Interstate Valley Creek

2022 Water Monitoring Report

LMRWMO
LOWER MISSISSIPPI RIVER
WATERSHED MANAGEMENT ORGANIZATION

Watershed

The Interstate Valley Creek watershed is located in the cities of Mendota Heights, West. St Paul, and Sunfish Lake within the Lower Mississippi River Watershed Management Organization (LMRWMO). Land use within the watershed is primarily low density residential, with pockets of commercial/institutional, and parkland. Interstate Valley Creek was placed on Minnesota's 303(d) List of Impaired Waters in 2014 for impacts to aquatic life due to excess *E. coli* bacteria.

Stream Details

Mainstem Length: 2.5 miles

Watershed Size (shown): 3,272 acres

Major Watershed: Mississippi River

Impairment: *E. coli* (2014)

Years monitored: 3

Monitoring

A volunteer takes water samples from Interstate Valley Creek for lab analysis. The purpose is to identify stream reaches that contribute pollutants and establish baseline stream water quality conditions. Monitoring also helps track the impact of future watershed projects that stabilize banks or treat stormwater in the watershed to reduce the in-stream pollutant load (sediment and phosphorus).

Interstate Valley Creek was monitored seven times in 2022 - monthly in April through October. The water was tested for levels of the following pollutants: chloride (salt), phosphorus (nutrients), total suspended solids, and *E. coli*. It was also tested for chlorophyll-a, nitrates, temperature, total phosphorus, total suspended solids, and water transparency.

Water Quality

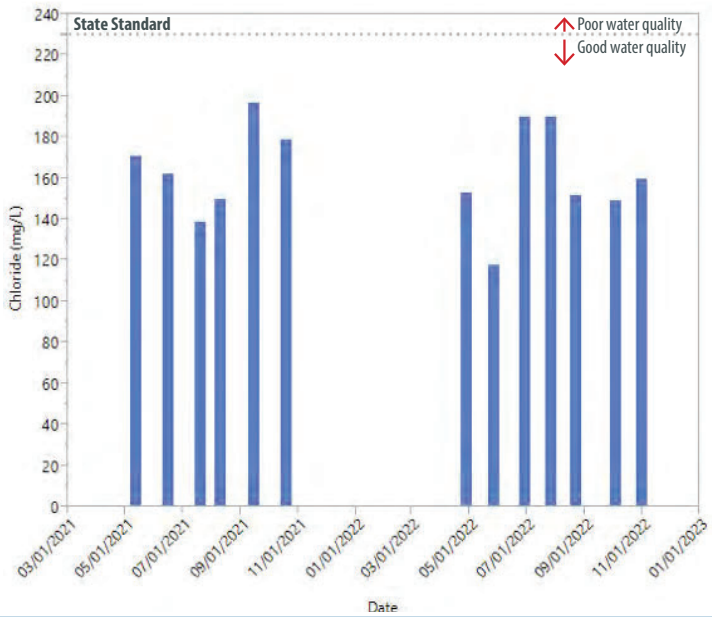
Interstate Valley Creek shows low levels of chloride, below the state standard. Phosphorus levels have average below the standard since 2020, though were higher in 2019. Total suspended solids are consistently below the standard. E-coli levels are consistently above, and not meeting state standards.

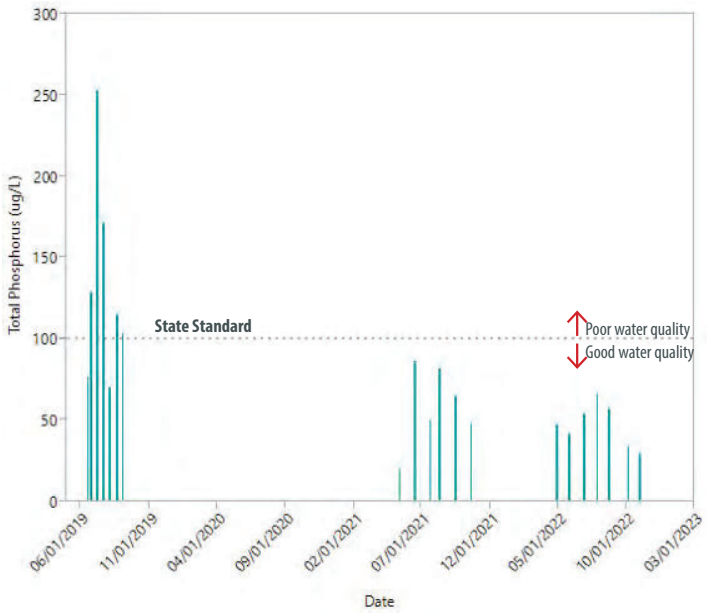
Water temperature is below 61 degrees all season and transparency is high during baseflow (low flow) conditions, though (the unnamed tributary shows some variability). Chlorophyll-a and Nitrate levels are consistently below applicable standards.

See the following page for more detailed monitoring results.

Water Quality Data 2019-2022

micrograms per liter (ug/L) = 1,000 mg/L (milligrams per liter)



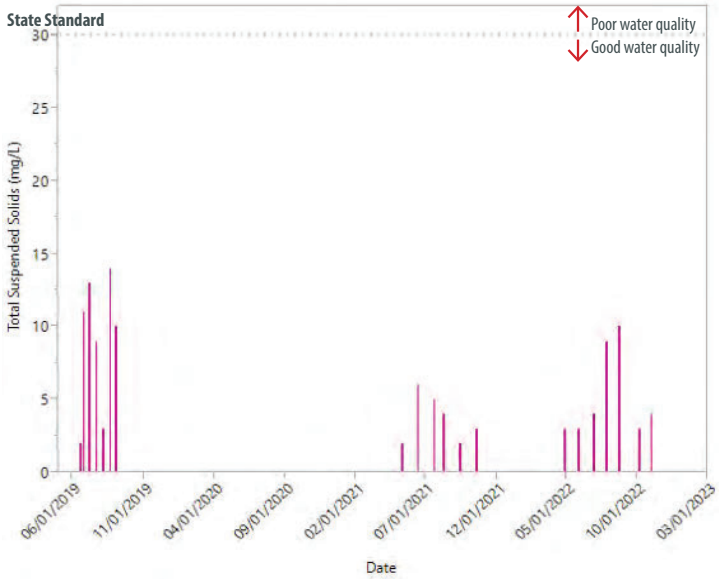


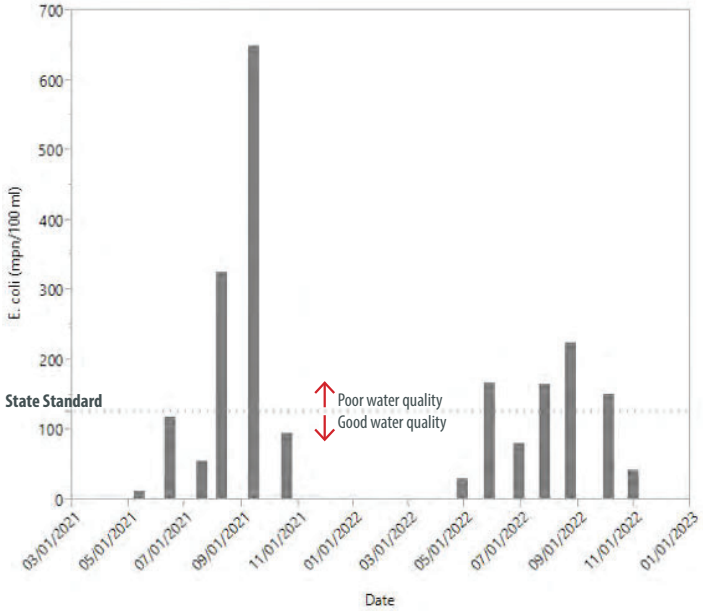
Chloride

Elevated chloride concentrations can be toxic to some aquatic life – altering community composition, as well as affecting mortality and reproduction capabilities. State standard for acute toxicity is ≤230 ug/L (dashed line).

Phosphorus*

Phosphorus is a nutrient required for plant growth. High phosphorus levels can lead to algae blooms, turning water green. Low phosphorus levels indicate good water quality. State standard is ≤100 ug/L (dashed line).





Total Suspended Solids

A measurement of all suspended particles in the water. Potential sources include field and streambank erosion and stormwater runoff. Excessive levels can impair water quality and usability. State standard is ≤30 ug/L (dashed line).

E. coli

Escherichia coli (E. coli) bacteria is a good indicator that disease-causing pathogens may be present in water. A standard of ≤126 MPN/100mL (dashed line) has been established (MPN = most probable number of organisms).

How can you get involved?

You don't have to live on a river or stream to help improve water quality, **anyone can be part of the solution!** Installing a raingarden **increases water infiltration,** decreases lawn maintenance, and **reduces pollutant runoff** that can negatively impact local water quality. The LMRWMO offers grants to residents to install raingardens or native plantings as part of the **Dakota County Soil and Water Conservation District's Landscaping for Clean Water program.**

Additional Information: MN Impaired Waters Map: https://www.pca.state.mn.us/water/impaired-waters-viewer-iwav
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LMRWMO Website: www.lmrwmo.org

DAKOTA COUNTY SOIL & WATER CONSERVATION DISTRICT