# Citizen Stream Monitoring Program

## 2008 Individual Site Report: CSMP0827

#### Introduction

Thank you for participating in the Citizen Stream Monitoring Program (CSMP)! The MPCA appreciates the important work you do. This report summarizes CSMP data that you collected during 2008. A total of 488 CSMP volunteers monitored 731 stream sites across the state.

## Understanding your report

This report provides an in-depth look at results for a specific site. Page two includes summary statistics and a chart of transparency and rain data throughout the 2008 monitoring season.

The pie charts on page 3 compare transparency at your site to transparency within the major river basin in which the site is located. A summary of the Impaired Waters assessment status of your stream and its major river basin is found on the bottom of the page. Additional information on Impaired Waters Assessment can be found on the enclosed insert, along with a guide to understanding transparency categories from "Poor" to "Excellent" on the back.

The "2008 Transparency Trend Information" insert shows whether transparency is significantly increasing or decreasing at your site. It also displays all readings taken within your site's watershed and major river basin. This information gives you an idea of how transparency is changing at different spatial scales. Site results are based on statistical linear regression analysis of data from a minimum of 5 years and at least 40 total readings. We plan to update and improve this analysis in future reports.

## How transparency relates to turbidity

Transparency tube data you collect are used in the Impaired Waters Assessment to help assess where streams exceed the water quality standard for turbidity. Turbidity is caused by suspended soil particles or algae that scatter light, making water appear cloudy. High turbidity can harm aquatic life. When stream turbidity is high, transparency is low. By establishing a scientific link between the two, transparency can be used as a surrogate for turbidity, allowing the water quality of more

streams to be assessed using citizen help.

A transparency tube reading less than 20 centimeters indicates a violation of the turbidity standard (this does NOT apply to designated trout streams, where a link between transparency and turbidity has not been established). The "2008 data summary" table on page 2 shows how many transparency readings at your site were less than 20 cm (Readings < 20cm).



#### For more information

A summary of all 2008 CSMP data will be provided in a statewide annual report, which will be available by September on the MPCA web site at:

#### www.pca.state.mn.us/csmp

For more information on Impaired Waters and the complete 2008 Impaired Waters List, go to:

#### www.pca.state.mn.us/water/tmdl/index.html

If you have questions or comments on this report, please contact Laurie Sovell or Johanna Schussler at 1-800-657-3864 (Greater MN) or 651-296-6300 (Twin Cities Metro Area), or by e-mail at csmp@pca.state.mn.us



## **CSMP** individual site report

2008 site summary

### Site information

 Volunteer:
 George Schneider

 Stream Name:
 Elm Creek @ dock S of CSAH 30 in Maple Grove

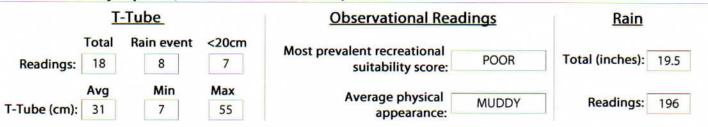
 Site:
 CSMP0827

 County:
 Hennepin

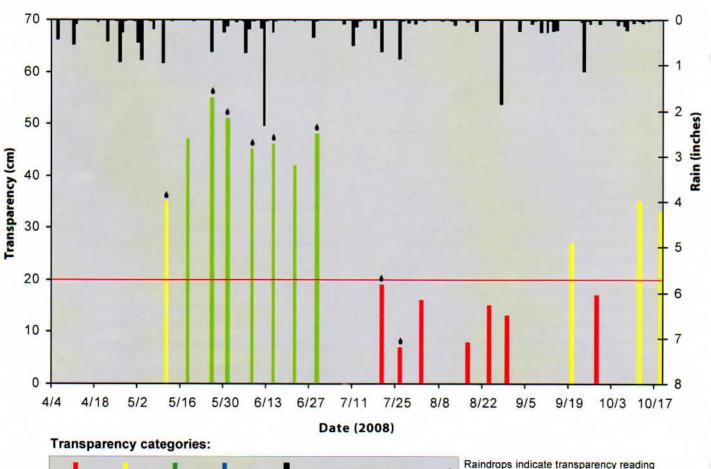
 Watershed Code:
 07010206

 5

Data summary April 4, 2008 to October 19, 2008



## Transparency and rainfall data



Poor Fair Good Excellent Rain T-tube readings below red line <20 20-40 41-59 >=60 = violation of turbidity standard

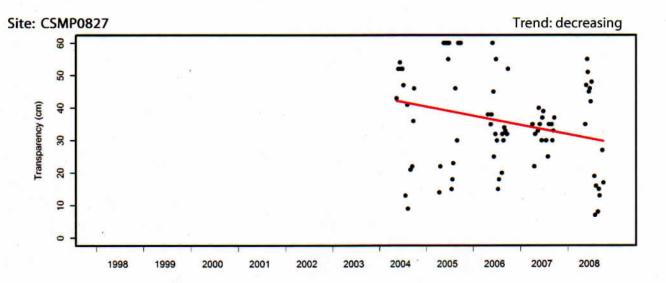


## Citizen Stream Monitoring Program

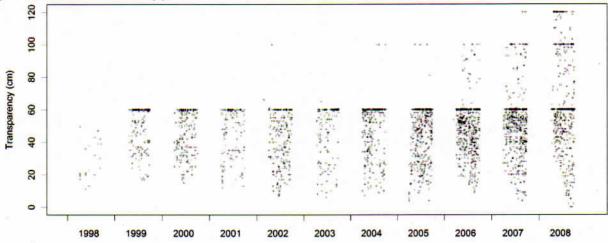
2008 Transparency Trend Information: CSMP0827

Elm Creek @ dock S of CSAH 30 in Maple Grove

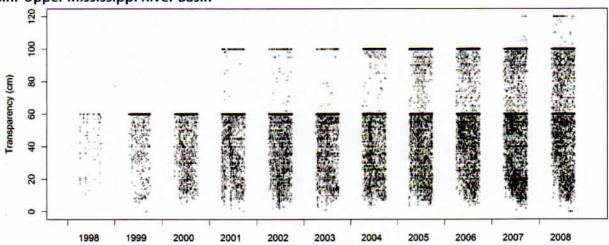
The following charts show stream transparency readings for your site, major watershed, and basin. This information shows how nsparency is changing at different spatial scales. For sites with sufficient data, the top chart includes a red trend line and a label that shows if transparency is increasing, decreasing or not changing.











File: 1986CSMP0827

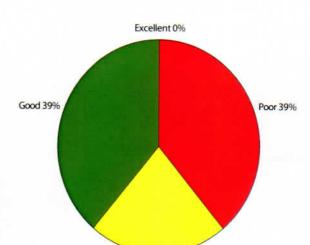
## CSMP individual site report

2008 basin comparison and assessment summaries

## 2008 comparison to major river basin

Percent transparency readings in categories poor / fair / good / excellent

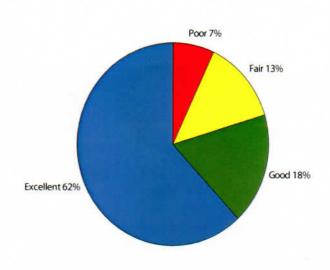
#### Your Site: CSMP0827



18 Transparency readings

Fair 22%

### Upper Mississippi River Basin



3215 Readings from 227 sites

## Impaired waters assessments

A water body is "impaired" or polluted if it fails to meet one or more of Minnesota's water-quality standards. Standards exist for pollutants such as turbidity, bacteria, nutrients and mercury. The federal Clean Water Act requires states to identify, list, and restore impaired waters.

## Descriptions

**Turbidity** CSMP transparency data are used in Aquatic Life assessments (see below) to help determine if streams meet the state water quality standard for turbidity.

#### Stream assessment summaries

Data from this stream segment did not indicate a turbidity impairment during the 2008 assessment.

#### Basin assessment summaries

Upper Mississippi River Basin

Total Reaches Assessed Impa

Impaired

for Turbidity 226

18

Aquatic life assessments determine where streams do not meet requirements to maintain healthy populations of fish and invertebrates. Indicators used include fish, invertebrate, turbidity, dissolved oxygen, pH, and temperature.

Does not meet water quality standards for: Dissolved Oxygen

% Stream Miles Assessed Status of Those Assessed





Aquatic recreation assessments determine where streams do not meet requirements to maintain conditions suitable for swimming and other water ecreation. Assessments are based on bacteria data (E. coli).

Not Assessed



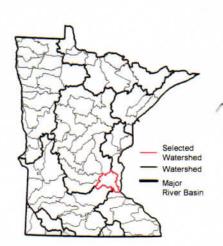


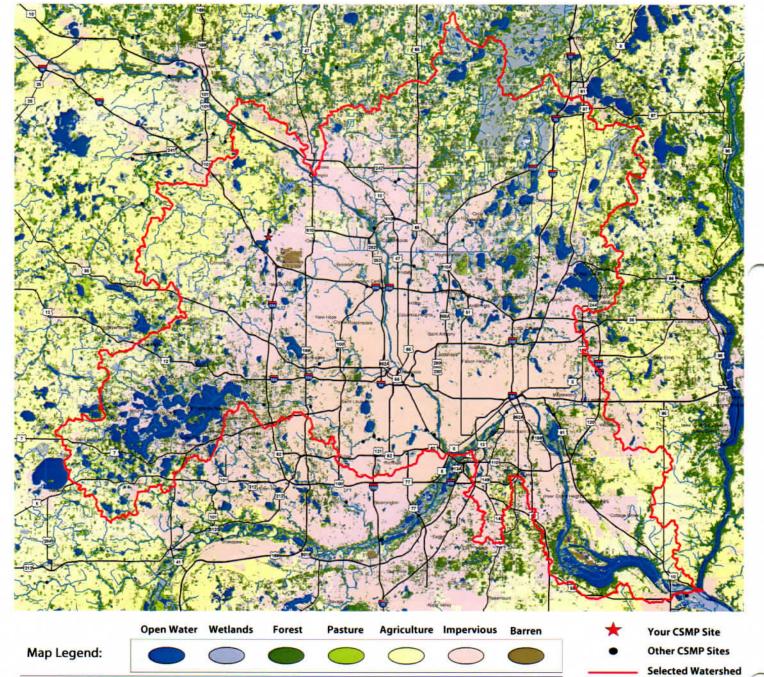
Assessed
Not Assessed



Watershed name: Mississippi River (Twin Cities)

George Schneider 14000 92nd Place N Maple Grove MN 55369





<sup>\*</sup>Within the watershed. Map shows 2001 land use data.

1992: 8.5

2001: 8.7

Land Use

Percentages\*:

7.0

7.7

13.6

13.4

Approximate Scale: One inch = 7.2 miles

22.1

20.2

45.9

47.1

File: 1986CSMP0827

**Watershed Boundary** 

Highway

Water

0.3

0.3

2.6

2.6