

Table 1.NM. Nine Mile Creek Monitoring Station Information



Station Address: James Road, Bloomington, MN
County: Hennepin
Major Basin: Minnesota River Basin
Watershed: Nine Mile Creek
Drainage Area: 38.3 square miles

Station Operator: Metropolitan Council Environmental Services

Metropolitan Council Environmental Services Contact Information:

Contact Person: Tim Pattock or Mike Ahlf
Address: 2400 Childs Road
St. Paul, MN 55106
Phone: 651-602-8084 (Tim) or 651-602-8082 (Mike)
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mike.ahlf@metc.state.mn.us

Watershed District or Watershed Management Organization:
Nine Mile Creek Watershed District

Station Overview: MCES has conducted water quality monitoring of Nine Mile Creek since 1989. The monitoring station is located in Bloomington, Minnesota, 1.8 miles

upstream from the creek confluence with the Minnesota River. MCES staff maintain the rating curve at this station. There is no rain gage at this station.

2001 Monitoring Year: Snowmelt began during the last week of March 2001. Daily average flows were estimated prior to the ice out date, which occurred on approximately March 15, 2001. The peak daily average flow of 244 cfs, with a stage of 2.12 feet, occurred on June 16, 2001.

Runoff event-based composite sampling began in early April 2001 and continued through late November. Due to the large amount of impervious surface in the Nine Mile Creek Watershed, including storm drainage from the Interstate Highway 35W corridor, the stream hydrograph responds rapidly to rain events and is characterized by numerous sharp peaks.

Thirty-three samples were collected for water quality analysis during 2001, including 16 composite samples and 17 grab samples. Samples were obtained throughout the year during varying stream flow conditions to most accurately characterize Nine Mile Creek water quality. The MCES annual water quality monitoring plan includes 12 monthly baseflow (“non-event”) grab samples and approximately 10 to 15 flow-weighted composite samples collected during all runoff events in the open water season (March-November). The 2001 sampling scheme met the goals of the MCES monitoring work plan.

For additional stream monitoring information and monitoring methods regarding this site, see www.metrocouncil.org/environment/RiversLakes.

Figure 1.NM. Nine Mile Creek Monitoring Station Location and Watershed Characteristics

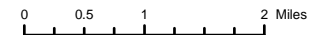
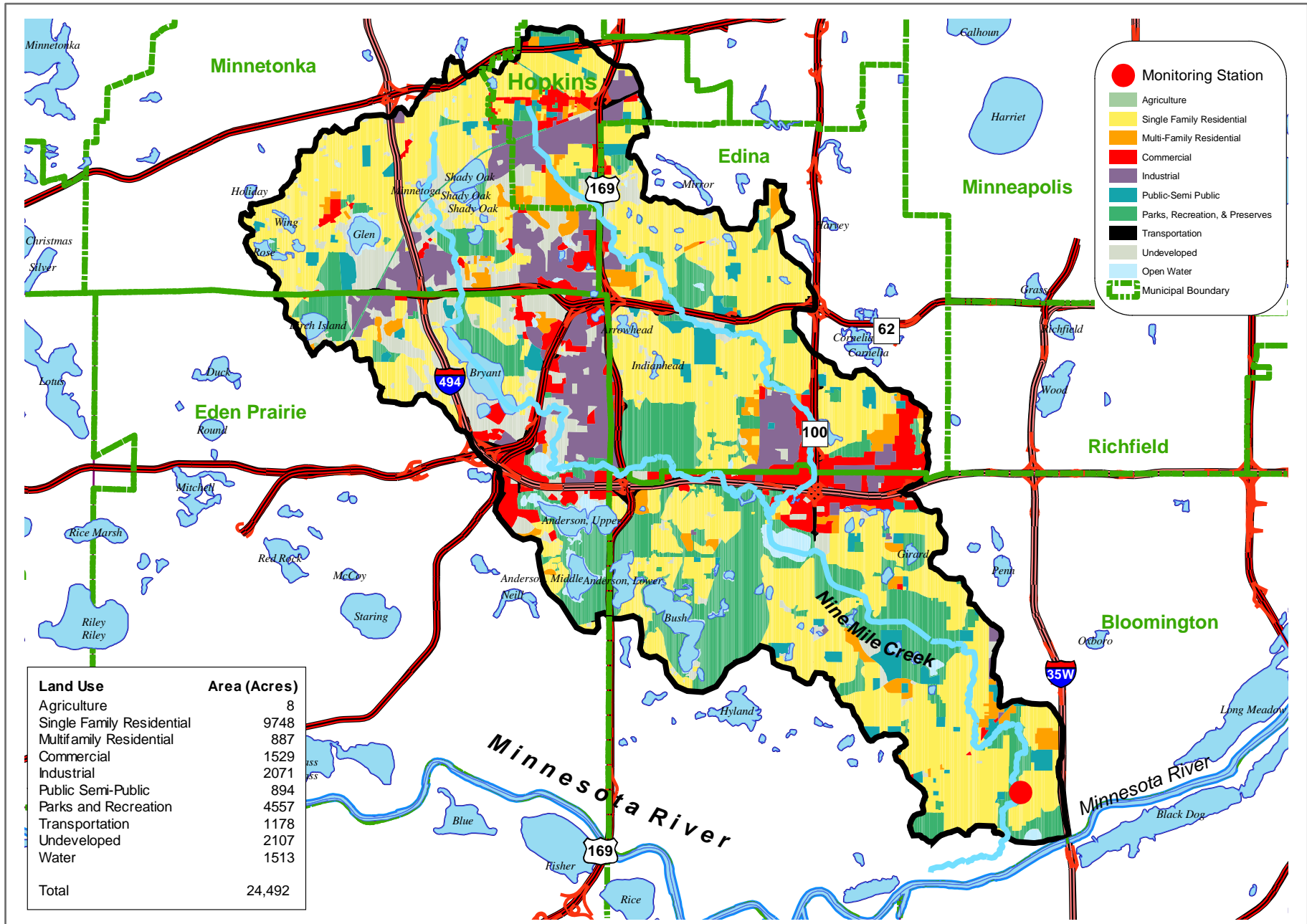


Figure 2.NM. Nine Mile Creek 2001 Hydrograph with Sampling Information

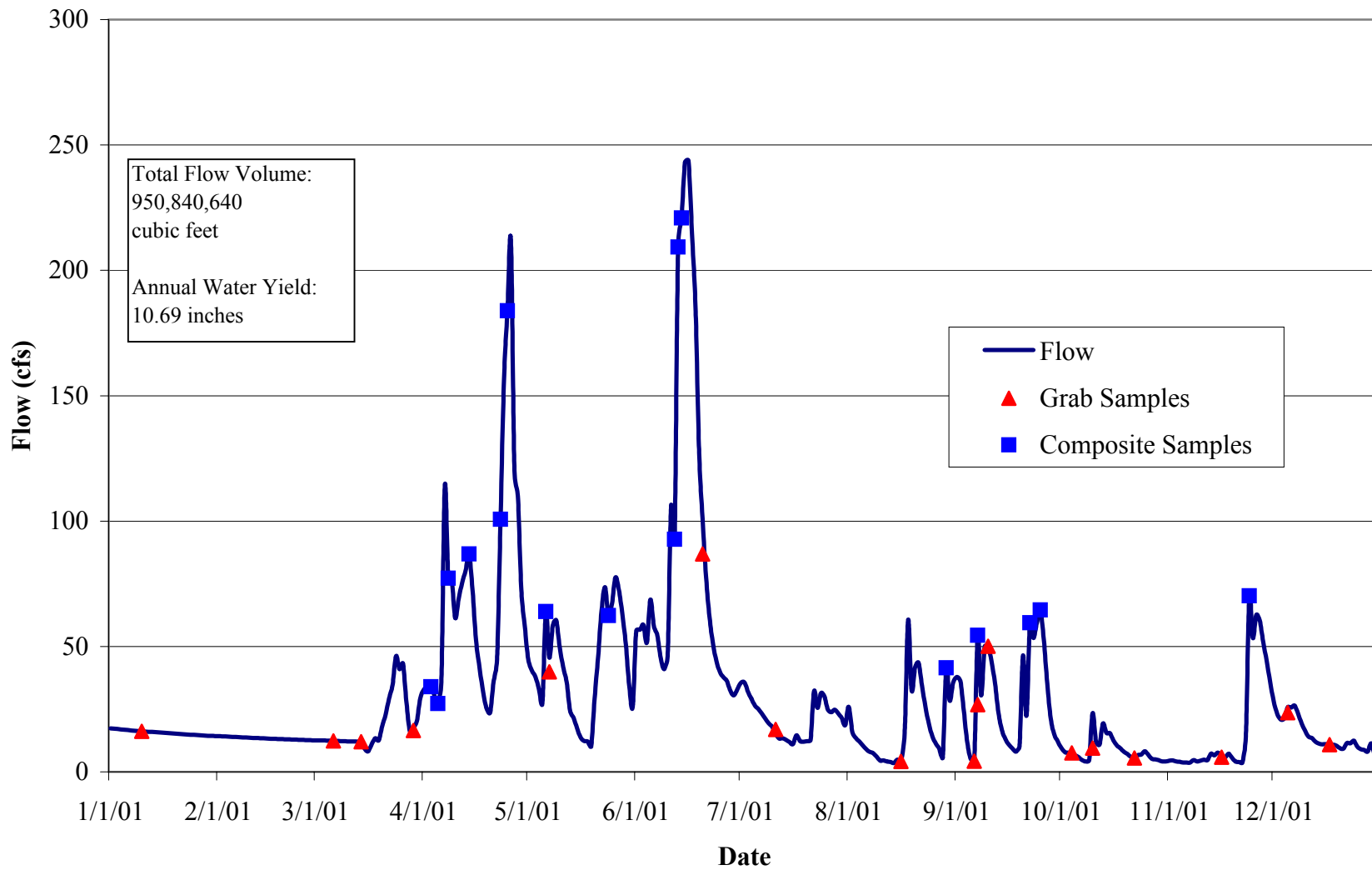


Table 2.NM. Nine Mile Creek 2001 Water Chemistry Information

Variable	N	Mean	Median	Minimum	Maximum	25%	75%	STD
Chloride, mg/L	33	98	76	8	544	36	101	105
Hardness, mg/L	24	179	185	78	330	129	214	63
Cadmium, ug/L	24	0.3	0.1	0.1	0.9	0.1	0.4	0.3
Chromium, ug/L	24	1.8	1.0	0.5	12.8	0.5	2.2	2.6
Copper, ug/L	24	5.6	4.3	1.4	27.0	2.8	6.2	5.3
Lead,ug/L	24	3.6	1.9	0.5	21.0	0.6	4.1	5.1
Nickel, ug/L	24	3.2	2.8	1.7	9.9	2.3	3.8	1.7
Zinc, ug/L	24	18.0	12.0	2.0	132.0	7.0	19.0	27.0
Nitrogen, Total Kjeldahl, mg/L	32	1.30	1.00	0.20	3.80	0.80	1.50	0.80
Nitrogen, Total Nitrate, mg/L	33	0.76	0.61	0.09	5.87	0.36	0.92	0.97
Phosphorus, Total, mg/L	32	0.16	0.09	0.02	0.56	0.06	0.22	0.15
Phosphorus, Total Dissolved, mg/L	32	0.04	0.03	0.01	0.21	0.01	0.05	0.04
Solids, Total Suspended, mg/L	29	44	21	1	277	3	56	67
Solids, Volatile Suspended, mg/L	29	13	7	1	76	2	16	16
Turbidity, NTU	33	19	11	1	95	3	28	22

Table 3.NM. Nine Mile Creek 2001 Annual Loading Information* for Suspended Solids and Nutrients

Variable	Annual Load (tons)	Annual Yield (lbs/acre)	Annual Normalized Yield (lbs/acre/in of water)	Flow Weighted Mean Concentration (mg/L)
Solids, Total Suspended	1,488	121	11	50
Phosphorus, Total	4.15	0.34	0.03	0.14
Phosphorus, Total Dissolved	0.97	0.08	0.01	0.03
Nitrogen, Total Nitrate	18.68	1.52	0.14	0.63

* 2001 Annual Loading Information is provisional and may be subject to minor revisions.