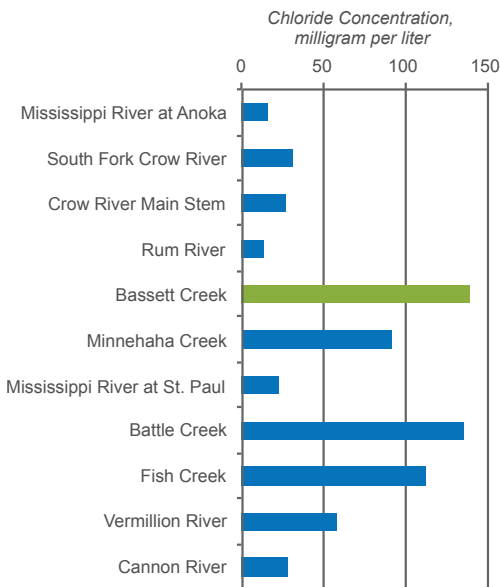
**Regional parks:** Clifton E. French, Theodore Wirth

**Cooperator organization:** Bassett Creek Watershed Management Commission

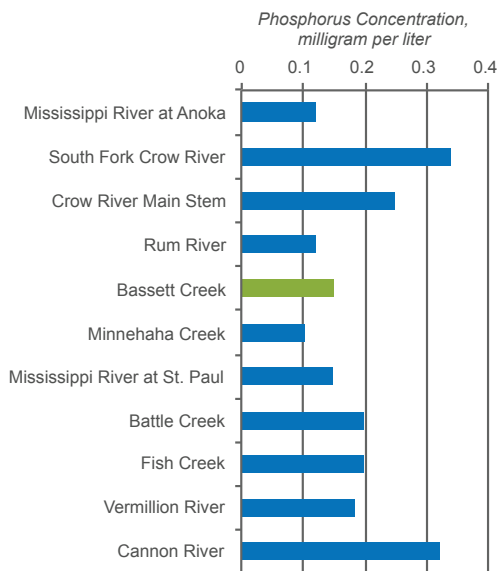
**Year first monitored:** 2000



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



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



**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.”

Bassett Creek carries an average of 2.83 million pounds of sediment into the Mississippi River each year —enough to fill 72 15-ton dump trucks— but its sediment concentrations are lower than other urban streams in the Mississippi River basin.

**Preserving our Creeks**

Bassett Creek Watershed Management Commission is the local governing body responsible for maintaining the watershed. They partner with private landowners, cities, Three Rivers Park District, Minneapolis Park and Recreation Board, lake groups, and other groups to complete various improvement projects, including:

- Constructing water quality ponds and rain gardens upstream of major lakes and the creek to treat stormwater runoff
- Stream channel restoration of portions of Bassett and Plymouth creeks
- Planting native shrubs, flowers, and grasses along the creek

**Is the Stream Improving?**

Long-term data analysis and computer modeling indicate that Bassett Creek’s water quality has improved because phosphorus, nitrate and sediment levels have decreased.

However, since Bassett Creek’s levels of nutrients, sediment and chloride are higher than the Mississippi River at Anoka, the creek could potentially contribute to the degradation of the 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.

**For more information**

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About 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.