Watershed Outlet Monitoring Program

Eagle Creek Station

Savage, MN

1st Quarterly Report

Preliminary Data

January – March 2008

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June 2008

Introduction

The Eagle Creek WOMP site is located in Savage near Hwy 13 and Hwy 101. This report summarizes the results of flow, stage, precipitation, and water quality for the 1st quarter of 2008. This data is preliminary and is subject to change until the Metropolitan Council submits the final report for this period.

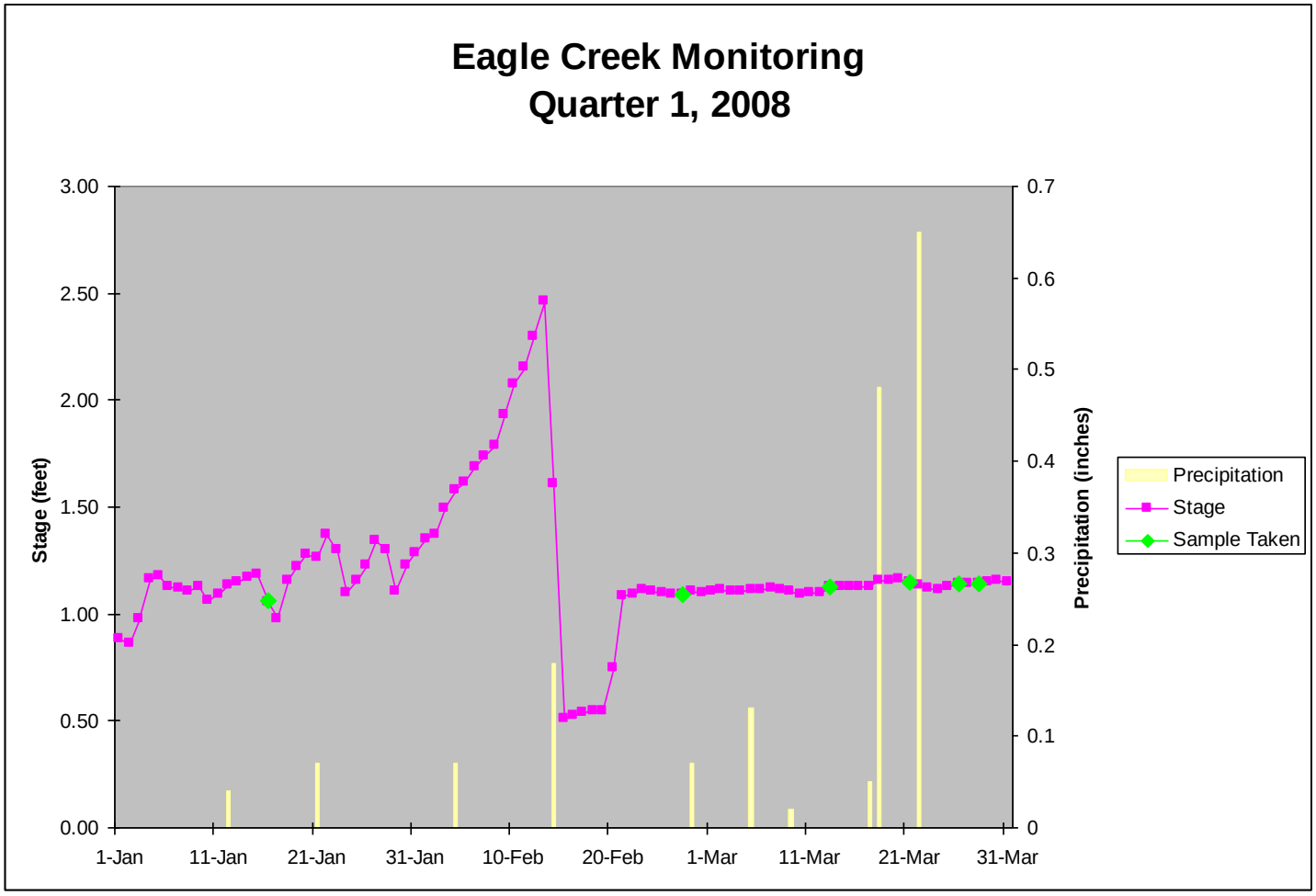
Flow and Precipitation

Table 1. Average flow and total precipitation at Eagle Creek WOMP station.

Period	Average Flow (cfs)	*Precipitation (inches)	30 year precipitation average from state climatology office
January	N/A**	.11	.67
February	N/A**	.32	.72
March	N/A**	1.33	1.54
TOTAL			

*Precipitation data was obtained from volunteer rain gauge monitor in Shakopee
** Flow data was inaccurate this quarter due to equipment malfunctions

Figure 1. Continuous stage, sample collection and precipitation at Eagle Creek WOMP Station.



The equipment tracking stage has not been working well as is evident by looking at the graph. Preparations are being made by Met Council to fix the equipment. A continuous flow meter will also be installed by Met Council this year which will track stage and flow.

Water Quality – Three event samples and three base flow grab samples were collected at the Eagle Creek WOMP Station during the 1st quarter in 2008. Overall, water quality was excellent with all parameters in compliance with state standards or near the ecoregion mean (Table 2).

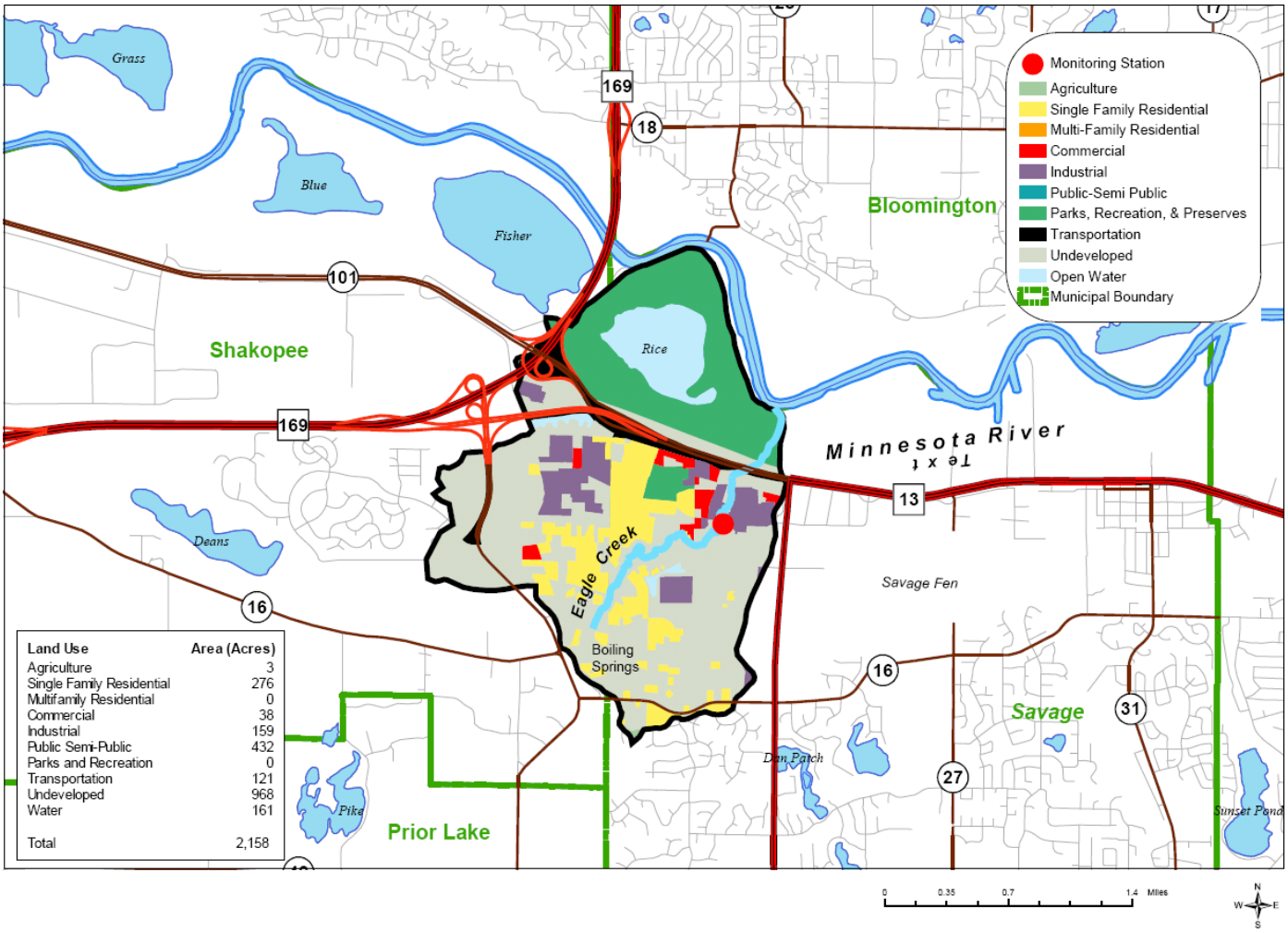
Table 2. Average concentrations at Eagle Creek WOMP Station

Parameter	1st quarter Avg Conc.	2nd Quarter Avg Conc.	3rd Quarter Avg. Conc.	4th Quarter Avg. Conc.	Unit	Notes – 2nd Quarter Results
Alkalinity	270				mg/L	No state standard. 20 – 200 mg/L typical. Less than 10 mg/L indicate poor buffer.
Biological Oxygen Demand (BOD5)	1.03				mg/L	Ecoregion mean = 2.7 mg/L.
Cadmium	.5				ug/L	State standard = 2.0 ug/L.
Chloride	20				mg/L	State standard = 230 mg/L.
Chlorophyll-a	79.5				ug/L	% Pheo-Corrected Average Of Result
Chromium	.7				ug/L	State standard = 365 ug/L.
COD	8.67				mg/L	
Conductivity	589				mMHOs	
Copper	4				ug/L	State standard = 15 ug/L.
Dissolved Oxygen	8.73				mg/L	State standared = 7 mg/L.
Fecal Coliform Bacteria	142				CFU/100 mL	State standard = 200 CFU/100 ml water as geomean of at least 5 samples per month Apr – Oct.
Hardness	305				mg/L	No state standard. Water above 180 mg/L considered very hard water.
Lead	.33				ug/L	State standard = 7.7 ug/L.
Nickel	3.0				ug/L	State standard = 283 ug/L.
Nitrogen Ammonia	.08				mg/L	State standard = .016 mg/L.
Nitrate + Nitrite	.22				mg/L	Ecoregion mean = .16 mg/L.
pH	7.84				su	State standard = not less than 6.5 nor greater than 8.5.
Phosphorus, Total	.057				mg/L	Ecoregion mean = 0.13 mg/L. EPA recommends less than 0.1 mg/L. These results are the unfiltered average of result.
Suspended Solids	7.83				mg/L	Ecoregion mean = 13.7.
Total Kjeldahl Nitrogen	.28				mg/L	
Total Organic Carbon	2.12				mg/L	
Turbidity	7.70				NTU	State standard = 10 NTU
Volatile Suspended Solids	N/A				mg/L	
Zinc	17.3				ug/L	State standard = 191 ug/L

mg/L = milligrams per liter
mMHO = micromhos or micorseimens
NTU = nephelometric turbidity units
su = standard units
ug/L = micrograms per liter
CFU = colony forming units
Highlighted areas indicate areas of concern.
State standard = state standard for Class 2A waters, hardness greater than 200

Appendix A - Watershed and land use information provided by Metropolitan Council Environmental Services.

Figure 1.EA. Eagle Creek Monitoring Station Location and Watershed Characteristics



Land Use	Area (Acres)
Agriculture	3
Single Family Residential	276
Multifamily Residential	0
Commercial	38
Industrial	159
Public Semi-Public	432
Parks and Recreation	0
Transportation	121
Undeveloped	968
Water	161
Total	2,158