

Table 1.BT. Beltline Interceptor Monitoring Station Information



Station Address: Intersection of U.S. Highway 61 and Warner Road, St. Paul, MN
County: Ramsey
Major Basin: Mississippi River Basin
Watershed: Keller-Phalen
Drainage Area: 27.97 square miles

Station Operator: Ramsey-Washington-Metro Watershed District

Metropolitan Council Environmental Services Contact Information:

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Watershed District or Watershed Management Organization:

Ramsey-Washington-Metro Watershed District

Station Overview: MCES has supported water quality monitoring of the Beltline Interceptor since 1995. The monitoring station is located in St. Paul, Minnesota, 2.2 miles upstream from the interceptor discharge to the Mississippi River. Major improvements were made to the monitoring station during the 2001 monitoring season. The station improvements, which included re-location of all the monitoring equipment to an above-ground shelter, were completed in late 2001, so that the Beltline Interceptor monitoring station was again functional in 2002. There is no rain gauge at this station;

however, precipitation data are obtained from the Minnesota Climatology Working Group, St. Paul Airport Station Number 217386.

2002 Monitoring Year: Beltline Interceptor flow data for 2002 are not currently available. In 2003, Barr Engineering developed a new XPSWMM model of the 100-year storm at this location. The modeling information will be used to create a rating curve for this station. The rating curve will be applied to the historic stage data to develop an annual hydrograph and annual pollutant loads for 2002.

Fourteen samples were collected for water quality analysis during 2002, including ten composite samples and four grab samples. 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). However, the MCES sampling scheme is modified for this monitoring station because of its unique hydrologic situation.

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

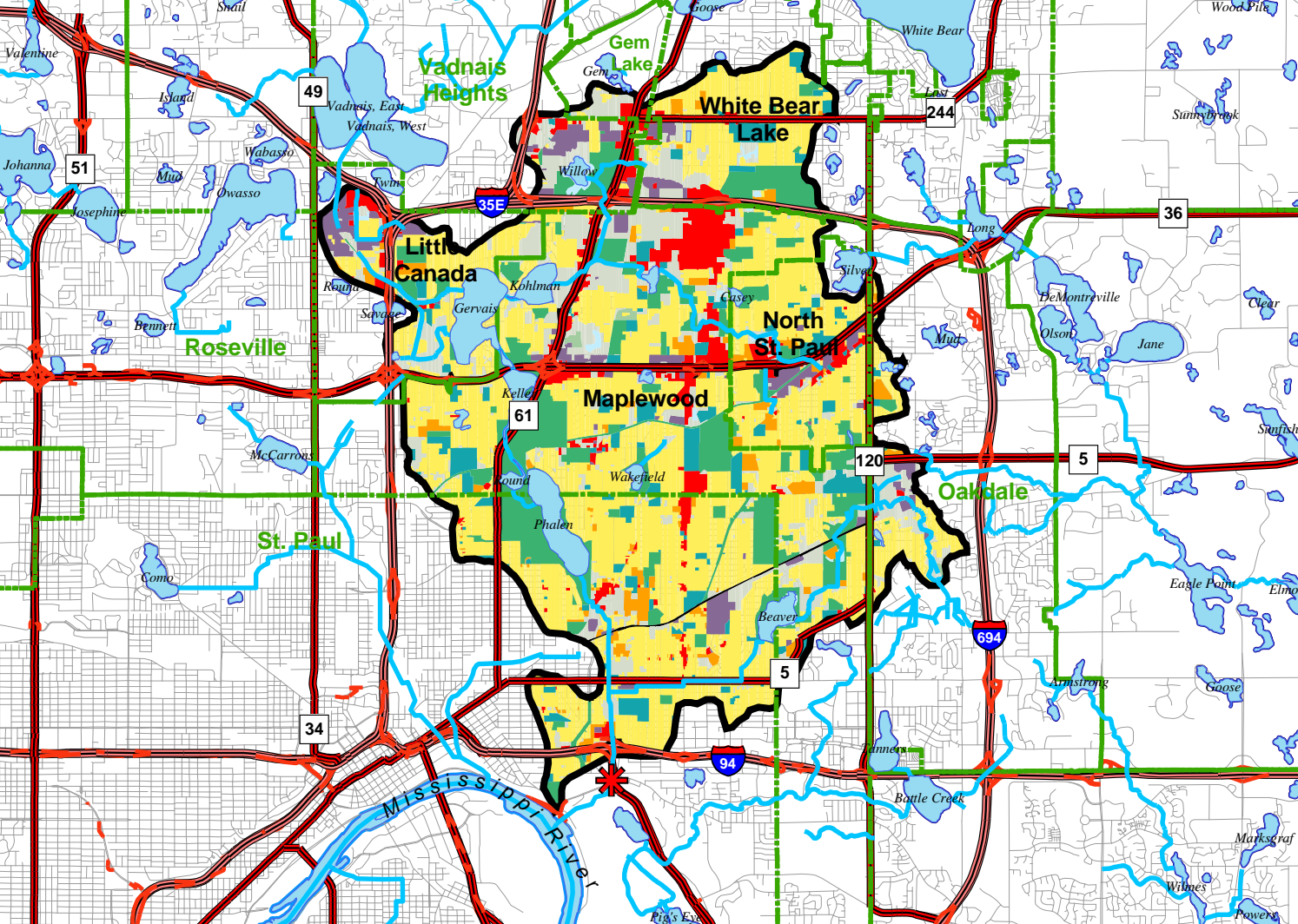


Table 2.BELT. Beltline Interceptor 2002 Water Chemistry Information

Variable	N	Mean	Median	Minimum	Maximum	25%	75%	STD
Chloride, mg/L	14	57	64	14	89	29	76	26
Hardness, mg/L	14	101	113	46	174	60	125	38
Cadmium, ug/L	13	0.1	0.1	<0.1	0.2	<0.1	0.1	0.1
Chromium, ug/L	13	1.4	1.0	0.3	4.3	0.5	1.9	1.3
Copper, ug/L	13	4.6	3.8	2.1	9.9	3.0	6.3	2.4
Lead, ug/L	13	3.3	1.6	0.3	11.8	0.5	5.6	4.0
Nickel, ug/L	13	2.0	1.7	1.1	3.8	1.4	2.6	0.9
Zinc, ug/L	13	12.7	8.5	2.5	37.0	5.4	18.3	11.1
Total Kjeldahl Nitrogen, mg/L	14	0.92	0.80	0.30	2.00	0.73	1.13	0.39
Total Nitrate Nitrogen, mg/L	14	0.24	0.21	0.05	0.58	0.14	0.34	0.15
Total Phosphorus, mg/L	14	0.14	0.08	0.03	0.55	0.04	0.22	0.14
Total Dissolved Phosphorus, mg/L	13	0.04	0.03	0.01	0.14	0.02	0.04	0.03
Total Suspended Solids, mg/L	14	33	15	4	102	7	58	35
Volatile Suspended Solids, mg/L	14	10	6	3	28	4	15	8
Turbidity, NTU	14	10	5	2	34	3	18	10

N: Sample Count

25%, 75%: 25th and 75th Percentiles

STD: Standard Deviation

Table 3.BELT. Beltline Interceptor 2002 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)
Total Suspended Solids	na	na	na	na
Total Phosphorus	na	na	na	na
Total Dissolved Phosphorus	na	na	na	na
Total Nitrate Nitrogen	na	na	na	na

na: Data are insufficient to calculate these statistics.

* 2002 Annual Loading Information is not available.