06813500 MISSOURI RIVER AT RULO, NE

LOCATION.--Lat 40°03'13", long 95°25'19", in NW¼ NW¼ sec.17, T.1 N., R.18 E., Richardson County, Hydrologic Unit 10240005, on right bank at downstream side of bridge on U.S. Highway 159 at Rulo, 3.2 mi upstream from Big Nemaha River, and at mile 498.0.

DRAINAGE AREA.--414,900 mi^2, approximately. The 3,959 mi^2 in Great Divide basin are not included.

PERIOD OF RECORD.--October 1949 to current year. Gage-height record collected at site 80 ft upstream January 1886 to December 1899 published in reports of Missouri River Commission; September 1929 to September 1950 in files of Kansas City office of U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is 837.23 ft above NGVD of 1929. Oct. 1949 to Sept. 12, 1950, nonrecording gage at site 80 ft upstream and Sept. 13, 1950 to Apr. 19, 1983, recording gage on downstream end of middle pier, all at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by upstream main-stem reservoirs. Fort Randall Dam was completed in July 1952, with storage beginning in December 1952. Gavins Point Dam was completed in July 1955, with storage beginning in December 1955. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 358,000 ft^3/s Apr. 22, 1952, gage height, 25.60 ft; minimum daily discharge, 4,420 ft^3/s Jan. 13, 1957; minimum gage height, -0.19 ft Dec. 25, 1990, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1881 reached a stage of 22.9 ft, from floodmark, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31,000	33,200	18,800	21,900	17,600	38,900	37,800	32,800	58,900	42,700	36,800	30,400
2	30,900	33,500	19,000	21,000	18,800	43,800	36,000	32,600	56,500	42,200	36,200	30,300
3	31,100	35,600	20,000	20,800	19,400	43,400	34,300	32,400	54,100	42,900	35,900	29,700
4	31,300	39,600	20,600	20,700	19,300	41,900	32,900	33,200	52,200	45,400	36,400	29,700
5	30,700	39,400	20,900	20,400	20,200	46,600	32,100	34,700	52,300	46,800	43,100	29,700
6	30,600	37,100	20,600	19,000	21,000	44,900	31,600	35,400	50,000	49,200	40,200	30,300
7	30,900	36,300	19,900	17,300	20,600	42,600	31,600	35,000	49,300	47,400	37,300	31,500
8	31,300	35,900	19,500	16,400	19,700	40,500	31,500	35,200	50,300	46,600	36,500	30,700
9	30,900	35,000	19,100	16,100	19,600	35,700	31,500	35,200	49,000	47,500	36,000	30,300
10	30,900	34,400	19,300	16,500	19,900	32,900	31,500	36,100	47,700	54,500	35,800	29,700
11	31,200	34,200	19,300	17,600	19,500	30,500	31,500	38,800	46,900	54,500	35,700	29,500
12	32,200	33,900	17,700	19,100	19,600	28,600	31,300	39,300	46,900	55,800	35,100	29,700
13	32,600	33,700	17,100	20,000	20,500	26,800	31,800	38,200	58,300	50,200	34,800	29,900
14	32,900	33,600	16,900	20,300	20,800	25,400	32,100	38,500	58,800	48,000	34,500	30,200
15	33,600	33,600	17,900	21,000	20,300	24,000	32,100	38,900	51,500	46,600	34,200	30,400
16	32,800	33,500	19,700	21,800	19,500	23,600	31,600	37,700	52,200	45,800	33,900	31,300
17	32,600	33,700	21,100	21,500	19,300	24,400	31,300	36,300	49,900	46,500	33,400	34,200
18	32,500	34,400	21,700	22,100	19,600	24,700	31,200	39,200	52,400	44,400	32,900	38,000
19	32,000	34,700	21,700	22,500	19,000	24,600	31,700	42,200	61,900	42,500	32,700	40,400
20	32,000	34,200	21,500	21,900	19,000	23,600	31,500	39,800	57,200	41,200	32,500	39,700
21	31,900	33,000	21,500	21,000	21,200	22,800	32,000	40,300	55,000	40,200	32,500	38,100
22	32,200	31,000	22,100	21,000	22,100	23,000	32,300	38,800	56,600	39,200	32,000	39,900
23	32,300	28,900	21,700	21,300	22,700	24,100	32,500	46,900	54,400	42,600	31,400	41,000
24	32,100	27,000	20,800	21,800	24,600	26,100	33,400	90,800	51,400	39,900	31,700	39,200
25	32,200	24,800	20,500	22,000	29,300	28,300	34,400	98,000	48,900	38,700	32,300	38,800
26	32,400	22,500	20,300	22,500	30,800	29,400	35,300	94,300	47,500	37,700	34,400	39,500
27	32,300	20,400	20,200	23,200	29,100	30,000	35,600	80,000	45,900	37,300	34,500	41,900
28	32,400	19,300	20,500	22,100	29,300	34,700	35,400	70,300	44,900	36,700	32,400	40,000
29	32,600	19,600	21,300	20,700	32,500	39,700	34,700	62,100	43,800	37,000	31,400	38,400
30	32,700	19,200	22,500	19,500	---	40,000	33,700	91,600	43,200	36,700	31,100	37,100
31	32,600	---	22,500	17,900	---	39,100	---	80,300	---	36,900	30,700	---
MEAN	31,930	31,510	20,200	20,350	21,890	32,410	32,870	49,190	51,600	43,990	34,460	34,320
MAX	33,600	39,600	22,500	23,200	32,500	46,600	37,800	98,000	61,900	55,800	43,100	41,900
MIN	30,600	19,200	16,900	16,100	17,600	22,800	31,200	32,400	43,200	36,700	30,700	29,500
IN.	0.09	0.08	0.06	0.06	0.06	0.09	0.09	0.14	0.14	0.12	0.10	0.09

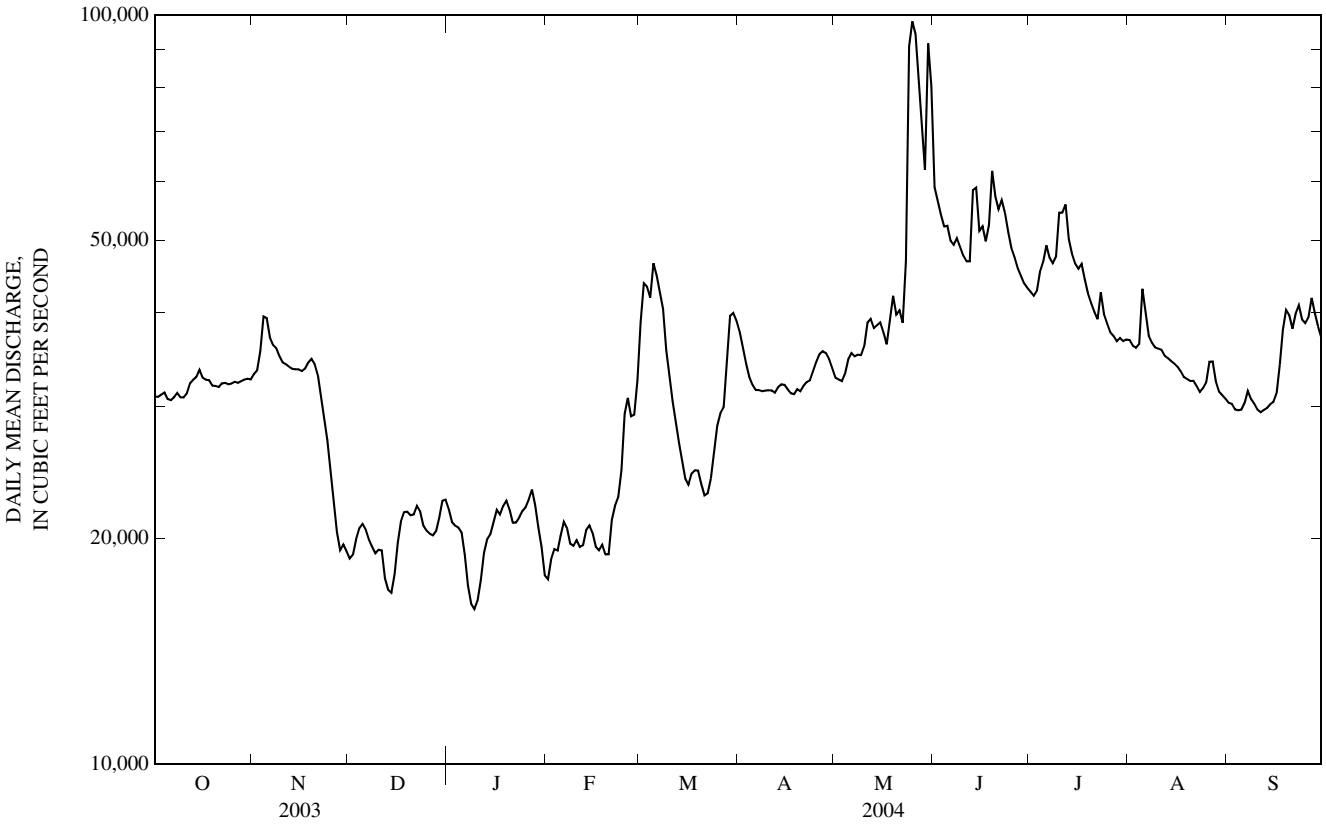
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2004[a], BY WATER YEAR (WY)

MEAN	44,390	40,770	27,080	22,750	28,340	40,720	50,690	51,740	56,330	50,400	44,390	44,610
MAX	80,050	83,880	57,380	42,280	53,140	79,590	106,100	97,280	130,600	164,800	78,730	76,410
(WY)	(1998)	(1998)	(1998)	(1973)	(1997)	(1979)	(1997)	(1997)	(1984)	(1993)	(1996)	(1997)
MIN	25,580	17,000	9,953	10,800	13,220	15,380	21,820	33,790	33,710	29,650	29,320	32,270
(WY)	(1962)	(1962)	(1956)	(1957)	(1957)	(1957)	(1957)	(1956)	(1956)	(2002)	(2003)	(2003)

06813500 MISSOURI RIVER AT RULO, NE --Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1953 - 2004[a]	
ANNUAL MEAN	31,290		33,750		41,880	
HIGHEST ANNUAL MEAN					71,880	1997
LOWEST ANNUAL MEAN					26,340	1957
HIGHEST DAILY MEAN	62,800	Jun 13	98,000	May 25	289,000	Jul 24, 1993
LOWEST DAILY MEAN	16,000	Jan 19	16,100	Jan 9	4,420	Jan 13, 1957
ANNUAL SEVEN-DAY MINIMUM	16,900	Jan 15	17,400	Jan 6	5,560	Nov 30, 1955
MAXIMUM PEAK FLOW	---		109,000	May 30	307,000	Jul 24, 1993
MAXIMUM PEAK STAGE	---		19.42	May 30	25.37	Jul 24, 1993
INSTANTANEOUS LOW FLOW	---		16,000	Jan 9	---	
ANNUAL RUNOFF (INCHES)	1.02		1.11		1.37	
10 PERCENT EXCEEDS	44,400		47,800		66,300	
50 PERCENT EXCEEDS	31,900		32,500		38,400	
90 PERCENT EXCEEDS	19,600		19,800		19,100	

[a] Post-regulation period.



06815575 SQUAW CREEK NEAR MOUND CITY, MO

LOCATION.--Lat 40°09'22" long 95°15'55", in SE ¼ SW ¼ NE ¼ sec.26, T.62 N., R.39 W., Holt County, Hydrologic Unit 10240005, on right bank of downstream side of State Highway 59 bridge, 2.4 mi northwest of Mound City.

DRAINAGE AREA.--62.7 mi^2.

PERIOD OF RECORD.--October 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is unknown.

REMARKS.--Records fair except for the periods Nov. 22-29, Dec. 17-27, and estimated daily discharges, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.50	1.1	2.7	1.6	e0.00	e14	12	7.9	50	12	17	8.5
2	0.53	7.6	3.0	1.7	e0.00	e9.0	11	6.4	35	14	16	8.4
3	0.63	13	12	1.7	e0.00	7.5	9.6	6.3	30	16	15	8.1
4	0.53	29	6.7	e1.0	e0.00	49	8.9	6.4	26	16	13	7.9
5	0.45	6.4	4.8	e0.70	e0.00	87	8.8	6.5	25	19	13	7.9
6	0.37	2.8	3.6	e0.20	e0.00	21	8.6	6.0	24	17	12	11
7	0.55	2.1	3.5	e0.20	e0.00	14	8.5	5.0	21	12	12	7.8
8	0.35	2.0	3.6	e0.50	e0.00	11	8.0	4.6	17	12	12	7.6
9	0.34	2.2	5.1	e0.60	e0.00	10	7.4	5.0	16	14	12	7.5
10	0.44	2.4	11	e0.50	e0.10	9.1	7.5	5.9	20	11	11	7.3
11	0.83	2.3	4.5	e0.70	e0.10	8.3	7.3	5.1	19	369	11	6.9
12	1.6	1.8	3.1	e0.80	e0.10	8.0	7.3	4.5	61	187	11	6.7
13	1.2	1.6	4.2	e0.90	e0.00	8.4	7.1	9.0	313	35	11	6.5
14	2.4	2.2	4.5	e0.90	e0.00	9.6	7.1	8.0	58	23	10	6.3
15	2.0	2.7	3.8	e0.80	e0.00	8.3	7.1	6.5	e44	19	9.9	6.5
16	1.4	2.3	3.4	e0.80	e0.00	8.7	6.9	5.4	32	624	9.7	6.4
17	e0.90	2.9	3.2	e0.90	e0.10	8.4	6.5	4.9	27	80	9.5	6.0
18	e1.0	3.0	3.1	e0.80	e0.50	7.9	6.9	82	32	44	9.4	5.8
19	0.74	2.4	3.0	e0.40	e10	7.4	6.4	41	26	36	9.7	5.8
20	0.82	2.3	3.0	e0.40	e50	7.2	6.4	18	22	31	9.4	5.4
21	0.83	2.1	3.0	e0.50	e25	7.7	6.7	13	e50	30	9.0	5.2
22	0.67	2.0	3.0	e0.70	e15	6.8	6.0	10	e27	34	8.8	5.1
23	0.76	2.5	2.9	e0.70	e10	6.9	6.1	26	e19	28	8.5	5.1
24	0.81	2.6	2.7	e0.90	e7.5	7.3	6.6	194	e17	33	32	5.2
25	0.75	2.6	2.4	e0.80	e7.0	8.0	7.8	374	e15	30	98	4.8
26	0.81	2.7	2.3	e0.70	e6.0	8.2	6.3	57	15	24	28	4.8
27	1.2	2.7	2.8	e0.30	e6.0	27	5.9	47	14	21	11	4.8
28	1.3	2.5	3.1	e0.10	5.9	72	6.5	34	14	20	10	4.6
29	1.2	2.4	2.2	e0.00	6.6	24	5.6	26	13	29	9.5	4.5
30	1.7	2.5	1.9	e0.00	---	16	7.1	331	12	23	9.2	4.6
31	1.3	---	1.8	e0.00	---	14	---	84	---	19	8.8	---
MEAN	0.93	3.89	3.87	0.67	5.17	16.5	7.46	46.5	36.5	60.7	15.0	6.43
MAX	2.4	29	12	1.7	50	87	12	374	313	624	98	11
MIN	0.34	1.1	1.8	0.00	0.00	6.8	5.6	4.5	12	11	8.5	4.5
IN.	0.02	0.07	0.07	0.01	0.09	0.30	0.13	0.85	0.65	1.12	0.28	0.11

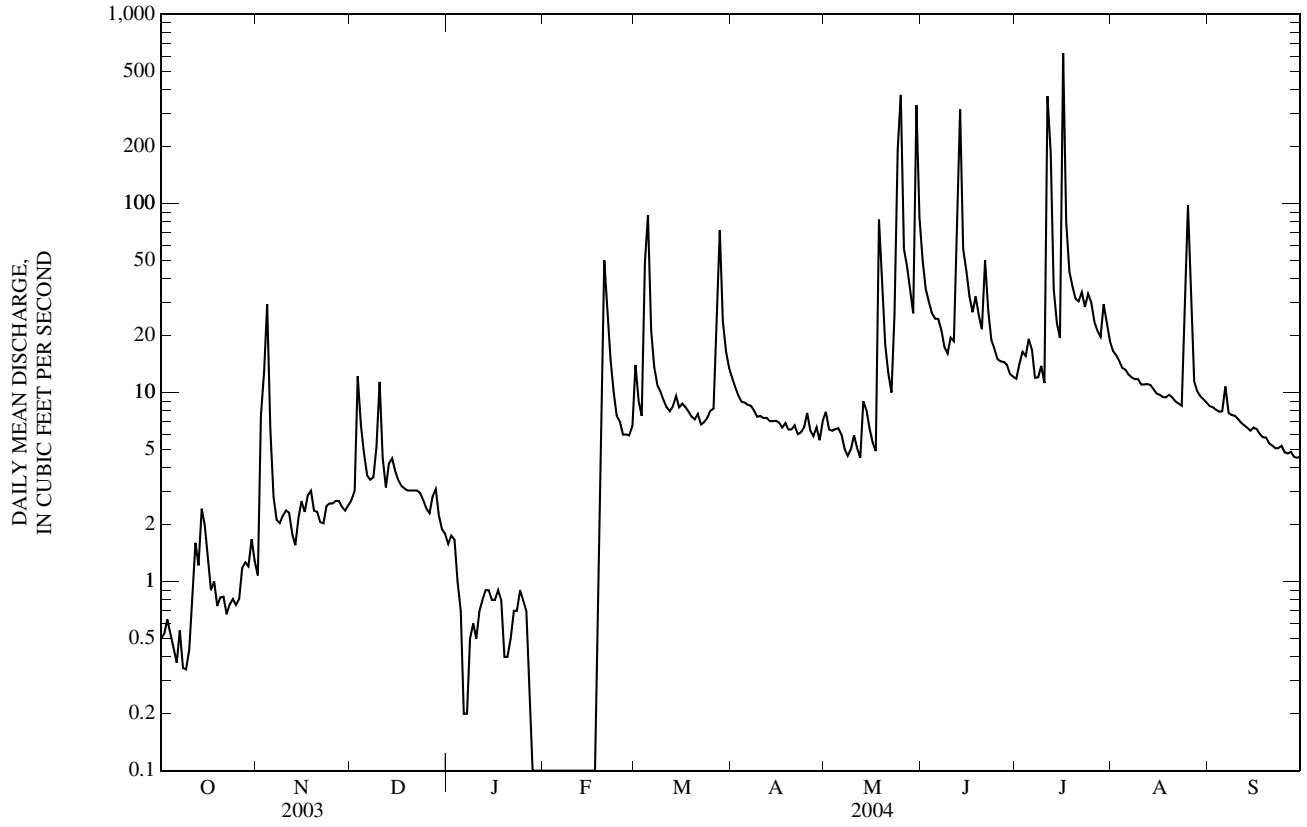
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2004, BY WATER YEAR (WY)

MEAN	6.76	7.21	5.97	6.28	27.0	22.9	15.7	31.9	48.5	29.2	9.04	8.13
MAX	20.0	15.1	12.0	9.46	81.4	62.0	37.7	46.5	119	60.7	15.5	23.1
(WY)	(2002)	(2002)	(2002)	(2002)	(2001)	(2001)	(2001)	(2004)	(2001)	(2004)	(2001)	(2001)
MIN	0.93	3.87	2.68	0.67	5.17	4.00	4.22	6.44	13.6	6.72	1.53	1.33
(WY)	(2004)	(2003)	(2001)	(2004)	(2004)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2001 - 2004	
ANNUAL MEAN	6.12		17.1		18.1	
HIGHEST ANNUAL MEAN					36.0	2001
LOWEST ANNUAL MEAN					6.43	2003
HIGHEST DAILY MEAN	230	Jun 12	624	Jul 16	781	Feb 24, 2001
LOWEST DAILY MEAN	0.34	Oct 9	0.00	Jan 29-Feb 9, Feb 13-16	0.00	Jan 29-Feb 9, 2004, Feb 13-16, 2004
ANNUAL SEVEN-DAY MINIMUM	0.43	Oct 4	0.00	Jan 29	0.00	Jan 29, 2004
MAXIMUM PEAK FLOW	---		2,110	Jul 11	2,630	Jun 14, 2001
MAXIMUM PEAK STAGE	---		19.22	Jul 11	20.06	Jun 14, 2001
INSTANTANEOUS LOW FLOW	---		0.00	Jan 29-Feb 9, Feb 13-16	0.00	Jan 29-Feb 9, 2004, Feb 13-16, 2004
ANNUAL RUNOFF (INCHES)	1.33		3.71		3.93	
10 PERCENT EXCEEDS	10		30		38	
50 PERCENT EXCEEDS	3.5		6.7		7.9	
90 PERCENT EXCEEDS	0.81		0.52		1.7	

e Estimated

06815575 SQUAW CREEK NEAR MOUND CITY, MO—Continued



06817700 NODAWAY RIVER NEAR GRAHAM, MO

LOCATION.--Lat 40°12'09", long 95°04'10", in NE ¼ NE ¼ NE ¼ sec.9, T.62 N., R.37 W., Holt County, Hydrologic Unit 10240010, at right downstream end of bridge on Highway A, 0.15 mi east of Maitland, and 1.5 mi west of Graham.

DRAINAGE AREA.--1,380 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1982 to current year.

REVISED RECORDS.--WDR MO-94-1: 1993 peak, September monthly and yearly mean discharge.

GAGE.--Water-stage recorder. Datum of gage is 852.09 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e30	31	55	111	e43	e700	1,490	e430	e5,400	e370	337	397
2	28	42	62	115	e45	730	1,240	e350	e3,700	e375	274	352
3	28	113	81	115	e47	779	1,110	e290	e2,400	442	253	315
4	29	235	78	e65	e50	647	1,020	e260	e1,800	449	327	282
5	30	653	79	e62	e50	2,470	954	e250	1,450	499	4,410	265
6	29	707	72	e50	e52	2,730	898	e250	1,300	557	1,700	278
7	28	322	69	e45	e50	1,780	834	e245	1,180	473	836	576
8	27	189	68	e48	e45	960	775	e245	1,050	417	570	718
9	25	129	e70	e55	e50	707	731	e255	942	406	451	393
10	25	e92	e60	e50	e52	587	702	e315	869	2,130	379	441
11	31	e79	62	e50	e52	e515	697	672	858	3,410	324	534
12	35	e90	66	e55	e50	e460	680	519	1,070	3,480	286	507
13	35	74	67	e53	e47	417	657	463	3,860	1,210	261	476
14	42	70	71	e50	e47	395	e640	703	3,810	895	245	452
15	38	65	70	e55	e45	387	e630	1,100	2,210	854	226	439
16	37	63	71	e55	e45	378	e590	868	1,620	4,090	209	396
17	37	64	121	e60	e48	396	e570	711	1,190	1,480	191	364
18	38	66	72	e60	e50	396	e540	1,930	1,020	744	177	350
19	36	67	107	e50	e58	460	e525	5,420	890	568	174	388
20	37	70	102	e48	e240	e490	e515	2,320	785	470	165	665
21	36	72	86	e50	e350	e690	e530	1,450	906	414	151	e412
22	33	77	97	e55	e500	e870	e605	1,130	1,370	398	143	e328
23	30	73	88	e55	e1,700	e520	e670	1,310	846	680	135	269
24	29	60	69	e60	2,240	e480	e550	e4,600	e694	1,420	365	175
25	29	65	100	e58	1,050	e450	e560	e12,000	e584	834	875	155
26	32	61	82	e60	631	e420	e595	e6,200	526	565	2,190	148
27	33	61	113	e55	486	e850	e565	e3,700	501	465	5,470	139
28	34	60	114	e45	467	6,720	e515	e6,400	467	395	2,000	126
29	33	58	107	e42	596	6,030	e470	1,980	432	409	937	116
30	32	57	100	e40	---	2,840	e455	20,800	400	380	624	110
31	32	---	123	e40	---	1,950	---	e11,700	---	357	475	---
MEAN	32.2	129	83.3	58.5	317	1,232	710	2,867	1,471	956	812	352
MAX	42	707	123	115	2,240	6,720	1,490	20,800	5,400	4,090	5,470	718
MIN	25	31	55	40	43	378	455	245	400	357	135	110
IN.	0.03	0.10	0.07	0.05	0.25	1.03	0.57	2.40	1.19	0.80	0.68	0.28

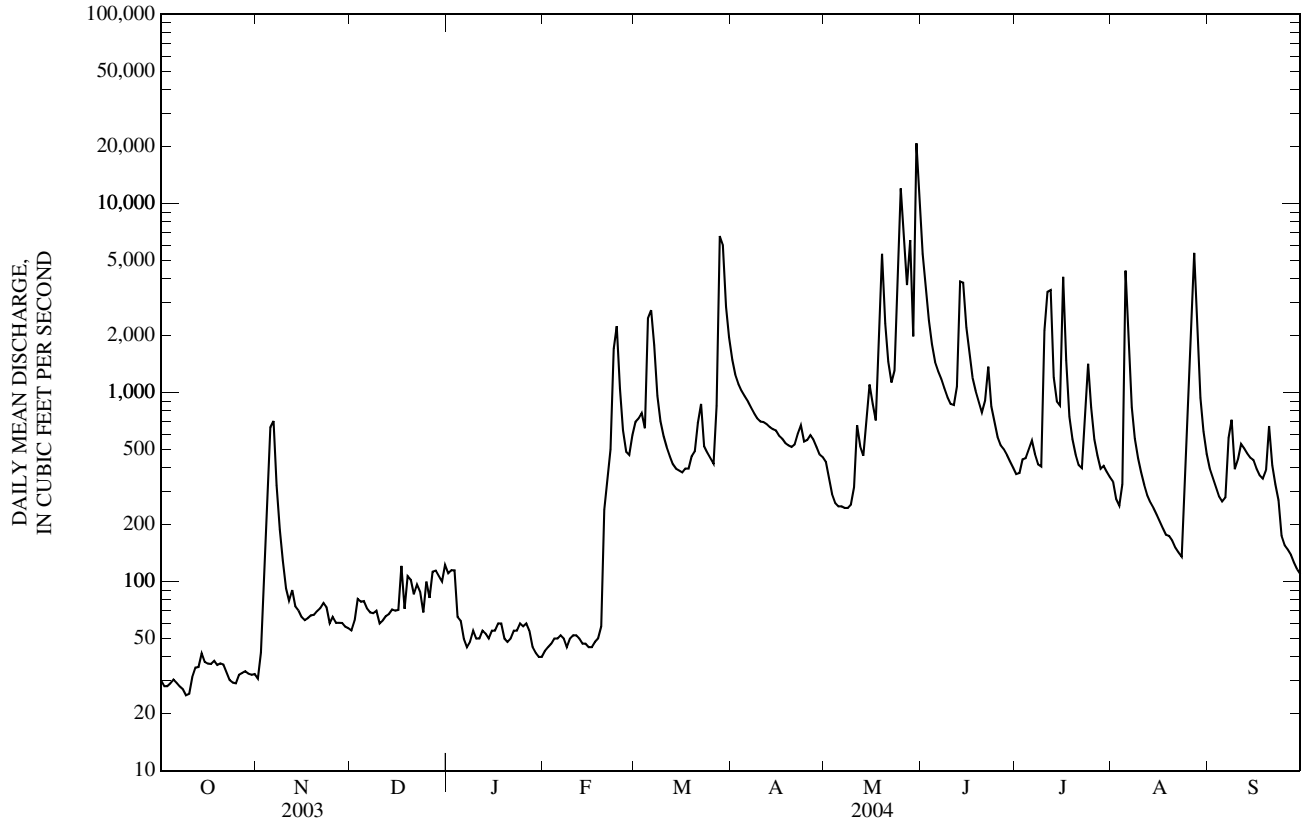
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2004, BY WATER YEAR (WY)

MEAN	363	437	453	315	704	1,033	1,374	1,978	1,668	1,437	527	606
MAX	2,313	1,735	2,026	1,199	1,839	3,155	3,614	4,606	4,936	12,460	2,758	3,364
(WY)	(1987)	(1993)	(1993)	(1983)	(1983)	(1998)	(1984)	(1995)	(1984)	(1993)	(1987)	(1993)
MIN	32.2	53.8	42.9	37.8	82.2	127	58.8	48.6	68.5	75.1	46.2	34.7
(WY)	(2004)	(2003)	(2003)	(2003)	(1989)	(2003)	(1989)	(1989)	(1988)	(1988)	(1988)	(2003)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1983 - 2004	
ANNUAL MEAN	261		755		891	
HIGHEST ANNUAL MEAN					2,870	1993
LOWEST ANNUAL MEAN					186	2000
HIGHEST DAILY MEAN	14,300	May 10	20,800	May 30	52,000	Jul 23, 1993
LOWEST DAILY MEAN	22	Jan 19	25	Oct 9,10	22	Jan 19, 2003
ANNUAL SEVEN-DAY MINIMUM	26	Sep 4	28	Oct 4	26	Sep 4, 2003
MAXIMUM PEAK FLOW	---		32,500	May 30	78,300	Jul 23, 1993
MAXIMUM PEAK STAGE	---		19.85	May 30	26.16	Jul 23, 1993
INSTANTANEOUS LOW FLOW	---		24	Oct 9,10	20	Sep 7, 2002, Jan 2, 2003
ANNUAL RUNOFF (INCHES)	2.57		7.45		8.78	
10 PERCENT EXCEEDS	442		1,640		2,100	
50 PERCENT EXCEEDS	78		354		327	
90 PERCENT EXCEEDS	30		43		60	

e Estimated

06817700 NODAWAY RIVER NEAR GRAHAM, MO—Continued



06817700 NODAWAY RIVER NEAR GRAHAM, MO—Continued
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1989 to October 1989, November 1992 to current year.

REMARKS.--This site replaced Nodaway River near Oregon, Missouri (06817800), which was discontinued June 1989.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as $CaCO_3$ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
NOV												
13...	1225	Environmental	68	12.1	95	8.3	416	5.0	180	49.8	13.6	8.55
JAN												
14...	1255	Environmental	51	19.6	136	7.9	504	0.5	--	--	--	--
MAR												
11...	1300	Environmental	544	11.7	97	8.1	380	7.0	--	--	--	--
MAY												
04...	1120	Environmental	270	10.7	104	8.6	428	14.0	190	52.5	13.8	2.30
04...	1121	Blank	--	--	--	--	--	--	--	0.03	<0.008	<0.16
JUL												
21...	1220	Environmental	419	8.1	103	8.6	394	27.5	--	--	--	--
SEP												
21...	1220	Environmental	410	8.7	101	8.2	276	21.0	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as $CaCO_3$ (00410)	ANC, wat unf incrm. titr., field, mg/L as $CaCO_3$ (00419)	Bicarbonate, wat unf incrm. titr., field, mg/L (00450)	Carbonate, wat unf incrm. titr., field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NOV													
13...	9.96	140	140	171	<1	14.3	0.3	35.0	254	24	1.5	0.54	2.65
JAN													
14...	--	183	182	222	<1	--	--	--	--	<10	0.39	<0.04	2.62
MAR													
11...	--	112	109	133	<1	--	--	--	--	210d	1.2	0.06	8.28d
MAY													
04...	9.82	148	147	164	8	12.2	0.3	28.4	247	23	0.69	--b	--b
04...	<0.10	--	--	--	--	<0.20	<0.2	<0.2	<10	<10	<0.10	<0.04	<0.06
JUL													
21...	--	147	148	174	3	--	--	--	--	114d	1.3	<0.04	3.30
SEP													
21...	--	112	112	137	<1	--	--	--	--	239	1.7	<0.04	1.20

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/ 100 mL (31625)	Fecal streptococci KF MF, col/ 100 mL (31673)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Copper, water, fltrd, µg/L (01040)
NOV													
13...	0.022	0.18	0.20	0.28	--u	300	240	3	502	2.5	E.03n	0.07	2.3
JAN													
14...	0.016	0.04	0.04	0.08	35k	72	120	--	--	--	--	--	--
MAR													
11...	0.034	0.13	0.15	0.43	--u	220k	94k	--	--	--	--	--	--
MAY													
04...	--b	--b	--b	0.15	3k	27k	100	2	289	2.0	E.02n	E.03n	1.3
04...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	E2n	<0.2	<0.04	<0.04	<0.4
JUL													
21...	0.030	0.13	0.15	0.38	30k	310	190	--	--	--	--	--	--
SEP													
21...	E.005n	0.12	0.14	0.64	2,800	3,400	1,000	--	--	--	--	--	--

06817700 NODAWAY RIVER NEAR GRAHAM, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover -able, µg/L (71900)	Selenium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV								
13...	<6	<0.08	0.83	59.5	<0.02	1.2	<0.6	3
JAN								
14...	--	--	--	--	--	--	--	--
MAR								
11...	--	--	--	--	--	--	--	--
MAY								
04...	<6	<0.08	0.50	10.1	<0.02	1.6	M	E2n
04...	<6	<0.08	<0.06	<0.8	<0.02	<0.4	Mn	<2
JUL								
21...	--	--	--	--	--	--	--	--
SEP								
21...	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
b -- Value extrapolated at low end
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
b -- Sample broken/spilled in shipment
u -- Unable to determine-matrix interference

06818000 MISSOURI RIVER AT ST. JOSEPH, MO

LOCATION.--Lat 39°45'12", long 94°51'25", in NW ¼ SW ¼ sec.17, T.57 N., R.35 W., Buchanan County, Hydrologic Unit 10240011, on left bank at left abutment of St. Joseph and Grand Island Railroad Bridge in St. Joseph, and at mile 448.2.

DRAINAGE AREA.--420,100 mi^2. The 3,959 mi^2 in Great Divide basin are not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Gage-height records collected in vicinity 1873-99 are contained in reports of the Missouri River Commission; since 1900 in reports of the National Weather Service.

REVISED RECORDS.--WDR MO-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 788.19 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 21, 1931 nonrecording gage and from Oct. 21, 1931, to Dec. 31, 1933, water-stage recorder, both at same site at datum 5.50 ft higher.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are fair. Some regulation from many upstream reservoirs. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 397,000 ft^3/s, Apr. 22, 1952; maximum gage-height, 32.07 ft; July 26, 1993; minimum discharge, 2,300 ft^3/s, Jan. 9, 1937.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 29, 1881, reached a stage of 27.2 ft, present datum, discharge, about 370,000 ft^3/s, computed by the U.S. Army Corps of Engineers. Flood of June 1844 reached a stage of 24.5 ft, discharge, about 350,000 ft^3/s, computed by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31,200	32,300	18,900	22,700	17,600	36,300	40,600	33,800	73,600	40,400	35,500	31,700
2	31,100	32,600	18,600	22,000	17,900	42,700	39,000	33,300	65,700	40,000	35,000	31,400
3	31,200	34,500	19,200	21,300	18,900	46,200	36,900	33,100	62,500	40,100	34,000	31,100
4	31,800	39,900	19,900	21,300	e19,300	44,400	35,200	33,200	58,300	43,100	33,800	30,700
5	31,900	43,200	20,200	20,900	19,700	49,100	33,700	34,700	57,400	44,800	39,400	30,700
6	31,300	39,100	20,200	20,400	20,700	53,300	32,900	35,900	54,600	48,900	45,700	31,100
7	31,600	36,800	19,800	19,000	21,300	46,100	32,200	35,800	51,900	48,800	39,500	32,300
8	31,800	36,200	19,300	17,500	20,800	44,800	32,300	35,600	51,800	47,000	36,900	33,000
9	31,900	35,600	19,300	16,600	20,200	40,400	31,900	35,600	51,000	47,100	35,600	32,400
10	31,800	35,000	18,900	16,300	20,300	36,500	31,900	e37,500	49,300	52,600	34,700	31,600
11	32,000	34,700	18,900	16,800	20,500	33,800	32,000	e38,500	48,100	58,100	34,300	31,300
12	32,800	34,800	18,500	17,700	20,300	31,300	31,700	40,400	47,700	65,200	33,800	31,300
13	33,600	34,500	17,500	18,800	20,700	29,100	31,900	40,200	57,700	54,800	33,100	31,600
14	34,000	34,500	17,100	19,400	21,500	27,500	32,400	39,600	70,400	49,400	33,100	31,700
15	34,400	34,400	17,100	19,800	21,800	26,000	32,400	40,300	61,200	47,200	32,700	31,900
16	34,300	34,300	18,000	20,600	21,400	24,800	32,300	40,000	58,400	54,800	32,600	31,900
17	33,700	34,300	19,300	21,200	20,800	24,900	31,700	37,900	55,900	52,700	32,200	33,100
18	33,700	35,000	20,400	21,000	21,000	25,700	31,300	38,700	53,800	46,300	31,800	36,300
19	33,000	35,900	20,800	21,500	21,200	25,800	31,600	47,300	60,900	43,500	31,400	40,000
20	32,400	35,200	20,800	21,600	21,300	25,600	32,000	44,600	59,200	41,800	31,500	40,800
21	32,200	34,400	20,800	21,000	22,600	24,600	31,900	42,200	54,200	40,700	31,400	39,200
22	32,100	32,600	21,200	20,500	26,100	24,400	32,400	41,400	54,400	40,000	31,500	38,700
23	32,400	30,300	21,600	20,600	27,300	24,700	32,700	40,600	53,700	40,800	31,000	42,000
24	32,100	28,200	21,100	21,000	28,700	25,900	33,100	76,100	50,000	43,200	31,900	40,700
25	32,000	25,900	20,400	21,300	29,900	27,900	34,100	102,000	47,000	40,200	35,100	39,600
26	32,100	23,600	20,400	21,600	32,400	29,700	35,500	95,100	45,300	38,700	36,000	39,700
27	32,100	21,500	20,400	22,200	31,200	30,500	35,800	80,700	43,900	37,600	38,500	41,800
28	32,200	19,800	20,400	22,400	29,500	35,800	36,000	69,900	42,900	36,700	39,400	42,300
29	32,200	19,100	20,900	21,200	30,000	46,100	35,200	62,200	41,800	36,500	34,400	40,100
30	32,300	19,300	21,800	19,900	---	43,800	35,200	83,800	40,800	36,400	32,900	38,500
31	32,400	---	22,800	18,700	---	42,500	---	104,000	---	35,600	32,400	---
MEAN	32,370	32,250	19,820	20,220	22,930	34,520	33,590	50,130	54,110	44,940	34,550	35,280
MAX	34,400	43,200	22,800	22,700	32,400	53,300	40,600	104,000	73,600	65,200	45,700	42,300
MIN	31,100	19,100	17,100	16,300	17,600	24,400	31,300	33,100	40,800	35,600	31,000	30,700
IN.	0.09	0.09	0.05	0.06	0.06	0.09	0.09	0.14	0.14	0.12	0.09	0.09

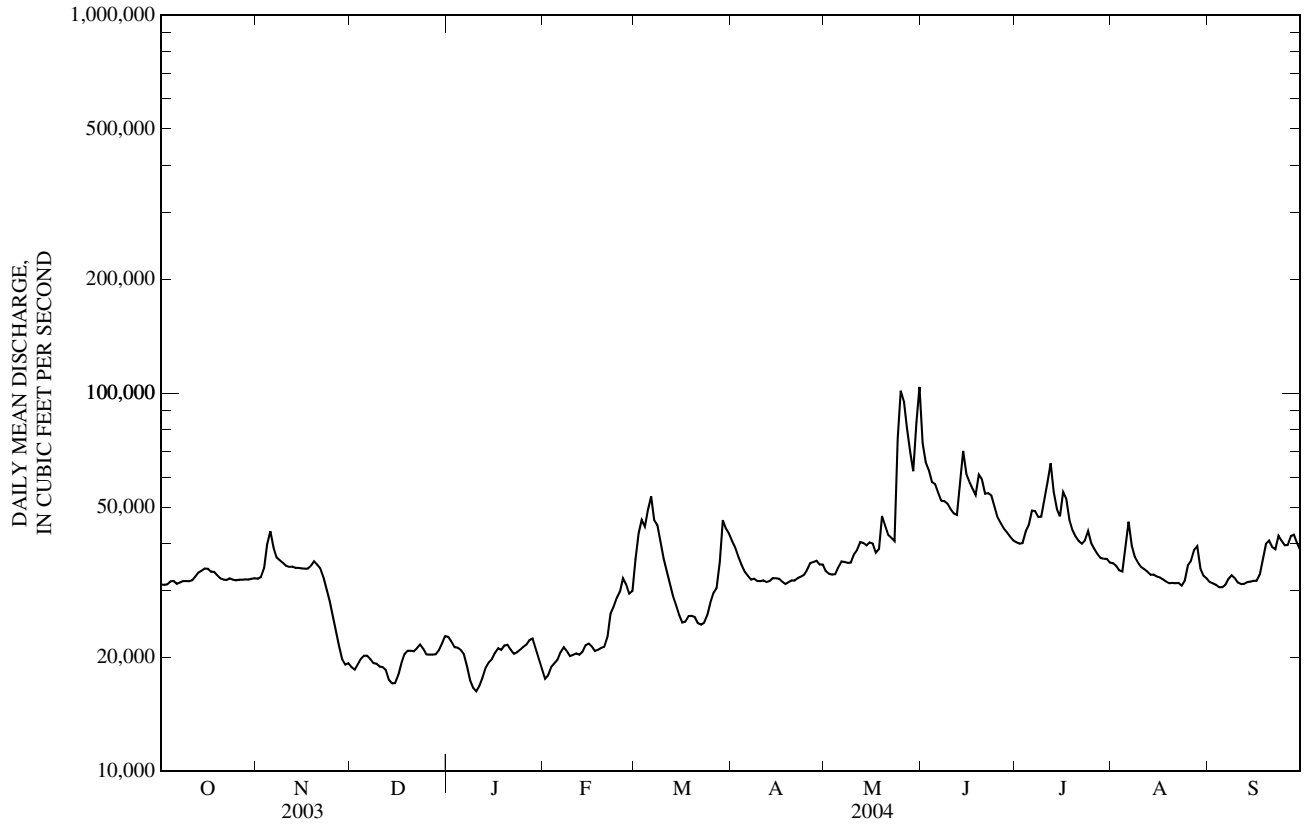
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2004[a], BY WATER YEAR (WY)

MEAN	47,750	44,830	30,540	25,420	31,820	45,290	56,000	58,110	61,530	56,190	47,920	48,500
MAX	87,650	85,040	61,820	45,740	60,570	96,800	113,600	106,600	144,700	195,400	83,050	79,160
(WY)	(1987)	(1998)	(1987)	(1973)	(1983)	(1979)	(1984)	(1997)	(1984)	(1993)	(1996)	(1997)
MIN	30,290	18,510	11,560	12,210	15,790	19,490	32,920	36,390	35,620	31,450	30,900	32,660
(WY)	(1962)	(1991)	(1964)	(1959)	(1964)	(1964)	(1990)	(1958)	(1958)	(2002)	(2003)	(2003)

06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1958 - 2004[a]	
ANNUAL MEAN	32,440		34,580		46,190	
HIGHEST ANNUAL MEAN					76,050	1997
LOWEST ANNUAL MEAN					30,960	1963
HIGHEST DAILY MEAN	72,300	Jun 13	104,000	May 31	328,000	Jul 26, 1993
LOWEST DAILY MEAN	17,100	Jan 20,Dec 14,15	16,300	Jan 10	4,000	Jan 17, 1963
ANNUAL SEVEN-DAY MINIMUM	17,900	Jan 15	17,500	Jan 7	5,030	Dec 15, 1963
MAXIMUM PEAK FLOW	---		123,000	May 30	335,000	Jul 26, 1993
MAXIMUM PEAK STAGE	---		20.40	May 30	32.07	Jul 26, 1993
INSTANTANEOUS LOW FLOW	---		16,200	Jan 10	4,000	Jan 17, 1963
ANNUAL RUNOFF (INCHES)	1.05		1.12		1.49	
10 PERCENT EXCEEDS	47,000		49,600		72,200	
50 PERCENT EXCEEDS	32,600		32,700		41,600	
90 PERCENT EXCEEDS	19,800		20,200		21,700	

e Estimated
[a] Post-regulation period.



06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1969 to July 1992, November 1992 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May 1984 to December 1984, July 1985 to September 1985, April 1986 to September 1986.
DISSOLVED OXYGEN: May 1984 to November 1984, July 1985 to September 1985, April 1986 to September 1986.

INSTRUMENTATION.--Water-quality monitor, May 1984 to December 1984, July 1985 to September 1985, April 1986 to September 1986.

REMARKS.--National Stream-Quality Accounting Network station October 1974 to September 1986. Ambient Water-Quality Monitoring Network station October 1969 to July 1992, November 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as $CaCO_3$ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT												
15...	1230	Environmental	34,500	7.9	85	8.4	750	17.5	--	--	--	--
NOV												
12...	1100	Environmental	35,100	11.7	98	8.5	719	7.0	240	57.3	22.6	4.99
DEC												
12...	1100	Environmental	18,600	14.2	101	8.4	748	1.0	--	--	--	--
JAN												
15...	1155	Environmental	19,800	13.9	103	8.2	769	2.5	280	69.8	24.6	5.46
15...	1220	Blank	--	--	--	--	--	--	--	E.01n	<0.008	<0.16
FEB												
18...	1050	Environmental	21,000	13.8	100	8.3	777	2.0	--	--	--	--
MAR												
12...	1045	Environmental	31,300	10.1	83	8.1	573	6.5	--	--	--	--
APR												
19...	1125	Environmental	31,600	9.6	101	8.7	713	17.5	--	--	--	--
MAY												
03...	1245	Environmental	33,100	9.8	99	8.6	727	15.5	260	65.4	23.8	5.68
JUN												
25...	1015	Environmental	47,100	6.8	80	8.2	671	23.0	--	--	--	--
25...	1115	Blank	--	--	--	--	--	--	--	--	--	--
JUL												
22...	1115	Environmental	40,000	6.8	88	8.4	728	29.0	270	66.8	24.1	5.85
AUG												
27...	1120	Environmental	37,400	6.5	80	8.4	671	26.0	--	--	--	--
SEP												
23...	1050	Environmental	42,600	7.2	85	8.2	652	22.0	--	--	--	--

06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as $CaCO_3$ (00410)	ANC, wat unf incrm. titr., field, mg/L as $CaCO_3$ (00419)	Bicar-bonate, wat unf incrm. titr., field, mg/L (00450)	Carbon-ate, wat unf incrm. titr., field, mg/L (00447)	Chlor-ide, water, fltrd, mg/L (00940)	Fluor-ide, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus-pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
OCT													
15...	--	167	166	197	3	--	--	--	--	65	0.61	<0.04	0.14
NOV													
12...	62.7	173	173	201	5	17.6	0.6	167	465	42	0.52	E.02n	0.55
DEC													
12...	--	240	241	285	5	--	--	--	--	62	0.59	0.09	0.85
JAN													
15...	65.1	199	198	242	<1	27.1	0.5	157	483	15	0.34	0.06	0.99
15...	<0.10	--	--	--	--	<0.20	<0.2	<0.2	<10	<10	<0.10	<0.04	<0.06
FEB													
18...	--	185	185	226	<1	--	--	--	--	28	0.40	0.05	0.91
MAR													
12...	--	169	172	210	<1	--	--	--	--	278d	2.6	0.34	4.48
APR													
19...	--	184	183	213	5	--	--	--	--	169d	1.0	<0.04	0.78
MAY													
03...	55.2	186	185	216	5	21.9	0.5	146	475	121	<0.10	<0.04	1.76
JUN													
25...	--	178	175	213	<1	--	--	--	--	371d	1.6	<0.04	2.94
25...	--	--	--	--	--	--	--	--	--	<10	<0.10	<0.04	<0.06
JUL													
22...	51.0	190	190	225	2	19.0	0.6	144	460	283d	1.0	<0.04	2.44
AUG													
27...	--	169	170	207	<1	--	--	--	--	300d	1.3	E.03n	0.50
SEP													
23...	--	171	168	205	<1	--	--	--	--	232	1.1	E.02n	1.71

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli-form, M-FC 0.7µ MF col/ 100 mL (31625)	Fecal strep-tococci KF MF, col/ 100 mL (31673)	Alum-inum, water, fltrd, µg/L (01106)	Alum-inum, water, unfltrd recover -able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Copper, water, fltrd, µg/L (01040)
OCT													
15...	0.009	0.02	E.02n	0.14	90	120	29k	--	--	--	--	--	--
NOV													
12...	0.014	0.05	0.04	0.15	--u	180	34k	2	917	2.4	E.03n	0.09	1.5
DEC													
12...	0.017	0.06	0.08	0.18	450	400	170	--	--	--	--	--	--
JAN													
15...	0.020	0.06	0.05	0.11	14k	96	130	E1n	557	2.3	E.03n	0.08	1.9
15...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.2	<0.04	<0.04	<0.4
FEB													
18...	0.022	0.07	0.08	0.16	<3b	7k	6k	--	--	--	--	--	--
MAR													
12...	0.079	0.18	0.21	0.78	--u	190	40k	--	--	--	--	--	--
APR													
19...	E.007n	0.02	E.03n	0.22	--u	51k	10k	--	--	--	--	--	--
MAY													
03...	0.009	0.06	0.07	<0.04	--u	28k	73	E2n	1,050d	3.2	E.03n	0.12	2.7
JUN													
25...	0.021	0.10	0.11	0.70	1,400	1,000	690	--	--	--	--	--	--
25...	<0.008	<0.02	<0.04	<0.04	--	--	--	--	--	--	--	--	--
JUL													
22...	E.007n	0.12	0.13	0.46	--u	250	210	3	2,990d	3.9	E.03n	0.19	2.5
AUG													
27...	E.004n	0.05	0.06	0.41	1,900k	1,500k	700	--	--	--	--	--	--
SEP													
23...	0.024	0.09	0.10	0.45	--u	1,100	430	--	--	--	--	--	--

06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover -able, µg/L (71900)	Selenium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
OCT								
15...	--	--	--	--	--	--	--	--
NOV								
12...	<6	<0.08	1.96	1.6	<0.02	1.8	Mn	8
DEC								
12...	--	--	--	--	--	--	--	--
JAN								
15...	E5n	0.27	2.47	4.2	<0.02	2.4	2	7
15...	<6	<0.08	<0.06	<0.8	<0.02	<0.4	<0.6	<2
FEB								
18...	--	--	--	--	--	--	--	--
MAR								
12...	--	--	--	--	--	--	--	--
APR								
19...	--	--	--	--	--	--	--	--
MAY								
03...	<6	<0.08	1.93	E.8n	<0.02	3.0	1	9
JUN								
25...	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--
JUL								
22...	<6	<0.08	5.07	E.4n	E.01n	2.6	Mn	20
AUG								
27...	--	--	--	--	--	--	--	--
SEP								
23...	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
b -- Value extrapolated at low end
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
u -- Unable to determine-matrix interference

06819500 ONE HUNDRED AND TWO RIVER AT MARYVILLE, MO

LOCATION.--Lat 40°20'44", long 94°49'56", in SW $^1/_4$ SW $^1/_4$ sec.15, T.64 N., R.35 W., Nodaway County, Hydrologic Unit 10240013, on right bank 150 ft upstream from bridge on U.S. Highway 136, 0.3 mi downstream from Thill Branch, 1 mi east of Maryville, and at mile 64.0.

DRAINAGE AREA.--515 mi^2.

PERIOD OF RECORD.--October 1932 to September 1990, March 22, 2001 to current year. April to June 1934 monthly discharge only published in WSP 1310. June 1934 to September 1971 published as "near Maryville".

GAGE.--Water-stage recorder. Datum of gage is 954.65 ft above National Geodetic Vertical Datum of 1929. Nonrecording gage prior to Sept. 15, 1958. Prior to June 20, 1934, at site 20 ft upstream and datum 10 ft higher. June 20, 1934 to July 19, 1971, at site 3 mi upstream at datum 15.68 ft higher. July 20, 1971 to September 1990, at site 20 ft upstream and datum 10 ft higher.

REMARKS.--Records good except for the period Oct. 1-21, which is fair, and discharges above 5,000 ft^3/s and estimated daily discharges, which are poor. Some regulation at low flow by City Waterworks. U.S.G.S. satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of September 16, 1926 reached a stage of 25 ft, present datum from floodmark; discharge, 14,500 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	e1.0	9.1	23	e7.5	e104	349	73	1,740	106	65	132
2	12	e1.0	9.9	20	e7.5	180	280	69	1,200	125	58	108
3	12	e110	18	15	e7.5	135	245	64	911	217	50	87
4	3.4	192	20	5.7	e7.5	311	219	61	743	181	4,280	65
5	1.9	427	17	e5.0	e8.0	3,940	200	60	627	224	1,320	57
6	1.4	92	15	e4.5	e7.5	1,120	e187	60	557	181	401	92
7	0.98	41	13	e4.5	e7.5	512	168	56	497	134	203	60
8	1.1	24	13	e5.0	e6.5	289	152	52	412	114	144	47
9	0.95	15	21	e6.0	e6.5	201	138	474	341	1,360	114	39
10	0.70	12	12	e6.0	e7.0	158	127	206	347	1,880	96	32
11	1.4	11	26	e6.0	e7.5	131	120	167	378	1,130	81	29
12	2.3	10	43	e6.5	e7.5	105	115	115	987	4,420	72	26
13	2.8	9.3	35	e6.5	e7.5	98	111	227	3,550	822	66	24
14	3.0	9.1	28	e6.5	e7.5	108	106	825	2,390	538	60	22
15	2.7	9.1	25	e6.8	e7.5	101	102	419	1,450	316	56	22
16	2.3	8.7	23	e7.0	e7.5	105	99	256	825	4,430	47	21
17	1.6	9.2	18	e9.0	e7.5	143	94	198	554	1,290	43	19
18	e1.3	9.4	23	e10	e8.0	252	87	4,770	433	456	40	1,100
19	1.1	9.6	19	e9.0	e10	289	86	2,870	356	243	38	1,100
20	1.4	9.7	17	e8.5	e100	212	87	1,030	294	167	56	156
21	1.4	9.7	23	e8.5	e1,300	160	92	607	373	132	85	79
22	e1.3	9.5	24	e10	745	123	99	418	813	119	82	57
23	e1.3	11	15	e9.0	510	119	81	3,800	305	139	83	45
24	e1.2	8.3	12	e10	356	119	75	2,720	218	139	186	37
25	e1.2	8.6	21	e10	130	115	86	7,570	182	125	1,170	33
26	e1.1	9.3	28	e10	78	227	95	1,600	161	97	1,880	29
27	e1.1	9.2	26	e8.5	77	1,500	78	1,950	149	79	5,860	26
28	e1.3	8.0	22	e8.0	85	5,660	67	3,610	140	72	1,260	23
29	e1.2	7.6	25	e8.0	85	1,360	65	1,090	128	76	481	20
30	e1.1	9.1	27	e7.5	---	738	68	12,900	114	73	258	19
31	e1.1	---	23	e7.5	---	482	---	3,440	---	145	172	---
MEAN	2.54	36.7	21.0	8.63	124	616	129	1,670	706	630	607	120
MAX	12	427	43	23	1,300	5,660	349	12,900	3,550	4,430	5,860	1,100
MIN	0.70	1.0	9.1	4.5	6.5	98	65	52	114	72	38	19
IN.	0.01	0.08	0.05	0.02	0.26	1.38	0.28	3.74	1.53	1.41	1.36	0.26

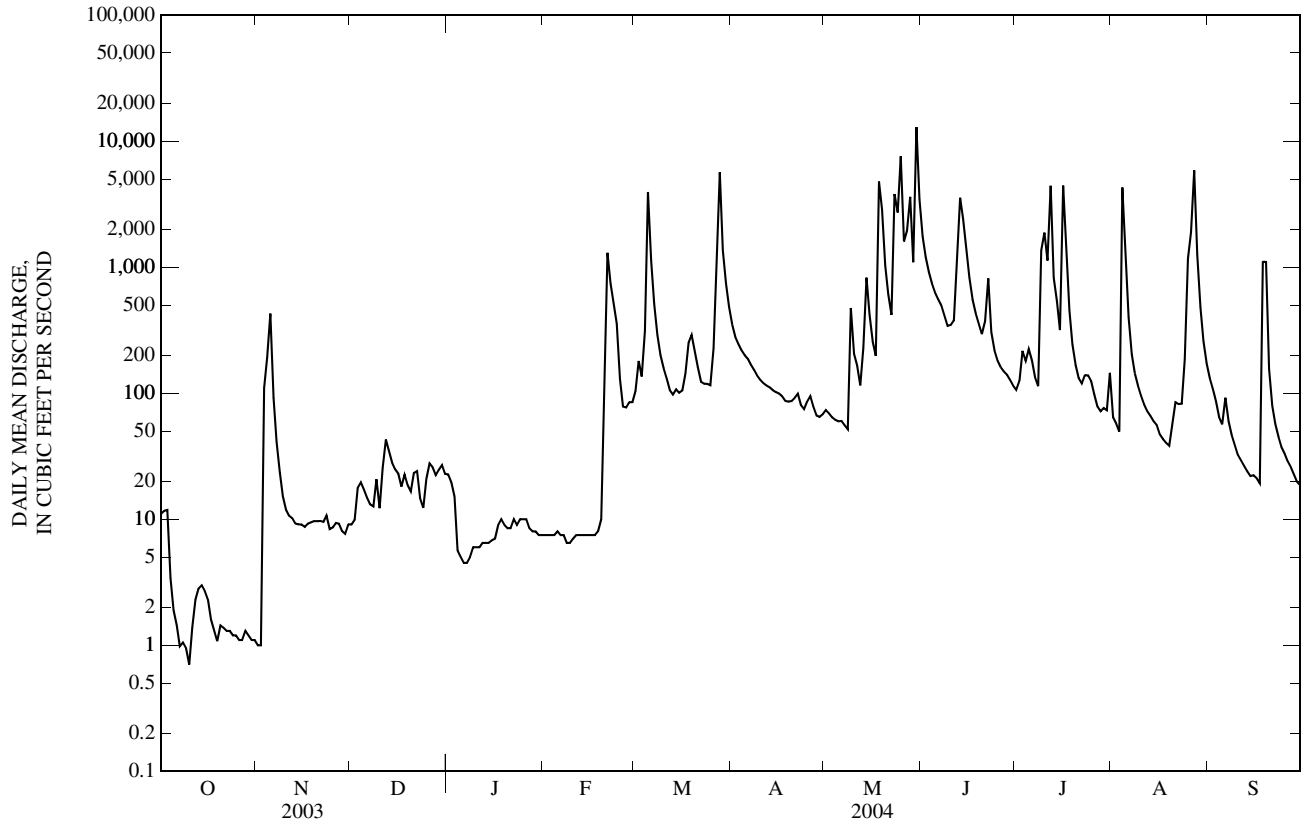
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	142	113	78.8	97.6	225	410	327	433	476	219	136	160
MAX	1,897	945	818	1,186	1,240	1,874	1,655	2,242	3,187	1,452	992	1,312
(WY)	(1974)	(1942)	(1983)	(1960)	(1973)	(1979)	(1984)	(1982)	(1947)	(1986)	(1982)	(1977)
MIN	0.05	0.59	1.12	0.11	2.09	3.42	0.74	0.11	5.18	0.50	0.18	0.03
(WY)	(1989)	(1989)	(1989)	(1977)	(1989)	(1954)	(1956)	(1989)	(1988)	(1989)	(1988)	(1988)

06819500 ONE HUNDRED AND TWO RIVER AT MARYVILLE, MO—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	41.6		392		234	
HIGHEST ANNUAL MEAN					658	1982
LOWEST ANNUAL MEAN					18.6	1934
HIGHEST DAILY MEAN	1,670	May 9	12,900	May 30	25,500	Oct 12, 1973
LOWEST DAILY MEAN	0.70	Oct 10	0.70	Oct 10	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	1.1	Oct 27	1.1	Oct 27	0.00	1977,1988
MAXIMUM PEAK FLOW	---		18,700	May 30	28,000	Oct 12, 1973
MAXIMUM PEAK STAGE	---		22.00	May 30	22.00	May 30, 2004
INSTANTANEOUS LOW FLOW	---		0.55[a]	Oct 10,11	0.00	Several Years
ANNUAL RUNOFF (INCHES)	1.10		10.37		6.17	
10 PERCENT EXCEEDS	80		1,050		462	
50 PERCENT EXCEEDS	12		72		29	
90 PERCENT EXCEEDS	3.1		6.0		2.7	

e Estimated
[a] Miminum recorded, may have been less during period of estimated record, Oct. 22-Nov. 3.



06820500 PLATTE RIVER NEAR AGENCY, MO

LOCATION.--Lat 39°41'17", long 94°42'09", in NE $^1/_4$ NW $^1/_4$ sec.10, T.56 N., R.34 W., Buchanan County, Hydrologic Unit 10240012, on left bank 10 ft downstream from bridge of U.S. Highway 169, 1.5 mi downstream from Third Fork, 3.5 mi northeast of Agency, and at mile 66.8.

DRAINAGE AREA.--1,760 mi^2.

PERIOD OF RECORD.--May 1924 to August 1930, published as "at Agency"; May 1932 to current year.

GAGE.--Water-stage recorder. Datum of gage is 807.38 ft above National Geodetic Vertical Datum of 1929. May 22, 1924, to Aug. 9, 1930, nonrecording gage at site 4 mi downstream at different datum; May 13, 1932, to Nov. 14, 1965, nonrecording gage at same site and datum; Nov. 15, 1965, to Oct. 25, 1989, water-stage recorder at site 150 ft upstream at present datum.

REMARKS.--Records poor. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	14	27	76	56	366	901	422	11,700	408	397	626
2	19	20	25	76	56	369	709	226	3,200	557	422	508
3	15	21	61	71	51	417	591	172	1,670	1,350	355	432
4	14	22	67	65	55	655	515	154	1,220	646	333	376
5	16	365	58	65	65	2,080	454	142	1,020	543	2,970	352
6	15	822	53	60	68	5,520	413	116	898	484	1,860	504
7	15	631	51	48	67	2,120	375	104	802	578	762	347
8	16	299	51	e42	49	1,140	352	101	720	451	509	383
9	18	192	115	e41	52	769	325	98	659	392	396	305
10	15	148	120	e40	51	604	298	456	663	1,890	328	268
11	27	131	106	e39	52	480	276	568	645	2,270	285	244
12	33	108	107	e36	47	402	253	445	1,120	6,960	273	225
13	44	92	147	e39	41	359	238	404	10,900	5,160	240	210
14	101	73	207	e37	43	350	229	361	13,200	1,490	223	197
15	80	62	218	e36	40	302	217	799	6,320	936	208	204
16	58	60	170	e35	44	295	209	733	2,840	13,200	197	196
17	56	64	133	e36	e35	294	199	537	2,390	18,800	189	184
18	49	61	128	e41	e49	327	192	1,180	1,980	9,860	179	6,240
19	32	43	117	48	e90	454	186	9,900	1,500	2,360	171	5,360
20	25	39	110	50	288	563	193	5,630	1,040	1,350	174	1,940
21	23	35	103	55	467	496	183	1,770	864	973	168	812
22	24	36	107	53	2,990	417	179	1,120	896	829	164	516
23	20	35	113	53	1,490	357	244	3,150	958	729	201	389
24	16	31	101	e54	1,120	303	236	7,150	749	747	445	323
25	14	30	90	e59	902	278	206	10,100	829	750	1,000	281
26	14	30	87	e70	578	272	186	10,700	574	656	1,780	252
27	12	33	81	e65	435	414	182	3,310	505	575	2,870	234
28	11	30	81	e55	367	4,780	196	3,350	475	508	12,300	219
29	10	28	81	e52	345	8,030	177	3,960	439	459	4,580	204
30	9.9	30	78	49	---	2,410	267	7,980	409	441	1,300	195
31	8.9	---	73	48	---	1,290	---	15,600	---	427	839	---
MEAN	27.0	120	98.9	51.4	345	1,191	306	2,927	2,373	2,477	1,165	751
MAX	101	822	218	76	2,990	8,030	901	15,600	13,200	18,800	12,300	6,240
MIN	8.9	14	25	35	35	272	177	98	409	392	164	184
IN.	0.02	0.08	0.06	0.03	0.21	0.78	0.19	1.92	1.50	1.62	0.76	0.48

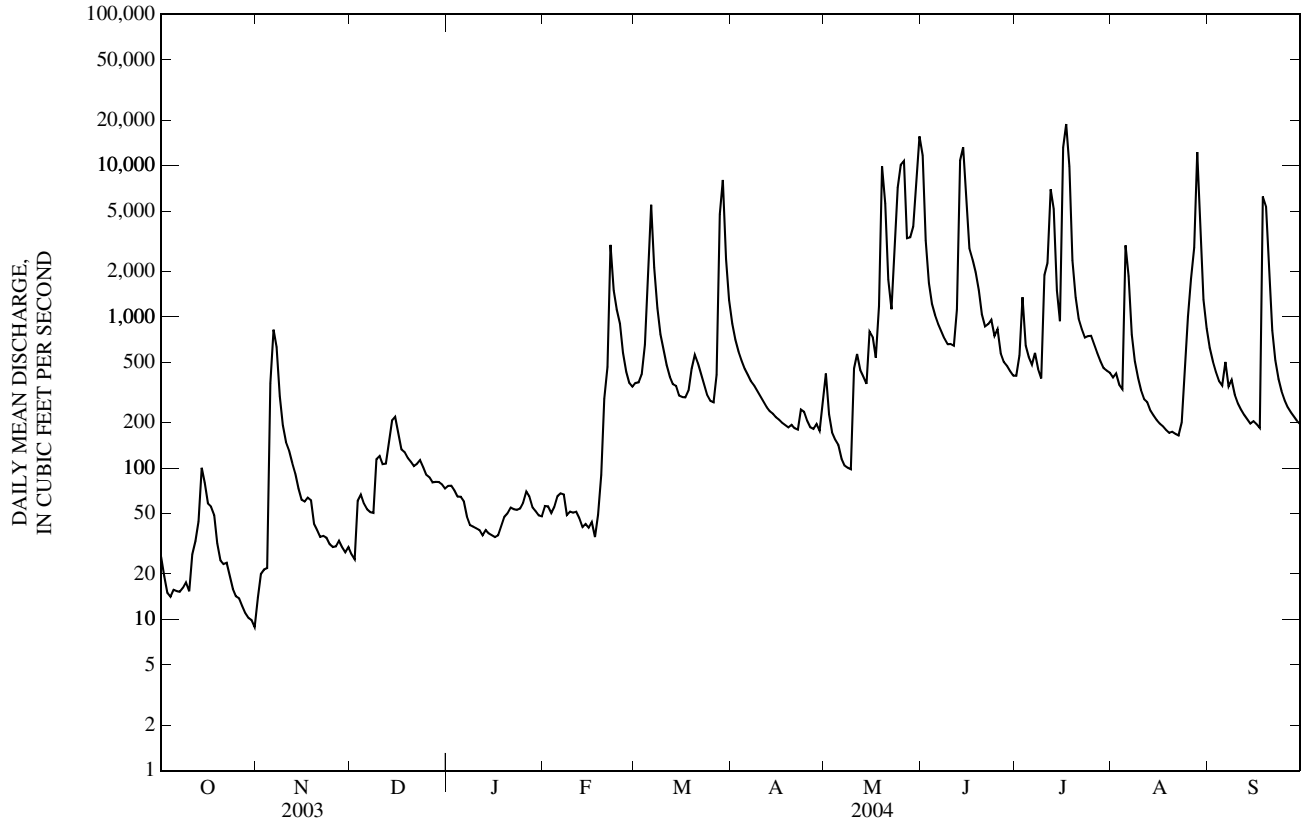
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	629	544	367	367	826	1,341	1,475	1,668	1,999	1,184	450	865
MAX	8,584	4,620	3,248	3,714	4,912	6,345	6,835	10,020	13,640	21,280	2,935	7,853
(WY)	(1974)	(1962)	(1983)	(1974)	(1973)	(1979)	(1973)	(1995)	(1947)	(1993)	(1987)	(1926)
MIN	0.02	6.14	5.59	2.72	14.0	12.7	9.89	26.9	41.7	10.2	2.62	6.76
(WY)	(1957)	(1956)	(1939)	(1940)	(1940)	(1938)	(1956)	(1956)	(1988)	(1936)	(1934)	(1955)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	143		990		976	
HIGHEST ANNUAL MEAN					4,108	1993
LOWEST ANNUAL MEAN					67.4	1934
HIGHEST DAILY MEAN	2,520	May 10	18,800	Jul 17	57,500	Jul 25, 1993
LOWEST DAILY MEAN	5.8	Aug 26	8.9	Oct 31	0.00	At Times
ANNUAL SEVEN-DAY MINIMUM	6.9	Aug 23	11	Oct 25	0.00	At Times
MAXIMUM PEAK FLOW	---		19,900	Jul 17	60,800	Jul 25, 1993
MAXIMUM PEAK STAGE	---		26.93	Jul 17	36.07	Jul 25, 1993
INSTANTANEOUS LOW FLOW	---		8.5	Oct 31	0.00	At Times
ANNUAL RUNOFF (INCHES)	1.11		7.66		7.54	
10 PERCENT EXCEEDS	348		2,160		2,100	
50 PERCENT EXCEEDS	56		242		195	
90 PERCENT EXCEEDS	17		33		24	

e Estimated

06820500 PLATTE RIVER NEAR AGENCY, MO—Continued



06821080 LITTLE PLATTE RIVER NEAR PLATTSBURG, MO

LOCATION.--Lat 39°34'04", long 94°24'25", in SE $^1/_4$ NW $^1/_4$ sec.20, T.55 N., R.31 W., Clinton County, Hydrologic Unit 10240012, on U.S. Highway 116 bridge, 0.4 mi east of the junction with U.S. Highway 33, and 2.5 mi east of Plattsburg.

DRAINAGE AREA.--65.4 mi^2.

PERIOD OF RECORD.--Oct. 1, 1999 to Sept. 30, 2000, Oct. 1, 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage unknown.

REMARKS.--Records fair except for estimated daily discharges, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.06	0.40	0.00	0.06	0.00	1.0	1.2	11	26	5.9	0.00	0.25
2	0.05	0.38	0.00	0.01	0.00	1.7	0.61	3.7	14	6.3	0.04	0.02
3	0.03	0.38	0.02	0.01	e0.00	2.8	0.31	1.1	9.7	16	0.04	0.00
4	0.03	0.38	0.09	0.14	e0.00	552	0.15	0.33	7.5	19	0.19	0.00
5	0.02	0.38	0.13	0.06	e0.00	528	0.07	0.15	6.1	12	0.08	26
6	0.01	0.35	0.13	0.00	e0.00	49	0.02	0.04	5.6	8.1	0.00	223
7	0.01	0.38	0.11	0.00	0.00	18	0.04	0.00	5.0	6.0	0.00	25
8	0.03	0.33	0.09	0.00	e0.00	11	0.04	0.00	4.7	5.1	0.00	8.5
9	0.02	0.25	6.6	0.00	e0.00	7.6	0.00	0.00	4.4	4.8	0.00	4.9
10	0.00	0.24	57	0.00	e0.10	5.6	0.00	1.3	268	4.2	0.00	3.2
11	0.02	0.25	13	0.00	e0.10	4.7	0.00	23	82	6.4	0.00	2.6
12	0.04	0.25	4.3	0.00	e0.10	3.9	0.00	1.9	222	41	0.00	2.2
13	0.03	0.25	2.3	0.00	e0.00	3.8	0.00	0.66	717	24	0.00	1.7
14	0.23	0.26	1.3	0.00	e0.10	5.1	0.00	0.71	62	23	0.00	1.7
15	0.25	0.25	0.95	0.00	e0.10	6.0	0.00	1.1	1,790	19	0.00	2.1
16	0.88	0.23	1.4	0.00	e0.00	9.7	0.00	0.92	492	283	0.00	11
17	1.4	0.33	2.3	0.06	e0.10	11	0.00	0.09	48	71	0.00	9.9
18	1.2	0.47	2.7	0.15	e2.0	8.1	0.00	61	194	7.6	0.00	2,090
19	1.1	0.48	14	0.04	e10	5.8	0.00	1,170	115	3.0	0.00	374
20	0.93	0.49	7.7	0.00	e65	5.1	0.17	108	34	1.6	0.00	25
21	0.78	0.48	3.8	0.00	27	4.3	0.43	29	22	0.88	0.00	11
22	0.71	0.49	5.2	0.00	13	3.7	0.58	16	17	0.63	0.00	7.8
23	0.65	4.4	12	0.00	7.2	4.2	0.62	24	12	0.46	0.00	6.3
24	0.59	1.7	6.5	0.00	4.2	5.0	0.61	33	10	1.0	19	5.3
25	0.59	0.47	3.3	0.00	2.5	4.9	0.40	14	14	1.7	162	4.9
26	0.58	0.14	1.8	0.00	1.5	5.5	0.44	9.0	12	2.4	112	e4.5
27	0.49	0.03	1.3	0.00	0.95	6.5	0.49	9.0	11	1.3	4.5	e4.2
28	0.48	0.00	1.1	0.00	0.68	125	0.50	24	9.2	0.53	310	e3.9
29	0.48	0.00	0.70	0.00	0.62	30	0.42	13	7.6	0.21	69	e3.6
30	0.48	0.00	0.44	0.00	---	5.8	12	1,370	6.5	0.06	4.1	e3.4
31	0.48	---	0.20	0.00	---	2.3	---	241	---	0.00	1.1	---
MEAN	0.41	0.48	4.85	0.02	4.66	46.4	0.64	102	141	18.6	22.0	95.5
MAX	1.4	4.4	57	0.15	65	552	12	1,370	1,790	283	310	2,090
MIN	0.00	0.00	0.00	0.00	0.00	1.0	0.00	0.00	4.4	0.00	0.00	0.00
IN.	0.01	0.01	0.09	0.00	0.08	0.82	0.01	1.80	2.41	0.33	0.39	1.63

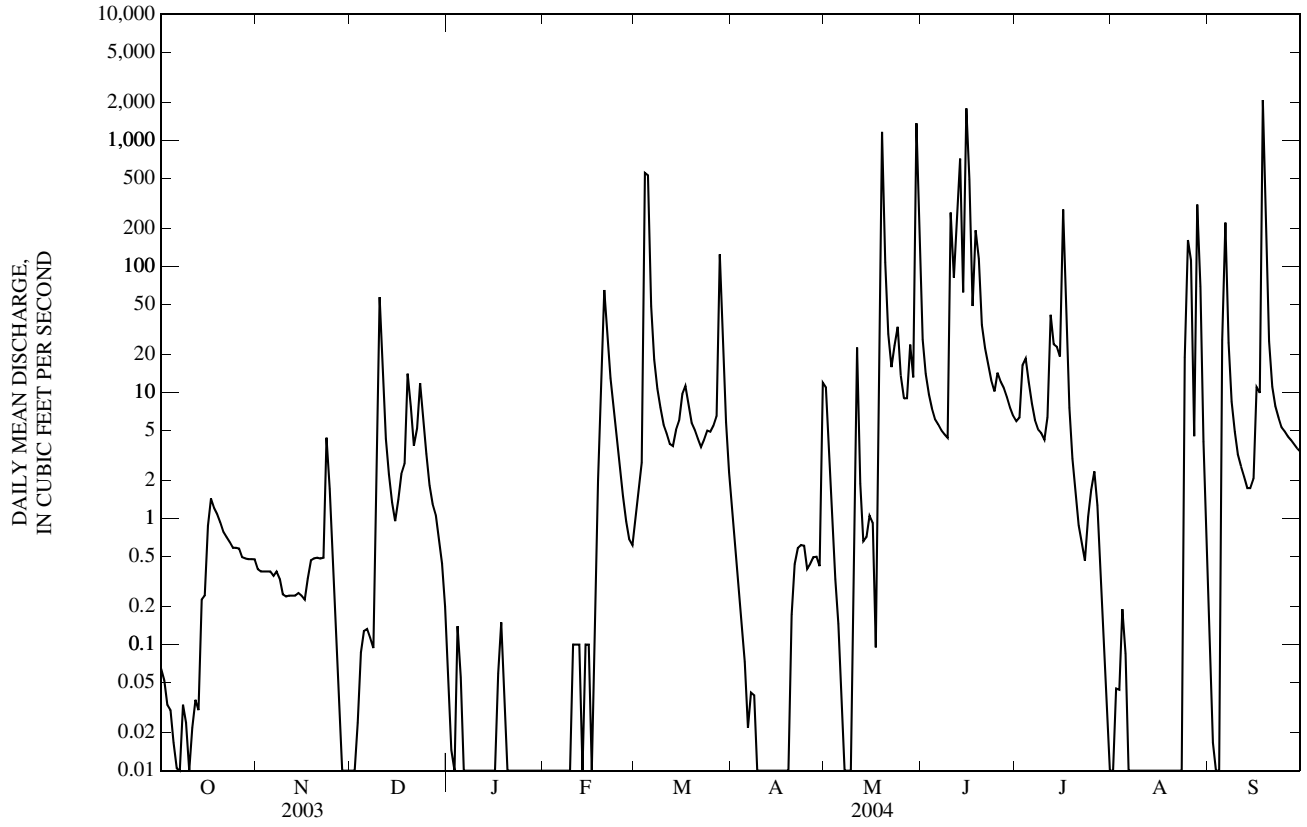
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	4.85	1.88	3.24	0.78	3.24	16.1	10.1	59.7	73.5	7.13	9.09	35.4
MAX	18.1	4.71	4.85	1.64	4.84	46.4	30.2	117	141	18.6	22.0	95.5
(WY)	(2002)	(2002)	(2004)	(2000)	(2002)	(2004)	(2002)	(2002)	(2004)	(2004)	(2004)	(2004)
MIN	0.00	0.11	0.03	0.02	0.13	0.42	0.64	5.72	3.37	0.00	0.02	0.00
(WY)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)	(2004)	(2003)	(2002)	(2003)	(2003)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	2.76		36.3		18.7	
HIGHEST ANNUAL MEAN					36.3	2004
LOWEST ANNUAL MEAN					2.29	2003
HIGHEST DAILY MEAN	251	Jun 13	2,090	Sep 18	2,180	Jun 24, 2000
LOWEST DAILY MEAN	0.00	Many Days	0.00	Many Days	0.00	Many Days 2002-2004
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 14,Feb 23,Jul 2	0.00	Jan 6,20,Apr 9,Aug 6	0.00	At Times 2002-2004
MAXIMUM PEAK FLOW			3,700	Jun 15	3,700	Jun 15, 2004
MAXIMUM PEAK STAGE			17.07	Jun 15	17.07	Jun 15, 2004
INSTANTANEOUS LOW FLOW			0.00	Many Days	0.00	Many Days 2002-2004
ANNUAL RUNOFF (INCHES)	0.57		7.56		3.89	
10 PERCENT EXCEEDS	4.4		26		13	
50 PERCENT EXCEEDS	0.23		0.71		1.1	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated

06821080 LITTLE PLATTE RIVER NEAR PLATTSBURG, MO—Continued



06821140 SMITHVILLE RESERVOIR NEAR SMITHVILLE, MO

LOCATION.--Lat 39°23'50", long 94°33'25", SW $^1/_4$ sec.13, T.53 N., R.33 W., Clay County, Hydrologic Unit 10240012, in control tower at outlet works on the Little Platte River, 1.0 mi northeast of Smithville, and 5.0 mi north of Kansas City.

DRAINAGE AREA.--213 mi^2.

PERIOD OF RECORD.--July 1981 to current year. Records collected at same site since 1976 are available from the U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by a rolled earthfill type dam. Storage began on July 13, 1976. An uncontrolled limited service type spillway, 50 ft wide, is located at the right abutment. Capacity of surcharge pool 182,209 ac-ft (elevation 876.2 ft to 891.1 ft); of flood control pool 101,800 ac-ft (elevation 864.2 to 876.2 ft); and of multipurpose pool 144,600 ac-ft (elevation 799.0 ft to 864.2 ft). Lake is used for flood control, water supply, water-quality control, recreation, and fish and wildlife enhancement. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 225,000 ac-ft, July 28, 1993, maximum elevation 874.31 ft; minimum, 2,360 ac-ft, Jan. 13, 1980, elevation, 819.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 164,000 ac-ft, June 19, elevation, 867.14 ft; minimum, 127,000 ac-ft, Nov. 14, elevation, 862.03 ft.

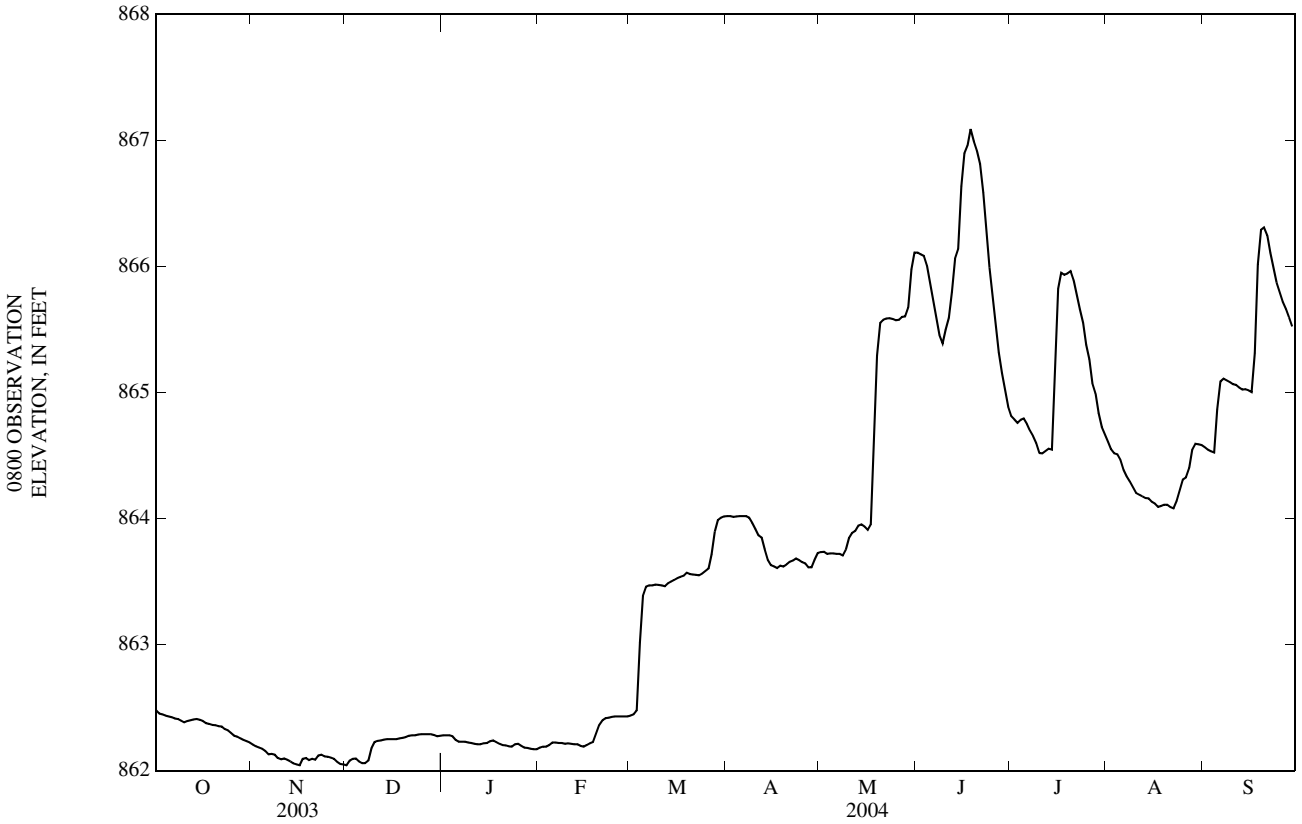
ELEVATION, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	862.48	862.22	862.05	862.28	862.17	862.43	864.02	863.74	866.11	864.84	864.65	864.58
2	862.48	862.20	862.04	862.28	862.19	862.44	864.02	863.73	866.11	864.80	864.59	864.56
3	862.44	862.19	862.10	862.28	862.19	862.45	864.02	863.74	866.09	864.78	864.53	864.54
4	862.45	862.18	862.09	862.28	862.19	862.49	864.01	863.71	866.08	864.75	864.51	864.53
5	862.43	862.17	862.10	862.27	862.21	863.28	864.02	863.73	865.97	864.80	864.51	864.52
6	862.43	862.15	862.06	862.23	862.23	863.44	864.02	863.72	865.82	864.79	864.44	865.04
7	862.42	862.12	862.06	862.23	862.22	863.47	864.02	863.72	865.69	864.73	864.36	865.11
8	862.41	862.14	862.06	862.23	862.22	863.47	864.02	863.72	865.55	864.68	864.32	865.11
9	862.41	862.12	862.09	862.23	862.22	863.47	864.00	863.70	865.41	864.64	864.28	865.09
10	862.39	862.09	862.22	862.22	862.21	863.48	863.95	863.78	865.38	864.58	864.23	865.08
11	862.38	862.09	862.23	862.22	862.22	863.47	863.90	863.88	865.56	864.49	864.19	865.06
12	862.40	862.10	862.24	862.21	862.21	863.47	863.85	863.89	865.61	864.53	864.19	865.06
13	862.40	862.08	862.24	862.21	862.21	863.46	863.85	863.91	865.89	864.54	864.17	865.03
14	862.41	862.07	862.25	862.21	862.21	863.50	863.71	863.96	866.15	864.56	864.16	865.02
15	862.41	862.05	862.25	862.22	862.19	863.50	863.65	863.95	866.13	864.54	864.16	865.03
16	862.40	862.05	862.25	862.22	862.19	863.52	863.62	863.93	866.89	865.53	864.12	865.01
17	862.39	862.04	862.25	862.24	862.21	863.53	863.62	863.90	866.90	865.97	864.12	865.00
18	862.37	862.12	862.25	862.24	862.22	863.54	863.60	863.98	866.99	865.94	864.08	865.47
19	862.37	862.09	862.26	862.22	862.23	863.55	863.64	864.84	867.14	865.93	864.11	866.29
20	862.36	862.08	862.26	862.21	862.33	863.58	863.61	865.52	866.92	865.95	864.11	866.29
21	862.36	862.10	862.27	862.20	862.38	863.55	863.65	865.57	866.92	865.97	864.11	866.32
22	862.35	862.08	862.28	862.20	862.41	863.56	863.66	865.58	866.76	865.85	864.08	866.21
23	862.35	862.14	862.28	862.19	862.42	863.55	863.67	865.59	866.50	865.74	864.08	866.06
24	862.32	862.12	862.28	862.19	862.42	863.55	863.69	865.59	866.23	865.62	864.17	865.96
25	862.32	862.11	862.29	862.22	862.43	863.57	863.66	865.58	865.87	865.52	864.25	865.83
26	862.29	862.11	862.29	862.21	862.43	863.59	863.65	865.57	865.69	865.31	864.34	865.78
27	862.27	862.10	862.29	862.19	862.43	863.61	863.64	865.58	865.43	865.24	864.32	865.69
28	862.27	862.09	862.29	862.18	862.43	863.77	863.60	865.61	865.26	864.99	864.44	865.65
29	862.25	862.06	862.29	862.18	862.43	863.96	863.62	865.60	865.10	864.99	864.60	865.57
30	862.24	862.05	862.28	862.17	---	864.00	863.70	865.71	864.98	864.76	864.59	865.50
31	862.23	---	862.27	862.17	---	864.01	---	866.11	---	864.71	864.59	---
MAX	862.48	862.22	862.29	862.28	862.43	864.01	864.02	866.11	867.14	865.97	864.65	866.32
MIN	862.23	862.04	862.04	862.17	862.17	862.43	863.60	863.70	864.98	864.49	864.08	864.52
(-)	128,000	127,000	128,000	128,000	129,000	140,000	138,000	156,000	147,000	145,000	144,000	151,000
(=)	-2,000	-1,000	+1,000	0	+1,000	+11,000	-2,000	+18,000	-9,000	-2,000	-1,000	+7,000

CAL YR 2003.... -3,000
WTR YR 2004.... +21,000

(-) Contents, in acre-feet, at the end of the month.
(=) Change in contents, in acre-feet.

06821140 SMITHVILLE RESERVOIR NEAR SMITHVILLE, MO—Continued



06821150 LITTLE PLATTE RIVER AT SMITHVILLE, MO

LOCATION.--Lat 39°23'17", long 94°34'44", in NW ¼ SW ¼ sec.23, T.53 N., R.33 W., Clay County, Hydrologic Unit 10240012, on left bank behind city equipment shelter on old bridge abutment, 500 ft upstream from town bridge in Smithville, 1,500 ft upstream from bridge on U.S. Highway 169, 0.5 mi downstream from Wilkerson Creek, 2.4 mi downstream from Smithville Lake, and at mile 11.1.

DRAINAGE AREA.--234 mi^2.

PERIOD OF RECORD.--June 1965 to current year. Occasional measurements 1942, 1943, 1946, 1962-65.

REVISED RECORDS.--WRD MO 1970: Drainage area. WDR MO-02-1: 2001 date of peak.

GAGE.--Water-stage recorder. Datum of gage is 778.18 ft above National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers). Prior to Mar. 23, 1966, nonrecording gage at site 1,500 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Construction of dam for Smithville Lake (06821140) began in June 1974 and partial regulation began Aug. 6, 1977. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1947 reached a stage of 37.4 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	9.0	7.5	7.2	e8.0	12	14	17	17	379	148	6.8
2	6.9	9.2	7.9	7.3	e8.0	9.5	13	10	14	212	148	6.1
3	7.0	9.4	13	7.5	e8.0	10	12	9.5	13	165	148	5.9
4	7.3	9.4	14	7.5	e8.0	590	11	8.2	261	152	148	5.5
5	7.2	8.9	11	8.1	e8.0	239	11	7.6	602	336	148	204
6	7.1	8.4	9.6	e8.0	e7.5	37	10	6.6	595	169	147	592
7	7.2	8.8	7.7	e8.0	e7.0	24	7.7	6.4	590	158	146	25
8	7.3	8.6	7.3	e8.0	e7.0	18	7.1	5.8	588	152	146	15
9	7.5	8.7	82	e8.0	e7.5	16	272	5.5	584	150	100	12
10	7.7	8.8	61	e7.5	e8.0	14	5.8	45	636	150	5.8	9.0
11	8.1	9.5	13	7.4	e8.0	13	3.3	18	319	149	5.5	7.9
12	8.0	10	9.1	7.6	e8.0	11	3.3	9.9	766	83	5.4	16
13	8.8	11	9.2	8.1	e8.0	11	2.8	20	343	7.1	5.4	22
14	10	12	8.0	7.8	e8.0	12	3.3	23	43	6.5	5.3	22
15	8.9	12	8.8	7.8	e8.0	12	5.6	14	178	6.3	5.1	24
16	8.4	12	19	8.6	6.6	14	5.7	9.6	38	1,280	5.1	24
17	8.1	14	10	9.5	6.7	12	5.5	8.3	217	49	5.0	22
18	7.7	15	9.7	11	22	11	5.5	23	807	24	4.9	226
19	7.7	13	10	11	162	10	5.3	1,890	312	17	5.6	45
20	7.4	10	8.9	9.2	57	9.7	7.3	110	610	13	7.6	37
21	7.3	9.5	8.6	8.8	20	9.2	12	46	691	255	5.8	261
22	7.0	9.5	8.4	8.5	15	8.8	7.8	31	1,040	536	5.1	471
23	7.7	54	8.2	8.4	13	9.1	7.7	25	1,150	536	5.0	469
24	8.7	13	7.8	8.9	11	9.3	6.2	21	1,140	582	127	378
25	8.8	7.2	7.3	9.1	10	8.9	5.9	22	1,130	565	19	230
26	9.2	6.2	7.5	e8.0	8.4	9.3	3.7	22	1,120	534	9.2	228
27	9.1	6.2	9.0	e7.5	8.1	12	7.8	32	969	527	7.9	228
28	9.3	5.9	7.7	e7.0	8.0	71	3.5	25	710	522	183	227
29	9.4	6.2	7.4	e7.0	9.1	25	2.7	18	519	520	19	226
30	9.3	7.1	7.9	e7.0	---	20	18	27	516	345	11	124
31	9.2	---	7.0	e7.5	---	16	---	20	---	148	8.0	---
MEAN	8.08	11.1	13.3	8.15	16.3	41.4	16.2	81.8	551	282	56.1	139
MAX	10	54	82	11	162	590	272	1,890	1,150	1,280	183	592
MIN	6.9	5.9	7.0	7.0	6.6	8.8	2.7	5.5	13	6.3	4.9	5.5
IN.	0.04	0.05	0.07	0.04	0.08	0.20	0.08	0.40	2.63	1.39	0.28	0.66

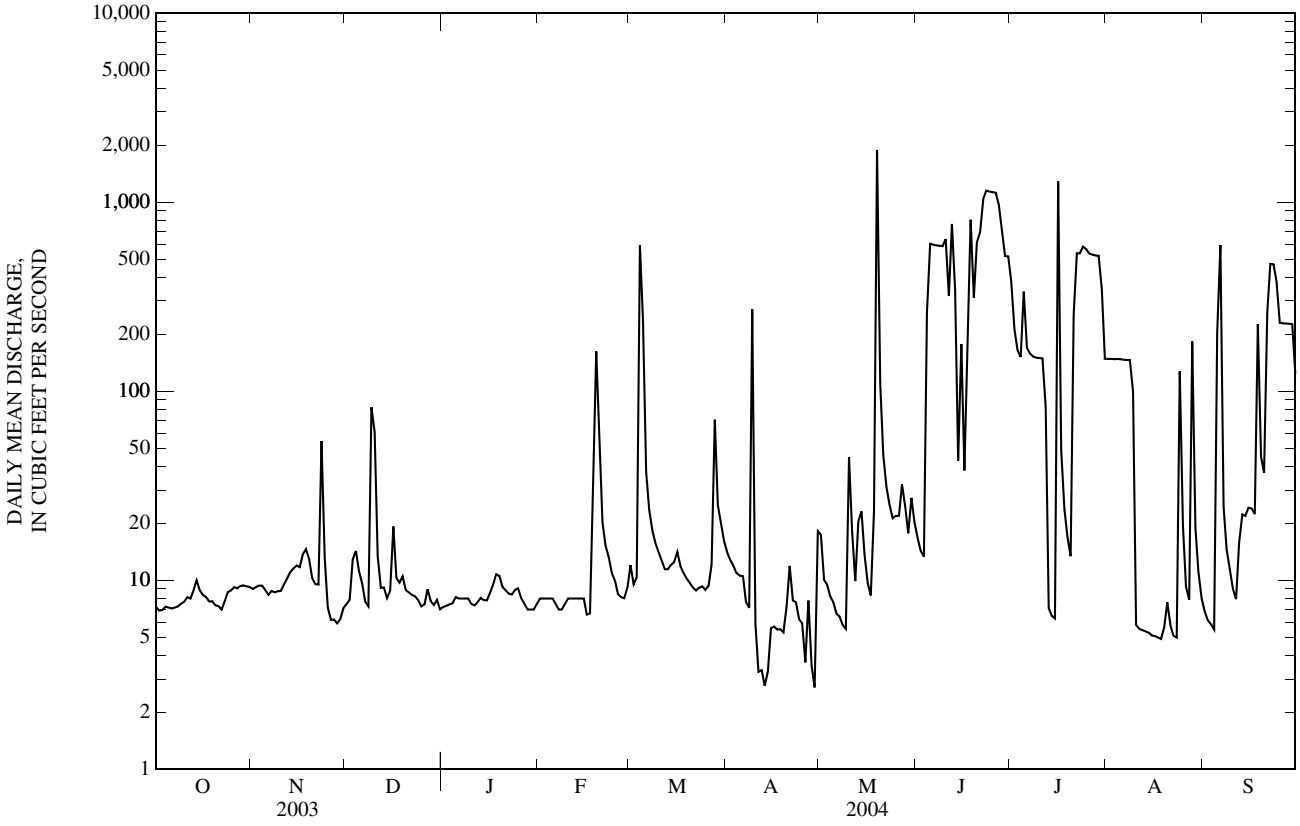
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2004[a], BY WATER YEAR (WY)

MEAN	167	167	93.0	84.9	84.2	159	183	250	254	245	164	138
MAX	960	1,358	466	563	341	825	640	850	809	879	1,206	1,006
(WY)	(1986)	(1999)	(1993)	(1993)	(2001)	(2001)	(1978)	(1993)	(1995)	(2001)	(1993)	(1977)
MIN	1.01	2.06	0.05	0.07	7.14	4.73	9.85	11.1	11.6	8.76	7.65	5.84
(WY)	(1977)	(1977)	(1977)	(1977)	(2003)	(1981)	(1981)	(2000)	(2003)	(2002)	(1980)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1977 - 2004[a]	
ANNUAL MEAN	10.9		102		166	
HIGHEST ANNUAL MEAN					476	1993
LOWEST ANNUAL MEAN					9.93	2003
HIGHEST DAILY MEAN	173	Apr 19	1,890	May 19	7,810	Jul 27, 1981
LOWEST DAILY MEAN	4.3	Aug 20	2.7	Apr 29	0.05	Dec 1-25, 1976
ANNUAL SEVEN-DAY MINIMUM	5.0	Aug 19	4.2	Apr 11	0.05	Dec 1, 1976
MAXIMUM PEAK FLOW	---		4,970	May 19	21,000	Aug 13, 1982
MAXIMUM PEAK STAGE	---		28.20	May 19	36.44	Aug 13, 1982
INSTANTANEOUS LOW FLOW	---		1.8	Apr 28	0.00	Many Years
ANNUAL RUNOFF (INCHES)	0.63		5.91		9.65	
10 PERCENT EXCEEDS	13		344		513	
50 PERCENT EXCEEDS	8.2		9.6		18	
90 PERCENT EXCEEDS	6.2		6.2		7.8	

e Estimated
[a] Post-regulation period.

06821150 LITTLE PLATTE RIVER AT SMITHVILLE, MO—Continued



06821190 PLATTE RIVER AT SHARPS STATION, MO

LOCATION.--Lat 39°24'04", long 94°43'37", in NW ¼ SE ¼ SW ¼ sec.16, T.53 N., R.34 W., Platte County, Hydrologic Unit 10240012, on downstream side of center pier at Sharps Bridge, 0.2 mi upstream from Jowler Creek, 3.3 mi downstream from Little Platte River, 3.6 mi south of Camden Point, and at mile 25.1.

DRAINAGE AREA.--2,380 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1978 to current year.

GAGE.--Water-stage recorder. Datum of gage is 754.23 ft above National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers).

REMARKS.--Water-discharge records fair except for the period of backwater May 19 to July 20, and estimated daily discharges, which are poor. Some regulation from Smithville Lake (station 06821140), 17.0 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	21	49	e85	e66	371	1,580	425	11,700	860	614	1,080
2	34	23	56	e87	e65	390	1,090	559	12,200	685	585	797
3	34	23	68	e80	e60	377	848	340	7,320	1,310	603	638
4	31	22	87	e75	e64	877	711	252	2,400	1,510	554	537
5	27	24	105	e72	e74	3,230	619	215	1,960	1,430	564	480
6	26	264	77	e65	e76	4,820	542	196	1,710	902	4,670	2,410
7	24	1,140	69	55	e74	5,100	485	173	1,530	750	e2,550	1,310
8	24	840	70	54	e58	2,280	429	156	1,400	792	e1,480	548
9	23	349	79	47	e59	1,230	540	141	1,290	644	e830	477
10	22	210	360	46	e57	802	447	242	1,510	604	e570	374
11	28	153	294	44	e60	616	332	812	1,310	2,960	408	310
12	31	122	161	43	e57	504	305	718	1,800	4,010	352	272
13	30	100	108	42	e51	430	279	609	4,960	7,880	313	238
14	42	84	121	42	54	410	259	667	9,880	4,570	279	217
15	49	75	151	41	e51	411	250	568	11,100	1,630	255	218
16	62	68	237	43	52	384	238	1,090	11,100	6,790	234	284
17	47	65	220	e47	e47	379	229	887	5,770	11,400	217	274
18	43	94	169	e52	58	371	217	730	4,540	12,900	204	2,460
19	39	79	140	e56	234	393	209	7,450	3,340	14,000	195	9,100
20	35	68	136	64	617	577	205	11,300	2,520	8,110	185	7,370
21	31	61	128	75	590	686	246	7,150	1,970	2,140	183	2,490
22	29	55	117	86	624	600	222	2,530	1,940	1,850	172	1,540
23	28	103	110	79	3,500	504	216	1,520	2,170	1,620	161	1,150
24	28	115	115	78	3,250	433	267	5,240	2,190	1,550	515	960
25	27	68	97	80	2,770	367	275	7,970	1,940	1,730	1,510	664
26	25	64	90	94	1,500	346	237	9,740	1,960	1,500	2,330	588
27	24	58	109	80	636	349	203	9,490	1,650	1,310	2,750	539
28	23	53	95	73	444	989	195	4,370	1,300	1,180	6,800	516
29	22	47	99	e70	367	7,440	203	4,980	999	1,080	9,760	486
30	21	47	e92	e67	---	6,560	228	6,140	925	969	5,680	440
31	20	---	e84	e65	---	2,690	---	10,300	---	660	1,860	---
MEAN	31.1	150	126	64.1	538	1,449	404	3,128	3,879	3,204	1,528	1,292
MAX	62	1,140	360	94	3,500	7,440	1,580	11,300	12,200	14,000	9,760	9,100
MIN	20	21	49	41	47	346	195	141	925	604	161	217
IN.	0.02	0.07	0.06	0.03	0.24	0.70	0.19	1.52	1.82	1.55	0.74	0.61

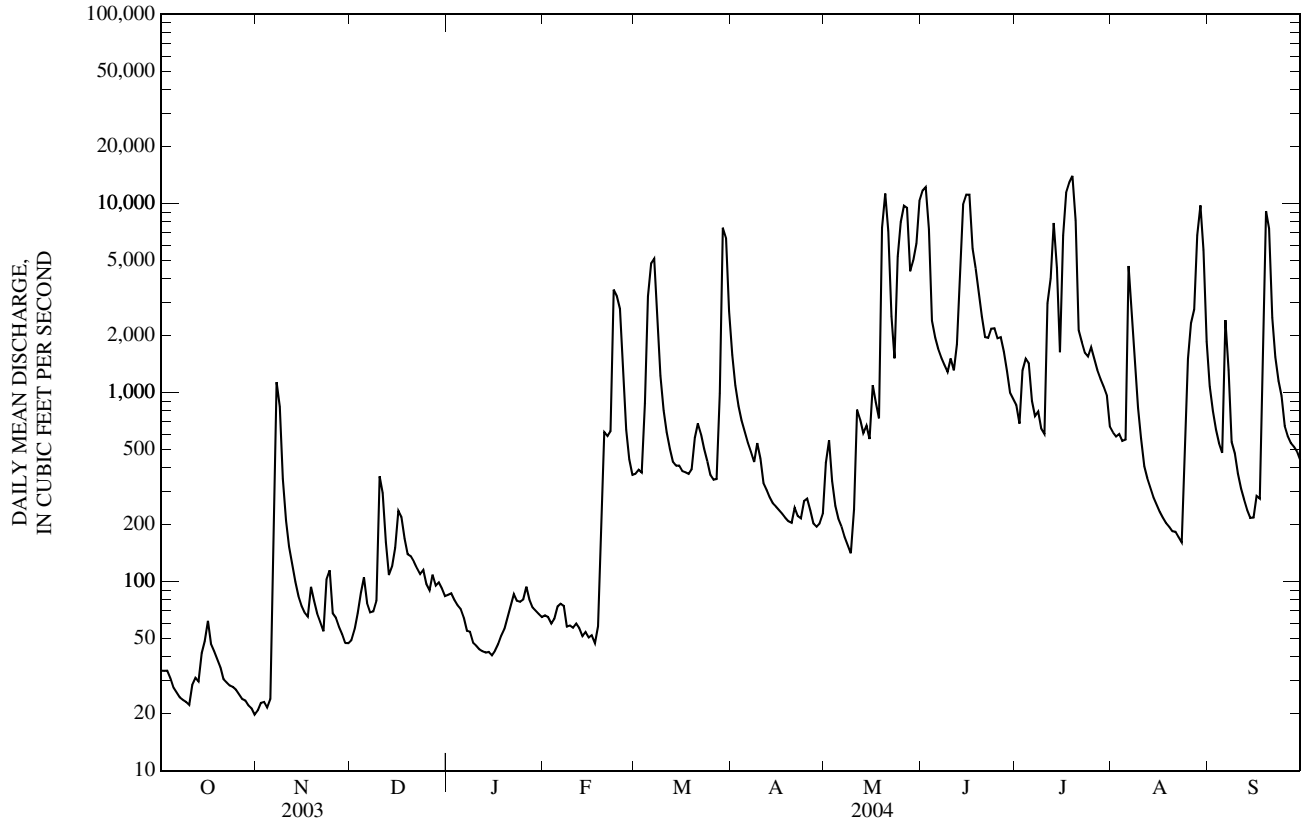
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2004, BY WATER YEAR (WY)

MEAN	1,117	930	977	556	1,289	2,014	2,452	3,326	2,995	2,766	986	1,261
MAX	6,847	4,932	5,005	2,153	3,980	8,745	6,946	12,710	10,790	21,600	3,535	7,206
(WY)	(1986)	(1999)	(1993)	(1983)	(1982)	(1979)	(1993)	(1995)	(1984)	(1993)	(1987)	(1993)
MIN	25.1	54.3	41.2	31.5	37.6	110	93.0	157	75.2	52.5	38.1	37.7
(WY)	(1989)	(2003)	(2003)	(2003)	(1989)	(1989)	(1989)	(1989)	(1988)	(1988)	(2003)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1979 - 2004	
ANNUAL MEAN	209		1,319		1,721	
HIGHEST ANNUAL MEAN					5,697	1993
LOWEST ANNUAL MEAN					196	2003
HIGHEST DAILY MEAN	3,290	May 11	14,000	Jul 19	37,300	Jul 26, 1993
LOWEST DAILY MEAN	15	Aug 26	20	Oct 31	12	Aug 7,8,13,14, 1989
ANNUAL SEVEN-DAY MINIMUM	17	Aug 23	22	Oct 29	14	Aug 7, 1989
MAXIMUM PEAK FLOW	---		14,400	Jul 19	37,800	Jul 26, 1993
MAXIMUM PEAK STAGE	---		30.05	Jul 19	36.43	Jul 26, 1993
INSTANTANEOUS LOW FLOW	---		19	Oct 31	12	Aug 7,8,13,14, 1989
ANNUAL RUNOFF (INCHES)	1.19		7.55		9.83	
10 PERCENT EXCEEDS	542		4,420		4,180	
50 PERCENT EXCEEDS	70		336		568	
90 PERCENT EXCEEDS	23		43		61	

e Estimated

06821190 PLATTE RIVER AT SHARPS STATION, MO—Continued



06821190 PLATTE RIVER AT SHARPS STATION, MO—Continued
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1979 to September 1995, November 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as $CaCO_3$ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
NOV												
14...	1150	Environmental	85	10.6	87	8.1	349	7.0	130	36.5	8.31	6.88
JAN												
16...	1130	Environmental	42	16.1	111	8.4	568	0.5	--	--	--	--
MAR												
12...	1450	Environmental	549	11.0	94	7.7	369	8.5	--	--	--	--
MAY												
05...	1200	Environmental	225	9.7	98	8.3	434	16.0	180	52.8	12.3	5.10
JUL												
23...	1225	Environmental	1,480	5.5	68	7.7	332	25.9	--	--	--	--
SEP												
24...	1420	Environmental	979	8.0	94	7.9	294	22.0	--	--	--	--
24...	1421	Replicate	--	--	--	--	--	--	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as $CaCO_3$ (00410)	ANC, wat unf incrm. titr., field, mg/L as $CaCO_3$ (00419)	Bicarbonate, wat unf incrm. titr., field, mg/L (00450)	Carbonate, wat unf incrm. titr., field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NOV													
14...	16.9	109	109	133	<1	18.2	0.3	25.3	214	44	1.2	0.15	2.96
JAN													
16...	--	160	160	191	2	--	--	--	--	<10	1.0	0.21	1.65
MAR													
12...	--	96	92	112	<1	--	--	--	--	90d	1.6	0.14	8.21d
MAY													
05...	18.2	132	133	162	<1	22.7	0.3	33.1	270	122d	1.6	E.03n	3.96
JUL													
23...	--	126	126	152	<1	--	--	--	--	383d	1.3	0.04	0.93
SEP													
24...	--	110	111	135	<1	--	--	--	--	129	1.2	E.03n	0.48
24...	--	--	--	--	--	--	--	--	--	144	1.1	0.05	0.59

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/ 100 mL (31625)	Fecal streptococci KF MF, col/ 100 mL (31673)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Copper, water, fltrd, µg/L (01040)
NOV													
14...	0.036	0.12	0.14	0.31	--u	250	180	2	1,250d	1.9	E.04n	0.09	2.9
JAN													
16...	0.027	0.02	E.03n	0.14	--u	49	44	--	--	--	--	--	--
MAR													
12...	0.045	0.06	0.07	0.43	--u	97	58k	--	--	--	--	--	--
MAY													
05...	0.074	0.05	0.06	0.28	--u	350	150	2	1,420d	2.2	E.03n	0.09	2.1
JUL													
23...	0.022	0.06	0.10	0.51	870	190k	333	--	--	--	--	--	--
SEP													
24...	0.013	0.05	0.06	0.39	1,100	1,300	820	--	--	--	--	--	--
24...	0.017	0.06	0.07	0.40	--	--	--	--	--	--	--	--	--

06821190 PLATTE RIVER AT SHARPS STATION, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover -able, µg/L (71900)	Selen- ium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV								
14...	13	<0.08	2.06	47.8	<0.02	0.7	M	7
JAN								
16...	--	--	--	--	--	--	--	--
MAR								
12...	--	--	--	--	--	--	--	--
MAY								
05...	8	<0.08	2.27	12.1	<0.02	0.9	M	8
JUL								
23...	--	--	--	--	--	--	--	--
SEP								
24...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
b -- Value extrapolated at low end
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
u -- Unable to determine-matrix interference

06892350 KANSAS RIVER AT DESOTO, KS

LOCATION.--Lat 38°59'00", long 94°57'52", in SE ¼ NE ¼ NE ¼ sec.27, T.12 S., R.22 E., Leavenworth County, Hydrologic Unit 10270104, on left bank at downstream side of bridge on county highway, north edge of DeSoto, 0.4 mi upstream from Kill Creek, and at mile 31.0.

DRAINAGE AREA.--59,756 mi^2, of which a large area is noncontributing.

PERIOD OF RECORD.--July 1917 to current year. Monthly discharge only for some periods published in WSP 1310. Prior to October 1973, published as "at Bonner Springs."

REVISED RECORDS.--WSP 806: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 753.87 ft above NGVD of 1929. July 9, 1917, to Apr. 23, 1934, nonrecording gage; Apr. 24, 1934, to Nov. 25, 1960, water-stage recorder at site 9.7 mi downstream at datum 11.81 ft lower; Nov. 26, 1960, to Feb. 9, 1961, nonrecording gage; Feb. 10, 1961, to Sept. 30, 1971, water-stage recorder at site 10.2 mi downstream at datum 17.81 ft lower; and Oct. 1, 1971, to Sept. 30, 1973, at site 10.2 mi downstream at datum 22.81 ft lower. Lowered gage datum 5.0 ft Sept. 30, 1996, to 753.87 ft.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Natural flow affected by lakes and reservoirs in Colorado, Nebraska, and Kansas, and by numerous diversions upstream from station. Diurnal fluctuations caused by hydroelectric plant 20.8 mi upstream; since storage capacity is small, daily flows are not affected appreciably. Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1844, that of July 13, 1951.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,010	1,850	1,190	1,170	e1,300	1,870	3,420	3,720	4,480	7,130	5,700	4,310
2	1,930	1,880	1,190	1,170	e1,290	2,310	4,190	4,800	4,310	8,490	5,360	4,040
3	1,920	1,870	1,420	1,160	e1,290	3,180	4,280	3,810	4,260	18,500	5,000	3,930
4	1,880	1,920	1,780	1,170	e1,270	6,480	4,100	2,930	4,170	18,400	4,760	3,850
5	1,860	1,940	1,310	1,160	e1,280	22,600	3,670	2,380	4,140	15,200	4,670	3,930
6	1,850	1,900	1,420	e1,150	e1,290	29,000	3,450	2,420	4,250	21,900	4,750	4,470
7	1,840	1,900	1,380	e1,190	e1,290	17,700	3,310	2,140	4,690	24,600	4,580	4,570
8	1,830	1,930	1,220	1,450	e1,310	17,500	2,870	1,960	4,720	15,900	4,720	4,030
9	1,820	1,870	1,240	1,570	e1,340	17,100	3,050	1,940	4,420	9,990	4,210	3,700
10	1,850	1,970	1,400	1,760	e1,360	18,500	3,120	2,030	4,620	13,200	3,390	2,860
11	1,980	1,960	1,410	1,710	e1,390	25,100	2,990	2,710	4,800	13,200	3,000	2,670
12	2,000	1,940	1,270	1,690	e1,400	24,300	2,930	2,410	4,460	12,200	2,860	2,620
13	1,950	1,940	1,170	1,580	e1,410	18,600	2,730	2,650	4,800	13,200	2,580	2,730
14	2,000	1,970	1,100	1,090	e1,410	13,400	2,650	4,110	5,860	12,000	2,540	2,360
15	1,980	1,930	1,210	1,280	e1,410	9,910	2,610	4,100	5,670	9,700	2,540	2,580
16	1,940	1,920	1,500	1,370	e1,420	7,420	2,500	3,400	6,460	11,400	2,460	2,840
17	1,950	1,920	1,310	1,360	e1,610	6,670	2,350	3,060	14,400	10,700	2,360	2,640
18	1,940	1,960	1,140	1,320	1,820	5,680	2,050	3,360	12,900	8,290	2,560	2,710
19	1,900	2,000	1,260	1,140	2,050	4,430	2,190	6,090	15,400	7,430	2,500	2,760
20	1,780	1,960	1,210	1,240	2,120	3,740	1,910	7,090	14,300	6,650	2,570	2,550
21	1,810	1,940	1,200	1,230	3,010	3,660	2,180	4,700	12,900	6,140	3,030	2,390
22	1,770	1,680	1,210	907	4,200	3,400	2,100	3,330	11,900	5,710	3,210	2,230
23	1,810	1,630	1,240	1,200	3,610	3,380	2,090	3,600	9,960	5,330	3,710	2,270
24	1,820	1,430	1,220	1,140	2,660	3,220	2,590	3,860	8,620	11,000	12,500	2,160
25	1,830	1,210	1,230	1,200	2,310	3,080	2,010	5,330	7,910	21,700	27,000	1,670
26	1,900	1,220	1,210	1,200	1,730	2,890	2,570	4,010	6,390	12,200	15,900	1,640
27	1,900	1,290	1,210	e1,160	1,930	2,340	2,590	4,610	6,020	12,000	8,280	1,530
28	1,900	1,300	1,180	e1,200	1,710	3,560	2,760	5,440	8,680	9,980	22,300	1,450
29	1,890	1,280	1,190	e1,220	1,180	6,880	2,910	4,800	11,000	7,700	11,100	889
30	1,900	1,210	1,190	e1,230	---	5,990	3,270	4,480	7,900	6,550	5,360	1,540
31	1,820	---	1,180	e1,270	---	4,290	---	4,580	---	6,100	5,220	---
MEAN	1,889	1,757	1,271	1,280	1,772	9,619	2,848	3,737	7,480	11,690	6,152	2,797
MAX	2,010	2,000	1,780	1,760	4,200	29,000	4,280	7,090	15,400	24,600	27,000	4,570
MIN	1,770	1,210	1,100	907	1,180	1,870	1,910	1,940	4,140	5,330	2,360	889
AC-FT	116,200	104,600	78,130	78,720	102,000	591,400	169,500	229,800	445,100	719,000	378,300	166,500

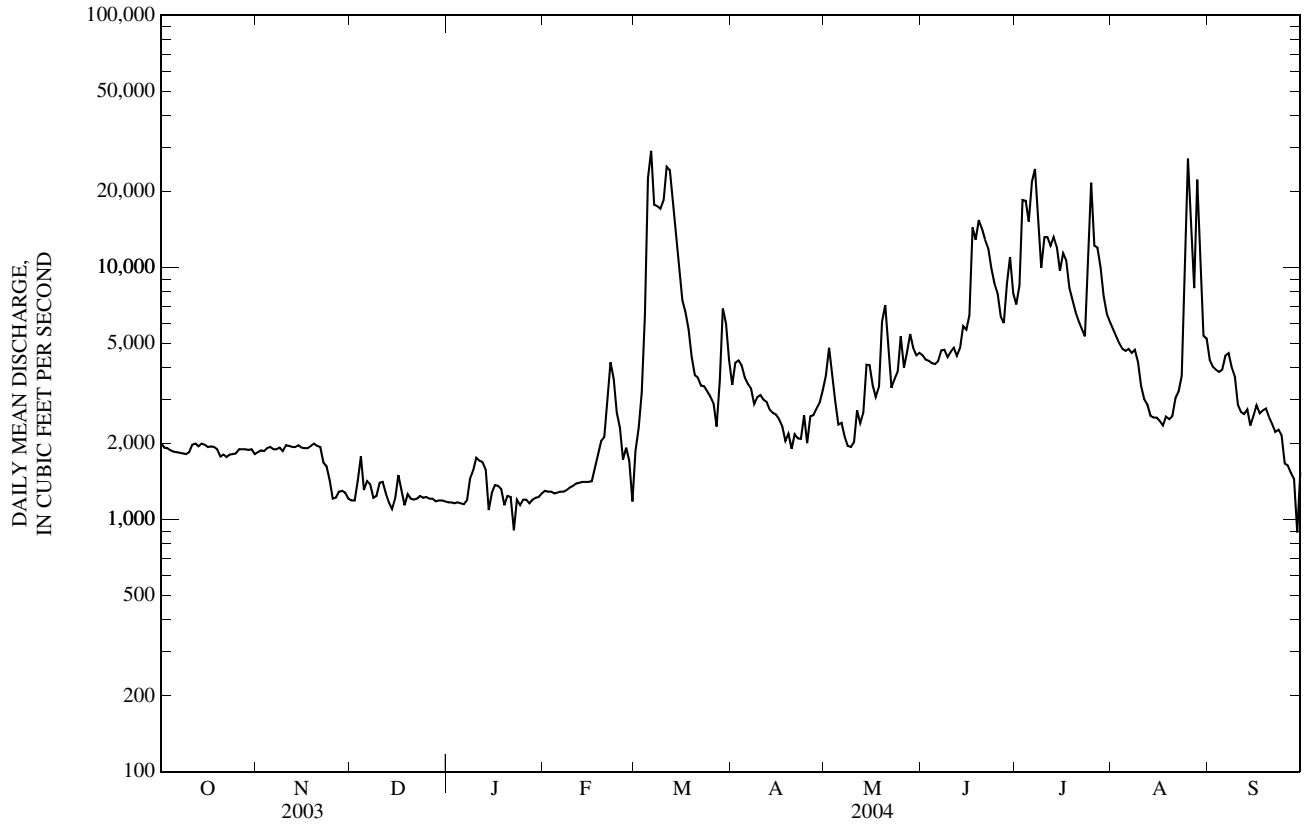
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 2004, BY WATER YEAR (WY)

MEAN	5,651	4,563	3,578	2,869	4,452	7,093	9,483	10,960	14,810	11,590	6,885	6,498
MAX	51,630	42,320	21,940	15,990	20,800	36,560	43,570	43,270	78,870	133,200	66,680	44,660
(WY)	(1974)	(1974)	(1974)	(1973)	(1949)	(1973)	(1973)	(1993)	(1951)	(1951)	(1993)	(1951)
MIN	365	504	465	364	635	632	845	953	1,188	1,106	455	525
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1967)	(1956)	(1989)	(1989)	(1936)	(1934)	(1956)

06892350 KANSAS RIVER AT DESOTO, KS—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1918 - 2004	
ANNUAL MEAN	1,906		4,379		7,375	
HIGHEST ANNUAL MEAN					30,570	1993
LOWEST ANNUAL MEAN					1,326	1956
HIGHEST DAILY MEAN	10,600	Apr 26	29,000	Mar 6	486,000	Jul 14, 1951
LOWEST DAILY MEAN	457	Feb 27	889	Sep 29	160	Oct 11, 1956
ANNUAL SEVEN-DAY MINIMUM	679	Feb 24	1,140	Jan 22	195	Oct 9, 1956
MAXIMUM PEAK FLOW	---		33,500	Mar 6	510,000	Jul 13, 1951
MAXIMUM PEAK STAGE	---		14.45	Mar 6	37.30	Jul 13, 1951
INSTANTANEOUS LOW FLOW	---		621	Sep 29	160	Oct 11, 1956
ANNUAL RUNOFF (AC-FT)	1,380,000		3,179,000		5,343,000	
10 PERCENT EXCEEDS	2,940		11,000		17,500	
50 PERCENT EXCEEDS	1,780		2,540		3,320	
90 PERCENT EXCEEDS	911		1,220		1,100	

e Estimated



06893000 MISSOURI RIVER AT KANSAS CITY, MO

LOCATION.--Lat 39°06'42", long 94°35'17", in sec.32, T.50 N., R.33 W., Jackson County, Hydrologic Unit 10300101, on downstream side of right pier of Chicago, Burlington and Quincy Railroad Bridge at Kansas City, 1.4 mi downstream from Kansas River, and at mile 366.1.

DRAINAGE AREA.--484,100 mi^2. The 3,959 mi^2 in Great Divide basin are not included.

PERIOD OF RECORD.--October 1897 to current year. Prior to August 1928 monthly discharge only, published in WSP 1310. Gage-height records collected at same site 1873-99 are contained in reports of the Missouri River Commission; those since 1900 are contained in reports of the National Weather Service.

REVISED RECORDS.--WDR MO-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 706.40 ft above sea level. Prior to May 4, 1931, nonrecording gage; May 4, 1931, to Aug. 23, 1934, water-stage recorder, at present site and datum; Aug. 24, 1934, to May 15, 1947, water-stage recorder at site 200 ft upstream at same datum; May 16, 1947, to Feb. 28, 1948, nonrecording gage at present site; Feb. 29, 1948, to Oct. 1, 1989, at datum 10.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are fair, and the period March 6-8, which is poor. Some regulation from many upstream reservoirs. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 573,000 ft^3/s, July 14, 1951; gage height, 36.2 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 16, 1844, reached a stage of 48.0 ft, present datum; discharge, about 625,000 ft^3/s, computed by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33,300	34,200	e22,400	23,300	21,600	e30,500	47,700	38,600	99,800	53,200	45,000	40,400
2	33,200	34,400	22,000	23,500	20,500	37,800	44,600	37,800	84,300	53,200	44,200	38,000
3	33,000	34,500	22,300	23,100	20,300	46,100	43,200	37,200	79,900	61,700	43,300	37,000
4	33,000	36,300	22,500	22,700	21,100	56,900	41,600	35,100	71,800	63,200	42,200	36,300
5	33,300	42,000	23,000	22,500	21,800	74,900	39,700	34,400	67,100	66,600	41,500	35,800
6	33,200	44,000	23,000	22,100	21,800	84,600	37,500	35,500	66,000	74,000	48,400	38,200
7	32,600	39,800	23,000	21,400	22,100	74,300	36,400	36,800	62,900	78,400	54,200	39,000
8	32,800	38,100	22,700	20,400	22,700	65,700	35,500	36,300	61,300	71,500	45,900	37,900
9	33,100	37,200	23,000	19,100	22,600	62,800	35,000	35,800	61,400	62,600	43,100	37,600
10	33,100	36,700	23,100	18,300	22,100	57,300	34,700	37,900	62,300	61,700	41,000	36,600
11	33,200	36,400	22,500	18,100	22,000	57,900	34,400	39,000	60,500	71,700	40,000	34,800
12	33,600	36,400	21,800	18,400	22,100	57,200	34,200	40,800	59,100	76,900	39,000	34,400
13	34,300	36,500	21,300	19,500	21,900	52,100	33,800	43,400	62,200	82,400	38,400	34,400
14	35,400	36,500	20,000	20,400	22,200	46,100	33,700	44,500	79,400	73,200	37,400	34,600
15	35,400	36,600	19,300	20,600	22,700	41,300	34,100	44,200	87,800	65,500	37,300	34,500
16	35,700	36,400	19,300	21,100	23,000	37,000	34,100	44,100	79,600	68,300	36,900	35,100
17	35,800	36,500	20,200	22,000	22,800	34,100	33,800	42,900	80,600	81,700	36,600	35,100
18	35,100	36,800	21,100	22,600	22,500	33,000	32,900	41,500	78,600	73,000	36,100	37,600
19	35,000	37,200	21,700	22,400	22,800	32,200	32,500	59,500	77,000	67,400	36,400	46,000
20	34,400	38,000	22,300	22,300	24,100	31,100	33,600	71,000	83,000	64,200	36,200	53,000
21	33,900	37,500	22,300	22,700	24,700	30,500	33,900	60,000	77,200	55,300	36,100	49,500
22	33,900	36,800	22,300	22,300	26,200	29,500	33,700	50,700	73,500	51,100	36,500	44,800
23	33,800	35,500	22,600	21,500	30,100	28,700	34,000	46,500	72,900	49,600	37,300	44,700
24	34,100	32,800	22,800	21,700	31,800	28,700	34,400	51,300	69,700	55,100	45,800	47,700
25	33,800	30,900	22,600	22,100	32,200	29,500	35,100	99,600	65,600	73,300	61,100	45,500
26	33,800	28,800	21,900	22,500	32,300	31,300	35,600	108,000	61,200	61,800	59,400	43,500
27	34,000	26,600	21,800	22,400	33,100	32,600	37,400	100,000	58,600	55,000	53,400	43,800
28	34,100	e24,900	21,800	22,600	32,300	35,000	37,700	85,900	57,300	54,700	82,100	46,400
29	33,900	e23,900	21,700	23,100	30,500	45,500	38,100	76,900	59,500	50,100	67,600	46,100
30	34,000	e23,100	21,900	22,500	---	61,200	38,700	72,300	56,100	48,000	52,500	43,000
31	34,200	---	22,600	21,800	---	53,800	---	110,000	---	46,600	43,600	---
MEAN	33,940	34,840	21,960	21,580	24,690	45,780	36,390	54,760	70,540	63,580	45,110	40,380
MAX	35,800	44,000	23,100	23,500	33,100	84,600	47,700	110,000	99,800	82,400	82,100	53,000
MIN	32,600	23,100	19,300	18,100	20,300	28,700	32,500	34,400	56,100	46,600	36,100	34,400
IN.	0.08	0.08	0.05	0.05	0.06	0.11	0.08	0.13	0.16	0.15	0.11	0.09

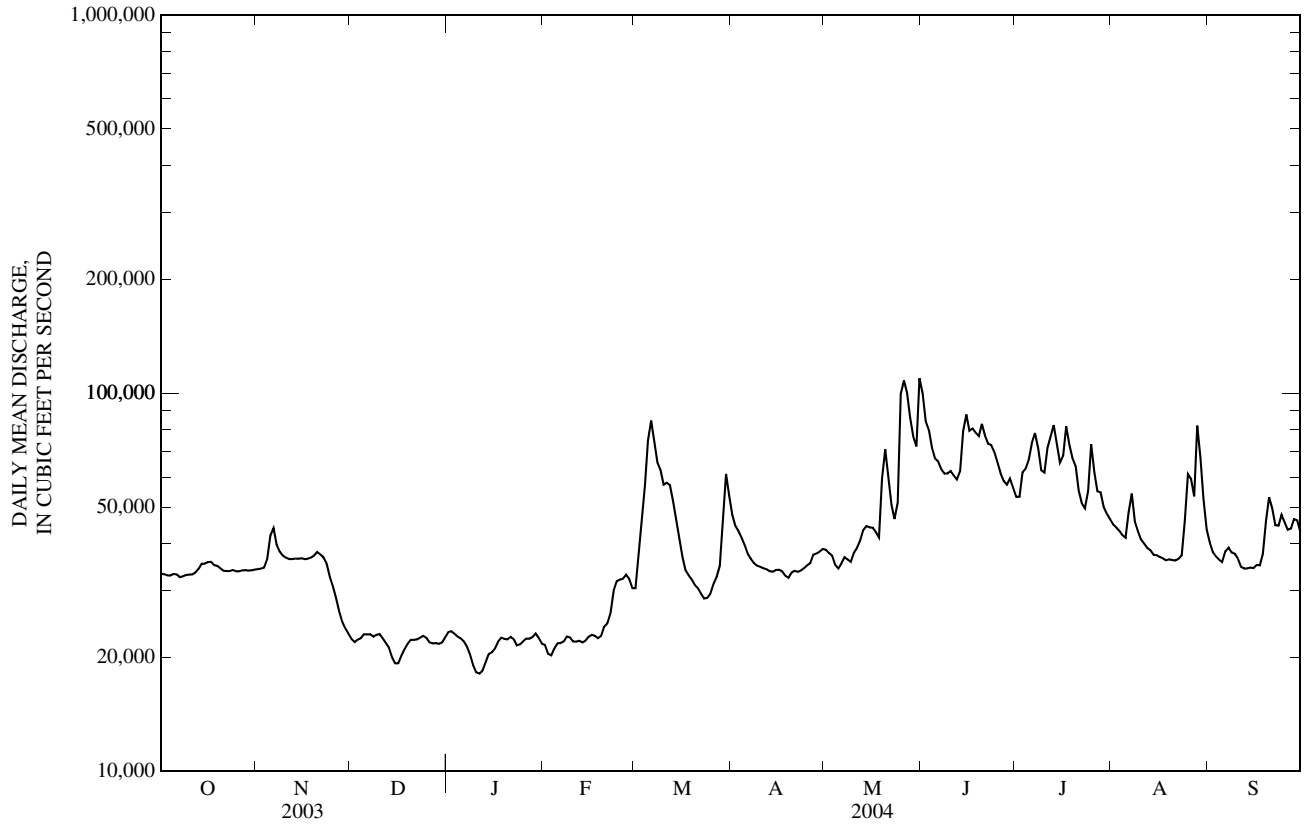
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2004[a], BY WATER YEAR (WY)

MEAN	55,750	51,960	36,210	29,170	38,020	55,400	69,280	71,990	77,530	69,630	55,970	56,890
MAX	135,200	103,200	75,370	60,980	77,690	133,700	148,900	145,800	173,800	288,300	144,300	115,600
(WY)	(1974)	(1999)	(1987)	(1973)	(1973)	(1979)	(1984)	(1995)	(1984)	(1993)	(1993)	(1993)
MIN	33,940	20,560	12,970	13,800	16,610	20,190	36,370	37,230	40,410	33,690	32,980	34,510
(WY)	(2004)	(1991)	(1964)	(1963)	(1964)	(1964)	(1990)	(1989)	(1989)	(2002)	(2003)	(1991)

06893000 MISSOURI RIVER AT KANSAS CITY, MO—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1958 - 2004[a]	
ANNUAL MEAN	34,540		41,170		55,690	
HIGHEST ANNUAL MEAN					102,100	1993
LOWEST ANNUAL MEAN					35,190	2003
HIGHEST DAILY MEAN	74,500	Jun 14	110,000	May 31	529,000	Jul 27, 1993
LOWEST DAILY MEAN	19,000	Jan 22,23	18,100	Jan 11	4,730	Dec 18, 1963
ANNUAL SEVEN-DAY MINIMUM	19,400	Jan 20	19,200	Jan 8	5,480	Dec 17, 1963
MAXIMUM PEAK FLOW	---		119,000	May 31	541,000	Jul 27, 1993
MAXIMUM PEAK STAGE	---		21.94	May 31	48.87	Jul 27, 1993
INSTANTANEOUS LOW FLOW	---		18,000	Jan 11	4,240	Dec 18, 1963
ANNUAL RUNOFF (INCHES)	0.97		1.16		1.56	
10 PERCENT EXCEEDS	50,600		70,100		93,000	
50 PERCENT EXCEEDS	34,000		36,400		47,800	
90 PERCENT EXCEEDS	21,600		22,100		24,400	

e Estimated
[a] Post-regulation period.



06893150 BLUE RIVER AT BLUE RIDGE EXT. IN KANSAS CITY, MO

LOCATION.--Lat 38°53'22", long 94°34'50", in NW ¼ NW ¼ NW ¼ sec.21, T.47 N., R.33 W., Jackson County, Hydrologic Unit 10300101, on the south side of the west bridge pier on the upstream side of Blue Ridge Blvd. Ext.

DRAINAGE AREA.--93.1 mi^2.

PERIOD OF RECORD.--June 1, 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 800.00 ft North American Vertical Datum of 1988

REMARKS.--Records good except for estimated daily discharges, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	6.1	5.3	48	e16	42	90	e43	32	e31	37	73
2	14	5.6	4.0	44	e28	32	75	e36	26	e85	32	e53
3	6.7	7.4	43	37	e18	29	66	29	21	105	30	e35
4	5.0	6.3	32	35	e15	4,130	58	26	19	68	58	e34
5	4.2	5.7	16	e32	e17	3,120	53	22	18	57	e36	e65
6	3.4	4.4	9.1	e20	e12	333	51	20	19	193	e28	e403
7	2.8	4.4	6.6	e16	e11	200	49	16	19	e88	e20	e120
8	3.0	4.0	5.0	e16	e14	145	47	12	15	e58	e16	e49
9	5.4	5.6	66	16	e11	119	41	8.4	27	e47	e19	35
10	4.1	9.1	191	14	e10	103	38	27	694	e38	e14	26
11	4.2	7.4	71	13	e11	88	40	27	254	e29	e11	19
12	5.2	5.6	45	13	e11	76	37	23	99	e25	e5.5	15
13	7.4	5.9	39	12	e11	67	32	65	129	e21	e5.0	12
14	27	6.1	35	11	12	65	29	100	79	e13	e5.7	12
15	8.4	5.8	55	9.6	13	105	28	69	62	e12	e5.4	11
16	6.8	6.1	101	11	14	148	25	41	56	e117	e4.7	11
17	12	15	77	49	37	94	23	29	44	e55	e5.0	8.5
18	6.9	16	70	105	120	78	21	103	274	e33	e5.1	350
19	7.6	8.5	103	51	323	65	19	5,800	143	e21	e4.0	117
20	6.1	10	67	35	203	61	50	403	78	e16	e6.6	63
21	4.6	7.1	53	31	102	53	68	176	66	e12	e5.4	49
22	5.2	5.5	75	28	74	49	41	107	56	e11	e6.1	35
23	4.8	24	186	25	58	61	31	78	44	22	e25	23
24	6.0	10	93	22	47	61	73	61	35	1,510	1,690	16
25	7.2	8.4	64	27	41	53	70	870	26	514	265	10
26	3.8	6.3	50	29	36	53	44	168	24	148	223	7.3
27	4.2	4.5	120	e25	32	54	34	113	51	94	135	11
28	4.7	3.4	266	e18	29	706	28	94	e94	67	918	8.2
29	6.0	3.1	109	e12	32	230	21	63	e40	55	e197	7.7
30	5.8	3.9	77	e11	---	150	30	52	e31	51	e109	8.4
31	5.9	---	58	e11	---	109	---	42	---	44	97	---
MEAN	7.40	7.37	70.7	26.7	46.8	344	43.7	281	85.8	117	130	56.2
MAX	31	24	266	105	323	4,130	90	5,800	694	1,510	1,690	403
MIN	2.8	3.1	4.0	9.6	10	29	19	8.4	15	11	4.0	7.3

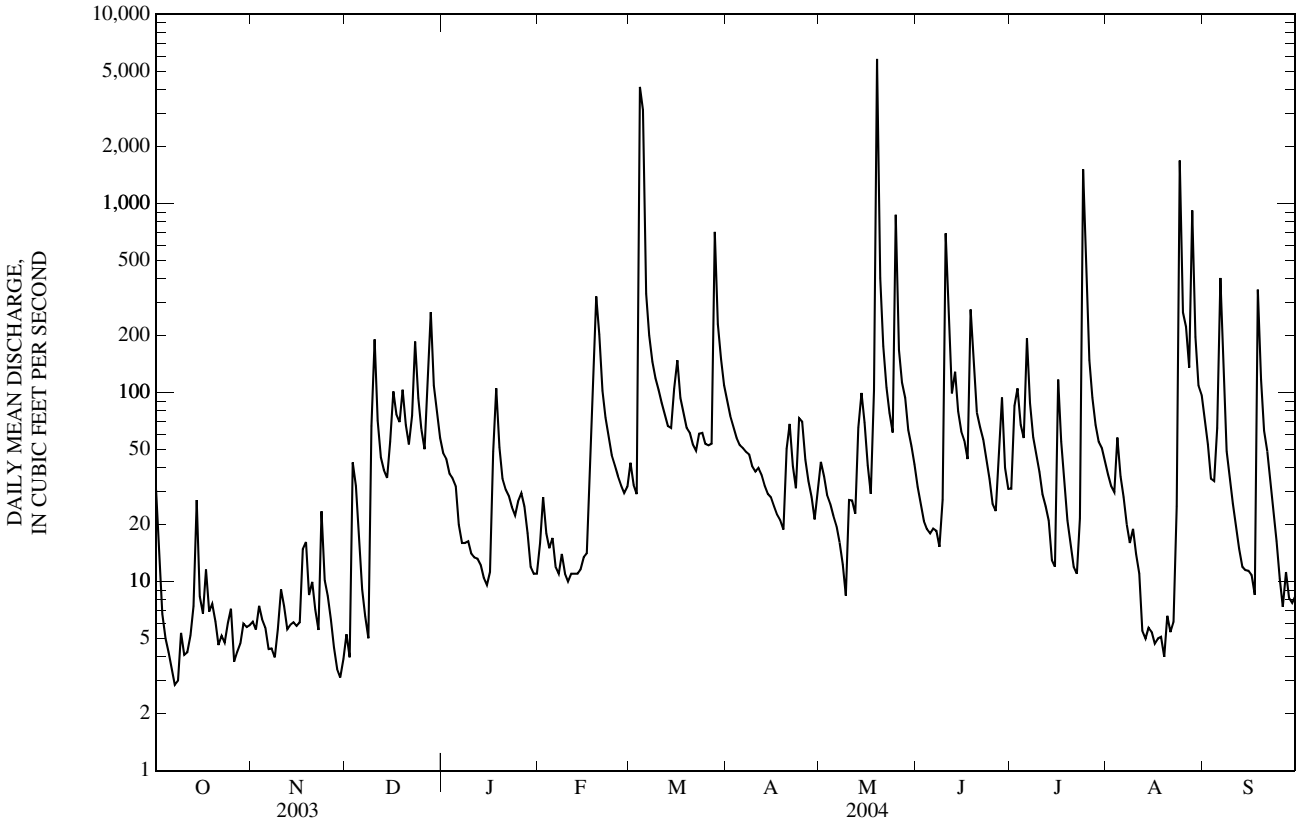
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	7.44	6.44	38.5	15.9	30.4	177	40.4	162	62.7	43.2	78.8	37.8
MAX	7.49	7.37	70.7	26.7	46.8	344	43.7	281	85.8	117	130	56.2
(WY)	(2003)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)	(2004)
MIN	7.40	5.51	6.29	5.11	13.4	9.79	37.1	42.0	45.2	5.90	5.27	4.84
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2002)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL MEAN	33.3		102		65.1	
HIGHEST ANNUAL MEAN					102	2004
LOWEST ANNUAL MEAN					27.7	2003
HIGHEST DAILY MEAN	2,880	Aug 31	5,800	May 19	5,800	May 19, 2004
LOWEST DAILY MEAN	1.1	Apr 12,13	2.8	Oct 7	0.70	Sep 1, 2002
ANNUAL SEVEN-DAY MINIMUM	1.7	Apr 9	3.9	Oct 5	0.90	Aug 29, 2002
MAXIMUM PEAK FLOW	---		12,000	May 19	12,000	May 19, 2004
MAXIMUM PEAK STAGE	---		39.03	May 19	39.03	May 19, 2004
INSTANTANEOUS LOW FLOW	---		1.6	Nov 29	0.60	Sep 1, 2002
10 PERCENT EXCEEDS	68		123		95	
50 PERCENT EXCEEDS	6.1		31		13	
90 PERCENT EXCEEDS	2.3		5.6		3.0	

e Estimated

06893150 BLUE RIVER AT BLUE RIDGE EXT. IN KANSAS CITY, MO—Continued



06893400 INDIAN CREEK AT 103RD STREET IN KANSAS CITY, MO

LOCATION.--Lat 38°56'31", long 94°36'16", in NW ¼ NW ¼ SW ¼ sec. 31, T.47 N., R.33 W., Jackson County, Hydrologic Unit 10300101, on left bank at upstream side of 103rd Street Bridge, east of State Line Road.

DRAINAGE AREA.--65.0 mi^2.

PERIOD OF RECORD.--April 15, 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 722.57 ft North American Vertical Datum of 1988.

REMARKS.--Records good except for estimated daily discharges, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	22	22	39	61	62	50	56	30	32	29	44
2	34	22	23	38	70	34	43	40	28	263	25	39
3	30	24	266	35	40	61	40	32	27	71	24	36
4	28	68	52	72	36	e4,250	37	28	25	41	133	33
5	26	30	37	39	33	539	34	27	26	93	33	151
6	26	24	32	31	33	177	34	27	28	921	30	220
7	25	22	31	28	31	104	32	e26	26	82	27	46
8	26	21	31	28	28	77	32	e26	24	52	28	36
9	40	21	475	27	31	e65	34	e67	121	41	32	36
10	30	22	211	27	40	49	33	e237	942	35	27	33
11	40	25	82	e26	45	e45	34	e65	132	32	41	29
12	46	24	58	e27	40	e42	30	32	96	29	28	27
13	71	18	51	e26	41	38	30	283	364	29	26	26
14	95	21	51	e25	38	e45	29	143	74	22	25	25
15	34	22	156	e27	42	e190	30	57	98	22	24	77
16	33	21	140	e46	37	70	30	43	73	431	23	45
17	52	104	77	e172	96	47	31	35	53	51	25	28
18	24	56	95	e88	137	41	31	452	498	32	24	580
19	21	37	79	e49	188	38	32	1,290	82	28	43	62
20	23	22	54	e40	129	35	373	111	50	24	60	39
21	24	21	51	35	74	31	99	64	53	22	27	33
22	24	21	131	33	57	30	42	47	42	26	27	29
23	24	159	134	32	48	99	40	42	35	73	177	27
24	23	34	63	31	40	43	116	105	31	2,620	1,250	27
25	22	29	49	e68	36	36	49	486	28	220	99	27
26	22	26	44	e54	33	35	38	53	26	86	55	28
27	22	25	148	34	32	81	33	172	239	60	384	28
28	23	23	117	31	31	597	33	51	61	48	2,200	24
29	22	23	55	29	88	120	55	41	38	40	126	22
30	23	23	46	28	---	75	78	45	32	33	74	23
31	22	---	42	28	---	60	---	39	---	31	55	---
MEAN	33.0	33.7	93.6	41.7	56.4	233	53.4	136	113	180	167	62.7
MAX	95	159	475	172	188	4,250	373	1,290	942	2,620	2,200	580
MIN	21	18	22	25	28	30	29	26	24	22	23	22

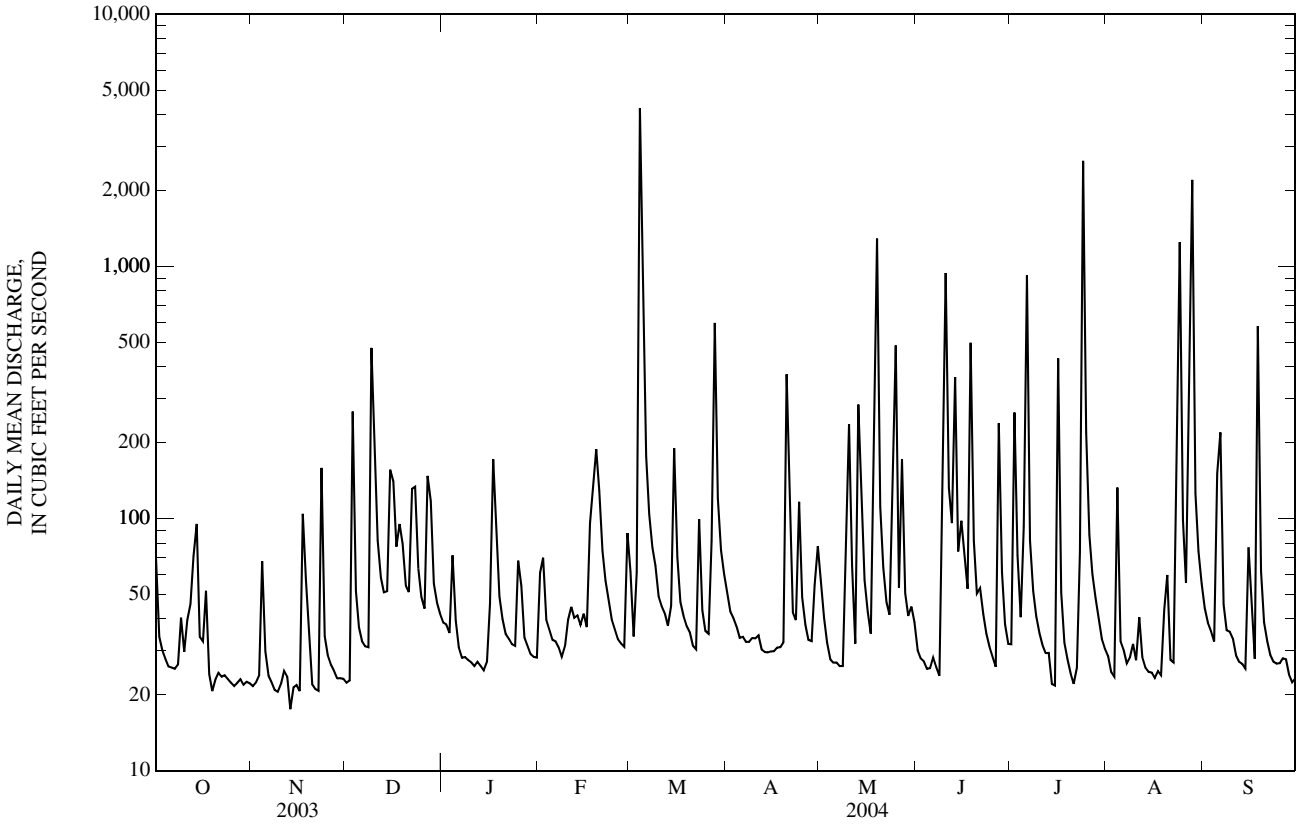
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	46.8	31.1	57.0	31.3	48.1	134	84.4	140	99.6	84.7	153	57.0
MAX	60.5	33.7	93.6	41.7	56.4	233	115	217	124	180	245	75.3
(WY)	(2003)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2002)	(2003)	(2004)	(2003)	(2003)
MIN	33.0	28.6	20.4	20.8	39.5	36.2	53.4	67.1	62.7	27.0	48.0	33.0
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)	(2003)	(2002)	(2003)	(2002)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL MEAN	76.0		101		86.4	
HIGHEST ANNUAL MEAN					101	2004
LOWEST ANNUAL MEAN					71.7	2003
HIGHEST DAILY MEAN	4,730	Aug 31	4,250	Mar 4	4,730	Aug 31, 2003
LOWEST DAILY MEAN	15	Jul 21,Aug 20,21	18	Nov 13	15	Jul 17,18,25,2002, Jul 21, Aug 20,21,2003
ANNUAL SEVEN-DAY MINIMUM	16	Aug 17	22	Nov 8	16	Aug 17, 2003
MAXIMUM PEAK FLOW	---		e11,900	Mar 4	10,100	Aug 31, 2003
MAXIMUM PEAK STAGE	---		Unknown	Mar 4	90.56	Aug 31, 2003
INSTANTANEOUS LOW FLOW	---		13	Nov 13	8.9	Aug 29, 2002
10 PERCENT EXCEEDS	126		144		130	
50 PERCENT EXCEEDS	25		37		31	
90 PERCENT EXCEEDS	18		24		19	

e Estimated

06893400 INDIAN CREEK AT 103RD STREET IN KANSAS CITY, MO—Continued



06893500 BLUE RIVER AT KANSAS CITY, MO

LOCATION.--Lat 38°57'25", long 94°33'32", in SE ¼ NE ¼ sec.28, T.48 N., R.33 W., Jackson County, Hydrologic Unit 10300101, on downstream side of right pier of bridge on Bannister Road, 0.4 mi downstream from Indian Creek, in Kansas City, and at mile 23.2.

DRAINAGE AREA.--188 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1939 to current year.

REVISED RECORDS.--WSP 926: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 753.73 ft above National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers). Prior to July 1, 1939, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Water-discharge records good except for discharges above 800 ft^3/s, which are fair. Low flow regulated by commercial plants above station. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Nov. 17, 1928, reached a stage of about 39 ft, from information by the city of Kansas City.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

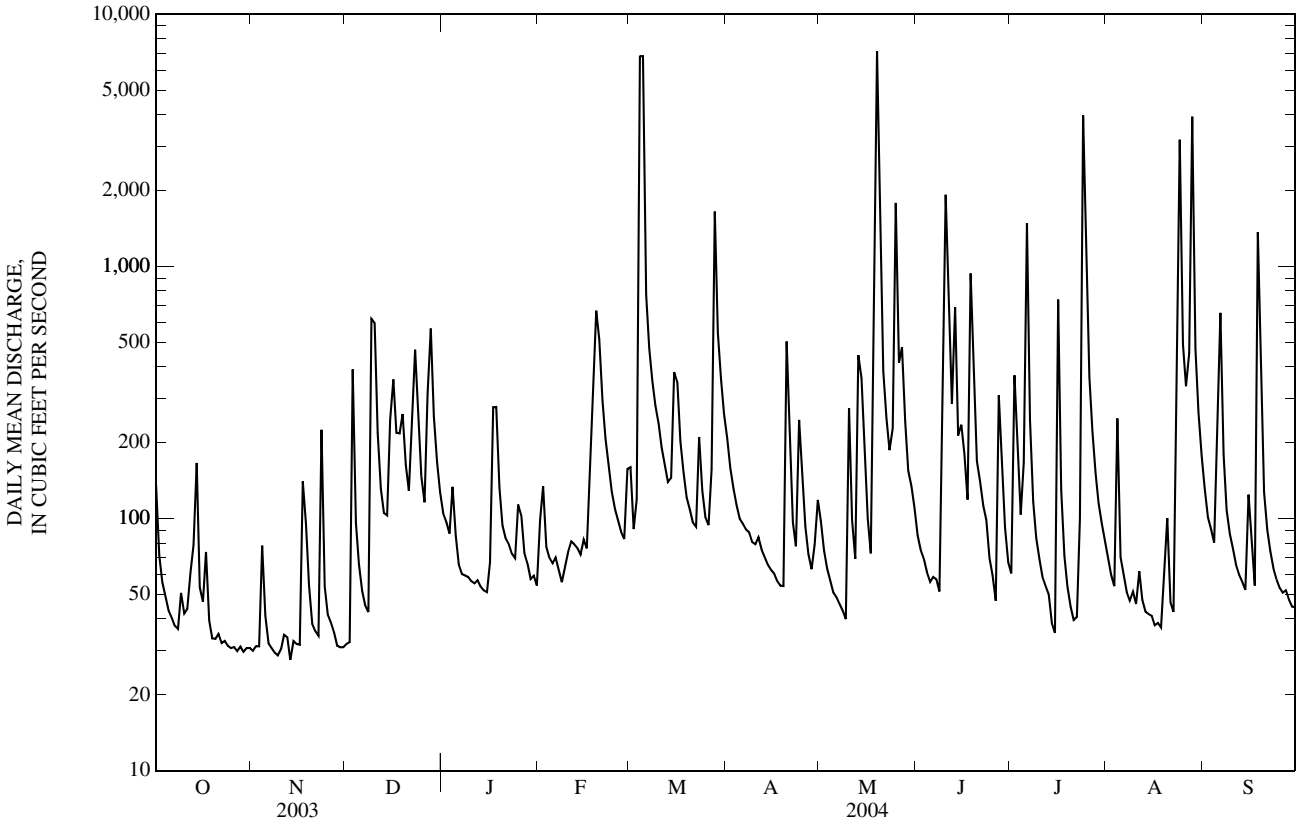
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	30	32	105	99	160	207	98	86	61	71	132
2	71	31	32	97	134	91	159	74	75	370	60	101
3	56	31	390	87	77	119	131	63	69	220	54	91
4	49	78	96	134	70	6,820	113	57	61	104	249	80
5	43	41	66	86	66	6,830	100	51	56	167	70	171
6	40	32	52	66	70	773	95	49	59	1,480	60	654
7	38	31	45	60	63	476	90	46	57	246	51	180
8	37	29	43	60	56	350	88	43	51	117	47	108
9	51	29	620	59	64	280	81	40	195	84	51	87
10	42	30	597	56	74	238	79	274	1,920	69	46	76
11	44	35	219	55	81	191	84	99	587	59	62	65
12	61	34	131	57	79	163	75	69	285	54	48	60
13	78	28	105	54	76	140	70	445	688	50	43	56
14	166	33	103	52	72	145	66	360	213	38	42	52
15	53	32	246	51	83	381	63	185	235	35	41	124
16	47	32	356	67	76	348	61	100	181	739	38	84
17	74	140	219	276	176	203	57	73	119	130	39	54
18	39	95	218	277	323	152	54	673	938	71	37	1,370
19	33	54	260	133	668	121	54	7,140	342	54	64	293
20	33	38	163	94	513	109	504	1,020	169	45	100	127
21	35	36	129	83	295	96	251	385	140	40	47	90
22	32	34	236	79	207	93	97	249	112	41	43	74
23	33	225	467	73	161	210	78	187	99	100	228	63
24	31	54	235	70	128	129	246	228	69	3,970	3,180	57
25	31	42	146	114	109	101	158	1,790	60	1,570	491	53
26	31	39	116	103	98	94	93	415	47	366	335	51
27	30	35	314	73	89	157	72	478	308	223	453	52
28	31	31	567	66	83	1,650	63	243	175	151	3,930	48
29	30	31	255	58	157	547	79	155	92	115	472	45
30	31	31	168	59	---	357	119	134	67	95	264	44
31	31	---	127	54	---	259	---	110	---	83	177	---
MEAN	49.6	48.0	218	89.0	146	703	116	495	252	353	351	151
MAX	166	225	620	277	668	6,830	504	7,140	1,920	3,970	3,930	1,370
MIN	30	28	32	51	56	91	54	40	47	35	37	44
IN.	0.30	0.29	1.34	0.55	0.84	4.31	0.69	3.03	1.49	2.17	2.16	0.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2004, BY WATER YEAR (WY)

MEAN	129	109	96.6	93.4	131	194	269	269	291	169	93.3	168
MAX	790	926	726	445	740	1,407	1,279	1,457	1,285	1,616	460	1,395
(WY)	(1987)	(1999)	(1993)	(1941)	(1985)	(1973)	(1944)	(1990)	(1967)	(1951)	(2003)	(1986)
MIN	0.00	0.00	0.00	0.00	2.66	4.36	6.41	17.8	7.44	1.72	0.94	0.05
(WY)	(1940)	(1940)	(1940)	(1940)	(1940)	(1957)	(1954)	(1956)	(1953)	(1946)	(1947)	(1939)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1939 - 2004	
ANNUAL MEAN	135		249		168	
HIGHEST ANNUAL MEAN					437	1993
LOWEST ANNUAL MEAN					12.8	1956
HIGHEST DAILY MEAN	10,600	Aug 31	7,140	May 19	20,000	Sep 13, 1961
LOWEST DAILY MEAN	16	Aug 21	28	Nov 13	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	17	Aug 19	31	Oct 26	0.00	At Times
MAXIMUM PEAK FLOW	---		17,200	Mar 4	41,000	Sep 13, 1961
MAXIMUM PEAK STAGE	---		33.34	Mar 4	44.46	Sep 13, 1961
INSTANTANEOUS LOW FLOW	---		22	Nov 13	0.00	Several Years
ANNUAL RUNOFF (INCHES)	9.72		18.06		12.16	
10 PERCENT EXCEEDS	227		386		280	
50 PERCENT EXCEEDS	39		84		46	
90 PERCENT EXCEEDS	22		37		7.0	

06893500 BLUE RIVER AT KANSAS CITY, MO—Continued



06893500 BLUE RIVER NEAR KANSAS CITY, MO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1998 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1998 to current year. (See Instrumentation).
pH: August 1998 to current year. (See Instrumentation).
WATER TEMPERATURE: August 1998 to current year. (See Instrumentation).
DISSOLVED OXYGEN: .August 1998 to current year. (See Instrumentation).
TURBIDITY: August 1998 to current year. (See Instrumentation).

INSTRUMENTATION.--Multi-parameter water-quality monitor deployed seasonally since August 1998. Electronic data logger with 15 minute recording interval and four hour satellite transmission interval.

REMARKS.--Interruptions in the record are generally due to malfunction or fouling of the sensors. Where possible missing record has been estimated. Daily value estimations were based on partial data, inspection of contiguous data, hydrographic comparison and the best judgment of the hydrographer. Detailed records of the procedures employed for estimating data and/or data shifts for specific periods of record have been included with the station analysis and are kept on file. The manufacturers' specified range for turbidity sensors used is 0 to 1000 NTU. All numbers beyond this limit may be considered as >1000 NTU. Values >1000 NTU are maintained for continuity of the record. Specific Conductance records were rated either excellent or good except for the following period: October 14-23 rated excellent-fair. pH records were rated either excellent or good except for the following period: June 22-23 rated poor to good. Water temperature records were rated excellent. Dissolved oxygen records were rated excellent except for the following periods: September 9-30 rated excellent-poor, November 18-25 and June 19-22 rated poor, October 14-23, December 9-15 and May 10-12 rated poor-estimated. Turbidity records were rated excellent except for the following periods: October 1 to November 25 rated poor, December 9-15 rated estimated.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,180 microsiemens, December 15, 2003; minimum, 109 microsiemens, June 28, 1999.
pH: Maximum, 8.9 standard units, July 12-13, 2000; minimum, 7.0 standard units on May 1, 9, 2000, December 10, 12, 2003.
WATER TEMPERATURE: Maximum, 32.9 °C, July 27, 29, 1999; minimum, 0.9 °C, December 12-13, 2003.
DISSOLVED OXYGEN: Maximum, 16.1 mg/L, October 9, 1998; minimum, 0.1 mg/L, May 10, June 22-23, August 28-31, December 9, 2003, June 10-11, 2004.
TURBIDITY: Maximum, 2,700 NTU, May 11-12, 2002; minimum, 0.0 NTU on numerous days August-November, 1998, July-November, 1999, April-September 2000, August 3, 14, 2004.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 3,180 microsiemens, December 15; minimum, 158 microsiemens, August 27, 28.
pH: Maximum, 8.4 standard units, July 15, August 1-2; minimum, 7.0 standard units, December 10, 12.
WATER TEMPERATURE: Maximum, 31.6 °C, July 13; minimum, 0.9 °C, December 12-13.
DISSOLVED OXYGEN: Maximum, 12.9 mg/L, December 17; minimum, 0.1 mg/L, December 9 and June 10-11.
TURBIDITY: Maximum, 1,800 NTU, August 23-24, 28, September 5; minimum, 0.0 NTU, August 3, 14.

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.7	12.4	13.6	13.2	11.9	12.3	7.0	6.1	6.5	---	---	---
2	15.0	13.0	14.0	12.6	11.8	12.2	6.5	6.0	6.3	---	---	---
3	15.6	14.2	14.8	15.0	12.3	13.4	6.7	4.6	5.3	---	---	---
4	16.6	14.0	15.3	15.7	13.7	15.1	5.5	4.6	5.0	---	---	---
5	18.2	15.5	16.8	13.7	10.6	12.0	5.4	4.4	4.9	---	---	---
6	18.8	16.3	17.6	10.6	9.0	9.8	5.2	4.1	4.6	---	---	---
7	19.6	17.1	18.3	9.4	7.8	8.7	5.7	4.2	5.0	---	---	---
8	19.8	17.8	18.9	8.7	7.9	8.2	7.0	5.2	6.1	---	---	---
9	20.5	19.2	19.7	8.9	7.5	8.1	9.1	5.1	7.4	---	---	---
10	19.6	19.0	19.3	10.0	8.3	9.0	5.1	2.1	3.0	---	---	---
11	19.4	18.4	19.1	12.8	10.0	11.5	2.1	1.3	1.8	---	---	---
12	18.4	16.4	17.5	13.1	11.0	12.4	1.8	0.9	1.4	---	---	---
13	17.3	15.7	16.5	11.0	9.4	10.0	1.7	0.9	1.4	---	---	---
14	17.0	15.4	16.2	10.3	9.3	9.8	2.7	1.7	2.2	---	---	---
15	16.2	14.4	15.4	10.6	9.8	10.1	5.5	2.6	3.6	---	---	---
16	15.5	14.5	15.0	11.0	9.2	10.1	4.7	3.2	3.9	---	---	---
17	14.5	13.2	14.0	12.6	10.2	11.2	3.7	2.3	3.0	---	---	---
18	15.4	12.9	14.1	13.2	11.7	12.7	---	---	---	---	---	---
19	16.4	14.0	15.1	11.8	10.3	11.1	---	---	---	---	---	---
20	17.5	15.3	16.3	11.8	10.1	10.9	---	---	---	---	---	---
21	17.9	16.0	17.0	11.5	10.2	10.8	---	---	---	---	---	---
22	18.1	16.1	17.1	10.5	9.8	10.2	---	---	---	---	---	---
23	18.1	16.4	17.3	10.3	6.4	8.8	---	---	---	---	---	---
24	18.1	16.1	17.1	6.4	4.4	5.0	---	---	---	---	---	---
25	17.2	14.6	15.9	5.3	3.9	4.6	---	---	---	---	---	---
26	14.6	12.7	13.4	5.8	4.3	5.1	---	---	---	---	---	---
27	13.2	11.7	12.6	6.0	5.0	5.5	---	---	---	---	---	---
28	14.2	12.9	13.3	5.4	3.8	4.7	---	---	---	---	---	---
29	13.9	12.2	13.1	5.1	3.1	4.1	---	---	---	---	---	---
30	15.3	13.4	14.3	6.8	4.8	5.7	---	---	---	---	---	---
31	14.7	13.2	14.0	---	---	---	---	---	---	---	---	---
MONTH	20.5	11.7	15.9	15.7	3.1	9.4	9.1	0.9	4.2	---	---	---

06893500 BLUE RIVER NEAR KANSAS CITY, MO—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	17.8	15.1	16.3
2	---	---	---	---	---	---	---	---	---	16.4	14.6	15.5
3	---	---	---	---	---	---	---	---	---	17.2	13.0	15.1
4	---	---	---	---	---	---	---	---	---	17.4	14.6	16.1
5	---	---	---	---	---	---	---	---	---	20.7	15.2	17.9
6	---	---	---	---	---	---	---	---	---	24.0	19.1	21.3
7	---	---	---	---	---	---	---	---	---	25.9	21.5	23.6
8	---	---	---	---	---	---	---	---	---	26.1	22.7	24.4
9	---	---	---	---	---	---	---	---	---	25.9	23.2	24.5
10	---	---	---	---	---	---	---	---	---	24.2	20.5	22.4
11	---	---	---	---	---	---	---	---	---	24.2	20.9	22.6
12	---	---	---	---	---	---	---	---	---	23.6	22.3	22.8
13	---	---	---	---	---	---	---	---	---	22.6	17.9	20.2
14	---	---	---	---	---	---	---	---	---	17.9	15.6	16.7
15	---	---	---	---	---	---	---	---	---	18.8	15.0	16.9
16	---	---	---	---	---	---	---	---	---	20.9	17.1	18.9
17	---	---	---	---	---	---	---	---	---	22.7	19.4	20.9
18	---	---	---	---	---	---	---	---	---	21.9	19.4	20.4
19	---	---	---	---	---	---	---	---	---	20.9	19.2	19.9
20	---	---	---	---	---	---	---	---	---	23.0	20.6	21.6
21	---	---	---	---	---	---	---	---	---	24.4	21.4	22.9
22	---	---	---	---	---	---	---	---	---	23.9	22.5	23.3
23	---	---	---	---	---	---	16.4	15.4	15.7	24.8	22.5	23.6
24	---	---	---	---	---	---	15.7	14.7	15.2	24.9	21.2	23.8
25	---	---	---	---	---	---	16.7	14.2	15.4	22.4	20.1	20.9
26	---	---	---	---	---	---	18.1	14.9	16.4	20.4	19.3	19.6
27	---	---	---	---	---	---	18.7	14.7	16.8	22.4	18.6	20.4
28	---	---	---	---	---	---	20.9	16.8	18.7	23.3	20.0	21.8
29	---	---	---	---	---	---	19.6	18.0	18.5	24.0	21.9	23.0
30	---	---	---	---	---	---	18.1	16.4	17.5	24.7	23.1	23.8
31	---	---	---	---	---	---	---	---	---	23.6	21.1	22.5
MONTH	---	---	---	---	---	---	20.9	14.2	16.8	26.1	13.0	20.8
		JUNE			JULY			AUGUST			SEPTEMBER	
1	24.2	20.9	22.4	24.7	23.1	23.9	27.4	23.8	25.6	24.4	22.9	23.7
2	24.0	21.1	22.5	24.1	23.2	23.6	28.8	25.6	27.0	25.1	22.8	23.8
3	24.2	20.7	22.4	25.4	22.9	24.0	30.5	26.8	28.5	25.4	22.8	24.1
4	25.0	20.8	22.9	27.4	24.2	25.6	29.4	26.6	27.6	26.2	23.6	24.8
5	23.5	22.0	22.9	27.8	24.6	26.3	27.3	24.8	26.1	26.5	24.3	25.3
6	25.0	21.8	23.2	26.7	22.5	24.2	26.4	23.7	25.1	25.0	22.9	23.8
7	26.6	23.3	24.9	25.5	22.7	24.2	26.2	22.7	24.5	23.6	21.2	22.3
8	27.4	24.2	25.7	24.9	23.7	24.3	24.9	23.1	24.0	22.2	20.4	21.4
9	26.1	22.8	24.4	25.4	23.0	24.1	26.9	23.1	24.9	22.7	20.1	21.3
10	22.8	21.6	22.3	27.5	23.6	25.5	26.4	24.2	25.3	23.3	20.4	21.8
11	24.5	22.3	23.3	29.6	25.7	27.5	24.8	22.8	23.6	23.5	21.0	22.2
12	26.0	23.0	24.4	30.1	26.7	28.3	23.6	20.7	22.2	24.1	21.2	22.6
13	24.6	21.4	23.1	31.6	27.6	29.5	22.9	21.0	22.0	24.7	22.1	23.3
14	26.3	23.2	24.8	31.2	28.2	29.7	23.4	20.9	22.0	25.5	22.8	24.1
15	26.0	24.4	25.2	30.2	27.1	28.6	23.8	20.2	21.9	24.7	23.4	24.1
16	26.0	24.4	25.2	28.8	23.6	26.0	23.5	21.2	22.3	23.7	21.7	22.8
17	26.1	23.7	24.9	27.0	24.8	25.9	25.9	22.2	23.9	22.5	20.6	21.6
18	25.1	21.7	22.9	27.2	24.6	25.9	27.4	24.1	25.6	21.4	19.1	20.6
19	22.1	21.0	21.5	28.5	24.3	26.4	26.3	21.4	24.3	22.6	20.6	21.6
20	21.8	20.2	21.0	30.5	26.4	28.3	21.6	20.4	21.1	22.6	21.0	21.9
21	24.3	21.2	22.6	29.4	27.8	28.6	21.5	20.1	20.8	23.0	20.8	21.8
22	24.9	22.5	23.6	30.2	27.5	28.6	24.2	20.2	22.0	23.0	20.8	21.9
23	25.7	22.4	23.9	28.7	25.6	26.8	23.6	22.8	23.1	22.1	20.9	21.5
24	27.2	23.1	24.9	25.6	18.6	21.6	22.8	20.4	21.3	21.6	19.3	20.5
25	25.3	22.2	23.8	22.0	19.7	20.7	24.0	21.6	22.7	21.8	19.3	20.6
26	25.2	21.3	23.2	22.8	20.1	21.5	26.3	22.9	24.4	21.8	19.3	20.6
27	23.9	20.7	21.9	23.7	20.8	22.3	26.9	23.0	25.9	21.4	19.2	20.4
28	22.6	20.3	21.3	23.6	21.8	22.9	24.0	22.4	23.3	20.6	19.2	19.9
29	23.9	20.7	22.3	23.5	22.5	23.0	23.8	21.9	22.9	19.4	17.2	18.4
30	25.0	21.9	23.4	23.5	22.2	22.7	23.7	21.5	22.7	19.4	17.3	18.3
31	---	---	---	25.9	22.0	23.8	24.3	22.3	23.4	---	---	---
MONTH	27.4	20.2	23.4	31.6	18.6	25.3	30.5	20.1	23.9	26.5	17.2	22.0

06893500 BLUE RIVER NEAR KANSAS CITY, MO—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.9	7.7	7.8	7.6	7.5	7.6	7.5	7.3	7.4	---	---	---
2	7.9	7.7	7.8	7.7	7.6	7.6	7.4	7.3	7.4	---	---	---
3	7.8	7.7	7.8	7.8	7.6	7.7	7.4	7.2	7.4	---	---	---
4	7.8	7.7	7.7	7.7	7.6	7.6	7.4	7.3	7.3	---	---	---
5	7.9	7.7	7.8	7.7	7.6	7.7	7.3	7.3	7.3	---	---	---
6	7.9	7.7	7.8	7.8	7.6	7.7	7.4	7.3	7.3	---	---	---
7	7.9	7.7	7.8	7.8	7.7	7.7	7.5	7.3	7.4	---	---	---
8	7.8	7.7	7.8	7.8	7.6	7.7	7.5	7.4	7.4	---	---	---
9	7.7	7.6	7.7	7.7	7.6	7.6	7.4	7.2	7.3	---	---	---
10	7.8	7.7	7.7	7.6	7.5	7.5	7.2	7.0	7.0	---	---	---
11	7.7	7.6	7.6	7.6	7.5	7.5	7.1	7.1	7.1	---	---	---
12	7.7	7.6	7.6	7.6	7.4	7.5	7.2	7.0	7.1	---	---	---
13	7.7	7.6	7.6	7.6	7.4	7.5	7.2	7.1	7.1	---	---	---
14	7.6	7.5	7.6	7.6	7.4	7.5	7.2	7.1	7.2	---	---	---
15	7.6	7.5	7.6	7.5	7.4	7.4	7.5	7.2	7.4	---	---	---
16	7.7	7.5	7.5	7.5	7.4	7.4	7.5	7.5	7.5	---	---	---
17	7.7	7.5	7.6	7.5	7.2	7.4	7.6	7.5	7.6	---	---	---
18	7.6	7.6	7.6	7.5	7.4	7.4	---	---	---	---	---	---
19	7.6	7.6	7.6	7.6	7.4	7.5	---	---	---	---	---	---
20	7.7	7.6	7.6	7.7	7.6	7.6	---	---	---	---	---	---
21	7.8	7.6	7.7	7.6	7.5	7.5	---	---	---	---	---	---
22	7.7	7.6	7.6	7.5	7.4	7.5	---	---	---	---	---	---
23	7.8	7.6	7.7	7.8	7.4	7.7	---	---	---	---	---	---
24	7.9	7.6	7.7	7.8	7.7	7.8	---	---	---	---	---	---
25	7.8	7.6	7.7	7.8	7.5	7.7	---	---	---	---	---	---
26	7.8	7.6	7.7	7.5	7.3	7.4	---	---	---	---	---	---
27	7.8	7.6	7.7	7.4	7.3	7.3	---	---	---	---	---	---
28	7.8	7.6	7.7	7.4	7.3	7.4	---	---	---	---	---	---
29	7.8	7.6	7.7	7.4	7.2	7.3	---	---	---	---	---	---
30	7.8	7.6	7.7	7.5	7.3	7.4	---	---	---	---	---	---
31	7.8	7.6	7.7	---	---	---	---	---	---	---	---	---
MONTH	7.9	7.5	7.7	7.8	7.2	7.5	7.6	7.0	7.3	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	7.7	7.6	7.6
2	---	---	---	---	---	---	---	---	---	7.8	7.6	7.7
3	---	---	---	---	---	---	---	---	---	7.8	7.6	7.7
4	---	---	---	---	---	---	---	---	---	7.8	7.6	7.6
5	---	---	---	---	---	---	---	---	---	7.8	7.6	7.7
6	---	---	---	---	---	---	---	---	---	7.9	7.6	7.7
7	---	---	---	---	---	---	---	---	---	7.9	7.6	7.8
8	---	---	---	---	---	---	---	---	---	7.8	7.6	7.7
9	---	---	---	---	---	---	---	---	---	7.8	7.6	7.7
10	---	---	---	---	---	---	---	---	---	7.6	7.3	7.4
11	---	---	---	---	---	---	---	---	---	7.5	7.3	7.4
12	---	---	---	---	---	---	---	---	---	7.7	7.3	7.5
13	---	---	---	---	---	---	---	---	---	7.7	7.4	7.6
14	---	---	---	---	---	---	---	---	---	7.8	7.6	7.7
15	---	---	---	---	---	---	---	---	---	7.8	7.7	7.8
16	---	---	---	---	---	---	---	---	---	7.8	7.7	7.8
17	---	---	---	---	---	---	---	---	---	7.8	7.7	7.8
18	---	---	---	---	---	---	---	---	---	7.7	7.4	7.6
19	---	---	---	---	---	---	---	---	---	7.6	7.4	7.5
20	---	---	---	---	---	---	---	---	---	7.7	7.4	7.6
21	---	---	---	---	---	---	---	---	---	7.8	7.6	7.7
22	---	---	---	---	---	---	---	---	---	7.8	7.7	7.7
23	---	---	---	---	---	---	7.7	7.6	7.6	7.8	7.7	7.8
24	---	---	---	---	---	---	7.8	7.6	7.7	7.9	7.6	7.8
25	---	---	---	---	---	---	7.8	7.7	7.7	7.7	7.5	7.5
26	---	---	---	---	---	---	7.9	7.7	7.8	7.7	7.5	7.6
27	---	---	---	---	---	---	8.0	7.7	7.8	7.7	7.6	7.7
28	---	---	---	---	---	---	7.8	7.7	7.7	7.8	7.7	7.7
29	---	---	---	---	---	---	7.7	7.6	7.7	7.8	7.7	7.8
30	---	---	---	---	---	---	7.6	7.5	7.6	7.9	7.8	7.8
31	---	---	---	---	---	---	---	---	---	7.9	7.8	7.8
MONTH	---	---	---	---	---	---	8.0	7.5	7.7	7.9	7.3	7.7

06893500 BLUE RIVER NEAR KANSAS CITY, MO—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.0	7.8	7.9	7.9	7.6	7.7	8.4	8.0	8.2	7.9	7.9	7.9
2	8.0	7.8	7.9	7.9	7.4	7.7	8.4	8.0	8.2	8.0	7.9	7.9
3	8.1	7.8	8.0	7.7	7.5	7.6	8.3	7.9	8.1	8.1	7.9	8.0
4	8.2	7.8	8.0	7.8	7.6	7.7	8.2	7.7	7.9	8.2	8.0	8.0
5	8.3	7.9	8.1	7.8	7.5	7.7	7.9	7.7	7.8	8.2	7.8	8.1
6	8.3	7.8	8.1	7.7	7.3	7.5	8.0	7.7	7.8	7.9	7.7	7.8
7	8.3	7.8	8.1	7.8	7.5	7.6	8.0	7.8	7.9	7.9	7.8	7.8
8	8.2	7.9	8.1	7.7	7.7	7.7	8.0	7.8	7.8	7.9	7.8	7.8
9	8.0	7.6	7.8	7.8	7.6	7.7	8.0	7.7	7.8	8.0	7.8	7.9
10	7.7	7.5	7.6	7.9	7.6	7.8	8.0	7.7	7.8	8.1	7.9	8.0
11	7.7	7.6	7.6	8.0	7.7	7.9	8.0	7.6	7.8	8.1	8.0	8.0
12	7.8	7.7	7.7	8.2	7.8	7.9	8.0	7.7	7.8	8.2	7.9	8.0
13	7.8	7.6	7.7	8.2	7.8	8.0	7.9	7.7	7.8	8.2	7.9	8.0
14	7.8	7.7	7.8	8.3	7.8	8.1	7.9	7.6	7.8	8.2	7.9	8.0
15	7.8	7.7	7.7	8.4	7.8	8.1	7.9	7.7	7.8	8.0	7.8	7.9
16	7.8	7.7	7.8	8.3	7.4	7.7	8.0	7.6	7.8	8.0	7.8	7.9
17	8.0	7.7	7.8	7.7	7.5	7.6	8.0	7.7	7.9	8.0	7.8	7.9
18	7.9	7.5	7.7	7.9	7.6	7.7	8.0	7.7	7.8	8.0	7.8	7.9
19	7.8	7.7	7.7	8.1	7.7	7.9	7.9	7.6	7.8	7.9	7.8	7.9
20	7.8	7.7	7.7	8.2	7.9	8.0	7.8	7.6	7.7	7.9	7.9	7.9
21	8.0	7.8	7.9	8.2	7.9	8.1	7.8	7.6	7.7	7.9	7.9	7.9
22	8.1	7.8	8.0	8.3	7.9	8.1	7.9	7.6	7.7	8.0	7.9	7.9
23	8.2	7.6	7.8	8.1	7.8	7.9	7.7	7.6	7.7	8.0	7.9	7.9
24	7.8	7.6	7.7	8.0	7.7	7.8	8.0	7.6	7.7	8.0	7.9	7.9
25	8.0	7.6	7.8	7.8	7.7	7.8	7.8	7.7	7.7	8.0	7.8	7.9
26	7.9	7.6	7.7	7.9	7.8	7.9	7.9	7.8	7.8	8.0	7.8	7.9
27	7.7	7.3	7.5	8.0	7.9	7.9	8.0	7.8	7.9	8.0	7.8	7.9
28	7.7	7.5	7.6	8.0	7.9	8.0	7.8	7.6	7.7	8.0	7.8	7.9
29	7.8	7.6	7.7	8.1	8.0	8.0	7.8	7.7	7.7	7.9	7.8	7.8
30	7.9	7.6	7.7	8.1	7.9	8.0	7.9	7.8	7.8	7.9	7.8	7.8
31	---	---	---	8.2	8.0	8.1	7.9	7.8	7.8	---	---	---
MONTH	8.3	7.3	7.8	8.4	7.3	7.8	8.4	7.6	7.8	8.2	7.7	7.9

06893500 BLUE RIVER NEAR KANSAS CITY, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	587	519	533	962	948	958	898	875	887	---	---	---
2	574	522	554	976	957	970	914	875	903	---	---	---
3	608	550	570	972	964	969	903	428	583	---	---	---
4	691	608	647	971	816	944	649	598	638	---	---	---
5	734	691	711	864	768	828	679	626	647	---	---	---
6	762	734	748	862	835	845	719	679	698	---	---	---
7	792	762	781	850	842	846	769	718	741	---	---	---
8	815	792	807	882	847	862	800	769	779	---	---	---
9	835	802	822	916	882	903	803	390	626	---	---	---
10	820	780	793	922	904	914	862	397	606	---	---	---
11	823	780	793	919	904	912	1,463	862	1,231	---	---	---
12	823	750	784	926	903	916	1,405	1,271	1,328	---	---	---
13	779	624	762	906	897	901	1,515	1,371	1,435	---	---	---
14	695	517	612	900	879	890	1,892	1,515	1,679	---	---	---
15	632	591	609	909	889	902	3,180	1,892	2,344	---	---	---
16	672	632	654	914	901	906	2,779	1,830	2,345	---	---	---
17	745	658	721	934	584	823	1,830	1,348	1,499	---	---	---
18	743	709	722	682	542	643	---	---	---	---	---	---
19	755	737	747	709	630	671	---	---	---	---	---	---
20	764	727	738	763	709	732	---	---	---	---	---	---
21	854	764	816	783	759	770	---	---	---	---	---	---
22	896	854	885	800	764	779	---	---	---	---	---	---
23	904	890	899	803	464	600	---	---	---	---	---	---
24	923	899	916	581	516	550	---	---	---	---	---	---
25	944	913	932	633	581	604	---	---	---	---	---	---
26	951	921	941	734	632	672	---	---	---	---	---	---
27	966	934	956	815	734	779	---	---	---	---	---	---
28	964	944	955	851	815	836	---	---	---	---	---	---
29	958	944	953	873	851	867	---	---	---	---	---	---
30	954	948	951	890	870	881	---	---	---	---	---	---
31	953	947	951	---	---	---	---	---	---	---	---	---
MONTH	966	517	783	976	464	822	3,180	390	1,116	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	745	687	710
2	---	---	---	---	---	---	---	---	---	711	681	692
3	---	---	---	---	---	---	---	---	---	732	710	720
4	---	---	---	---	---	---	---	---	---	764	730	742
5	---	---	---	---	---	---	---	---	---	792	761	772
6	---	---	---	---	---	---	---	---	---	816	791	800
7	---	---	---	---	---	---	---	---	---	829	809	817
8	---	---	---	---	---	---	---	---	---	836	825	831
9	---	---	---	---	---	---	---	---	---	845	684	780
10	---	---	---	---	---	---	---	---	---	800	489	666
11	---	---	---	---	---	---	---	---	---	599	502	561
12	---	---	---	---	---	---	---	---	---	667	599	635
13	---	---	---	---	---	---	---	---	---	666	435	567
14	---	---	---	---	---	---	---	---	---	537	456	476
15	---	---	---	---	---	---	---	---	---	626	537	583
16	---	---	---	---	---	---	---	---	---	665	626	642
17	---	---	---	---	---	---	---	---	---	707	665	685
18	---	---	---	---	---	---	---	---	---	718	364	526
19	---	---	---	---	---	---	---	---	---	440	190	272
20	---	---	---	---	---	---	---	---	---	506	383	454
21	---	---	---	---	---	---	---	---	---	606	506	557
22	---	---	---	---	---	---	---	---	---	667	597	631
23	---	---	---	---	---	---	709	621	666	702	654	676
24	---	---	---	---	---	---	779	676	721	712	337	682
25	---	---	---	---	---	---	676	624	639	457	227	305
26	---	---	---	---	---	---	683	637	662	445	325	394
27	---	---	---	---	---	---	717	683	702	520	375	462
28	---	---	---	---	---	---	767	712	741	533	466	500
29	---	---	---	---	---	---	863	767	793	583	533	558
30	---	---	---	---	---	---	852	745	815	632	583	618
31	---	---	---	---	---	---	---	---	---	655	629	646
MONTH	---	---	---	---	---	---	863	621	717	845	190	612

06893500 BLUE RIVER NEAR KANSAS CITY, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	660	649	653	658	609	636	739	719	729	633	596	611
2	684	660	670	676	324	567	737	723	730	648	607	634
3	698	681	690	468	390	425	743	709	731	675	639	653
4	709	572	668	546	468	498	741	503	591	676	661	668
5	713	575	653	621	529	571	596	573	588	679	478	665
6	716	561	662	566	223	347	652	588	614	515	361	415
7	632	442	559	575	370	498	710	652	681	472	443	461
8	591	463	525	636	575	616	781	710	735	554	472	502
9	691	489	580	696	636	673	804	776	787	638	554	597
10	605	286	383	721	692	706	805	782	790	698	635	662
11	430	308	373	734	720	726	809	772	792	718	690	702
12	530	409	487	768	732	743	790	765	773	740	718	735
13	479	334	396	755	738	748	816	790	805	767	732	755
14	544	448	482	762	721	746	816	805	811	795	765	783
15	569	531	546	774	707	750	834	816	828	813	621	770
16	622	365	538	731	300	455	853	825	840	735	598	676
17	621	506	568	451	396	422	858	827	846	706	676	683
18	589	310	417	534	451	495	855	820	841	691	260	411
19	442	363	409	605	534	560	849	703	822	463	361	425
20	585	442	533	671	605	637	754	640	693	510	463	482
21	624	569	597	728	671	699	730	664	709	578	510	546
22	656	623	637	760	728	743	755	730	746	625	577	606
23	694	568	646	770	680	735	753	477	651	687	620	655
24	706	667	692	690	172	393	481	192	254	717	687	699
25	739	623	711	473	254	381	426	288	366	738	716	728
26	770	738	749	576	472	531	487	426	453	772	738	762
27	781	438	657	636	576	612	613	158	479	779	753	763
28	504	436	470	688	635	663	340	158	260	772	759	766
29	542	472	507	702	685	695	475	340	413	783	747	771
30	609	542	577	718	701	709	548	475	518	783	758	777
31	---	---	---	739	702	723	611	547	584	---	---	---
MONTH	781	286	568	774	172	603	858	158	660	813	260	645

06893500 BLUE RIVER NEAR KANSAS CITY, MO—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	10.5	9.6	10.1	9.5	8.0	8.7	11.4	9.7	10.5	---	---	---
2	10.5	9.4	9.9	9.8	8.2	8.9	10.8	9.7	10.1	---	---	---
3	10.0	9.0	9.5	9.9	7.9	8.7	11.8	9.0	10.6	---	---	---
4	10.2	8.9	9.4	8.2	6.7	7.5	10.7	10.0	10.3	---	---	---
5	10.3	8.6	9.3	9.6	7.6	8.5	10.6	8.2	9.7	---	---	---
6	10.1	8.3	8.9	10.9	8.6	9.7	9.0	7.8	8.6	---	---	---
7	10.1	7.9	8.8	11.5	9.6	10.5	8.2	5.3	7.3	---	---	---
8	9.8	7.6	8.5	11.7	9.7	10.6	7.4	4.1	5.6	---	---	---
9	8.7	7.1	7.9	11.5	9.5	10.4	9.8	0.1	2.9	---	---	---
10	9.0	7.6	8.1	10.1	8.2	9.2	8.6	0.4	e2.6	---	---	---
11	8.5	6.7	7.8	9.1	6.7	8.0	11.7	3.0	e6.7	---	---	---
12	9.7	7.7	8.7	8.9	6.0	7.3	11.7	5.3	e6.8	---	---	---
13	9.7	8.2	8.8	10.5	7.1	8.5	8.6	6.6	e7.6	---	---	---
14	9.6	8.6	9.1	9.0	7.2	8.2	10.7	8.6	e9.6	---	---	---
15	10.4	9.0	9.6	7.9	6.3	7.0	12.4	10.7	e11.7	---	---	---
16	10.5	9.1	9.8	8.5	6.2	7.1	12.5	11.9	12.2	---	---	---
17	11.6	8.6	10.4	7.9	5.2	6.3	12.9	12.0	12.6	---	---	---
18	11.8	9.7	10.6	7.7	6.1	6.8	---	---	---	---	---	---
19	11.4	8.4	10.4	8.8	7.4	8.0	---	---	---	---	---	---
20	12.4	7.6	e10.3	9.6	7.8	8.4	---	---	---	---	---	---
21	10.7	6.1	e9.4	8.8	7.0	7.9	---	---	---	---	---	---
22	10.3	6.9	e8.7	8.4	7.1	7.6	---	---	---	---	---	---
23	9.7	7.4	e8.4	10.1	6.9	9.0	---	---	---	---	---	---
24	9.4	7.1	8.0	11.7	10.1	11.0	---	---	---	---	---	---
25	9.4	7.0	8.1	12.0	10.9	11.3	---	---	---	---	---	---
26	10.7	7.9	9.0	11.4	10.6	11.1	---	---	---	---	---	---
27	10.8	8.4	9.5	11.5	10.3	10.8	---	---	---	---	---	---
28	10.2	8.1	9.1	11.9	10.6	11.2	---	---	---	---	---	---
29	10.4	8.0	9.1	12.0	11.0	11.4	---	---	---	---	---	---
30	9.6	7.8	8.6	11.6	10.3	10.8	---	---	---	---	---	---
31	10.3	7.3	8.6	---	---	---	---	---	---	---	---	---
MONTH	12.4	6.1	9.1	12.0	5.2	9.0	12.9	0.1	8.6	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	9.6	7.6	8.8
2	---	---	---	---	---	---	---	---	---	9.9	8.4	9.1
3	---	---	---	---	---	---	---	---	---	10.2	8.6	9.3
4	---	---	---	---	---	---	---	---	---	9.6	7.9	8.8
5	---	---	---	---	---	---	---	---	---	9.9	7.1	8.7
6	---	---	---	---	---	---	---	---	---	9.1	6.0	7.4
7	---	---	---	---	---	---	---	---	---	9.5	6.6	7.8
8	---	---	---	---	---	---	---	---	---	8.8	5.8	7.0
9	---	---	---	---	---	---	---	---	---	9.0	5.7	7.1
10	---	---	---	---	---	---	---	---	---	7.2	0.2	4.7
11	---	---	---	---	---	---	---	---	---	4.2	0.6	e2.4
12	---	---	---	---	---	---	---	---	---	6.8	4.0	e5.6
13	---	---	---	---	---	---	---	---	---	8.0	6.0	7.0
14	---	---	---	---	---	---	---	---	---	9.1	7.9	8.6
15	---	---	---	---	---	---	---	---	---	9.2	8.1	8.8
16	---	---	---	---	---	---	---	---	---	8.6	7.5	8.1
17	---	---	---	---	---	---	---	---	---	8.0	6.8	7.4
18	---	---	---	---	---	---	---	---	---	7.4	0.2	3.4
19	---	---	---	---	---	---	---	---	---	8.1	0.3	6.8
20	---	---	---	---	---	---	---	---	---	8.0	7.4	7.8
21	---	---	---	---	---	---	---	---	---	7.8	7.2	7.6
22	---	---	---	---	---	---	---	---	---	7.7	7.2	7.4
23	---	---	---	---	---	---	8.9	7.9	8.4	8.1	7.2	7.6
24	---	---	---	---	---	---	9.3	8.3	8.9	8.4	7.2	7.8
25	---	---	---	---	---	---	9.7	8.9	9.2	8.2	7.4	7.9
26	---	---	---	---	---	---	9.8	8.7	9.2	8.6	8.1	8.5
27	---	---	---	---	---	---	9.5	8.3	8.9	8.7	7.7	8.3
28	---	---	---	---	---	---	8.9	7.4	8.2	8.3	7.7	8.1
29	---	---	---	---	---	---	7.6	6.7	7.2	8.2	7.5	7.8
30	---	---	---	---	---	---	8.1	6.9	7.6	7.9	7.0	7.5
31	---	---	---	---	---	---	---	---	---	8.6	7.2	7.9
MONTH	---	---	---	---	---	---	9.8	6.7	8.4	10.2	0.2	7.5

06893500 BLUE RIVER NEAR KANSAS CITY, MO—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	9.2	7.7	8.3	10.0	7.1	8.3	11.3	6.6	8.6	8.0	7.0	7.4
2	9.9	7.7	8.7	8.3	7.1	7.6	11.2	6.4	8.4	8.3	7.0	7.6
3	10.6	7.8	9.0	7.7	7.2	7.5	11.2	6.2	8.2	8.9	6.9	7.8
4	11.8	7.7	9.6	8.4	6.9	7.5	7.2	5.5	6.3	9.6	6.8	7.9
5	11.9	7.4	9.5	8.3	6.5	7.3	7.8	5.6	6.6	9.9	6.5	7.8
6	12.3	7.0	9.5	8.0	6.7	7.4	8.6	5.9	7.1	7.3	6.6	6.9
7	11.4	6.6	8.8	8.0	7.0	7.6	8.9	6.2	7.4	8.2	6.9	7.5
8	10.7	4.9	7.8	7.6	6.8	7.2	8.4	6.1	7.0	8.4	7.0	7.7
9	8.0	3.8	6.2	8.3	7.0	7.5	8.8	5.8	7.1	8.6	7.4	7.9
10	7.3	0.1	2.5	8.7	6.8	7.7	9.0	5.6	7.1	8.6	7.2	7.8
11	7.1	0.1	3.0	9.3	6.6	7.8	9.3	6.0	7.5	8.7	6.9	7.7
12	7.4	6.2	7.0	10.0	6.0	7.7	9.7	6.7	8.0	8.9	6.8	7.6
13	8.0	3.9	7.1	10.6	5.7	7.8	9.3	6.8	7.9	8.9	6.5	7.5
14	7.9	6.4	7.4	11.6	5.3	8.0	9.8	6.7	8.1	8.8	6.1	7.2
15	7.8	5.4	6.3	12.4	5.6	8.5	9.9	7.0	8.2	6.9	5.7	6.2
16	7.8	5.9	7.1	8.2	5.2	6.8	10.1	6.8	8.3	7.7	5.9	6.6
17	8.7	6.8	7.6	7.1	6.4	6.8	9.7	6.8	8.1	8.2	6.0	6.9
18	7.7	0.6	3.8	8.0	6.6	7.2	9.5	6.1	7.6	8.0	6.6	7.3
19	8.0	5.8	7.7	8.9	6.7	7.5	8.2	5.9	7.0	7.4	7.0	7.2
20	8.5	7.8	8.0	8.9	6.1	7.3	8.4	6.7	7.3	7.4	6.8	7.0
21	8.5	7.5	7.9	8.8	5.7	7.1	8.8	6.6	7.6	7.4	6.7	7.0
22	9.0	7.2	8.0	9.5	5.8	7.3	9.0	6.7	7.7	7.7	6.7	7.1
23	9.3	7.8	8.4	7.8	5.3	6.6	7.4	6.0	6.7	7.3	6.4	6.9
24	9.5	7.3	8.3	8.6	6.3	7.6	7.8	7.2	7.6	8.2	6.6	7.2
25	10.0	7.3	8.5	8.2	7.6	8.0	7.7	6.9	7.4	8.2	6.4	7.2
26	10.4	7.6	8.7	8.1	7.5	7.8	7.4	6.8	7.1	8.3	6.2	7.1
27	8.4	7.2	7.9	8.2	7.2	7.7	7.7	6.6	7.0	8.9	6.6	7.5
28	8.9	8.1	8.3	8.1	7.0	7.5	7.8	6.9	7.2	9.2	6.6	7.7
29	9.6	7.8	8.5	8.6	6.9	7.7	7.5	7.1	7.3	9.6	6.6	8.0
30	9.6	7.6	8.4	9.1	6.8	7.7	7.8	7.1	7.4	9.5	6.9	8.1
31	---	---	---	10.1	7.0	8.3	7.7	7.0	7.3	---	---	---
MONTH	12.3	0.1	7.6	12.4	5.2	7.6	11.3	5.5	7.5	9.9	5.7	7.4

e Estimated

06893500 BLUE RIVER NEAR KANSAS CITY, MO—Continued

TURBIDITY, WATER, UNFILTERED, NEPHELOMETRIC TURBIDITY UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	120	45	64	8.5	3.8	6.0	27	5.0	8.3	---	---	---
2	54	14	31	9.2	4.6	6.1	26	5.0	9.1	---	---	---
3	35	10	17	10	6.2	7.6	1,500	9.0	210	---	---	---
4	18	8.5	13	38	7.7	18	110	57	84	---	---	---
5	17	5.4	9.9	25	4.6	9.2	90	40	68	---	---	---
6	38	6.9	14	9.2	3.1	4.9	40	12	22	---	---	---
7	18	8.5	13	5.4	3.1	3.7	13	8.0	9.8	---	---	---
8	14	8.5	11	6.2	3.1	3.9	10	7.0	8.0	---	---	---
9	29	9.2	16	6.2	3.1	4.4	1,500	8.0	e280	---	---	---
10	18	7.7	11	8.5	4.6	5.8	330	140	e210	---	---	---
11	31	7.7	15	12	7.7	9.6	140	69	e99	---	---	---
12	29	6.9	15	11	6.9	8.7	69	37	e50	---	---	---
13	320	6.2	32	9.2	4.6	6.3	37	24	e28	---	---	---
14	200	29	66	25	4.6	12	24	22	e23	---	---	---
15	32	10	17	15	6.2	9.2	130	22	e54	---	---	---
16	28	9.2	12	14	4.6	7.0	90	39	67	---	---	---
17	30	11	18	320	6.9	66	40	20	27	---	---	---
18	12	5.4	8.5	61	23	42	---	---	---	---	---	---
19	18	6.9	10	26	10	17	---	---	---	---	---	---
20	15	6.2	9.8	10	6.2	7.9	---	---	---	---	---	---
21	15	6.9	9.2	21	6.9	10	---	---	---	---	---	---
22	25	6.9	9.8	15	6.9	9.2	---	---	---	---	---	---
23	13	6.2	9.1	1,300	8.5	120	---	---	---	---	---	---
24	12	5.4	8.4	75	28	43	---	---	---	---	---	---
25	12	4.6	7.5	31	27	29	---	---	---	---	---	---
26	7.7	3.1	5.5	31	22	28	---	---	---	---	---	---
27	11	3.1	5.9	22	10	15	---	---	---	---	---	---
28	18	6.2	9.5	11	6.0	7.6	---	---	---	---	---	---
29	8.5	3.1	5.6	8.0	5.0	5.9	---	---	---	---	---	---
30	12	3.8	7.1	8.0	5.0	6.3	---	---	---	---	---	---
31	13	6.2	8.5	---	---	---	---	---	---	---	---	---
MONTH	320	3.1	16	1,300	3.1	18	1,500	5.0	74	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	38	14	19
2	---	---	---	---	---	---	---	---	---	26	15	18
3	---	---	---	---	---	---	---	---	---	26	12	15
4	---	---	---	---	---	---	---	---	---	30	10	14
5	---	---	---	---	---	---	---	---	---	19	10	14
6	---	---	---	---	---	---	---	---	---	27	9.0	14
7	---	---	---	---	---	---	---	---	---	21	8.0	13
8	---	---	---	---	---	---	---	---	---	19	8.0	12
9	---	---	---	---	---	---	---	---	---	22	8.0	13
10	---	---	---	---	---	---	---	---	---	500	12	100
11	---	---	---	---	---	---	---	---	---	74	14	29
12	---	---	---	---	---	---	---	---	---	170	13	39
13	---	---	---	---	---	---	---	---	---	330	26	120
14	---	---	---	---	---	---	---	---	---	120	52	86
15	---	---	---	---	---	---	---	---	---	65	27	42
16	---	---	---	---	---	---	---	---	---	30	19	24
17	---	---	---	---	---	---	---	---	---	55	17	28
18	---	---	---	---	---	---	---	---	---	1,100	20	320
19	---	---	---	---	---	---	---	---	---	1,400	300	930
20	---	---	---	---	---	---	---	---	---	490	120	220
21	---	---	---	---	---	---	---	---	---	130	60	83
22	---	---	---	---	---	---	---	---	---	71	39	54
23	---	---	---	---	---	---	32	17	24	68	27	38
24	---	---	---	---	---	---	68	23	42	1,400	20	120
25	---	---	---	---	---	---	43	19	32	1,400	410	740
26	---	---	---	---	---	---	22	16	19	430	99	220
27	---	---	---	---	---	---	33	18	22	400	69	130
28	---	---	---	---	---	---	23	11	17	82	36	62
29	---	---	---	---	---	---	43	12	21	41	28	36
30	---	---	---	---	---	---	46	20	27	32	20	27
31	---	---	---	---	---	---	---	---	---	27	16	22
MONTH	---	---	---	---	---	---	68	11	26	1,400	8.0	120

06893500 BLUE RIVER NEAR KANSAS CITY, MO—Continued

TURBIDITY, WATER, UNFILTERED, NEPHELOMETRIC TURBIDITY UNITS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	29	11	15	79	43	58	6.0	1.0	3.0	24	14	19
2	15	8.0	11	250	37	120	8.0	1.0	2.3	19	11	15
3	13	7.0	9.6	160	53	100	8.0	0.0	2.2	17	7.0	12
4	15	5.0	8.3	140	29	54	130	2.0	25	14	5.0	8.8
5	18	6.0	8.4	250	28	45	14	8.0	11	1,800	4.0	78
6	16	6.0	7.8	1,400	28	350	12	4.0	7.7	770	85	270
7	19	6.0	8.9	160	54	83	9.0	2.0	5.4	89	31	51
8	12	6.0	7.7	64	36	51	7.0	3.0	4.7	38	23	31
9	120	7.0	30	55	34	39	7.0	1.0	3.6	25	9.0	17
10	1,400	39	620	53	25	35	9.0	1.0	3.6	14	6.0	9.3
11	1,400	130	300	49	16	25	7.0	1.0	3.6	11	5.0	7.4
12	1,400	46	96	20	14	17	18	1.0	3.2	25	4.0	7.9
13	1,400	80	180	19	11	14	5.0	1.0	3.2	7.0	3.0	4.9
14	85	31	56	17	12	13	6.0	0.0	2.5	11	2.0	4.2
15	78	39	48	34	14	18	5.0	1.0	2.5	120	3.0	19
16	130	27	43	1,500	23	260	8.0	2.0	3.9	26	5.0	11
17	27	20	22	200	41	80	9.0	3.0	5.7	11	3.0	5.8
18	880	20	350	45	23	32	12	3.0	5.7	1,100	6.0	290
19	280	150	180	37	9.0	19	99	4.0	15	150	30	72
20	160	56	96	16	5.0	8.8	44	8.0	15	30	18	26
21	56	30	42	11	4.0	6.7	12	3.0	6.7	73	12	22
22	38	28	33	24	3.0	7.0	12	4.0	6.8	13	8.0	10
23	180	24	51	11	6.0	8.0	1,800	6.0	82	11	6.0	8.0
24	62	21	29	960	8.0	260	1,800	190	890	12	4.0	6.1
25	170	18	35	410	51	150	290	95	170	8.0	4.0	5.1
26	27	14	21	51	21	32	95	48	72	7.0	3.0	4.2
27	1,500	19	93	21	12	16	960	37	120	13	3.0	4.5
28	88	42	64	18	7.0	11	1,800	230	690	6.0	3.0	4.0
29	76	41	53	11	5.0	8.2	230	51	110	5.0	2.0	3.3
30	71	39	56	9.0	4.0	6.6	60	28	41	5.0	2.0	3.2
31	---	---	---	7.0	2.0	4.7	32	18	25	---	---	---
MONTH	1,500	5.0	86	1,500	2.0	62	1,800	0.0	76	1,800	2.0	34

e Estimated

06893557 BRUSH CREEK AT WARD PARKWAY IN KANSAS CITY, MO

LOCATION.--Lat 39°01'59", long 94°36'19", in NW 1/4 NW 1/4 sec.31, T.49 N., R.33 W. in Jackson County, Hydrologic Unit 10300101, on the downstream side of the right wingwall on Ward Parkway at Shawnee Mission Parkway in Kansas City and 5.4 mi upstream from the Blue River.

DRAINAGE AREA.--12.2 mi^2.

PERIOD OF RECORD--July 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 800.00 ft above National Geodetic Vertical Datum of 1929 (from levels by the U.S. Geological Survey).

REMARKS.--Records fair except for estimated daily discharges, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	0.79	0.37	0.74	7.1	e2.7	0.95	1.9	0.68	0.50	0.75	1.5
2	0.52	0.71	0.47	0.74	2.9	e1.9	0.96	0.80	0.70	44	0.67	1.4
3	0.43	0.71	34	0.73	0.73	5.0	0.90	0.80	0.70	2.0	0.70	0.96
4	0.54	1.5	1.4	9.2	0.72	423	0.83	0.48	0.51	0.71	5.0	0.85
5	0.57	0.98	0.88	0.62	0.43	50	0.74	0.41	0.92	13	0.64	32
6	0.60	0.76	0.57	0.38	0.48	8.7	0.77	0.41	0.52	268	0.55	6.0
7	0.64	0.76	0.47	0.39	0.50	3.1	0.77	0.40	0.41	5.0	0.54	1.7
8	0.70	0.73	0.57	0.40	0.35	1.6	0.75	0.29	0.49	1.7	0.48	0.87
9	1.8	0.68	88	0.51	0.58	1.4	0.62	0.25	16	1.3	0.57	1.0
10	0.69	0.81	7.6	0.34	1.2	1.0	0.60	72	104	0.99	0.44	0.74
11	5.6	1.2	1.9	0.41	1.3	0.91	0.59	1.2	2.8	0.82	0.57	0.66
12	0.93	1.4	1.2	0.55	0.77	0.82	0.55	0.69	42	11	0.43	0.65
13	27	1.1	1.1	0.46	0.48	0.81	0.53	29	33	0.83	0.32	0.51
14	3.1	1.0	1.2	0.44	0.82	1.3	0.47	8.0	2.0	0.64	0.37	0.93
15	0.47	1.0	11	0.41	0.87	20	0.52	1.0	15	0.60	0.30	1.3
16	2.4	1.0	3.3	1.3	0.61	1.6	0.55	0.70	59	114	0.30	0.65
17	2.1	14	1.6	13	4.9	1.0	0.61	0.56	3.5	2.5	0.30	0.51
18	0.32	3.6	3.0	1.2	6.6	0.76	0.63	56	70	1.3	0.26	34
19	0.28	0.42	1.8	0.52	12	0.69	0.60	354	5.0	1.1	8.5	0.98
20	0.52	0.38	1.1	0.45	6.3	0.75	61	15	2.4	1.00	3.4	0.58
21	0.61	0.56	1.2	0.48	3.1	0.56	2.2	5.0	1.9	0.78	0.50	0.72
22	0.61	0.59	18	0.67	1.6	0.53	0.76	2.4	1.2	0.77	0.38	0.51
23	0.68	34	3.2	0.46	2.8	2.9	1.4	1.3	0.86	1.6	41	0.51
24	0.58	0.60	1.1	0.50	1.6	0.71	5.2	55	0.75	239	77	0.51
25	0.56	1.1	0.88	5.2	1.4	0.63	0.81	25	0.60	11	2.0	0.40
26	0.59	0.37	0.78	0.84	0.85	0.83	0.55	1.9	0.58	2.5	1.1	0.34
27	0.60	0.36	17	0.51	0.80	7.4	0.60	42	13	1.9	603	0.36
28	0.66	0.31	2.4	0.43	0.72	38	0.54	2.2	1.0	1.4	152	0.39
29	0.66	0.30	0.97	0.35	10	2.7	4.9	1.4	0.54	1.1	9.4	0.37
30	0.62	0.32	0.85	0.28	---	1.2	13	6.3	0.57	1.0	3.5	0.38
31	0.79	---	0.89	0.30	---	0.98	---	1.4	---	0.89	1.9	---
MEAN	1.86	2.40	6.74	1.38	2.50	18.8	3.46	22.2	12.7	23.6	29.6	3.08
MAX	27	34	88	13	12	423	61	354	104	268	603	34
MIN	0.28	0.30	0.37	0.28	0.35	0.53	0.47	0.25	0.41	0.50	0.26	0.34
IN.	0.18	0.22	0.64	0.13	0.22	1.78	0.32	2.10	1.16	2.23	2.80	0.28

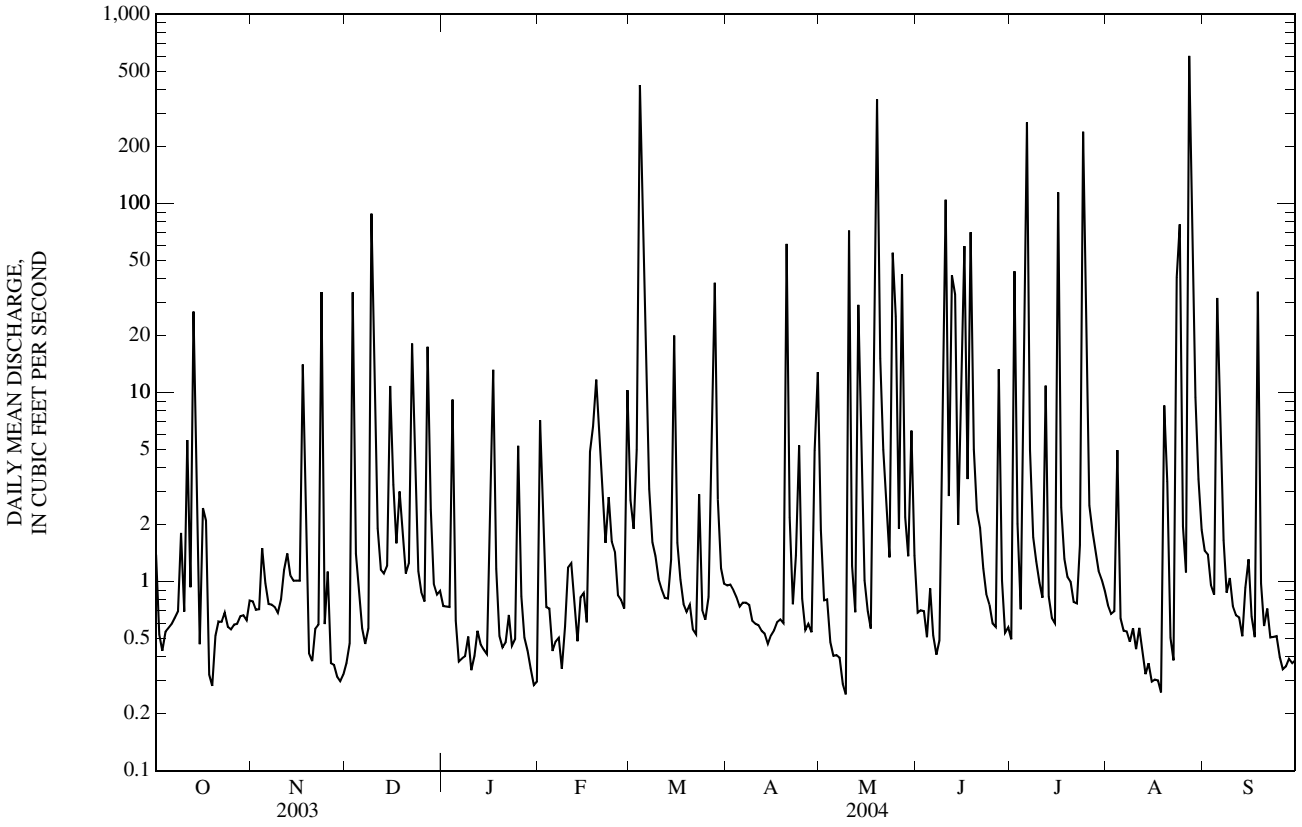
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

MEAN	20.4	7.21	3.98	3.53	6.54	8.87	17.1	17.1	21.9	8.60	13.3	7.81
MAX	87.6	25.5	8.84	8.00	20.6	18.8	41.8	23.2	55.0	23.6	32.5	15.0
(WY)	(1999)	(1999)	(1999)	(1999)	(2001)	(2004)	(1999)	(1999)	(2001)	(2004)	(2003)	(1999)
MIN	1.64	1.67	0.48	0.41	2.50	2.80	1.15	5.17	4.82	0.85	3.46	1.80
(WY)	(2000)	(2003)	(2001)	(2000)	(2004)	(2002)	(2000)	(2003)	(2002)	(2003)	(1999)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL MEAN	7.50		10.8		11.5	
HIGHEST ANNUAL MEAN					21.3	1999
LOWEST ANNUAL MEAN					6.59	2000
HIGHEST DAILY MEAN	634	Aug 31	603	Aug 27	1,520	Oct 4, 1998
LOWEST DAILY MEAN	0.12	Aug 22	0.25	May 9	0.00	Jul 1998,Jan 1-8,2002
ANNUAL SEVEN-DAY MINIMUM	0.19	Aug 19	0.33	Aug 12	0.00	Jul 15,1998,Jan 1,2002
MAXIMUM PEAK FLOW	---		5,480	Aug 27	Unknown	Oct 4, 1998
MAXIMUM PEAK STAGE	---		44.64	Aug 27	50.90[a]	Oct 4, 1998
INSTANTANEOUS LOW FLOW	---		0.15	Jan 30	0.00	Jul 1998,Jan 1-8, 2002
ANNUAL RUNOFF (INCHES)	8.35		12.05		12.79	
10 PERCENT EXCEEDS	13		14		21	
50 PERCENT EXCEEDS	0.73		0.83		1.0	
90 PERCENT EXCEEDS	0.26		0.41		0.35	

e Estimated
[a] From floodmark

06893557 BRUSH CREEK AT WARD PARKWAY IN KANSAS CITY, MO—Continued



06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO

LOCATION.--Lat 39°02'21", long 94°34'43", in NW ¼ SE ¼ sec.29, T.49 N., R.33 W., Jackson County, Hydrologic Unit 10300101, on the left upstream Rockhill Road bridge abutment and 3.7 mi upstream from the Blue River.

DRAINAGE AREA.--17.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 799.70 ft above National Geodetic Vertical Datum of 1929 (levels by the U.S. Geological Survey).

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. U.S.G.S satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.20	0.43	0.12	0.06	6.0	e0.05	1.9	2.4	0.26	0.18	1.2	0.25
2	0.09	0.20	0.32	0.10	1.6	e0.05	1.7	0.56	0.22	47	1.1	0.40
3	0.05	0.22	30	0.02	0.06	e1.5	0.88	0.76	0.16	0.95	1.1	0.14
4	0.08	1.2	1.00	7.2	0.08	e627	1.5	1.1	0.37	0.91	6.5	0.15
5	0.09	0.39	2.9	0.07	0.09	75	0.63	0.97	0.13	15	0.26	50
6	0.07	0.17	4.0	0.44	0.07	14	1.3	0.63	0.89	454	0.43	11
7	0.09	0.13	3.5	0.11	0.05	6.4	1.5	0.40	0.23	3.7	0.28	0.23
8	0.08	0.13	3.3	0.12	0.09	4.6	1.2	0.37	0.45	0.70	0.34	0.18
9	0.29	0.17	123	0.09	0.11	4.3	0.29	0.28	23	0.87	1.2	0.23
10	0.05	0.30	4.0	0.08	0.13	2.0	0.22	125	152	0.78	0.38	0.17
11	1.1	0.89	0.13	0.10	0.12	1.2	0.66	1.2	5.2	0.36	0.15	0.17
12	0.09	0.30	0.05	0.10	0.06	2.1	0.22	0.22	74	18	0.33	0.16
13	34	0.14	0.08	0.09	0.07	0.88	0.41	44	65	0.49	0.13	0.14
14	3.5	0.14	0.10	0.07	0.10	2.8	0.71	12	2.6	0.42	0.13	0.26
15	0.47	0.49	15	0.09	0.09	26	0.33	0.78	22	0.56	0.34	0.13
16	e1.0	0.77	0.64	0.10	0.08	2.9	0.66	0.42	128	242	0.11	0.20
17	0.90	18	0.18	8.3	1.9	4.0	0.54	0.32	5.0	2.0	1.1	0.06
18	0.07	7.4	0.37	0.04	4.0	2.4	0.33	93	120	0.83	0.36	47
19	0.10	1.2	0.15	0.02	6.6	2.1	1.1	667	9.1	0.46	16	0.16
20	0.10	0.47	0.10	0.00	1.4	2.1	99	22	2.4	0.32	8.2	0.11
21	0.09	0.15	0.15	0.03	0.14	1.3	7.0	3.9	1.3	0.14	0.35	0.17
22	0.10	1.2	19	0.00	0.13	1.6	0.77	1.1	0.57	e0.27	0.25	0.20
23	0.12	50	0.55	0.03	0.33	5.9	1.7	1.3	0.30	e0.40	67	0.05
24	0.10	0.12	0.08	0.00	0.06	1.6	9.6	e64	0.50	370	135	0.30
25	e0.12	2.9	0.07	1.3	0.09	3.0	2.2	e36	0.37	23	1.4	0.29
26	0.12	0.15	0.11	0.02	e0.07	4.7	0.45	1.1	0.22	3.7	0.31	0.28
27	0.13	0.11	25	0.05	e0.06	13	2.6	68	16	1.7	872	0.25
28	0.16	0.02	1.2	0.03	e0.05	54	0.90	2.2	1.2	1.00	251	0.08
29	0.28	0.05	0.05	0.02	10	2.2	5.4	1.1	0.61	0.23	8.4	0.19
30	0.12	0.12	0.04	0.04	---	0.48	16	6.8	0.31	0.88	1.3	0.13
31	0.16	---	0.05	0.04	---	1.7	---	0.41	---	1.3	0.41	---
MEAN	1.42	2.93	7.59	0.61	1.16	28.1	5.39	37.4	21.1	38.5	44.4	3.77
MAX	34	50	123	8.3	10	627	99	667	152	454	872	50
MIN	0.05	0.02	0.04	0.00	0.05	0.05	0.22	0.22	0.13	0.14	0.11	0.05
IN.	0.10	0.19	0.51	0.04	0.07	1.91	0.35	2.54	1.38	2.61	3.01	0.25

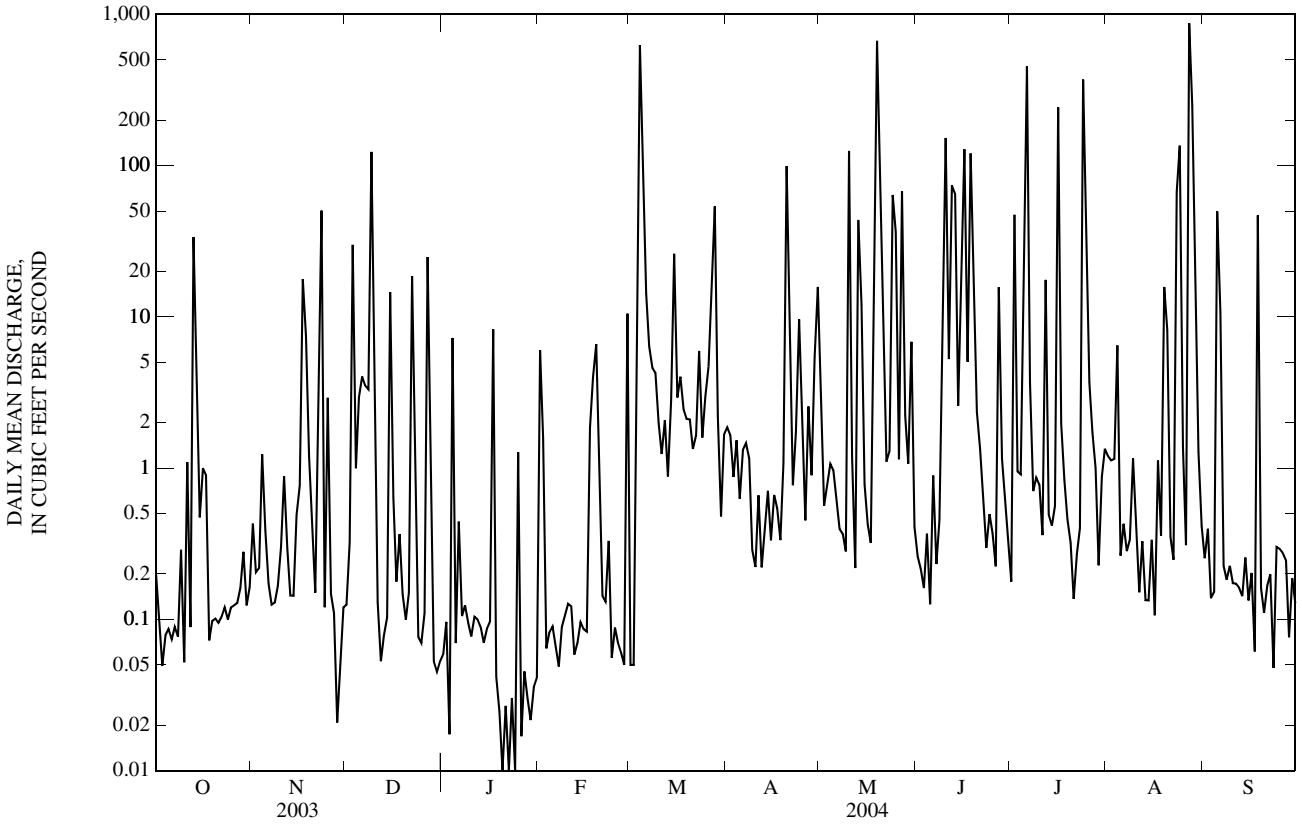
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2004, BY WATER YEAR (WY)

MEAN	31.9	10.6	5.24	4.76	7.20	12.0	24.8	22.2	30.8	12.4	18.8	13.0
MAX	145	41.4	10.9	11.4	18.0	28.1	69.1	37.4	73.8	38.5	44.4	39.8
(WY)	(1999)	(1999)	(1999)	(1999)	(2001)	(2004)	(1999)	(2004)	(2001)	(2004)	(2004)	(1998)
MIN	1.42	2.93	0.76	0.61	1.16	3.77	2.65	7.70	6.51	0.99	5.34	1.88
(WY)	(2004)	(2004)	(2001)	(2004)	(2004)	(2002)	(2000)	(2003)	(2002)	(2003)	(2002)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1998 - 2004	
ANNUAL MEAN	9.39		16.2		15.9	
HIGHEST ANNUAL MEAN					32.9	1999
LOWEST ANNUAL MEAN					9.41	2003
HIGHEST DAILY MEAN	925	Aug 31	872	Aug 27	2,540	Oct 4, 1998
LOWEST DAILY MEAN	0.01	Sep 27-29	0.00	Jan 20,22,24	0.00	2001,2002,2004
ANNUAL SEVEN-DAY MINIMUM	0.02	Sep 23	0.02	Jan 18	0.00	Jan 1, 2002
MAXIMUM PEAK FLOW	---		7,890	Aug 27	21,700[a]	Oct 4, 1998
MAXIMUM PEAK STAGE	---		13.36	Aug 27	21.71[b]	Oct 4, 1998
INSTANTANEOUS LOW FLOW	---		0.00	Many Days	0.00	Many Years
ANNUAL RUNOFF (INCHES)	7.50		12.97		12.73	
10 PERCENT EXCEEDS	15		20		24	
50 PERCENT EXCEEDS	0.87		0.42		2.5	
90 PERCENT EXCEEDS	0.09		0.07		0.28	

e Estimated
[a] Discharge determined by indirect measurement of peak flow.
[b] From floodmark.

06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued



06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1998 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: August 1998 to current year. (See Instrumentation).
pH: July 1998 to current year. (See Instrumentation).
WATER TEMPERATURE: July 1998 to current year. (See Instrumentation).
WATER TEMPERATURE FROM PRESSURE TRANSDUCER: July 1998 to May 2002 (discontinued).
DISSOLVED OXYGEN: July 1998 to current year. (See Instrumentation).
TURBIDITY: July 1998 to current year. (See Instrumentation).

INSTRUMENTATION.--Multi-parameter water-quality monitor deployed seasonally since August 1998. Pressure transducer with temperature sensor deployed October 1999 to May 2002. Electronic data logger with 15 minute recording interval and four hour satellite transmission interval.

REMARKS.--Interruptions in the record are generally due to malfunction or fouling of the sensors. Daily values were designated as estimated where data corrections for dissolved oxygen exceeded the rating of poor and where turbidity unit values were clearly the result of fouling or wiper malfunction. Estimations and corrections were based on partial data, inspection of contiguous data, hydrographic comparison and the best judgment of the hydrographer. Detailed records of the procedures employed for specific periods of record have been included with the station analysis and are kept on file. The manufacturers' specified range for turbidity sensors used is 0 to 1000 NTU. All values beyond this limit may be considered as >1000 NTU. Values >1000 NTU are maintained for continuity of the record. Specific Conductance records were rated either excellent or good except for the following days: July 12-15 rated excellent-poor, December 11, May 24, 25 and July 22, 23, 26, 27 rated estimated. pH records were rated either excellent or good except for the following days: July 12-15, 15-21 rated excellent-fair, December 11, May 24, 25 and July 22, 23, 26, 27 rated estimated. Water temperature records were rated excellent except for the following days: December 11, May 24, 25 and July 22, 23, 26, 27 rated estimated. Dissolved oxygen records were rated excellent except for the following periods: August 12 to September 17 rated good, July 15-21 rated excellent-fair, September 29-30 rated fair, October 13-16 and August 4-12 rated excellent-poor, May 28 to June 18 rated good-poor, December 9, April 30 to May 5, 10-12, 27-28 and July 12-15 rated poor-estimated, December 11, May 24, 25 and July 22, 23, 26, 27 rated estimated. Turbidity records were rated excellent except for the following periods: July 15-21 rated excellent-fair, October 1 to December 10 rated poor, May 11-12 rated poor-estimated, December 11, May 20-25 and July 22, 23, 26, 27 rated estimated.

EXTREMES FOR PERIOD OF RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,410 microsiemens, July 6-7, 1999; minimum 84 microsiemens, August 25, 2001.
pH: Maximum 9.8 standard units, August 28, 2001; minimum 5.5 standard units, November 6, 2000.
WATER TEMPERATURE: Maximum 36.5 °C, August 31, 2000; minimum 0.5 °C, December 11, 2003.
WATER TEMPERATURE FROM PRESSURE TRANSDUCER: Maximum 31.5 °C, August 3, 2001; minimum -1.9 °C, March 14, 1999.
DISSOLVED OXYGEN: Maximum 30.0 mg/L, June 25, 2004; minimum 0.0 mg/L, on several days May-August, 1999, July 23, 2002, November 27, 2003, September 7, 2004.
TURBIDITY: Maximum 2300 NTU, September 13, 1998; minimum 0.0 NTU on numerous days August, 1998, May-November, 1999, June-September, 2000, September-November, 2001, July-September, 2002, November 11, 2003, June 3, 5, July 10, August 3, 6-9, 31, September 1, 14-15, 2004.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum 1,020 microsiemens, May 24; minimum 87 microsiemens, August 27.
pH: Maximum 9.4 standard units, May 8; minimum 6.7 standard units, November 29, December 6-7, April 23.
WATER TEMPERATURE: Maximum 31.2 °C, July 12-13, 15, August 3; minimum 0.5 °C, December 11.
DISSOLVED OXYGEN: Maximum 30.0 mg/L, June 25; minimum 0.0 mg/L, November 27, September 7.
TURBIDITY: Maximum 1,400 NTU, August 27; minimum 0.0 NTU, November 11, June 3, 5, July 10, August 3, 6-9, 31, September 1, 14-15.

06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	15.8	12.9	14.3	13.2	12.0	12.4	6.0	4.9	5.3	---	---	---
2	16.1	13.9	14.8	12.2	11.9	12.0	5.2	5.0	5.1	---	---	---
3	15.8	14.5	15.1	15.1	11.7	12.9	5.8	3.6	4.2	---	---	---
4	17.8	14.9	16.2	14.8	12.0	13.4	4.4	3.3	3.9	---	---	---
5	19.4	16.3	17.8	12.0	10.4	11.1	4.3	3.3	3.8	---	---	---
6	20.8	17.5	18.7	10.9	9.5	10.1	3.8	2.8	3.3	---	---	---
7	22.6	17.8	19.3	10.2	8.9	9.4	4.8	2.1	3.6	---	---	---
8	21.6	18.3	19.9	9.3	7.6	8.3	5.2	3.9	4.6	---	---	---
9	20.3	19.0	19.5	8.4	7.2	7.6	7.5	4.9	6.2	---	---	---
10	19.3	18.9	19.1	8.5	7.7	8.0	5.9	2.5	3.8	---	---	---
11	19.6	18.4	19.1	11.0	8.5	9.8	---	---	e1.8	---	---	---
12	21.3	17.4	18.8	10.7	9.3	9.8	---	---	---	---	---	---
13	18.0	16.3	17.3	9.3	8.3	8.8	---	---	---	---	---	---
14	17.6	15.2	16.4	8.9	8.3	8.6	---	---	---	---	---	---
15	19.8	15.7	17.4	9.4	8.6	8.8	---	---	---	---	---	---
16	17.2	15.2	15.8	10.2	8.4	9.1	---	---	---	---	---	---
17	16.9	13.8	15.2	12.5	8.9	10.0	---	---	---	---	---	---
18	17.1	14.1	15.6	12.1	10.8	11.4	---	---	---	---	---	---
19	20.1	15.2	17.3	11.6	10.1	10.9	---	---	---	---	---	---
20	18.7	15.8	17.5	12.1	10.3	11.2	---	---	---	---	---	---
21	19.4	17.1	18.3	11.5	10.6	10.9	---	---	---	---	---	---
22	20.9	17.3	18.9	10.7	10.1	10.3	---	---	---	---	---	---
23	19.2	17.1	18.0	10.1	5.8	7.5	---	---	---	---	---	---
24	18.8	17.0	17.8	5.8	4.0	4.8	---	---	---	---	---	---
25	17.8	15.5	16.7	4.7	3.4	4.2	---	---	---	---	---	---
26	15.6	14.2	14.9	5.2	2.9	4.4	---	---	---	---	---	---
27	14.5	13.2	13.9	5.0	4.3	4.6	---	---	---	---	---	---
28	14.5	13.6	13.9	4.6	3.6	4.0	---	---	---	---	---	---
29	14.9	13.1	13.8	4.7	3.1	3.8	---	---	---	---	---	---
30	15.0	13.5	14.2	5.7	3.9	4.7	---	---	---	---	---	---
31	14.2	13.2	13.7	---	---	---	---	---	---	---	---	---
MONTH	22.6	12.9	16.7	15.1	2.9	8.8	7.5	2.1	4.1	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	19.3	15.5	17.2
2	---	---	---	---	---	---	---	---	---	17.6	15.8	16.5
3	---	---	---	---	---	---	---	---	---	18.0	14.8	16.4
4	---	---	---	---	---	---	---	---	---	18.8	15.5	16.9
5	---	---	---	---	---	---	---	---	---	22.4	16.0	18.4
6	---	---	---	---	---	---	---	---	---	24.4	19.0	21.1
7	---	---	---	---	---	---	---	---	---	26.6	21.5	23.7
8	---	---	---	---	---	---	---	---	---	28.9	22.9	24.9
9	---	---	---	---	---	---	---	---	---	27.2	23.6	25.0
10	---	---	---	---	---	---	---	---	---	24.6	19.2	21.7
11	---	---	---	---	---	---	---	---	---	24.5	20.4	22.0
12	---	---	---	---	---	---	---	---	---	22.6	21.7	22.1
13	---	---	---	---	---	---	---	---	---	22.2	17.4	20.0
14	---	---	---	---	---	---	---	---	---	19.0	15.8	17.1
15	---	---	---	---	---	---	---	---	---	19.3	15.8	17.5
16	---	---	---	---	---	---	---	---	---	21.0	17.5	19.1
17	---	---	---	---	---	---	---	---	---	24.2	19.6	21.2
18	---	---	---	---	---	---	---	---	---	22.3	18.9	20.6
19	---	---	---	---	---	---	---	---	---	21.9	18.2	19.8
20	---	---	---	---	---	---	---	---	---	22.9	19.6	21.2
21	---	---	---	---	---	---	---	---	---	25.0	21.6	23.3
22	---	---	---	---	---	---	---	---	---	25.0	22.8	23.8
23	---	---	---	---	---	---	16.4	15.5	15.9	25.3	23.2	24.2
24	---	---	---	---	---	---	16.1	15.0	15.4	---	---	e24.4
25	---	---	---	---	---	---	17.3	14.6	15.8	---	---	e21.5
26	---	---	---	---	---	---	17.9	15.4	16.7	20.8	19.8	20.1
27	---	---	---	---	---	---	20.2	16.0	17.7	25.7	18.6	21.3
28	---	---	---	---	---	---	20.0	16.8	18.4	24.5	20.8	22.8
29	---	---	---	---	---	---	19.5	17.9	18.4	24.2	22.2	23.3
30	---	---	---	---	---	---	18.3	16.7	17.6	25.1	22.9	24.1
31	---	---	---	---	---	---	---	---	---	23.8	21.9	22.9
MONTH	---	---	---	---	---	---	20.2	14.6	17.0	28.9	14.8	21.1

06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	23.6	21.7	22.8	25.4	23.8	24.5	28.2	25.0	26.4	26.7	24.1	25.2
2	24.4	21.9	23.2	25.1	23.5	24.4	30.1	26.4	27.9	26.6	24.6	25.5
3	24.6	22.1	23.4	26.3	23.8	25.0	31.2	27.8	29.2	26.6	24.4	25.5
4	26.7	22.2	24.1	28.3	25.0	26.5	29.7	27.5	28.3	27.0	24.8	25.9
5	24.6	22.7	23.7	27.9	25.1	26.8	27.7	26.1	26.9	27.3	24.8	26.0
6	25.8	22.7	24.1	27.3	20.7	22.8	26.8	25.1	26.0	26.6	23.3	25.0
7	28.0	24.2	25.8	26.0	21.8	23.7	27.1	24.5	25.7	25.8	23.4	24.4
8	28.6	24.7	26.2	24.6	23.3	24.1	26.7	24.6	25.3	24.4	22.6	23.4
9	26.6	23.7	25.0	25.8	23.4	24.3	27.7	24.5	26.1	25.3	22.2	23.5
10	24.3	21.4	23.0	29.3	24.1	26.2	27.2	25.3	26.2	26.4	22.4	24.0
11	28.0	23.5	25.1	29.2	25.9	27.5	25.7	24.0	24.8	25.1	22.8	24.0
12	28.3	22.2	25.4	31.2	26.0	28.6	24.8	22.5	23.5	25.2	23.1	24.1
13	25.5	20.4	22.9	31.2	27.5	29.4	23.8	22.2	22.9	26.2	23.3	24.5
14	29.3	22.9	25.6	30.5	28.2	29.4	23.8	22.2	22.9	26.2	23.7	25.0
15	26.4	23.8	25.5	31.2	27.7	29.2	24.3	22.0	23.0	25.2	24.4	24.6
16	28.5	23.9	25.2	29.0	22.3	25.4	24.5	22.4	23.3	24.4	23.2	23.9
17	28.7	22.8	25.4	27.4	23.8	25.4	26.3	23.1	24.6	23.6	22.3	22.8
18	26.0	20.5	22.2	27.3	24.4	25.8	26.7	24.8	25.8	22.9	20.2	21.5
19	22.0	20.4	21.0	28.8	24.9	26.6	26.1	22.3	24.6	23.6	20.7	22.1
20	21.8	20.3	21.1	29.8	26.7	28.1	23.0	21.7	22.2	23.1	21.2	22.2
21	24.6	21.1	22.6	29.5	27.8	28.6	23.3	21.4	22.2	23.6	21.4	22.4
22	26.1	22.7	24.0	---	---	e28.6	25.8	21.8	23.5	23.7	21.5	22.6
23	26.2	22.9	24.5	---	---	e27.0	24.4	22.3	23.3	22.9	21.9	22.3
24	28.2	23.7	25.5	---	---	---	24.6	20.2	22.0	24.7	21.2	22.6
25	26.0	23.0	24.5	---	---	---	25.8	22.1	23.9	24.4	21.0	22.3
26	24.2	22.6	23.5	---	---	e22.5	29.2	23.9	26.1	23.9	21.1	22.2
27	23.5	21.5	22.6	---	---	e23.3	29.8	21.6	26.2	23.3	21.0	22.0
28	25.1	21.4	22.7	25.6	22.8	24.1	23.6	21.4	22.4	22.1	20.8	21.4
29	26.5	21.9	23.6	24.9	23.4	24.2	26.1	22.0	23.5	21.4	19.7	20.4
30	25.5	22.7	24.2	25.7	23.3	24.1	25.6	22.4	23.9	20.6	19.0	19.8
31	---	---	---	28.9	23.4	25.3	26.1	23.7	24.8	---	---	---
MONTH	29.3	20.3	23.9	31.2	20.7	25.9	31.2	20.2	24.8	27.3	19.0	23.4

e Estimated

06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	7.7	7.4	7.6	7.8	7.5	7.8	6.9	6.8	6.8	---	---	---
2	7.6	7.3	7.4	7.7	7.4	7.5	7.0	6.8	6.9	---	---	---
3	7.4	7.3	7.3	7.8	7.4	7.5	7.4	6.9	7.2	---	---	---
4	7.4	7.2	7.3	7.7	7.5	7.6	7.2	7.1	7.1	---	---	---
5	7.6	7.3	7.4	7.5	7.4	7.4	7.2	6.8	7.1	---	---	---
6	8.1	7.3	7.5	7.5	7.3	7.4	6.9	6.7	6.8	---	---	---
7	8.3	7.3	7.7	7.5	7.3	7.4	6.9	6.7	6.8	---	---	---
8	8.7	7.4	8.0	7.5	7.4	7.4	6.8	6.8	6.8	---	---	---
9	8.4	7.6	8.0	7.6	7.3	7.4	7.6	6.8	7.1	---	---	---
10	8.1	7.6	7.8	7.4	7.2	7.3	7.6	7.3	7.5	---	---	---
11	8.2	7.5	7.8	7.5	7.2	7.4	---	---	e7.3	---	---	---
12	8.5	7.3	7.7	7.6	7.2	7.4	---	---	---	---	---	---
13	8.0	7.4	7.6	7.8	7.4	7.5	---	---	---	---	---	---
14	7.5	7.1	7.3	7.6	7.4	7.4	---	---	---	---	---	---
15	7.2	7.1	7.1	7.5	7.3	7.4	---	---	---	---	---	---
16	7.1	7.0	7.0	7.6	7.3	7.4	---	---	---	---	---	---
17	7.2	7.0	7.1	7.8	7.4	7.6	---	---	---	---	---	---
18	7.2	7.0	7.1	7.6	7.2	7.4	---	---	---	---	---	---
19	7.3	7.0	7.1	7.3	7.1	7.2	---	---	---	---	---	---
20	7.3	7.0	7.1	7.2	7.1	7.1	---	---	---	---	---	---
21	7.4	7.0	7.2	7.2	7.1	7.1	---	---	---	---	---	---
22	7.4	7.0	7.2	7.1	7.1	7.1	---	---	---	---	---	---
23	7.4	7.0	7.1	7.6	7.1	7.3	---	---	---	---	---	---
24	7.5	7.1	7.3	7.3	7.0	7.2	---	---	---	---	---	---
25	7.4	7.2	7.2	7.0	6.8	7.0	---	---	---	---	---	---
26	7.7	7.2	7.4	6.8	6.8	6.8	---	---	---	---	---	---
27	8.3	7.4	7.7	6.8	6.8	6.8	---	---	---	---	---	---
28	8.4	7.5	7.9	6.9	6.8	6.8	---	---	---	---	---	---
29	8.6	7.7	8.1	6.9	6.7	6.8	---	---	---	---	---	---
30	8.4	7.7	8.0	6.9	6.8	6.9	---	---	---	---	---	---
31	8.2	7.7	7.9	---	---	---	---	---	---	---	---	---
MONTH	8.7	7.0	7.5	7.8	6.7	7.3	7.6	6.7	7.0	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	7.0	6.9	6.9
2	---	---	---	---	---	---	---	---	---	6.9	6.8	6.9
3	---	---	---	---	---	---	---	---	---	6.9	6.8	6.8
4	---	---	---	---	---	---	---	---	---	7.0	6.8	6.9
5	---	---	---	---	---	---	---	---	---	7.7	6.8	7.2
6	---	---	---	---	---	---	---	---	---	8.7	7.3	7.8
7	---	---	---	---	---	---	---	---	---	9.3	7.5	8.3
8	---	---	---	---	---	---	---	---	---	9.4	7.7	8.6
9	---	---	---	---	---	---	---	---	---	9.2	7.8	8.6
10	---	---	---	---	---	---	---	---	---	8.4	7.0	7.5
11	---	---	---	---	---	---	---	---	---	7.1	6.9	6.9
12	---	---	---	---	---	---	---	---	---	7.2	6.9	7.0
13	---	---	---	---	---	---	---	---	---	7.6	7.0	7.2
14	---	---	---	---	---	---	---	---	---	7.3	7.1	7.2
15	---	---	---	---	---	---	---	---	---	7.3	7.0	7.1
16	---	---	---	---	---	---	---	---	---	7.3	7.0	7.2
17	---	---	---	---	---	---	---	---	---	7.4	7.0	7.2
18	---	---	---	---	---	---	---	---	---	7.6	7.0	7.2
19	---	---	---	---	---	---	---	---	---	7.7	7.0	7.4
20	---	---	---	---	---	---	---	---	---	7.6	7.4	7.5
21	---	---	---	---	---	---	---	---	---	7.6	7.4	7.5
22	---	---	---	---	---	---	---	---	---	7.7	7.4	7.5
23	---	---	---	---	---	---	6.8	6.7	6.7	7.7	7.5	7.6
24	---	---	---	---	---	---	7.0	6.8	6.9	---	---	e7.8
25	---	---	---	---	---	---	7.1	6.9	7.0	---	---	e7.3
26	---	---	---	---	---	---	7.1	6.9	7.0	7.2	7.0	7.1
27	---	---	---	---	---	---	7.5	6.9	7.1	7.7	7.0	7.3
28	---	---	---	---	---	---	8.5	7.2	7.8	7.4	6.9	7.2
29	---	---	---	---	---	---	8.3	7.3	7.7	7.6	7.2	7.4
30	---	---	---	---	---	---	7.4	7.0	7.2	8.0	7.5	7.7
31	---	---	---	---	---	---	---	---	---	8.6	7.6	8.0
MONTH	---	---	---	---	---	---	8.5	6.7	7.2	9.4	6.8	7.4

06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	8.9	8.0	8.5	8.6	7.5	8.1	8.5	7.5	8.0	7.9	7.5	7.6
2	8.8	8.0	8.5	8.5	7.4	7.9	8.2	7.5	7.7	8.3	7.7	7.9
3	8.8	7.5	8.2	7.4	7.1	7.3	8.1	7.7	7.9	8.7	8.0	8.3
4	8.8	7.7	8.2	7.9	7.1	7.3	8.1	7.3	7.6	8.7	7.8	8.2
5	8.8	7.6	8.2	7.6	7.2	7.4	7.6	7.3	7.4	8.8	7.6	8.2
6	8.6	7.5	8.1	8.1	7.3	7.5	7.8	7.3	7.5	7.6	7.0	7.2
7	8.8	7.7	8.3	7.6	7.4	7.5	8.0	7.3	7.6	7.3	6.9	7.1
8	8.9	7.6	8.2	7.8	7.5	7.6	7.8	7.4	7.6	8.3	6.9	7.4
9	8.3	7.3	7.7	7.9	7.5	7.7	8.1	7.4	7.7	8.8	7.2	8.0
10	7.8	7.3	7.6	8.4	7.7	8.0	8.5	7.6	8.0	8.5	7.4	8.0
11	7.6	7.2	7.4	8.8	7.9	8.3	8.6	7.8	8.2	8.0	7.3	7.7
12	7.6	7.2	7.4	8.8	7.8	8.3	8.6	7.8	8.3	8.1	7.2	7.5
13	7.7	7.2	7.4	9.0	7.8	8.2	8.6	8.2	8.5	7.7	7.2	7.4
14	7.6	7.2	7.3	8.7	7.6	8.1	8.6	8.1	8.5	7.7	7.2	7.5
15	7.6	7.2	7.4	8.6	7.9	8.2	8.6	8.3	8.5	7.7	7.3	7.5
16	7.7	7.2	7.5	8.4	7.5	7.9	8.6	8.3	8.5	8.2	7.3	7.6
17	7.3	7.0	7.1	7.6	7.3	7.5	8.5	8.2	8.4	8.5	7.6	8.0
18	7.6	7.0	7.3	7.9	7.4	7.6	8.5	8.1	8.4	8.2	7.2	7.7
19	7.6	7.5	7.6	8.5	7.4	7.9	8.4	8.0	8.3	7.2	7.0	7.1
20	7.6	7.3	7.4	9.1	7.7	8.3	8.0	7.7	7.8	7.5	7.0	7.2
21	7.7	7.5	7.6	9.2	8.2	8.7	8.2	7.6	7.9	8.2	7.2	7.5
22	7.8	7.5	7.6	---	---	e8.7	8.5	7.7	8.1	8.7	7.4	8.0
23	8.6	7.6	8.1	---	---	e8.5	8.4	7.3	7.8	8.7	7.6	8.1
24	8.7	8.0	8.4	---	---	---	7.8	7.4	7.6	9.2	7.6	8.4
25	8.8	7.5	8.2	---	---	---	7.6	7.1	7.4	9.2	7.5	8.6
26	8.8	7.5	8.3	---	---	e7.8	7.7	7.1	7.4	9.3	7.6	8.6
27	8.4	7.5	7.9	---	---	e7.8	8.2	7.0	7.6	9.2	7.7	8.5
28	8.7	7.4	7.9	8.3	7.9	8.1	7.7	7.3	7.5	8.9	7.8	8.3
29	8.9	7.7	8.3	8.6	8.1	8.3	7.6	7.4	7.5	9.1	7.7	8.3
30	8.9	7.7	8.3	8.6	8.2	8.4	7.5	7.3	7.4	9.0	8.0	8.5
31	---	---	---	8.6	7.7	8.2	7.6	7.4	7.5	---	---	---
MONTH	8.9	7.0	7.9	9.2	7.1	8.0	8.6	7.0	7.9	9.3	6.9	7.9

e Estimated

06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	543	511	530	450	440	446	285	277	281	---	---	---
2	545	530	541	468	443	455	296	285	291	---	---	---
3	532	521	526	473	465	468	528	206	340	---	---	---
4	524	496	516	486	473	479	303	203	248	---	---	---
5	514	492	502	495	471	489	432	301	377	---	---	---
6	502	479	491	509	494	500	439	387	413	---	---	---
7	496	469	485	518	501	508	544	435	483	---	---	---
8	490	476	483	521	495	516	599	541	571	---	---	---
9	487	474	483	531	520	526	759	169	434	---	---	---
10	490	483	487	538	530	532	506	365	441	---	---	---
11	494	445	482	543	526	540	---	---	e510	---	---	---
12	457	448	454	565	537	549	---	---	---	---	---	---
13	502	232	452	566	550	557	---	---	---	---	---	---
14	372	314	332	568	560	565	---	---	---	---	---	---
15	327	314	321	570	565	568	---	---	---	---	---	---
16	326	319	322	585	565	574	---	---	---	---	---	---
17	325	257	283	596	372	542	---	---	---	---	---	---
18	266	260	262	610	435	561	---	---	---	---	---	---
19	284	266	275	600	595	597	---	---	---	---	---	---
20	305	277	291	598	591	594	---	---	---	---	---	---
21	316	303	310	599	592	595	---	---	---	---	---	---
22	330	313	324	600	597	599	---	---	---	---	---	---
23	358	324	342	598	232	309	---	---	---	---	---	---
24	369	354	362	277	256	265	---	---	---	---	---	---
25	377	369	374	275	248	264	---	---	---	---	---	---
26	385	373	378	256	224	237	---	---	---	---	---	---
27	397	374	386	260	247	253	---	---	---	---	---	---
28	409	363	401	268	254	260	---	---	---	---	---	---
29	420	379	407	272	266	268	---	---	---	---	---	---
30	437	400	426	278	272	275	---	---	---	---	---	---
31	447	428	439	---	---	---	---	---	---	---	---	---
MONTH	545	232	409	610	224	463	759	169	399	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	662	501	574
2	---	---	---	---	---	---	---	---	---	536	501	520
3	---	---	---	---	---	---	---	---	---	505	478	493
4	---	---	---	---	---	---	---	---	---	478	467	472
5	---	---	---	---	---	---	---	---	---	476	468	472
6	---	---	---	---	---	---	---	---	---	472	462	469
7	---	---	---	---	---	---	---	---	---	476	454	468
8	---	---	---	---	---	---	---	---	---	483	458	472
9	---	---	---	---	---	---	---	---	---	497	467	484
10	---	---	---	---	---	---	---	---	---	506	205	321
11	---	---	---	---	---	---	---	---	---	270	226	243
12	---	---	---	---	---	---	---	---	---	289	270	280
13	---	---	---	---	---	---	---	---	---	587	286	346
14	---	---	---	---	---	---	---	---	---	326	253	283
15	---	---	---	---	---	---	---	---	---	306	262	280
16	---	---	---	---	---	---	---	---	---	357	304	325
17	---	---	---	---	---	---	---	---	---	397	356	373
18	---	---	---	---	---	---	---	---	---	401	188	282
19	---	---	---	---	---	---	---	---	---	737	111	433
20	---	---	---	---	---	---	---	---	---	910	737	846
21	---	---	---	---	---	---	---	---	---	966	910	945
22	---	---	---	---	---	---	---	---	---	993	964	978
23	---	---	---	---	---	---	278	244	265	1,020	993	1,010
24	---	---	---	---	---	---	355	278	301	---	---	e600
25	---	---	---	---	---	---	442	355	399	---	---	e165
26	---	---	---	---	---	---	470	441	456	270	192	231
27	---	---	---	---	---	---	503	462	479	443	159	224
28	---	---	---	---	---	---	549	486	531	254	199	225
29	---	---	---	---	---	---	636	517	561	298	254	273
30	---	---	---	---	---	---	697	569	662	441	297	373
31	---	---	---	---	---	---	---	---	---	524	441	487
MONTH	---	---	---	---	---	---	697	244	457	1,020	111	450

06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	566	494	543	654	633	646	748	710	732	864	823	856
2	601	491	552	642	198	519	742	712	726	870	861	865
3	573	520	546	225	204	216	752	731	742	866	784	829
4	563	517	541	242	223	233	747	622	697	816	703	758
5	567	537	553	340	224	283	725	697	710	736	384	679
6	591	553	574	519	99	345	739	723	730	407	271	306
7	605	579	594	640	519	595	748	738	742	306	280	297
8	625	512	600	680	633	658	751	745	747	312	295	304
9	626	431	572	731	676	697	813	745	770	315	301	306
10	627	125	257	762	716	747	769	753	760	322	305	314
11	217	138	178	769	194	694	760	751	755	329	315	323
12	413	184	335	452	91	236	759	738	751	343	318	336
13	303	151	248	310	111	216	758	743	751	358	325	350
14	373	300	344	604	157	353	769	757	762	377	356	368
15	577	370	461	642	573	608	767	762	765	397	374	385
16	596	159	437	585	99	254	771	765	768	413	396	403
17	276	211	252	346	235	305	775	769	771	420	410	415
18	354	162	253	362	342	351	772	768	770	591	211	364
19	480	318	395	384	362	374	776	662	764	274	255	265
20	659	470	565	400	382	391	744	722	732	287	270	281
21	788	659	729	413	381	405	727	718	724	292	280	288
22	810	775	790	---	---	e430	724	714	719	302	290	295
23	829	810	821	---	---	e450	717	213	463	312	299	305
24	838	716	794	---	---	---	229	112	157	316	307	312
25	791	678	738	---	---	---	177	146	159	330	313	322
26	742	692	712	---	---	e600	230	170	189	343	329	335
27	736	584	710	---	---	e700	268	87	221	355	338	347
28	743	712	734	785	736	759	667	105	541	369	353	360
29	737	679	715	795	783	787	757	667	713	376	364	371
30	697	622	673	810	758	795	821	750	797	384	375	381
31	---	---	---	821	729	777	851	817	832	---	---	---
MONTH	838	125	541	821	91	497	851	87	660	870	211	411

e Estimated

06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.1	5.7	7.6	9.0	6.6	8.3	3.1	0.1	1.5	---	---	---
2	7.2	5.0	6.3	7.7	4.4	6.2	4.3	0.3	2.4	---	---	---
3	5.7	2.2	4.4	8.2	4.6	6.3	12.4	3.3	9.3	---	---	---
4	5.1	1.8	3.6	8.3	4.9	6.9	11.2	6.5	9.6	---	---	---
5	6.8	2.1	4.8	6.6	4.7	5.7	10.1	3.1	8.0	---	---	---
6	9.4	3.4	6.1	7.5	4.2	5.7	6.4	0.6	3.8	---	---	---
7	10.1	4.1	7.1	7.3	4.1	5.6	4.9	0.2	2.7	---	---	---
8	13.4	4.4	9.1	8.0	5.5	7.2	3.7	0.1	1.8	---	---	---
9	10.5	5.8	8.7	9.9	5.6	7.8	9.7	0.1	5.6	---	---	---
10	9.3	5.6	7.5	7.6	2.6	6.1	13.7	9.2	e12.2	---	---	---
11	10.4	4.6	7.3	8.2	1.4	5.6	---	---	e11.5	---	---	---
12	10.8	2.6	5.6	9.2	0.9	6.4	---	---	---	---	---	---
13	9.1	3.0	5.7	12.4	6.4	8.1	---	---	---	---	---	---
14	7.9	1.7	4.8	9.2	7.2	8.0	---	---	---	---	---	---
15	2.9	1.1	1.8	8.6	6.9	7.6	---	---	---	---	---	---
16	2.3	0.6	1.2	9.4	6.6	7.6	---	---	---	---	---	---
17	4.4	0.6	2.0	10.7	7.1	9.1	---	---	---	---	---	---
18	4.3	0.9	2.5	9.1	1.0	7.0	---	---	---	---	---	---
19	4.1	0.5	1.7	5.7	1.8	3.9	---	---	---	---	---	---
20	4.8	0.1	2.4	3.9	0.3	2.3	---	---	---	---	---	---
21	5.6	0.6	2.9	3.1	0.5	1.5	---	---	---	---	---	---
22	6.2	0.4	2.9	2.4	0.3	0.9	---	---	---	---	---	---
23	6.4	0.1	2.5	11.4	0.5	9.4	---	---	---	---	---	---
24	7.7	2.0	4.6	9.4	4.5	6.9	---	---	---	---	---	---
25	6.7	3.5	4.8	5.7	0.1	3.4	---	---	---	---	---	---
26	10.3	3.9	6.5	4.5	0.1	1.3	---	---	---	---	---	---
27	13.7	6.3	9.2	3.1	0.0	1.6	---	---	---	---	---	---
28	13.6	7.4	10.6	4.7	0.5	3.4	---	---	---	---	---	---
29	15.0	8.9	11.3	3.8	0.1	1.9	---	---	---	---	---	---
30	12.5	7.1	10.1	3.7	0.7	2.7	---	---	---	---	---	---
31	11.4	7.5	9.1	---	---	---	---	---	---	---	---	---
MONTH	15.0	0.1	5.6	12.4	0.0	5.5	13.7	0.1	6.2	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	1.7	0.8	1.3
2	---	---	---	---	---	---	---	---	---	2.6	1.7	e2.2
3	---	---	---	---	---	---	---	---	---	3.6	2.6	e3.1
4	---	---	---	---	---	---	---	---	---	5.1	3.5	e4.2
5	---	---	---	---	---	---	---	---	---	9.6	4.5	e6.4
6	---	---	---	---	---	---	---	---	---	14.9	4.7	8.9
7	---	---	---	---	---	---	---	---	---	23.4	4.8	12.1
8	---	---	---	---	---	---	---	---	---	24.3	5.4	13.1
9	---	---	---	---	---	---	---	---	---	20.2	0.9	10.4
10	---	---	---	---	---	---	---	---	---	7.8	0.6	4.2
11	---	---	---	---	---	---	---	---	---	5.1	1.3	e2.6
12	---	---	---	---	---	---	---	---	---	5.3	3.1	e3.9
13	---	---	---	---	---	---	---	---	---	7.8	2.1	5.5
14	---	---	---	---	---	---	---	---	---	7.7	1.7	5.6
15	---	---	---	---	---	---	---	---	---	6.8	3.5	4.7
16	---	---	---	---	---	---	---	---	---	6.4	1.3	5.0
17	---	---	---	---	---	---	---	---	---	6.9	2.0	4.6
18	---	---	---	---	---	---	---	---	---	9.0	2.2	5.1
19	---	---	---	---	---	---	---	---	---	9.6	3.9	7.3
20	---	---	---	---	---	---	---	---	---	6.6	2.0	4.8
21	---	---	---	---	---	---	---	---	---	4.5	1.3	2.8
22	---	---	---	---	---	---	---	---	---	5.1	1.2	3.2
23	---	---	---	---	---	---	1.0	0.1	0.4	5.2	1.3	3.4
24	---	---	---	---	---	---	4.5	0.8	2.5	---	---	e5.5
25	---	---	---	---	---	---	5.0	3.1	4.0	---	---	e5.0
26	---	---	---	---	---	---	4.4	1.0	2.9	5.4	2.7	4.0
27	---	---	---	---	---	---	9.8	1.3	4.8	8.7	2.4	5.4
28	---	---	---	---	---	---	14.3	5.6	9.5	6.0	2.2	e4.5
29	---	---	---	---	---	---	12.1	1.1	7.1	7.2	4.6	6.3
30	---	---	---	---	---	---	5.1	0.6	2.3	7.9	6.0	7.1
31	---	---	---	---	---	---	---	---	---	12.7	5.6	8.8
MONTH	---	---	---	---	---	---	14.3	0.1	4.2	24.3	0.6	5.5

06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	19.4	7.6	13.2	11.9	3.9	7.4	19.7	11.9	15.6	8.0	3.4	6.0
2	26.4	7.8	16.4	9.4	2.9	5.5	13.3	4.8	9.0	12.8	6.2	8.8
3	20.8	7.7	15.2	4.0	0.8	2.5	8.5	4.3	6.2	25.2	9.9	15.7
4	17.6	8.8	13.8	7.0	0.5	2.8	6.7	0.6	2.7	28.5	15.4	21.1
5	15.3	8.5	11.8	5.9	1.8	4.3	4.4	0.3	2.0	26.7	7.5	18.0
6	11.6	4.3	8.3	8.4	2.2	5.5	5.8	0.8	3.3	7.5	0.1	3.0
7	12.0	4.8	7.9	4.0	0.9	2.4	7.2	1.7	4.3	6.0	0.0	1.8
8	15.0	3.4	7.9	4.0	0.8	2.6	6.6	2.6	4.3	11.9	0.3	5.1
9	9.1	2.5	5.3	5.7	1.9	4.1	8.6	3.1	5.8	14.3	6.4	9.6
10	8.0	3.5	6.0	9.8	4.2	6.5	11.1	3.8	7.2	9.8	5.7	7.9
11	5.4	2.0	4.4	21.5	6.4	13.1	12.5	5.9	8.9	7.7	2.8	5.9
12	7.6	2.0	4.7	22.0	3.4	12.5	12.3	5.8	9.2	8.2	3.5	5.8
13	7.6	3.4	5.6	23.0	4.2	12.6	12.3	8.3	10.6	6.7	3.1	5.1
14	5.1	2.6	3.9	14.4	2.2	e7.7	12.4	7.5	10.6	7.0	2.9	5.2
15	5.5	2.2	4.1	10.3	2.9	e6.8	13.5	8.9	10.8	6.2	3.1	4.8
16	7.3	2.7	4.8	8.7	4.4	6.8	12.3	9.1	10.7	9.7	2.4	6.0
17	4.8	1.6	3.1	5.4	2.0	4.1	10.9	8.0	9.6	11.0	5.1	8.4
18	8.1	1.5	5.9	6.9	2.2	4.4	11.0	6.4	9.3	9.4	4.0	7.2
19	7.4	5.1	6.5	9.9	3.6	6.4	10.0	6.6	8.2	4.6	1.4	3.5
20	5.5	3.0	4.7	13.9	5.3	8.3	8.4	5.3	6.7	6.9	1.8	4.1
21	6.2	3.9	5.1	15.8	4.9	9.5	10.7	4.9	7.7	9.5	3.8	6.4
22	7.0	3.7	5.2	---	---	e9.0	11.7	7.0	9.7	12.5	5.2	8.7
23	16.4	5.1	10.2	---	---	e9.5	11.0	5.1	7.8	11.6	6.3	8.6
24	26.9	11.2	17.1	---	---	---	8.7	5.5	7.4	16.3	5.8	10.7
25	30.0	9.2	18.4	---	---	---	7.6	4.8	6.2	16.5	5.0	10.7
26	20.4	12.4	17.3	---	---	e6.5	7.2	3.2	5.8	15.8	4.7	10.1
27	15.4	4.1	9.2	---	---	e6.5	9.3	3.6	7.0	15.3	4.5	9.4
28	14.5	2.8	7.2	9.9	5.7	7.7	9.3	6.5	8.4	12.9	4.9	8.2
29	19.2	6.2	11.1	13.9	7.2	10.2	8.1	3.4	6.5	14.3	4.9	8.6
30	17.1	7.0	11.1	17.7	6.2	10.8	5.3	2.6	3.8	13.7	7.3	9.8
31	---	---	---	22.2	6.1	13.9	5.5	3.0	4.0	---	---	---
MONTH	30.0	1.5	8.8	23.0	0.5	7.2	19.7	0.3	7.4	28.5	0.0	8.1

e Estimated

06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued

TURBIDITY, WATER, UNFILTERED, NEPHELOMETRIC TURBIDITY UNITS
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	20	4.6	12	10	2.3	4.9	22	5.4	8.1	---	---	---
2	17	5.4	9.8	13	0.8	3.3	13	4.6	7.0	---	---	---
3	16	2.3	6.3	12	0.8	2.5	45	6.2	27	---	---	---
4	24	1.5	4.3	8.5	0.8	3.5	36	19	29	---	---	---
5	22	1.5	3.4	7.7	2.3	3.8	34	15	25	---	---	---
6	9.2	1.5	3.7	6.9	0.8	3.4	18	7.7	13	---	---	---
7	6.2	1.5	3.1	16	1.5	3.6	15	7.7	11	---	---	---
8	12	0.8	3.3	10	3.1	4.3	13	4.6	8.6	---	---	---
9	11	1.5	4.2	6.9	1.5	3.0	180	4.6	58	---	---	---
10	25	1.5	4.0	3.8	0.8	1.8	64	37	50	---	---	---
11	37	0.8	6.7	5.4	0.0	2.2	---	---	e30	---	---	---
12	25	3.1	9.5	12	0.8	6.2	---	---	---	---	---	---
13	130	1.5	15	10	4.6	6.6	---	---	---	---	---	---
14	92	47	70	8.5	5.4	6.6	---	---	---	---	---	---
15	55	20	35	9.2	3.1	5.1	---	---	---	---	---	---
16	36	15	19	6.2	1.5	4.2	---	---	---	---	---	---
17	47	15	23	120	3.1	29	---	---	---	---	---	---
18	26	9.2	14	81	11	29	---	---	---	---	---	---
19	28	6.2	11	28	10	16	---	---	---	---	---	---
20	28	5.4	8.4	16	3.1	9.2	---	---	---	---	---	---
21	22	3.1	6.8	44	2.3	5.0	---	---	---	---	---	---
22	20	1.5	5.0	37	1.5	3.7	---	---	---	---	---	---
23	24	1.5	4.3	580	2.3	120	---	---	---	---	---	---
24	8.5	0.8	2.6	120	61	80	---	---	---	---	---	---
25	13	1.5	4.1	68	30	53	---	---	---	---	---	---
26	12	1.5	4.3	52	22	30	---	---	---	---	---	---
27	16	1.5	4.6	35	18	26	---	---	---	---	---	---
28	12	3.1	6.0	32	12	22	---	---	---	---	---	---
29	32	3.1	6.2	34	9.2	14	---	---	---	---	---	---
30	14	3.1	5.9	14	7.7	11	---	---	---	---	---	---
31	12	2.3	4.9	---	---	---	---	---	---	---	---	---
MONTH	130	0.8	10	580	0.0	17	180	4.6	24	---	---	---
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	---	---	---	35	2.0	5.0
2	---	---	---	---	---	---	---	---	---	23	1.0	3.1
3	---	---	---	---	---	---	---	---	---	12	2.0	3.3
4	---	---	---	---	---	---	---	---	---	20	3.0	4.6
5	---	---	---	---	---	---	---	---	---	27	4.0	7.6
6	---	---	---	---	---	---	---	---	---	26	4.0	8.8
7	---	---	---	---	---	---	---	---	---	27	3.0	7.9
8	---	---	---	---	---	---	---	---	---	150	4.0	11
9	---	---	---	---	---	---	---	---	---	18	3.0	7.2
10	---	---	---	---	---	---	---	---	---	300	4.0	69
11	---	---	---	---	---	---	---	---	---	86	18	33
12	---	---	---	---	---	---	---	---	---	49	5.0	e16
13	---	---	---	---	---	---	---	---	---	58	6.0	20
14	---	---	---	---	---	---	---	---	---	59	14	23
15	---	---	---	---	---	---	---	---	---	46	4.0	7.9
16	---	---	---	---	---	---	---	---	---	31	3.0	4.7
17	---	---	---	---	---	---	---	---	---	62	2.0	5.0
18	---	---	---	---	---	---	---	---	---	390	2.0	52
19	---	---	---	---	---	---	---	---	---	1,300	37	410
20	---	---	---	---	---	---	---	---	---	760	200	e390
21	---	---	---	---	---	---	---	---	---	520	140	e340
22	---	---	---	---	---	---	---	---	---	400	140	e240
23	---	---	---	---	---	---	13	6.0	7.2	400	120	e240
24	---	---	---	---	---	---	30	6.0	9.7	---	---	e300
25	---	---	---	---	---	---	15	6.0	9.5	---	---	e250
26	---	---	---	---	---	---	40	5.0	7.7	180	34	68
27	---	---	---	---	---	---	39	4.0	6.8	200	41	84
28	---	---	---	---	---	---	13	5.0	8.9	100	14	37
29	---	---	---	---	---	---	26	3.0	10	32	12	14
30	---	---	---	---	---	---	99	2.0	8.8	27	8.0	14
31	---	---	---	---	---	---	---	---	---	11	6.0	7.8
MONTH	---	---	---	---	---	---	99	2.0	8.6	1,300	1.0	87

06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO—Continued

TURBIDITY, WATER, UNFILTERED, NEPHELOMETRIC TURBIDITY UNITS—CONTINUED
WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	25	4.0	7.4	11	2.0	4.4	14	2.0	5.5	3.0	0.0	1.0
2	17	5.0	8.3	91	3.0	19	6.0	1.0	2.7	11	1.0	1.8
3	20	0.0	10	32	5.0	15	5.0	0.0	1.8	10	1.0	3.6
4	24	4.0	9.4	12	2.0	3.3	9.0	1.0	2.9	13	4.0	6.1
5	39	0.0	8.8	19	1.0	5.0	6.0	1.0	2.2	190	6.0	22
6	34	3.0	7.1	710	1.0	94	10	0.0	1.3	190	20	60
7	35	2.0	5.6	23	7.0	13	6.0	0.0	1.3	25	3.0	13
8	33	2.0	5.8	8.0	1.0	4.0	9.0	0.0	1.3	5.0	2.0	2.9
9	74	2.0	16	4.0	1.0	1.5	5.0	0.0	1.7	7.0	2.0	3.5
10	390	12	120	2.0	0.0	1.0	5.0	1.0	2.3	9.0	2.0	3.7
11	100	24	60	15	1.0	4.6	5.0	1.0	2.5	8.0	2.0	3.5
12	260	3.0	29	57	2.0	11	5.0	1.0	2.6	8.0	2.0	3.2
13	280	16	59	17	2.0	6.2	3.0	1.0	2.2	11	1.0	2.8
14	23	6.0	12	8.0	2.0	3.8	3.0	2.0	2.2	5.0	0.0	1.2
15	39	2.0	6.5	6.0	1.0	2.7	5.0	1.0	1.9	9.0	0.0	1.6
16	770	1.0	62	390	2.0	63	5.0	1.0	1.5	5.0	1.0	2.0
17	75	15	34	44	11	22	15	1.0	1.6	9.0	2.0	3.2
18	460	13	71	12	2.0	4.7	4.0	1.0	1.5	81	3.0	37
19	44	18	28	10	2.0	3.3	23	1.0	3.1	35	5.0	19
20	20	2.0	9.5	6.0	2.0	2.6	8.0	2.0	4.1	6.0	2.0	3.3
21	9.0	1.0	2.4	5.0	2.0	3.2	9.0	1.0	2.3	8.0	2.0	2.9
22	5.0	1.0	2.7	---	---	e3.4	13	1.0	1.7	7.0	2.0	4.0
23	8.0	2.0	4.8	---	---	e4.0	110	1.0	37	8.0	3.0	4.5
24	16	6.0	9.8	---	---	---	300	52	95	11	2.0	4.4
25	17	8.0	11	---	---	---	55	18	34	10	2.0	4.6
26	13	7.0	9.4	---	---	e5.0	28	7.0	12	11	3.0	4.9
27	29	4.0	9.1	---	---	e3.0	1,400	2.0	100	14	2.0	5.0
28	9.0	2.0	5.6	5.0	1.0	2.0	420	12	49	13	2.0	4.9
29	17	2.0	5.5	5.0	2.0	2.8	14	7.0	11	8.0	3.0	4.8
30	10	2.0	4.9	8.0	2.0	3.5	15	1.0	5.0	8.0	2.0	4.6
31	---	---	---	9.0	2.0	4.2	22	0.0	2.0	---	---	---
MONTH	770	0.0	21	710	0.0	11	1,400	0.0	13	190	0.0	8.0

e Estimated

06893578 BLUE RIVER AT STADIUM DRIVE IN KANSAS CITY, MO

LOCATION.--Lat 39°03'30", long 94°30'42", in SE $^1/_4$ NW $^1/_4$ NW $^1/_4$ sec.24 , T.49 N., R.33 W., Jackson County, Hydrologic Unit 10300101, on right bank on the downstream side of Stadium Blvd. bridge.

DRAINAGE AREA.--256 mi^2.

PERIOD OF RECORD.--July 1, 2002 to current year.

GAGE.--Water-stage recorder. Datum of gage is 718.29 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	231	34	40	156	95	217	215	174	123	79	94	155
2	80	34	43	144	190	138	183	e135	108	224	81	126
3	63	34	323	135	138	127	162	e120	97	375	71	112
4	54	52	137	160	109	5,930	148	104	80	142	203	99
5	50	69	89	148	101	12,000	132	99	69	208	111	128
6	44	38	72	115	107	1,040	125	95	67	3,290	80	716
7	41	33	62	108	e105	450	117	91	68	351	71	197
8	38	33	58	96	e100	323	116	86	61	175	62	126
9	48	30	498	96	e95	269	107	82	95	130	65	99
10	50	32	825	98	e107	231	101	441	1,890	110	63	86
11	43	35	219	92	117	207	103	236	960	95	65	76
12	67	38	139	89	120	181	98	126	354	92	70	68
13	64	31	111	87	113	166	91	396	1,010	82	55	75
14	176	31	109	86	e100	164	86	458	254	66	54	86
15	75	33	154	83	e110	292	82	277	234	45	50	101
16	58	33	348	87	110	366	79	175	578	2,010	47	150
17	84	97	199	198	154	219	75	143	235	280	46	64
18	63	133	167	285	245	182	70	768	1,220	120	49	1,600
19	48	70	216	180	555	157	69	12,000	447	90	50	423
20	44	56	167	137	508	145	345	2,970	214	72	127	170
21	48	47	138	123	285	131	488	409	180	66	67	123
22	46	43	158	116	219	125	132	261	158	56	53	103
23	45	197	429	109	190	171	122	208	130	91	196	76
24	42	88	229	104	167	177	216	207	95	4,290	4,440	65
25	38	58	154	126	149	136	223	2,170	82	4,190	744	60
26	38	52	129	158	139	119	152	409	67	366	272	55
27	38	48	226	e105	129	134	126	515	161	227	1,990	53
28	37	42	683	e97	122	1,600	111	264	256	171	8,660	52
29	36	40	276	e90	130	573	105	190	141	141	614	47
30	35	40	208	e87	---	339	255	173	97	121	271	44
31	35	---	177	e85	---	248	---	151	---	106	192	---
MEAN	60.0	53.4	219	122	166	857	148	772	318	576	613	178
MAX	231	197	825	285	555	12,000	488	12,000	1,890	4,290	8,660	1,600
MIN	35	30	40	83	95	119	69	82	61	45	46	44

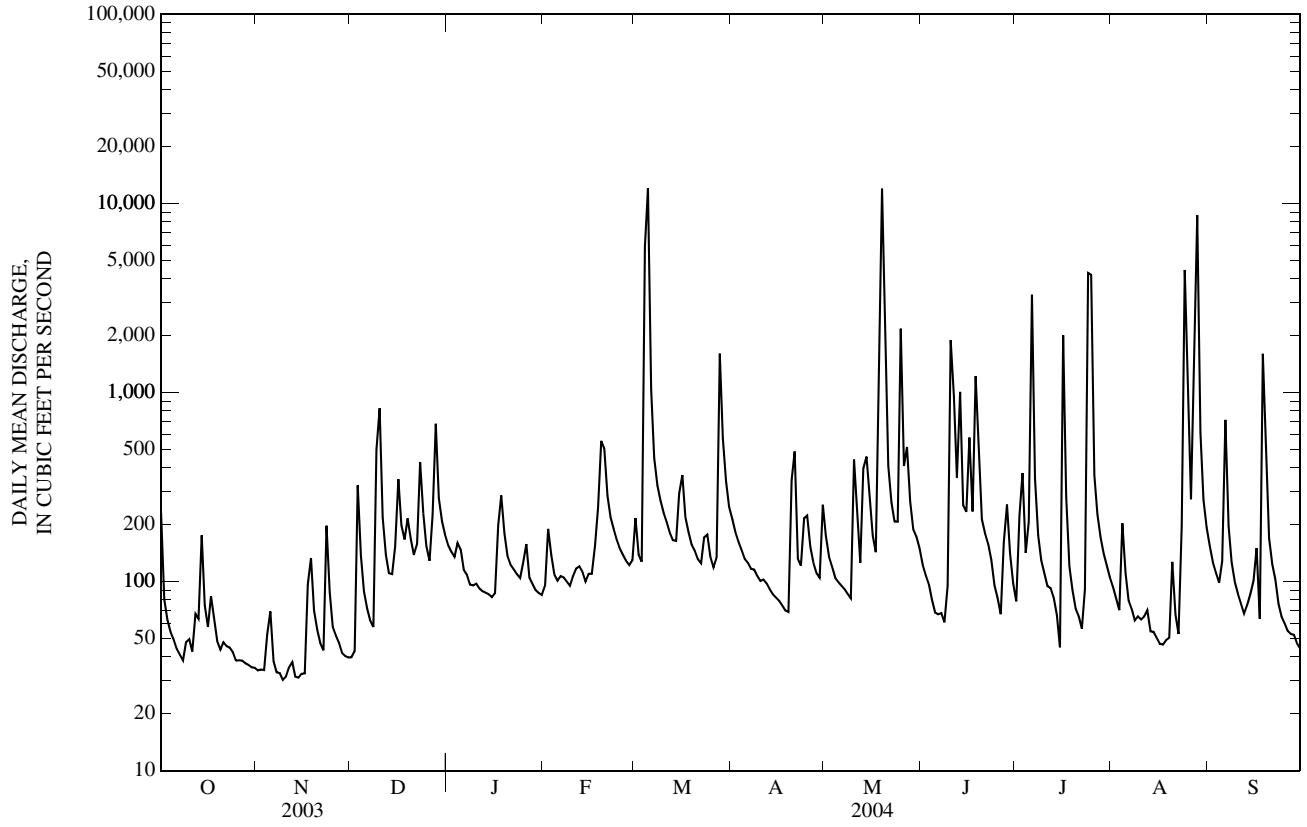
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2004, BY WATER YEAR (WY)

MEAN	76.9	47.8	125	76.9	123	467	177	451	288	233	431	190
MAX	93.9	53.4	219	122	166	857	206	772	318	576	613	338
(WY)	(2003)	(2004)	(2004)	(2004)	(2004)	(2004)	(2003)	(2004)	(2004)	(2004)	(2004)	(2003)
MIN	60.0	42.3	31.2	31.9	79.4	77.0	148	131	259	43.4	89.9	54.5
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)	(2003)	(2002)	(2002)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 2002 - 2004	
ANNUAL MEAN	174		343		252	
HIGHEST ANNUAL MEAN					343	2004
LOWEST ANNUAL MEAN					160	2003
HIGHEST DAILY MEAN	14,300	Aug 31	12,000	Mar 5,May 19	14,300	Aug 31, 2003
LOWEST DAILY MEAN	20	Aug 22	30	Nov 9	20	Aug 22, 2003
ANNUAL SEVEN-DAY MINIMUM	22	Aug 19	33	Nov 8	22	Aug 19, 2003
MAXIMUM PEAK FLOW	---		24,200	May 19	24,200	May 19, 2004
MAXIMUM PEAK STAGE	---		27.94	May 19	27.94	May 19, 2004
INSTANTANEOUS LOW FLOW	---		26	Nov 13,14	15	Aug 19,22, 2003
10 PERCENT EXCEEDS	232		433		324	
50 PERCENT EXCEEDS	48		120		80	
90 PERCENT EXCEEDS	28		46		31	

e Estimated

06893578 BLUE RIVER AT STADIUM DRIVE IN KANSAS CITY, MO—Continued



06893791 LONGVIEW RESERVOIR AT KANSAS CITY, MO

LOCATION.--Lat 38°55'29", long 94°27'35", in SE ¼ NE ¼ NW ¼ sec.4, T.48 N., R.32 W., Jackson County, Hydrologic Unit 10300101, in the U.S. Army Corps of Engineers Administration Building at the right end of dam on Little Blue River at Kansas City and 3.1 mi upstream from Cedar Creek.

DRAINAGE AREA.--50.3 mi^2.

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers).

REMARKS.--Lake is formed by a rolled earthfill type dam. Closure began June 16, 1983. Storage began on Sept. 16, 1985. An uncontrolled limited service type spillway 200 ft wide is located at the left abutment. Capacity of surcharge pool 35,370 ac-ft (909.0 ft to 922.9 ft); of flood control pool 24,800 ac-ft (elevation 891.0 ft to 909.0 ft); and of multipurpose pool 22,100 ac-ft (elevation 816.0 ft to 891.0 ft). Lake is used for flood control, water-quality control, recreation, and fish and wildlife enhancement. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 37,100 ac-ft, May 16, 1990, elevation, 903.36 ft; minimum, 2,680 ac-ft, Oct. 1, 1985, elevation, 849.40 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 26,400 ac-ft, March 4, elevation, 895.19 ft; minimum, 20,400 ac-ft, March 27, elevation, 889.01 ft.

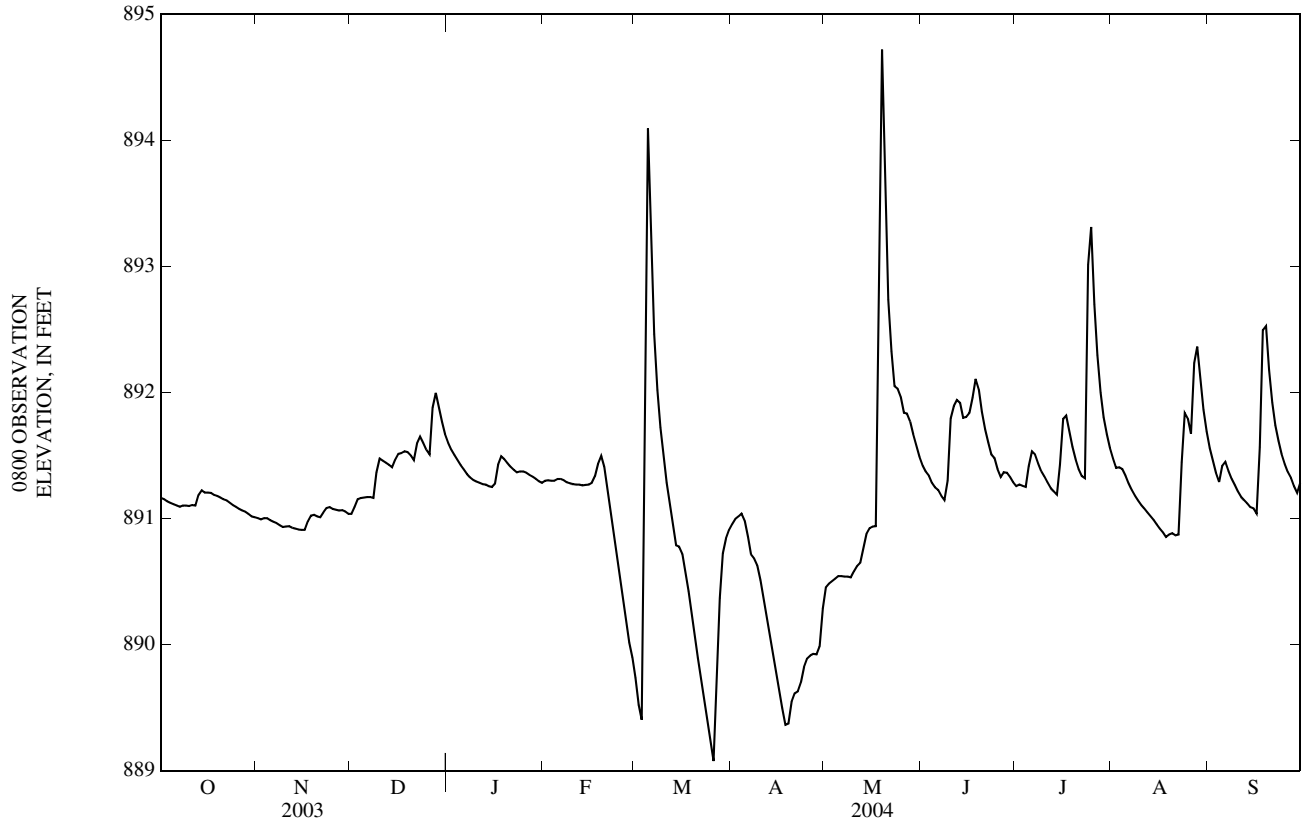
ELEVATION, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	891.17	891.01	891.03	891.64	891.28	889.87	890.93	890.42	891.46	891.27	891.53	891.64
2	891.16	891.00	891.04	891.58	891.31	889.67	890.97	890.47	891.40	891.25	891.45	891.52
3	891.15	890.99	891.12	891.53	891.30	889.45	891.01	890.49	891.36	891.28	891.38	891.43
4	891.13	891.01	891.17	891.49	891.30	889.38	891.02	890.51	891.33	891.25	891.42	891.33
5	891.12	891.00	891.16	891.45	891.30	894.92	891.05	890.53	891.26	891.25	891.38	891.27
6	891.11	890.98	891.17	891.41	891.32	893.68	890.95	890.55	891.24	891.50	891.32	891.49
7	891.10	890.97	891.17	891.38	891.31	892.83	890.81	890.54	891.22	891.55	891.26	891.43
8	891.09	890.96	891.17	891.34	891.30	892.28	890.67	890.54	891.16	891.49	891.21	891.35
9	891.11	890.94	891.16	891.32	891.28	891.89	890.69	890.54	891.14	891.41	891.17	891.30
10	891.10	890.93	891.47	891.30	891.28	891.64	890.60	890.53	891.38	891.36	891.13	891.25
11	891.10	890.94	891.48	891.29	891.27	891.41	890.47	890.61	892.00	891.32	891.10	891.20
12	891.11	890.94	891.45	891.28	891.27	891.22	890.33	890.63	891.84	891.27	891.07	891.16
13	891.10	890.92	891.44	891.27	891.27	891.05	890.19	890.66	891.99	891.23	891.04	891.14
14	891.23	890.92	891.42	891.27	891.26	890.90	890.04	890.82	891.88	891.21	891.01	891.11
15	891.22	890.91	891.40	891.25	891.27	890.73	889.89	890.91	891.76	891.18	890.98	891.08
16	891.20	890.91	891.50	891.25	891.27	890.80	889.74	890.93	891.83	891.55	890.94	891.08
17	891.21	890.91	891.52	891.29	891.29	890.68	889.59	890.94	891.84	891.91	890.91	891.02
18	891.20	891.01	891.52	891.50	891.36	890.53	889.45	890.94	892.02	891.77	890.88	891.84
19	891.18	891.03	891.54	891.49	891.47	890.37	889.32	894.72	892.15	891.65	890.84	892.82
20	891.18	891.03	891.52	891.46	891.51	890.18	889.40	894.72	891.96	891.53	890.89	892.38
21	891.16	891.01	891.49	891.43	891.36	890.02	889.62	893.09	891.79	891.44	890.88	892.08
22	891.15	891.01	891.45	891.40	891.20	889.83	889.61	892.56	891.67	891.37	890.86	891.84
23	891.14	891.07	891.67	891.38	891.04	889.68	889.64	892.21	891.57	891.32	890.88	891.69
24	891.12	891.09	891.64	891.36	890.87	889.54	889.73	891.97	891.48	891.32	891.73	891.58
25	891.10	891.09	891.58	891.38	890.70	889.36	889.87	892.06	891.48	893.86	891.89	891.48
26	891.09	891.07	891.53	891.37	890.53	889.19	889.90	891.92	891.35	893.04	891.74	891.41
27	891.07	891.07	891.50	891.36	890.34	889.02	889.92	891.80	891.32	892.53	891.64	891.35
28	891.06	891.06	892.07	891.34	890.15	889.93	889.93	891.85	891.39	892.18	892.53	891.31
29	891.05	891.07	891.96	891.33	889.95	890.59	889.92	891.73	891.35	891.91	892.28	891.23
30	891.03	891.05	891.84	891.31	---	890.79	890.02	891.64	891.32	891.75	892.01	891.19
31	891.01	---	891.73	891.29	---	890.87	---	891.55	---	891.63	891.79	---
MAX	891.23	891.09	892.07	891.64	891.51	894.92	891.05	894.72	892.15	893.86	892.53	892.82
MIN	891.01	890.91	891.03	891.25	889.95	889.02	889.32	890.42	891.14	891.18	890.84	891.02
(-)	22100	22200	22800	22400	21200	22000	21300	22600	22400	22700	22900	22300
(=)	-100	+100	+600	-400	-1,200	+800	-700	+1,300	-200	+300	+200	-600

CALYR 2003.... +1,400
WTR YR 2004.... +100

(-) Contents, in acre-feet, at the end of the month.
(=) Change in contents, in acre-feet.

06893791 LONGVIEW RESERVOIR AT KANSAS CITY, MO—Continued



06893885 BLUE SPRINGS RESERVOIR NEAR BLUE SPRINGS, MO

LOCATION.--Lat 39°01'03", long 94°20'07", sec.33, T.49 N., R.31 W., Jackson County, Hydrologic Unit 10300101, in maintenance building at right end of dam on East Fork Little Blue River, 2.2 mi west of Blue Springs, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--32.8 mi^2.

PERIOD OF RECORD.--August 1988 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers).

REMARKS.--Lake is formed by a rolled earthfill type dam. An uncontrolled limited service type spillway 300 ft wide is located on left abutment. Capacity of surcharge pool, 3,310 ac-ft (elevation 820.3 to 823.6 ft); of flood control pool, 15,900 ac-ft (elevation 802.0 to 820.3 ft); and of multipurpose pool, 10,640 ac-ft (elevation 760.0 to 802.0 ft). U.S. Army Corps of Engineers satellite telemeter at station.

COOPERATION.--Records provided by the U.S. Army Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 22,800 ac-ft, May 17, 1990, elevation, 816.37 ft; minimum contents, 142 ac-ft, Oct. 22, 29, 30, and Nov. 1-11, 1988, elevation, 773.10 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 15,000 ac-ft, May 20, elevation, 807.35 ft; minimum, 11,000 ac-ft, Nov. 12, elevation, 802.08 ft.

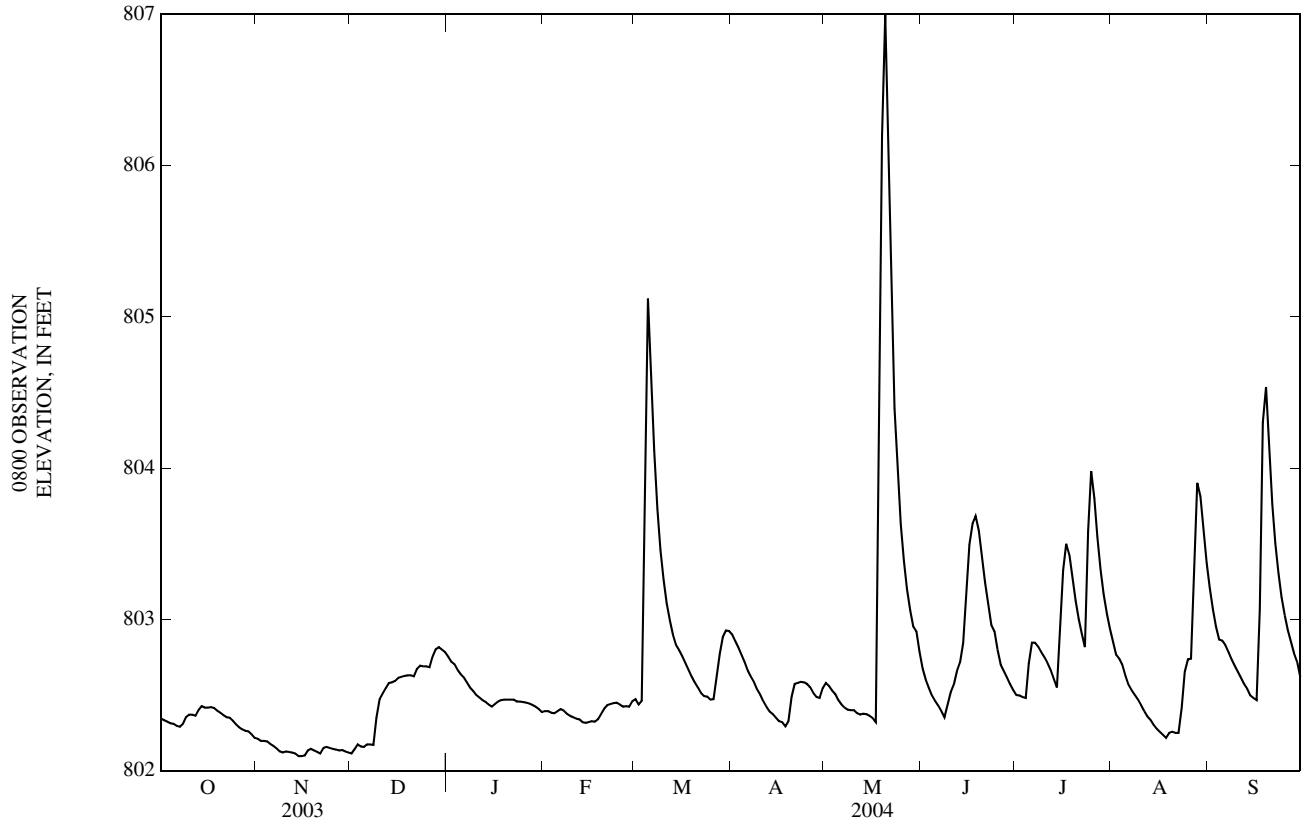
ELEVATION, IN FEET, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	802.35	802.21	802.12	802.78	802.38	802.48	802.92	802.58	802.72	802.52	802.91	803.31
2	802.34	802.21	802.11	802.74	802.40	802.47	802.89	802.58	802.65	802.49	802.82	803.16
3	802.33	802.19	802.16	802.71	802.39	802.42	802.84	802.55	802.58	802.50	802.74	803.02
4	802.32	802.20	802.18	802.70	802.38	802.48	802.80	802.52	802.53	802.48	802.74	802.92
5	802.31	802.19	802.15	802.65	802.38	805.20	802.75	802.50	802.48	802.48	802.68	802.84
6	802.31	802.17	802.16	802.63	802.40	805.08	802.70	802.45	802.45	802.82	802.60	802.87
7	802.29	802.16	802.18	802.61	802.41	804.45	802.64	802.43	802.42	802.86	802.55	802.81
8	802.29	802.14	802.17	802.57	802.39	803.95	802.61	802.41	802.38	802.84	802.52	802.77
9	802.32	802.12	802.17	802.54	802.37	803.62	802.57	802.40	802.34	802.81	802.49	802.72
10	802.37	802.12	802.44	802.52	802.36	803.38	802.52	802.40	802.49	802.77	802.46	802.68
11	802.37	802.13	802.49	802.49	802.35	803.20	802.49	802.40	802.53	802.74	802.42	802.64
12	802.37	802.12	802.52	802.48	802.34	803.06	802.44	802.37	802.59	802.70	802.38	802.60
13	802.36	802.12	802.56	802.46	802.34	802.96	802.41	802.37	802.69	802.65	802.35	802.56
14	802.42	802.11	802.59	802.45	802.31	802.87	802.38	802.38	802.73	802.59	802.33	802.53
15	802.43	802.09	802.58	802.43	802.32	802.81	802.37	802.37	802.90	802.53	802.29	802.48
16	802.41	802.10	802.60	802.42	802.32	802.79	802.34	802.36	803.28	803.06	802.27	802.48
17	802.42	802.10	802.62	802.45	802.33	802.74	802.32	802.34	803.60	803.46	802.25	802.46
18	802.42	802.15	802.62	802.46	802.32	802.70	802.32	802.31	803.65	803.52	802.23	803.37
19	802.41	802.14	802.63	802.47	802.35	802.65	802.28	803.89	803.70	803.38	802.21	804.77
20	802.39	802.13	802.63	802.47	802.39	802.61	802.35	807.35	803.53	803.23	802.27	804.42
21	802.38	802.12	802.63	802.47	802.42	802.57	802.56	806.82	803.35	803.07	802.25	803.99
22	802.36	802.11	802.62	802.47	802.44	802.54	802.58	805.89	803.19	802.97	802.25	803.65
23	802.35	802.17	802.70	802.47	802.44	802.50	802.58	804.91	803.05	802.87	802.25	803.43
24	802.35	802.15	802.69	802.45	802.45	802.49	802.59	804.14	802.92	802.79	802.50	803.24
25	802.32	802.15	802.69	802.46	802.45	802.49	802.58	803.87	802.92	803.98	802.73	803.10
26	802.30	802.14	802.69	802.45	802.43	802.46	802.57	803.51	802.74	803.98	802.74	802.99
27	802.28	802.14	802.68	802.45	802.42	802.48	802.54	803.32	802.68	803.71	802.74	802.90
28	802.27	802.13	802.79	802.44	802.43	802.70	802.50	803.14	802.65	803.46	803.79	802.83
29	802.26	802.14	802.81	802.43	802.42	802.81	802.48	803.02	802.60	803.26	803.96	802.75
30	802.26	802.12	802.82	802.42	---	802.92	802.48	802.92	802.56	803.12	803.74	802.70
31	802.23	---	802.79	802.40	---	802.93	---	802.92	---	803.00	803.50	---
MAX	802.43	802.21	802.82	802.78	802.45	805.20	802.92	807.35	803.70	803.98	803.96	804.77
MIN	802.23	802.09	802.11	802.40	802.31	802.42	802.28	802.31	802.34	802.48	802.21	802.46
(-)	11,100	11,000	11,500	11,200	11,200	11,600	11,200	11,600	11,300	11,600	12,000	11,400
(=)	0	-100	+500	-300	0	+400	-400	+400	-300	+300	-400	-600

CAL YR 2003.... +1,300
WTR YR 2004.... -500

(-) Contents, in acre-feet, at the end of the month.
(=) Change in contents, in acre-feet.

06893885 BLUE SPRINGS RESERVOIR NEAR BLUE SPRINGS, MO—Continued



06894000 LITTLE BLUE RIVER NEAR LAKE CITY, MO

LOCATION.--Lat 39°06'02", long 94°18'01", in SW ¼ SE ¼ sec.35, T.50 N., R.31 W., Jackson County, Hydrologic Unit 10300101, on right bank 50 ft downstream from bridge on west bound lane of State Highway 78, 3.0 mi southwest of Lake City, and 10.5 mi upstream from mouth.

DRAINAGE AREA.--184 mi^2.

PERIOD OF RECORD.--March 1948 to current year.

GAGE.--Water-stage recorder. Datum of gage is 719.15 ft above National Geodetic Vertical Datum of 1929. Prior to July 24, 1957, nonrecording gage at site 50 ft downstream at same datum; July 24, 1957, to Apr. 28, 1977, water-stage recorder; Apr. 29, 1977, to May 10, 1979, nonrecording gage; May 11, 1979, to Sept. 12, 1983, water-stage recorder at site 50 ft upstream at present datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	10	8.8	135	e32	141	213	261	125	65	141	270
2	26	10	9.0	122	46	117	192	148	104	62	119	226
3	20	10	43	108	40	119	172	117	88	114	102	194
4	17	9.9	54	103	36	1,290	156	97	79	62	121	166
5	15	10	31	92	36	e3,900	143	83	71	111	102	146
6	14	9.3	24	e60	41	1,500	172	72	63	1,560	78	360
7	13	8.8	22	e65	e32	993	198	62	55	275	65	193
8	12	8.2	19	66	e25	717	197	54	48	181	57	147
9	21	7.6	114	60	35	553	123	47	54	146	49	125
10	29	7.4	238	52	36	459	127	144	529	122	42	111
11	21	7.5	112	49	38	393	168	97	251	108	37	98
12	25	7.9	86	46	37	342	159	55	295	95	33	87
13	23	7.1	77	42	33	314	154	107	637	83	30	77
14	125	6.6	77	39	34	297	147	141	280	65	28	70
15	45	6.6	97	37	35	335	142	91	410	55	26	97
16	31	7.0	162	39	33	347	136	58	e651	2,230	25	97
17	41	21	119	88	44	282	133	48	601	459	24	62
18	34	45	116	134	83	264	132	145	1,020	301	22	4,320
19	27	29	125	85	237	252	128	6,590	517	236	25	1,040
20	25	16	108	e55	263	241	274	2,940	356	192	68	629
21	24	12	97	e50	182	228	293	1,030	283	163	37	437
22	24	10	113	58	152	224	130	787	224	137	27	335
23	23	56	223	50	138	238	107	623	183	116	403	268
24	20	43	148	48	131	236	129	446	151	1,710	2,600	221
25	18	19	122	53	126	218	135	948	124	2,010	397	187
26	16	15	109	71	122	214	96	361	104	744	234	159
27	15	13	210	e40	120	222	82	336	102	474	301	138
28	14	11	452	e40	117	682	76	277	112	331	4,300	120
29	13	9.3	233	e35	126	346	70	218	87	251	664	106
30	13	8.7	189	e32	---	315	473	198	75	204	439	94
31	11	---	159	e30	---	241	---	155	---	170	336	---
MEAN	26.1	14.7	119	64.0	83.1	517	162	540	256	414	353	353
MAX	125	56	452	135	263	3,900	473	6,590	1,020	2,230	4,300	4,320
MIN	11	6.6	8.8	30	25	117	70	47	48	55	22	62
IN.	0.16	0.09	0.75	0.40	0.49	3.24	0.98	3.38	1.55	2.59	2.21	2.14

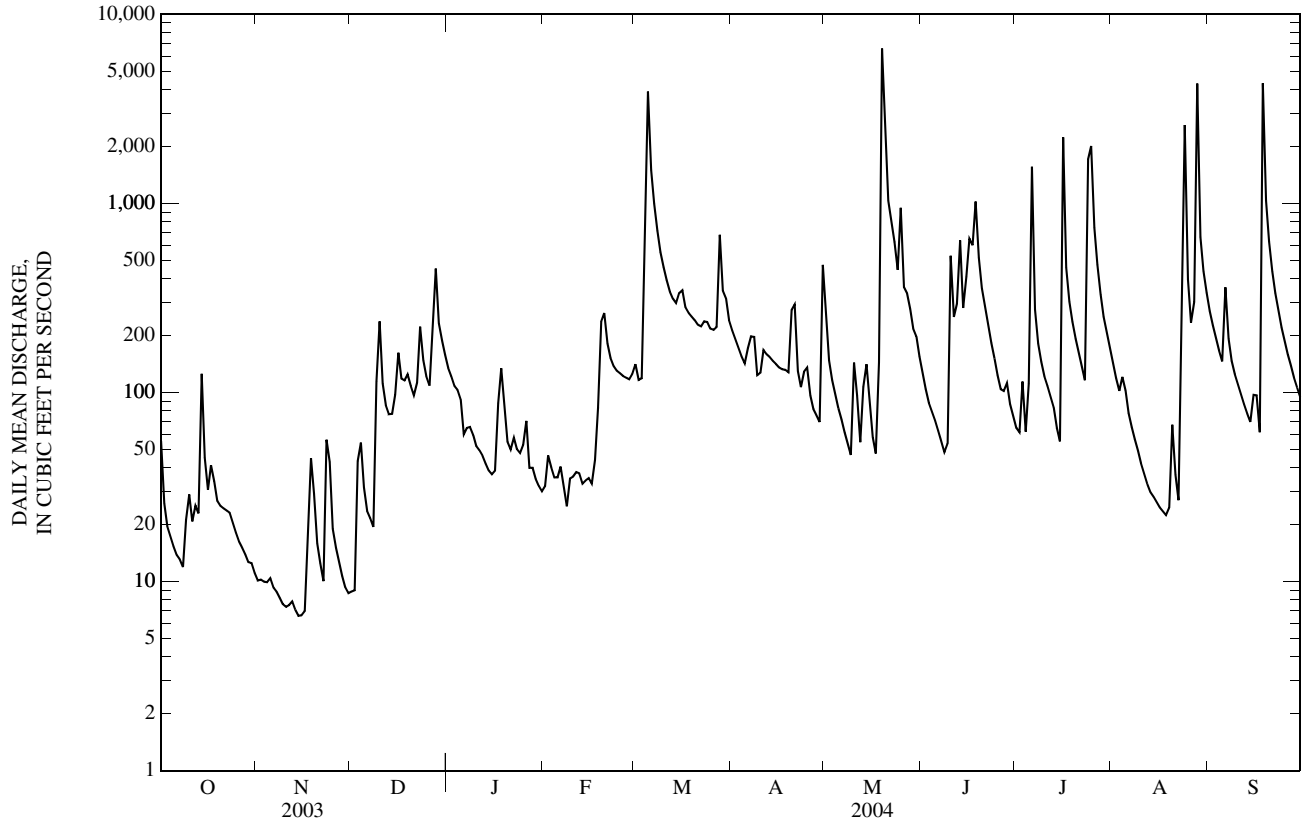
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2004, BY WATER YEAR (WY)

MEAN	130	105	88.1	85.3	129	195	244	283	269	147	96.4	158
MAX	983	854	495	357	576	1,153	1,069	1,534	1,216	1,103	1,455	1,018
(WY)	(1987)	(1962)	(1993)	(1993)	(1985)	(1973)	(1983)	(1995)	(1967)	(1993)	(1982)	(1961)
MIN	0.13	0.49	1.36	1.36	3.09	4.15	11.3	27.9	10.3	0.26	0.02	0.20
(WY)	(1954)	(1957)	(1956)	(1957)	(1957)	(1956)	(1954)	(1988)	(1953)	(1954)	(1953)	(1953)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1948 - 2004	
ANNUAL MEAN	63.6		243		161	
HIGHEST ANNUAL MEAN					440	1993
LOWEST ANNUAL MEAN					11.5	1956
HIGHEST DAILY MEAN	2,030	Aug 31	6,590	May 19	27,700	Aug 13, 1982
LOWEST DAILY MEAN	2.5	Aug 18,19,22-26	6.6	Nov 14,15	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	2.6	Aug 18	7.2	Nov 10	0.00	Several Years
MAXIMUM PEAK FLOW	---		9,840	May 19	42,300	Aug 13, 1982
MAXIMUM PEAK STAGE	---		22.21	May 19	27.94	Sep 14, 1961
INSTANTANEOUS LOW FLOW	---		6.4	Nov 14,15	0.00	Several Years
ANNUAL RUNOFF (INCHES)	4.69		17.99		11.90	
10 PERCENT EXCEEDS	146		441		316	
50 PERCENT EXCEEDS	17		108		48	
90 PERCENT EXCEEDS	4.7		17		7.7	

e Estimated

06894000 LITTLE BLUE RIVER NEAR LAKE CITY, MO—Continued



06895500 MISSOURI RIVER AT WAVERLY, MO

LOCATION.--Lat 39°12'54", long 93°30'54", sec.14, T.51 N., R.23 W., Lafayette County, Hydrologic Unit 10300101, on downstream side of pier of bridge on State Highway 24 and U.S. Highway 65 at Waverly and at mile 293.5.

DRAINAGE AREA.--485,900 mi^2. The 3,959 mi^2 in Great Divide basin are not included.

PERIOD OF RECORD.--October 1928 to current year. Gage-height records collected at same site 1878-79, 1883-99 are contained in reports of the Missouri River Commission; since 1915 in reports of the National Weather Service. Daily discharge not computed Apr. 1, 1977, to Mar. 31, 1978.

REVISED RECORDS.--WDR MO-76-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 646.00 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 1, 1934, at datum 5.00 ft lower; Mar. 30, 1929, to Apr. 4, 1934, nonrecording gage; Apr. 5, 1934, to June 13, 1943, water-stage recorder; June 14, 1943, to Sept. 15, 1944, nonrecording gage; Sept. 16, 1944, to May 28, 1969, water-stage recorder all at present site and datum; May 29, 1969, to Jan. 8, 1984, water-stage recorder at site 450 ft downstream, present datum; Jan. 9, 1984, to May 24, 1984, nonrecording gage at present site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Some regulation from many upstream reservoirs. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33,900	34,800	23,300	24,200	22,100	e31,800	55,800	43,700	119,000	54,500	47,600	45,500
2	34,100	35,100	23,000	25,000	22,000	31,400	50,000	41,000	95,300	52,500	46,200	42,500
3	33,900	35,500	23,000	25,300	21,000	37,000	46,900	39,500	83,400	54,600	45,500	40,400
4	33,600	36,000	23,300	24,900	20,400	47,700	45,000	39,000	77,000	63,800	44,800	39,500
5	33,500	37,800	23,600	24,500	20,700	94,800	43,100	37,400	68,000	65,900	43,700	38,700
6	33,800	43,800	23,800	24,000	21,500	98,400	40,900	36,800	65,300	72,300	43,000	39,600
7	33,700	45,100	23,800	23,500	21,900	90,000	38,900	37,400	63,800	83,500	50,700	43,300
8	33,100	41,400	23,800	22,700	22,000	70,500	37,900	38,100	60,400	77,300	52,900	41,500
9	33,100	39,600	23,800	21,700	22,600	64,600	36,900	37,400	59,500	67,500	46,100	40,300
10	33,300	38,600	25,800	20,300	22,700	59,700	36,500	37,000	60,700	61,400	44,100	39,700
11	33,500	37,800	28,600	19,300	22,200	56,000	36,300	40,000	63,700	65,000	42,000	38,700
12	33,500	37,300	24,800	19,000	22,000	57,400	36,000	40,200	62,300	74,700	41,200	37,100
13	33,800	36,800	23,300	19,200	22,100	55,100	35,700	41,400	63,400	81,900	40,400	36,700
14	34,900	36,700	22,600	20,100	21,900	49,500	35,200	44,200	68,000	80,800	39,800	36,700
15	36,000	36,600	21,500	21,000	22,000	44,400	34,900	45,100	89,900	69,700	38,900	36,700
16	35,700	36,700	20,800	21,500	22,600	40,700	35,100	44,600	92,100	67,400	38,700	36,800
17	36,000	36,600	21,200	22,000	23,000	37,300	35,100	44,400	87,400	83,900	38,300	37,200
18	36,100	37,000	21,700	23,100	23,000	34,700	34,700	43,300	87,100	82,200	38,000	42,400
19	35,500	37,000	22,600	24,100	23,100	33,400	34,000	54,900	85,400	71,500	37,500	56,200
20	35,400	37,300	23,600	23,800	25,100	32,500	33,700	90,900	81,900	67,200	37,800	54,300
21	34,800	37,900	24,000	23,600	27,200	31,300	36,400	75,700	82,200	61,900	37,700	55,000
22	34,200	37,400	24,100	23,800	26,600	30,500	37,000	60,100	75,000	53,700	37,300	50,300
23	34,000	36,900	24,300	23,600	27,100	29,600	35,200	52,900	72,000	50,700	37,700	46,200
24	34,000	35,700	25,200	22,800	30,200	28,900	35,400	48,600	70,800	50,100	43,900	46,500
25	34,200	33,300	25,000	22,600	32,300	29,000	35,900	75,500	66,800	72,900	64,200	48,500
26	33,900	31,500	24,400	23,100	32,700	29,700	36,500	122,000	62,600	77,500	64,700	46,200
27	33,900	29,600	23,700	23,600	33,000	31,700	36,800	117,000	59,000	62,000	57,900	44,700
28	34,200	27,600	24,100	23,500	33,600	35,300	38,100	103,000	57,400	57,400	79,800	45,200
29	34,200	25,800	26,100	23,700	33,200	44,000	38,600	86,200	57,200	55,400	90,900	47,300
30	34,200	24,200	24,300	24,100	---	54,200	39,400	78,300	58,400	51,200	65,700	46,100
31	34,500	---	23,800	23,500	---	64,100	---	89,600	---	49,600	52,900	---
MEAN	34,270	35,910	23,770	22,810	24,820	47,590	38,400	57,590	73,170	65,810	48,060	43,330
MAX	36,100	45,100	28,600	25,300	33,600	98,400	55,800	122,000	119,000	83,900	90,900	56,200
MIN	33,100	24,200	20,800	19,000	20,400	28,900	33,700	36,800	57,200	49,600	37,300	36,700
IN.	0.08	0.08	0.06	0.05	0.06	0.11	0.09	0.14	0.17	0.16	0.11	0.10

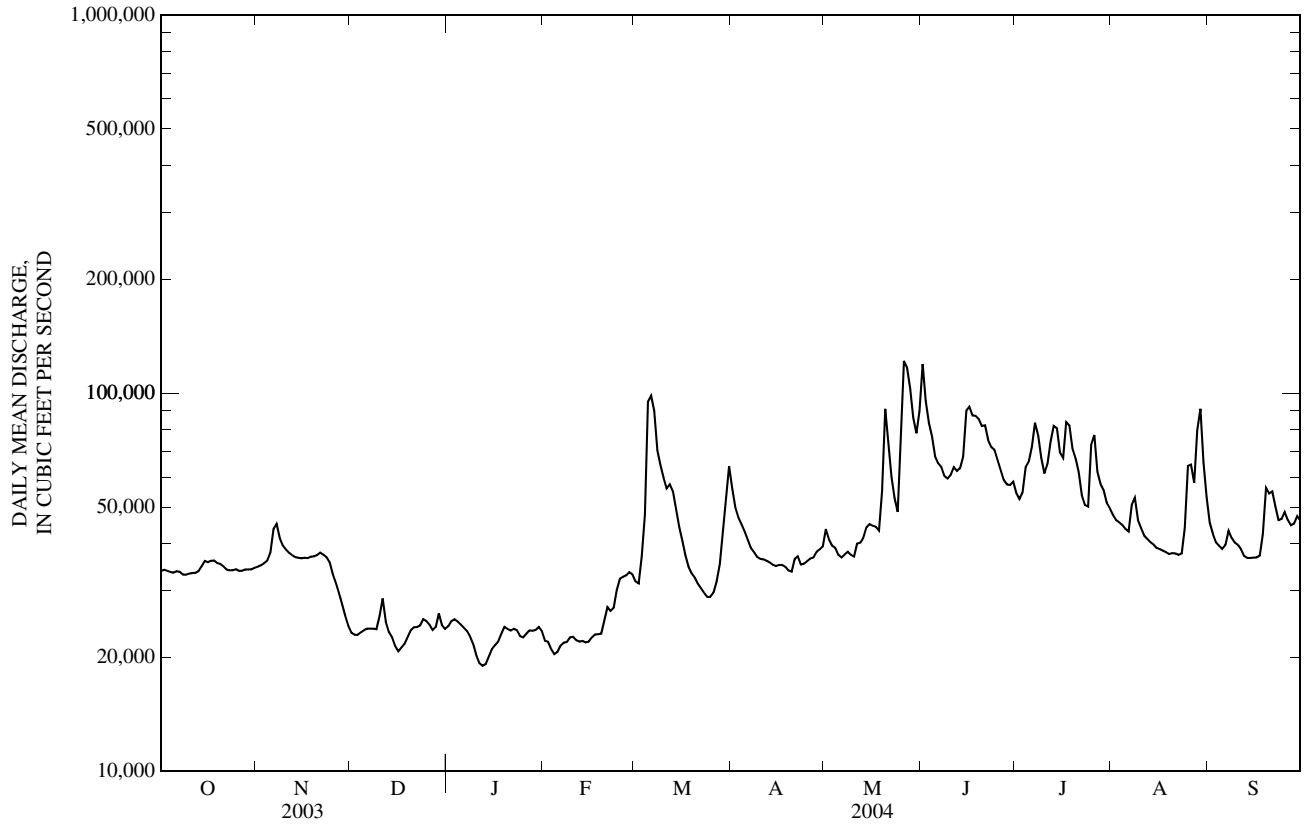
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2004[a], BY WATER YEAR (WY)

MEAN	56,800	52,820	37,740	30,290	39,450	55,530	72,340	75,420	80,830	72,620	56,800	56,970
MAX	141,900	116,200	74,470	65,720	79,780	133,500	145,500	168,400	176,600	306,500	155,700	121,700
(WY)	(1974)	(1999)	(1987)	(1973)	(1973)	(1979)	(1984)	(1995)	(1984)	(1993)	(1993)	(1993)
MIN	34,270	21,620	13,010	14,770	16,830	19,250	37,510	39,350	41,340	34,800	33,030	35,380
(WY)	(2004)	(1992)	(1964)	(1963)	(1964)	(1964)	(2003)	(1989)	(1988)	(2002)	(2003)	(1991)

06895500 MISSOURI RIVER AT WAVERLY, MO—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1958 - 2004[a]	
ANNUAL MEAN	35,130		43,010		57,410	
HIGHEST ANNUAL MEAN					109,900	1993
LOWEST ANNUAL MEAN					35,670	2003
HIGHEST DAILY MEAN	77,600	May 11	122,000	May 26	611,000	Jul 28, 1993
LOWEST DAILY MEAN	19,100	Jan 23	19,000	Jan 12	5,000	Dec 20, 1963
ANNUAL SEVEN-DAY MINIMUM	19,600	Jan 18	20,100	Jan 10	5,540	Dec 17, 1963
MAXIMUM PEAK FLOW	---		125,000	Jun 1	633,000	Jul 27, 1993
MAXIMUM PEAK STAGE	---		21.18	Jun 1	31.15	Jul 27, 1993
INSTANTANEOUS LOW FLOW	---		18,900	Jan 12	5,000	Dec 20, 1963
ANNUAL RUNOFF (INCHES)	0.98		1.21		1.61	
10 PERCENT EXCEEDS	50,600		72,100		96,500	
50 PERCENT EXCEEDS	34,300		37,300		48,700	
90 PERCENT EXCEEDS	22,300		23,000		25,000	

e Estimated
[a] Post-regulation period.



06896187 MIDDLE FORK GRAND RIVER NEAR GRANT CITY, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 40°27'17", long 94°24'12", in NW ¼ SW ¼ NW ¼ sec.9, T.65 N., R.31 W., Worth County, Hydrologic Unit 10280101, on Highway 169 approximately 2.0 mi south of the junction of Highway 169 and State Highway 46 in Grant City.

DRAINAGE AREA.--82.4 mi^2.

PERIOD OF RECORD.--November 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as $CaCO_3$ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
NOV 05...	0920	Environmental	22	10.1	80	7.9	311	5.5	110	33.1	7.27	10.5
JAN 22...	1050	Environmental	1.1	14.9	103	7.8	472	0.5	--	--	--	--
MAR 24...	0915	Environmental	8.2	11.2	99	8.1	510	10.0	--	--	--	--
MAY 19...	1450	Environmental	40	7.4	89	8.0	386	24.5	150	44.2	9.18	7.58
JUL 08...	1025	Environmental	5.7	9.3	104	8.4	543	21.0	--	--	--	--
SEP 09...	1520	Environmental	3.5	7.8	98	8.2	531	27.0	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as $CaCO_3$ (00410)	ANC, wat unf incrm. titr., field, mg/L as $CaCO_3$ (00419)	Bicarbonate, wat unf incrm. titr., field, mg/L (00450)	Carbonate, wat unf incrm. titr., field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NOV 05...	12.5	85	85	104	<1	19.2	0.2	30.2	194	108d	1.4	0.21	1.80
JAN 22...	--	247	249	304	<1	--	--	--	--	<10	1.3	0.49	1.19
MAR 24...	--	150	147	179	<1	--	--	--	--	12	0.53	<0.04	1.89
MAY 19...	12.2	114	114	139	<1	19.9	0.3	21.4	255	200d	2.3	0.21	4.97
JUL 08...	--	189	190	226	3	--	--	--	--	<10	0.70	<0.04	E.04n
SEP 09...	--	195	198	242	<1	--	--	--	--	10	0.46	<0.04	<0.06

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/ 100 mL (31625)	Fecal streptococci KF MF, col/ 100 mL (31673)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Copper, water, fltrd, µg/L (01040)
NOV 05...	0.048	0.40	0.46	0.64	93,000k	92,000k	61,000k	2	1,960d	2.5	E.03n	0.13	2.8
JAN 22...	0.010	<0.02	<0.04	0.09	62	52	42	--	--	--	--	--	--
MAR 24...	0.017	0.03	0.05	0.09	20k	31k	44	--	--	--	--	--	--
MAY 19...	0.147	0.18	0.20	0.73	68,000	60,000	20,000	3	3,580d	2.5	E.02n	0.22	2.9
JUL 08...	0.008	E.01n	E.04n	0.11	1,200k	1,300	600	--	--	--	--	--	--
SEP 09...	<0.008	0.02	0.06	0.10	110k	560	220	--	--	--	--	--	--

06896187 MIDDLE FORK GRAND RIVER NEAR GRANT CITY, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover -able, µg/L (71900)	Selenium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV								
05...	34	<0.08	3.10	186	E.01n	0.7	M	11
JAN								
22...	--	--	--	--	--	--	--	--
MAR								
24...	--	--	--	--	--	--	--	--
MAY								
19...	11	<0.08	8.96	32.3	E.01n	0.8	Mn	19
JUL								
08...	--	--	--	--	--	--	--	--
SEP								
09...	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

06896320 EAST FORK GRAND RIVER AT ALLENDALE, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 40°28'53", long 94°19'06", in SE ¼ NE ¼ NW ¼ sec.32, T.66 N., R.30 W., Worth County, Hydrologic Unit 10280101, in Allendale on Highway 46, approximately 1.6 mi west of the junction of Highway NN and State Highway 46.

DRAINAGE AREA.--211 mi^2.

PERIOD OF RECORD.--November 1999 to current year.

REMARKS.--January sample collected at alternate site East Fork Grand River at Albany (06896400), due to frozen conditions.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as $CaCO_3$ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
NOV												
05...	1320	Environmental	44	10.4	84	7.8	205	6.0	81	23.7	5.34	9.40
05...	1321	Replicate	--	--	--	--	--	--	82	23.8	5.37	9.68
MAR												
24...	1310	Environmental	26	10.7	100	8.2	400	12.0	--	--	--	--
MAY												
19...	1015	Environmental	180	8.0	88	8.1	345	18.5	160	48.4	9.33	5.65
JUL												
08...	1430	Environmental	14	9.6	110	8.6	450	22.5	--	--	--	--
SEP												
09...	1120	Environmental	44	8.3	89	8.0	363	18.5	--	--	--	--
09...	1121	Blank	--	--	--	--	--	--	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as $CaCO_3$ (00410)	ANC, wat unf incrm. titr., field, mg/L as $CaCO_3$ (00419)	Bicarbonate, wat unf incrm. titr., field, mg/L (00450)	Carbonate, wat unf incrm. titr., field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NOV													
05...	3.98	60	56	69	<1	7.92	0.2	14.8	141	160d	2.0	<0.04	3.34
05...	3.98	--	--	--	--	7.73	0.2	14.7	139	156d	2.0	<0.04	3.00
MAR													
24...	--	132	130	147	6	--	--	--	--	22	0.74	<0.04	2.86
MAY													
19...	7.09	123	122	148	<1	7.75	0.3	26.3	241	420d	2.5	0.07	3.79
JUL													
08...	--	191	187	212	8	--	--	--	--	<10	0.63	<0.04	<0.06
SEP													
09...	--	152	154	187	<1	--	--	--	--	52	0.78	E.03n	0.45
09...	--	--	--	--	--	--	--	--	--	<10	<0.10	0.07	<0.06

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/ 100 mL (31625)	Fecal streptococci KF MF, col/ 100 mL (31673)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Copper, water, fltrd, µg/L (01040)
NOV													
05...	0.035	0.39	0.45	0.76	110,000k	140,000kf	68,000k	4	3,310d	2.5	E.02n	0.18	5.3
05...	0.033	0.40	0.45	0.74	--	--	--	3	3,550d	2.5	<0.04	0.18	3.3
MAR													
24...	0.011	0.04	0.06	0.12	8k	40	40	--	--	--	--	--	--
MAY													
19...	0.106	0.07	0.09	0.65	22,000	32,000	20,000	3	5,920d	2.0	<0.04	0.34	2.5
JUL													
08...	<0.008	E.01n	E.02n	0.08	120k	180	250	--	--	--	--	--	--
SEP													
09...	E.006n	0.06	0.07	0.19	800k	1,300k	1,200k	--	--	--	--	--	--
09...	<0.008	<0.02	<0.04	<0.04	--	--	--	--	--	--	--	--	--

06896320 EAST FORK GRAND RIVER AT ALLENDALE, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover -able, µg/L (71900)	Selen- ium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV								
05...	93	E.08n	4.08	78.8	0.02	0.7	M	17
05...	88	<0.08	4.11	80.3	0.02	0.7	Mn	18
MAR								
24...	--	--	--	--	--	--	--	--
MAY								
19...	13	<0.08	9.85	1.0	0.02	1.3	Mn	28
JUL								
08...	--	--	--	--	--	--	--	--
SEP								
09...	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
d -- Diluted sample: method hi range exceeded
f -- Sample field preparation problem
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

06896400 EAST FORK GRAND RIVER AT ALBANY, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 40°14'55", long 94°21'37", in NW¼ NW¼ SE¼ sec. 23, T.63 N., R.31 W., Gentry County, Hydrologic Unit 10280101, on US Highway 136, approximately 18 miles west of I-35, and one mile west of Albany.

DRAINAGE AREA.--397 mi^2.

PERIOD OF RECORD.--January 2004.

REMARKS.--This is an alternate collection site for the primary site East Fork Grand River at Allendale (06896320), due to frozen conditions.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	ANC, wat unf fixed end pt, field, mg/L as $CaCO_3$ (00410)	ANC, wat unf incrm. titr., field, mg/L as $CaCO_3$ (00419)	Bicarbonate, wat unf incrm. titr., field, mg/L (00450)	Carbonate, wat unf incrm. titr., field, mg/L (00447)
JAN												
22...	1500	Environmental	3.7	15.1	105	8.0	450	0.0	184	184	225	<1
22...	1501	Replicate	--	--	--	--	--	--	--	--	--	--

Date	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/ 100 mL (31625)	Fecal streptococci KF MF, col/ 100 mL (31673)
JAN											
22...	<10	0.26	<0.04	<0.06	<0.008	<0.02	<0.04	0.04	28k	80	32k
22...	<10	0.30	<0.04	<0.06	<0.008	<0.02	<0.04	0.05	--	--	--

Remark codes used in this table:
< -- Less than

Value qualifier codes used in this table:
k -- Counts outside acceptable range

06897000 EAST FORK BIG CREEK NEAR BETHANY, MO

LOCATION.--Lat 40°17'50", long 94°01'34", in SE $^1/_4$ sec.34, T.64 N., R.28 W., Harrison County, Hydrologic Unit 10280101, on right downstream side of bridge on old U.S. Highway 69, 2 mi north of Bethany, and 4 mi upstream from confluence with West Fork.

DRAINAGE AREA.--95 mi^2, approximately.

PERIOD OF RECORD.--April 1934 to September 1972, October 1996 to September 1999, October 2000 to current year.

GAGE.--Water-stage recorder. Datum of gage is 854.74 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.01	0.04	e0.80	e0.15	2.7	35	3.0	350	1.2	0.04	34
2	0.00	0.02	0.04	e0.80	e0.20	3.0	31	2.7	265	e2.5	0.12	24
3	0.00	0.02	0.11	e1.0	e0.15	2.9	23	1.3	203	e230	0.17	17
4	0.00	0.05	0.11	e0.55	e0.15	37	15	0.87	152	e200	818	14
5	0.00	0.12	0.16	e0.35	e0.20	192	9.3	0.68	116	e40	563	11
6	0.00	0.10	0.14	e0.30	e0.20	150	6.6	0.63	77	e9.4	157	8.4
7	0.00	0.18	0.12	e0.20	e0.20	57	5.1	0.56	49	31	93	11
8	0.00	7.4	0.10	e0.20	e0.20	27	5.6	0.47	33	19	54	12
9	0.00	4.0	2.9	e0.20	e0.20	15	2.7	0.45	26	11	38	7.1
10	0.00	2.2	e3.3	e0.20	e0.15	8.8	1.8	0.43	27	5.8	27	5.9
11	0.01	1.4	e1.2	e0.25	e0.15	6.2	1.2	0.34	51	4.0	21	5.1
12	0.00	0.70	e1.0	e0.25	e0.15	4.6	0.92	0.26	164	92	17	3.3
13	0.01	0.28	e0.90	e0.25	e0.15	4.1	0.73	0.95	1,050	58	13	2.7
14	0.00	0.20	e0.80	e0.30	e0.15	4.6	0.52	0.77	e820	26	10	4.0
15	0.01	0.18	e0.70	e0.30	e0.15	5.0	0.43	0.67	667	13	8.4	4.6
16	0.01	0.13	e1.1	e0.25	e0.15	7.5	0.36	0.47	221	4.5	7.0	2.4
17	0.01	0.18	e0.70	e0.25	e0.15	e30	0.32	0.47	323	0.51	3.9	2.2
18	0.01	0.19	e1.3	e0.20	e0.20	50	0.24	262	189	0.17	0.31	5.5
19	0.00	0.16	e1.2	e0.15	e0.55	36	0.20	212	172	0.02	0.00	3.6
20	0.00	0.14	e0.90	e0.15	e10	23	1.4	84	94	0.00	0.00	0.27
21	0.00	0.12	e0.70	e0.15	e85	12	3.5	45	64	0.00	0.00	0.24
22	0.00	0.10	e0.80	e0.20	e75	6.5	2.1	22	51	0.00	0.00	0.14
23	0.00	0.13	e1.1	e0.20	49	4.5	5.0	175	40	0.00	0.00	0.20
24	0.00	0.11	e1.3	e0.30	31	3.1	2.8	238	25	0.00	e1.0	0.21
25	0.01	0.10	e0.90	e0.20	17	2.8	2.0	849	20	0.00	e100	0.10
26	0.01	0.08	e1.0	e0.20	19	108	1.2	251	15	0.00	e210	0.02
27	0.01	0.07	e0.90	e0.15	6.6	88	0.72	120	11	0.00	e250	0.00
28	0.01	0.06	e1.4	e0.15	4.2	366	0.49	81	e9.9	0.00	564	0.00
29	0.01	0.06	e1.4	e0.15	3.4	144	0.44	53	e7.4	0.00	291	0.09
30	0.01	0.05	e1.3	e0.15	---	75	1.6	4,040	5.3	0.00	87	0.19
31	0.01	---	e1.0	e0.15	---	47	---	913	---	0.00	50	---
MEAN	0.00	0.62	0.92	0.29	10.5	49.1	5.38	237	177	24.1	109	5.98
MAX	0.01	7.4	3.3	1.0	85	366	35	4,040	1,050	230	818	34
MIN	0.00	0.01	0.04	0.15	0.15	2.7	0.20	0.26	5.3	0.00	0.00	0.00
IN.	0.00	0.01	0.01	0.00	0.12	0.60	0.06	2.88	2.07	0.29	1.33	0.07

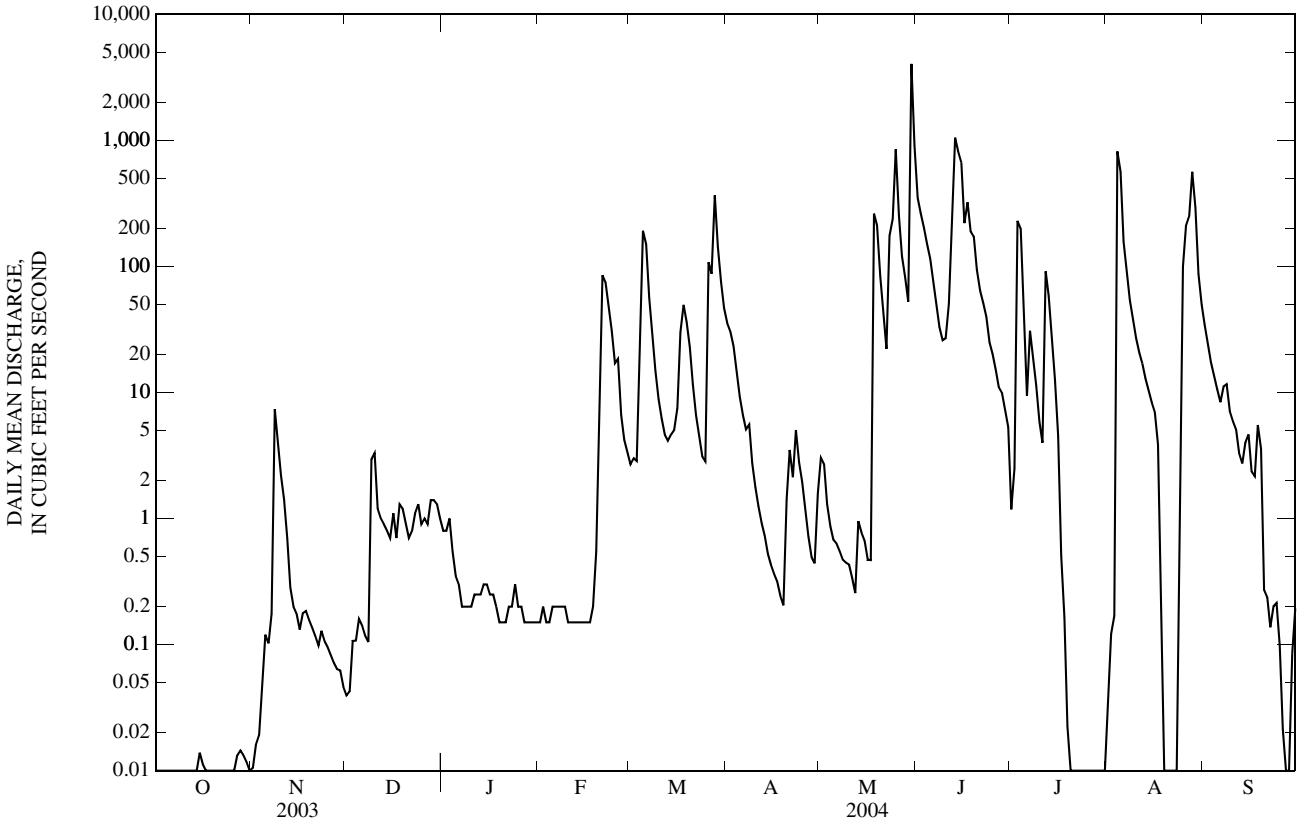
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	25.7	26.6	15.0	23.5	63.6	84.1	79.0	80.8	110	31.7	17.3	31.5
MAX	140	313	78.1	240	349	341	305	332	932	284	109	425
(WY)	(1960)	(1962)	(1945)	(1946)	(1937)	(1960)	(1944)	(1945)	(1947)	(1969)	(2004)	(1961)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1938)	(1938)	(1938)	(1939)	(1938)	(1956)	(1956)	(1956)	(1956)	(1936)	(1936)	(1937)

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	2.94		51.9		49.4	
HIGHEST ANNUAL MEAN					111	1947
LOWEST ANNUAL MEAN					2.27	1938
HIGHEST DAILY MEAN	248	May 1	4,040	May 30	6,200	Jun 6, 1947
LOWEST DAILY MEAN	0.00	Many Days	0.00	Many Days	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 1,Sep 27	0.00	Many Days	0.00	Several Years
MAXIMUM PEAK FLOW	---		5,760	May 30	8,120	Jun 6, 1947
MAXIMUM PEAK STAGE	---		15.45	May 30	17.65	Jun 6, 1947
INSTANTANEOUS LOW FLOW	---		0.00	Many Days	0.00	Several Years
ANNUAL RUNOFF (INCHES)	0.42		7.45		7.06	
10 PERCENT EXCEEDS	4.0		102		88	
50 PERCENT EXCEEDS	0.14		0.98		3.9	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated

06897000 EAST FORK BIG CREEK NEAR BETHANY, MO—Continued



06897500 GRAND RIVER NEAR GALLATIN, MO

LOCATION.--Lat 39°55'37", long 93°56'33", in SW $^1/_4$ NW $^1/_4$ sec.16, T.59 N., R.27 W., Daviess County, Hydrologic Unit 10280101, on left bank 100 ft upstream from bridge on State Highway 6, 50 ft downstream from Chicago, Rock Island and Pacific Railroad Company Bridge, 1.0 mi northeast of Gallatin, 6.0 mi upstream from Honey Creek, and at mile 90.0.

DRAINAGE AREA.--2,250 mi^2.

PERIOD OF RECORD.--June 1921 to current year.

REVISED RECORDS.--WSP 786: 1933-34. WSP 1280: 1922. WDR MO-83-1: 1981. WDR MO-93-1: 1991(M).

GAGE.--Water-stage recorder. Datum of gage is 707.56 ft above National Geodetic Vertical Datum of 1929. This figure supercedes figures published in reports from 1982 to 1992. Prior to Jan. 31, 1922, nonrecording gage at site 100 ft upstream at datum 5.00 ft lower; Jan. 31, 1922, to Nov. 15, 1936, nonrecording gage at site about 1,100 ft upstream at datum 4.83 ft lower; Nov. 16, 1936, to Nov. 14, 1937, nonrecording gage; Nov. 15, 1937, to Sept. 21, 1961, water-stage recorder on center pier of highway bridge at datum 5.00 ft lower; Sept. 22-27, 1961, nonrecording gage at railroad bridge 100 ft upstream at datum 5.00 ft lower; Sept. 28, 1961, to Mar. 4, 1964, water-stage recorder on downstream side of left bank pier of highway bridge and wire-weight gage for stages below 7.2 ft at datum 5.00 ft lower; Mar. 5, 1964, to Mar. 5, 1982, at present site at datum 5.00 ft. higher.

REMARKS.--Records fair except for estimated daily discharges and the period Feb. 22 to March 23, which are poor. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 45 ft, July 8, 1909, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	4.6	19	30	e11	91	1,080	365	19,400	417	184	1,180
2	6.5	5.1	18	29	e10	91	791	427	5,300	456	399	856
3	6.0	5.5	21	27	e8.5	96	606	265	3,320	2,300	277	649
4	5.6	5.7	25	23	e8.2	434	490	190	2,290	e2,200	234	521
5	5.4	5.1	26	e15	e8.2	3,540	399	160	1,680	e1,700	4,000	437
6	5.0	9.7	25	e15	e8.5	2,730	335	137	1,300	e1,400	3,530	643
7	4.7	150	26	e16	e8.5	e2,600	294	119	1,050	e1,000	1,390	1,400
8	4.5	120	27	16	e9.2	e1,600	272	106	858	681	870	1,230
9	4.4	87	52	17	e9.5	e950	238	100	705	578	628	710
10	4.2	69	286	15	e10	453	210	96	995	466	e500	467
11	4.7	60	e100	17	e10	312	190	123	1,020	569	e400	351
12	5.1	47	e70	18	e9.0	235	172	223	1,260	5,700	296	284
13	6.0	38	e60	18	e9.0	192	157	166	22,800	5,040	254	241
14	11	35	e50	18	e9.0	178	145	130	33,800	2,680	225	211
15	10	31	55	17	e10	165	137	422	16,100	1,390	206	203
16	8.3	27	53	22	e12	285	131	638	8,560	2,030	189	212
17	7.3	26	45	e22	e12	383	125	353	4,710	8,340	175	218
18	7.1	26	55	e20	e12	347	119	866	4,440	2,490	165	458
19	7.4	25	65	e18	e13	346	115	11,600	4,260	1,240	160	5,810
20	7.7	24	52	e17	e15	533	118	6,090	2,970	831	154	1,990
21	7.3	22	53	e18	e15	542	122	2,590	1,950	620	146	897
22	6.7	20	55	e19	e500	370	124	1,420	1,830	515	135	552
23	6.5	24	63	e18	1,230	249	237	2,630	1,560	444	139	400
24	6.0	22	48	e19	607	196	335	5,910	1,090	411	186	309
25	5.7	21	46	19	352	163	229	e10,000	924	384	1,850	248
26	5.3	22	56	e18	236	1,540	186	e14,000	962	363	5,710	211
27	5.2	21	48	e17	161	2,720	160	e12,000	708	317	3,630	185
28	5.5	19	44	e16	115	4,190	149	e3,900	593	265	10,400	165
29	4.9	18	39	e15	93	8,400	141	4,460	525	229	9,450	147
30	5.2	18	35	e14	---	3,280	155	18,600	468	206	3,980	133
31	4.9	---	32	e12	---	1,660	---	33,900	---	189	1,790	---
MEAN	6.16	33.6	53.2	18.5	121	1,254	265	4,258	4,914	1,466	1,666	711
MAX	11	150	286	30	1,230	8,400	1,080	33,900	33,800	8,340	10,400	5,810
MIN	4.2	4.6	18	12	8.2	91	115	96	468	189	135	133
IN.	0.00	0.02	0.03	0.01	0.06	0.64	0.13	2.18	2.44	0.75	0.85	0.35

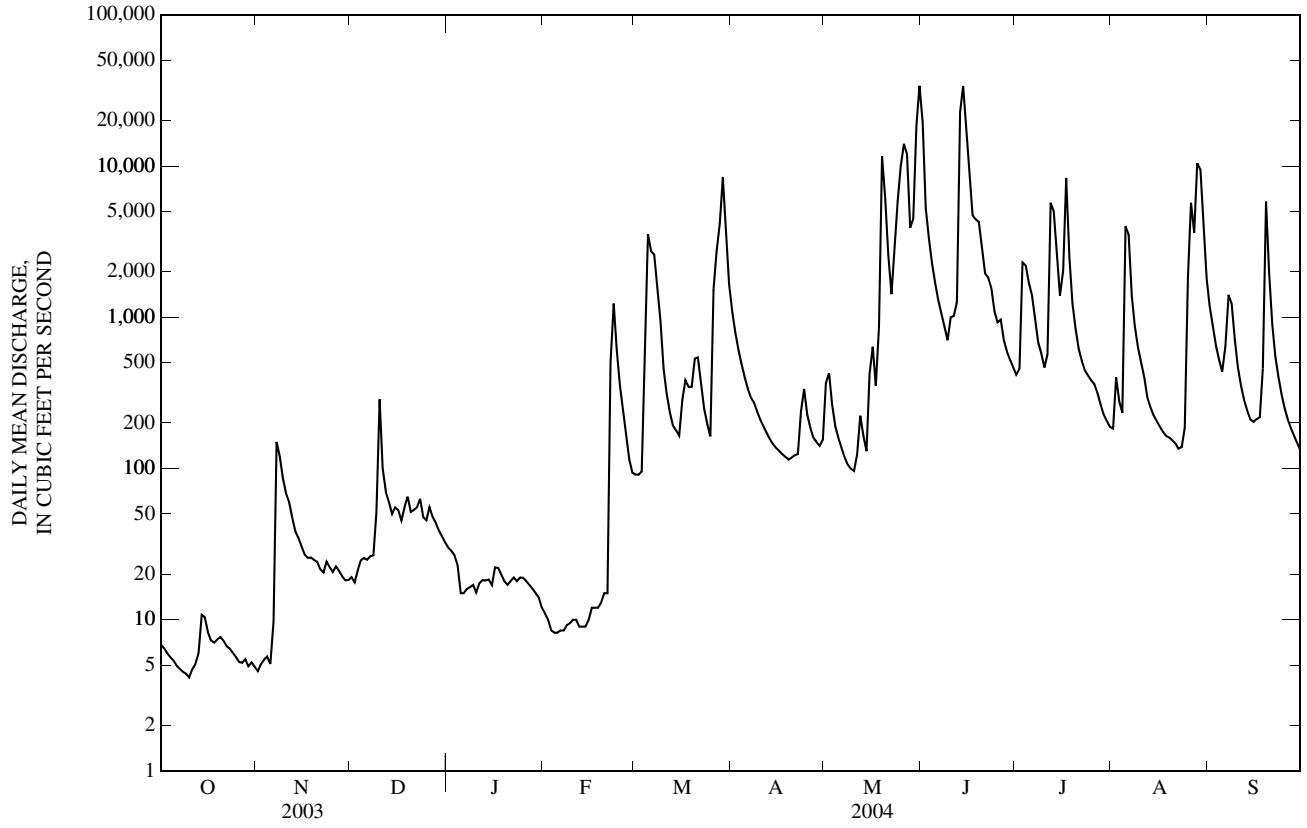
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2004, BY WATER YEAR (WY)

MEAN	802	836	514	471	980	1,709	1,954	2,038	2,360	1,591	528	1,028
MAX	8,965	8,613	5,463	4,212	6,196	8,760	7,906	14,820	22,670	33,930	4,136	11,610
(WY)	(1974)	(1929)	(1983)	(1932)	(1962)	(1979)	(1927)	(1995)	(1947)	(1993)	(1987)	(1926)
MIN	3.09	8.18	6.15	3.94	5.61	18.7	12.0	15.4	51.9	13.3	7.05	10.2
(WY)	(1957)	(1939)	(1939)	(1940)	(1939)	(1938)	(1956)	(1956)	(1988)	(1936)	(1936)	(1955)

06897500 GRAND RIVER NEAR GALLATIN, MO—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		WATER YEARS 1921 - 2004	
ANNUAL MEAN	76.2		1,234		1,233	
HIGHEST ANNUAL MEAN					5,740	1993
LOWEST ANNUAL MEAN					74.9	2003
HIGHEST DAILY MEAN	2,080	May 11	33,900	May 31	85,500	Jul 24, 1993
LOWEST DAILY MEAN	3.1	Aug 27	4.2	Oct 10	2.0	Aug 30, 1980
ANNUAL SEVEN-DAY MINIMUM	3.4	Aug 23	4.7	Oct 6	2.6	Oct 23, 1956
MAXIMUM PEAK FLOW	---		35,800	Jun 14	89,800	Jul 7, 1993
MAXIMUM PEAK STAGE	---		30.70	Jun 14	41.50	Jul 7, 1993
INSTANTANEOUS LOW FLOW	---		4.1	Oct 9-11	2.0	Aug 30, 1980
ANNUAL RUNOFF (INCHES)	0.46		7.47		7.44	
10 PERCENT EXCEEDS	150		2,800		2,510	
50 PERCENT EXCEEDS	28		169		211	
90 PERCENT EXCEEDS	5.7		8.4		26	

e Estimated



06898100 THOMPSON RIVER NEAR MOUNT MORIAH, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 40°20'11", long 93°46'07", in NW ¼ NE ¼ NE ¼ sec.24, T.64 N., R.26 W., Harrison County, Hydrologic Unit 10280102, on Highway 136 approximately 15 mi east of junction I-35 and Highway 136, 1.5 mi northeast of Mt. Moriah.

DRAINAGE AREA.--891 mi^2, including Panther Creek.

PERIOD OF RECORD.--November 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as $CaCO_3$ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
NOV												
04...	1425	Environmental	325	9.8	83	7.9	192	8.5	77	23.7	4.41	4.64
JAN												
23...	1135	Environmental	23	15.0	103	7.8	521	0.2	--	--	--	--
MAR												
25...	0945	Environmental	268	9.9	93	8.2	395	12.5	--	--	--	--
25...	0946	Blank	--	--	--	--	--	--	--	--	--	--
MAY												
20...	1100	Environmental	e837	7.2	83	8.1	330	21.5	150	44.2	8.78	4.38
JUL												
09...	1035	Environmental	118	8.8	103	8.5	468	23.5	--	--	--	--
SEP												
10...	1120	Environmental	259	8.6	96	8.2	389	20.5	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as $CaCO_3$ (00410)	ANC, wat unf incrm. titr., field, mg/L as $CaCO_3$ (00419)	Bicarbonate, wat unf incrm. titr., field, mg/L (00450)	Carbonate, wat unf incrm. titr., field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NOV													
04...	3.82	75	74	90	<1	5.52	<0.2	16.2	120	644d	2.6	E.02n	1.33
JAN													
23...	--	211	211	258	<1	--	--	--	--	<10	0.41	<0.04	0.40
MAR													
25...	--	130	130	153	3	--	--	--	--	186d	0.97	<0.04	4.02
25...	--	--	--	--	--	--	--	--	--	<10	<0.10	<0.04	<0.06
MAY													
20...	6.67	118	117	142	<1	8.64	0.3	17.8	220	593d	3.5	E.02n	4.13
JUL													
09...	--	188	186	222	4	--	--	--	--	17	0.98	<0.04	1.85
SEP													
10...	--	166	167	204	<1	--	--	--	--	82	0.85	E.02n	0.35

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/ 100 mL (31625)	Fecal streptococci KF MF, col/ 100 mL (31673)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Copper, water, fltrd, µg/L (01040)
NOV													
04...	0.011	0.03	0.05	1.08	17,000k	3,700k	35,000k	3	9,620d	0.7	<0.04	0.83	1.6
JAN													
23...	<0.008	<0.02	<0.04	E.04n	7k	7k	12k	--	--	--	--	--	--
MAR													
25...	0.010	0.05	0.06	0.30	20k	60k	92	--	--	--	--	--	--
25...	<0.008	<0.02	<0.04	<0.04	--	--	--	--	--	--	--	--	--
MAY													
20...	0.062	0.07	0.08	1.03	1,200k	5,300	3,300	3	9,050d	1.7	<0.04	0.50	2.4
JUL													
09...	0.013	E.02n	E.02n	0.28	200k	70k	45k	--	--	--	--	--	--
SEP													
10...	<0.008	0.05	0.06	0.26	1,000	870	530k	--	--	--	--	--	--

06898100 THOMPSON RIVER NEAR MOUNT MORIAH, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Manganese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover -able, µg/L (71900)	Selenium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV								
04...	16	<0.08	18.9	35.8	0.05	0.5	Mn	55
JAN								
23...	--	--	--	--	--	--	--	--
MAR								
25...	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--
MAY								
20...	7	<0.08	16.1	E.5n	0.03	1.1	Mn	46
JUL								
09...	--	--	--	--	--	--	--	--
SEP								
10...	--	--	--	--	--	--	--	--

Remark codes used in this table:
e -- Estimated discharge value
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

06898800 WELDON RIVER AT PRINCETON, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 40°24'03", long 93°36'10", in SW ¼ NW ¼ SE ¼ sec.28, T.65 N., R.24 W., Mercer County, Hydrologic Unit 10280102, approximately 1 mi west of Princeton on US Highway 136.

DRAINAGE AREA.--452 mi^2.

PERIOD OF RECORD.--November 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as $CaCO_3$ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
NOV 06...	0910	Environmental	99	10.2	79	7.8	276	4.5	110	33.2	6.83	9.09
JAN 21...	1430	Environmental	30	12.9	90	7.5	472	0.5	--	--	--	--
MAR 23...	1350	Environmental	90	11.0	94	8.0	406	8.5	--	--	--	--
MAY 18...	1550	Environmental	473	7.7	84	7.8	306	19.5	150	45.4	8.23	5.42
JUL 07...	1525	Environmental	44	10.3	128	8.3	436	26.0	--	--	--	--
SEP 08...	1340	Environmental	166	6.4	74	8.2	345	21.5	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as $CaCO_3$ (00410)	ANC, wat unf incrm. titr., field, mg/L as $CaCO_3$ (00419)	Bicarbonate, wat unf incrm. titr., field, mg/L (00450)	Carbonate, wat unf incrm. titr., field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NOV 06...	6.69	90	89	109	<1	10.8	0.2	23.9	182	120d	1.9	0.18	2.62
JAN 21...	--	163	165	201	<1	--	--	--	--	19	0.94	<0.04	1.52
MAR 23...	--	143	144	175	<1	--	--	--	--	39d	0.61	E.04n	1.04
MAY 18...	7.45	113	112	137	<1	8.91	0.3	21.2	237	267d	6.4d	0.35	8.66d
JUL 07...	--	166	166	203	<1	--	--	--	--	14	0.56	<0.04	<0.06
SEP 08...	--	140	140	170	<1	--	--	--	--	85	0.78	<0.04	0.08

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/ 100 mL (31625)	Fecal streptococci KF MF, col/ 100 mL (31673)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Copper, water, fltrd, µg/L (01040)
NOV 06...	0.037	0.16	0.21	0.50	100,000k	114,00k	360,00k	5	2,510d	1.5	E.02n	0.20	3.2
JAN 21...	0.014	<0.02	E.04n	0.13	290k	380k	490k	--	--	--	--	--	--
MAR 23...	0.016	0.02	0.04	0.12	10k	15k	28k	--	--	--	--	--	--
MAY 18...	0.159	0.03	0.06	1.73	32,000	49,000	90,000	4	15,600d	1.0	E.02n	0.95	2.1
JUL 07...	<0.008	<0.02	<0.04	0.08	110k	190k	50k	--	--	--	--	--	--
SEP 08...	E.004n	0.03	0.05	0.20	810	1,100	200	--	--	--	--	--	--

06898800 WELDON RIVER AT PRINCETON, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover -able, µg/L (71900)	Selen- ium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
NOV								
06...	44	<0.08	3.97	313	E.02n	0.8	1	14
JAN								
21...	--	--	--	--	--	--	--	--
MAR								
23...	--	--	--	--	--	--	--	--
MAY								
18...	23	<0.08	31.3	6.5	0.07	0.5	Mn	70
JUL								
07...	--	--	--	--	--	--	--	--
SEP								
08...	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

06899500 THOMPSON RIVER AT TRENTON, MO

LOCATION.--Lat 40°04'09", long 93°38'17" in SW $^1/_4$ NE $^1/_4$ sec.19, T.61 N., R.24 W., Grundy County, Hydrologic Unit 10280102, at downstream side of bridge pier in Trenton, 2.6 mi downstream from Weldon River, and at mile 25.2.

DRAINAGE AREA.--1,720 mi^2.

PERIOD OF RECORD.--June 1921 to September 1923, August 1928 to current year. June 1921 to September 1923, published as "near Hickory". Monthly discharge only for some periods, published in WSP 1310. Gage-height records collected in vicinity 1910-14 and since 1925 in reports of the National Weather Service.

REVISED RECORDS.--WSP 1116: 1945(M). WDR MO-83-1: 1981.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 710.26 ft above National Geodetic Vertical Datum of 1929. June 25, 1921, to Aug. 26, 1923, nonrecording gage at two sites 12 mi downstream (by old channel route) at different datums; Aug. 23, 1928, to Sept. 15, 1930, nonrecording gage at site 0.8 mi upstream from current site at datum of 721.87; Sept. 16, 1930, to May 31 1945, nonrecording gage at site 0.7 mi downstream at datum 3.46 ft lower; June 1, 1945, to Dec. 7, 1959, nonrecording gage at same site and datum; Dec. 8, 1959 to Oct. 27, 1998 at site 0.8 mi upstream from current site at datum 721.87 ft. Oct. 28, 1998 to Sept. 10, 2003 at current site at datum 720.26 ft. Datum lowered 10 ft. on Sept. 10, 2003.

REMARKS.--Records fair except for estimated daily discharges, which are poor. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 30.7 ft, July 6, 1909, present site and datum, from information by local residents; discharge, 50,000 ft^3/s, determined by the U.S. Army Corps of Engineers, occurred before new channel was dredged.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	19	43	66	e27	378	1,270	361	4,640	212	121	2,190
2	20	21	40	64	e25	406	981	313	2,980	239	122	1,630
3	21	18	42	61	e22	390	788	256	1,900	367	124	e1,250
4	21	1,450	42	44	e20	1,550	662	230	1,430	287	11,700	1,010
5	21	798	43	e45	e20	9,980	576	213	1,190	230	6,950	853
6	17	403	45	e40	e18	5,000	513	192	1,040	201	3,770	e1,600
7	15	387	46	e40	e18	2,930	463	172	939	203	1,860	e1,750
8	15	231	43	e45	e18	1,730	420	155	852	177	1,020	1,030
9	14	156	108	e50	e20	1,070	381	142	788	157	708	e700
10	14	117	576	57	e20	746	355	137	1,740	143	546	549
11	18	94	e250	55	e20	569	324	133	1,990	245	446	467
12	19	78	e200	51	e22	457	295	133	1,340	4,060	377	415
13	20	68	e150	47	e20	389	267	261	15,100	3,760	330	362
14	36	63	e150	47	e25	360	249	294	7,850	1,370	293	337
15	24	58	153	e40	e25	334	234	603	8,030	734	261	331
16	18	56	124	e40	e20	391	224	503	4,030	487	235	304
17	17	57	e85	e45	e25	591	213	382	4,030	370	e210	284
18	18	60	e90	e50	e35	643	203	1,100	3,070	286	e200	284
19	18	54	e105	e40	e75	932	201	2,470	1,990	230	187	272
20	15	48	e105	e35	e900	897	264	1,230	1,190	197	181	243
21	12	45	86	e35	2,230	939	348	1,040	836	173	171	229
22	12	44	93	e37	2,600	688	552	692	689	162	164	214
23	12	70	123	e37	1,960	524	560	2,040	559	394	165	208
24	13	54	e80	e40	1,500	417	382	3,770	454	306	e350	204
25	15	53	e65	e40	1,060	370	316	8,700	392	201	e2,000	190
26	16	52	70	e37	755	2,060	293	5,690	333	174	6,680	180
27	14	53	92	e35	476	1,090	289	4,240	288	157	15,400	172
28	14	48	228	e32	377	5,400	294	4,060	259	145	e27,000	166
29	16	40	113	e30	367	4,400	285	3,250	231	137	14,200	160
30	16	48	84	e27	---	3,360	295	20,500	211	127	5,020	155
31	18	---	73	e27	---	1,820	---	13,000	---	120	e3,200	---
MEAN	17.4	158	114	43.2	438	1,639	417	2,460	2,346	518	3,355	591
MAX	36	1,450	576	66	2,600	9,980	1,270	20,500	15,100	4,060	27,000	2,190
MIN	12	18	40	27	18	334	201	133	211	120	121	155
IN.	0.01	0.10	0.08	0.03	0.27	1.10	0.27	1.65	1.52	0.35	2.25	0.38

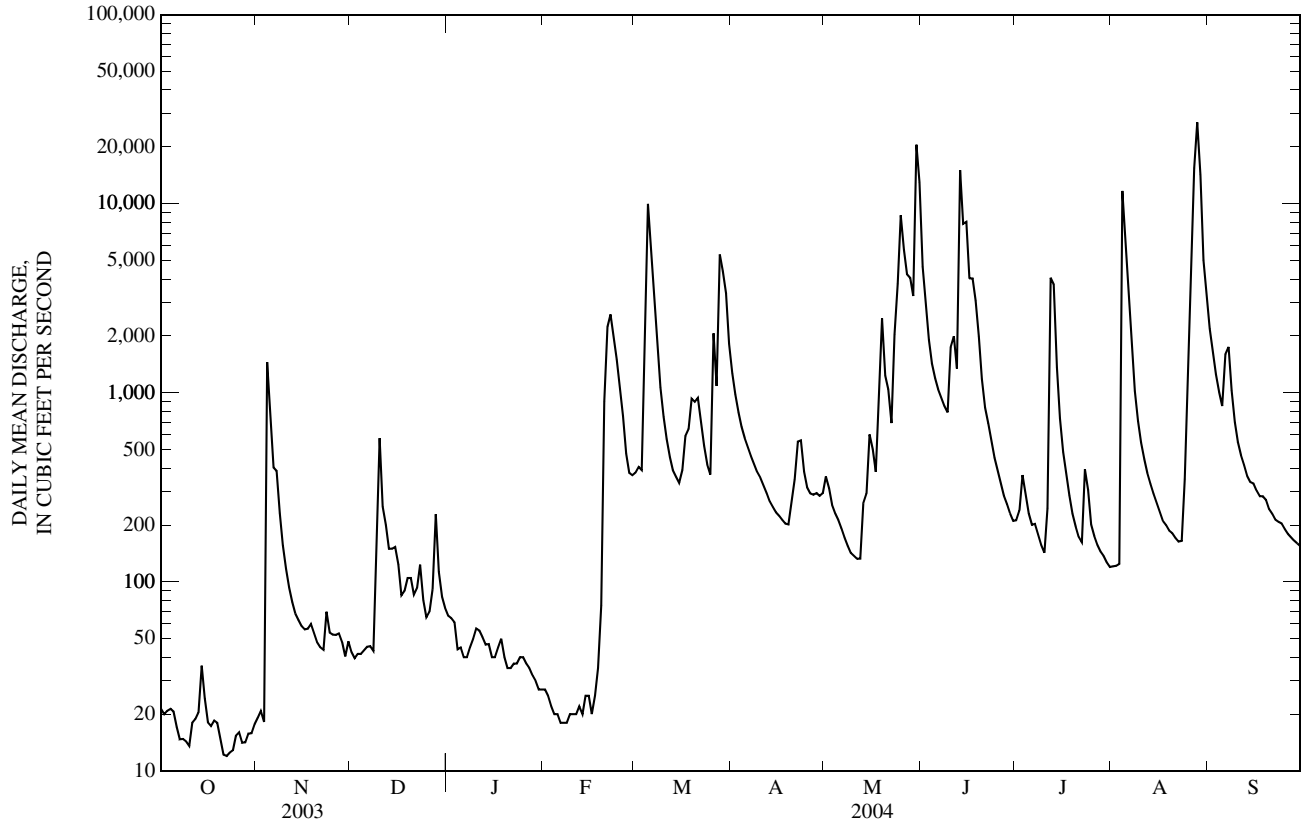
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	567	636	460	445	906	1,575	1,696	1,787	1,805	1,057	540	670
MAX	4,678	6,280	4,209	3,682	4,378	5,765	5,580	8,757	16,460	18,860	3,990	8,443
(WY)	(1974)	(1962)	(1983)	(1946)	(1962)	(1979)	(1973)	(1995)	(1947)	(1993)	(1959)	(1992)
MIN	11.1	9.53	6.48	4.74	13.0	17.6	10.7	10.2	13.9	6.00	9.32	12.9
(WY)	(1957)	(1956)	(1956)	(1956)	(1956)	(1938)	(1956)	(1956)	(1956)	(1934)	(1936)	(1955)

06899500 THOMPSON RIVER AT TRENTON, MO—Continued

SUMMARY STATISTICS	FOR 2003 CALENDAR YEAR		FOR 2004 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	164		1,013		1,011	
HIGHEST ANNUAL MEAN					3,576	1993
LOWEST ANNUAL MEAN					117	1934
HIGHEST DAILY MEAN	3,510	May 10	27,000	Aug 28	73,800	Jun 6, 1947
LOWEST DAILY MEAN	9.0	Sep 9,10	12	Oct 21-23	1.0	Jun 17, 1956
ANNUAL SEVEN-DAY MINIMUM	9.9	Aug 20	13	Oct 21	1.7	Aug 4, 1934
MAXIMUM PEAK FLOW	---		36,700	May 30	95,000	Jun 6, 1947
MAXIMUM PEAK STAGE	---		29.20	May 30	29.20	May 30, 2004
INSTANTANEOUS LOW FLOW	---		11	Oct 24	1.0	Jun 17, 1956
ANNUAL RUNOFF (INCHES)	1.30		8.02		7.98	
10 PERCENT EXCEEDS	377		2,200		2,320	
50 PERCENT EXCEEDS	52		228		210	
90 PERCENT EXCEEDS	18		20		29	

e Estimated



06899580 NO CREEK NEAR DUNLAP, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 40°06'19", long 93°29'29", in SE ¼ SE ¼ SW ¼ sec.4, T.61 N., R.23 W., Grundy County, Hydrologic Unit 10280102, on upstream side of bridge on County Road N approximately 0.6 mi west of Dunlap.

DRAINAGE AREA.--34.0 mi^2.

PERIOD OF RECORD.--November 1997 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as $CaCO_3$ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT												
23...	0955	Environmental	0.03	7.2	64	8.0	396	10.5	--	--	--	--
NOV												
18...	1350	Environmental	0.10	10.3	99	8.1	409	13.5	160	45.8	12.2	8.25
18...	1355	Blank	--	--	--	--	--	--	--	0.04	<0.008	<0.16
DEC												
11...	1400	Environmental	22	14.3	98	7.7	152	0.5	--	--	--	--
JAN												
08...	1415	Environmental	1.0	12.2	85	7.8	395	0.5	170	47.5	11.6	4.56
FEB												
27...	0920	Environmental	5.8	12.9	92	8.2	281	1.5	--	--	--	--
MAR												
18...	1115	Environmental	52	12.8	102	7.8	202	4.5	--	--	--	--
APR												
20...	1320	Environmental	2.7	8.3	87	8.2	412	17.5	--	--	--	--
20...	1321	Blank	--	--	--	--	--	--	--	--	--	--
MAY												
11...	1250	Environmental	1.3	11.4	136	8.2	394	22.5	170	49.7	11.5	4.08
JUN												
22...	1355	Environmental	9.1	7.4	84	8.0	293	21.5	--	--	--	--
JUL												
16...	0925	Environmental	0.41	7.1	84	8.0	385	23.5	150	43.7	10.8	4.81
AUG												
23...	1445	Environmental	0.72	7.7	85	8.1	364	20.5	--	--	--	--
SEP												
14...	1405	Environmental	0.76	6.3	76	8.0	357	25.5	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as $CaCO_3$ (00410)	ANC, wat unf incrm. titr., field, mg/L as $CaCO_3$ (00419)	Bicarbonate, wat unf incrm. titr., field, mg/L (00450)	Carbonate, wat unf incrm. titr., field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
OCT													
23...	--	168	171	209	<1	--	--	--	--	70	3.0	0.71	<0.06
NOV													
18...	22.6	167	168	205	<1	9.82	0.2	29.9	256	23	0.86	E.03n	<0.06
18...	<0.10	--	--	--	--	<0.20	<0.2	<0.2	<10	<10	<0.10	<0.04	<0.06
DEC													
11...	--	53	50	61	<1	--	--	--	--	120d	1.8	<0.04	1.94
JAN													
08...	14.8	127	126	153	<1	11.0	<0.2	55.0	266	17	0.70	0.05	1.61
FEB													
27...	--	84	84	103	<1	--	--	--	--	14	0.69	E.02n	1.18
MAR													
18...	--	64	62	76	<1	--	--	--	--	117d	1.2	<0.04	0.80
APR													
20...	--	153	151	185	<1	--	--	--	--	33	0.71	<0.04	<0.06
20...	--	--	--	--	--	--	--	--	--	<10	<0.10	<0.04	E.03n
MAY													
11...	16.4	147	147	179	<1	7.04	0.2	32.3	238	<10	0.66	E.02n	<0.06
JUN													
22...	--	126	125	152	<1	--	--	--	--	49	0.81	<0.04	0.30
JUL													
16...	17.7	152	151	184	<1	6.89	0.2	24.9	239	23	0.73	<0.04	E.05n
AUG													
23...	--	139	140	171	<1	--	--	--	--	67	0.73	<0.04	E.03n
SEP													
14...	--	149	151	184	<1	--	--	--	--	520d	2.5	<0.04	E.06n

06899580 NO CREEK NEAR DUNLAP, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli-form, M-FC 0.7µ MF col/ 100 mL (31625)	Fecal strep-tococci KF MF, col/ 100 mL (31673)	Alum-inum, water, fltrd, µg/L (01106)	Alum-inum, water, unfltrd recover -able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Copper, water, fltrd, µg/L (01040)
OCT													
23...	0.012	E.01n	0.04	0.28	750	1,200	600	--	--	--	--	--	--
NOV													
18...	<0.008	0.06	0.09	0.22	2,200	1,200k	1,900	4	505	2.6	E.03n	0.05	2.2
18...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.2	<0.04	<0.04	<0.4
DEC													
11...	0.010	0.13	0.17	0.43	2,900	2,500	9,600	--	--	--	--	--	--
JAN													
08...	0.008	E.01n	<0.04	0.11	46	34k	71	2	508	0.8	<0.04	E.03n	2.2
FEB													
27...	0.012	0.02	0.05	0.11	18k	48	160	--	--	--	--	--	--
MAR													
18...	<0.008	0.03	0.05	0.25	830k	480	280	--	--	--	--	--	--
APR													
20...	<0.008	E.01n	E.04n	0.10	2,000k	1,400	2,800	--	--	--	--	--	--
20...	<0.008	<0.02	<0.04	<0.04	--	--	--	--	--	--	--	--	--
MAY													
11...	E.006n	0.03	0.05	0.08	130	400	330	2	140	1.7	<0.04	E.02n	1.7
JUN													
22...	0.019	0.03	0.05	0.17	500	2,000	380k	--	--	--	--	--	--
JUL													
16...	E.004n	0.04	0.06	0.14	2,300	420	2,100	2	362	2.0	E.02n	0.10	1.6
AUG													
23...	<0.008	0.04	0.06	0.14	7,800	11,000	2,700	--	--	--	--	--	--
SEP													
14...	E.004n	0.04	0.10	0.79	14,000	17,000	3,300	--	--	--	--	--	--

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Manga-nese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover -able, µg/L (71900)	Selen-ium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
OCT								
23...	--	--	--	--	--	--	--	--
NOV								
18...	98	E.06n	1.23	790	<0.02	<0.4	Mn	3
18...	<6	<0.08	<0.06	<0.8	<0.02	<0.4	<0.6	<2
DEC								
11...	--	--	--	--	--	--	--	--
JAN								
08...	10	<0.08	0.55	372	<0.02	2.2	Mn	2
FEB								
27...	--	--	--	--	--	--	--	--
MAR								
18...	--	--	--	--	--	--	--	--
APR								
20...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
MAY								
11...	18	<0.08	0.28	162	<0.02	0.4	Mn	E1n
JUN								
22...	--	--	--	--	--	--	--	--
JUL								
16...	8	<0.08	0.50	155	<0.02	0.4	Mn	3
AUG								
23...	--	--	--	--	--	--	--	--
SEP								
14...	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

06899950 MEDICINE CREEK AT HARRIS, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 40°18'32", long 93°20'15", in NE ¼ NE ¼ NW ¼ sec.35, T.64 N., R.22 W., Sullivan County, Hydrologic Unit 10280103, on the left bank on upstream side of the bridge on State Highway E, approximately 0.6 mi east of Harris.

DRAINAGE AREA.--192 mi^2.

PERIOD OF RECORD.--October 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as $CaCO_3$ (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT												
22...	1350	Environmental	1.3	11.9	125	8.1	456	18.0	--	--	--	--
NOV												
20...	1105	Environmental	3.0	11.5	99	7.9	483	9.0	210	60.9	13.5	4.45
DEC												
10...	1455	Environmental	368	11.6	84	8.0	302	2.0	--	--	--	--
JAN												
07...	1500	Environmental	6.2	10.8	74	7.5	525	0.5	230	69.0	14.9	5.50
FEB												
26...	1225	Environmental	55	13.0	98	8.0	329	3.5	--	--	--	--
MAR												
16...	1456	Replicate	--	--	--	--	--	--	--	--	--	--
16...	1455	Environmental	71	11.8	98	8.1	384	6.0	--	--	--	--
APR												
22...	1025	Environmental	21	9.4	92	8.2	491	14.0	--	--	--	--
MAY												
13...	1405	Environmental	11	8.6	92	7.9	481	18.5	210	63.7	13.4	4.45
JUN												
23...	0920	Environmental	42	9.8	106	8.0	409	19.0	--	--	--	--
JUL												
14...	1815	Environmental	32	8.2	107	8.1	354	30.0	150	43.9	8.69	5.92
14...	1816	Blank	--	--	--	--	--	--	--	<0.01	<0.008	<0.16
AUG												
25...	1110	Environmental	378	7.6	84	7.8	144	20.0	--	--	--	--
SEP												
16...	1400	Environmental	25	8.6	101	8.0	427	22.5	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as $CaCO_3$ (00410)	ANC, wat unf incrm. titr., field, mg/L as $CaCO_3$ (00419)	Bicarbonate, wat unf incrm. titr., field, mg/L (00450)	Carbonate, wat unf incrm. titr., field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
OCT													
22...	--	152	152	185	<1	--	--	--	--	<10	0.32	<0.04	<0.06
NOV													
20...	22.2	176	176	215	<1	12.8	0.2	59.6	299	<10	0.37	<0.04	<0.06
DEC													
10...	--	106	103	126	<1	--	--	--	--	E692d	4.3	0.06	1.17
JAN													
07...	18.2	169	171	208	<1	16.0	0.2	74.6	346	<10	0.67	0.15	1.01
FEB													
26...	--	97	98	119	<1	--	--	--	--	66d	1.1	0.18	1.31
MAR													
16...	--	--	--	--	--	--	--	--	--	76	0.74	0.09	0.98
16...	--	119	116	142	<1	--	--	--	--	53	0.70	0.09	1.00
APR													
22...	--	171	174	212	<1	--	--	--	--	12	0.93	<0.04	<0.06
MAY													
13...	16.2	162	161	196	<1	10.4	0.2	57.9	289	<10	0.41	<0.04	<0.06
JUN													
23...	--	156	158	192	<1	--	--	--	--	49	0.73	<0.04	0.49
JUL													
14...	11.2	126	127	154	<1	8.45	0.2	30.5	223	76	1.2	<0.04	0.12
14...	<0.10	--	--	--	--	<0.20	<0.2	<0.2	<10	<10	<0.10	<0.04	<0.06
AUG													
25...	--	58	58	70	<1	--	--	--	--	1,700d	4.5	<0.04	0.31
SEP													
16...	--	151	150	184	<1	--	--	--	--	15	0.59	<0.04	<0.06

06899950 MEDICINE CREEK AT HARRIS, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, fltrd, mg/L (00666)	Phos-phorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli-form, M-FC 0.7µ MF col/ 100 mL (31625)	Fecal strep-tococci KF MF, col/ 100 mL (31673)	Alum-inum, water, fltrd, µg/L (01106)	Alum-inum, water, unfltrd recover-able, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Copper, water, fltrd, µg/L (01040)
OCT													
22...	E.004n	<0.02	E.02n	0.05	85	55	420	--	--	--	--	--	--
NOV													
20...	<0.008	<0.02	<0.04	0.06	310	230k	160	2	54	0.5	E.04n	0.05	1.0
DEC													
10...	0.010	0.42	0.48	2.81d	2,800k	13,000k	44,000k	--	--	--	--	--	--
JAN													
07...	E.007n	<0.02	<0.04	0.06	--u	14k	40	2	112	0.6	0.08	0.07	2.2
FEB													
26...	0.016	0.07	0.09	0.34	20k	<20b	360k	--	--	--	--	--	--
MAR													
16...	0.014	0.03	E.03n	0.20	--	--	--	--	--	--	--	--	--
16...	0.014	0.03	0.04	0.22	<7b	55k	63k	--	--	--	--	--	--
APR													
22...	<0.008	E.01n	E.02n	0.06	480	773k	290	--	--	--	--	--	--
MAY													
13...	<0.008	E.01n	<0.04	0.05	--u	1,300	2,400	4	144	0.7	E.04n	0.04	1.4
JUN													
23...	0.011	0.03	E.04n	0.18	280k	190k	320k	--	--	--	--	--	--
JUL													
14...	E.006n	0.06	0.07	0.24	--u	900	440	4	978d	1.8	E.02n	0.08	2.1
14...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.2	<0.04	<0.04	<0.4
AUG													
25...	0.010	0.09	0.12	1.77	24,000	49,000k	>50,000a	--	--	--	--	--	--
SEP													
16...	<0.008	E.02n	E.03n	0.10	440	580	540	--	--	--	--	--	--

06899950 MEDICINE CREEK AT HARRIS, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover -able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover -able, µg/L (71900)	Selen- ium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover -able, µg/L (01092)
OCT								
22...	--	--	--	--	--	--	--	--
NOV								
20...	12	<0.08	0.10	1,550	<0.02	<0.4	Mn	E1n
DEC								
10...	--	--	--	--	--	--	--	--
JAN								
07...	106	<0.08	0.18	2,080	<0.02	1.2	1	2
FEB								
26...	--	--	--	--	--	--	--	--
MAR								
16...	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--
APR								
22...	--	--	--	--	--	--	--	--
MAY								
13...	7	<0.08	0.24	486	<0.02	E.3n	M	E2n
JUN								
23...	--	--	--	--	--	--	--	--
JUL								
14...	<6	<0.08	1.33	28.7	<0.02	0.7	Mn	5
14...	<6	<0.08	<0.06	<0.8	<0.02	<0.4	<0.6	<2
AUG								
25...	--	--	--	--	--	--	--	--
SEP								
16...	--	--	--	--	--	--	--	--

Remark codes used in this table:
> -- Greater than
< -- Less than
E -- Estimated value
M -- Presence verified, not quantified

Value qualifier codes used in this table:
a -- Value extrapolated at high end
b -- Value extrapolated at low end
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
u -- Unable to determine-matrix interference