

UPPER MISSISSIPPI RIVER MAIN STEM--Continued

05288705 SHINGLE CREEK AT QUEEN AVE. IN MINNEAPOLIS, MN

LOCATION.-- Lat 45°03'00", long 93°18'36", in NE¹/₄NW¹/₄ sec. 11, T.118 N., R.21 W., Hennepin County, Hydrologic Unit 07010206, at bridge over Shingle Creek at intersection of Queen Avenue North and 52nd Avenue North in Minneapolis.

DRAINAGE AREA.-- 28.2 mi².

PERIOD OF RECORD.-- May 1996 to current year.

GAGE.-- Water-stage recorder. Elevation of gage is 850 ft above sea level (from topographic map).

REMARKS.-- Records fair except those for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	7.1	4.4	---	---	11	15	13	15	37	e38	e10
2	3.3	5.5	5.0	---	---	11	13	10	14	40	e27	e9.2
3	2.8	6.2	5.6	---	---	9.6	12	9.9	12	66	e21	e7.9
4	2.6	5.3	9.7	---	---	8.9	20	16	17	57	e17	e7.0
5	3.9	4.4	18	---	---	8.1	29	23	36	60	e11	e6.4
6	4.1	3.4	15	---	---	7.4	52	18	36	53	e7.5	e6.2
7	3.7	3.1	10	---	---	6.7	49	27	30	46	e6.0	11
8	3.1	3.1	7.8	---	---	8.6	44	22	21	50	e5.3	20
9	3.8	4.6	5.8	---	---	8.5	35	16	19	45	e11	14
10	4.8	41	4.8	---	---	7.5	30	23	24	38	e32	10
11	8.7	45	4.2	---	---	7.8	38	50	69	31	e25	13
12	10	41	3.8	---	---	7.4	35	78	57	25	e44	26
13	9.8	31	3.8	---	---	7.1	34	77	50	21	e34	20
14	10	21	4.0	---	---	7.4	30	74	40	20	e26	14
15	13	13	4.5	---	---	11	38	72	31	17	e22	8.9
16	28	10	4.1	---	---	20	39	71	25	25	e17	6.5
17	39	8.3	3.8	---	---	30	35	67	20	26	e14	5.4
18	35	11	4.1	---	---	23	31	63	18	19	e11	4.9
19	24	13	2.8	---	---	19	28	58	17	15	e13	9.3
20	14	12	---	---	---	17	27	61	16	13	e11	9.5
21	8.4	9.6	---	---	---	14	25	57	15	12	e24	6.9
22	5.5	8.6	---	---	---	9.9	23	52	17	10	e60	5.3
23	4.4	7.2	---	---	---	8.0	20	48	63	13	e56	4.6
24	4.0	6.1	---	---	---	7.1	17	43	75	10	e45	4.2
25	3.7	6.0	---	---	---	5.7	15	39	71	7.9	e38	3.9
26	3.6	5.4	---	---	10	4.8	14	33	60	59	e29	7.1
27	7.6	5.0	---	---	12	5.4	15	29	49	44	e24	8.7
28	5.1	4.4	---	---	12	33	20	25	46	38	e19	7.6
29	11	4.7	---	---	---	30	17	22	43	e32	e17	6.3
30	14	4.3	---	---	---	24	14	18	39	e44	e13	6.2
31	10	---	---	---	---	18	---	16	---	e56	e12	---
TOTAL	304.9	350.3	---	---	---	396.9	814	1230.9	1045	1029.9	729.8	280.0
MEAN	9.84	11.7	---	---	---	12.8	27.1	39.7	34.8	33.2	23.5	9.33
MAX	39	45	---	---	---	33	52	78	75	66	60	26
MIN	2.6	3.1	---	---	---	4.8	12	9.9	12	7.9	5.3	3.9
AC-FT	605	695	---	---	---	787	1610	2440	2070	2040	1450	555
CFSM	.35	.41	---	---	---	.45	.96	1.41	1.24	1.18	.83	.33
IN.	.40	.46	---	---	---	.52	1.07	1.62	1.38	1.36	.96	.37

e Estimated

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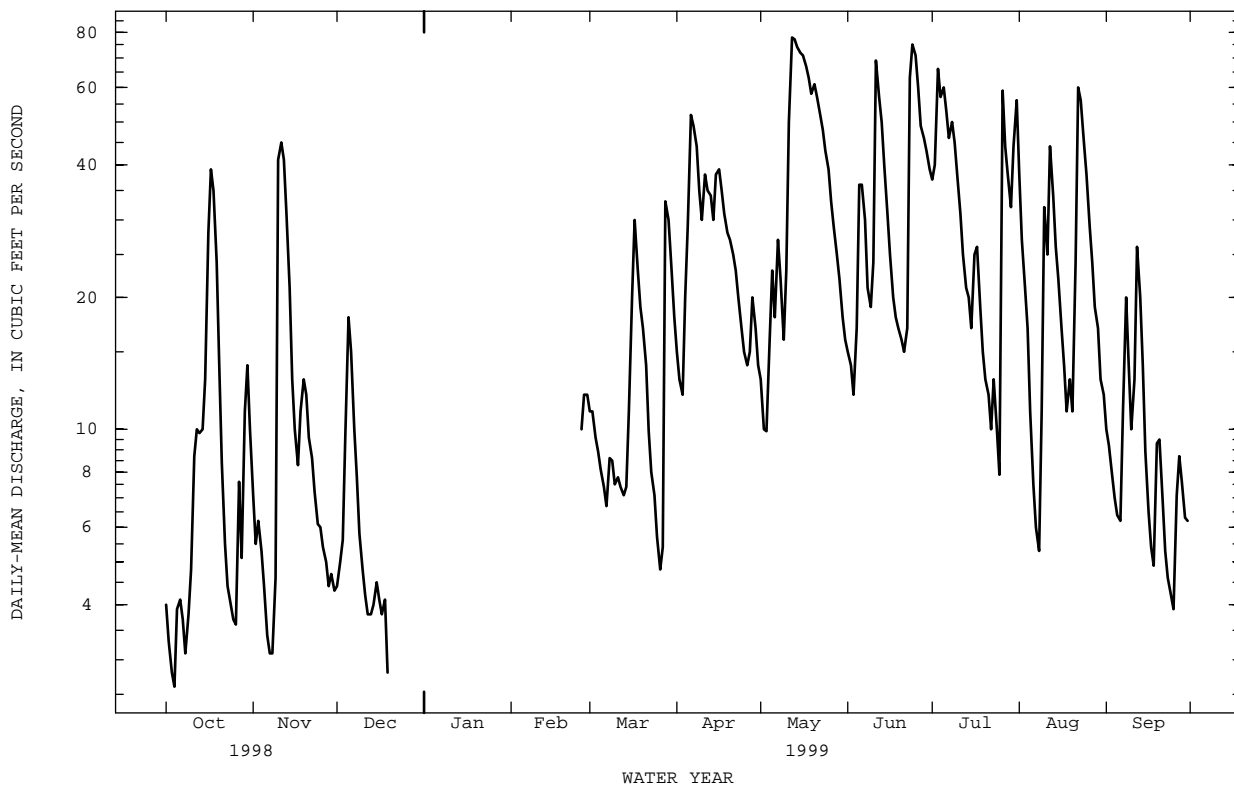
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1999, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	10.7	15.0	---	---	---	17.2	29.9	29.9	23.5	26.7	18.2	8.14
MAX	12.9	28.2	---	---	---	24.3	32.1	54.3	34.8	54.1	29.4	16.5
(WY)	1998	1997	---	---	---	1997	1998	1996	1996	1997	1997	1997
MIN	9.18	5.22	---	---	---	12.8	27.1	13.3	7.47	7.92	5.04	2.92
(WY)	1997	1998	---	---	---	1999	1999	1997	1997	1996	1996	1996

SUMMARY STATISTICS	FOR 1998 CALENDAR YEAR	FOR 1999 WATER YEAR	WATER YEARS 1996 - 1999
HIGHEST DAILY MEAN	87 Apr 1	78 May 12	136 May 19 1996
LOWEST DAILY MEAN	.83 _a Aug 1	2.6 _a Oct 4	.13 _a Oct 13 1996
INSTANTANEOUS PEAK FLOW		126 Jul 26	225 Jul 1 1997
INSTANTANEOUS PEAK STAGE		11.63 Jul 26	13.07 Jul 1 1997
INSTANTANEOUS LOW FLOW		1.2 _a Dec 19	.11 _a Oct 11 1996

a Minimum observed.

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(National Water-Quality Assessment Program)

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- 1996 to current year.

PERIOD OF DAILY RECORD:

WATER TEMPERATURES.-- May 1996 to September 30, 1998.

SPECIFIC CONDUCTANCE.-- May 1996 to September 30, 1998.

REVISED RECORDS.-- WDR MN-96-1: Specific conductance.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM) (90095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	PH WATER WHOLE LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00301)
MAR 23...	1425	7.9	989	1020	7.7	7.9	8.3	741	12.2	107
APR 30...	1015	15	1020	1030	7.9	8.1	16.5	751	9.4	97
JUN 02...	1245	13	988	992	7.7	7.9	14.4	742	8.8	89
JUN 30...	1230	39	594	598	7.5	7.8	21.0	736	5.2	61
JUL 08...	1250	51	551	557	7.3	7.7	23.7	737	3.8	46
AUG 03...	1215	e21	522	522	7.8	7.7	--	742	--	--
SEP 13...	1130	20	448	458	7.5	7.6	16.1	742	4.8	50

DATE	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
MAR 23...	240	161	196	.163	.013	.75	.95	.282	.108	.018
APR 30...	390	231	282	.035	<.010	.42	.71	.112	.074	.015
JUN 02...	340	216	264	.213	.028	.75	.86	.258	.072	.020
JUN 30...	210	145	177	.156	.048	.76	.93	.202	.088	.029
JUL 08...	190	130	158	.125	.044	.79	.94	.194	.111	.039
AUG 03...	180	124	151	.073	.045	.54	.79	.254	.102	.050
SEP 13...	160	106	129	.038	.044	.41	.54	.426	.061	.022

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(National Water-Quality Assessment Program)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
MAR 23...	<.010	6.4	.90	65	18	98	3	4.4	190
APR 30...	.017	6.3	.80	110	30	57	1	4.0	140
JUN 02...	.021	7.4	.80	92	27	64	2	3.9	130
JUN 30...	.019	8.3	.70	57	15	39	1	2.9	78
JUL 08...	.027	9.0	.50	51	14	35	1	2.6	72
AUG 03...	.024	7.1	.50	50	13	31	1	2.4	61
SEP 13...	<.010	5.5	.60	44	11	27	.9	2.6	55

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR 23...	46	.13	8.5	39	374	572	534	20	95
APR 30...	86	.21	9.3	54	473	629	570	61	53
JUN 02...	78	.16	12	88	573	633	543	48	54
JUN 30...	32	.14	9.0	35	180	387	321	6	88
JUL 08...	25	.12	9.7	38	255	344	289	8	83
AUG 03...	30	.10	12	46	165	304	276	4	92
SEP 13...	31	<.10	7.0	34	102	255	243	6	88