

Table 1.CWS. South Fork Crow River Monitoring Station Information



Station Address: 1420 State Highway 7, Mayer, MN

County: Carver

Major Basin: Mississippi River Basin

Watershed: Crow River

Drainage Area: 1,136.62 square miles

Station Operator: Carver County Environmental Services

Metropolitan Council Environmental Services Contact Information:

Contact Person: Casandra Champion

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Watershed District or Watershed Management Organization:

Crow River Organization of Water (CROW)

Station Overview: MCES has supported water quality monitoring of the South Fork Crow River since 2001. The monitoring station is located in Mayer, Minnesota, 20.3 miles upstream from the South Fork confluence with the North Fork of the Crow River. Downstream from this confluence, the river is called the Crow River. The South Fork of the Crow River flows from Ottertail Lake in Hutchinson and drains most of McLeod County and part of western Carver County before it reaches the station near Mayer.

MCES partners with the Minnesota Department of Natural Resources (MDNR) to maintain the station's stage measurement equipment, rating curve, and rain gage. This station (MDNR Waters Station Number 19082001) is part of the MDNR's statewide flood-forecasting network. Flow has been measured at this location since 1999. While the new MCES monitoring station was being built in 2001, the Minnesota Pollution Control Agency (MPCA), the Crow River Organization of Water (CROW) and MCES collected grab samples for water quality analysis. Installation of the MCES monitoring station was completed in November 2001.

2001 Monitoring Year: Snowmelt began during the last week of March 2001. With snowmelt and heavy spring rains, the South Fork remained flooded over its banks from late March through late June. The peak daily average flow of 6,830 cfs occurred on April 13, 2001.

Twenty-six grab samples were collected for water chemistry analysis during 2001. Samples were collected by MCES, CROW, and MPCA staff. 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). Since installation of the MCES monitoring station was not complete until November 2001, the 2001 sampling scheme did not meet the goals of the MCES monitoring work plan. Snowmelt conditions were well characterized via grab sampling, but rainfall-related runoff events were not well represented because the automated monitoring equipment was not in place during the open-water season.

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

Figure 1.CWS. South Fork Crow River Monitoring Station Location and Watershed

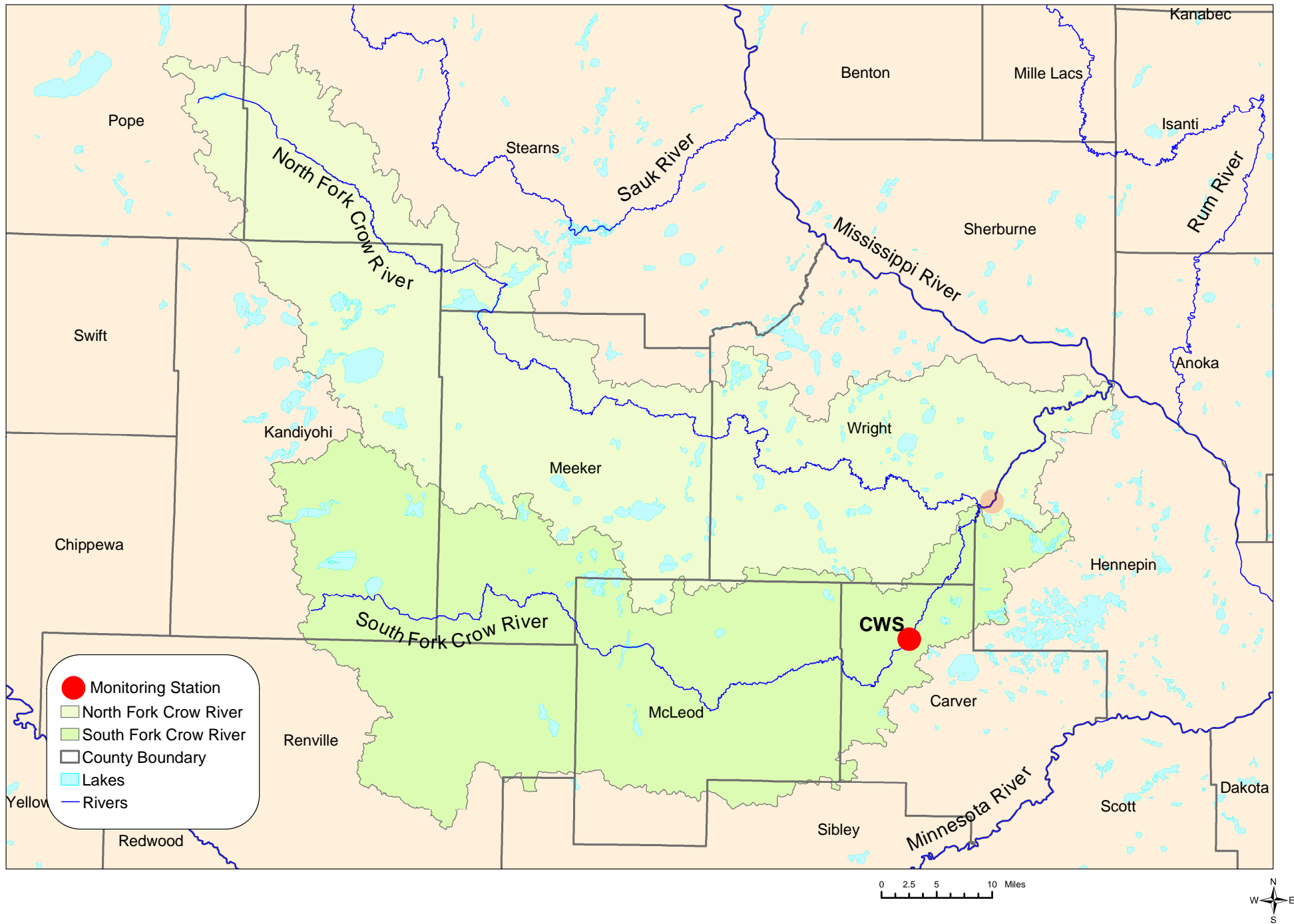


Figure 2.CWS. South Fork Crow River 2001 Hydrograph with Rainfall and Sampling Information

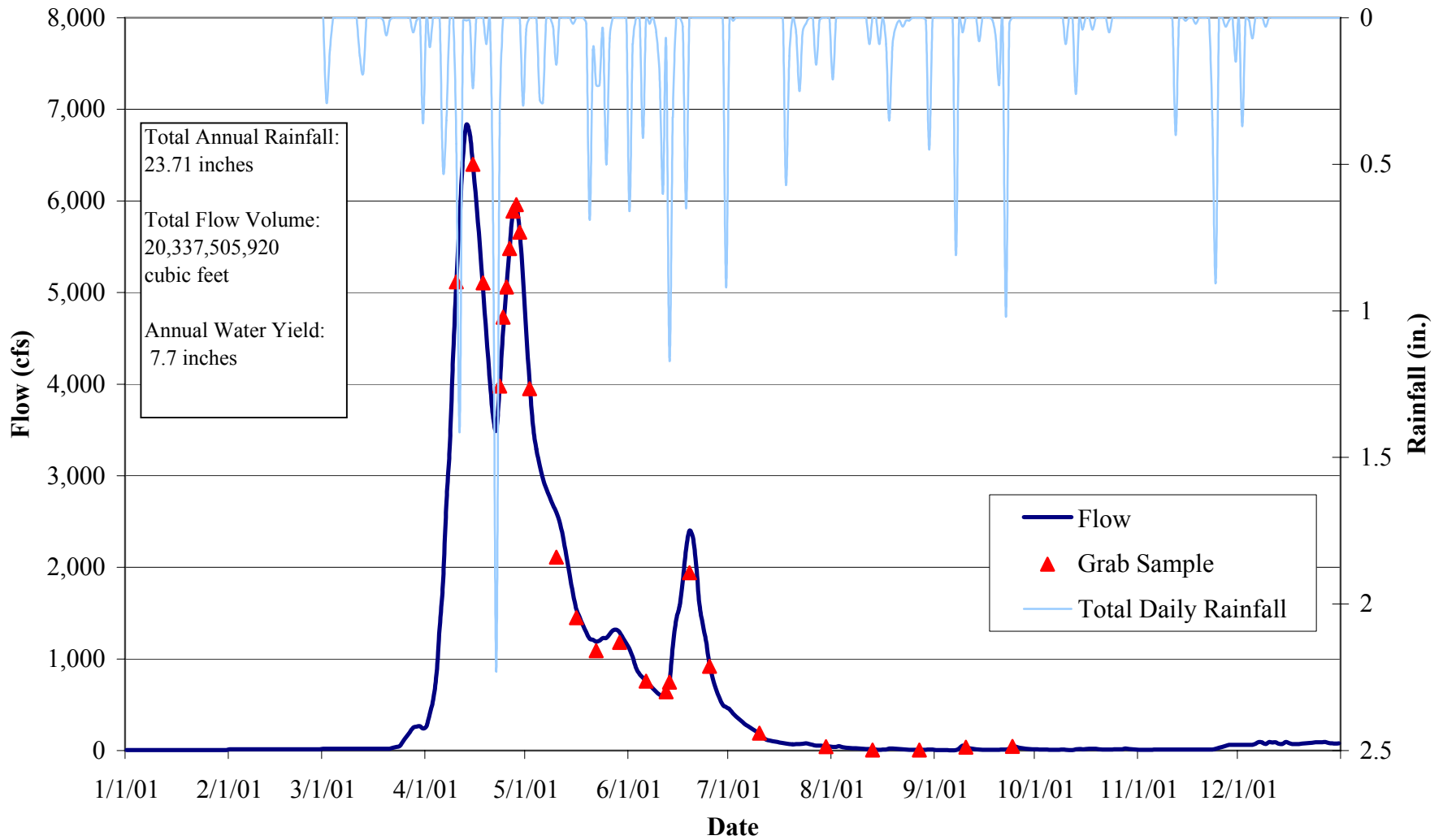


Table 2.CWS. South Fork Crow River 2001 Water Chemistry Information*

Variable	N	Mean	Median	Minimum	Maximum	25%	75%	STD
Chloride, mg/L	20	53	20	13	310	16	30	87
Hardness, mg/L	8	205	201	188	218	199	216	55
Nitrogen, Total Kjeldahl, mg/L	25	1.76	1.70	1.20	2.68	1.40	2.07	4.26
Nitrogen, Total Nitrate, mg/L	25	5.41	5.59	0.05	12.00	3.80	7.50	4.70
Phosphorus, Total, mg/L	25	0.37	0.38	0.17	0.62	0.29	0.48	4.50
Phosphorus, Total Dissolved, mg/L	8	0.37	0.37	0.29	0.47	0.34	0.38	2.12
Solids, Total Suspended, mg/L	24	33	26	8	96	20	43	24
Solids, Volatile Suspended, mg/L	24	9	6	3	25	4	13	7
Turbidity, NTU	16	24	23	7	53	18	28	13

*Combination of MCES and MPCA data for all variables except hardness and phosphorus, total dissolved.

Table 3.CWS. South Fork Crow River 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	14,590	40	5	23
Phosphorus, Total	228.62	0.63	0.08	0.36
Phosphorus, Total Dissolved	na	na	na	na
Nitrogen, Total Nitrate	3,991.47	10.97	1.43	6.29

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

**Combination of MCES and MPCA data used to determine Annual Loading Information.

na: Data are insufficient to calculate Annual Loading Information.