

Mustinka River nr Wheaton, CSAH9
STATION ID: H55-060-002
EQUIS ID: S000-681

LOCATION:

Lat:	45° 48' 49.7" N	UTMX:	227401.8	Township:	Wheaton City				
Long:	96° 30' 31.6" W	UTMY:	5079349.3		TWP	RNG	SEC	Q	QQ
				PLS:	127	46W	18	NW	SW

County: Traverse
USGS Quad: O03d Wheaton West
Drainage area (acres): 505,390
Delorme MN Atlas & Gazetteer (pg.): 43/B6

Driving directions: From intersection of Highway 27 and Highway 9 (also Trail St N) in Wheaton, MN, travel northwest on CSAH9 approx. 1 mile to gage on Traverse County bridge #78508.

History: Site established by the MN DNR Waters Division on 10/13/2010 as CWL site by KCW, JVC, DVP. New gage installation on 11/1/2010 by DVP. The gage was moved upstream to 55064003 in August 2017 due to seiche activity at this location causing an unstable stage/discharge relationship.

Cooperation: MN Pollution Control Agency, MN Department of Natural Resources, International Water Institute

GAGE: Base gage is a wire-weight gage attached to downstream side of bridge; checkbar elevation = 996.42 ft., NAVD88. A Design Analysis H-350XL Pressure Transducer and H-355 Gas Purge System are housed in a 2' x 1.5' x 6' Hoffman look-in type shelter. Instruments are powered by a 12-ampere solar panel run to a deep cycle marine battery through a SunSaver power regulator. Solar panel and a rain gage are attached to side of shelter on a 10' mast. Data collected at 15-minute intervals and transmitted via Goes satellite at 1-hour intervals.

GOES ID:	D5526022
Primary Channel:	79
Transmit Time (GMT):	001300
Random Channel:	119
Azimuth:	156
Elevation:	32

CHANNEL AND CONTROL: Lower stage levels heavily affected by backwater and seiche from Lake Traverse downstream. Normal pool elevation for lake is 976.80. Stage levels fluctuate around 977.10-978 at bridge due to backwater and seiche. Moderate to higher stages controlled by channel.

DISCHARGE MEASUREMENTS: **High flow:** DS side of bridge
Low flow: 10-100ft. US of bridge
Ice: 40-80ft. US of bridge

REFERENCE MARKS:

B.M. 1: MNDOT disc 7802 AA1 in Traverse County bridge #78508
~~Elevation: 93.875 ft. assumed datum (993.875 ft. NGVD29)~~
Elevation: 94.58 ft. assumed datum (994.58 ft. NAVD88)

R.M. 1: Wire Weight check bar
~~Elevation: 95.73 ft. assumed datum (995.73 ft. NGVD29)~~
Elevation: 96.42 ft. assumed datum (996.42 ft. NAVD88)

Primary reference: RM1 Wire-weight checkbar (96.42 ft. assumed datum)
Gage Zero: (996.42 ft. NAVD88 – 96.42 ft. assumed) = 900.00 ft. NAVD88