

Eagle Creek

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ENVIRONMENTAL SERVICES

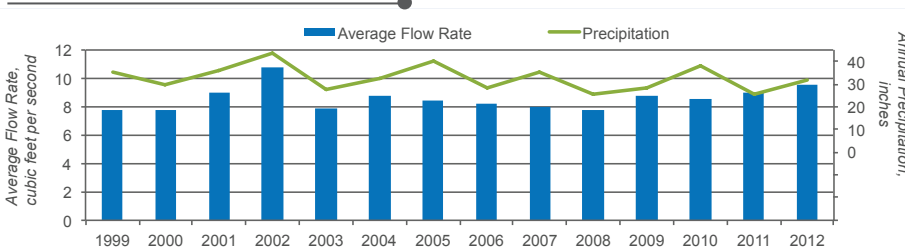
Eagle Creek is located in the southwestern metropolitan area. It begins at Boiling Springs, a large and constantly-flowing spring in Shakopee, and runs through the Minnesota Valley National Wildlife Refuge before entering into the Minnesota River. The creek is also a Minnesota Department of Natural Resources designated trout stream.

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.

Eagle Creek flows year-round and its flow is dominated by groundwater discharge from Boiling Springs. The creek flow is also influenced by how much rain or snow has fallen in any given year. Since 2003, the average flow in Eagle Creek is nearly 8.5 cubic feet-per-second. At that rate, it would take the creek a little more than 30 days to fill the Target Center in Minneapolis.

Eagle Creek Annual Flows and Precipitation



Aquatic Insects

Aquatic insects are excellent indicators of the overall health of a stream since they spend the majority of their lives in the water, and are an important food source for fish, birds and other wildlife. Eagle Creek has a healthy population of aquatic insects. This means the stream is clean enough to provide a meal for the trout that live in it!

Sediment

Sediment from poorly-managed construction sites, farm fields, 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.”

Eagle Creek carries an average amount of 202,700 pounds of sediment into the Minnesota River (enough to fill six 15-ton dump trucks), and its sediment concentration is the lowest of the Minnesota River basin streams monitored by MCES.

Chloride

Chloride, one component of salt, is typically used for winter road, parking lot, and sidewalk maintenance and home water softening.

FAST FACTS

Major river basin: Minnesota River

Designation: Trout Stream

Water source: Groundwater and surface water runoff

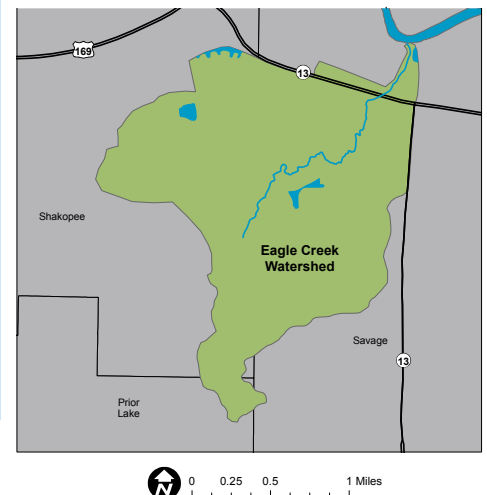
Length: 2.1 miles

Watershed area: 2.9 square miles

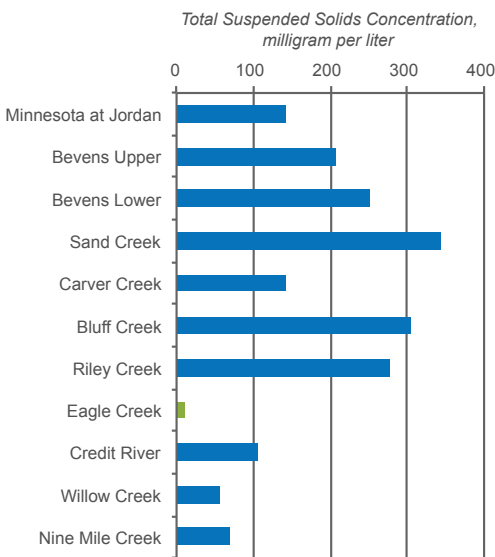
Watershed land use: Bluff and forest lands, open space, and some urban areas

Cooperator organization(s): Lower Minnesota River Watershed District, Scott County Soil Water Conservation District

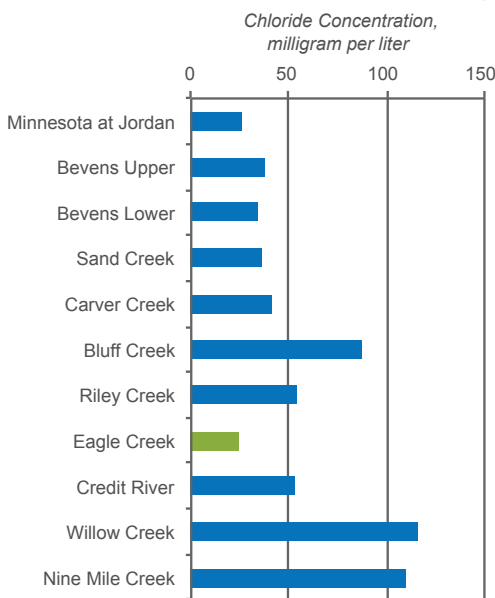
Year first monitored: 1999



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



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



Eagle Creek has the lowest concentration of chloride of the Minnesota River basin streams monitored by MCES, which reflects the small watershed area and the large groundwater flow into the stream at Boiling Springs.

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.

Eagle Creek has the lowest concentrations of nitrogen (measured as nitrate) and phosphorus of all the streams in the Minnesota River basin monitored by MCES.

Preserving our Creeks

The Lower Minnesota River Watershed District is the local water management organization responsible for managing the watershed. They partner with private landowners, cities, counties, Scott Soil and Water Conservation District, the Minnesota Department of Natural Resources, and others to complete various improvement projects, including:

- Installing vegetated buffer strips along the creek
- Constructing rain gardens
- Studying numbers of trout in the creek and the insects they need for food
- Removing accumulated sediment from the creek to reduce water temperatures for the trout

Is the Stream Improving?

Long-term data analysis and computer modeling indicate that Eagle Creek’s water quality has improved because sediment levels have decreased. The computer model quality controls for nitrate and phosphorus levels were too low to designate whether the stream has “improved” or “declined.”

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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Visit www.metrocouncil.org/streams for the full results of the Comprehensive Water Quality Assessment of Select Metropolitan Area Streams.