

Ivy Falls Creek

2022 Water Monitoring Report

Watershed

The Ivy Falls Creek watershed is in the cities of Mendota Heights and West St. Paul within the Lower Mississippi River Watershed Management Organization (LMRWMO). The watershed consists of the mainstem of Ivy Falls Creek and a small tributary that joins just above the falls. Land use within the watershed is primarily residential with some parkland golf course property.

Stream Details

Mainstem length: 1.2 miles

Unnamed tributary length: 0.2

Watershed Size (shown): 746 acres

Major Watershed: Mississippi River

Impairment: None

Years monitored: 2



Monitoring

A volunteer takes water samples from Ivy Falls Creek and the main tributary 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).

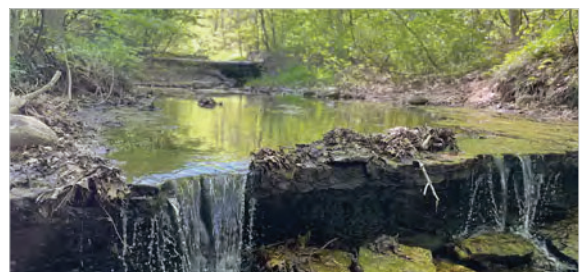
Ivy Falls Creek and the unnamed tributary were monitored seven times in 2022 - once per month April- October. The water was tested for levels of the following pollutants: chloride (salt), phosphorus (nutrients), total suspended solids, and *E. coli*. It was also tested for chlorophyll-a, nitrates, temperature, total phosphorus, total suspended solids, and water transparency.

Water Quality

Both stream reaches show levels of chloride below the state standard. Phosphorus levels average just at the standard. Total suspended solids are typically below the standard, though with spikes of concentrations above the standard. E-coli levels are consistently not meeting state standards.

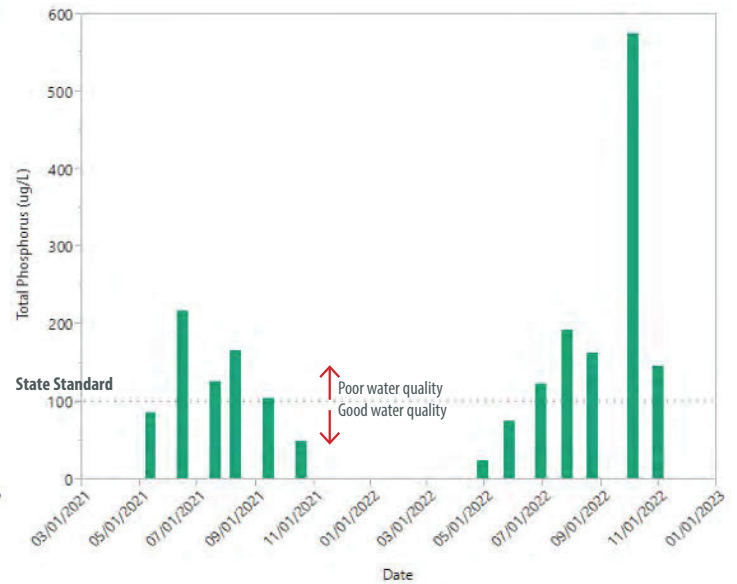
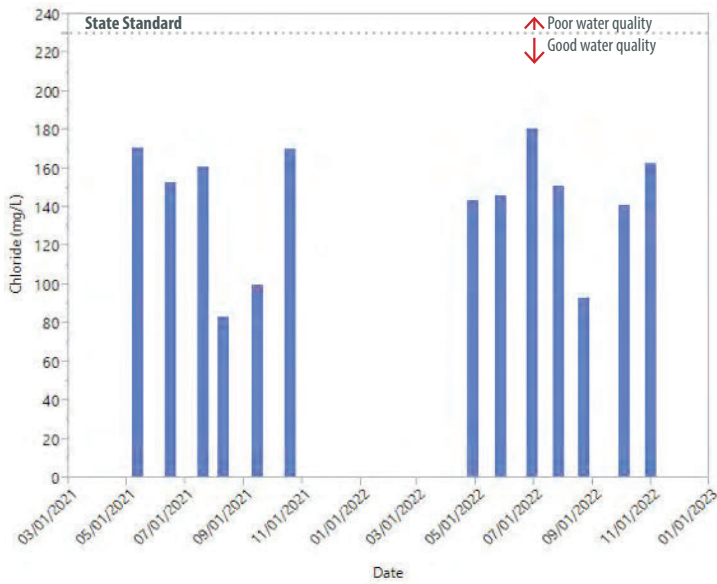
Water temperature is below 66 degrees all season and transparency is high during baseflow (low flow) conditions, though (the unnamed tributary shows some variability). Chlorophyll-a and Nitrate levels are consistently below applicable standards.

See the following page for more detailed monitoring results.



Ivy Falls Creek Mainstem

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

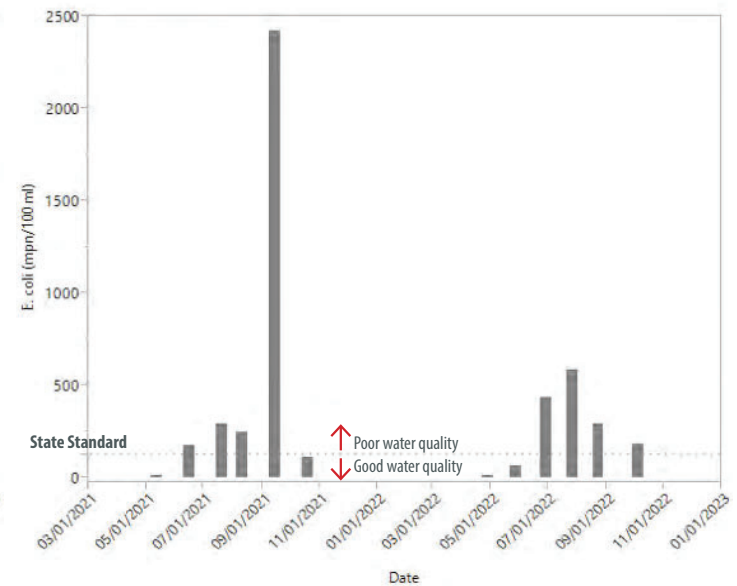
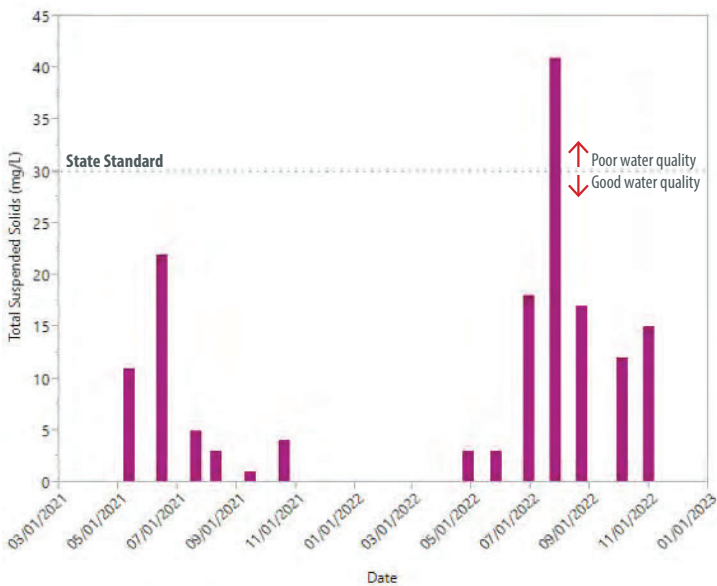


Chloride*

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

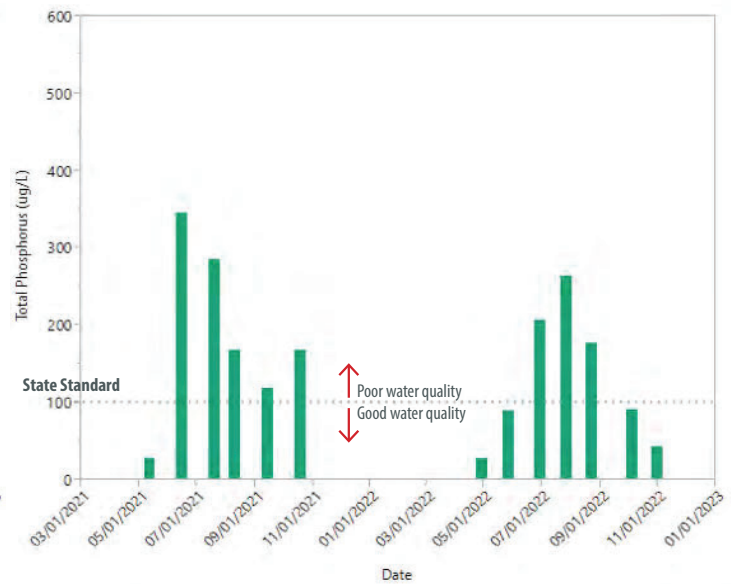
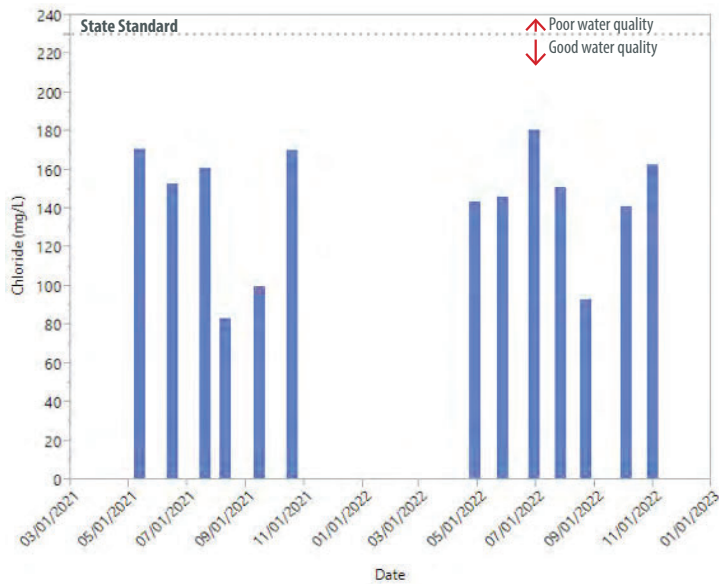
Escherichia coli (E. coli) bacteria is a good indicator that disease-causing pathogens may be present in water. A standard of ≤ 126 MPN/100mL has been established (MPN stands for most probable number of organisms).

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.**

Unnamed Tributary - Ivy Falls Creek

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

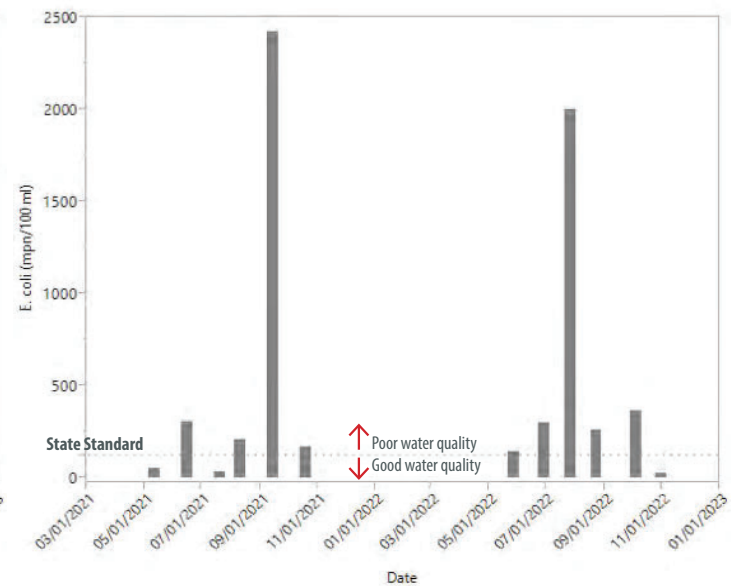
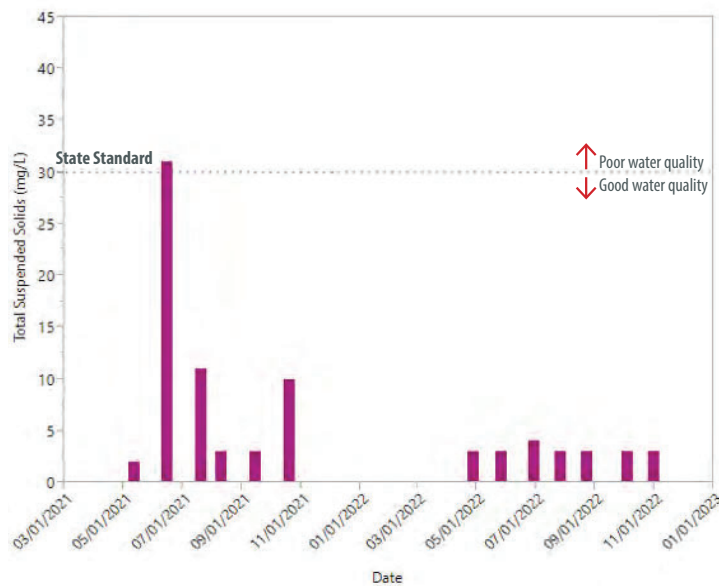


Chloride*

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 has been established (MPN stands for most probable number of organisms).

Additional Information:

MN Impaired Waters Map: <https://www.pca.state.mn.us/water/impaired-waters-viewer-iwv>

Contact Information:

LMRWMO Website: www.lmrwmo.org

LMRWMO Administrator: Joe Barten - joe.barten@co.dakota.mn.us - 651-480-7784

