06900050 MEDICINE CREEK AT LAREDO, MO

LOCATION.--Lat 40°01'36", long 93°26'09", in SW ¼ NW ¼ SE ¼ sec.12, T.60 N., R.23 W., Grundy County, Hydrologic Unit 10280103, on downstream side of Highway E bridge, approximately 0.5 mi east of Laredo.

DRAINAGE AREA.--355 mi^2.

PERIOD OF RECORD.--November 14, 2000 to current year.

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

REMARKS.--No estimated daily discharges. Records fair. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

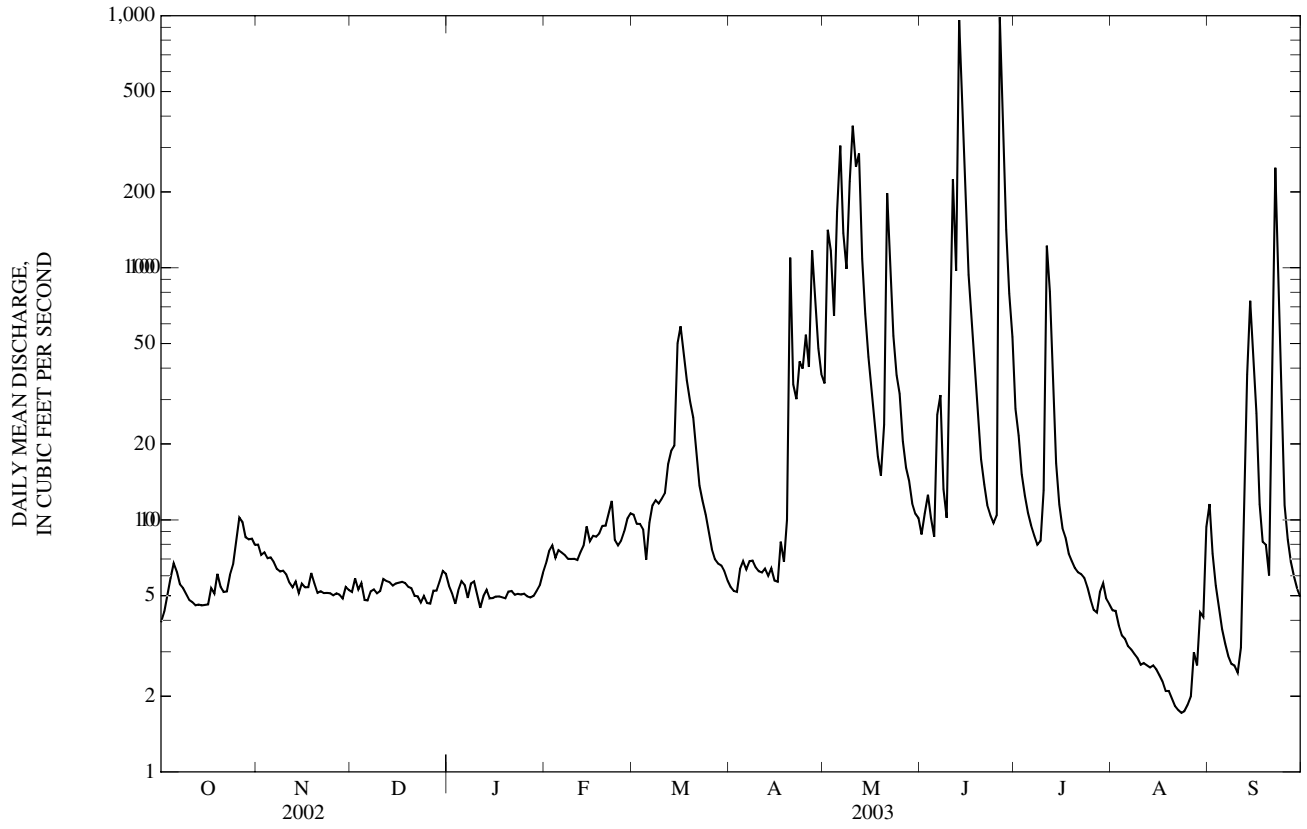
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	8.0	5.2	5.5	6.7	10	5.4	35	8.8	28	4.4	12
2	4.3	7.3	5.9	5.1	7.5	9.7	5.2	141	11	22	4.4	7.3
3	5.0	7.4	5.3	4.6	7.9	9.6	5.2	117	13	15	3.8	5.5
4	5.9	7.1	5.6	5.3	7.1	9.2	6.4	64	10	12	3.5	4.5
5	6.7	7.1	4.8	5.7	7.6	7.0	6.9	167	8.6	11	3.4	3.7
6	6.3	6.8	4.8	5.5	7.4	9.7	6.4	305	26	9.5	3.2	3.2
7	5.6	6.4	5.2	4.9	7.2	11	6.9	137	31	8.6	3.1	2.9
8	5.4	6.2	5.3	5.6	7.0	12	6.9	99	13	8.0	2.9	2.7
9	5.1	6.3	5.1	5.7	7.0	12	6.5	220	10	8.3	2.8	2.6
10	4.8	6.1	5.2	5.1	7.0	12	6.3	366	37	13	2.7	2.5
11	4.7	5.6	5.8	4.5	6.9	13	6.2	251	224	122	2.7	3.1
12	4.6	5.4	5.7	5.0	7.4	17	6.4	284	97	80	2.6	7.2
13	4.6	5.7	5.7	5.3	7.9	19	6.0	109	961	33	2.6	38
14	4.6	5.1	5.5	4.9	9.4	20	6.4	66	477	17	2.6	74
15	4.6	5.6	5.6	4.9	8.2	50	5.7	44	210	11	2.6	44
16	4.6	5.4	5.6	5.0	8.6	59	5.7	33	94	9.3	2.4	27
17	5.4	5.4	5.7	5.0	8.6	45	8.2	24	61	8.5	2.3	12
18	5.1	6.2	5.6	4.9	8.8	36	6.8	18	38	7.3	2.1	8.2
19	6.1	5.6	5.4	4.9	9.5	30	10	15	26	6.9	2.1	8.0
20	5.4	5.1	5.4	5.2	9.5	25	110	24	17	6.4	2.0	6.0
21	5.2	5.2	5.0	5.2	11	19	34	198	14	6.2	1.8	51
22	5.2	5.1	5.0	5.0	12	14	30	105	11	6.1	1.8	249
23	6.1	5.1	4.7	5.1	8.3	12	43	54	10	5.9	1.7	63
24	6.6	5.1	5.0	5.1	7.9	10	40	37	9.7	5.4	1.7	23
25	8.3	5.0	4.7	5.1	8.3	9.0	54	32	10	4.8	1.8	11
26	10	5.1	4.7	5.0	9.0	7.6	40	21	987	4.4	2.0	8.3
27	9.8	5.1	5.2	4.9	10	7.0	117	16	396	4.3	3.0	6.8
28	8.5	4.9	5.2	5.0	11	6.7	74	14	142	5.2	2.6	6.0
29	8.4	5.4	5.7	5.2	---	6.6	48	12	79	5.6	4.3	5.3
30	8.4	5.3	6.3	5.5	---	6.3	38	11	53	4.9	4.1	5.0
31	8.0	---	6.1	6.2	---	5.7	---	10	---	4.6	9.4	---
MEAN	6.04	5.84	5.35	5.16	8.38	16.8	25.1	97.7	136	15.9	2.98	23.4
MAX	10	8.0	6.3	6.2	12	59	117	366	987	122	9.4	249
MIN	3.9	4.9	4.7	4.5	6.7	5.7	5.2	10	8.6	4.3	1.7	2.5
IN.	0.02	0.02	0.02	0.02	0.02	0.05	0.08	0.32	0.43	0.05	0.01	0.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

MEAN	23.1	8.88	9.12	52.3	346	314	333	639	492	93.4	17.0	16.4
MAX	40.2	11.9	16.0	141	971	860	504	1,026	1,307	252	30.5	23.4
(WY)	(2002)	(2002)	(2002)	(2001)	(2001)	(2001)	(2001)	(2002)	(2001)	(2001)	(2001)	(2003)
MIN	6.04	5.84	5.35	5.16	8.38	16.8	25.1	97.7	32.6	12.7	2.98	5.21
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2002)	(2003)	(2002)

06900050 MEDICINE CREEK AT LAREDO, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2001 - 2003	
ANNUAL MEAN	144		29.0		88.6	
HIGHEST ANNUAL MEAN					148	2002
LOWEST ANNUAL MEAN					29.0	2003
HIGHEST DAILY MEAN	9,050	May 12	987	Jun 26	9,050	May 12, 2002
LOWEST DAILY MEAN	3.9	Oct 1	1.7	Aug 23,24	1.7	Aug 23,24 2003
ANNUAL SEVEN-DAY MINIMUM	4.4	Sep 26	1.8	Aug 20	1.8	Aug 20, 2003
MAXIMUM PEAK FLOW	---		2,370	Jun 13	13,900	May 12, 2002
MAXIMUM PEAK STAGE	---		7.23	Jun 13	17.95	May 12, 2002
INSTANTANEOUS LOW FLOW	---		1.2	Aug 25,26	1.2	Aug 25,26 2003
ANNUAL RUNOFF (INCHES)	5.50		1.11		3.39	
10 PERCENT EXCEEDS	184		54		117	
50 PERCENT EXCEEDS	12		6.7		11	
90 PERCENT EXCEEDS	5.0		4.3		4.9	



06900100 LITTLE MEDICINE CREEK NEAR HARRIS, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 40°19'02", long 93°22'52", in SW $^1/_4$ SE $^1/_4$ NW $^1/_4$ sec.28, T.64 N., R.22 W., Mercer County, Hydrologic Unit 10280103, on the left bank on upstream side of bridge on State Highway E, approximately 1.7 mi west of Harris.

DRAINAGE AREA.--66.5 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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 17...	0935	Environmental	0.31	10.1	87	8.0	443	7.5	--	--	--	--
NOV 19...	1300	Environmental	0.41	15.7	136	8.0	478	8.0	220	64.5	14.0	2.82
DEC 18...	0950	Environmental	0.64	11.2	92	8.0	481	5.0	--	--	--	--
JAN 29...	1515	Environmental	0.11	12.3	87	7.4	535	0.5	230	68.9	15.2	2.30
FEB 20...	0945	Environmental	0.64	9.5	68	7.7	542	0.5	--	--	--	--
MAR 12...	0950	Environmental	1.4	13.9	100	8.0	501	0.5	--	--	--	--
APR 23...	1215	Environmental	0.47	9.8	109	8.1	463	19.0	--	--	--	--
MAY 08...	1550	Environmental	3.5	8.9	92	7.9	394	15.0	160	48.8	9.94	6.11
JUN 11...	0950	Environmental	30	8.1	91	7.9	258	19.0	--	--	--	--
JUL 10...	1050	Environmental	138	6.8	81	7.6	180	22.0	66	20.0	3.90	6.04
AUG 25...	1215	Environmental	0.08	9.5	140	7.8	487	36.0	--	--	--	--
SEP 18...	1005	Environmental	0.48	8.3	90	8.0	416	19.0	--	--	--	--

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)
OCT 17...	--	174	174	213	<1	--	--	--	--	<10	0.21	<0.04	<0.06
NOV 19...	18.0	187	189	231	<1	7.58	0.20	62.3	304	<10	0.19	<0.04	<0.06
DEC 18...	--	184	185	226	<1	--	--	--	--	<10	0.17	<0.04	<0.06
JAN 29...	20.0	210	213	260	<1	10.9	0.19	60.3	332	<10	0.38	0.14	<0.06
FEB 20...	--	213	213	260	<1	--	--	--	--	<10	0.28	<0.04	<0.06
MAR 12...	--	192	192	235	<1	--	--	--	--	<10	0.22	<0.04	<0.06
APR 23...	--	171	171	209	<1	--	--	--	--	<10	0.45	<0.04	0.16
MAY 08...	10.7	128	128	156	<1	10.7	0.22	45.5	256	127	1.3	0.16	1.15
JUN 11...	--	84	83	102	<1	--	--	--	--	344	2.4	0.08	3.04
JUL 10...	4.80	64	60	73	<1	8.52	0.20	10.0	216	E2,060	5.8	<0.04	1.93
AUG 25...	--	179	178	218	<1	--	--	--	--	13	0.60	0.05	E.04n
SEP 18...	--	154	154	188	<1	--	--	--	--	20	0.50	0.09	0.15

06900100 LITTLE MEDICINE CREEK NEAR HARRIS, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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													
17...	<0.008	<0.02	<0.04	E.03	250	160	370	--	--	--	--	--	--
NOV													
19...	<0.008	E.01	<0.04	0.06	27k	12k	53	M	54	0.4	<0.04	<0.2	<6
DEC													
18...	<0.008	<0.02	E.02	E.02	93	52	160	--	--	--	--	--	--
JAN													
29...	<0.008	<0.02	<0.04	0.05	840k	1,600k	110	<2	6	0.4	E.04	<0.2	<6
FEB													
20...	<0.008	<0.02	<0.04	E.03	32k	6k	120	--	--	--	--	--	--
MAR													
12...	<0.008	<0.02	<0.04	<0.04	24k	2k	110	--	--	--	--	--	--
APR													
23...	0.023	<0.02	<0.04	0.04	48	33	62	--	--	--	--	--	--
MAY													
08...	0.035	0.03	0.04	0.19	140k	1,500k	1,500	2	1,720	1.1	E.02	<0.2	E3
JUN													
11...	0.075	0.03	0.07	0.51	13,000	9,000	23,000	--	--	--	--	--	--
JUL													
10...	0.024	0.05	0.11	1.76	560k	5,300	49,000	1,330d	22,700d	1.4	0.06	1.0d	E4n
AUG													
25...	0.009	<0.02	E.02n	0.10	400k	960k	>200a	--	--	--	--	--	--
SEP													
18...	0.009	E.01n	0.04	0.07	270k	330	630	--	--	--	--	--	--

06900100 LITTLE MEDICINE CREEK NEAR HARRIS, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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 17...	--	--	--	--	--	--	--	--
NOV 19...	82	<0.08	<1	811	<0.02	<0.5	3	2
DEC 18...	--	--	--	--	--	--	--	--
JAN 29...	265	E.06	<1	6,210	<0.02	<0.5	4	E2
FEB 20...	--	--	--	--	--	--	--	--
MAR 12...	--	--	--	--	--	--	--	--
APR 23...	--	--	--	--	--	--	--	--
MAY 08...	E5	<0.08	2	554	E.01	0.8	M	8
JUN 11...	--	--	--	--	--	--	--	--
JUL 10...	598	1.70	40d	76.5	0.09	E.4n	6	104
AUG 25...	--	--	--	--	--	--	--	--
SEP 18...	--	--	--	--	--	--	--	--

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

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

06900900 LOCUST CREEK NEAR UNIONVILLE, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 40°28'23", long 93°07'37", in SW $^1/_4$ SW $^1/_4$ SW $^1/_4$ sec.35, T.66 N., R.20 W., Putnam County, Hydrologic Unit 10280103, on left bank on upstream side of bridge on Highway HH approximately 3.2 mi west of State Highway 5, 9.4 mi south of Unionville.

DRAINAGE AREA.--77.5 mi^2.

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

REMARKS.--August sample collected at alternative site 06901500, Locust Creek near Linneus, MO, due to drought conditions at primary site.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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												
16...	1310	Environmental	0.03	7.5	66	8.0	446	8.5	--	--	--	--
NOV												
20...	1120	Environmental	0.15	8.2	69	8.0	459	6.5	200	58.7	13.5	4.47
DEC												
17...	1335	Environmental	0.28	10.8	85	8.1	487	3.5	--	--	--	--
FEB												
19...	1350	Environmental	0.36	9.5	67	7.9	520	0.5	--	--	--	--
MAR												
11...	1340	Environmental	0.23	9.8	71	7.6	582	0.5	--	--	--	--
APR												
24...	0950	Environmental	3.4	8.0	77	8.2	514	12.0	--	--	--	--
MAY												
07...	1015	Environmental	20	8.2	84	7.8	388	15.0	160	46.9	10.1	7.58
JUN												
10...	1345	Environmental	53	7.2	84	7.9	273	20.5	--	--	--	--
JUL												
11...	1000	Environmental	25	7.0	83	7.7	280	22.0	100	30.2	6.53	9.25
11...	1015	Blank	--	--	--	--	--	--	--	0.01	<0.008	<0.16
SEP												
16...	1350	Environmental	0.58	8.9	102	8.3	363	22.0	--	--	--	--

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)
OCT													
16...	--	219	220	269	<1	--	--	--	--	<10	0.46	<0.04	<0.06
NOV													
20...	14.8	212	212	259	<1	8.92	0.20	22.5	283	<10	0.41	<0.04	<0.06
DEC													
17...	--	228	228	279	<1	--	--	--	--	<10	0.31	<0.04	<0.06
FEB													
19...	--	239	241	294	<1	--	--	--	--	<10	0.45	<0.04	<0.06
MAR													
11...	--	264	263	321	<1	--	--	--	--	<10	0.37	<0.04	<0.06
APR													
24...	--	165	167	203	<1	--	--	--	--	10	0.90	<0.04	<0.06
MAY													
07...	10.5	113	113	138	<1	12.3	0.21	51.7	260	68	1.6	0.17	1.65
JUN													
10...	--	79	79	96	<1	--	--	--	--	27	5.1	0.86	6.01
JUL													
11...	6.91	86	84	102	<1	10.1	0.20	23.0	183	216	2.0	0.10	2.04
11...	<0.10	--	--	--	--	<0.20	<0.20	<0.2	<10	<10	<0.10	<0.04	<0.06
SEP													
16...	--	152	150	184	<1	--	--	--	--	<10	0.46	<0.04	E.04n

06900900 LOCUST CREEK NEAR UNIONVILLE, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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													
16...	<0.008	0.06	0.06	0.09	60	54	100	--	--	--	--	--	--
NOV													
20...	<0.008	0.02	E.03	0.09	65k	31k	80	<2	45	0.8	E.02	<0.2	<6
DEC													
17...	<0.008	<0.02	<0.04	0.06	61	14k	92	--	--	--	--	--	--
FEB													
19...	<0.008	<0.02	<0.04	0.04	17k	2k	53	--	--	--	--	--	--
MAR													
11...	<0.008	<0.02	<0.04	<0.04	3k	2k	11k	--	--	--	--	--	--
APR													
24...	<0.008	E.01	E.03	0.07	320k	190	200	--	--	--	--	--	--
MAY													
07...	0.051	0.05	0.07	0.23	>800	870	690	4	1,330	1.6	<0.04	E.1	<6
JUN													
10...	0.065	0.11	0.15	1.13	47,000k	55,000k	78,000k	--	--	--	--	--	--
JUL													
11...	0.100	0.08	0.11	0.42	2,100k	13,000	3,000	5	3,390	1.8	<0.04	<0.2	E4
11...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.3	<0.04	<0.2	<7
SEP													
16...	E.004n	E.01n	E.03n	0.06	160	170	570	--	--	--	--	--	--

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								
16...	--	--	--	--	--	--	--	--
NOV								
20...	89	<0.08	<1	599	<0.02	<0.5	2	E2
DEC								
17...	--	--	--	--	--	--	--	--
FEB								
19...	--	--	--	--	--	--	--	--
MAR								
11...	--	--	--	--	--	--	--	--
APR								
24...	--	--	--	--	--	--	--	--
MAY								
07...	14	<0.08	2	147	<0.02	1.6	<1	7
JUN								
10...	--	--	--	--	--	--	--	--
JUL								
11...	20	E.04	5	7.2	E.01	0.7	2	16
11...	<8	<0.08	<1	<0.4	<0.02	<0.5	<1	<2
SEP								
16...	--	--	--	--	--	--	--	--

Remark codes used in this table:
< -- Less than
> -- Greater than
E -- Estimated value

Value qualifier codes used in this table:
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

06901500 LOCUST CREEK NEAR LINNEUS, MO

LOCATION.--Lat 39°53'45", long 93°14'10", in NW ¼ NE ¼ sec.34, T.59 N., R.21 W., Linn County, Hydrologic Unit 10280103, on right bank on upstream side of county road, 1 mi upstream from Boyer bridge, 1.5 mi upstream from Strawberry and Couch Creeks, 3 mi northwest of Linneus, and 5 mi downstream from West Locust Creek.

DRAINAGE AREA.--550 mi^2.

REVISED RECORDS.--WSP 896: 1939.

PERIOD OF RECORD.--October 1928 to September 1972, July 2000 to current year. Prior to April 1929 monthly discharge only published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 692.61 ft above National Geodetic Vertical Datum of 1929. Prior to July 26, 1956, nonrecording gage at same site and datum.

REMARKS.--Records poor. U.S.G.S satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1909 reached a discharge of about 18,000 ft^3/s, determination by the Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	9.0	5.4	5.5	7.4	5.4	5.3	352	15	16	3.7	31
2	5.0	7.0	6.4	5.5	6.5	e5.5	4.8	193	17	13	4.0	15
3	5.3	6.7	5.8	4.5	6.0	e5.5	4.4	112	16	11	3.1	14
4	7.1	6.1	5.9	4.8	e6.0	e5.0	5.4	95	14	8.6	3.3	8.2
5	5.5	7.6	e5.5	4.4	e6.0	e5.0	4.6	310	13	7.9	3.5	5.2
6	5.9	7.5	e5.0	4.2	e6.0	e4.5	9.5	374	15	6.0	2.1	4.9
7	5.5	8.2	e6.0	4.7	e6.5	e5.0	8.0	156	18	5.5	1.8	4.2
8	5.0	9.1	e5.5	4.9	e6.0	e5.5	8.0	88	17	5.3	1.7	3.4
9	4.6	7.6	e5.5	4.4	e5.5	e5.0	8.4	283	15	4.9	1.2	2.7
10	4.7	8.1	e4.5	4.7	e5.5	e5.5	7.0	488	17	5.2	1.1	2.9
11	4.5	6.4	e5.5	4.2	e5.5	e5.5	6.2	374	25	15	1.1	5.0
12	4.1	6.2	5.3	5.0	e6.0	e5.0	4.9	325	e52	41	1.1	19
13	4.2	6.3	5.4	5.7	e5.5	e5.0	3.9	147	e32	30	1.1	36
14	4.2	6.3	5.5	4.8	5.7	e4.5	3.1	86	e38	16	1.1	79
15	4.2	6.6	5.3	4.3	5.0	e5.0	2.7	59	e30	12	1.1	24
16	4.2	6.4	5.1	4.7	7.3	22	3.3	45	e16	8.7	1.1	15
17	5.2	6.6	5.0	e4.0	e7.0	22	6.6	36	e11	7.9	0.97	11
18	4.3	7.4	5.1	e3.5	e6.5	17	4.7	31	e9.3	7.2	0.88	9.6
19	5.2	6.4	5.1	e3.0	e7.0	13	14	27	8.6	6.6	0.88	10
20	4.7	6.0	4.6	e4.0	e6.5	11	444	25	8.2	5.5	0.94	9.6
21	5.2	6.1	4.8	e3.5	7.2	8.3	170	23	7.7	4.4	0.77	30
22	5.2	5.5	5.0	e3.2	5.5	e6.6	70	20	7.4	3.5	0.67	42
23	5.4	5.8	4.6	e3.0	5.9	e6.5	43	25	7.3	3.5	0.62	19
24	7.2	5.5	4.5	e2.8	e6.0	e6.5	41	26	7.0	3.3	0.57	76
25	8.8	5.6	e4.5	e3.0	e6.0	e6.3	82	27	6.9	3.3	0.58	34
26	8.0	5.4	e4.0	e4.0	e5.5	e6.3	100	22	8.5	3.5	0.56	20
27	8.0	6.6	e4.5	e3.5	e6.0	6.2	64	19	23	4.2	0.63	11
28	7.4	6.2	e4.5	e4.5	e6.0	5.3	76	17	113	4.4	1.3	10
29	8.6	6.2	e5.5	e5.0	---	5.0	95	14	42	4.4	1.1	7.9
30	8.8	5.7	5.9	e6.0	---	5.2	67	15	25	3.9	0.96	6.7
31	7.5	---	5.5	7.5	---	5.3	---	15	---	3.8	17	---
MEAN	5.74	6.67	5.18	4.41	6.12	7.40	45.6	124	21.2	8.89	1.95	18.9
MAX	8.8	9.1	6.4	7.5	7.4	22	444	488	113	41	17	79
MIN	4.1	5.4	4.0	2.8	5.0	4.5	2.7	14	6.9	3.3	0.56	2.7
IN.	0.01	0.01	0.01	0.01	0.01	0.02	0.09	0.26	0.04	0.02	0.00	0.04

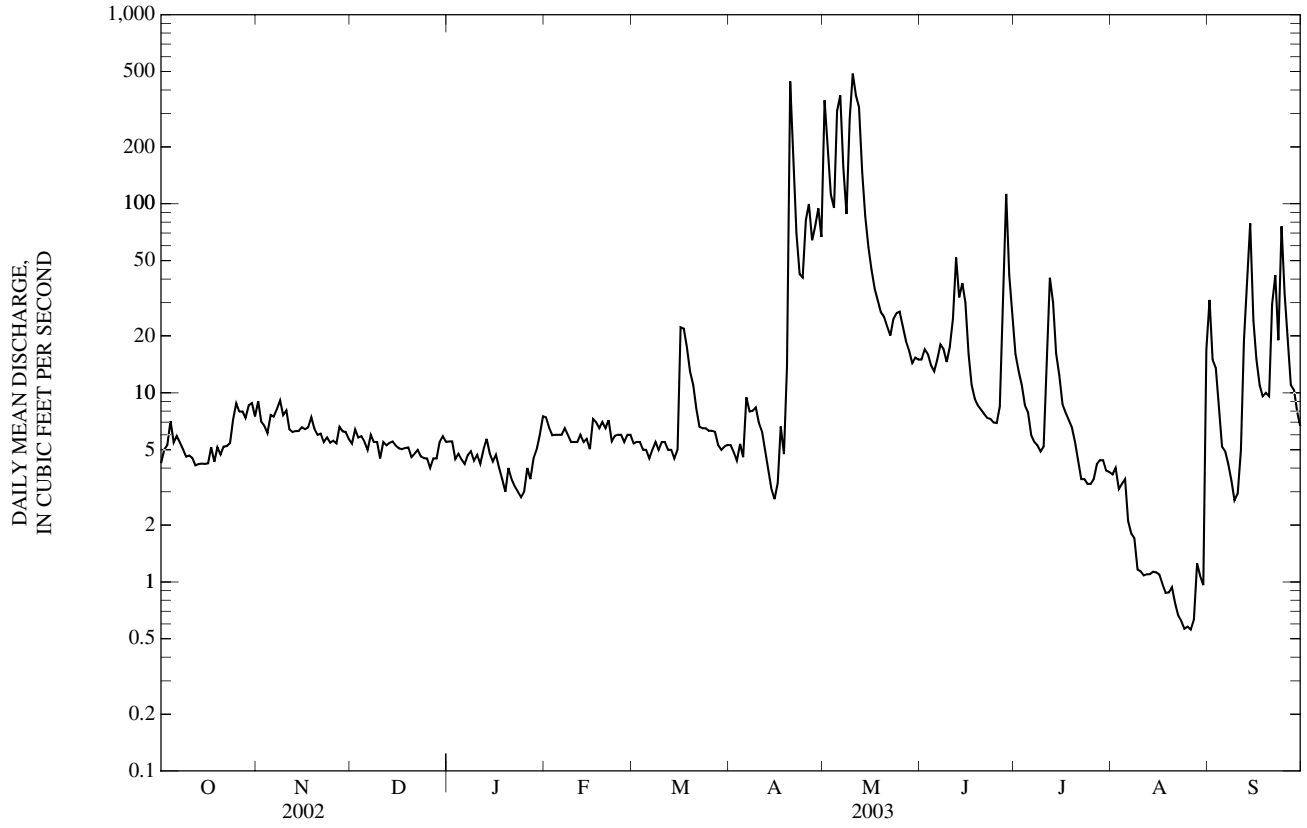
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2003, BY WATER YEAR (WY)

MEAN	160	194	138	185	321	471	580	494	691	271	127	157
MAX	1,174	2,272	803	1,027	1,557	1,898	2,103	2,647	5,820	2,903	1,812	2,079
(WY)	(1930)	(1932)	(1943)	(1946)	(2001)	(1961)	(1944)	(1935)	(1947)	(1958)	(1932)	(1970)
MIN	0.92	2.38	2.70	1.29	3.61	6.47	5.92	23.2	4.72	0.40	0.67	1.97
(WY)	(1957)	(1957)	(1938)	(1940)	(1957)	(1957)	(1956)	(1938)	(1934)	(1934)	(1936)	(1955)

06901500 LOCUST CREEK NEAR LINNEUS, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	252		21.4		311	
HIGHEST ANNUAL MEAN					796	1947
LOWEST ANNUAL MEAN					21.4	2003
HIGHEST DAILY MEAN	17,100	May 12	488	May 10	27,300	Jun 6, 1947
LOWEST DAILY MEAN	4.0	Dec 26	0.56	Aug 26	0.00	Jul 17-Aug 11, 1934
ANNUAL SEVEN-DAY MINIMUM	4.3	Oct 10	0.63	Aug 21	0.00	Jul 17, 1934
MAXIMUM PEAK FLOW	---		984	May 10	38,000	Jun 6, 1947
MAXIMUM PEAK STAGE	---		8.40	May 10	26.93	Jun 6, 1947
INSTANTANEOUS LOW FLOW	---		0.43	Aug 26	0.00	Jul 17-Aug 11, 1934
ANNUAL RUNOFF (INCHES)	6.22		0.53		7.68	
10 PERCENT EXCEEDS	299		36		573	
50 PERCENT EXCEEDS	19		6.0		40	
90 PERCENT EXCEEDS	5.2		3.3		4.0	

e Estimated



06901500 LOCUST CREEK NEAR LINNEUS, MO—Continued
(Ambient Water-Quality Monitoring Network)

PERIOD OF RECORD.--August 2003 to current year.

REMARKS.--This is an alternative sampling site for primary site, 06900900, Locust Creek near Unionville, Mo., when the primary site is dry due to drought conditions.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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)
AUG 26...	1045	Environmental	0.80	9.6	122	8.2	427	27.5	165	165	202	<1

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)	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)
AUG 26...	<10	0.55	<0.04	<0.06	E.004n	<0.02	<0.04	0.05	55	E760k	E840k

Remark codes used in this table:
< -- Less than
E -- Estimated value

Value qualifier codes used in this table:
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

06902000 GRAND RIVER NEAR SUMNER, MO

LOCATION.--Lat 39°38'25", long 93°16'25", in NE $^1/_4$ sec.29, T.56 N., R.21 W., Livingston County, Hydrologic Unit 10280103, near right bank on downstream side of pier of bridge on State Highway 139, 240 ft downstream from Chicago, Burlington and Quincy Railroad Bridge, 2.0 mi southwest of Sumner, 2.5 mi downstream from Locust Creek, and at mile 41.0.

DRAINAGE AREA.--6,880 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1923 to current year. Prior to April 1924 monthly discharge only, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 631.18 ft above National Geodetic Vertical Datum of 1929. Prior to July 11, 1926, nonrecording gage at site 200 ft upstream at same datum; July 11, 1926, to July 9, 1939, nonrecording gage at same site and datum; July 10, 1939, to Aug. 8, 1952, water-stage recorder at site 200 ft upstream at same datum; Aug. 9, 1952, to Nov. 12, 1953, nonrecording gage at site 120 ft upstream and at same datum; Nov. 13, 1953, to July 6, 1964, water-stage recorder and nonrecording gage, for stages below 8.3 ft, at site 120 ft upstream and at same datum; July 7, 1964, to May 26, 1965, nonrecording gage at present site and datum. Auxiliary water-stage recorder at site 3.2 mi downstream from base gage at datum 631.30 ft above National Geodetic Vertical Datum of 1929; Mar. 15, 1939, to Aug. 4, 1942, auxiliary nonrecording gage at various sites; Aug. 5, 1942, to Dec. 14, 1956, auxiliary nonrecording gage at present site.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 9, 1909, reached a stage of 36.7 ft, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	125	91	132	128	e150	177	1,980	491	852	127	e4,300
2	84	122	90	134	133	e155	175	1,960	489	588	124	2,430
3	87	120	92	127	151	e145	173	2,000	596	488	119	673
4	91	119	105	115	148	e160	173	1,730	654	420	116	282
5	104	120	102	125	148	e150	173	1,670	509	361	111	177
6	102	112	97	129	146	148	172	2,440	450	e314	106	132
7	97	105	95	131	148	159	176	2,660	706	e275	102	107
8	95	106	102	134	146	182	181	2,820	1,330	e245	97	93
9	84	103	99	130	139	188	182	2,340	952	e222	94	85
10	84	100	88	124	142	164	183	2,920	837	396	90	90
11	97	100	89	118	137	168	170	5,940	820	362	86	91
12	99	106	91	109	122	179	156	5,170	1,730	e294	83	630
13	87	109	93	114	109	192	163	3,640	4,280	e417	84	720
14	84	109	98	118	122	198	179	2,350	4,380	523	82	3,750
15	80	108	96	111	144	195	194	1,630	2,690	434	80	4,160
16	80	112	96	118	146	215	193	1,260	1,660	e293	78	1,470
17	83	119	98	109	132	232	189	1,120	1,050	e341	77	589
18	87	120	114	121	134	236	197	1,040	797	589	74	343
19	90	122	108	120	148	265	240	970	668	e337	72	254
20	86	122	106	120	153	345	864	934	509	e223	70	214
21	80	120	103	114	153	353	1,700	1,070	484	162	65	246
22	80	116	108	112	156	329	1,160	1,430	407	e148	65	1,370
23	81	115	117	118	151	309	689	1,020	376	e148	62	2,240
24	84	113	117	112	e145	286	515	828	315	e150	59	975
25	90	113	112	111	e130	269	1,080	827	298	e145	59	513
26	99	113	106	112	e110	261	1,440	837	288	e140	58	343
27	109	112	111	111	e130	252	1,000	768	945	e135	55	242
28	117	108	116	112	e145	217	1,220	708	1,200	e130	58	184
29	119	102	121	116	---	190	2,280	628	1,530	130	71	169
30	129	89	132	119	---	184	1,640	572	1,220	128	77	155
31	134	---	132	127	---	181	---	541	---	132	e670	---
MEAN	93.8	112	104	119	139	215	568	1,800	1,089	307	102	901
MAX	134	125	132	134	156	353	2,280	5,940	4,380	852	670	4,300
MIN	80	89	88	109	109	145	156	541	288	128	55	85
IN.	0.02	0.02	0.02	0.02	0.02	0.04	0.09	0.30	0.18	0.05	0.02	0.15

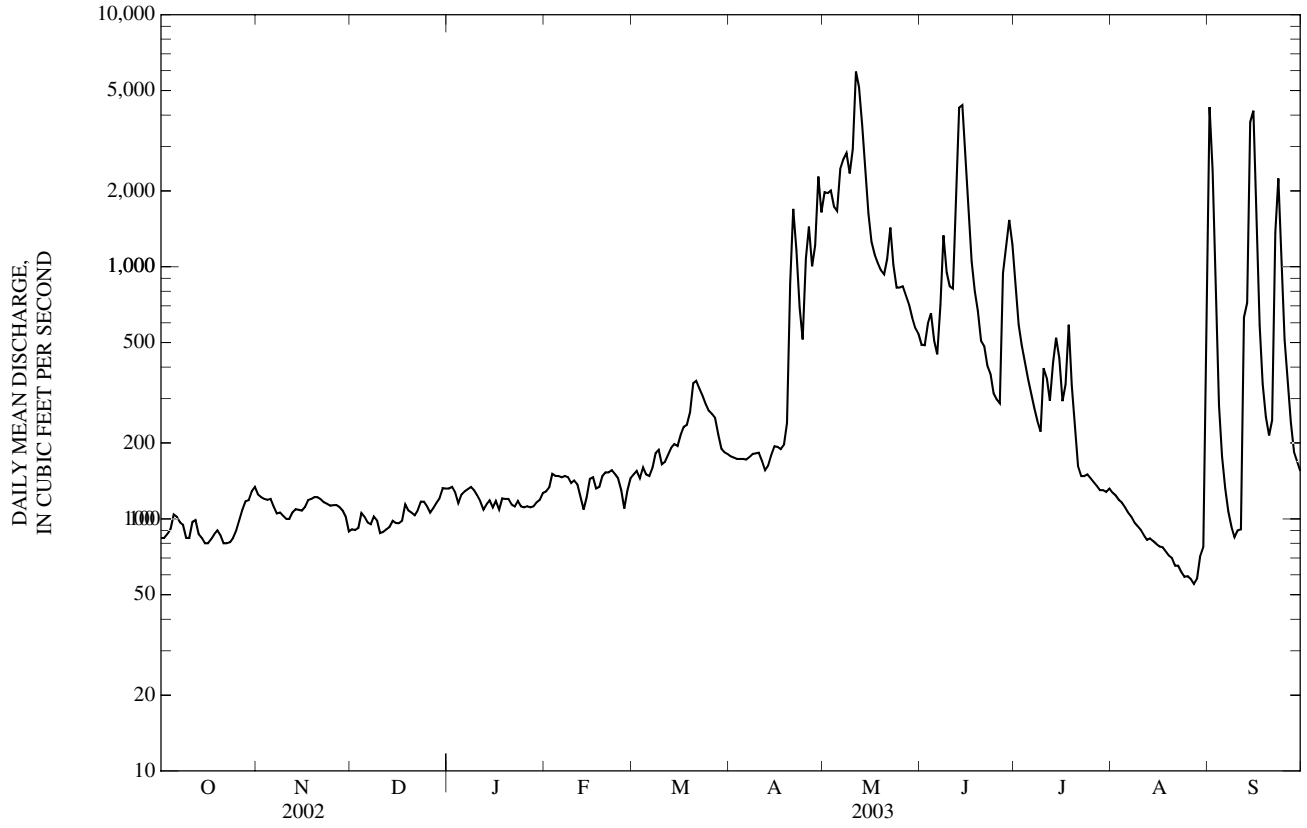
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2003, BY WATER YEAR (WY)

MEAN	2,666	2,878	2,000	1,910	3,761	5,966	7,018	6,548	7,372	4,586	1,686	3,009
MAX	20,630	29,030	15,440	14,750	19,250	34,220	26,680	43,450	67,270	87,900	9,194	28,090
(WY)	(1974)	(1932)	(1983)	(1932)	(1962)	(1979)	(1973)	(1995)	(1947)	(1993)	(1987)	(1926)
MIN	37.1	40.3	53.0	32.1	57.0	79.5	67.3	130	176	52.8	41.0	62.5
(WY)	(1957)	(1957)	(1956)	(1940)	(1939)	(1957)	(1956)	(1956)	(1988)	(1934)	(1936)	(1955)

06902000 GRAND RIVER NEAR SUMNER, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1925 - 2003	
ANNUAL MEAN	1,972		463		4,109	
HIGHEST ANNUAL MEAN					17,390	1993
LOWEST ANNUAL MEAN					367	1934
HIGHEST DAILY MEAN	69,300	May 13	5,940	May 11	166,000	Jun 8, 1947
LOWEST DAILY MEAN	80	Oct 15,16,21,22	55	Aug 27	10	Aug 12, 1934
ANNUAL SEVEN-DAY MINIMUM	84	Oct 15	59	Aug 22	12	Aug 7, 1934
MAXIMUM PEAK FLOW	---		6,320	May 11	180,000	Jun 8, 1947
MAXIMUM PEAK STAGE	---		16.21	May 11	42.52	Jul 10, 1993
INSTANTANEOUS LOW FLOW	---		53	Aug 27	10	Aug 12, 1934
ANNUAL RUNOFF (INCHES)	3.89		0.91		8.11	
10 PERCENT EXCEEDS	4,040		1,220		10,100	
50 PERCENT EXCEEDS	334		145		957	
90 PERCENT EXCEEDS	97		87		128	

e Estimated



06902000 GRAND RIVER NEAR SUMNER, MO—Continued
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1962 to June 1963, August 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1974 to September 1981.
WATER TEMPERATURE: January 1974 to September 1981.

REMARKS.--National Stream-Quality Accounting Network station October 1967 to September 1993. Ambient Water-Quality Monitoring Network station October 1993 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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...	1110	Environmental	97	11.0	103	8.1	476	11.5	--	--	--	--
NOV												
27...	1040	Environmental	115	14.4	105	8.0	485	2.0	210	63.7	12.2	2.90
DEC												
12...	1210	Environmental	102	13.3	104	8.0	504	4.0	--	--	--	--
FEB												
12...	1320	Environmental	121	14.3	104	8.0	512	1.5	220	66.8	12.8	2.98
12...	1350	Blank	--	--	--	--	--	--	--	0.04	<0.008	<0.10
25...	1240	Environmental	e130	15.2	108	8.1	502	1.0	--	--	--	--
MAR												
21...	1145	Environmental	354	11.0	101	8.2	421	10.5	--	--	--	--
APR												
11...	1215	Environmental	163	11.7	111	8.1	461	12.0	--	--	--	--
MAY												
02...	1000	Environmental	1,940	6.1	65	7.7	287	17.5	120	35.5	6.91	5.33
JUN												
20...	1315	Environmental	516	10.0	125	8.5	354	25.5	--	--	--	--
20...	1316	Replicate	--	--	--	--	--	--	--	--	--	--
JUL												
29...	1120	Environmental	130	7.0	90	8.0	481	27.0	210	64.5	12.7	4.79
AUG												
21...	1240	Environmental	66	9.0	120	8.2	487	30.5	--	--	--	--
21...	1241	Replicate	--	--	--	--	--	--	--	--	--	--
SEP												
09...	1315	Environmental	85	9.6	113	8.2	392	23.5	--	--	--	--

06902000 GRAND RIVER NEAR SUMNER, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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													
22...	--	205	207	253	<1	--	--	--	--	39	0.61	<0.04	<0.06
NOV													
27...	18.7	198	198	242	<1	17.5	0.20	36.5	291	10	0.43	<0.04	<0.06
DEC													
12...	--	204	206	251	<1	--	--	--	--	<10	0.30	<0.04	0.15
FEB													
12...	23.4	201	203	247	<1	24.3	0.21	38.4	312	<10	0.40	0.08	0.92
12...	<0.09	--	--	--	--	<0.20	<0.20	<0.2	<10	<10	<0.10	<0.04	<0.06
25...	--	186	184	225	<1	--	--	--	--	<10	0.36	<0.04	0.16
MAR													
21...	--	151	148	180	<1	--	--	--	--	29	0.70	<0.04	0.20
APR													
11...	--	176	175	214	<1	--	--	--	--	46	0.74	<0.04	<0.06
MAY													
02...	9.85	94	91	111	<1	8.99	0.22	27.9	186	524	2.6	0.12	0.69
JUN													
20...	--	135	135	161	2	--	--	--	--	114	1.6	<0.04	0.40
20...	--	--	--	--	--	--	--	--	--	108	1.5	<0.04	0.43
JUL													
29...	15.4	193	195	237	<1	13.5	0.30	28.1	282	19	0.76	<0.04	<0.06
AUG													
21...	--	192	190	232	<1	--	--	--	--	81	1.2	<0.04	<0.06
21...	--	--	--	--	--	--	--	--	--	78	1.2	<0.04	<0.06
SEP													
09...	--	155	154	189	<1	--	--	--	--	58	1.1	<0.04	<0.06

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 0.7µMF 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...	<0.008	<0.02	<0.04	0.11	30k	46	29k	--	--	--	--	--	--
NOV													
27...	<0.008	<0.02	<0.04	0.07	7k	<2b	2k	<2	50	0.6	0.04	<0.2	<6
DEC													
12...	E.004	<0.02	<0.04	0.05	12k	13k	12k	--	--	--	--	--	--
FEB													
12...	0.033	<0.02	<0.04	0.06	30k	110	<3b	<2	47	0.7	0.05	<0.2	<6
12...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.3	<0.04	<0.2	<6
25...	<0.008	<0.02	<0.04	0.08	5k	2k	3k	--	--	--	--	--	--
MAR													
21...	E.007	<0.02	E.02	0.09	43k	78	120	--	--	--	--	--	--
APR													
11...	<0.008	<0.02	<0.04	0.12	20k	40	18k	--	--	--	--	--	--
MAY													
02...	0.033	0.04	0.05	0.76	6,400	9,000	4,000	4	8,020	1.3	E.03	0.3	E5
JUN													
20...	0.020	0.02	0.04	0.28	--e	--e	33k	--	--	--	--	--	--
20...	0.020	0.03	E.03	0.29	--	--	--	--	--	--	--	--	--
JUL													
29...	<0.008	E.01	E.03	0.19	100k	40k	120	3	1,000	2.1	E.03n	<0.2	<7
AUG													
21...	<0.008	E.01n	E.02n	0.23	2k	24k	17k	--	--	--	--	--	--
21...	<0.008	E.02n	<0.04	0.22	--	--	--	--	--	--	--	--	--
SEP													
09...	<0.008	<0.02	<0.04	0.18	190	420k	68	--	--	--	--	--	--

06902000 GRAND RIVER NEAR SUMNER, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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								
27...	14	0.09	M	1,660	<0.02	<0.5	M	E2
DEC								
12...	--	--	--	--	--	--	--	--
FEB								
12...	33	<0.08	<1	2,180	<0.02	E.3	2	2
12...	<10	<0.08	<1	<2.0	<0.02	<0.5	<1	<2
25...	--	--	--	--	--	--	--	--
MAR								
21...	--	--	--	--	--	--	--	--
APR								
11...	--	--	--	--	--	--	--	--
MAY								
02...	22	<0.08	9	118	0.04	0.6	1	37
JUN								
20...	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--
JUL								
29...	E6n	<0.08	2	507	--b	E.5n	<1	5
AUG								
21...	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--
SEP								
09...	--	--	--	--	--	--	--	--

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

Value qualifier codes used in this table:
b -- Value was extrapolated below
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail
b -- Sample broken/spilled during shipment

06904050 CHARITON RIVER AT LIVONIA, MO

LOCATION.--Lat 40°29'00", long 92°41'10", in NW ¼ SE ¼ NW ¼ sec.34, T.66 N., R.16 W., Schuyler County, Hydrologic Unit 10280201, on left bank 10 ft downstream from bridge on U.S. Highway 136, 1.0 mi upstream from Shoal Creek, 0.5 mi east of Livonia, and at mile 90.9.

DRAINAGE AREA.--864 mi^2.

PERIOD OF RECORD.--May 1974 to current year. Occasional discharge measurements were made from October 1962 to May 1974.

REVISED RECORDS.--WDR MO-83-1: 1981.

GAGE.--Water-stage recorder. Datum of gage is 770.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Considerable regulation by Rathbun Lake (station 06903880), 51.0 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	39	34	30	e40	e40	34	152	42	68	39	49
2	25	38	30	34	e45	e45	34	119	39	59	38	45
3	30	37	35	36	e50	e40	35	108	40	53	38	38
4	38	37	35	39	e45	e45	36	304	41	50	37	32
5	37	38	36	38	e38	e55	34	928	42	45	36	30
6	32	38	40	38	e32	e40	40	698	45	47	35	31
7	29	36	37	32	e28	e45	43	324	50	52	35	30
8	28	35	46	35	e25	e45	49	183	53	62	35	30
9	28	34	42	36	e25	e43	56	294	43	282	34	30
10	26	34	38	e32	e32	e40	47	532	69	176	34	30
11	23	33	36	e25	e30	e50	43	1,160	97	139	34	32
12	25	33	33	e28	e35	e100	40	802	75	83	35	63
13	28	33	32	e31	e35	231	41	364	56	63	36	131
14	29	33	33	e29	e40	e300	39	207	50	52	35	201
15	30	33	31	e25	e45	219	36	148	54	e48	33	139
16	30	32	34	e25	e40	138	35	127	61	e45	32	61
17	30	31	31	e24	e38	103	35	100	48	e42	32	43
18	31	31	30	e23	e35	79	35	83	44	e40	31	38
19	30	31	31	e24	e45	67	39	69	44	39	30	37
20	28	31	32	e30	e50	64	104	67	42	38	30	37
21	26	31	31	e27	e55	71	142	66	39	38	33	43
22	26	31	30	e27	e58	59	96	61	35	37	31	50
23	32	31	31	e24	e60	51	66	58	34	34	29	124
24	36	30	41	e23	e50	46	58	57	35	36	28	72
25	42	31	44	e23	e45	42	322	57	35	38	28	50
26	46	31	47	e29	e40	39	409	58	793	37	30	41
27	48	31	38	e24	e40	38	207	52	925	37	30	38
28	38	31	44	e27	e43	36	126	47	248	41	34	38
29	38	35	40	e30	---	36	83	45	126	49	42	36
30	38	34	36	e30	---	35	71	44	82	54	35	35
31	40	---	33	e38	---	35	---	44	---	43	43	---
MEAN	32.0	33.4	35.8	29.5	40.9	73.5	81.2	237	113	62.2	33.9	55.1
MAX	48	39	47	39	60	300	409	1,160	925	282	43	201
MIN	23	30	30	23	25	35	34	44	34	34	28	30
IN.	0.04	0.04	0.05	0.04	0.05	0.10	0.10	0.32	0.15	0.08	0.05	0.07

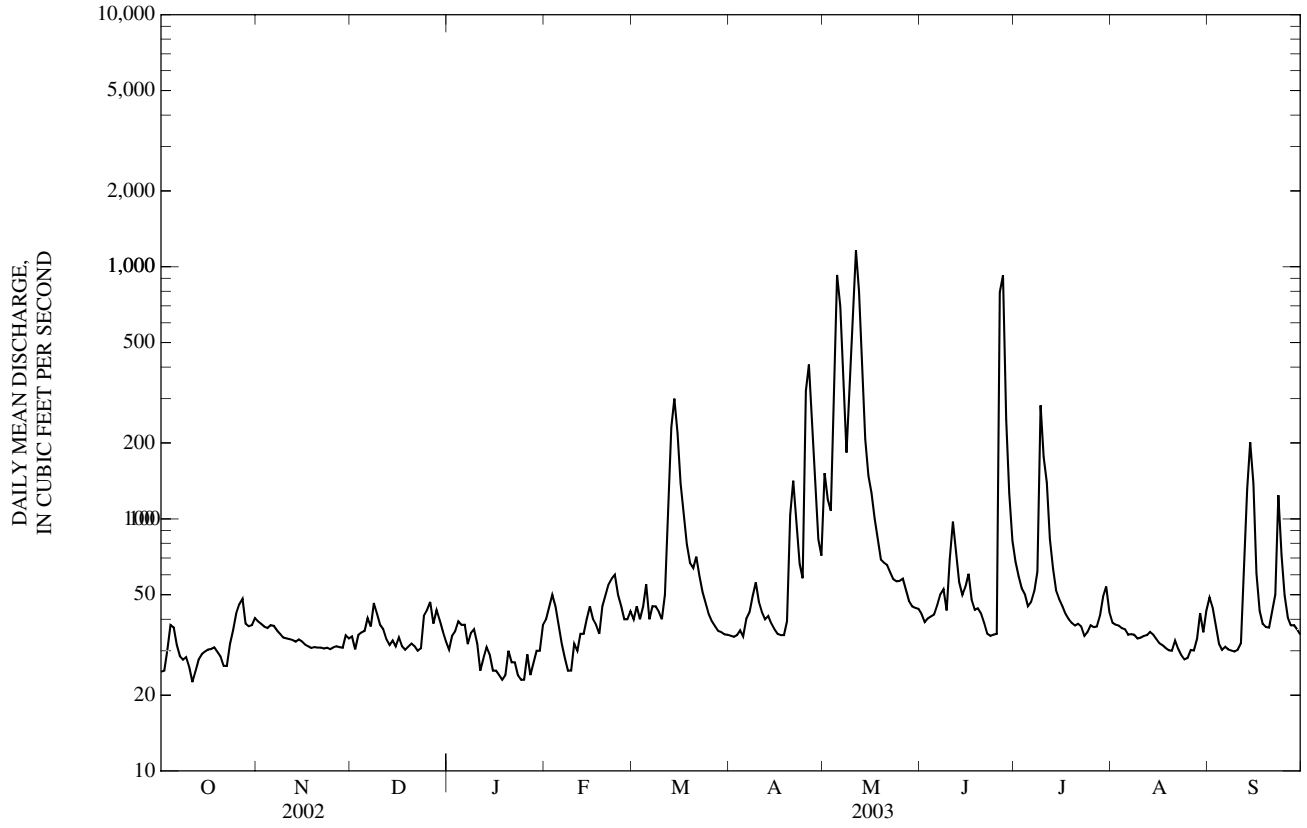
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2003, BY WATER YEAR (WY)

MEAN	407	440	570	330	523	823	830	912	852	981	594	458
MAX	1,764	1,714	2,005	1,797	1,956	2,046	1,898	2,239	1,839	3,923	2,045	2,029
(WY)	(1994)	(1994)	(1983)	(1993)	(1983)	(1993)	(1983)	(1995)	(1980)	(1993)	(1993)	(1993)
MIN	27.2	26.2	19.9	13.6	23.0	47.6	31.1	33.1	33.6	23.6	32.3	29.0
(WY)	(1977)	(1990)	(1977)	(1977)	(1989)	(2000)	(1989)	(2000)	(1988)	(1988)	(1988)	(2002)

06904050 CHARITON RIVER AT LIVONIA, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1974 - 2003	
ANNUAL MEAN	272		69.2		644	
HIGHEST ANNUAL MEAN					1,838	1993
LOWEST ANNUAL MEAN					69.2	2003
HIGHEST DAILY MEAN	4,820	May 12	1,160	May 11	8,960	Jul 18, 1982
LOWEST DAILY MEAN	23	Oct 11	23	Oct 11,Jan 18,24,25	13	Jan 11, 1977
ANNUAL SEVEN-DAY MINIMUM	26	Sep 26	25	Jan 21	13	Jan 11, 1977
MAXIMUM PEAK FLOW	---		1,670	Jun 26	9,200	Jul 18, 1982
MAXIMUM PEAK STAGE	---		11.09	Jun 26	28.33	Jul 18, 1982
INSTANTANEOUS LOW FLOW	---		11	Jan 1	11	Jan 1, 2003
ANNUAL RUNOFF (INCHES)	4.27		1.09		10.13	
10 PERCENT EXCEEDS	840		106		1,560	
50 PERCENT EXCEEDS	51		38		294	
90 PERCENT EXCEEDS	30		30		32	

e Estimated



06904500 CHARITON RIVER AT NOVINGER, MO

LOCATION.--Lat 40°14'05", long 92°41'14", on south line of SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.28, T.63 N., R.16 W., Adair County, Hydrologic Unit 10280202, on downstream side of center pier of bridge on State Highway 6, 0.6 mi east of Novinger, 1.0 mi downstream from Rye Creek, 2.0 mi upstream from Spring Creek, and at mile 73.1.

DRAINAGE AREA.--1,370 mi^2.

PERIOD OF RECORD.--October 1930 to September 1952, October 1954 to current year. Prior to February 1931 monthly discharge only, published in WSP 1310.

REVISED RECORDS.--WSP 896: 1939. WSP 1116: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 737.65 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 20, 1939, nonrecording gage at bridge over old channel, 500 ft east, at the same datum; Dec. 20, 1939, to Sept. 30, 1952, and Oct. 1, 1954, to Aug. 1, 1956, water-stage recorder, supplemented by nonrecording gage, at same site and datum; Aug. 3, 1956, to May 16, 1957, nonrecording gage at present site and datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Some regulation by Rathbun Lake (Iowa station 06903880). U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 28.6 ft, discharge, 27,000 ft^3/s, June 1917.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	53	34	36	e48	e45	42	1,420	49	87	43	150
2	28	51	41	32	e50	e48	39	469	48	79	39	110
3	28	50	31	42	e55	e42	38	281	55	83	39	68
4	40	48	34	41	e47	e50	61	1,980	49	63	38	51
5	45	49	39	57	e45	e60	49	2,990	46	52	38	40
6	42	50	42	52	e40	e40	46	1,480	69	46	37	36
7	34	48	45	42	e32	e45	86	647	74	47	36	35
8	31	46	45	42	e35	e48	86	380	80	60	37	34
9	30	48	52	46	e35	e45	94	943	72	676	37	33
10	31	43	49	32	e40	e40	86	917	171	501	37	32
11	28	42	47	25	e35	e60	71	1,860	216	256	38	34
12	24	43	53	e28	e40	e100	60	1,430	154	144	39	135
13	27	41	49	e29	e40	275	53	587	101	94	40	372
14	30	41	36	e30	e45	405	53	344	97	70	39	773
15	32	42	43	e22	e50	304	47	251	82	55	38	312
16	32	41	45	e28	e45	248	46	206	83	47	36	171
17	35	39	49	e27	e40	197	46	170	74	44	34	92
18	35	39	49	e24	e38	158	45	140	62	44	33	68
19	35	39	47	e28	e45	132	71	124	64	40	34	60
20	33	39	44	e31	e50	129	544	161	58	37	32	53
21	32	39	43	e28	e57	122	327	113	52	36	31	75
22	30	39	47	e28	e62	113	226	101	48	36	34	105
23	30	38	31	e26	e65	90	150	90	44	35	31	193
24	43	38	26	e25	e70	78	146	85	43	33	30	162
25	54	37	39	e24	e55	65	1,430	89	44	34	29	90
26	59	41	48	e32	e50	58	1,010	80	351	36	29	68
27	64	32	54	e28	e45	52	447	75	1,650	35	31	56
28	63	38	44	e30	e45	49	312	64	414	41	35	50
29	54	46	55	e35	---	47	299	58	185	42	63	48
30	52	45	59	e33	---	45	205	54	118	52	76	45
31	51	---	49	e45	---	44	---	51	---	50	71	---
MEAN	38.1	42.8	44.2	33.2	46.6	104	207	569	155	95.3	38.8	118
MAX	64	53	59	57	70	405	1,430	2,990	1,650	676	76	773
MIN	24	32	26	22	32	40	38	51	43	33	29	32
IN.	0.03	0.03	0.04	0.03	0.04	0.09	0.17	0.48	0.13	0.08	0.03	0.10

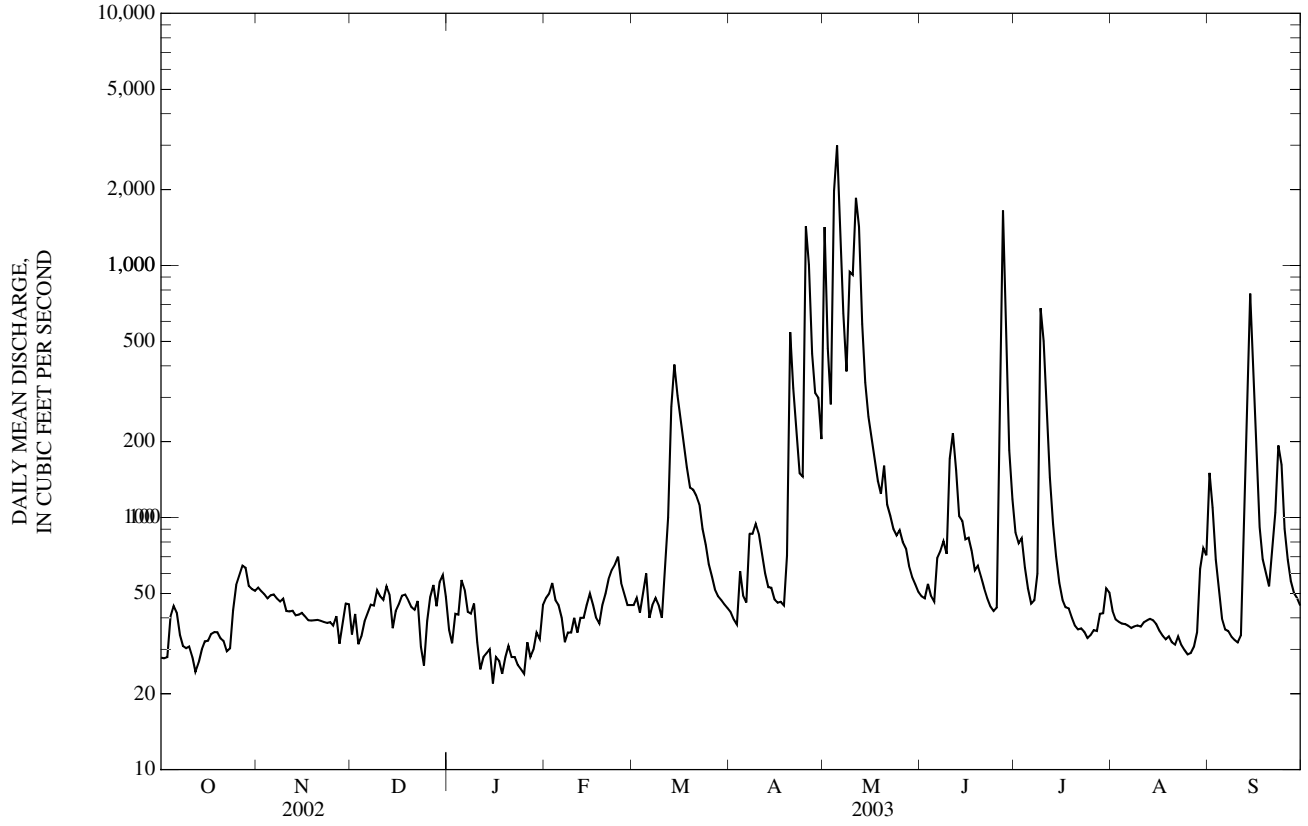
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2003[a], BY WATER YEAR (WY)

MEAN	737	697	840	546	951	1,511	1,570	1,836	1,331	1,444	746	710
MAX	3,352	2,403	3,318	2,686	2,652	4,105	5,302	5,447	4,482	9,877	2,770	3,232
(WY)	(1974)	(1993)	(1983)	(1993)	(2001)	(1993)	(1973)	(1995)	(2001)	(1993)	(1993)	(1993)
MIN	25.6	30.2	20.0	13.6	28.0	73.8	35.8	43.0	46.1	32.2	28.1	31.8
(WY)	(1972)	(1990)	(1977)	(1977)	(1989)	(2000)	(1989)	(2000)	(1988)	(1970)	(1971)	(2002)

06904500 CHARITON RIVER AT NOVINGER, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1970 - 2003[a]	
ANNUAL MEAN	581		125		1,078	
HIGHEST ANNUAL MEAN					3,299	1993
LOWEST ANNUAL MEAN					107	2000
HIGHEST DAILY MEAN	22,900	May 12	2,990	May 5	22,900	May 12, 2002
LOWEST DAILY MEAN	24	Oct 12	22	Jan 15	11	Aug 1, 1970
ANNUAL SEVEN-DAY MINIMUM	27	Sep 3	27	Jan 12	12	Jul 26, 1970
MAXIMUM PEAK FLOW	---		4,390	May 4	24,200	May 12, 2002
MAXIMUM PEAK STAGE	---		8.45	May 4	25.71	Jul 24, 1993
INSTANTANEOUS LOW FLOW	---		11	Jan 2	11	Aug 1, 1970, Jan 1, 1995,Dec 6, 2000,Jan 2, 2003
ANNUAL RUNOFF (INCHES)	5.76		1.24		10.69	
10 PERCENT EXCEEDS	1,460		220		2,300	
50 PERCENT EXCEEDS	70		47		479	
90 PERCENT EXCEEDS	33		31		40	

[a] Post-regulation period.
e Estimated



06905500 CHARITON RIVER NEAR PRAIRIE HILL, MO

LOCATION.--Lat 39°32'25", long 92°47'23", in NW ¼ SW ¼ sec.26, T.55 N., R.17 W., Chariton County, Hydrologic Unit 10280202, on right bank on downstream side of road at bridge on State Highway 129, 3.2 mi northwest of Prairie Hill, 13.5 mi upstream from Puzzle Creek, and at mile 19.6.

DRAINAGE AREA.--1,870 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1928 to current year. Prior to Oct. 1, 1953, published as Chariton River near Keytesville (06905600). Prior to May 1929, monthly discharge only, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 632.05 ft above National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers). Prior to Oct. 1, 1953, nonrecording gage at site 8.2 mi downstream at datum 13.68 ft lower; Oct. 1, 1953, to July 2, 1958, nonrecording gage at present site and datum.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Some regulation by Rathbun Lake (Iowa station 06903880), 122 mi upstream, since 1970. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	101	46	82	e60	e55	92	616	71	251	70	600
2	51	87	61	71	e65	e70	94	2,170	79	177	82	376
3	54	85	63	42	e70	e90	97	849	94	134	68	298
4	68	83	50	48	57	98	103	499	82	115	57	219
5	63	81	44	54	47	67	114	3,110	84	111	52	148
6	66	78	45	59	e46	71	114	3,310	114	88	53	111
7	72	76	44	58	e36	79	149	1,760	143	69	54	84
8	68	72	68	69	e38	131	146	904	144	56	50	65
9	59	70	50	65	e42	81	175	557	116	55	46	57
10	52	75	50	54	e50	59	195	1,770	128	290	44	51
11	47	e77	72	20	55	77	187	3,150	154	779	46	48
12	48	e72	81	e27	49	121	176	2,390	380	453	43	178
13	49	e60	88	e30	54	146	147	1,720	605	305	46	804
14	43	e60	85	e29	100	218	122	902	260	202	49	2,140
15	39	e59	76	19	124	463	104	569	167	146	49	1,490
16	39	e62	69	e25	176	498	109	412	148	112	53	759
17	44	e60	58	e28	85	373	132	330	116	96	49	445
18	51	e60	80	e28	105	288	116	280	102	86	44	286
19	76	e59	116	e32	141	249	110	232	87	77	48	222
20	60	61	102	e35	107	221	127	205	67	77	55	173
21	54	58	83	e35	85	201	681	232	63	68	47	150
22	51	54	68	e32	111	191	726	219	57	66	41	339
23	51	54	57	e28	130	176	516	166	50	56	35	391
24	55	55	33	e26	80	162	404	158	47	52	38	262
25	60	55	23	e28	e70	140	333	167	55	49	41	296
26	64	55	39	e40	e55	127	1,650	148	154	44	38	239
27	84	49	48	e32	e50	109	1,340	139	88	43	44	184
28	96	50	58	e37	e50	110	804	118	1,410	72	41	142
29	113	59	78	e40	---	103	623	105	770	67	76	114
30	129	52	89	e40	---	97	544	93	397	60	77	96
31	119	---	77	e50	---	94	---	79	---	60	560	---
MEAN	63.4	66.0	64.5	40.7	76.4	160	341	883	208	139	67.6	359
MAX	129	101	116	82	176	498	1,650	3,310	1,410	779	560	2,140
MIN	39	49	23	19	36	55	92	79	47	43	35	48
IN.	0.04	0.04	0.04	0.03	0.04	0.10	0.20	0.54	0.12	0.09	0.04	0.21

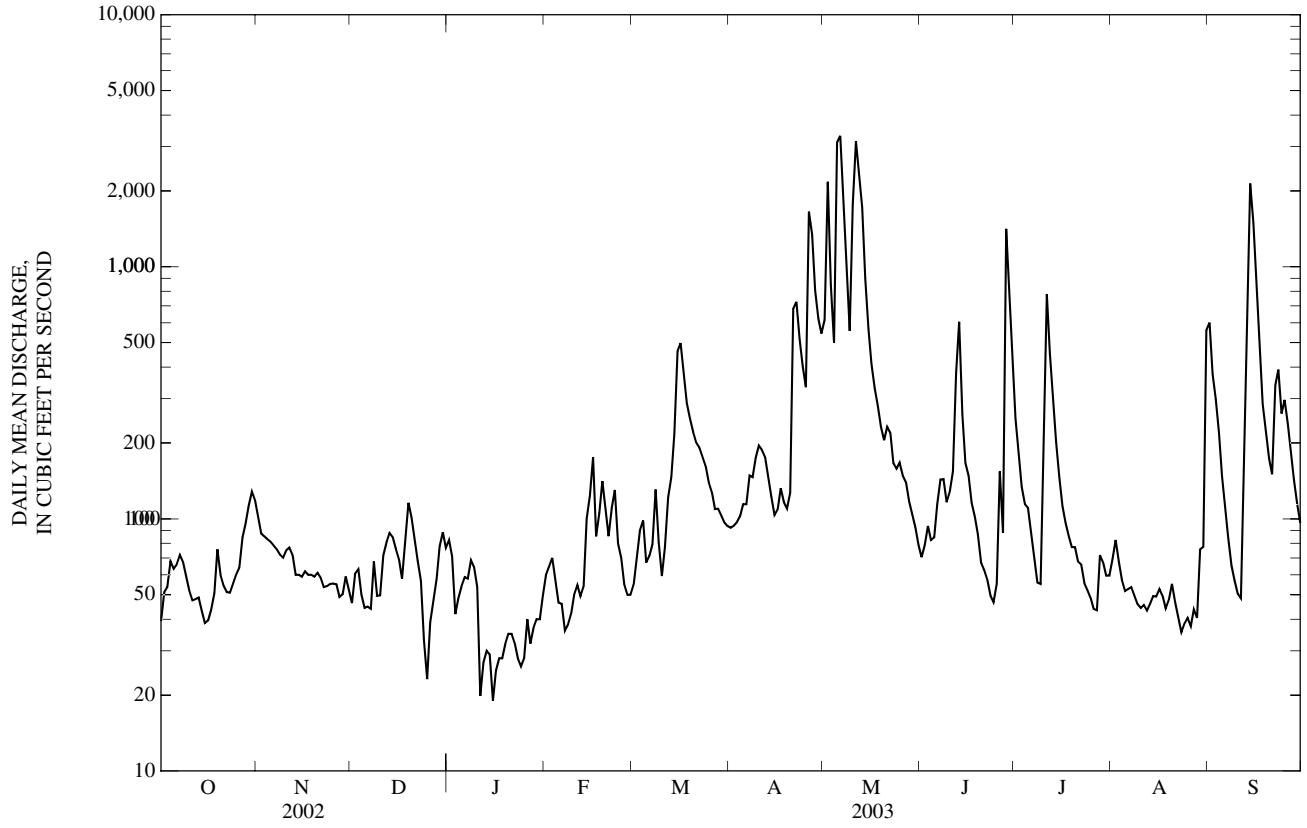
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2003, BY WATER YEAR (WY)

MEAN	726	804	738	713	1,123	1,872	2,052	2,105	2,009	1,415	708	710
MAX	5,695	6,574	5,449	4,516	4,102	5,724	8,981	9,560	14,830	15,980	4,856	5,203
(WY)	(1974)	(1962)	(1983)	(1946)	(1937)	(1973)	(1973)	(1995)	(1947)	(1993)	(1932)	(1993)
MIN	9.59	9.77	13.0	12.9	18.1	37.3	45.9	69.8	25.8	13.4	7.97	13.6
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1957)	(1956)	(2000)	(1934)	(1934)	(1936)	(1953)

06905500 CHARITON RIVER NEAR PRAIRIE HILL, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1929 - 2003	
ANNUAL MEAN	942		206		1,246	
HIGHEST ANNUAL MEAN					4,320	1993
LOWEST ANNUAL MEAN					159	2000
HIGHEST DAILY MEAN	35,600	May 13	3,310	May 6	35,600	May 13, 2002
LOWEST DAILY MEAN	23	Dec 25	19	Jan 15	4.6	Aug 7, 1934
ANNUAL SEVEN-DAY MINIMUM	43	Sep 25	25	Jan 11	4.8	Aug 4, 1934
MAXIMUM PEAK FLOW	---		5,110	May 5	37,100	May 13, 2002
MAXIMUM PEAK STAGE	---		9.80	May 5	23.01	May 13, 2002
INSTANTANEOUS LOW FLOW	---		5.0	Jan 15	4.6	Aug 7, 1934
ANNUAL RUNOFF (INCHES)	6.84		1.50		9.05	
10 PERCENT EXCEEDS	1,960		448		3,070	
50 PERCENT EXCEEDS	136		78		350	
90 PERCENT EXCEEDS	52		43		40	

e Estimated



06905500 CHARITON RIVER NEAR PRAIRIE HILL, MO—Continued
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1962 to June 1963, August 1967 to July 1975, January 1978 to September 1986, November 1992 to current year.

REMARKS.--National Stream-Quality Accounting Network station January 1978 to September 1986 and an Ambient Water-Quality Monitoring Network station November 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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												
26...	1220	Environmental	58	13.7	103	8.3	384	3.0	180	52.5	11.7	3.41
26...	1221	Replicate	--	--	--	--	--	--	180	52.0	11.7	3.38
JAN												
10...	1300	Environmental	55	15.9	120	8.3	372	3.0	--	--	--	--
MAR												
18...	1410	Environmental	274	10.4	107	8.2	337	15.0	--	--	--	--
MAY												
01...	1215	Environmental	530	7.3	81	8.0	350	19.0	150	45.3	9.35	5.38
01...	1215	Blank	--	--	--	--	--	--	--	0.02	<0.008	<0.16
JUL												
30...	1350	Environmental	58	8.8	123	8.6	409	31.5	--	--	--	--
SEP												
11...	0900	Environmental	46	7.2	84	8.3	411	23.0	--	--	--	--

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													
26...	12.5	150	149	177	2	9.27	0.20	39.7	232	<10	0.26	<0.04	<0.06
26...	12.7	--	--	--	--	9.12	0.20	39.4	239	<10	0.25	<0.04	<0.06
JAN													
10...	--	144	143	174	<1	--	--	--	--	<10	0.30	<0.04	<0.06
MAR													
18...	--	95	96	117	<1	--	--	--	--	29	1.0	0.06	0.35
MAY													
01...	9.15	96	93	113	<1	8.87	0.22	56.7	228	600	2.9	0.07	0.73
01...	<0.09	--	--	--	--	<0.20	<0.17	<0.2	<10	<10	E.05	<0.04	<0.06
JUL													
30...	--	152	155	175	7	--	--	--	--	23	0.73	<0.04	<0.06
SEP													
11...	--	155	153	181	3	--	--	--	--	58	0.78	<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													
26...	<0.008	<0.02	<0.04	E.03	5k	2k	28k	5	40	0.4	E.02	<0.2	<6
26...	<0.008	<0.02	<0.04	E.02	--	--	--	5	36	0.4	E.03	<0.2	E4n
JAN													
10...	<0.008	<0.02	<0.04	<0.04	7k	8k	6k	--	--	--	--	--	--
MAR													
18...	0.013	<0.02	E.02	0.11	--u	89	56	--	--	--	--	--	--
MAY													
01...	0.016	0.07	0.07	0.91	13,000	E,7500k	2,000	3	9,530	1.0	E.02	0.4	<6
01...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.3	<0.04	<0.2	<6
JUL													
30...	<0.008	E.01	E.02	0.11	36k	90	18k	--	--	--	--	--	--
SEP													
11...	<0.008	E.01n	<0.04	0.14	140	640k	170	--	--	--	--	--	--

06905500 CHARITON RIVER NEAR PRAIRIE HILL, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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								
26...	66	E.07	<1	593	<0.02	<0.5	M	E1
26...	69	E.04	<1	587	<0.02	<0.5	M	E1
JAN								
10...	--	--	--	--	--	--	--	--
MAR								
18...	--	--	--	--	--	--	--	--
MAY								
01...	E9	<0.08	12	7.3	0.04	1.1	2	48
01...	<10	<0.08	<1	<2.0	0.02	<0.5	1	E1
JUL								
30...	--	--	--	--	--	--	--	--
SEP								
11...	--	--	--	--	--	--	--	--

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

Value qualifier codes used in this table:
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

06905725 MUSSEL FORK NEAR MYSTIC, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 40°09'38", long 92°53'25", in NE 1/4 NW 1/4 SW 1/4 sec.23, T.62 N., R.18 W., Sullivan County, Hydrologic Unit 10280202, approximately 2 mi east of Mystic on the left bank on upstream side of bridge on County Highway H.

DRAINAGE AREA.--24.0 mi^2.

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

REMARKS.--August sample collected at alternative sampling site 06906000, Mussel Fork near Musselfork, Mo., due to drought conditions at primary site.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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)
FEB												
21...	0935	Environmental	0.05	4.4	32	7.6	548	0.5	--	--	--	--
MAR												
13...	0900	Environmental	2.5	11.1	79	7.6	510	0.5	--	--	--	--
19...	1445	Environmental	0.30	10.5	96	8.2	340	9.0	--	--	--	--
APR												
24...	1315	Environmental	0.19	7.4	72	7.8	457	12.0	--	--	--	--
30...	0850	Environmental	1.9	6.9	70	7.9	351	14.0	--	--	--	--
MAY												
07...	1535	Environmental	2.5	7.4	85	7.6	278	20.0	94	28.2	5.84	5.32
JUN												
12...	0900	Environmental	0.72	6.0	70	8.0	427	21.0	--	--	--	--
12...	0901	Replicate	--	--	--	--	--	--	--	--	--	--
JUL												
09...	1535	Environmental	e 0.01	14.1	196	8.8	489	30.5	150	36.9	13.1	6.39
SEP												
17...	0840	Environmental	0.33	5.8	61	7.8	311	18.0	--	--	--	--
17...	0841	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)
FEB													
21...	--	265	266	324	<1	--	--	--	--	<10	1.5	E.03	0.24
MAR													
13...	--	94	93	114	<1	--	--	--	--	37	1.3	<0.04	<0.06
19...	--	87	84	103	<1	--	--	--	--	14	1.7	<0.04	E.05
APR													
24...	--	89	88	108	<1	--	--	--	--	26	1.1	0.15	0.84
30...	--	88	86	105	<1	--	--	--	--	32	1.4	0.10	0.76
MAY													
07...	11.8	78	80	98	<1	17.4	<0.17	24.6	185	44	1.5	0.12	0.69
JUN													
12...	--	138	140	171	<1	--	--	--	--	16	1.2	E.02	E.04
12...	--	--	--	--	--	--	--	--	--	19	1.1	E.03	E.06
JUL													
09...	39.2	115	115	123	8	55.3	0.30	37.6	292	11	1.4	<0.04	<0.06
SEP													
17...	--	85	85	103	<1	--	--	--	--	15	1.2	0.11	0.44
17...	--	--	--	--	--	--	--	--	--	20d	1.2	0.12	0.46

06905725 MUSSEL FORK NEAR MYSTIC, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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)
FEB													
21...	E.005	E.01	0.04	0.15	86k	152	510	--	--	--	--	--	--
MAR													
13...	E.007	0.02	0.06	0.20	520	180	1,500	--	--	--	--	--	--
19...	E.004	<0.02	E.03	0.14	74k	190	80k	--	--	--	--	--	--
APR													
24...	0.088	<0.02	E.02	0.10	190k	170	230	--	--	--	--	--	--
30...	0.072	E.02	0.04	0.20	120k	160	130	--	--	--	--	--	--
MAY													
07...	0.032	0.04	0.07	0.23	1,600	380	120	7	1,620	1.7	<0.04	<0.2	<6
JUN													
12...	<0.008	<0.02	E.03	0.09	350	220	1,200	--	--	--	--	--	--
12...	E.005	<0.02	E.03	0.10	--	--	--	--	--	--	--	--	--
JUL													
09...	<0.008	<0.02	<0.04	0.10	<2b	20k	81	8	284	4.3	0.07	<0.2	<7
SEP													
17...	0.058	0.03	0.06	0.14	2,500	1,700	780	--	--	--	--	--	--
17...	0.058	0.03	0.05	0.14	--	--	--	--	--	--	--	--	--

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)
FEB								
21...	--	--	--	--	--	--	--	--
MAR								
13...	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--
APR								
24...	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--
MAY								
07...	48	E.06	2	230	<0.02	0.8	M	6
JUN								
12...	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--
JUL								
09...	E7	E.04	M	49.2	<0.02	0.7	M	E2
SEP								
17...	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--

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 was extrapolated below
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range

06906000 MUSSEL FORK NEAR MUSSELFORK, MO

LOCATION.--Lat 39°31'26", long 92°56'59", in SW ¼ SW ¼ SE ¼ sec.32, T.55 N., R.18 W., Chariton County, Hydrologic Unit 10280202, on downstream side of pier of bridge on State Highway 5, 4.5 mi southwest of Musselfork, and 1.5 mi upstream from Long Branch.

DRAINAGE AREA.--267 mi^2.

PERIOD OF RECORD.--October 1948 to December 1951, October 1962 to February 1990, December 2002 to current year. Prior to Jan. 1, 1952, nonrecording gage at site 100 ft upstream at same datum; Oct. 1, 1962 to March 1, 1990, at same site and datum. March 1, 1990 to Aug. 26, 1994, stage only station at same site and datum.

GAGE.--Water-stage recorder. Datum of gage is 639.25 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge for the period Dec. 11, 2002 to Sept. 30, 2003, 1,590 ft^3/s, gage height 15.32; minimum 0.00 ft^3/s Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	12	e3.0	e1.5	5.2	188	5.4	2.5	e0.38	108
2	---	---	---	13	e3.0	e1.7	6.9	172	6.5	2.0	e0.38	90
3	---	---	---	12	e2.9	e1.8	8.1	125	8.0	2.1	e0.37	19
4	---	---	---	12	e2.2	e2.2	9.6	71	8.1	3.1	e0.37	6.4
5	---	---	---	14	e2.0	e2.5	10	138	8.3	2.4	e0.37	3.5
6	---	---	---	13	e1.8	e2.5	10	287	14	1.6	e0.39	2.0
7	---	---	---	11	e1.6	e2.5	11	159	18	e1.3	e0.39	1.2
8	---	---	---	11	e1.3	e2.8	16	59	17	e1.0	e0.39	1.3
9	---	---	---	10	e1.3	e3.7	16	34	11	e0.80	e0.50	1.3
10	---	---	---	11	e1.3	e4.2	15	335	17	1.0	e0.43	1.1
11	---	---	10	11	e1.4	e6.0	14	997	13	e0.90	e0.40	1.1
12	---	---	10	11	e1.5	6.6	13	354	8.6	e0.80	e0.39	9.5
13	---	---	10	11	e1.6	8.2	14	101	16	e0.74	e0.38	411
14	---	---	10	11	e1.8	9.9	13	43	61	e0.68	e0.36	1,490
15	---	---	11	9.5	e2.2	9.5	12	26	19	e0.60	e0.36	482
16	---	---	13	8.7	e2.4	8.5	12	17	14	e0.56	e0.37	95
17	---	---	13	e7.6	e2.4	7.5	12	13	9.4	0.53	e0.35	36
18	---	---	13	e7.6	e2.3	11	12	10	6.5	0.54	e0.32	18
19	---	---	13	e7.0	e2.3	11	15	9.2	4.9	0.48	e0.30	13
20	---	---	13	e6.2	e3.4	12	28	9.0	4.3	0.43	e0.42	16
21	---	---	14	e6.0	e3.4	11	97	8.2	3.6	0.47	e0.52	10
22	---	---	14	e5.8	e2.5	9.7	53	6.9	4.3	0.48	e0.38	64
23	---	---	13	e6.0	e1.8	7.3	20	6.0	4.7	0.48	e0.24	56
24	---	---	13	e4.6	e1.6	5.8	18	6.8	5.3	0.46	e0.21	32
25	---	---	12	e4.0	e1.5	4.7	16	10	6.1	0.52	e0.16	15
26	---	---	11	e3.0	e1.4	3.8	15	13	7.0	0.51	e0.14	8.0
27	---	---	12	e2.0	e1.4	3.7	14	11	6.3	0.48	e0.08	5.4
28	---	---	12	e2.0	e1.5	4.8	128	8.1	6.9	e0.45	0.03	4.4
29	---	---	12	e2.0	---	5.0	444	7.1	7.0	e0.42	0.05	3.6
30	---	---	12	e2.4	---	4.8	96	6.3	4.0	e0.40	0.04	3.1
31	---	---	12	e2.8	---	4.8	---	6.0	---	e0.39	7.2	---
MEAN	---	---	---	8.07	2.03	5.84	38.5	104	10.8	0.94	0.54	100
MAX	---	---	---	14	3.4	12	444	997	61	3.1	7.2	1,490
MIN	---	---	---	2.0	1.3	1.5	5.2	6.0	3.6	0.39	0.03	1.1

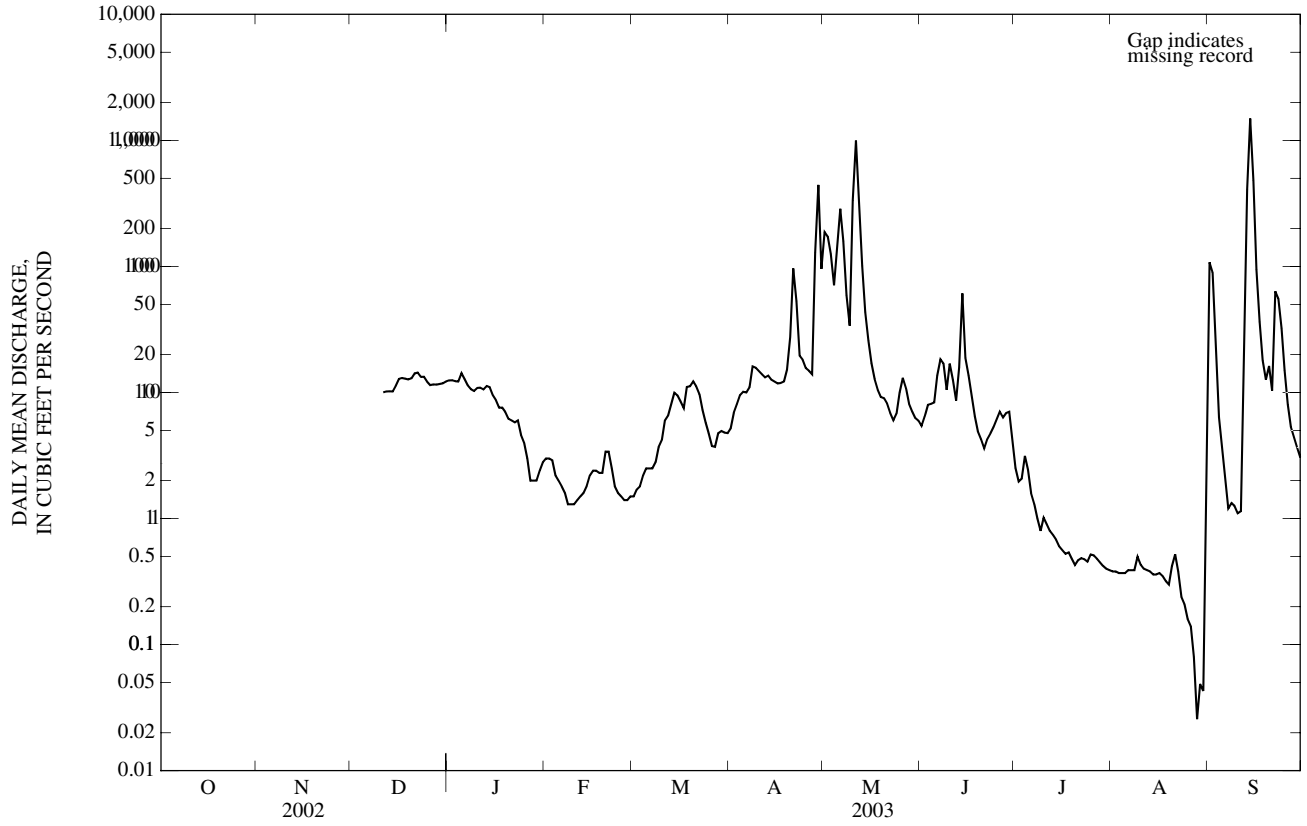
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	163	158	169	139	236	308	450	328	306	237	69.0	155
MAX	1,246	976	1,335	729	1,453	1,370	2,585	1,538	1,225	3,029	303	1,295
(WY)	(1986)	(1986)	(1983)	(1965)	(1982)	(1973)	(1973)	(1973)	(1981)	(1981)	(1987)	(1973)
MIN	0.04	1.05	0.61	0.44	0.89	5.84	18.0	9.77	2.37	0.94	0.54	0.59
(WY)	(1964)	(1977)	(1964)	(1964)	(1964)	(2003)	(1989)	(1980)	(1988)	(2003)	(2003)	(1976)

06906000 MUSSEL FORK NEAR MUSSELFORK, MO—Continued

SUMMARY STATISTICS	FOR PERIOD OF RECORD	
ANNUAL MEAN	234	
HIGHEST ANNUAL MEAN	719	1973
LOWEST ANNUAL MEAN	22.9	1989
HIGHEST DAILY MEAN	18,300	Apr 22, 1973
LOWEST DAILY MEAN	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	0.00	At Times
MAXIMUM PEAK FLOW	23,100	Apr 22, 1973
MAXIMUM PEAK STAGE	22.11	Apr 22, 1973
INSTANTANEOUS LOW FLOW	0.00	Several Years
10 PERCENT EXCEEDS	501	
50 PERCENT EXCEEDS	28	
90 PERCENT EXCEEDS	2.4	

e Estimated



06906000 MUSSEL FORK NEAR MUSSELFORK, MO—Continued
(Ambient Water-Quality Monitoring Network)

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

REMARKS.--This is an alternative sampling site for primary site 06905725, Mussel Fork near Mystic, Mo., when the primary site is dry due to drought conditions.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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)
AUG 27...	1215	Environmental	0.06	5.4	69	7.9	425	28.0	202	204	249	<1

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)	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)
AUG 27...	42	0.92	<0.04	<0.06	<0.008	<0.02	<0.04	0.12	210	E5k	110

Remark codes used in this table:
< -- Less than
E -- Estimated value

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

06906150 LONG BRANCH CREEK AT ATLANTA, MO

LOCATION.--Lat 39°53'51", long 92°29'34", in SE ¼ NW ¼ NW ¼ sec.20, T.59N., R.14W., Macon County, Hydrologic Unit 10280203, at right upstream end of bridge on Marion Street, 0.65 mi east of Highway RA, and 0.3 mi west of Atlanta.

DRAINAGE AREA.--23.0 mi^2.

PERIOD OF RECORD.--July 1995 to current year. Published as "near Atlanta" 1995 to 2000.

GAGE.--Water-stage recorder. Datum of gage is 814.75 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.02	0.02	0.00	e0.02	0.33	0.19	225	0.28	0.32	0.02	22
2	0.00	0.02	0.02	0.01	e0.04	e0.30	0.16	60	0.34	1.5	0.02	16
3	0.00	0.02	0.02	0.01	e0.10	e0.31	0.16	9.4	0.39	0.51	0.02	2.8
4	0.00	0.01	0.01	0.01	e0.04	0.27	0.57	38	0.35	0.34	0.01	0.94
5	0.00	0.02	0.01	0.01	e0.04	0.23	0.41	319	0.34	0.28	0.01	0.52
6	0.03	0.02	0.01	0.01	e0.03	0.19	0.50	62	0.79	0.23	0.01	0.35
7	0.02	0.02	0.01	0.01	e0.02	0.42	0.87	9.8	1.8	0.17	0.01	0.28
8	0.01	0.02	0.01	0.01	e0.00	0.52	0.71	4.2	1.1	0.12	0.00	0.22
9	0.01	0.02	0.01	0.28	e0.02	0.60	0.84	2.9	0.56	0.10	0.00	0.16
10	0.01	0.02	e0.01	0.09	e0.04	0.62	0.63	67	2.4	0.14	0.00	0.12
11	0.00	0.02	e0.01	0.04	e0.04	0.64	0.48	208	12	0.08	0.00	0.11
12	0.00	0.02	0.01	0.02	e0.10	1.0	0.42	20	6.1	0.07	0.00	0.27
13	0.00	0.02	0.01	0.02	e0.15	7.0	0.37	6.1	3.9	0.06	0.00	61
14	0.00	0.02	0.01	0.01	e0.40	4.8	0.34	3.3	2.2	0.05	0.00	267
15	0.00	0.02	0.01	0.01	e0.60	2.5	0.34	1.9	0.83	0.04	0.00	32
16	0.00	0.02	0.01	0.00	e0.55	1.1	2.1	1.2	0.48	0.03	0.00	2.6
17	0.00	0.02	0.01	0.00	e0.50	0.91	2.8	0.89	0.37	0.03	0.00	0.70
18	0.00	0.02	0.01	0.00	e0.55	0.72	0.61	0.69	0.37	3.7	0.00	0.30
19	0.00	0.02	0.01	0.00	e0.75	0.79	0.50	0.63	0.44	1.0	0.00	39
20	0.00	0.02	0.01	e0.00	e1.0	0.67	0.96	0.59	0.33	0.53	0.00	15
21	0.00	0.02	0.01	0.00	2.2	0.55	8.2	0.52	0.27	0.35	0.00	9.2
22	0.00	0.03	0.01	e0.00	10	1.1	4.0	0.48	0.24	0.25	0.00	123
23	0.00	0.03	0.01	e0.00	9.8	1.2	1.4	0.50	0.19	0.17	0.00	8.3
24	0.01	0.02	0.01	e0.00	5.1	0.85	1.5	0.55	0.14	0.10	0.00	1.3
25	0.01	0.02	0.01	e0.00	1.3	0.69	21	0.57	0.28	0.07	0.00	0.51
26	0.01	0.02	0.01	e0.00	0.96	0.50	42	0.47	1.1	0.05	0.00	0.47
27	0.01	0.02	0.01	e0.00	0.64	0.42	8.0	0.44	0.44	0.04	0.00	0.34
28	0.01	0.02	0.01	e0.00	e0.41	0.41	6.3	0.44	0.44	0.05	0.00	0.25
29	0.02	0.02	0.00	e0.01	---	0.35	15	0.38	0.42	0.05	0.00	0.15
30	0.02	0.02	0.01	e0.01	---	0.28	8.4	0.34	0.34	0.04	0.00	0.11
31	0.01	---	0.00	e0.02	---	0.24	---	0.33	---	0.03	0.43	---
MEAN	0.01	0.02	0.01	0.02	1.26	0.98	4.33	33.7	1.31	0.34	0.02	20.2
MAX	0.03	0.03	0.02	0.28	10	7.0	42	319	12	3.7	0.43	267
MIN	0.00	0.01	0.00	0.00	0.00	0.19	0.16	0.33	0.14	0.03	0.00	0.11
IN.	0.00	0.00	0.00	0.00	0.06	0.05	0.21	1.69	0.06	0.02	0.00	0.98

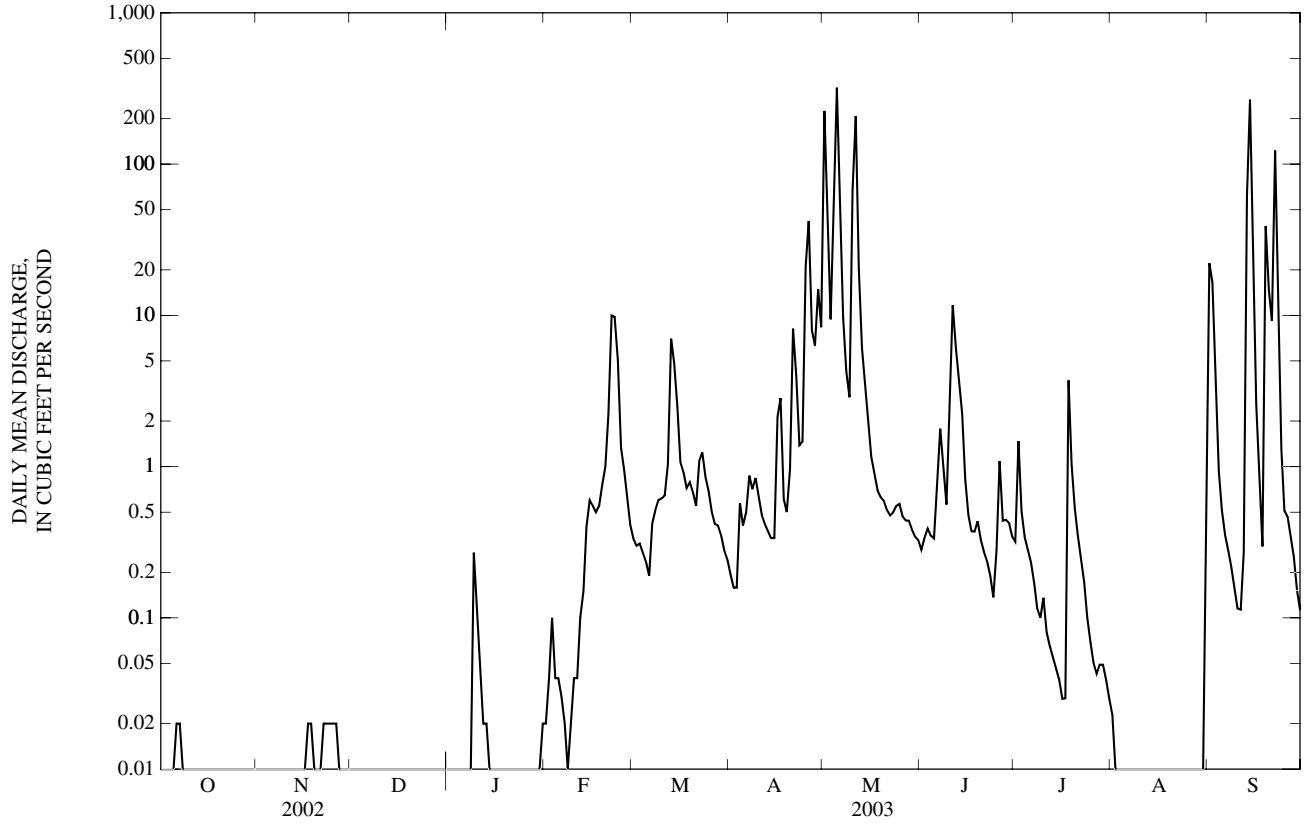
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

MEAN	12.2	9.71	4.97	16.6	30.0	22.8	38.1	60.8	22.7	9.97	5.34	3.73
MAX	87.7	68.9	26.5	61.7	84.1	81.8	86.7	191	71.0	60.9	25.0	20.2
(WY)	(1999)	(1999)	(1999)	(1999)	(1997)	(1998)	(1999)	(2002)	(1998)	(1998)	(1995)	(2003)
MIN	0.01	0.02	0.01	0.02	1.26	0.98	0.63	0.54	0.97	0.25	0.02	0.02
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)	(2000)	(2002)	(1999)	(2003)	(2002)

06906150 LONG BRANCH CREEK AT ATLANTA, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1995 - 2003	
ANNUAL MEAN	24.6		5.20		19.5	
HIGHEST ANNUAL MEAN					37.0	1999
LOWEST ANNUAL MEAN					1.88	2000
HIGHEST DAILY MEAN	2,060	May 12	319	May 5	2,060	May 12, 2002
LOWEST DAILY MEAN	0.00	Several Days	0.00	Many Days	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 8,27,Oct 11	0.00	Oct 11	0.00	At Times
MAXIMUM PEAK FLOW	---		432	May 5	3,360	May 12, 2002
MAXIMUM PEAK STAGE	---		8.93	May 5	16.44	May 12, 2002
INSTANTANEOUS LOW FLOW	---		0.00	Many Days	0.00	Several Years
ANNUAL RUNOFF (INCHES)	14.51		3.07		11.52	
10 PERCENT EXCEEDS	15		4.1		22	
50 PERCENT EXCEEDS	0.11		0.12		0.62	
90 PERCENT EXCEEDS	0.00		0.00		0.01	

e Estimated



06906190 LONG BRANCH RESERVOIR NEAR MACON, MO

LOCATION.--Lat 39°45'05", long 92°30'20", in NW $\frac{1}{4}$ sec.10, T.57 N., R.14 W., Macon County, Hydrologic Unit 10280203, in Administration Building at left end of dam on East Fork Little Chariton River, 2.0 mi west of junction of U.S. Highways 63 and 36 in Macon, and 2.0 mi below confluence with Long Branch.

DRAINAGE AREA.--109 mi^2.

PERIOD OF RECORD.--September 1978 to current year. Contents published 1982 to current year. Records collected at same site since 1978 are available from the U.S. Army Corps of Engineers.

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 on Sept. 3, 1976. Storage began on Aug. 2, 1978. An uncontrolled limited service type spillway, 50 ft wide, is located at the right abutment. Capacity of surcharge pool 98,590 ac-ft (elevation 801.1 ft to 820.7 ft); of flood control pool 30,600 ac-ft (elevation 791.1 ft to 801.0 ft); and of multipurpose pool 34,640 ac-ft (elevation 751.1 ft to 791.0 ft). Lake is used for flood control, water supply, water-quality control and recreation. U.S. Army Corps of Engineers satellite telemeter at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 70,500 ac-ft, May 13, 2002, elevation, 802.58 ft; minimum, 14,300 ac-ft, Dec. 5, 1980, elevation, 780.21 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 27,700 ac-ft, May 13-16, elevation, 788.15 ft; minimum, 22,200 ac-ft, Apr. 16, elevation, 785.32 ft.

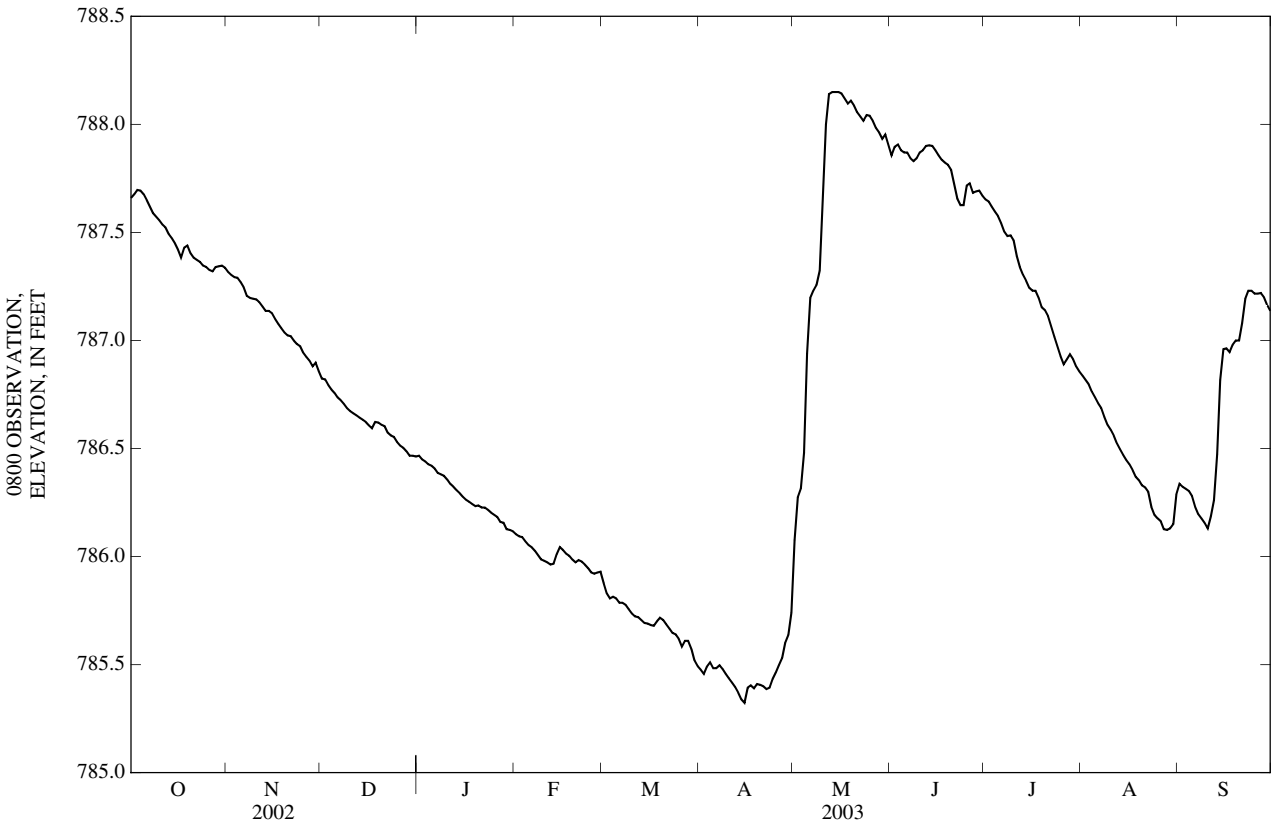
ELEVATION, IN FEET, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	787.68	787.33	786.83	786.46	786.11	785.93	785.49	785.79	787.87	787.66	786.85	786.35
2	787.65	787.31	786.82	786.47	786.10	785.85	785.47	786.22	787.85	787.65	786.83	786.33
3	787.69	787.30	786.82	786.44	786.09	785.82	785.45	786.30	787.92	787.64	786.81	786.32
4	787.70	787.29	786.78	786.44	786.09	785.80	785.51	786.32	787.90	787.61	786.79	786.31
5	787.69	787.29	786.77	786.42	786.06	785.82	785.51	786.56	787.87	787.59	786.75	786.30
6	787.67	787.26	786.75	786.42	786.05	785.80	785.47	787.13	787.87	787.57	786.73	786.27
7	787.64	787.24	786.73	786.40	786.04	785.78	785.49	787.23	787.87	787.53	786.70	786.21
8	787.61	787.19	786.72	786.38	786.02	785.79	785.50	787.23	787.83	787.49	786.68	786.19
9	787.58	787.20	786.70	786.38	786.00	785.77	785.47	787.27	787.83	787.48	786.63	786.17
10	787.57	787.19	786.68	786.37	785.98	785.75	785.45	787.35	787.85	787.49	786.60	786.15
11	787.55	787.19	786.67	786.35	785.98	785.73	785.43	787.76	787.88	787.45	786.58	786.12
12	787.53	787.17	786.66	786.33	785.97	785.72	785.41	788.12	787.88	787.36	786.55	786.22
13	787.52	787.15	786.65	786.32	785.96	785.72	785.39	788.15	787.91	787.33	786.51	786.28
14	787.48	787.13	786.64	786.30	785.97	785.70	785.36	788.15	787.90	787.29	786.49	786.57
15	787.47	787.14	786.63	786.29	786.03	785.69	785.33	788.15	787.90	787.27	786.46	786.94
16	787.44	787.12	786.62	786.27	786.05	785.69	785.32	788.15	787.87	787.23	786.44	786.97
17	787.41	787.09	786.60	786.26	786.02	785.68	785.43	788.14	787.85	787.23	786.42	786.96
18	787.37	787.07	786.59	786.25	786.01	785.68	785.39	788.11	787.83	787.23	786.39	786.94
19	787.46	787.05	786.64	786.24	786.00	785.71	785.39	788.09	787.82	787.18	786.36	787.00
20	787.43	787.03	786.61	786.23	785.98	785.72	785.42	788.12	787.81	787.14	786.35	787.00
21	787.39	787.02	786.61	786.24	785.97	785.70	785.40	788.07	787.78	787.14	786.32	787.00
22	787.38	787.02	786.60	786.22	785.99	785.68	785.40	788.05	787.69	787.10	786.32	787.12
23	787.37	786.99	786.56	786.23	785.97	785.66	785.38	788.03	787.64	787.05	786.29	787.23
24	787.36	786.98	786.56	786.21	785.96	785.64	785.40	788.01	787.62	787.00	786.20	787.23
25	787.34	786.97	786.55	786.20	785.94	785.64	785.45	788.06	787.63	786.96	786.19	787.23
26	787.34	786.93	786.52	786.19	785.92	785.61	785.47	788.03	787.76	786.91	786.17	787.21
27	787.32	786.92	786.51	786.18	785.92	785.57	785.51	788.01	787.71	786.88	786.16	787.22
28	787.32	786.90	786.50	786.15	785.93	785.63	785.54	787.97	787.67	786.93	786.11	787.22
29	787.35	786.87	786.48	786.16	---	785.60	785.63	787.96	787.70	786.94	786.13	787.19
30	787.34	786.91	786.46	786.11	---	785.56	785.64	787.92	787.69	786.90	786.13	787.15
31	787.35	---	786.47	786.13	---	785.50	---	787.97	---	786.87	786.16	---
MAX	787.70	787.33	786.83	786.47	786.11	785.93	785.64	788.15	787.92	787.66	786.85	787.23
MIN	787.32	786.87	786.46	786.11	785.92	785.50	785.32	785.79	787.62	786.87	786.11	786.12
(-)	26,100	25,200	24,300	23,700	23,300	22,500	22,700	27,300	26,800	25,100	23,700	25,700
(=)	-700	-900	-900	-600	-400	-800	+200	+4,600	-500	-1,700	-1,400	+2,000

CAL YR 2002... -3,300
WTR YR 2003....-1,100

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

06906190 LONG BRANCH RESERVOIR NEAR MACON, MO—Continued



06906200 EAST FORK LITTLE CHARITON RIVER NEAR MACON, MO

LOCATION.--Lat 39°44'59", long 92°31'03", in NW ¼ NW ¼ NW ¼ sec.18, T.57 N., R.14 W., Macon County, Hydrologic Unit 10280203, on right bank 250 ft downstream from Long Branch Lake and 3.0 mi west of Macon.

DRAINAGE AREA.--112 mi^2.

PERIOD OF RECORD.--September 1971 to current year. Partial-record station May 1970 to August 1971.

GAGE.--Water-stage recorder. Datum of gage is 741.43 ft above National Geodetic Vertical Datum of 1929. Sept. 8, 1971, to Aug. 1, 1985, water-stage recorder at site 400 ft downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Complete regulation by Long Branch Reservoir (06906190), 250 ft upstream. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,700 ft^3/s, Apr. 21, 1973; gage height, 20.60 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	6.4	8.0	9.0	8.7	7.2	9.0	14	8.6	7.5	7.2	e8.8
2	5.8	6.3	8.0	9.0	8.8	7.2	9.1	14	8.4	7.6	7.2	e9.0
3	5.8	6.6	8.2	9.0	8.7	7.4	9.1	12	8.2	7.3	7.4	8.7
4	5.7	6.4	8.1	9.0	8.7	7.3	9.3	12	7.6	7.1	7.3	8.7
5	6.0	6.5	8.0	8.9	8.8	e7.3	9.9	12	7.2	7.1	6.6	9.1
6	5.7	6.6	8.4	8.8	8.6	e7.4	10	12	7.0	7.1	7.4	9.1
7	5.4	6.6	8.3	8.8	8.6	e7.4	10	12	6.7	7.1	7.6	8.8
8	5.5	6.9	8.3	8.9	8.4	e7.4	9.9	12	6.6	7.0	7.7	9.0
9	5.4	6.8	8.3	8.8	8.0	e7.3	9.8	12	6.4	7.1	7.8	8.6
10	5.5	6.7	8.4	8.9	8.0	e7.3	9.6	12	6.5	7.0	7.5	8.5
11	5.4	6.5	8.5	8.7	8.1	e7.4	9.8	12	7.1	7.2	7.8	8.6
12	5.5	6.6	8.6	8.6	7.9	e7.5	10	12	6.9	7.0	8.2	8.6
13	5.5	6.7	8.4	8.7	7.7	e7.5	10	12	6.9	7.1	8.3	8.6
14	5.6	6.6	8.3	8.5	7.7	e7.6	11	11	6.7	7.1	7.8	8.7
15	5.6	6.5	8.7	8.3	7.8	e7.6	11	11	6.6	7.0	7.8	9.0
16	5.7	6.4	8.8	8.3	e7.1	e7.5	11	9.3	6.9	7.0	8.0	8.7
17	5.7	6.8	8.9	8.1	e7.0	e7.6	12	8.8	6.9	7.0	8.0	8.9
18	6.0	6.9	8.8	8.8	e6.9	e7.5	11	8.8	6.6	6.8	8.1	8.7
19	5.9	7.0	8.7	8.7	e6.9	e7.6	11	8.5	6.8	6.6	8.1	8.9
20	5.9	6.8	8.8	8.7	e6.7	e7.7	12	8.7	6.8	7.2	8.2	8.7
21	5.7	6.8	8.8	8.7	6.8	e7.5	12	8.6	6.9	7.1	8.0	8.7
22	5.8	7.1	8.7	8.4	7.0	e7.4	12	8.8	6.9	7.2	8.1	8.7
23	5.8	7.1	8.7	7.9	7.0	7.6	12	9.0	7.0	7.3	8.1	8.8
24	6.0	7.2	8.7	8.1	7.4	7.9	12	9.0	7.4	7.0	8.1	8.7
25	6.3	7.0	8.6	8.4	7.3	8.3	12	9.0	7.0	6.5	8.0	8.8
26	6.4	7.1	8.5	8.1	7.1	8.5	12	8.8	7.2	6.6	8.3	8.7
27	6.3	7.1	8.8	8.2	7.0	8.5	12	9.0	7.2	6.8	8.8	8.8
28	6.5	7.3	8.7	8.3	7.0	8.7	14	8.8	7.4	7.0	8.9	8.8
29	6.5	7.5	9.0	8.6	---	8.7	14	8.5	7.4	6.8	8.5	8.8
30	6.5	7.5	9.0	8.6	---	8.7	14	8.2	7.5	6.9	8.3	9.0
31	6.3	---	8.9	8.7	---	8.8	---	8.0	---	7.5	8.6	---
MEAN	5.85	6.81	8.55	8.60	7.70	7.72	11.0	10.4	7.11	7.05	7.93	8.78
MAX	6.5	7.5	9.0	9.0	8.8	8.8	14	14	8.6	7.6	8.9	9.1
MIN	5.4	6.3	8.0	7.9	6.7	7.2	9.0	8.0	6.4	6.5	6.6	8.5
IN.	0.06	0.07	0.09	0.09	0.07	0.08	0.11	0.11	0.07	0.07	0.08	0.09

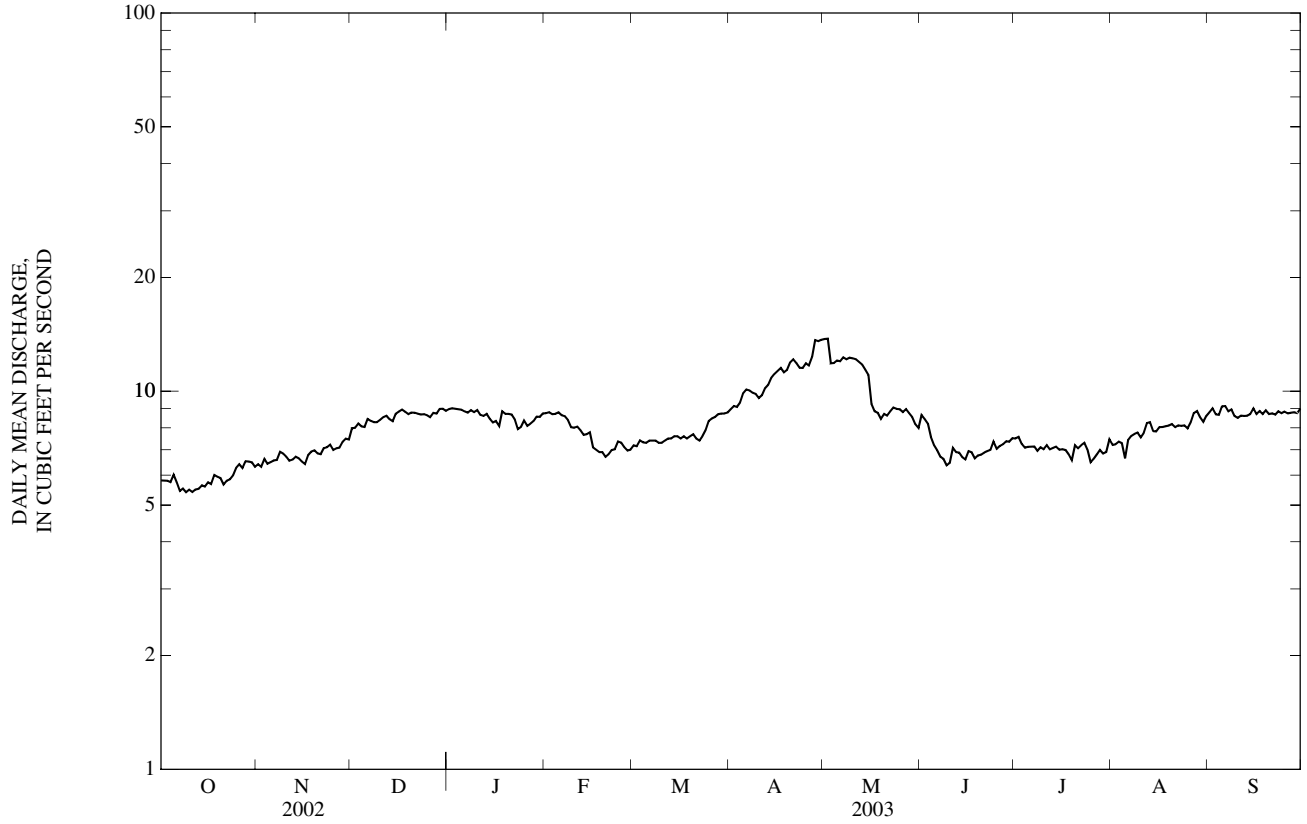
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2003[a], BY WATER YEAR (WY)

MEAN	55.0	62.3	74.9	45.7	55.6	108	125	187	128	117	65.6	48.9
MAX	406	354	304	223	200	502	475	680	369	743	401	341
(WY)	(1987)	(1986)	(1993)	(1993)	(1999)	(1985)	(1983)	(1995)	(1995)	(1993)	(1981)	(1981)
MIN	0.16	0.27	0.000	0.000	0.000	7.30	7.27	7.21	5.45	5.52	2.48	7.06
(WY)	(1979)	(1979)	(1979)	(1979)	(1979)	(1989)	(1989)	(1988)	(1988)	(1989)	(1980)	(1984)

06906200 EAST FORK LITTLE CHARITON RIVER NEAR MACON, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1979 - 2003[a]	
ANNUAL MEAN	88.5		8.12		89.7	
HIGHEST ANNUAL MEAN					242	1993
LOWEST ANNUAL MEAN					7.13	1989
HIGHEST DAILY MEAN	1,270	May 13	14	Apr 28-May 2	1,380	May 18, 1995
LOWEST DAILY MEAN	5.3	Sep 30	5.4	Oct 7,9,11	0.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	5.5	Oct 7	5.5	Oct 7	0.00	Many Years
MAXIMUM PEAK FLOW	---		15	Apr 28	1,560	May 7, 1996
MAXIMUM PEAK STAGE	---		7.63	Apr 28	15.00	May 13, 2002
INSTANTANEOUS LOW FLOW	---		0.68	Aug 5	0.00	Many Years
ANNUAL RUNOFF (INCHES)	10.72		0.99		10.88	
10 PERCENT EXCEEDS	262		9.9		278	
50 PERCENT EXCEEDS	9.8		8.0		41	
90 PERCENT EXCEEDS	6.5		6.5		6.8	

e Estimated
[a] Post-regulation period.



06906300 EAST FORK LITTLE CHARITON RIVER NEAR HUNTSVILLE, MO

LOCATION.--Lat 39°27'18", long 92°34'07", in NW ¼ NW ¼ NW ¼ sec.26, T.54 N., R.15 W., Randolph County, Hydrologic Unit 10280203, on right bank at downstream end of bridge on State Highway C, 1.0 mi downstream from Sugar Creek, and 1.5 mi northwest of Huntsville.

DRAINAGE AREA.--220 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year. Occasional low-flow measurements, water years 1942-43, 1945-46.

GAGE.--Water-stage recorder. Datum of gage is 655.86 ft above National Geodetic Vertical Datum of 1929 (levels by the Missouri State Highway and Transportation Commission). Oct. 29, 1962 to July 18, 1972, on former bridge, at same datum; July 18, 1972 to Sept. 23, 1974, at datum 0.63 ft higher.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Some regulation by Long Branch Reservoir (station 06906190), 34 mi upstream since 1978. Low flow affected by operation of pumps 7 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft^3/s, Apr. 21, 1973; gage height, 20.78 ft, former datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	14	7.3	10	e11	8.3	20	238	17	23	8.4	656
2	13	12	8.5	10	e12	7.9	17	73	23	17	13	129
3	14	14	9.2	9.1	e12	6.6	17	38	41	15	21	47
4	19	14	7.7	12	e12	e8.5	18	37	25	14	11	29
5	19	14	7.8	12	e12	6.5	18	134	19	13	10	21
6	23	14	11	12	e11	7.7	16	65	38	13	9.7	18
7	23	13	12	9.4	e9.0	7.8	23	37	40	12	9.5	16
8	21	12	10	13	7.6	9.6	22	34	26	12	9.8	15
9	19	12	9.4	12	7.8	7.9	19	70	20	12	9.5	14
10	17	12	11	11	8.1	7.2	18	1,670	25	12	9.6	14
11	16	12	11	7.6	7.8	6.7	18	759	32	12	9.4	14
12	13	12	13	9.2	7.9	9.7	17	162	223	11	9.4	43
13	13	11	12	11	7.8	195	17	80	667	11	8.9	415
14	14	13	11	10	12	38	18	53	384	11	9.1	386
15	13	14	11	8.5	76	25	16	42	86	11	9.1	108
16	12	12	12	9.7	44	22	16	33	44	10	9.3	46
17	13	11	12	9.5	44	20	59	31	31	15	9.3	32
18	14	11	18	9.0	12	19	34	27	24	14	9.3	23
19	24	10	18	9.4	13	29	24	25	20	11	9.6	21
20	20	10	13	9.6	16	50	30	28	19	11	11	21
21	16	10	11	9.7	17	37	32	25	19	11	9.4	39
22	15	9.5	11	9.2	15	25	24	22	16	10	8.9	132
23	14	9.6	9.8	e9.0	9.5	22	21	21	15	10	8.7	47
24	14	9.7	10	e8.0	e9.0	21	40	26	14	10	9.0	26
25	14	9.5	9.3	e8.5	e8.0	25	61	46	61	10	8.9	19
26	14	9.2	9.5	e9.0	7.5	21	46	29	182	9.2	9.0	17
27	13	8.7	11	e9.0	7.3	20	31	23	49	8.9	9.8	25
28	15	9.0	11	e9.2	7.6	29	250	21	27	10	9.7	18
29	19	9.4	11	e9.5	---	32	139	18	21	11	21	15
30	20	10	12	e9.5	---	23	48	18	35	9.0	16	14
31	19	---	12	e9.5	---	23	---	18	---	8.4	895	---
MEAN	16.3	11.4	11.0	9.81	15.1	24.9	37.6	126	74.8	11.9	39.1	80.7
MAX	24	14	18	13	76	195	250	1,670	667	23	895	656
MIN	12	8.7	7.3	7.6	7.3	6.5	16	18	14	8.4	8.4	14
IN.	0.09	0.06	0.06	0.05	0.07	0.13	0.19	0.66	0.38	0.06	0.20	0.41

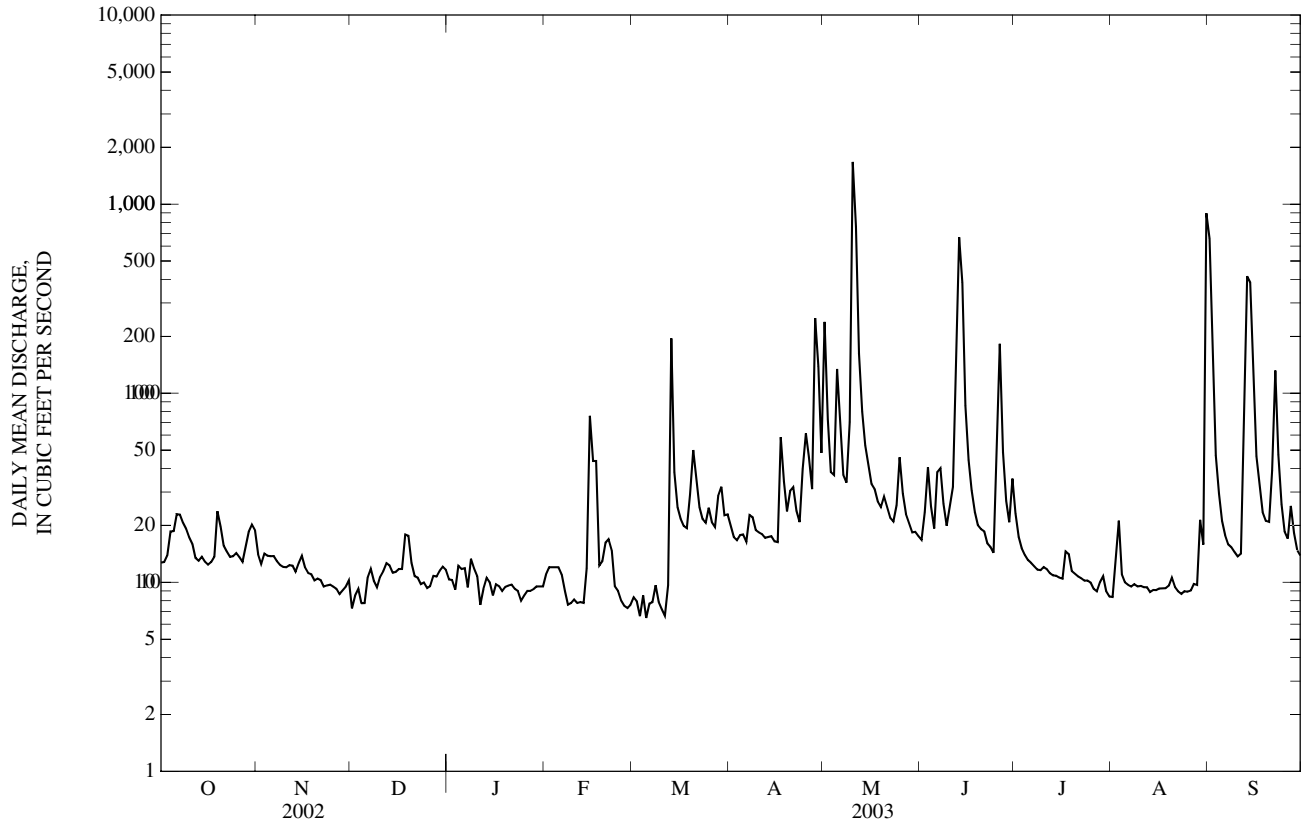
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2003[a], BY WATER YEAR (WY)

MEAN	100	125	134	94.5	166	220	243	354	222	218	103	105
MAX	1,019	756	666	362	732	945	935	1,403	562	1,569	514	774
(WY)	(1987)	(1986)	(1983)	(1993)	(1985)	(1985)	(1983)	(2002)	(1995)	(1993)	(1993)	(1993)
MIN	6.44	2.66	4.95	6.48	7.59	10.6	10.2	12.1	2.56	5.34	3.64	2.70
(WY)	(1981)	(1981)	(1989)	(1989)	(1989)	(1989)	(1989)	(1988)	(1988)	(1989)	(1980)	(1988)

06906300 EAST FORK LITTLE CHARITON RIVER NEAR HUNTSVILLE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1979 - 2003[a]	
ANNUAL MEAN	182		38.3		174	
HIGHEST ANNUAL MEAN					468	1993
LOWEST ANNUAL MEAN					17.3	1989
HIGHEST DAILY MEAN	5,770	May 9	1,670	May 10	7,760	Oct 3, 1986
LOWEST DAILY MEAN	7.3	Dec 1	6.5	Mar 5	0.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	8.6	Nov 29	7.5	Feb 27	0.40	Oct 9, 1980
MAXIMUM PEAK FLOW	---		2,820	May 10	10,400	Jun 27, 1981
MAXIMUM PEAK STAGE	---		11.95	May 10	19.30	Sep 2, 1982
INSTANTANEOUS LOW FLOW	---		5.1	Mar 3,5	0.00	Many Years
ANNUAL RUNOFF (INCHES)	11.21		2.36		10.73	
10 PERCENT EXCEEDS	407		46		383	
50 PERCENT EXCEEDS	26		14		58	
90 PERCENT EXCEEDS	11		9.0		8.8	

e Estimated
[a] Post-regulation period.



06906300 EAST FORK LITTLE CHARITON RIVER NEAR HUNTSVILLE, MO—Continued
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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 26...	1610	Environmental	8.9	12.8	98	8.0	766	3.5	330	76.1	32.8	4.42
JAN 09...	1250	Environmental	12	14.4	107	8.2	854	2.0	--	--	--	--
MAR 19...	0955	Environmental	23	8.8	88	8.0	1,080	13.0	--	--	--	--
MAY 01...	1610	Environmental	205	7.5	82	7.7	556	18.0	250	66.4	20.2	4.68
JUL 31...	0925	Environmental	8.5	6.0	75	8.0	394	25.5	--	--	--	--
SEP 10...	1355	Environmental	14	9.8	117	8.2	656	24.0	--	--	--	--

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 26...	38.3	98	97	118	<1	5.85	0.20	291	557	<10	0.35	<0.04	<0.06
JAN 09...	--	100	99	121	<1	--	--	--	--	<10	0.39	<0.04	E.05
MAR 19...	--	111	109	133	<1	--	--	--	--	14	0.60	0.05	0.09
MAY 01...	11.3	85	85	103	<1	4.29	0.25	186	401	804	2.4	0.07	0.44
JUL 31...	--	78	76	92	<1	--	--	--	--	13	0.48	<0.04	0.07
SEP 10...	--	94	97	114	<1	--	--	--	--	20	0.64	<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 26...	<0.008	<0.02	<0.04	E.02	33k	55	130	9	158	0.6	E.02	<0.2	E4n
JAN 09...	<0.008	<0.02	<0.04	<0.04	20k	9k	26k	--	--	--	--	--	--
MAR 19...	<0.008	<0.02	<0.04	0.04	100ki	160	42	--	--	--	--	--	--
MAY 01...	0.011	0.02	0.04	0.84	3,800	2,200	8,500	8	9,210	0.8	E.03	0.7	<6
JUL 31...	<0.008	<0.02	E.03	0.06	57	160	73	--	--	--	--	--	--
SEP 10...	<0.008	<0.02	<0.04	0.06	64	130	110	--	--	--	--	--	--

06906300 EAST FORK LITTLE CHARITON RIVER NEAR HUNTSVILLE, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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 26...	E6	<0.08	M	154	<0.02	E.4	2	3
JAN 09...	--	--	--	--	--	--	--	--
MAR 19...	--	--	--	--	--	--	--	--
MAY 01...	28	<0.08	11	791	0.04	1.4	1	67
JUL 31...	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	--	--	--	--	--

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

Value qualifier codes used in this table:
i -- Result may be affected by interference
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

06906500 MISSOURI RIVER AT GLASGOW, MO

LOCATION.--Lat 39°13'20", long 92°51'00", in NE $^1/_4$ NE $^1/_4$ NE $^1/_4$ sec.3, T.51 N., R.17 W., Howard County, Hydrologic Unit 10300102, at bridge on State Highway 240 in Glasgow, 75 ft downstream from Chicago and Alton Railway bridge, 1 mi downstream from Little Chariton River, and at mile 226.8.

DRAINAGE AREA.--497,900 mi^2. The 3,959 mi^2 in Great Divide basin are not included.

PERIOD OF RECORD.--October 2000 to current year. Gage-height records collected at site 1878-99 in reports of the Missouri River Commission. Gage-height records collected from January 1929 to August 1950 in files of the Corps of Engineers, Kansas City District. August 1950 to September 2000 gage-height records collected in files of the U.S.G.S.

GAGE.--Water-stage recorder. Datum of gage 586.49 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair except for discharges above 100,000 ft^3/s, which are poor. Some regulation from many upstream reservoirs. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 29, 1993 reached a stage of 39.50 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

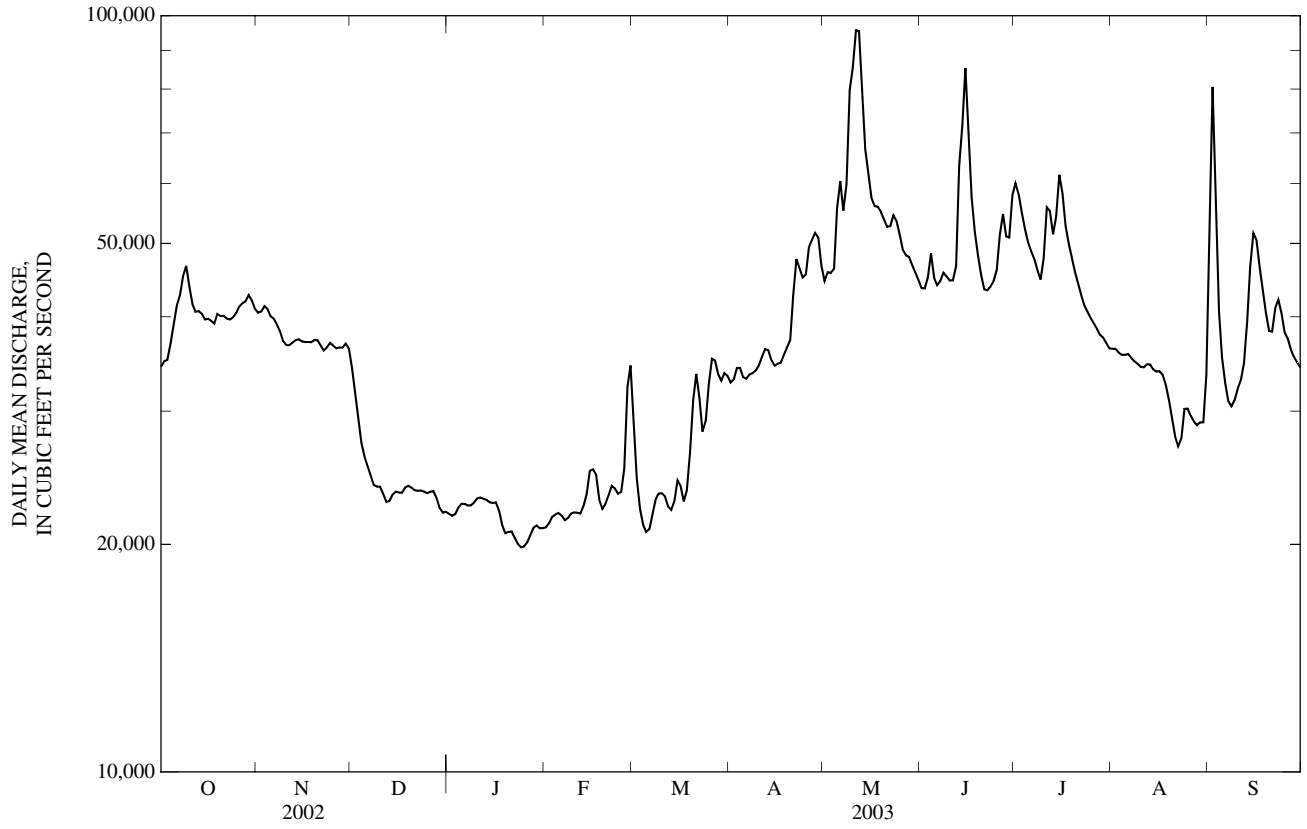
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34,300	40,500	34,200	21,900	21,100	28,900	32,700	44,600	43,600	60,000	36,300	55,300
2	34,900	40,600	31,800	21,800	21,300	24,500	33,100	45,800	43,600	58,100	36,300	80,500
3	35,100	41,300	29,300	21,900	21,800	22,300	34,200	45,700	45,100	55,000	35,800	56,500
4	36,800	41,000	27,200	22,400	21,900	21,200	34,200	46,300	48,500	52,300	35,600	40,700
5	39,100	40,100	26,100	22,600	22,000	20,800	33,300	55,700	45,000	50,200	35,600	35,300
6	41,300	39,800	25,400	22,600	21,800	20,900	33,100	60,400	44,000	48,900	35,700	32,600
7	42,700	39,100	24,700	22,500	21,500	21,900	33,500	55,300	44,600	47,700	35,300	30,900
8	45,200	38,200	24,000	22,500	21,700	22,900	33,700	59,900	45,700	46,100	34,900	30,400
9	46,700	37,100	23,800	22,700	22,000	23,300	34,000	79,800	45,200	44,800	34,700	31,000
10	44,000	36,700	23,800	23,000	22,000	23,400	34,500	85,300	44,600	47,700	34,300	32,100
11	41,600	36,700	23,300	23,100	22,000	23,100	35,400	95,600	44,700	55,800	34,300	33,000
12	40,600	37,000	22,700	23,000	22,000	22,400	36,200	95,400	46,700	55,200	34,600	34,700
13	40,700	37,200	22,800	22,900	22,500	22,200	36,100	77,200	63,200	51,400	34,600	39,400
14	40,400	37,300	23,300	22,700	23,300	22,800	35,100	66,600	71,700	54,200	34,100	46,600
15	39,700	37,100	23,500	22,700	25,000	24,300	34,500	61,600	85,300	61,600	33,800	51,600
16	39,800	37,000	23,400	22,700	25,100	23,900	34,700	57,400	69,700	58,200	33,900	50,600
17	39,500	37,000	23,400	22,100	24,700	22,800	34,800	56,000	57,500	52,800	33,500	46,500
18	39,200	37,000	23,800	21,200	22,900	23,600	35,600	55,900	51,700	50,000	32,500	43,600
19	40,300	37,300	23,900	20,700	22,300	26,500	36,400	55,100	48,300	48,000	31,000	40,500
20	40,100	37,200	23,800	20,800	22,600	31,100	37,200	53,800	45,400	45,800	29,400	38,300
21	40,100	36,600	23,600	20,800	23,200	33,600	42,700	52,600	43,500	44,300	27,800	38,200
22	39,800	36,100	23,500	20,400	23,900	31,200	47,700	52,700	43,300	42,700	27,000	41,100
23	39,600	36,400	23,600	20,000	23,700	28,200	46,300	54,500	43,800	41,400	27,600	42,100
24	39,900	36,900	23,500	19,800	23,300	29,100	45,100	53,500	44,600	40,600	30,200	40,400
25	40,400	36,600	23,400	19,900	23,500	32,500	45,500	51,400	46,100	39,800	30,200	38,100
26	41,300	36,300	23,500	20,100	25,200	35,200	49,400	49,000	51,300	39,200	29,600	37,400
27	41,700	36,400	23,500	20,600	32,300	35,000	50,600	48,200	54,700	38,600	29,100	36,200
28	41,900	36,400	23,000	21,000	34,500	33,600	51,600	48,000	51,100	37,900	28,800	35,400
29	42,700	36,900	22,300	21,200	---	32,900	50,900	46,800	50,900	37,500	29,000	34,800
30	42,000	36,300	22,000	21,000	---	33,700	46,700	45,800	57,900	36,900	29,000	34,300
31	40,900	---	22,100	21,000	---	33,400	---	44,700	---	36,300	33,500	---
MEAN	40,400	37,670	24,460	21,660	23,540	26,810	38,960	58,080	50,710	47,710	32,520	40,940
MAX	46,700	41,300	34,200	23,100	34,500	35,200	51,600	95,600	85,300	61,600	36,300	80,500
MIN	34,300	36,100	22,000	19,800	21,100	20,800	32,700	44,600	43,300	36,300	27,000	30,400
IN.	0.09	0.08	0.06	0.05	0.05	0.06	0.09	0.13	0.11	0.11	0.08	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

MEAN	43,980	41,710	27,640	26,010	38,100	51,640	60,890	88,140	87,660	52,520	39,920	44,450
MAX	47,720	44,860	33,050	29,060	58,990	96,960	93,040	106,000	155,200	72,690	49,530	55,750
(WY)	(2002)	(2001)	(2002)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)
MIN	40,400	37,670	24,460	21,660	23,540	26,810	38,960	58,080	50,710	37,180	32,520	36,670
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2002)

06906500 MISSOURI RIVER AT GLASGOW, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2001 - 2003	
ANNUAL MEAN	42,760		37,010		50,230	
HIGHEST ANNUAL MEAN					69,160	2001
LOWEST ANNUAL MEAN					37,010	2003
HIGHEST DAILY MEAN	209,000	May 14	95,600	May 11	261,000	Jun 8, 2001
LOWEST DAILY MEAN	22,000	Dec 30	19,800	Jan 24	18,400	Dec 20, 2000
ANNUAL SEVEN-DAY MINIMUM	22,800	Dec 25	20,200	Jan 21	19,900	Dec 19, 2000
MAXIMUM PEAK FLOW	---		103,000	May 12	272,000	Jun 7, 2001
MAXIMUM PEAK STAGE	---		19.11	May 12	31.66	Jun 7, 2001
INSTANTANEOUS LOW FLOW	---		19,700	Jan 25	18,300	Dec 20, 2000
ANNUAL RUNOFF (INCHES)	1.16		1.01		1.37	
10 PERCENT EXCEEDS	63,100		53,100		89,300	
50 PERCENT EXCEEDS	37,100		36,200		41,600	
90 PERCENT EXCEEDS	25,300		22,200		23,900	



06906800 LAMINE RIVER NEAR OTTERVILLE, MO

LOCATION.--Lat 38°42'09", long 92°58'42", in NE ¼ NE ¼ NW ¼ sec.2, T.45 N., R.19 W., Cooper County, Hydrologic Unit 10300103, on left bank at the left downstream end of Highway A, 7.2 mi downstream from confluence of Flat Creek and Richland Creek, 2.2 mi upstream from Otter Creek, and 1.1 mi east of Otterville.

DRAINAGE AREA.--543 mi^2.

PERIOD OF RECORD.--October 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 652.87 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharge, which is fair. U.S.G.S satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	9.0	7.2	12	17	21	100	171	31	11	2.6	2,680
2	4.1	8.6	7.2	14	17	21	79	306	37	11	2.6	1,410
3	6.3	8.8	7.2	15	17	21	64	299	74	9.9	2.2	304
4	6.1	8.1	7.3	15	17	21	55	4,040	81	9.3	2.0	140
5	6.9	7.7	7.5	15	16	22	48	3,650	76	8.7	1.9	77
6	7.5	7.8	7.7	15	16	22	48	980	70	8.0	1.9	51
7	8.6	8.0	7.9	15	16	24	350	1,780	65	7.4	1.8	38
8	8.0	7.7	8.0	16	15	23	321	1,020	107	6.9	1.7	31
9	6.7	7.2	8.0	16	15	22	186	912	74	6.4	1.6	25
10	6.3	6.3	8.0	16	15	21	126	1,320	63	6.4	1.5	22
11	6.2	5.8	8.2	16	16	21	95	1,630	929	6.1	1.5	21
12	5.7	5.3	8.2	15	18	23	77	483	479	6.0	1.5	230
13	5.4	5.2	8.4	15	15	159	65	279	181	5.5	1.4	134
14	5.1	5.3	8.2	15	18	266	54	203	94	5.1	1.5	110
15	4.8	6.1	8.2	15	23	222	47	156	59	4.9	1.4	58
16	4.4	6.6	8.2	15	38	127	43	125	43	4.7	1.4	55
17	4.2	6.9	8.2	14	36	90	44	122	35	4.7	1.3	43
18	4.0	7.7	12	14	32	71	44	124	29	4.5	1.1	32
19	4.8	7.8	30	13	29	63	43	113	26	4.3	1.1	28
20	5.4	7.9	32	14	27	94	46	121	23	4.0	1.7	24
21	5.5	7.9	24	14	25	255	50	96	20	3.7	2.3	23
22	6.1	7.5	18	13	24	224	52	76	18	3.4	2.5	45
23	6.7	7.3	16	13	24	141	45	62	17	3.1	2.1	53
24	6.9	7.2	15	13	24	98	1,310	54	16	2.8	1.8	43
25	8.2	7.1	15	13	22	82	3,840	50	15	2.8	1.9	33
26	8.5	6.9	15	14	22	71	1,320	46	18	2.7	1.8	39
27	7.6	6.9	14	13	21	63	516	42	18	2.6	1.8	59
28	6.4	7.0	14	13	21	78	323	39	16	2.4	1.8	32
29	8.9	7.0	13	14	---	e220	330	35	14	2.3	2.4	24
30	10	7.1	13	15	---	191	220	36	13	2.4	3.3	21
31	9.5	---	13	16	---	139	---	34	---	2.6	5.8	---
MEAN	6.40	7.19	12.2	14.4	21.3	94.1	331	594	91.4	5.34	1.97	196
MAX	10	9.0	32	16	38	266	3,840	4,040	929	11	5.8	2,680
MIN	3.7	5.2	7.2	12	15	21	43	34	13	2.3	1.1	21

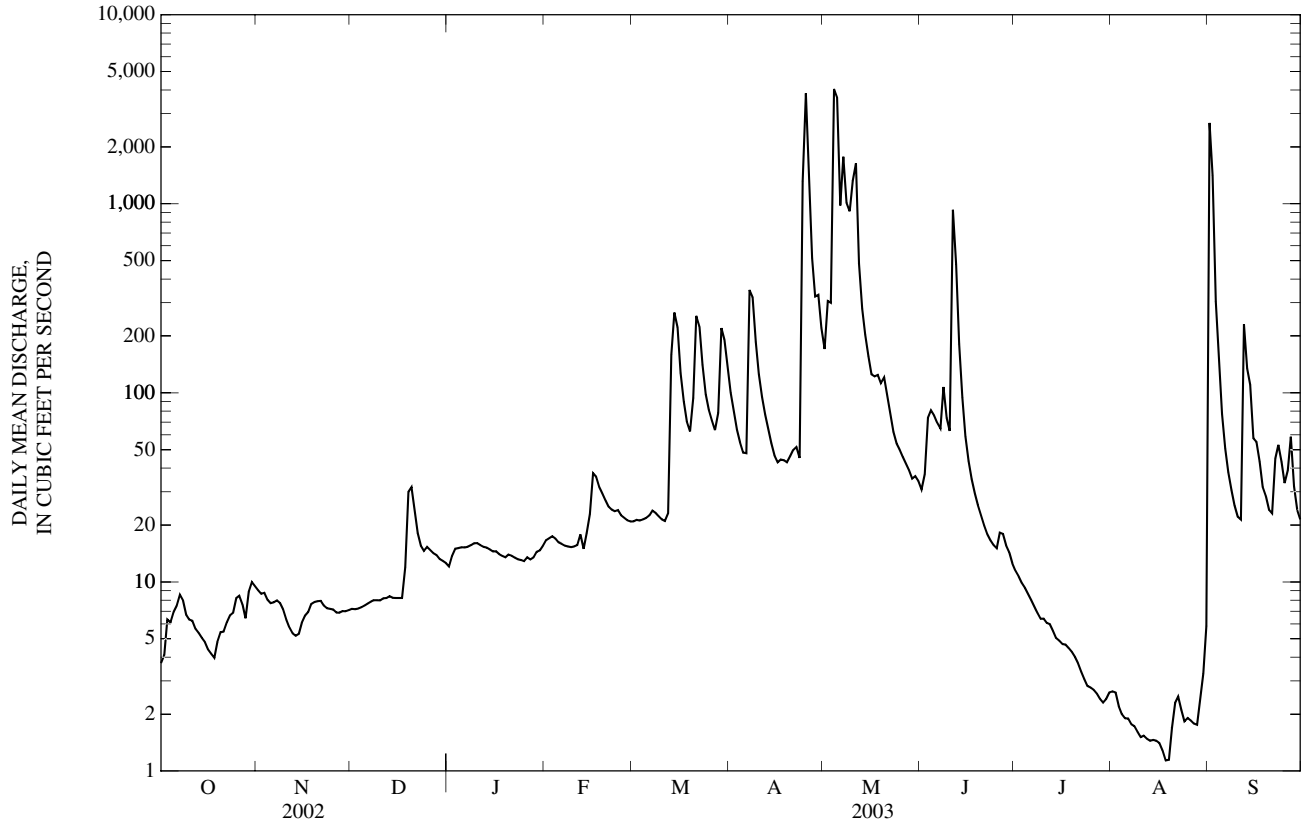
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2003, BY WATER YEAR (WY)

MEAN	183	493	298	312	602	546	888	1,308	634	616	141	287
MAX	2,130	3,347	1,564	956	2,422	2,174	3,809	4,718	3,176	4,077	850	3,689
(WY)	(1999)	(1993)	(1993)	(1999)	(1997)	(1998)	(1994)	(1990)	(1998)	(1993)	(1995)	(1993)
MIN	6.40	7.19	11.1	14.4	21.3	46.4	22.2	38.8	10.5	5.34	1.97	4.03
(WY)	(2003)	(2003)	(1990)	(2003)	(2003)	(1996)	(2000)	(1992)	(1988)	(2003)	(2003)	(1999)

06906800 LAMINE RIVER NEAR OTTERVILLE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1987 - 2003	
ANNUAL MEAN	289		115		525	
HIGHEST ANNUAL MEAN					1,464	1993
LOWEST ANNUAL MEAN					115	2003
HIGHEST DAILY MEAN	20,200	May 9	4,040	May 4	47,000	May 18, 1995
LOWEST DAILY MEAN	3.7	Oct 1	1.1	Aug 18,19	1.1	Aug 18,19, 2003
ANNUAL SEVEN-DAY MINIMUM	4.4	Sep 26	1.3	Aug 13	1.3	Aug 13, 2003
MAXIMUM PEAK FLOW	---		9,490	May 4	84,900	May 18, 1995
MAXIMUM PEAK STAGE	---		14.16	May 4	29.43	May 18, 1995
INSTANTANEOUS LOW FLOW	---		1.1	Aug 18,19	1.1	Aug 18,19, 2003
ANNUAL RUNOFF (INCHES)	7.22		2.87		13.13	
10 PERCENT EXCEEDS	335		175		748	
50 PERCENT EXCEEDS	26		16		67	
90 PERCENT EXCEEDS	5.7		2.8		8.3	

e Estimated



06907300 LAMINE RIVER NEAR PILOT GROVE, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 38°53'32", long 93°02'00", in SE ¼ NW ¼ NW ¼ sec.32, T.48 N., R.19 W., Cooper County, Hydrologic Unit 10300102, approximately 2 mi southeast of County Highway Z on Shackleford Road.

DRAINAGE AREA.--949 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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												
12...	1535	Environmental	18	9.2	83	7.8	448	10.1	160	39.3	15.5	7.12
JAN												
13...	1505	Environmental	27	18.7	136	8.3	405	1.7	--	--	--	--
FEB												
03...	1215	Environmental	33	19.5	148	8.4	614	2.5	--	--	--	--
03...	1216	Replicate	--	--	--	--	--	--	--	--	--	--
MAR												
10...	1525	Environmental	38	15.8	127	8.7	431	5.4	--	--	--	--
APR												
09...	1145	Environmental	302	10.6	94	7.7	375	9.6	--	--	--	--
MAY												
27...	1425	Environmental	82	13.6	160	8.6	384	22.6	160	41.1	14.3	4.66
JUN												
16...	1330	Environmental	113	6.0	76	7.7	256	26.4	--	--	--	--
JUL												
15...	0915	Environmental	16	5.8	78	7.5	375	29.0	160	38.6	14.5	6.65
SEP												
03...	1340	Environmental	1,040	6.1	70	7.1	161	21.3	--	--	--	--

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													
12...	25.5	166	166	202	<1	26.4	0.2	20.2	260	<10	0.73	<0.04	0.87
JAN													
13...	--	193	192	227	4	--	--	--	--	<10	0.50	<0.04	5.55
FEB													
03...	--	188	189	221	5	--	--	--	--	<10	0.62	<0.04	0.33
03...	--	--	--	--	--	--	--	--	--	<10	0.61	<0.04	1.66
MAR													
10...	--	164	166	177	13	--	--	--	--	<10	0.33	<0.04	0.11
APR													
09...	--	147	147	179	<1	--	--	--	--	39	0.55	<0.04	0.08
MAY													
27...	12.3	156	156	167	12	16.5	<0.2	22.5	235	36	0.99	<0.04	<0.06
JUN													
16...	--	100	100	122	<1	--	--	--	--	64	1.0	<0.04	1.25
JUL													
15...	15.2	133	134	164	<1	19.4	0.2	14.4	217	12	0.90	<0.04	<0.06
SEP													
03...	--	52	52	63	<1	--	--	--	--	106	1.3	0.04	1.29

06907300 LAMINE RIVER NEAR PILOT GROVE, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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)
NOV													
12...	0.009	1.46	1.39	1.51	2k	6k	13k	<2	65	2.5	E.03	<0.2	E6n
JAN													
13...	0.017	2.15	2.08	2.24	7k	23k	4k	--	--	--	--	--	--
FEB													
03...	0.012	1.49	1.54	1.63	5k	6k	7k	--	--	--	--	--	--
03...	0.010	1.52	1.54	1.62	1k	4k	12k	--	--	--	--	--	--
MAR													
10...	0.016	<0.02	0.04	E.02	--e	--e	1k	--	--	--	--	--	--
APR													
09...	<0.008	0.13	0.13	0.22	250	340	180	--	--	--	--	--	--
MAY													
27...	<0.008	0.12	0.15	0.28	21	27	17k	4	377	1.9	E.02n	<0.2	<7
JUN													
16...	0.041	0.19	0.21	0.39	120k	290	104	--	--	--	--	--	--
JUL													
15...	<0.008	0.08	0.12	0.22	14k	25k	33k	2	270	4.1	<0.04	<0.2	<7
SEP													
03...	0.026	0.26d	0.34	0.53	920k	1,050	600	--	--	--	--	--	--

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								
12...	44	<0.08	<1	126	<0.02	E.3	1	E2
JAN								
13...	--	--	--	--	--	--	--	--
FEB								
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
MAR								
10...	--	--	--	--	--	--	--	--
APR								
09...	--	--	--	--	--	--	--	--
MAY								
27...	15	<0.08	Mn	7.3	<0.02	E.4n	1	3
JUN								
16...	--	--	--	--	--	--	--	--
JUL								
15...	E6n	<0.08	<1	6.2	<0.02	E.3n	<1	2
SEP								
03...	--	--	--	--	--	--	--	--

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

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

06908000 BLACKWATER RIVER NEAR BLUE LICK, MO

LOCATION.--Lat 38°59'32", long 93°11'48", in SW 1/4 SW 1/4 SW 1/4 sec.26, T.49 N., R.21 W., Saline County, Hydrologic Unit 10300104, on left bank at upstream side of bridge on northbound lane of U.S. Highway 65, 1.2 mi downstream from Finney Creek, 1.8 mi southeast of Blue Lick, and at mile 30.3.

DRAINAGE AREA.--1,120 mi^2.

PERIOD OF RECORD.--June 1922 to September 1933, May 1938 to current year. Published as "at Blue Lick" for periods of record from 1922 to 2000.

REVISED RECORDS.--WSP 1006: 1929. WDR MO-84-1: 1982(M).

GAGE.--Water-stage recorder. Datum of gage is 593.79 ft above National Geodetic Vertical Datum of 1929. Prior to July 25, 1925, nonrecording gage at site 75 ft downstream at datum 0.10 ft lower; July 25 to Sept. 30, 1933, and May 23, 1938 to Dec. 3, 1956, nonrecording gage at site 25 ft downstream at same datum; Dec. 4, 1956, to Oct. 1, 1986, at site 0.5 mi upstream at present datum.

REMARKS.--No estimated daily discharges. Records good. U.S. Army Corps of Engineers satellite telemeter at station. Published as "Blackwater River at Blue Lick" for periods of record from 1922 to 2000.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

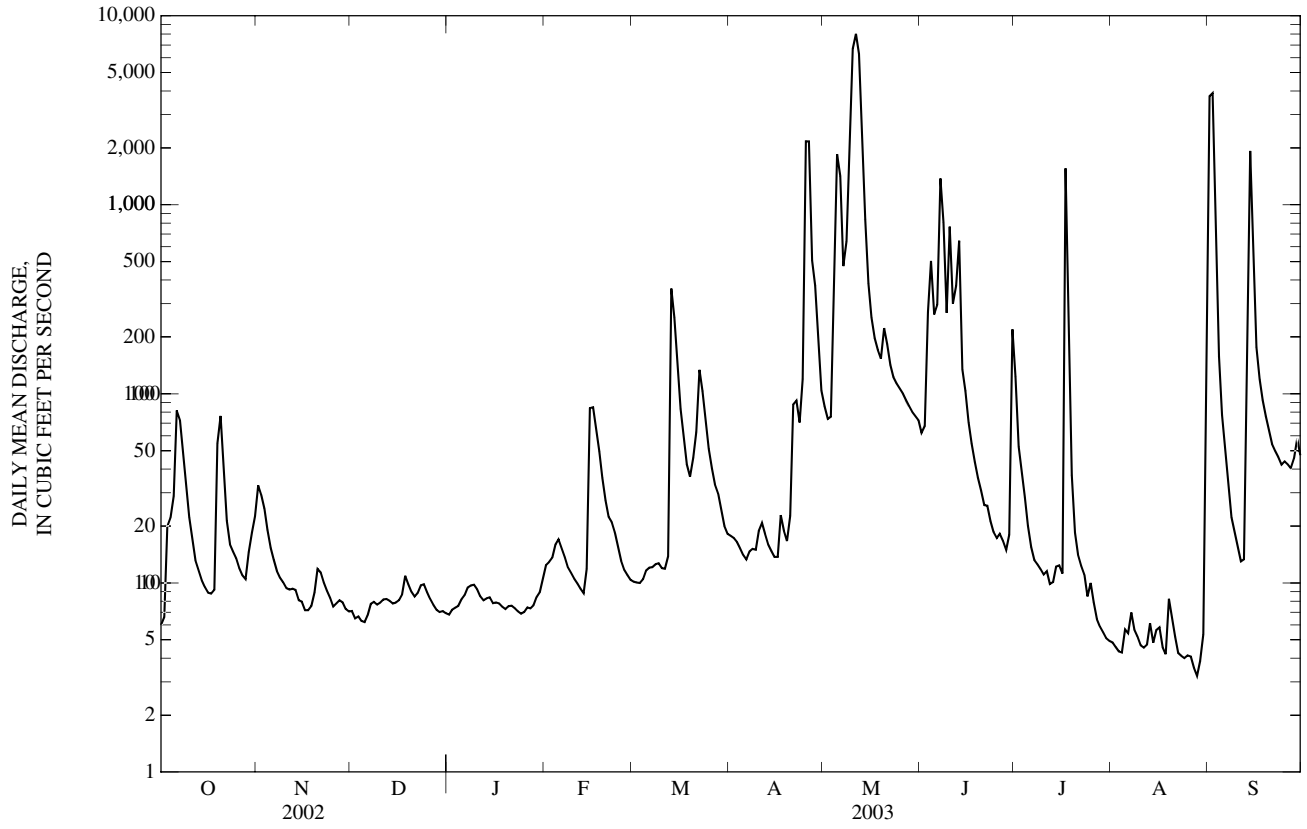
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	33	7.1	6.8	12	10	18	86	62	123	4.8	3,760
2	6.6	29	6.5	7.2	13	10	17	74	67	53	4.6	3,900
3	20	25	6.7	7.4	14	10	16	76	271	38	4.3	1,070
4	22	19	6.3	7.6	16	10	15	445	505	28	4.3	158
5	29	15	6.2	8.2	17	12	14	1,850	263	20	5.7	77
6	82	13	6.7	8.6	15	12	13	1,420	295	16	5.4	49
7	73	12	7.8	9.5	14	12	15	473	1,380	13	7.0	32
8	46	11	7.9	9.7	12	13	15	642	808	13	5.7	22
9	31	10	7.7	9.8	11	13	15	1,970	268	12	5.2	19
10	22	9.4	7.9	9.2	11	12	19	6,690	766	11	4.7	16
11	17	9.2	8.2	8.5	9.9	12	21	8,010	300	12	4.5	13
12	13	9.3	8.2	8.1	9.3	14	18	6,270	372	9.9	4.7	13
13	12	9.2	8.0	8.3	8.8	360	16	2,700	645	10	6.1	272
14	10	8.1	7.8	8.4	12	254	15	839	135	12	4.8	1,930
15	9.5	8.0	7.9	7.8	84	140	14	384	103	12	5.6	517
16	8.9	7.2	8.1	7.9	85	83	14	253	71	11	5.8	177
17	8.8	7.2	8.7	7.8	66	58	23	197	55	1,560	4.6	120
18	9.2	7.5	11	7.5	50	42	19	171	44	235	4.2	93
19	55	8.9	9.8	7.3	36	36	17	154	36	37	8.2	76
20	76	12	9.0	7.5	27	46	23	223	31	18	6.6	64
21	41	11	8.5	7.6	22	63	88	183	26	14	5.2	54
22	21	10	8.8	7.3	21	134	92	142	26	12	4.3	50
23	16	9.1	9.7	7.1	19	103	71	123	21	11	4.1	46
24	15	8.3	9.8	6.9	16	70	120	113	19	8.5	4.0	42
25	13	7.5	8.9	7.0	13	51	2,160	107	17	10	4.1	44
26	12	7.8	8.2	7.4	12	40	2,160	101	18	7.9	4.1	42
27	11	8.1	7.7	7.3	11	33	507	93	17	6.4	3.6	40
28	10	7.9	7.2	7.6	10	30	373	86	15	5.9	3.2	46
29	15	7.3	7.0	8.4	---	24	178	80	18	5.5	3.9	58
30	18	7.1	7.1	8.9	---	20	104	76	219	5.1	5.3	47
31	22	---	6.9	11	---	18	---	72	---	4.9	565	---
MEAN	24.2	11.6	7.98	8.05	23.1	56.3	206	1,100	229	75.3	23.0	428
MAX	82	33	11	11	85	360	2,160	8,010	1,380	1,560	565	3,900
MIN	6.0	7.1	6.2	6.8	8.8	10	13	72	15	4.9	3.2	13
IN.	0.02	0.01	0.01	0.01	0.02	0.06	0.21	1.13	0.23	0.08	0.02	0.43

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

MEAN	556	599	452	457	753	1,025	1,438	1,314	1,277	825	294	612
MAX	9,500	6,100	3,359	2,326	5,206	4,706	8,473	8,090	6,235	8,855	1,835	5,979
(WY)	(1987)	(1929)	(1983)	(1974)	(1985)	(1973)	(1973)	(1995)	(2001)	(1951)	(1998)	(1961)
MIN	0.13	0.32	1.66	1.55	5.54	9.50	29.6	9.93	18.4	1.78	1.61	0.13
(WY)	(1957)	(1957)	(1957)	(1957)	(1954)	(1956)	(1977)	(1932)	(1956)	(1933)	(1930)	(1956)

06908000 BLACKWATER RIVER NEAR BLUE LICK, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	680		184		802	
HIGHEST ANNUAL MEAN					2,540	1993
LOWEST ANNUAL MEAN					95.8	1957
HIGHEST DAILY MEAN	19,300	May 12	8,010	May 11	48,400	Nov 18, 1928
LOWEST DAILY MEAN	4.5	Sep 9,10	3.2	Aug 28	0.00	Jul 17-31, 1980
ANNUAL SEVEN-DAY MINIMUM	4.8	Sep 4	3.9	Aug 23	0.00	Jul 17, 1980
MAXIMUM PEAK FLOW	---		8,550	May 11	54,000	Nov 18, 1928
MAXIMUM PEAK STAGE	---		27.85	May 11	41.53	Oct 3, 1986
INSTANTANEOUS LOW FLOW	---		3.1	Aug 28	0.00	Jul 17-31, 1980
ANNUAL RUNOFF (INCHES)	8.25		2.23		9.73	
10 PERCENT EXCEEDS	919		258		2,390	
50 PERCENT EXCEEDS	30		14		89	
90 PERCENT EXCEEDS	7.3		6.6		5.0	



06909000 MISSOURI RIVER AT BOONVILLE, MO

LOCATION.--Lat 38°58'52", long 92°44'46", sec.26, T.49 N., R.17 W., Cooper County, Hydrologic Unit 10300102, near mid-span of the Highway 40 and 5 Bridge just north of Boonville, 5.4 mi below Lamine River, and at mile 196.6.

DRAINAGE AREA.--500,700 mi^2. The 3,959 mi^2 in Great Divide basin are not included.

PERIOD OF RECORD.--October 1925 to current year. Gage-height records collected at same site 1893-99 are 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 565.42 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1928, nonrecording gage on old Highway 40 bridge, at datum 3.14 ft lower; Oct. 1, 1928, to May 9, 1931, nonrecording gage at site .4 mile upstream at the old Missouri/Kansas/Texas Railroad bridge at present datum; May 10, 1931, to Apr. 12, 1934, water-stage recorder on old Highway 40 bridge at present datum; April 12, 1934 to April 8, 2003, water-stage recorder at site .4 mile upstream at the Missouri/Kansas/Texas Railroad Bridge at present datum; April 8, 2003 to present, water-stage recorder at present site and datum.

REMARKS.--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 OUTSIDE PERIOD OF RECORD.--Flood of June 21, 1844, reached a stage of 32.7 ft, discharge, about 710,000 ft^3/s, computed by the U.S. Army Corps of Engineers. Flood of June 6, 1903, reached a stage of 30.5 ft, discharge, about 612,000 ft^3/s, computed by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36,700	42,000	34,700	22,900	22,400	32,200	33,500	e46,700	45,700	63,000	36,900	53,200
2	37,600	41,700	33,000	22,700	22,700	27,600	33,100	46,300	45,400	61,900	36,900	83,100
3	37,800	42,300	31,000	22,500	23,200	24,400	33,800	48,300	46,500	58,800	36,700	67,800
4	38,200	42,600	29,500	22,900	23,400	22,700	34,200	49,800	49,700	55,700	36,300	46,500
5	40,000	41,800	28,200	23,400	23,600	21,400	33,500	61,900	e48,900	53,300	36,200	39,000
6	42,000	41,300	27,300	23,500	23,600	21,100	33,200	68,100	46,000	51,400	36,200	35,800
7	43,400	40,900	26,600	23,500	23,100	22,100	33,300	62,200	47,600	50,100	35,900	33,800
8	44,900	39,900	25,600	23,500	23,100	23,600	33,800	61,600	48,400	48,600	35,500	32,900
9	47,200	38,600	25,100	23,600	23,500	24,300	34,700	83,500	48,200	47,000	35,300	32,900
10	45,900	37,400	25,100	23,700	23,700	24,700	34,900	101,000	48,900	47,600	35,000	33,700
11	43,100	36,700	24,800	24,000	23,800	24,800	35,500	109,000	e49,300	53,700	34,800	34,500
12	41,400	36,800	24,100	24,000	23,700	24,500	36,300	106,000	48,800	57,600	34,900	36,000
13	40,800	37,200	23,700	24,000	24,000	25,000	36,600	86,000	61,800	53,800	35,100	39,300
14	40,600	37,200	24,100	23,700	25,100	25,000	36,000	71,100	73,200	53,600	34,900	46,600
15	40,100	37,000	24,600	23,600	27,400	26,200	35,200	64,600	e84,000	60,100	34,500	51,300
16	39,900	36,700	24,700	23,700	28,400	27,100	35,200	60,300	e77,500	61,300	34,600	51,800
17	40,000	36,800	24,700	23,300	27,700	25,700	35,200	57,800	62,200	55,600	34,400	48,100
18	39,800	37,000	25,000	22,400	26,400	25,200	35,600	57,400	55,500	55,600	33,900	45,400
19	40,800	36,900	25,200	21,400	24,600	27,300	36,500	56,800	51,800	50,400	32,900	e43,000
20	40,900	37,100	25,000	21,200	24,500	31,000	36,900	55,600	49,300	47,400	31,600	e40,900
21	40,900	36,700	24,900	21,400	25,100	34,300	39,100	54,900	47,300	45,400	30,400	39,900
22	40,800	36,100	24,600	21,200	25,800	34,500	45,100	54,100	46,700	43,800	29,400	41,600
23	40,500	36,000	24,600	20,800	26,100	32,300	46,000	55,400	47,100	42,200	29,100	43,300
24	40,800	36,500	24,600	e20,600	25,600	31,300	46,000	55,500	47,600	41,200	30,500	42,600
25	41,300	36,300	24,300	e20,600	25,300	33,000	e47,300	53,900	48,700	40,400	31,600	40,500
26	41,900	36,000	24,300	e21,000	25,900	35,800	e50,000	51,200	52,400	39,800	31,200	39,400
27	42,500	35,900	24,500	21,900	29,500	36,900	e52,000	50,000	57,100	39,200	30,700	e38,500
28	43,000	36,000	24,400	22,100	34,200	35,700	e53,000	49,500	55,600	38,600	30,500	e37,400
29	43,800	36,200	23,700	22,400	---	34,100	e55,000	48,900	53,300	38,200	30,500	e36,300
30	43,900	36,000	23,200	22,400	---	34,200	e50,500	47,700	58,400	37,800	30,500	35,600
31	42,800	---	22,900	22,300	---	34,300	---	46,700	---	37,200	33,200	---
MEAN	41,400	37,990	25,740	22,590	25,190	28,460	39,370	61,990	53,430	49,360	33,550	43,020
MAX	47,200	42,600	34,700	24,000	34,200	36,900	55,000	109,000	84,000	63,000	36,900	83,100
MIN	36,700	35,900	22,900	20,600	22,400	21,100	33,100	46,300	45,400	37,200	29,100	32,900
IN.	0.10	0.08	0.06	0.05	0.05	0.07	0.09	0.14	0.12	0.11	0.08	0.10

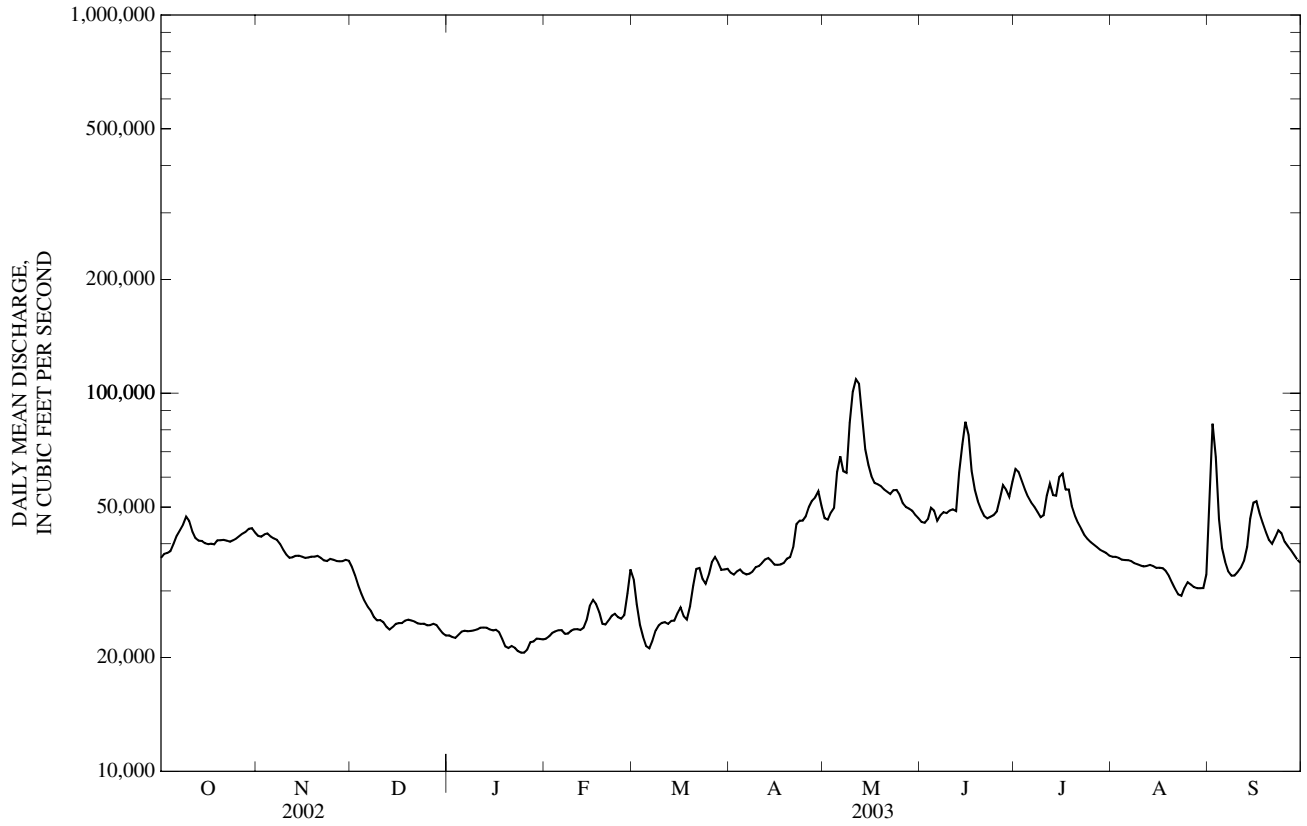
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2003[a], BY WATER YEAR (WY)

MEAN	65,280	61,440	44,840	35,730	49,080	70,100	89,800	92,960	94,210	83,710	63,300	65,800
MAX	187,800	139,100	106,200	90,150	106,300	183,900	212,700	234,700	201,100	375,200	213,600	165,900
(WY)	(1974)	(1999)	(1983)	(1973)	(1982)	(1973)	(1973)	(1995)	(1984)	(1993)	(1993)	(1993)
MIN	36,280	24,600	13,840	14,770	17,620	19,460	39,060	40,770	41,990	37,530	33,550	36,730
(WY)	(1965)	(1991)	(1964)	(1963)	(1964)	(1964)	(1989)	(1989)	(1988)	(2002)	(2003)	(1991)

06909000 MISSOURI RIVER AT BOONVILLE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1958 - 2003[a]	
ANNUAL MEAN	44,500		38,560		68,060	
HIGHEST ANNUAL MEAN					140,500	1993
LOWEST ANNUAL MEAN					38,560	2003
HIGHEST DAILY MEAN	228,000	May 14	109,000	May 11	721,000	Jul 30, 1993
LOWEST DAILY MEAN	22,900	Dec 31	20,600	Jan 24,25	5,000	Dec 21, 1963
ANNUAL SEVEN-DAY MINIMUM	23,900	Dec 25	21,000	Jan 20	5,730	Dec 19, 1963
MAXIMUM PEAK FLOW	---		113,000	May 12	755,000	Jul 29, 1993
MAXIMUM PEAK STAGE	---		16.61	May 12	37.10	Jul 29, 1993
INSTANTANEOUS LOW FLOW	---		20,500	Jan 25	5,500	Jan 22,24 1963
ANNUAL RUNOFF (INCHES)	1.21		1.05		1.85	
10 PERCENT EXCEEDS	63,400		55,500		123,000	
50 PERCENT EXCEEDS	37,600		36,500		54,600	
90 PERCENT EXCEEDS	27,500		23,600		28,800	

e Estimated
[a] Post-regulation period.



06909500 MONITEAU CREEK NEAR FAYETTE, MO

LOCATION.--Lat 39°07°16", long 92°34°02", in SE ¼ SE ¼ sec.14, T.50 N., R.15 W., Howard County, Hydrologic Unit , on downstream side of County Road 406 bridge, 1 mi downstream from Hungry Mother Creek, 7.5 mi east of Fayette, and 15 mi upstream from mouth.

DRAINAGE AREA.--75.1 mi^2.

PERIOD OF RECORD.--March 1948 to September 1969, July 13, 2002 to current year. Fragmentary record for the 1961 water year.

GAGE.--Water-stage recorder. Datum of gage is unknown. Prior to Aug. 14, 1957, nonrecording gage at county highway bridge at datum of 607.93 ft above National Geodetic Vertical Datum of 1929. Aug. 14, 1957 to September 1969 water-stage recorder on right upstream side of bridge at same datum; 1970 to 1992 crest-stage partial record station. Re-established July 13, 2002.

REMARKS.--No estimated daily discharges. Records fair. U.S.G.S. satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 22.9 ft, probably in April 1944, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	1.4	0.06
2	---	---	---	---	---	---	---	---	---	---	0.94	0.04
3	---	---	---	---	---	---	---	---	---	---	0.74	0.02
4	---	---	---	---	---	---	---	---	---	---	0.66	0.02
5	---	---	---	---	---	---	---	---	---	---	0.60	0.01
6	---	---	---	---	---	---	---	---	---	---	0.55	0.00
7	---	---	---	---	---	---	---	---	---	---	0.53	0.00
8	---	---	---	---	---	---	---	---	---	---	0.46	0.00
9	---	---	---	---	---	---	---	---	---	---	0.41	0.00
10	---	---	---	---	---	---	---	---	---	---	0.40	0.00
11	---	---	---	---	---	---	---	---	---	---	0.39	0.00
12	---	---	---	---	---	---	---	---	---	---	0.51	0.00
13	---	---	---	---	---	---	---	---	---	35	0.53	0.00
14	---	---	---	---	---	---	---	---	---	12	0.51	0.00
15	---	---	---	---	---	---	---	---	---	6.6	0.45	0.01
16	---	---	---	---	---	---	---	---	---	4.1	0.39	0.00
17	---	---	---	---	---	---	---	---	---	3.0	0.38	0.01
18	---	---	---	---	---	---	---	---	---	2.2	9.0	0.07
19	---	---	---	---	---	---	---	---	---	1.6	4.4	0.13
20	---	---	---	---	---	---	---	---	---	1.3	25	0.14
21	---	---	---	---	---	---	---	---	---	1.1	2.7	0.07
22	---	---	---	---	---	---	---	---	---	0.98	0.87	0.04
23	---	---	---	---	---	---	---	---	---	1.0	60	0.03
24	---	---	---	---	---	---	---	---	---	1.4	13	0.01
25	---	---	---	---	---	---	---	---	---	1.0	2.7	0.00
26	---	---	---	---	---	---	---	---	---	22	0.67	0.00
27	---	---	---	---	---	---	---	---	---	35	0.28	0.00
28	---	---	---	---	---	---	---	---	---	6.9	0.17	0.00
29	---	---	---	---	---	---	---	---	---	3.4	0.12	0.00
30	---	---	---	---	---	---	---	---	---	2.9	0.09	0.00
31	---	---	---	---	---	---	---	---	---	2.9	0.07	---
MEAN	---	---	---	---	---	---	---	---	---	---	4.16	0.02
MAX	---	---	---	---	---	---	---	---	---	---	60	0.14
MIN	---	---	---	---	---	---	---	---	---	---	0.07	0.00
IN.	---	---	---	---	---	---	---	---	---	---	0.06	0.00

06909500 MONITEAU CREEK NEAR FAYETTE, MO--Continued

LOCATION.--Lat 39°07°16", long 92°34°02", in SE ¼ SE ¼ sec.14, T.50 N., R.15 W., Howard County, Hydrologic Unit , on downstream side of County Road 406 bridge, 1 mi downstream from Hungry Mother Creek, 7.5 mi east of Fayette, and 15 mi upstream from mouth.

DRAINAGE AREA.--75.1 mi^2.

PERIOD OF RECORD.--March 1948 to September 1969, July 13, 2002 to current year. Fragmentary record for the 1961 water year.

GAGE.--Water-stage recorder. Datum of gage is unknown. Prior to Aug. 14, 1957, nonrecording gage at county highway bridge at datum of 607.93 ft above National Geodetic Vertical Datum of 1929. Aug. 14, 1957 to September 1969 water-stage recorder on right upstream side of bridge at same datum; 1970 to 1992 crest-stage partial record station. Re-established July 13, 2002.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 22.9 ft, probably in April 1944, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.22	0.26	0.66	e0.55	0.74	11	60	15	9.3	0.12	1,660
2	0.02	0.17	0.26	0.70	e0.65	0.78	7.9	42	21	5.5	0.19	199
3	0.11	0.18	0.24	0.89	e0.70	0.73	6.0	28	38	3.3	0.27	74
4	0.14	0.18	0.25	0.76	e0.60	0.61	5.1	115	e22	2.1	0.21	28
5	0.27	0.19	0.24	0.80	e0.50	0.54	4.0	276	e15	1.5	0.16	11
6	0.17	0.18	0.23	0.81	e0.50	0.58	3.6	90	e8.7	1.2	0.10	4.8
7	0.09	0.16	0.26	0.91	e0.45	0.67	5.5	51	7.7	1.0	0.09	1.6
8	0.03	e0.17	0.29	1.0	e0.40	1.0	4.2	684	4.8	0.87	e0.05	0.71
9	0.02	e0.18	0.30	0.97	e0.50	0.76	3.8	1,290	3.5	0.81	e0.03	0.38
10	0.02	e0.18	0.28	0.88	e0.60	0.58	3.2	1,840	13	1.5	e0.03	0.49
11	0.01	e0.18	0.29	0.89	e0.65	0.60	2.6	773	49	1.2	e0.02	0.20
12	0.01	e0.20	0.35	e0.70	e0.70	1.5	2.2	235	384	0.85	e0.01	22
13	0.01	e0.21	0.37	0.64	e0.75	244	1.9	161	1,360	0.68	e0.01	636
14	0.01	e0.23	0.37	0.67	e2.5	66	1.7	120	184	0.61	e0.00	260
15	0.01	0.24	0.38	e0.50	863	31	1.4	245	91	0.58	e0.00	78
16	0.00	0.22	0.37	e0.45	122	20	1.8	77	51	0.52	e0.00	30
17	0.00	0.23	0.36	e0.30	58	14	10	63	31	0.59	e0.00	17
18	0.00	0.21	4.2	e0.20	34	10	8.1	49	20	0.54	e0.00	11
19	0.51	0.22	6.1	e0.30	22	69	5.1	42	13	0.51	e0.00	103
20	0.50	0.21	1.6	e0.45	14	177	5.5	43	8.5	0.50	e0.00	34
21	0.13	0.21	0.80	e0.50	10	65	5.3	34	6.0	0.44	e0.00	82
22	0.07	0.19	0.70	e0.40	6.7	33	4.4	31	4.7	e0.36	e0.00	704
23	0.03	0.18	0.61	e0.20	4.1	21	3.7	28	3.9	e0.30	e0.00	117
24	0.03	0.19	0.57	e0.15	2.1	15	179	27	3.6	e0.24	e0.00	53
25	0.10	0.20	0.58	e0.20	1.4	12	430	29	3.5	0.36	e0.00	28
26	0.11	0.19	e0.56	e0.40	1.1	9.6	115	25	55	1.5	e0.00	17
27	0.08	0.22	0.56	e0.30	0.82	8.1	50	23	22	0.29	e0.00	46
28	0.07	0.24	0.63	e0.45	0.74	30	664	21	8.4	0.21	e0.00	17
29	0.21	0.28	0.67	e0.55	---	54	363	18	4.5	0.18	e0.00	10
30	0.41	0.28	0.76	e0.60	---	24	114	19	3.3	0.15	e0.00	6.7
31	0.31	---	0.74	e0.55	---	16	---	17	---	0.13	262	---
MEAN	0.11	0.20	0.78	0.57	41.1	29.9	67.4	211	81.8	1.22	8.49	142
MAX	0.51	0.28	6.1	1.0	863	244	664	1,840	1,360	9.3	262	1,660
MIN	0.00	0.16	0.23	0.15	0.40	0.54	1.4	17	3.3	0.13	0.00	0.20
IN.	0.00	0.00	0.01	0.01	0.53	0.43	0.93	3.01	1.13	0.02	0.12	1.95

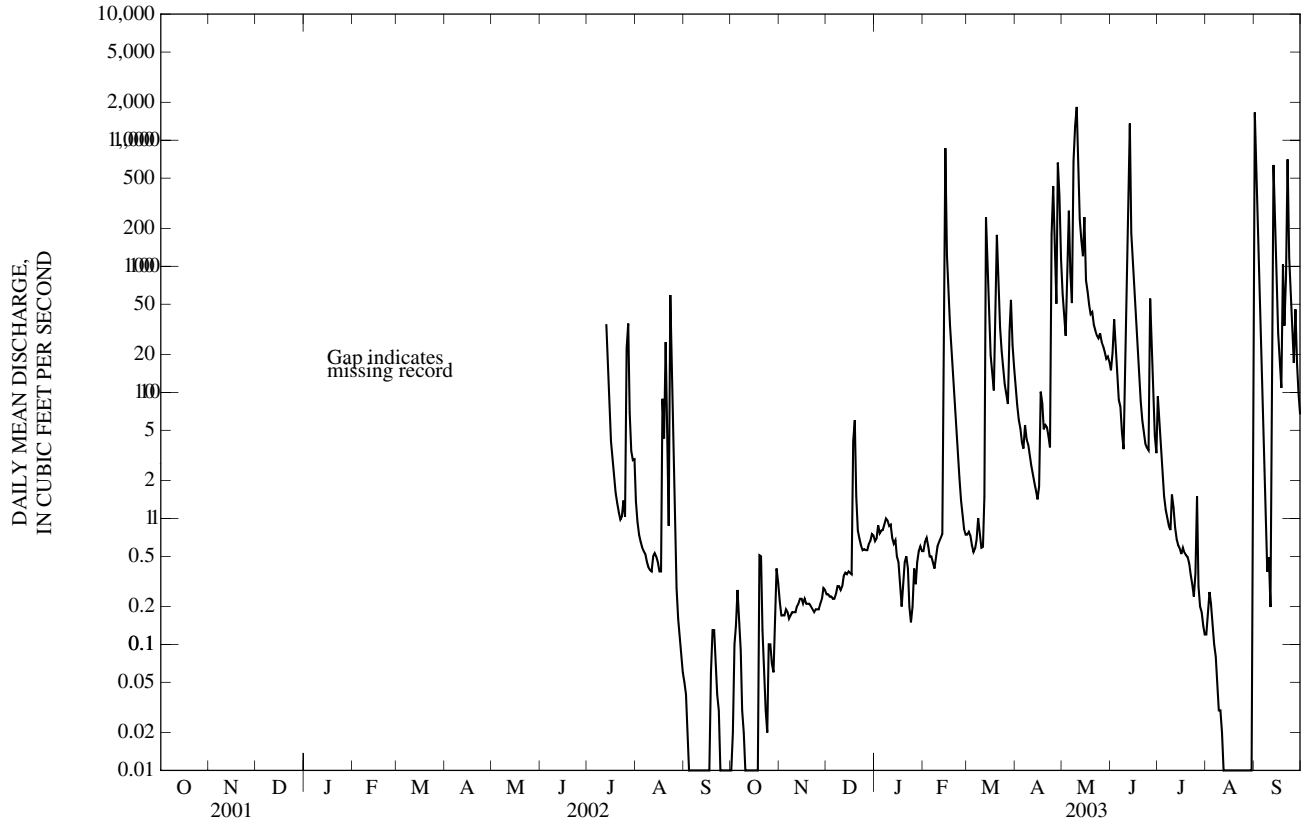
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	20.7	20.0	18.0	30.1	50.9	60.4	63.1	47.6	53.0	47.5	10.0	16.4
MAX	108	179	93.2	163	143	166	172	211	245	317	62.7	142
(WY)	(1950)	(1962)	(1950)	(1949)	(1949)	(1951)	(1969)	(2003)	(1969)	(1969)	(1955)	(2003)
MIN	0.00	0.00	0.00	0.00	0.00	0.06	3.63	1.25	0.24	0.00	0.00	0.00
(WY)	(1953)	(1954)	(1954)	(1964)	(1964)	(1954)	(1963)	(1965)	(1963)	(1954)	(1964)	(1953)

06909500 MONITEAU CREEK NEAR FAYETTE, MO—Continued

SUMMARY STATISTICS	FOR 2003 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	48.5		37.2	
HIGHEST ANNUAL MEAN			103	1969
LOWEST ANNUAL MEAN			5.65	1963
HIGHEST DAILY MEAN	1,840	May 10	5,430	Jul 10, 1969
LOWEST DAILY MEAN	0.00	Many Days	0.00	Aug 19, 1948
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 14	0.00	Aug 19, 1948
MAXIMUM PEAK FLOW	2,760	May 10	11,300	Jul 10, 1969
MAXIMUM PEAK STAGE	20.63	May 10	21.59	Jul 10, 1969
INSTANTANEOUS LOW FLOW	0.00	Many Days	0.00	Oct 1, 1948
ANNUAL RUNOFF (INCHES)	8.14		6.25	
10 PERCENT EXCEEDS	75		62	
50 PERCENT EXCEEDS	0.75		2.9	
90 PERCENT EXCEEDS	0.03		0.00	

e Estimated



06910750 MOREAU RIVER NEAR JEFFERSON CITY, MO

LOCATION.--Lat 38°31'44", long 92°11'31", SE ¼ NW ¼ SE ¼ sec.25, T.44 N., R.11 W., Cole County, Hydrologic Unit 10300102, near right bank on downstream side of right pier of bridge on Tanner Bridge Road, 3 mi south of Jefferson City, 15.8 mi downstream from confluence of North and South Moreau Creeks, and at mile 17.

DRAINAGE AREA.--561 mi^2.

PERIOD OF RECORD.--December 1947 to September 1974, November 13, 2000 to current year. Published as Moureau River near Jefferson City (06910500), 1948 to 1974. Discharge measurements only October 1956 to September 1957.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 546.33 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 17, 1958, nonrecording gage, and Aug. 17, 1958, to May 21, 1969, water-stage recorder at site 10 mi upstream and at datum 16.4 ft higher, drainage area 531 mi^2.

REMARKS.--No estimated daily discharges. Records good. U.S.G.S. satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1905 reached a stage of 38.2 ft, flood of 1929 reached a stage of 32.91 ft, and flood of 1943 reached a stage of 35.1 ft, present site, from information and floodmarks by local residents

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

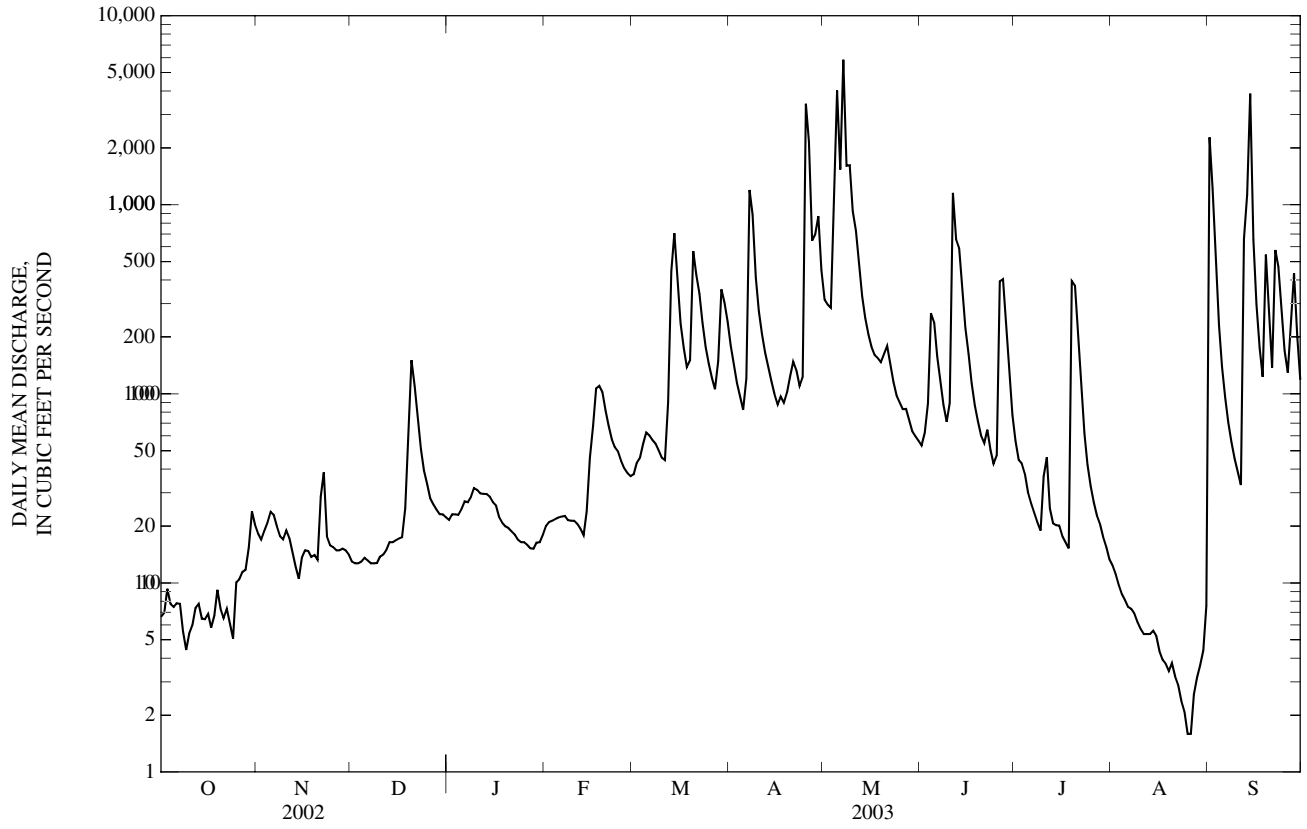
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	18	13	22	20	38	181	315	53	57	12	2,270
2	6.9	17	13	23	21	43	143	296	62	45	11	1,220
3	9.3	19	13	23	21	46	114	285	89	43	9.7	480
4	7.7	21	13	23	22	55	97	1,440	267	38	8.7	231
5	7.5	24	14	25	22	62	82	4,020	238	30	8.1	139
6	7.8	23	13	27	22	60	121	1,540	157	26	7.5	95
7	7.8	20	13	27	23	57	1,200	5,850	114	23	7.3	71
8	5.6	18	13	29	22	54	885	1,610	87	21	6.9	55
9	4.4	17	13	32	21	50	413	1,620	71	19	6.2	46
10	5.4	19	14	31	21	46	274	924	89	36	5.7	39
11	6.0	17	14	30	20	45	206	727	1,160	46	5.4	33
12	7.4	14	15	30	19	90	166	485	656	25	5.4	661
13	7.7	12	16	30	18	445	139	327	590	21	5.4	1,130
14	6.5	11	16	29	24	708	117	252	371	20	5.6	3,870
15	6.4	14	17	27	46	379	100	206	223	20	5.3	653
16	6.9	15	17	26	68	235	88	178	162	18	4.4	299
17	5.8	15	17	22	107	174	97	161	114	16	3.9	175
18	6.7	14	25	21	110	139	90	154	87	15	3.7	123
19	9.2	14	53	20	102	150	101	147	72	395	3.4	545
20	7.3	13	151	20	82	568	124	162	60	373	3.8	264
21	6.5	29	110	19	68	427	148	179	55	207	3.2	138
22	7.3	38	77	18	58	337	133	144	65	107	2.9	577
23	6.0	18	51	17	52	237	110	116	50	62	2.4	471
24	5.1	16	39	16	50	176	123	98	43	42	2.1	287
25	10	15	33	16	44	145	3,420	90	47	33	1.6	169
26	10	15	28	16	40	121	2,160	83	394	27	1.6	129
27	11	15	26	15	38	106	645	83	405	23	2.6	252
28	12	15	24	15	37	149	695	73	200	21	3.2	436
29	15	15	23	16	---	357	870	63	120	18	3.7	202
30	24	14	23	16	---	305	452	60	77	16	4.4	119
31	20	---	22	18	---	241	---	56	---	13	7.6	---
MEAN	8.57	17.5	30.0	22.5	42.8	195	450	701	206	59.9	5.31	506
MAX	24	38	151	32	110	708	3,420	5,850	1,160	395	12	3,870
MIN	4.4	11	13	15	18	38	82	56	43	13	1.6	33
IN.	0.02	0.03	0.06	0.05	0.08	0.40	0.89	1.44	0.41	0.12	0.01	1.01

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

MEAN	310	211	206	340	443	611	560	615	622	311	110	278
MAX	2,076	1,298	1,040	1,591	1,866	3,169	2,256	2,815	2,548	2,237	534	2,987
(WY)	(1970)	(1973)	(1969)	(1949)	(1951)	(1973)	(1973)	(1970)	(1948)	(1951)	(1950)	(1965)
MIN	0.81	1.03	4.29	5.57	7.75	11.9	9.36	29.7	13.2	4.41	1.78	1.35
(WY)	(1954)	(1954)	(1954)	(1964)	(1954)	(1954)	(1956)	(1965)	(1952)	(1959)	(1953)	(1960)

06910750 MOREAU RIVER NEAR JEFFERSON CITY, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	426		187		377	
HIGHEST ANNUAL MEAN					881	1973
LOWEST ANNUAL MEAN					50.4	1954
HIGHEST DAILY MEAN	17,200	May 9	5,850	May 7	20,800	Jun 23, 1948
LOWEST DAILY MEAN	4.4	Oct 9	1.6	Aug 25,26	0.10	Sep 30, 1956
ANNUAL SEVEN-DAY MINIMUM	6.1	Oct 8	2.3	Aug 21	0.21	Sep 24, 1956
MAXIMUM PEAK FLOW	---		7,560	May 7	24,400	Oct 14, 1969
MAXIMUM PEAK STAGE	---		18.07	May 7	28.60	Oct 14, 1969
INSTANTANEOUS LOW FLOW	---		1.6	Aug 24-27	0.10	Sep 30, 1956
ANNUAL RUNOFF (INCHES)	10.32		4.53		9.14	
10 PERCENT EXCEEDS	549		408		653	
50 PERCENT EXCEEDS	56		37		66	
90 PERCENT EXCEEDS	9.3		6.9		6.3	



06916675 MIAMI CREEK NEAR BUTLER, MO

LOCATION.--Lat 38°12'41", long 94°22'40", in NW ¼ SW ¼ NE ¼ sec.6, T.39 N., R.31 W., Bates County, Hydrologic Unit 10290102, on right downstream pier on bridge on County Road SW1067, 2.25 mi southwest of junction of Highways 71 and 52.

DRAINAGE AREA.--137 mi^2.

PERIOD OF RECORD.--October 2001 to current year.

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

REMARKS.--Records poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECON,D, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.34	e0.08	e0.00	e0.29	e0.14	0.57	0.56	169	0.43	0.27	0.25	64
2	0.41	e0.09	e0.00	e0.27	e0.15	0.67	0.58	114	10	0.16	0.08	111
3	1.2	e0.06	e0.00	e0.25	e0.14	0.87	0.50	27	141	0.12	0.16	25
4	3.9	e0.03	e0.00	e0.19	e0.15	0.55	0.44	120	35	0.22	0.29	12
5	4.4	e0.01	e0.00	e0.18	e0.14	0.33	0.36	119	12	0.24	0.38	5.6
6	7.4	e0.01	e0.00	e0.17	e0.13	0.19	0.64	124	283	0.27	0.19	2.7
7	4.7	e0.00	e0.00	e0.17	e0.13	0.16	0.68	80	219	0.40	0.16	1.4
8	2.6	e0.08	e0.00	e0.15	e0.13	0.24	1.1	20	40	0.25	0.19	0.67
9	1.9	e0.18	e0.00	e0.14	e0.12	0.19	1.3	39	17	0.24	0.17	0.51
10	e1.2	e0.04	e0.00	e0.12	e0.11	0.15	0.58	70	10	1.1	0.13	0.30
11	e0.57	e0.02	e0.00	e0.12	e0.17	0.23	0.36	19	7.4	0.82	0.09	0.14
12	e0.24	e0.01	e0.00	e0.11	e0.14	0.59	0.27	9.4	4.6	0.77	0.05	0.29
13	e0.09	e0.00	e0.01	e0.11	e0.14	10	0.17	6.7	344	0.44	0.06	0.62
14	e0.06	e0.00	e0.21	e0.11	5.0	16	0.36	5.4	193	0.45	0.02	0.41
15	e0.02	e0.14	e0.14	e0.12	3.0	12	0.42	3.8	37	0.26	0.09	0.23
16	e0.01	e0.08	e0.12	e0.11	1.0	6.7	0.54	7.8	17	0.23	0.04	0.09
17	e0.01	e0.05	e0.10	e0.11	0.56	4.8	0.81	27	9.4	0.16	0.02	0.03
18	e0.01	e0.03	e0.09	e0.10	0.37	3.5	0.89	19	5.6	0.11	0.01	0.74
19	e0.00	e0.01	e0.08	e0.10	0.38	13	1.0	12	3.7	0.21	0.02	0.64
20	e0.00	e0.01	e0.07	e0.11	0.31	233	7.5	8.4	2.7	0.23	0.02	0.19
21	e0.00	e0.00	e0.07	e0.13	0.28	139	10	6.9	1.8	0.11	0.01	0.20
22	e0.00	e0.00	e0.08	e0.11	0.28	31	4.0	5.3	1.4	0.15	0.01	0.58
23	e0.00	e0.00	e0.06	e0.10	0.29	15	2.1	3.4	1.1	0.16	0.01	15
24	e0.00	e0.00	e0.06	e0.10	0.28	8.9	26	2.3	0.95	0.14	0.01	6.9
25	e0.01	e0.00	e0.10	e0.11	0.21	6.3	29	1.9	0.66	0.11	0.01	2.7
26	e0.00	e0.00	e0.09	e0.11	0.25	4.1	12	1.6	0.54	0.19	0.01	1.6
27	e0.01	e0.00	e0.07	e0.11	0.42	2.9	6.4	1.3	0.54	0.19	0.01	1.3
28	e0.00	e0.00	e0.06	e0.13	0.70	2.4	4.3	1.1	0.40	0.29	0.01	0.72
29	e0.22	e0.00	e0.07	e0.13	---	1.9	2.6	1.0	0.32	0.43	0.22	0.33
30	e0.20	e0.00	e0.13	e0.13	---	1.1	1.8	0.67	0.29	0.31	0.91	0.63
31	e0.12	---	e0.27	e0.14	---	0.53	---	0.43	---	0.34	4.2	---
MEAN	0.96	0.031	0.061	0.14	0.54	16.7	3.91	33.1	46.7	0.30	0.25	8.55
MAX	7.4	0.18	0.27	0.29	5.0	233	29	169	344	1.1	4.2	111
MIN	0.00	0.00	0.00	0.10	0.11	0.15	0.17	0.43	0.29	0.11	0.01	0.03

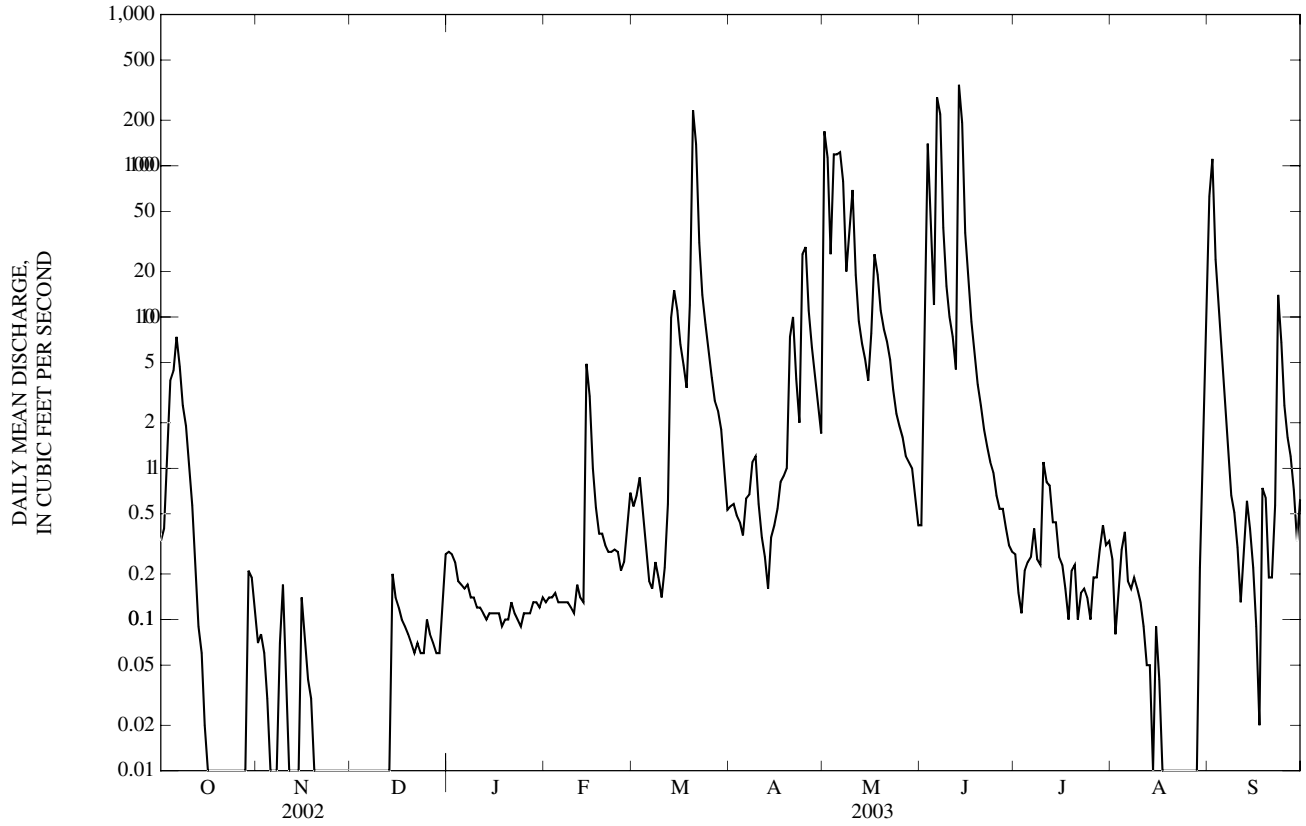
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

MEAN	44.1	1.02	1.09	8.52	19.3	13.8	48.3	207	32.8	0.44	0.38	4.63
MAX	87.3	2.01	2.13	16.9	38.2	16.7	92.7	380	46.7	0.57	0.50	8.55
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2003)	(2002)	(2002)	(2003)	(2002)	(2002)	(2003)
MIN	0.96	0.03	0.06	0.14	0.54	11.0	3.91	33.1	19.0	0.30	0.25	0.71
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2002)	(2003)	(2003)	(2002)

06916675 MIAMI CREEK NEAR BUTLER, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2002 - 2003	
ANNUAL MEAN	47.0		9.28		32.0	
HIGHEST ANNUAL MEAN					54.7	2002
LOWEST ANNUAL MEAN					9.28	2003
HIGHEST DAILY MEAN	2,140	May 9	344	Jun 13	2,140	May 9, 2002
LOWEST DAILY MEAN	0.00	Many Days	0.00	Many Days	0.00	Many Days 2002-2003
ANNUAL SEVEN-DAY MINIMUM	0.00	Nov 21	0.00	Nov 21	0.00	Nov 21, 2002
MAXIMUM PEAK FLOW	---		714	Jun 13	2,180	May 9, 2002
MAXIMUM PEAK STAGE	---		10.55	Jun 13	19.39	May 9, 2002
INSTANTANEOUS LOW FLOW	---		0.00	Many Days	0.00	Many Days 2002-2003
10 PERCENT EXCEEDS	52		12		35	
50 PERCENT EXCEEDS	1.5		0.26		1.2	
90 PERCENT EXCEEDS	0.01		0.01		0.03	

e Estimated



06917060 LITTLE OSAGE RIVER AT HORTON, MO

LOCATION.--Lat 37°59'38", long 94°22'07", in SW ¼ NE ¼ NW ¼ sec. 17, T.37 N., R.31 W., Vernon County, Hydrologic Unit 10290103, on left bank at the upstream side of the southbound bridge of U.S. Highway 71, 4 mi above Marmaton River, and 1 mi north of Horton.

DRAINAGE AREA.--498 mi^2.

PERIOD OF RECORD.--October 2000 to current year. Nov. 18, 1988 to Sept. 30, 2000, stage only.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft above sea level.

REMARKS.--Records poor. U.S.G.S. satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 1986 reached a stage of 59.4 ft (by U.S. Army Corps of Engineers).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	e0.92	0.80	5.8	26	591	32	1.1	0.00	945
2	0.00	0.00	0.00	e1.2	0.78	6.3	22	814	38	0.26	0.00	1,200
3	0.00	0.02	0.00	e1.4	0.86	6.1	19	511	205	0.15	0.00	1,300
4	0.00	0.04	0.38	e1.7	0.95	6.5	16	271	350	0.09	0.00	1,090
5	0.00	0.05	0.31	e2.3	0.85	6.2	14	218	167	0.05	0.00	460
6	0.00	0.03	0.41	e2.1	0.84	9.9	22	187	628	0.02	0.00	80
7	0.00	0.03	0.62	e1.9	0.88	10	58	353	2,210	0.01	0.00	48
8	0.00	0.02	0.40	e1.7	0.89	8.9	52	483	1,900	0.00	0.66	35
9	0.00	0.02	0.43	e1.6	0.96	7.5	50	304	636	0.00	11	23
10	0.00	0.02	0.43	e1.5	0.77	6.4	34	179	270	0.00	7.0	15
11	0.00	0.01	0.44	e1.4	0.74	5.4	26	130	188	0.00	3.8	11
12	0.00	0.02	0.50	e1.3	0.73	5.0	20	96	146	0.01	2.1	11
13	0.00	0.02	0.60	e1.2	0.70	4.8	16	74	210	0.00	0.82	8.1
14	0.00	0.05	0.70	e1.1	8.1	4.4	13	64	187	0.00	0.16	5.0
15	0.00	0.18	0.70	e1.0	14	4.0	11	62	142	0.00	0.00	3.7
16	0.00	0.19	0.78	e0.98	56	3.7	10	142	96	0.00	0.00	3.1
17	0.00	0.21	0.86	e0.94	64	3.6	10	1,280	69	0.00	0.00	1.8
18	0.00	0.13	e0.90	e0.96	37	3.3	9.3	1,720	52	0.00	0.00	0.86
19	0.00	0.04	e0.92	e0.98	22	11	9.3	1,330	40	0.00	0.00	0.72
20	0.00	0.03	e0.98	e0.94	15	241	10	1,040	31	0.00	0.00	0.53
21	0.00	0.01	e0.97	e0.97	12	934	19	768	23	0.00	0.00	0.33
22	0.00	0.01	e0.92	e0.98	9.6	626	38	432	18	0.00	0.00	0.61
23	0.00	0.02	e0.85	e0.94	8.3	269	44	238	14	0.00	0.00	0.16
24	0.00	0.01	e0.76	e0.87	7.5	157	101	163	9.2	0.00	0.00	0.07
25	0.00	0.00	e0.67	e0.77	6.5	115	424	131	7.0	0.00	0.00	0.09
26	0.00	0.00	e0.60	e0.68	5.9	88	360	112	7.7	0.00	0.00	0.01
27	0.00	0.00	e0.58	e0.62	5.4	70	248	95	5.7	0.00	0.00	0.00
28	0.00	0.00	e0.61	0.60	5.3	58	172	78	4.3	0.00	0.00	0.02
29	0.00	0.00	e0.68	0.68	---	49	120	62	3.6	0.00	0.08	0.00
30	0.00	0.00	e0.75	0.81	---	39	90	50	2.6	0.00	1.0	0.05
31	0.00	---	e0.83	0.79	---	32	---	40	---	0.00	133	---
MEAN	0.00	0.04	0.60	1.16	10.3	90.2	68.8	388	256	0.06	5.15	175
MAX	0.00	0.21	0.98	2.3	64	934	424	1,720	2,210	1.1	133	1,300
MIN	0.00	0.00	0.00	0.60	0.70	3.3	9.3	40	2.6	0.00	0.00	0.00

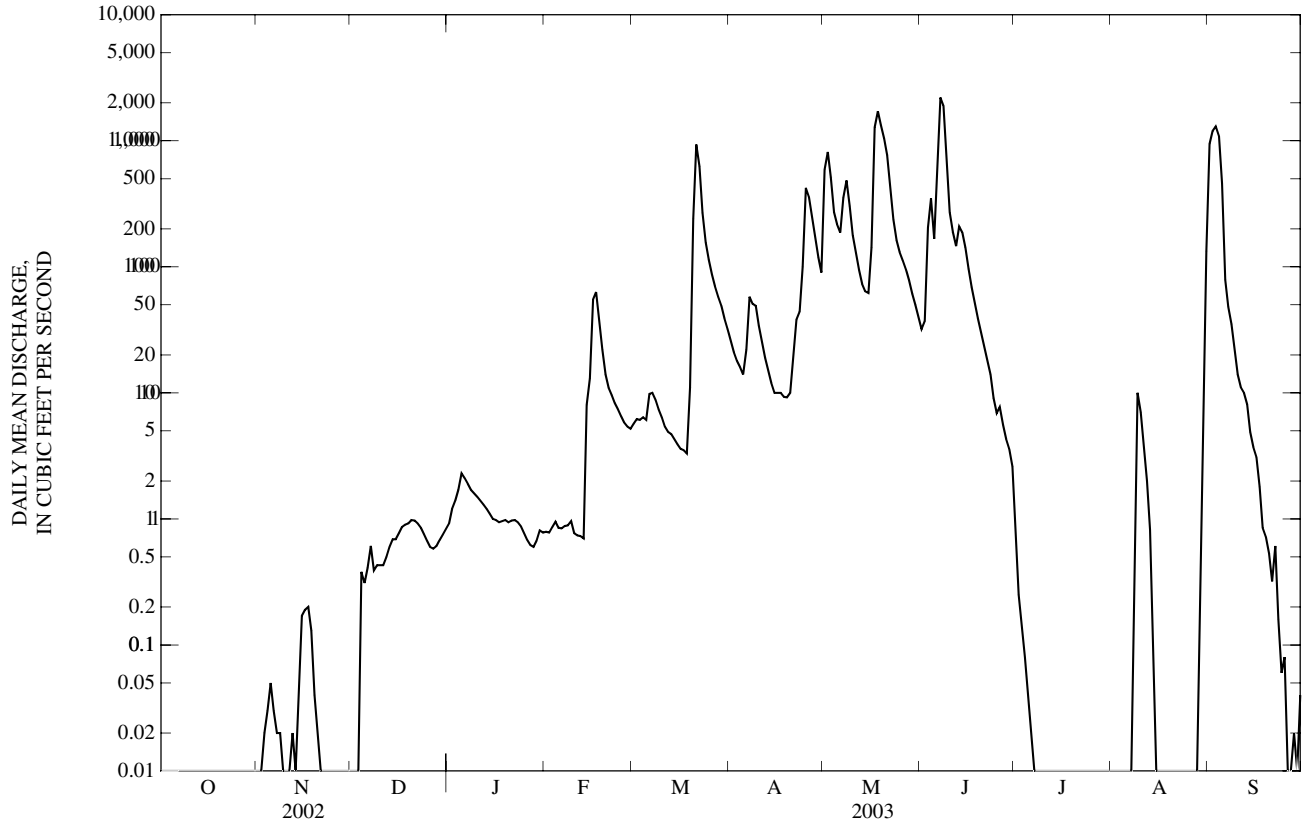
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

MEAN	25.6	5.73	4.81	34.1	229	241	258	697	480	40.2	7.85	60.1
MAX	55.4	11.9	9.30	80.9	561	588	450	1,530	812	106	18.2	175
(WY)	(2002)	(2001)	(2002)	(2001)	(2001)	(2001)	(2001)	(2002)	(2001)	(2001)	(2001)	(2003)
MIN	0.00	0.04	0.60	1.16	10.3	43.8	68.8	174	256	0.06	0.17	0.00
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2001)	(2003)	(2003)	(2002)	(2002)

06917060 LITTLE OSAGE RIVER AT HORTON, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2001 - 2003	
ANNUAL MEAN	197		83.1		173	
HIGHEST ANNUAL MEAN					232	2001
LOWEST ANNUAL MEAN					83.1	2003
HIGHEST DAILY MEAN	6,150	May 10	2,210	Jun 7	6,150	May 10, 2002
LOWEST DAILY MEAN	0.00	Many Days	0.00	Many Days	0.00	Many Days 2002, 2003
ANNUAL SEVEN-DAY MINIMUM	0.00	Aug 7,Nov 25	0.00	Oct 1, Nov 25	0.00	Aug 7,Nov 25, 2002
				Jul 13,Aug 15		Jul 13,Aug 15, 2003
MAXIMUM PEAK FLOW	---		2,660	Jun 7	Unknown	Jun 6, 2001
MAXIMUM PEAK STAGE	---		40.68	Jun 7	44.92	May 11, 2002
INSTANTANEOUS LOW FLOW	---		0.00	Many Days	0.00	Many Days Each Year
10 PERCENT EXCEEDS	454		187		422	
50 PERCENT EXCEEDS	5.8		0.96		9.0	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated



06917680 DRY WOOD CREEK NEAR DEERFIELD, MO

LOCATION.--Lat 37°47'52", long 94°30'54", in SW $^1/_4$ SE $^1/_4$ sec.24, T.35 N., R.33 W., Vernon County, Hydrologic Unit 10290104, on left downstream pier on State Highway KK bridge, 7.2 mi southwest of Nevada.

DRAINAGE AREA.--358 mi^2.

PERIOD OF RECORD.--October 2001 to current year.

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

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 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	7.8	4.6	12	5.3	22	64	60	27	14	2.6	4,790
2	2.2	7.0	4.5	12	5.2	27	57	92	116	12	3.9	6,160
3	3.0	6.1	4.4	11	5.1	46	49	77	509	11	4.3	3,760
4	3.4	5.1	5.2	10	4.9	52	43	59	220	9.5	4.3	657
5	3.2	4.5	5.5	9.5	4.8	45	39	109	107	9.2	6.1	180
6	3.4	4.0	5.7	9.2	4.8	38	39	119	459	8.3	5.5	118
7	3.5	4.2	6.8	10	4.5	31	72	78	1,020	7.6	3.9	89
8	3.1	3.9	7.5	10	4.2	27	110	68	319	6.9	3.2	70
9	2.5	3.9	7.4	9.9	4.0	25	76	59	120	6.2	2.8	59
10	2.2	3.8	7.4	8.8	4.1	24	56	51	87	6.6	e2.7	50
11	2.4	3.4	7.2	7.6	4.0	21	47	44	68	8.1	e2.6	44
12	2.5	2.9	7.3	6.8	4.0	18	41	38	61	11	e2.5	47
13	2.5	3.0	8.1	6.1	4.2	69	36	35	55	10	e2.4	53
14	2.4	3.1	8.4	5.6	7.7	203	31	44	49	11	e2.4	46
15	2.0	3.5	9.0	5.0	51	121	27	48	41	7.6	2.8	42
16	2.1	4.0	9.8	5.0	82	79	24	115	35	6.2	7.8	32
17	2.4	4.5	9.1	4.8	46	62	24	3,600	30	5.4	9.1	27
18	2.4	5.1	16	4.6	30	49	30	3,700	27	4.8	8.6	25
19	2.5	6.0	39	4.7	28	132	34	1,230	24	4.4	7.8	22
20	2.4	5.8	22	4.8	127	921	61	608	22	4.1	7.4	22
21	2.5	5.2	17	4.8	106	1,040	171	590	19	3.7	7.1	36
22	2.7	5.0	10	4.7	62	313	91	275	18	3.4	8.2	316
23	2.8	5.2	7.7	4.8	44	168	59	174	17	3.2	8.5	155
24	3.0	5.3	6.8	4.5	34	123	146	124	16	2.9	7.6	67
25	3.4	5.0	6.1	4.0	25	102	375	121	15	3.0	6.0	40
26	3.7	4.5	5.7	3.7	24	90	180	110	14	2.8	9.5	28
27	3.7	4.3	6.0	3.5	22	86	115	82	34	2.8	8.7	581
28	4.1	4.3	6.0	3.8	21	78	88	63	29	3.0	7.6	220
29	5.1	4.3	6.0	4.2	---	95	72	50	21	2.9	8.5	75
30	5.1	4.4	6.4	4.3	---	98	62	42	16	2.6	10	54
31	5.1	---	7.8	4.9	---	77	---	34	---	e2.4	461	---
MEAN	3.02	4.64	9.05	6.60	27.5	138	77.3	384	120	6.34	20.5	596
MAX	5.1	7.8	39	12	127	1,040	375	3,700	1,020	14	461	6,160
MIN	2.0	2.9	4.4	3.5	4.0	18	24	34	14	2.4	2.4	22
IN.	0.01	0.01	0.03	0.02	0.08	0.44	0.24	1.24	0.37	0.02	0.07	1.86

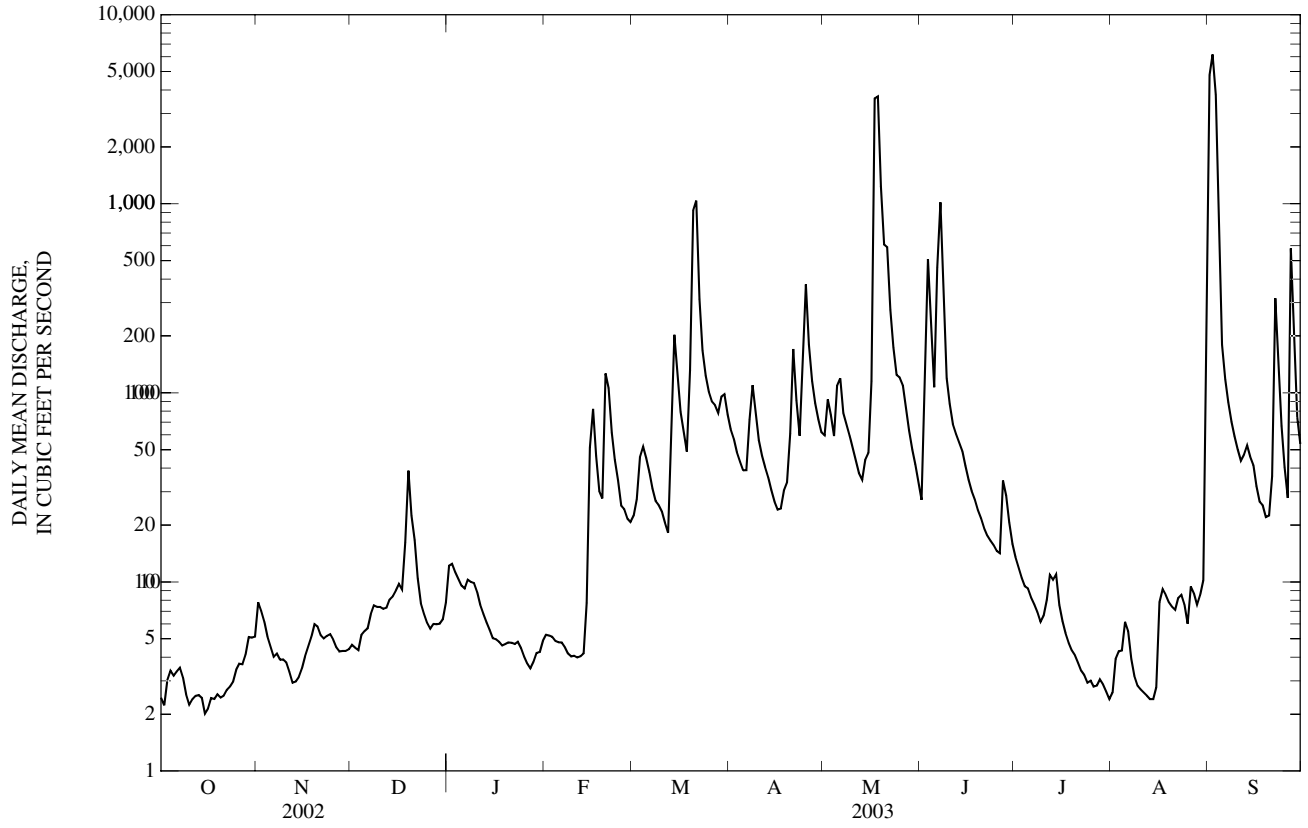
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2003, BY WATER YEAR (WY)

MEAN	37.6	13.7	14.2	45.9	96.1	95.0	195	1,221	214	10.2	12.3	301
MAX	72.1	22.8	19.3	85.2	165	138	313	2,058	308	14.0	20.5	596
(WY)	(2002)	(2002)	(2002)	(2002)	(2002)	(2003)	(2002)	(2002)	(2002)	(2002)	(2003)	(2003)
MIN	3.02	4.64	9.05	6.60	27.5	51.9	77.3	384	120	6.34	4.18	7.31
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)	(2002)	(2002)

06917680 DRY WOOD CREEK NEAR DEERFIELD, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2002 - 2003	
ANNUAL MEAN	254		116		189	
HIGHEST ANNUAL MEAN					262	2002
LOWEST ANNUAL MEAN					116	2003
HIGHEST DAILY MEAN	10,400	May 9	6,160	Sep 2	10,400	May 9, 2002
LOWEST DAILY MEAN	2.0	Sep 2, Oct 15	2.0	Oct 15	2.0	Sep 2, 2002
ANNUAL SEVEN-DAY MINIMUM	2.2	Aug 28	2.3	Oct 10	2.2	Aug 28, 2002
MAXIMUM PEAK FLOW	---		6,390	Sep 2	11,100	May 9, 2002
MAXIMUM PEAK STAGE	---		19.92	Sep 2	22.56	May 9, 2002
INSTANTANEOUS LOW FLOW	---		2.0	Oct 15,16	1.9	Sep 2, 2002
ANNUAL RUNOFF (INCHES)	9.62		4.39		7.17	
10 PERCENT EXCEEDS	276		121		172	
50 PERCENT EXCEEDS	13		10		17	
90 PERCENT EXCEEDS	3.1		3.0		3.7	

e Estimated



06918065 MARMATON RIVER BELOW NEVADA, MO

LOCATION.--Lat 37°55'07", long 94°21'39", in NE ¼ SE ¼ NE ¼ sec.8, T.36 N., R.31 W., Vernon County, Hydrologic Unit 10290104, on right bank at the upstream side of the southbound bridge of U.S. Highway 71, 21 mi above Osage River, and 4.2 mi north of Nevada.

DRAINAGE AREA.--1,090 mi^2.

PERIOD OF RECORD.--October 2000 to current year. Nov. 17, 1988, to Sept. 30, 2000, stage only station.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. U.S.G.S. satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of October 1986 reached a stage of 62.2 ft (by U.S. Army Corps of Engineers).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	9.1	11	14	8.7	30	171	620	94	30	7.0	4,090
2	9.0	8.7	11	18	9.3	32	141	2,480	146	25	7.1	4,980
3	14	9.9	11	e26	9.9	40	121	1,820	985	22	6.9	4,870
4	18	10	12	e27	9.8	62	106	739	1,120	21	7.6	3,770
5	15	9.3	12	e24	9.2	80	94	489	539	18	9.8	1,530
6	14	7.6	12	22	9.0	73	101	622	1,140	16	8.8	386
7	15	6.7	12	21	8.9	62	170	501	4,170	15	7.2	219
8	13	8.2	12	21	8.1	53	402	680	3,940	13	4.4	153
9	12	9.4	12	24	7.5	45	404	584	1,820	12	3.1	115
10	11	10	12	24	7.1	39	262	349	675	12	3.1	90
11	9.6	11	13	23	6.8	34	187	266	415	11	6.8	83
12	9.6	9.8	13	21	6.5	31	147	185	314	27	6.4	82
13	8.1	8.6	13	19	6.2	54	122	134	319	29	6.1	77
14	6.9	8.9	14	18	19	412	103	129	433	20	5.9	75
15	6.2	10	14	16	31	607	87	138	253	18	6.1	66
16	7.4	10	15	15	76	283	77	229	162	17	5.7	60
17	8.5	9.4	16	15	127	158	76	3,590	115	14	6.1	49
18	8.1	9.6	38	14	84	117	79	5,160	90	11	6.6	43
19	7.9	10	63	14	59	150	82	e4,810	73	9.7	12	50
20	7.8	12	60	13	55	1,430	107	e3,290	63	9.4	13	42
21	7.7	12	30	13	195	3,360	236	e2,300	52	9.5	9.0	42
22	7.2	13	26	13	190	2,420	282	e1,460	44	8.0	4.5	140
23	6.9	12	20	12	113	1,090	206	946	40	8.3	2.8	534
24	6.9	12	18	11	73	589	286	574	36	7.4	2.2	230
25	7.8	11	16	11	51	425	1,550	431	33	7.0	6.8	120
26	8.3	11	14	11	38	330	1,520	416	32	7.6	10	91
27	8.1	10	14	11	32	284	841	356	31	7.0	10	155
28	8.4	11	14	9.8	31	267	517	257	39	6.9	23	708
29	11	11	13	9.0	---	233	351	189	43	7.6	36	294
30	11	10	13	8.4	---	252	253	146	35	7.6	42	134
31	10	---	13	8.8	---	227	---	116	---	7.6	199	---
MEAN	9.78	10.0	18.3	16.4	45.8	428	303	1,097	575	14.0	15.6	776
MAX	18	13	63	27	195	3,360	1,550	5,160	4,170	30	199	4,980
MIN	6.2	6.7	11	8.4	6.2	30	76	116	31	6.9	2.2	42
IN.	0.01	0.01	0.02	0.02	0.04	0.45	0.31	1.16	0.59	0.01	0.02	0.79

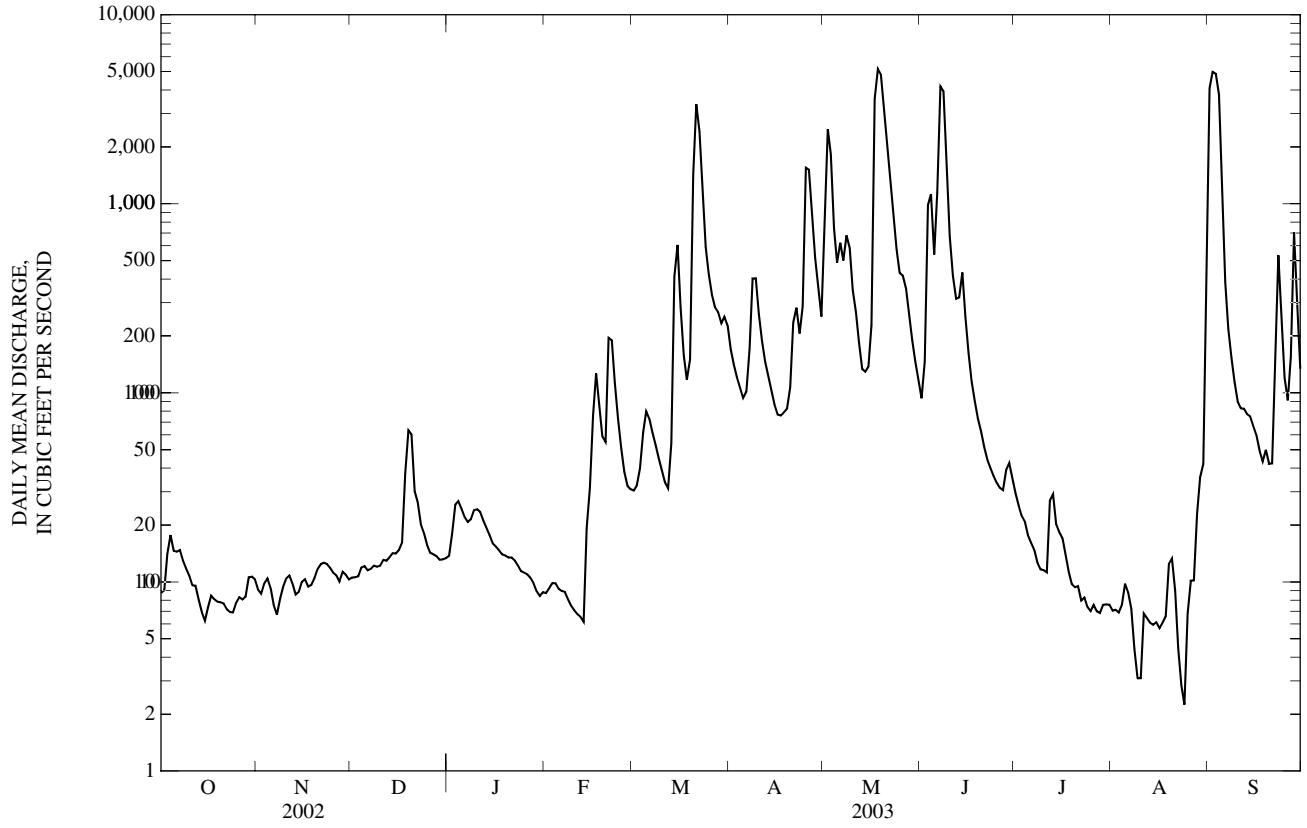
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2003, BY WATER YEAR (WY)

MEAN	82.7	32.6	25.3	134	828	571	503	1,898	1,050	116	22.1	271
MAX	181	52.5	30.5	321	1,992	1,157	676	4,279	1,604	287	38.5	776
(WY)	(2002)	(2001)	(2002)	(2001)	(2001)	(2001)	(2002)	(2002)	(2001)	(2001)	(2001)	(2003)
MIN	9.78	10.0	18.3	16.4	45.7	129	303	319	575	14.0	12.1	14.7
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2001)	(2003)	(2003)	(2002)	(2002)

06918065 MARMATON RIVER BELOW NEVADA, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2001 - 2003	
ANNUAL MEAN	559		276		458	
HIGHEST ANNUAL MEAN					577	2002
LOWEST ANNUAL MEAN					276	2003
HIGHEST DAILY MEAN	21,800	May 10	5,160	May 18	21,800	May 10, 2002
LOWEST DAILY MEAN	4.0	Sep 6	2.2	Aug 24	2.2	Aug 24, 2003
ANNUAL SEVEN-DAY MINIMUM	6.9	Sep 1	5.1	Aug 8	5.1	Aug 8, 2003
MAXIMUM PEAK FLOW	---		5,220	May 18	22,400	May 10, 2002
MAXIMUM PEAK STAGE	---		43.55	May 18	52.57	May 10, 2002
INSTANTANEOUS LOW FLOW	---		1.0	Aug 23	0.00	Oct 10, 2000
ANNUAL RUNOFF (INCHES)	6.96		3.44		5.71	
10 PERCENT EXCEEDS	1,240		578		1,160	
50 PERCENT EXCEEDS	28		24		42	
90 PERCENT EXCEEDS	9.2		7.6		10	

e Estimated



06918070 OSAGE RIVER ABOVE SCHELL CITY, MO

LOCATION.--Lat 38°03'20", long 94°08'44", in SE ¼ SW ¼ NW ¼ sec.20, T.38 N., R.29 W., Bates County, Hydrologic Unit 10290105, on downstream side of left pier of bridge on State Highway M, 0.8 mi downstream from Shaw Branch, 0.2 mi upstream from McKenzie Creek, and 3.0 mi northwest of Schell City.

DRAINAGE AREA.--5,410 mi^2, by U.S. Army Corps of Engineers.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1981 to current year.

GAGE.--Water-stage recorder and slope gage 1.7 mi downstream. Datum of gage is 700.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records poor. Discharge is calculated using fall computations due to backwater from Harry S. Truman Reservoir. U.S. Army Corps of Engineers satellite telemeter at station.

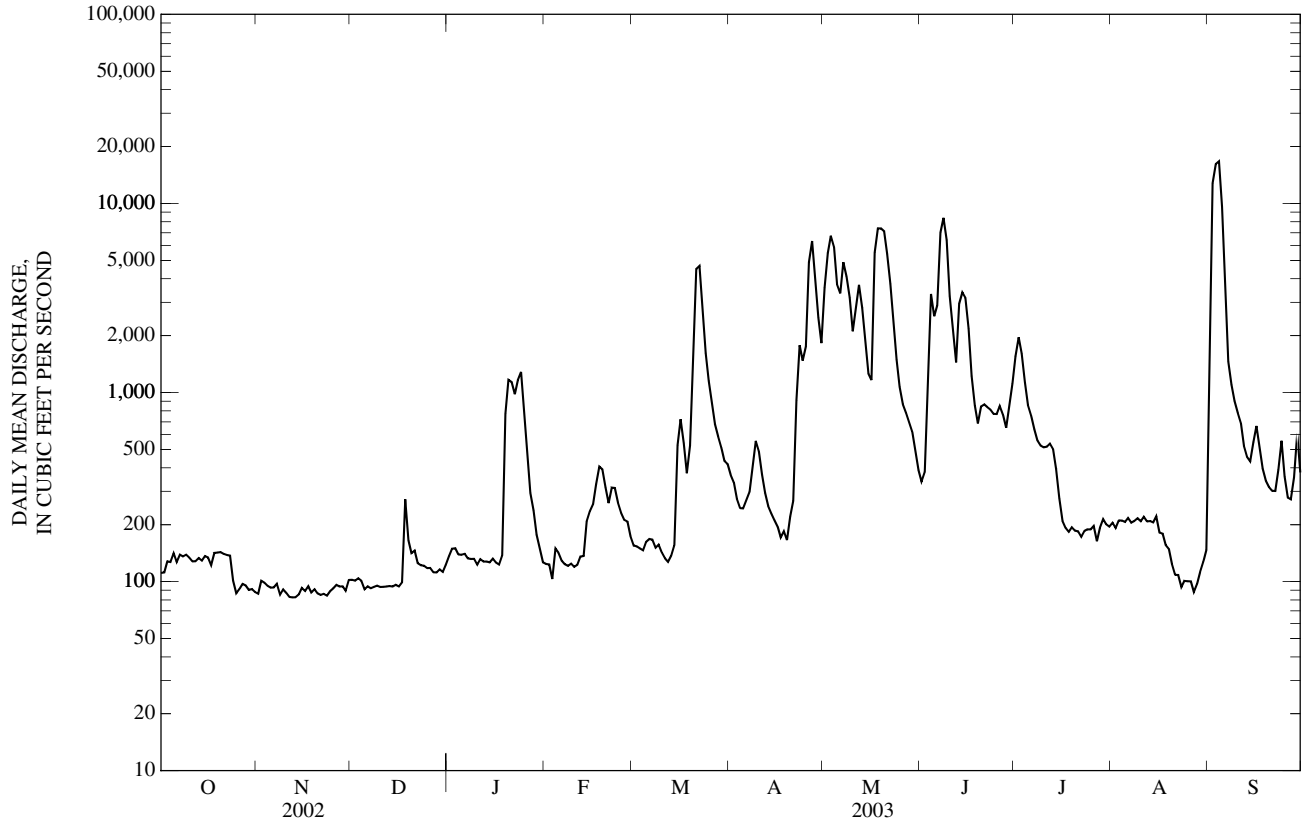
EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 133,000 ft^3/s, Oct. 5, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 16,700 ft^3/s, Sept. 4; minimum, 82 ft^3/s, Nov. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	86	102	136	124	155	367	3,590	337	1,550	205	3,580
2	112	101	101	149	123	153	334	5,450	379	1,960	192	12,800
3	128	99	104	150	103	150	274	6,740	1,020	1,600	211	16,100
4	127	95	101	139	150	146	245	5,880	3,320	1,130	210	16,700
5	141	93	91	139	142	162	244	3,730	2,530	858	207	9,610
6	127	93	94	140	129	168	269	3,350	2,890	754	217	3,210
7	139	97	92	133	123	167	298	4,890	7,020	638	205	1,460
8	136	85	94	132	121	151	395	4,110	8,380	558	209	1,100
9	139	91	95	132	124	157	554	3,180	6,400	524	216	903
10	134	87	94	123	120	142	489	2,110	3,240	513	209	784
11	128	83	94	131	123	133	368	2,840	2,200	517	220	688
12	128	82	94	128	136	127	295	3,700	1,440	537	208	522
13	133	83	95	128	137	137	250	2,800	2,950	501	209	456
14	129	85	94	126	208	155	229	1,920	3,390	393	205	433
15	136	92	96	132	235	526	211	1,260	3,170	276	221	546
16	134	89	94	126	257	721	195	1,160	2,180	209	182	665
17	122	95	99	123	327	538	171	5,490	1,220	193	179	516
18	142	88	273	137	405	374	185	7,370	854	184	156	396
19	142	91	165	771	392	525	166	7,370	685	194	149	342
20	143	87	141	1,170	314	1,790	221	7,130	843	186	124	316
21	140	85	146	1,140	260	4,500	267	5,400	864	185	108	302
22	138	86	125	980	314	4,670	911	3,760	837	172	108	301
23	137	84	122	1,160	313	2,800	1,780	2,340	811	185	93	390
24	101	89	121	1,290	261	1,610	1,470	1,490	771	189	101	556
25	87	92	118	837	231	1,150	1,750	1,070	769	189	100	360
26	91	96	118	512	212	865	4,880	869	848	197	100	278
27	97	94	112	294	208	680	6,330	782	763	164	88	273
28	95	94	112	237	174	585	4,130	697	651	192	97	356
29	90	89	116	177	---	510	2,490	620	850	214	112	611
30	91	102	112	149	---	435	1,820	491	1,110	201	127	378
31	88	---	123	126	---	418	---	388	---	195	147	---
MEAN	122	90.4	114	363	206	800	1,053	3,290	2,091	495	165	2,498
MAX	143	102	273	1,290	405	4,670	6,330	7,370	8,380	1,960	221	16,700
MIN	87	82	91	123	103	127	166	388	337	164	88	273

06918070 OSAGE RIVER ABOVE SCHELL CITY, MO—Continued



06918070 OSAGE RIVER ABOVE SCHELL CITY, MO—Continued
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1979 to September 1993, November 1994 to current year. Formerly published as Osage River near Schell City (06918080).

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1979 to September 1981.
WATER TEMPERATURE: March 1979 to September 1981.
SUSPENDED-SEDIMENT: February 1991 to September 1999.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,950 microsiemens per centimeter, Oct. 11, 1980; minimum daily, 114 microsiemens per centimeter, June 12, 1981.
WATER TEMPERATURE: Maximum daily, 32.0 °C, July 11, 1980; minimum daily, 0.0 °C, Feb. 5, 1980, and Feb. 11-14, 1981.
SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 4,020 mg/L, Feb. 21, 1997; minimum daily mean, 8 mg/L, Aug. 4 and 5, 1993, and Jan. 10-12, 1995.
SUSPENDED-SEDIMENT LOAD: Maximum daily, 160,000 tons, Feb. 21, 1997; minimum daily, 1.7 tons, Nov. 7-13, 1991.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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...	1250	Environmental	93	8.5	76	8.1	576	9.8	220	64.4	14.9	3.58
MAR												
17...	1400	Environmental	538	6.4	64	7.8	556	13.2	--	--	--	--
APR												
15...	1020	Environmental	211	10.1	113	8.1	583	19.1	--	--	--	--
MAY												
13...	1430	Environmental	2,700	5.5	63	7.4	344	20.2	150	49.5	5.96	4.38
JUN												
17...	1200	Environmental	1,220	5.8	73	7.6	343	25.5	--	--	--	--
JUL												
09...	1015	Environmental	524	4.9	68	7.7	362	30.3	--	--	--	--

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...	31.0	159	159	194	<1	25.9	0.30	99.8	366	13	0.41	<0.04	<0.06
MAR													
17...	--	138	140	171	<1	--	--	--	--	75	0.90	<0.04	0.36
APR													
15...	--	130	129	158	<1	--	--	--	--	78	1.0	<0.04	<0.06
MAY													
13...	9.78	127	126	153	<1	11.4	<0.17	27.2	214	426	1.7	<0.04	0.95
JUN													
17...	--	119	118	144	<1	--	--	--	--	188	1.1	<0.04	0.84
JUL													
09...	--	114	112	137	<1	--	--	--	--	120	0.69	<0.04	0.62

06918070 OSAGE RIVER ABOVE SCHELL CITY, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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)
NOV													
06...	<0.008	E.01	E.02	0.05	16k	29	20	M	345	1.0	E.03	<0.2	<6
MAR													
17...	0.008	E.01	E.03	0.13	31	30	40	--	--	--	--	--	--
APR													
15...	<0.008	E.01	E.03	0.15	11k	11k	26k	--	--	--	--	--	--
MAY													
13...	0.049	0.06	0.09	0.47	590	490	1,010	2	5,440	1.5	<0.04	E.2	<6
JUN													
17...	E.006	0.06	0.07	0.30	200	300	290	--	--	--	--	--	--
JUL													
09...	E.007	0.06	0.07	0.20	46k	57k	176	--	--	--	--	--	--

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)	2,6-Di-ethyl-aniline water fltrd 0.7µ GF ug/L (82660)	CIAT, water, fltrd, µg/L (04040)	Aceto-chlor, water, fltrd, µg/L (49260)	Ala-chlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)
NOV													
06...	<10	E.08	1	88.8	<0.02	E.3	1	4	<0.006	E.155	<0.006	<0.004	<0.005
MAR													
17...	--	--	--	--	--	--	--	--	<0.006	E.053	E.006n	E.004n	<0.005
APR													
15...	--	--	--	--	--	--	--	--	<0.006	E.017	<0.006	<0.004	<0.005
MAY													
13...	10	<0.08	10	2.8	E.02	0.7	2	31	<0.006	E.283	0.508	0.055	<0.005
JUN													
17...	--	--	--	--	--	--	--	--	<0.006	E.210	0.143	0.122	<0.005
JUL													
09...	--	--	--	--	--	--	--	--	<0.006	E.258	0.089	0.135	<0.005

Date	Atra-zine, water, fltrd, µg/L (39632)	Azin-phos-methyl, water, fltrd 0.7µ GF µg/L (82686)	Ben-flur-alin, water, fltrd 0.7µ GF µg/L (82673)	Butyl-ate, water, fltrd, µg/L (04028)	Car-baryl, water, fltrd 0.7µ GF µg/L (82680)	Carbo-furan, water, fltrd 0.7µ GF µg/L (82674)	Chlor-pyrifos water, fltrd, µg/L (38933)	cis-Per-methrin water fltrd 0.7µ GF µg/L (82687)	Cyana-zine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µ GF µg/L (82682)	Diazi-non, water, fltrd, µg/L (39572)	Diel-drin, water, fltrd, µg/L (39381)	Disul-foton, water, fltrd 0.7µ GF µg/L (82677)
NOV													
06...	0.786	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
MAR													
17...	0.382	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
APR													
15...	0.126	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
MAY													
13...	6.06	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
JUN													
17...	2.07	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02
JUL													
09...	1.91	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006	<0.018	<0.003	<0.005	<0.005	<0.02

06918070 OSAGE RIVER ABOVE SCHELL CITY, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	EPTC, water, fltrd 0.7µ GF µg/L (82668)	Ethalfluralin, water, fltrd 0.7µ GF µg/L (82663)	Ethoprop, water, fltrd 0.7µ GF µg/L (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)	Linuron water fltrd 0.7µ GF µg/L (82666)	Malathion, water, fltrd, µg/L (39532)	Methyl parathion, water, fltrd 0.7µ GF µg/L (82667)	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Molinate, water, fltrd 0.7µ GF µg/L (82671)	Napropamide, water, fltrd 0.7µ GF µg/L (82684)	p,p-' DDE, water, fltrd, µg/L (34653)
NOV 06...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.038	<0.006	<0.002	<0.007	<0.003
MAR 17...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.039	<0.006	<0.002	<0.007	<0.003
APR 15...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.021	<0.006	<0.002	<0.007	<0.003
MAY 13...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.756	<0.006	<0.002	<0.007	<0.003
JUN 17...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.321	<0.006	<0.002	<0.007	<0.003
JUL 09...	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006	0.408	0.023	<0.002	<0.007	<0.003

Date	Parathion, water, fltrd, µg/L (39542)	Pebulate, water, fltrd 0.7µ GF µg/L (82669)	Pendimethalin, water, fltrd 0.7µ GF µg/L (82683)	Phorate water fltrd 0.7µ GF µg/L (82664)	Prometon, water, fltrd, µg/L (04037)	Pronamide, water, fltrd 0.7µ GF µg/L (82676)	Propachlor, water, fltrd, µg/L (04024)	Propanil, water, fltrd 0.7µ GF µg/L (82679)	Propargite, water, fltrd 0.7µ GF µg/L (82685)	Simazine, water, fltrd, µg/L (04035)	Tebuthiuron water fltrd 0.7µ GF µg/L (82670)	Terbacil, water, fltrd 0.7µ GF µg/L (82665)	Terbufos, water, fltrd 0.7µ GF µg/L (82675)
NOV 06...	<0.010	<0.004	<0.022	<0.011	0.02	<0.004	<0.010	<0.011	<0.02	<0.005	<0.02	<0.034	<0.02
MAR 17...	<0.010	<0.004	<0.022	<0.011	E.01n	<0.004	<0.010	<0.011	<0.02	0.014	<0.02	<0.034	<0.02
APR 15...	<0.010	<0.004	<0.022	<0.011	E.01n	<0.004	<0.010	<0.011	<0.02	0.022	<0.02	<0.034	<0.02
MAY 13...	<0.010	<0.004	<0.022	<0.011	0.03	<0.004	<0.010	<0.011	<0.02	0.025	<0.02	<0.034	<0.02
JUN 17...	<0.010	<0.004	<0.022	<0.011	0.12	<0.004	<0.010	<0.011	<0.02	<0.005	<0.02	<0.034	<0.02
JUL 09...	<0.010	<0.004	<0.022	<0.011	E.01n	<0.004	<0.010	<0.011	<0.02	0.008	<0.02	<0.034	<0.02

Date	Thiobencarb water fltrd 0.7µ GF µg/L (82681)	Triallate, water, fltrd 0.7µ GF µg/L (82678)	Trifluralin, water, fltrd 0.7µ GF µg/L (82661)
NOV 06...	<0.005	<0.002	<0.009
MAR 17...	<0.005	<0.002	<0.009
APR 15...	<0.005	<0.002	<0.009
MAY 13...	<0.005	<0.002	<0.009
JUN 17...	<0.005	<0.002	0.023
JUL 09...	<0.005	<0.002	<0.009

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

Value qualifier codes used in this table:
k -- Counts outside acceptable range
n -- Below the LRL and above LT-MDL

06918440 SAC RIVER NEAR DADEVILLE, MO

LOCATION.--Lat 37°26'35", long 93°41'05", in NE ¼ NE ¼ NW ¼ sec.9, T.31 N., R.25 W., Dade County, Hydrologic Unit 10290106, on downstream side of bridge on State Highway 245, 2 mi upstream from Cave Spring Branch, and 2 mi south of Dadeville.

DRAINAGE AREA.--257 mi^2.

PERIOD OF RECORD.--June 1966 to current year. Annual maximum only, for water years 1965-66.

GAGE.--Water-stage recorder. Datum of gage is 869.78 ft above National Geodetic Vertical Datum of 1929 (levels by the Missouri State Highway and Transportation Commission). Prior to June 1966, crest-stage gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

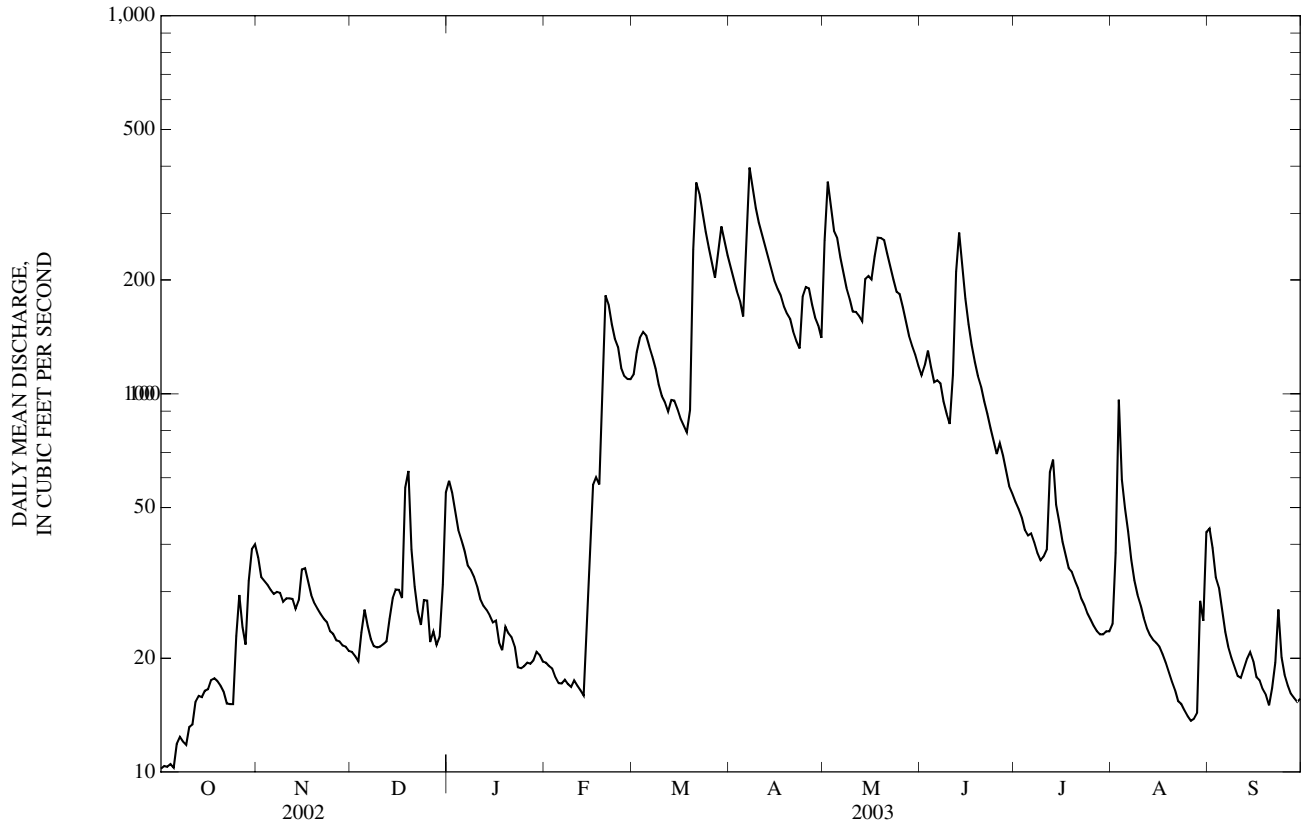
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	37	21	59	19	113	217	255	112	52	25	44
2	10	33	20	55	19	129	200	364	119	50	38	39
3	10	32	20	49	19	141	187	312	130	47	96	33
4	10	31	23	44	18	146	176	270	118	44	59	31
5	10	30	27	41	17	143	160	259	107	42	50	27
6	12	30	24	38	17	133	246	230	109	43	43	24
7	12	30	22	35	18	125	396	210	107	40	36	21
8	12	30	22	34	17	116	349	191	96	38	32	20
9	12	28	21	33	17	106	310	178	88	36	29	19
10	13	29	21	31	17	99	283	165	83	37	28	18
11	13	29	22	29	17	95	263	165	112	39	26	18
12	15	29	22	28	16	90	244	161	210	62	24	19
13	16	27	25	27	16	96	228	156	267	67	23	20
14	16	28	29	26	23	96	213	201	216	51	22	21
15	16	34	30	25	34	91	199	205	178	46	22	20
16	17	35	30	25	57	86	189	201	153	41	21	18
17	18	32	29	22	60	82	182	231	135	37	20	17
18	18	29	56	21	58	79	170	259	121	35	20	17
19	17	28	63	24	91	91	163	258	112	34	18	16
20	17	27	39	23	182	241	158	255	105	32	17	15
21	16	26	31	23	172	362	146	235	95	31	16	17
22	15	25	27	21	153	338	138	217	89	29	15	19
23	15	25	25	19	140	300	132	201	81	28	15	27
24	15	24	28	19	133	268	181	186	75	26	15	20
25	23	23	28	19	117	244	191	184	69	25	14	18
26	29	22	22	19	112	223	190	170	74	24	14	17
27	24	22	24	19	110	203	172	155	69	24	14	16
28	22	22	22	20	109	237	159	142	62	23	14	16
29	32	21	23	21	---	277	152	134	57	23	28	15
30	39	21	31	20	---	254	141	127	54	24	25	16
31	40	---	55	20	---	232	---	118	---	24	43	---
MEAN	17.5	28.0	28.5	28.7	63.5	169	204	206	113	37.2	27.8	21.3
MAX	40	37	63	59	182	362	396	364	267	67	96	44
MIN	10	21	20	19	16	79	132	118	54	23	14	15
IN.	0.08	0.12	0.13	0.13	0.26	0.76	0.89	0.93	0.49	0.17	0.12	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2003, BY WATER YEAR (WY)

MEAN	135	282	288	227	285	421	390	387	214	112	60.8	105
MAX	780	1,139	1,058	743	918	1,170	1,427	1,747	820	392	205	1,545
(WY)	(1987)	(1986)	(1993)	(1991)	(1985)	(1975)	(1994)	(2002)	(1995)	(1993)	(1968)	(1993)
MIN	16.6	16.8	19.7	14.0	23.5	29.2	30.1	30.1	39.2	22.1	10.1	6.78
(WY)	(1992)	(1981)	(1977)	(1981)	(1981)	(1996)	(1981)	(1977)	(1972)	(1980)	(1980)	(1980)

06918440 SAC RIVER NEAR DADEVILLE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1966 - 2003	
ANNUAL MEAN	281		78.8		242	
HIGHEST ANNUAL MEAN					560	1993
LOWEST ANNUAL MEAN					50.2	1977
HIGHEST DAILY MEAN	4,840	May 8	396	Apr 7	23,300	Sep 25, 1993
LOWEST DAILY MEAN	9.9	Sep 30	10	Oct 1-5	4.5	Sep 14, 1980
ANNUAL SEVEN-DAY MINIMUM	10	Sep 27	11	Oct 1	5.3	Sep 11, 1980
MAXIMUM PEAK FLOW	---		423	Apr 7	36,100	Sep 25, 1993
MAXIMUM PEAK STAGE	---		6.71	Apr 7	27.56	Sep 25, 1993
INSTANTANEOUS LOW FLOW	---		9.8	Oct 1,5	3.8	Aug 8, 1996
ANNUAL RUNOFF (INCHES)	14.87		4.16		12.81	
10 PERCENT EXCEEDS	584		210		527	
50 PERCENT EXCEEDS	99		33		110	
90 PERCENT EXCEEDS	17		17		24	



06918460 TURNBACK CREEK ABOVE GREENFIELD, MO

LOCATION.--Lat 37°24'09", long 93°48'06", sec.21, T.31 N., R.26 W., Dade County, Hydrologic Unit 10290106, on left downstream side of bridge pier on State Highway O, 1.5 mi downstream from Limestone Creek, and 2.0 mi southeast of Greenfield.

DRAINAGE AREA.--252 mi^2.

PERIOD OF RECORD.--September 1965 to current year.

REVISED RECORDS.--WDR MO-84-1: 1968, 1970, 1972-74, 1976, 1978-79, 1983 (M). WDR MO-93-1: 1987 (M).

GAGE.--Water-stage recorder. Datum of gage is 870.49 ft above National Geodetic Vertical Datum of 1929 (levels by the Missouri State Highway and Transportation Commission).

REMARKS.--No estimated daily discharges. Records good. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

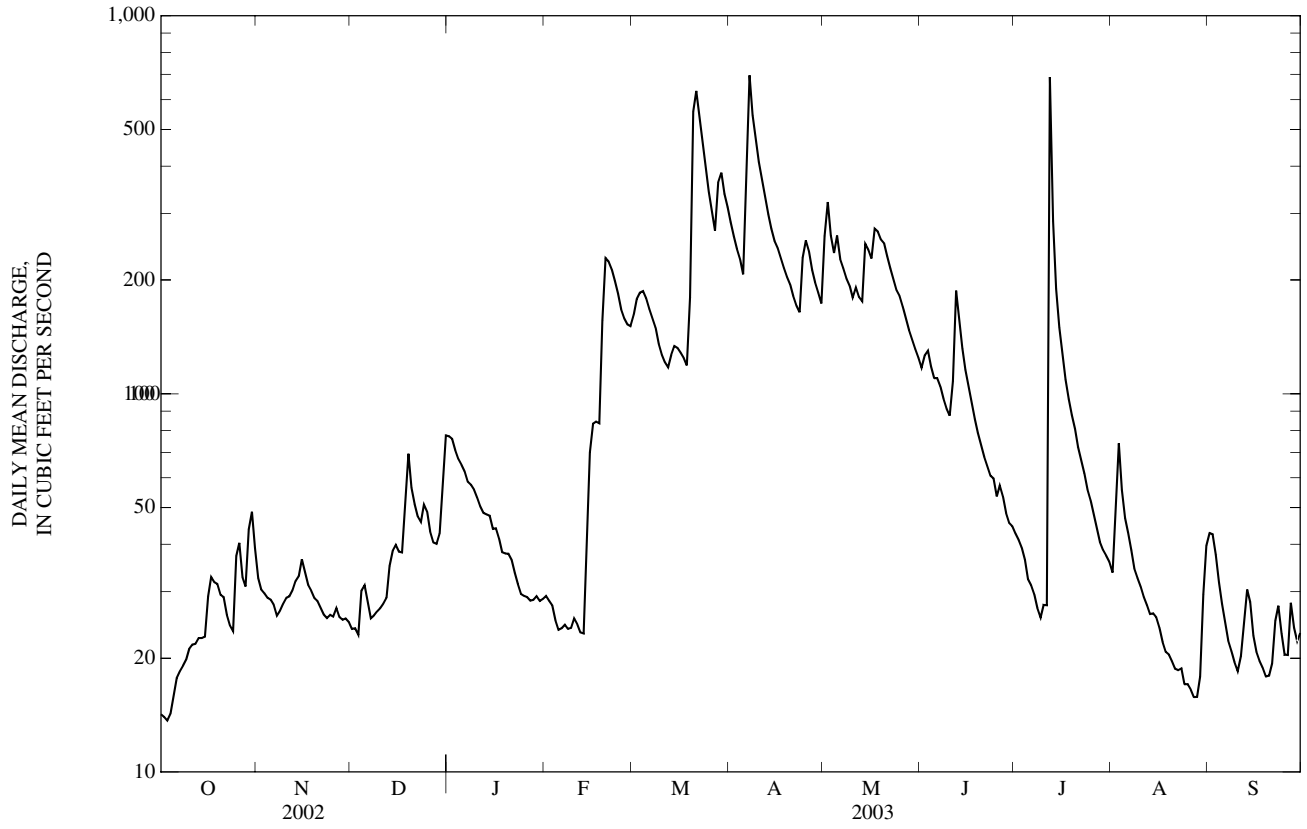
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	33	24	77	29	162	284	262	117	43	34	43
2	14	30	24	76	28	178	261	322	126	41	52	43
3	14	30	23	71	28	185	242	262	130	39	74	38
4	14	29	30	67	25	187	227	236	118	36	56	32
5	16	29	31	65	24	179	207	262	110	32	47	28
6	18	28	28	62	24	168	438	227	110	31	43	25
7	18	26	25	59	25	158	696	215	105	29	39	22
8	19	27	26	57	24	150	546	202	97	27	35	21
9	20	28	27	56	24	136	470	193	91	26	33	20
10	21	29	27	53	25	127	410	180	88	28	31	18
11	22	29	28	50	25	121	367	191	108	28	29	20
12	22	30	29	48	23	118	331	180	187	688	28	25
13	23	32	35	48	23	127	299	176	156	287	26	30
14	23	33	38	48	39	134	274	249	132	190	26	28
15	23	37	40	44	70	132	254	240	116	150	26	23
16	29	34	38	44	83	129	243	228	104	127	24	21
17	33	31	38	41	84	124	229	273	95	109	22	20
18	32	30	52	38	84	119	215	269	86	97	21	19
19	31	29	69	38	156	180	204	256	79	88	20	18
20	29	28	56	38	229	558	195	250	73	81	20	18
21	29	27	51	36	224	632	181	231	68	72	19	19
22	26	26	47	34	213	546	171	215	64	67	19	25
23	24	26	46	31	199	464	164	201	61	62	19	28
24	24	26	51	30	184	395	229	188	60	56	17	23
25	37	26	49	29	167	343	254	181	54	52	17	20
26	40	27	43	29	158	302	239	170	57	48	17	20
27	33	26	40	28	153	270	213	158	53	44	16	28
28	31	25	40	29	151	362	197	147	48	41	16	24
29	44	25	43	29	---	384	185	139	46	39	18	22
30	49	25	58	28	---	338	173	131	45	37	29	23
31	39	---	78	29	---	312	---	124	---	36	40	---
MEAN	26.2	28.7	39.8	45.5	90.0	249	280	212	92.8	88.1	29.5	24.8
MAX	49	37	78	77	229	632	696	322	187	688	74	43
MIN	14	25	23	28	23	118	164	124	45	26	16	18
IN.	0.12	0.13	0.18	0.21	0.37	1.14	1.24	0.97	0.41	0.40	0.13	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2003, BY WATER YEAR (WY)

MEAN	147	299	284	237	313	449	429	393	245	154	86.6	127
MAX	921	1,385	982	765	1,020	1,377	1,410	1,797	874	636	354	1,579
(WY)	(1987)	(1986)	(1988)	(1973)	(1985)	(1973)	(1994)	(1990)	(1993)	(1992)	(1982)	(1993)
MIN	23.4	21.7	20.2	19.9	27.5	27.1	39.3	93.9	44.3	24.2	14.4	11.6
(WY)	(1979)	(1981)	(1990)	(1981)	(1981)	(1996)	(1981)	(1981)	(1972)	(1972)	(1980)	(1980)

06918460 TURNBACK CREEK ABOVE GREENFIELD, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1965 - 2003	
ANNUAL MEAN	269		101		263	
HIGHEST ANNUAL MEAN					612	1993
LOWEST ANNUAL MEAN					84.1	1981
HIGHEST DAILY MEAN	8,210	May 8	696	Apr 7	23,700	Sep 25, 1993
LOWEST DAILY MEAN	12	Sep 11	14	Oct 1-4	9.4	Oct 12, 1980
ANNUAL SEVEN-DAY MINIMUM	14	Sep 7	15	Oct 1	10	Oct 8, 1980
MAXIMUM PEAK FLOW	---		1,490	Jul 12	44,000	Oct 1, 1986
MAXIMUM PEAK STAGE	---		10.07	Jul 12	26.34	Sep 25, 1993
INSTANTANEOUS LOW FLOW	---		13	Oct 2-4	9.4	Oct 12, 1980
ANNUAL RUNOFF (INCHES)	14.51		5.42		14.19	
10 PERCENT EXCEEDS	614		245		565	
50 PERCENT EXCEEDS	106		44		126	
90 PERCENT EXCEEDS	23		22		31	



06918600 LITTLE SAC RIVER NEAR WALNUT GROVE, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°23'55", long 93°24'36", in SW $^1/_4$ NW $^1/_4$ SE $^1/_4$ sec.24, T.31 N., R.23 W., Greene County, Hydrologic Unit 10290106, approximately 7.5 mi east of Walnut Grove at bridge on Highway BB.

DRAINAGE AREA.--119 mi^2.

PERIOD OF RECORD.--Water years 1974 to 1978, 1984 to 1986, 1988 to 1990, 1994 to 1996, October 1999 to current year. Published as "at Walnut Grove", for periods of record from 1994 to 2000.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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...	1635	Environmental	8.4	11.4	114	8.4	699	13.6	--	--	--	--
NOV												
04...	1400	Blank	--	--	--	--	--	--	--	E.01n	<0.008	<0.10
04...	1440	Environmental	15	12.1	111	8.2	591	9.6	220	76.8	6.75	5.48
DEC												
09...	1045	Environmental	10	14.6	108	8.0	517	1.7	--	--	--	--
JAN												
22...	1530	Environmental	47	16.4	118	8.0	448	0.9	230	79.2	7.96	5.50
22...	1531	Replicate	--	16.6	120	8.0	448	0.9	240	81.8	8.35	5.45
FEB												
11...	1315	Environmental	6.2	14.5	117	8.2	714	4.7	--	--	--	--
MAR												
18...	0900	Environmental	56	7.9	80	7.9	549	13.7	--	--	--	--
APR												
15...	1420	Environmental	26	10.8	124	8.0	499	19.8	--	--	--	--
15...	1421	Replicate	--	10.8	124	8.0	500	19.8	--	--	--	--
MAY												
14...	0845	Environmental	128	7.3	76	7.9	535	15.7	230	80.1	6.69	3.22
JUN												
17...	1540	Environmental	196	8.9	108	7.8	473	22.2	--	--	--	--
JUL												
08...	1500	Environmental	20	6.5	87	7.5	585	28.1	230	81.4	7.20	4.02
AUG												
21...	1000	Environmental	8.3	4.8	63	7.6	847	26.7	--	--	--	--
SEP												
08...	1530	Environmental	19	8.7	104	8.0	666	22.6	--	--	--	--

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													
15...	--	197	199	234	4	--	--	--	--	<10	0.40	<0.04	1.41
NOV													
04...	<0.09	--	--	--	--	<0.20	<0.20	<0.2	<10	<10	<0.10	<0.04	<0.06
04...	34.8	208	209	255	<1	58.0	0.30	18.9	359	<10	0.24	<0.04	1.66
DEC													
09...	--	194	197	240	<1	--	--	--	--	<10	0.38	<0.04	1.65
JAN													
22...	53.0	192	190	232	<1	76.9	0.27	20.2	371	<10	0.47	<0.04	1.49
22...	52.1	--	--	--	--	77.7	0.27	20.4	372	<10	0.47	<0.04	1.50
FEB													
11...	--	197	198	241	<1	--	--	--	--	<10	0.51	<0.04	1.59
MAR													
18...	--	172	174	212	<1	--	--	--	--	<10	0.40	<0.04	0.75
APR													
15...	--	184	184	224	<1	--	--	--	--	11	0.35	<0.04	0.65
15...	--	--	--	--	--	--	--	--	--	<10	0.38	<0.04	0.70
MAY													
14...	21.2	198	198	242	<1	38.1	<0.17	14.6	321	30	0.51	E.03	1.50
JUN													
17...	--	185	186	226	<1	--	--	--	--	10	0.36	<0.04	1.38
JUL													
08...	27.7	203	204	249	<1	46.3	0.20	15.7	344	23	0.37	<0.04	1.29
AUG													
21...	--	201	204	249	<1	--	--	--	--	13	0.44	<0.04	0.94
SEP													
08...	--	208	208	254	<1	--	--	--	--	<10	0.34	<0.04	1.42

06918600 LITTLE SAC RIVER NEAR WALNUT GROVE, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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...	E.007	0.52	0.55	0.52	1k	85	56	--	--	--	--	--	--
NOV													
04...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.3	<0.04	<0.2	<6
04...	<0.008	0.47	0.46	0.45	34	51	39	M	38	0.7	0.10	<0.2	<6
DEC													
09...	<0.008	E.01	E.03	E.03	3k	15k	20	--	--	--	--	--	--
JAN													
22...	0.010	E.01	E.03	0.05	2k	16k	32k	2	38	0.3	0.13	E.1	<6
22...	0.010	E.01	E.03	0.05	4k	3k	27k	2	41	0.3	0.40	<0.2	E4
FEB													
11...	0.021	<0.02	<0.04	E.03	<1b	9k	10k	--	--	--	--	--	--
MAR													
18...	0.010	0.02	E.03	0.05	77	92k	52	--	--	--	--	--	--
APR													
15...	0.008	0.03	0.04	0.07	34	100	22	--	--	--	--	--	--
15...	0.008	0.03	0.04	0.06	24	63k	20k	--	--	--	--	--	--
MAY													
14...	0.010	0.07	0.09	0.13	1,500	1,550	1,960	E1	339	0.4	E.03	<0.2	<6
JUN													
17...	<0.008	0.13	0.15	0.19	160	210	40	--	--	--	--	--	--
JUL													
08...	0.011	0.13	0.16	0.18	50k	105	34	E1	166	0.8	0.08	<0.2	<7
AUG													
21...	0.008	0.26d	0.28	0.30	68	100	96	--	--	--	--	--	--
SEP													
08...	<0.008	0.15	0.18	0.20	--e	--e	64	--	--	--	--	--	--

06918600 LITTLE SAC RIVER NEAR WALNUT GROVE, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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								
04...	<10	<0.08	<1	<2.0	<0.02	<0.5	<1	<2
04...	E7	0.18	M	8.5	<0.02	<0.5	14	12
DEC								
09...	--	--	--	--	--	--	--	--
JAN								
22...	12	0.96	1	12.6	<0.02	<0.5	26	24
22...	15	0.95	1	12.4	<0.02	E.3	26	24
FEB								
11...	--	--	--	--	--	--	--	--
MAR								
18...	--	--	--	--	--	--	--	--
APR								
15...	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--
MAY								
14...	<10	E.07	1	11.4	<0.02	<0.5	7	10
JUN								
17...	--	--	--	--	--	--	--	--
JUL								
08...	<8	0.10	<1	22.4	<0.02	<0.5	5	6
AUG								
21...	--	--	--	--	--	--	--	--
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:
b -- Value was extrapolated below
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:
e -- Required equipment not functional/avail

06918740 LITTLE SAC RIVER NEAR MORRISVILLE, MO

LOCATION.--Lat 37°28'58", long 93°29'07", in SW ¼ SW ¼ sec.20, T.32 N., R.23 W., Polk County, Hydrologic Unit 10290106, on downstream side of center pier of Hamilton Bridge on State Highway 215, 0.7 mi upstream from Slagle Creek, and 3 mi west of Morrisville.

DRAINAGE AREA.--237 mi^2.

PERIOD OF RECORD.--October 1968 to current year.

REVISED RECORDS.--WDR MO-84-1 1969-70, 1972-75, 1977-79, 1981, 1983 (M).

GAGE.--Water-stage recorder. Elevation of gage is 881 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	30	10	111	18	122	165	882	78	65	12	e200
2	3.7	22	11	92	18	153	144	734	328	60	205	e90
3	3.1	19	10	79	17	158	130	393	466	45	264	55
4	3.8	18	13	71	15	152	119	271	262	38	111	42
5	4.5	18	15	69	15	136	105	225	185	32	78	32
6	3.5	17	15	62	15	130	438	185	173	21	64	28
7	4.9	17	13	57	15	117	664	163	156	15	53	24
8	5.4	15	14	54	15	106	337	138	130	11	45	22
9	4.6	14	14	49	15	92	247	119	104	11	39	20
10	6.0	14	14	44	16	85	199	101	97	13	34	18
11	6.0	15	15	39	16	77	168	120	385	12	30	17
12	6.4	15	18	38	16	72	145	115	744	341	29	e16
13	6.6	13	25	35	16	80	131	101	1,150	130	27	e15
14	6.4	14	23	33	28	94	117	186	648	81	21	e18
15	6.1	19	28	31	70	83	103	189	420	48	19	40
16	7.1	24	30	30	109	78	96	196	313	38	17	27
17	9.1	23	27	26	104	73	91	405	244	28	15	24
18	9.5	19	97	22	98	70	e87	397	195	26	14	20
19	10	16	80	23	191	104	e83	309	163	20	13	18
20	11	16	53	23	275	560	e80	356	141	18	10	16
21	11	15	41	22	204	443	e77	264	120	16	10	16
22	11	14	34	20	170	306	e95	204	103	15	9.9	17
23	10	13	30	17	159	231	e115	164	90	14	11	19
24	9.8	13	33	17	145	191	153	137	80	13	9.2	19
25	15	13	35	17	125	167	248	210	70	12	8.8	15
26	19	12	27	17	116	150	208	202	75	12	7.2	14
27	25	12	26	16	110	133	150	146	77	12	6.2	16
28	16	12	26	17	106	189	122	119	60	12	8.4	12
29	22	11	28	18	---	294	111	110	50	19	20	11
30	41	11	50	18	---	224	92	108	45	19	e55	12
31	38	---	114	18	---	185	---	99	---	15	e100	---
MEAN	10.9	16.1	31.3	38.2	79.2	163	167	237	238	39.1	43.4	29.8
MAX	41	30	114	111	275	560	664	882	1,150	341	264	200
MIN	3.0	11	10	16	15	70	77	99	45	11	6.2	11
IN.	0.05	0.08	0.15	0.19	0.35	0.79	0.79	1.15	1.12	0.19	0.21	0.14

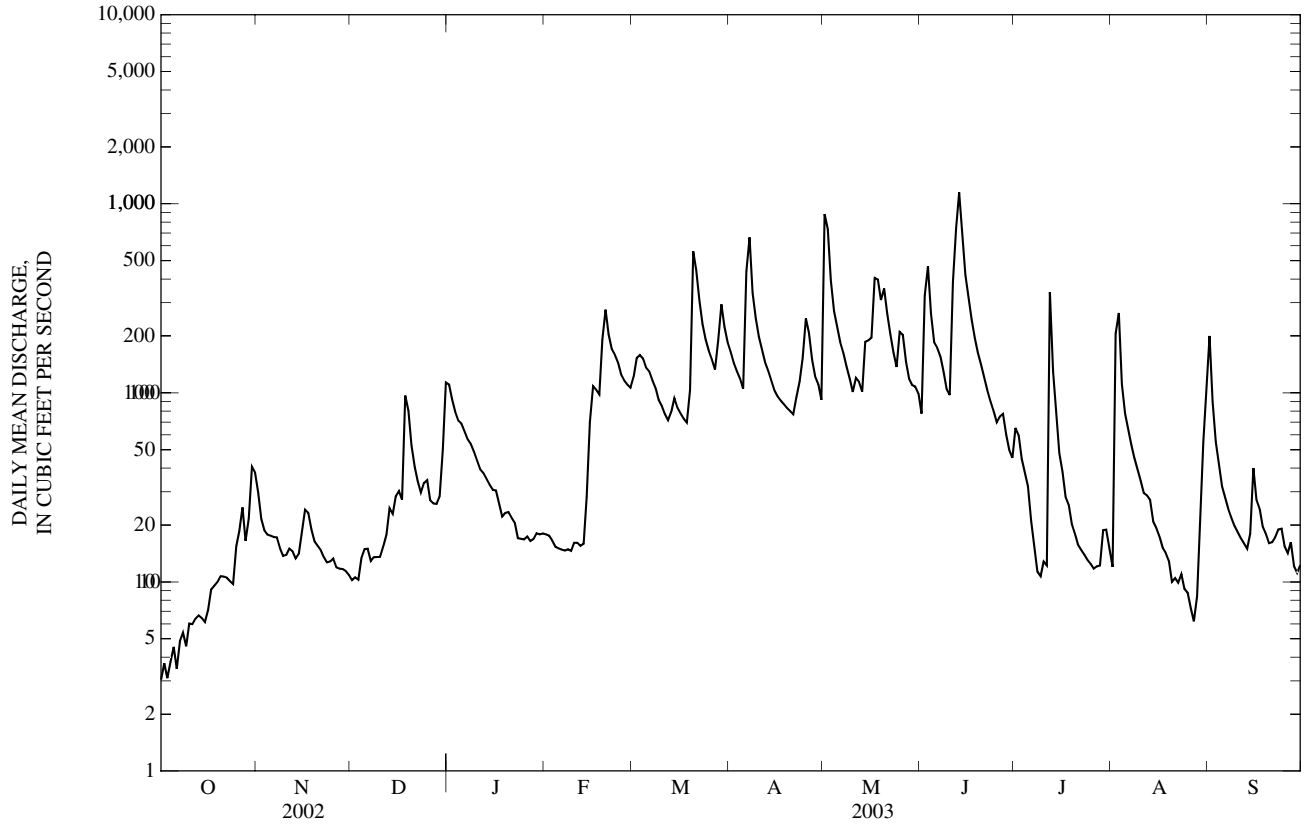
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2003, BY WATER YEAR (WY)

MEAN	121	298	272	220	282	442	398	346	201	84.3	36.3	118
MAX	809	1,256	1,045	752	1,139	1,290	1,409	1,359	968	387	145	1,691
(WY)	(1987)	(1986)	(1988)	(1991)	(1985)	(1973)	(1994)	(1990)	(1995)	(2000)	(1988)	(1993)
MIN	10.2	10.5	10.7	9.05	29.4	29.2	32.7	23.7	20.7	11.6	4.90	3.15
(WY)	(1996)	(2000)	(1990)	(1981)	(1996)	(1996)	(1981)	(2000)	(1972)	(1980)	(1980)	(1980)

06918740 LITTLE SAC RIVER NEAR MORRISVILLE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1969 - 2003	
ANNUAL MEAN	207		91.0		234	
HIGHEST ANNUAL MEAN					516	1973
LOWEST ANNUAL MEAN					58.6	1977
HIGHEST DAILY MEAN	6,890	May 8	1,150	Jun 13	18,600	Sep 25, 1993
LOWEST DAILY MEAN	3.0	Oct 1	3.0	Oct 1	0.60	Sep 15, 1980
ANNUAL SEVEN-DAY MINIMUM	3.7	Sep 30	3.8	Oct 1	1.6	Aug 27, 1980
MAXIMUM PEAK FLOW	---		1,840	May 1	29,100	Sep 25, 1993
MAXIMUM PEAK STAGE	---		6.83	May 1	23.33	Sep 25, 1993
INSTANTANEOUS LOW FLOW	---		2.8	Oct 1,3	0.30	Sep 15, 1980
ANNUAL RUNOFF (INCHES)	11.87		5.21		13.43	
10 PERCENT EXCEEDS	417		206		509	
50 PERCENT EXCEEDS	49		34		80	
90 PERCENT EXCEEDS	10		11		12	

e Estimated



06918990 STOCKTON LAKE NEAR STOCKTON, MO

LOCATION.--Lat 37°41'38", long 93°45'55", SW ¼ SE ¼ SW ¼ sec.10, T.34 N., R.26 W., Cedar County, Hydrologic Unit 10290106, in power house at dam on Sac River, 2 mi east of Stockton.

DRAINAGE AREA.--1,160 mi^2.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Nonrecording gage prior to May 30, 1973. 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 rock shell earthfill type dam. Spillway is equipped with 4 tainter gates, 40 ft by 30.5 ft, crest elevation, 861.5 ft. Embankment closed and river diverted on Sept. 23, 1968. Gates closed and storage began on Dec. 12, 1969; minimum power elevation 830.0 ft reached on May 1, 1970. Gross storage at top of flood control pool is 1,666,659 ac-ft at elevation 892.0 ft, of which 779,550 ac-ft between elevations 867.0 ft and 892.0 ft is used for flood control, and 887,109 ac-ft between elevations 760.0 ft and 867.0 ft is used for multipurpose and power. Sedimentation reserve is 25,000 ac-ft. Lake is used for flood control, power, and recreational purposes. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,450,000 ac-ft, Apr. 28, 1973, elevation, 885.94 ft; minimum, since initial filling to minimum power pool level, 352,000 ac-ft, Aug. 27 to Sept. 4, 1970, elevation, 839.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 948,000 ac-ft, June 16, elevation, 869.90 ft; minimum, 754,000 ac-ft, Sept. 29, elevation, 861.87 ft.

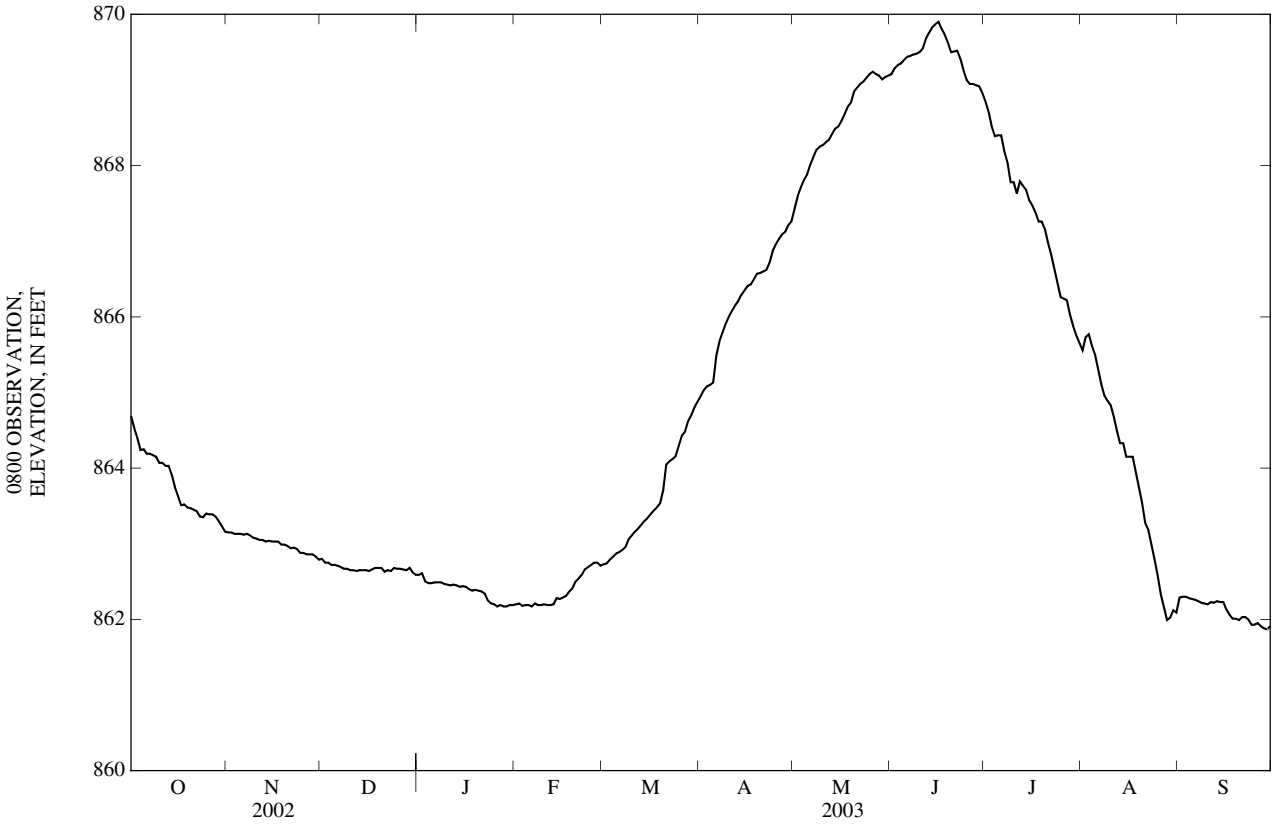
ELEVATION, IN FEET, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
OBSERVATION AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	864.69	863.15	862.80	862.59	862.20	862.73	864.95	867.43	869.21	868.85	865.56	862.29
2	864.53	863.15	862.75	862.61	862.21	862.74	865.03	867.60	869.29	868.71	865.73	862.30
3	864.40	863.13	862.75	862.50	862.18	862.79	865.08	867.71	869.33	868.52	865.77	862.30
4	864.24	863.13	862.72	862.48	862.19	862.83	865.10	867.81	869.35	868.39	865.62	862.28
5	864.25	863.13	862.72	862.48	862.19	862.87	865.13	867.88	869.40	868.40	865.50	862.27
6	864.19	863.12	862.71	862.49	862.17	862.89	865.49	868.01	869.44	868.40	865.31	862.26
7	864.19	863.13	862.69	862.49	862.21	862.92	865.68	868.11	869.45	868.19	865.11	862.24
8	864.17	863.11	862.67	862.49	862.19	862.96	865.79	868.21	869.47	868.05	864.96	862.22
9	864.15	863.08	862.67	862.47	862.19	863.06	865.91	868.25	869.48	867.78	864.89	862.21
10	864.07	863.07	862.65	862.46	862.20	863.11	866.00	868.27	869.50	867.78	864.83	862.20
11	864.07	863.05	862.65	862.45	862.19	863.16	866.08	868.31	869.55	867.63	864.68	862.23
12	864.03	863.05	862.64	862.46	862.19	863.20	866.15	868.34	869.68	867.79	864.49	862.22
13	864.03	863.03	862.65	862.45	862.20	863.25	866.21	868.42	869.76	867.73	864.33	862.24
14	863.91	863.04	862.65	862.43	862.28	863.30	866.29	868.49	869.83	867.68	864.33	862.23
15	863.75	863.03	862.65	862.44	862.27	863.34	866.35	868.52	869.87	867.54	864.15	862.23
16	863.63	863.03	862.64	862.43	862.29	863.39	866.41	868.59	869.90	867.47	864.15	862.13
17	863.51	863.03	862.66	862.40	862.31	863.44	866.43	868.68	869.81	867.38	864.15	862.06
18	863.52	862.99	862.68	862.38	862.37	863.48	866.50	868.78	869.73	867.26	863.95	862.01
19	863.48	862.99	862.68	862.39	862.41	863.53	866.57	868.83	869.63	867.26	863.74	862.01
20	863.47	862.97	862.68	862.38	862.50	863.71	866.58	868.98	869.50	867.16	863.55	861.99
21	863.45	862.94	862.63	862.37	862.54	864.05	866.60	869.03	869.51	866.98	863.28	862.03
22	863.43	862.95	862.65	862.34	862.59	864.09	866.62	869.08	869.52	866.82	863.19	862.03
23	863.36	862.93	862.64	862.25	862.66	864.12	866.72	869.11	869.41	866.63	862.99	862.00
24	863.35	862.88	862.68	862.21	862.69	864.16	866.87	869.16	869.26	866.45	862.80	861.93
25	863.40	862.88	862.67	862.20	862.72	864.29	866.96	869.21	869.13	866.26	862.58	861.93
26	863.39	862.86	862.67	862.17	862.75	864.43	867.03	869.24	869.08	866.24	862.33	861.95
27	863.39	862.86	862.66	862.19	862.75	864.48	867.09	869.21	869.08	866.22	862.17	861.91
28	863.36	862.86	862.65	862.17	862.71	864.62	867.12	869.19	869.06	866.03	861.99	861.88
29	863.30	862.83	862.68	862.17	---	864.70	867.21	869.14	869.05	865.88	862.02	861.87
30	863.23	862.79	862.62	862.19	---	864.80	867.26	869.17	868.96	865.76	862.12	861.91
31	863.16	---	862.59	862.19	---	864.88	---	869.19	---	865.66	862.09	---
MAX	864.69	863.15	862.80	862.61	862.75	864.88	867.26	869.24	869.90	868.85	865.77	862.30
MIN	863.16	862.79	862.59	862.17	862.17	862.73	864.95	867.43	868.96	865.66	861.99	861.87
(-)	783,000	775,000	770,000	761,000	773,000	824,000	881,000	930,000	924,000	842,000	759,000	755,000
(=)	-39,000	-8,000	-5,000	-9,000	+12,000	+51,000	+57,000	+49,000	-6,000	-82,000	-83,000	-4,000

CAL YR 2002.... -68,000
WTR YR 2003....-67,000

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

06918990 STOCKTON LAKE NEAR STOCKTON, MO—Continued



06919020 SAC RIVER AT HIGHWAY J BELOW STOCKTON, MO

LOCATION.--Lat 37°44'07", long 93°46'47", in NW $^1/_4$ sec.4, T.34 N., R.26 W., Cedar County, Hydrologic Unit 10290106, on right bank on downstream side of bridge on State Highway J, 4.5 mi downstream from Bear Creek, 6.3 mi downstream from Stockton Lake, 3.0 mi north of Stockton, and at mile 44.9.

DRAINAGE AREA.--1,292 mi^2.

PERIOD OF RECORD.--October 1973 to current year. Occasional discharge measurements in 1973 water year.

GAGE.--Water-stage recorder. Datum of gage is 750.19 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Considerable regulation by Stockton Lake (06918990), 6.3 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

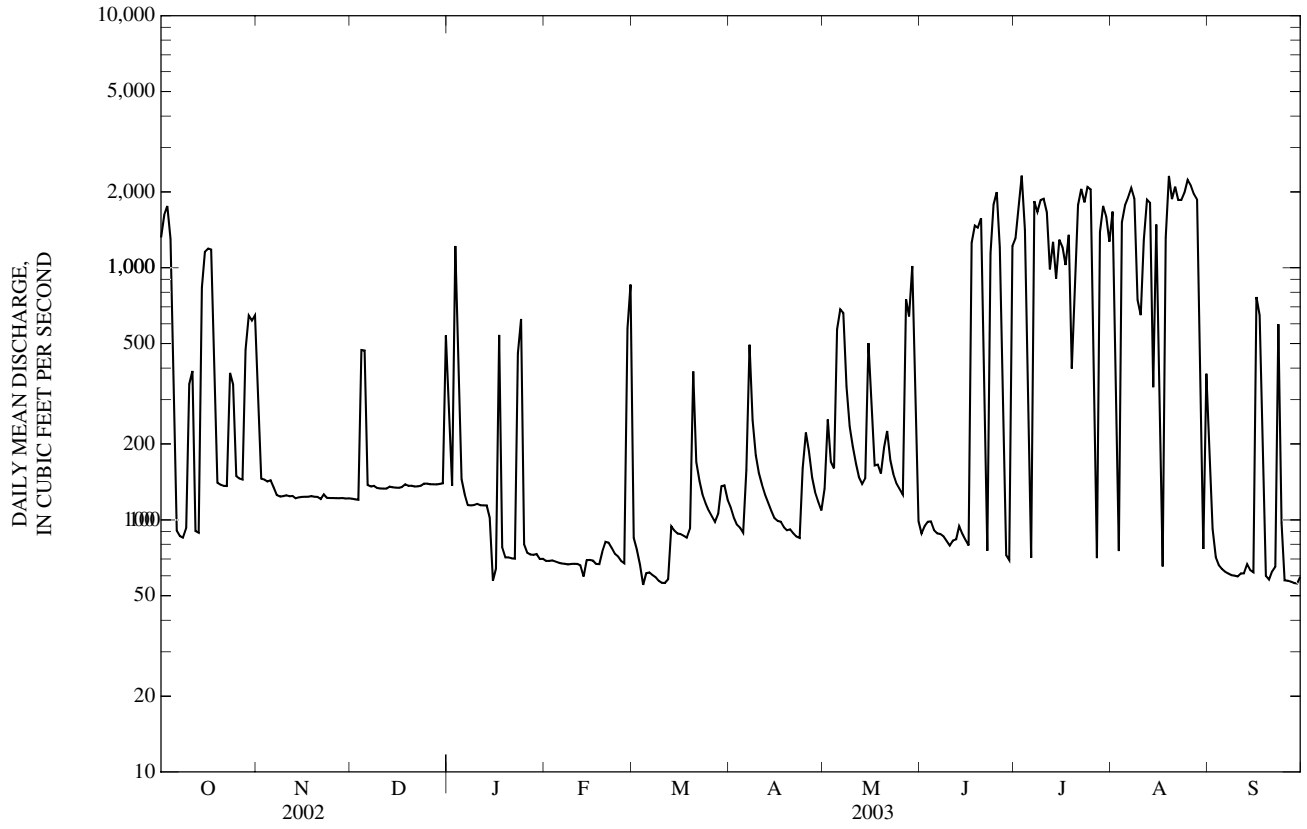
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,320	296	121	282	69	85	112	133	88	1,310	1,670	194
2	1,620	146	121	137	69	76	102	250	95	1,770	356	92
3	1,760	145	120	1,220	69	66	96	170	98	2,320	75	71
4	1,300	142	472	385	68	55	93	160	99	1,410	1,510	66
5	318	144	470	145	68	61	89	569	91	534	1,770	64
6	91	135	137	126	67	62	158	684	88	71	1,900	62
7	86	125	136	115	67	60	495	662	88	1,840	2,070	61
8	85	124	136	114	67	59	249	338	86	1,670	1,890	60
9	93	124	134	115	67	57	180	234	82	1,850	746	60
10	346	125	133	116	67	56	154	196	79	1,880	649	60
11	389	124	133	114	67	56	138	167	83	1,660	1,290	61
12	90	124	133	114	66	58	126	148	84	985	1,860	61
13	89	122	135	114	60	94	117	139	95	1,270	1,810	67
14	835	123	135	102	69	91	109	146	88	907	336	63
15	1,160	123	134	57	69	88	102	503	83	1,290	1,480	62
16	1,190	124	134	64	69	88	99	287	79	1,210	346	765
17	1,180	124	135	542	67	87	98	164	1,260	1,030	65	648
18	423	124	138	78	67	85	93	166	1,470	1,350	1,320	189
19	140	123	136	71	75	92	91	153	1,440	398	2,320	60
20	138	123	137	71	82	387	92	194	1,570	859	1,870	58
21	137	121	136	70	81	170	89	225	330	1,770	2,100	62
22	136	126	136	70	77	143	86	172	75	2,050	1,860	65
23	383	122	137	458	73	126	85	152	1,140	1,820	1,860	597
24	345	122	139	627	72	116	160	139	1,780	2,090	1,990	97
25	149	122	139	80	69	109	222	132	2,000	2,050	2,230	58
26	146	122	138	74	67	103	187	126	1,200	367	2,120	57
27	144	122	138	73	574	98	148	750	222	70	1,960	57
28	474	122	138	73	857	106	129	642	73	1,390	1,860	56
29	647	122	139	73	---	136	118	1,020	69	1,760	358	56
30	617	122	140	70	---	137	109	310	1,220	1,600	77	59
31	648	---	539	70	---	120	---	99	---	1,270	380	---
MEAN	532	132	169	188	116	101	138	298	508	1,350	1,359	133
MAX	1,760	296	539	1,220	857	387	495	1,020	2,000	2,320	2,320	765
MIN	85	121	120	57	60	55	85	99	69	70	65	56
IN.	0.47	0.11	0.15	0.17	0.09	0.09	0.12	0.27	0.44	1.20	1.21	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2003, BY WATER YEAR (WY)

MEAN	622	802	1,134	1,129	1,108	1,402	1,686	1,611	1,583	1,199	969	768
MAX	4,922	4,697	3,983	4,464	2,763	4,230	4,613	3,403	4,863	4,726	2,488	1,949
(WY)	(1994)	(1994)	(1986)	(1993)	(1988)	(1975)	(1974)	(1994)	(1990)	(1995)	(1992)	(1993)
MIN	51.1	60.1	61.9	66.7	98.8	64.8	60.5	110	186	121	71.6	80.4
(WY)	(1974)	(1981)	(1981)	(1981)	(1981)	(1977)	(1981)	(2001)	(1991)	(1977)	(1991)	(1991)

06919020 SAC RIVER AT HIGHWAY J BELOW STOCKTON, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1974 - 2003	
ANNUAL MEAN	1,089		423		1,168	
HIGHEST ANNUAL MEAN					2,450	1994
LOWEST ANNUAL MEAN					256	1977
HIGHEST DAILY MEAN	6,670	May 13	2,320	Jul 3,Aug 19	12,800	Sep 25, 1993
LOWEST DAILY MEAN	82	Sep 27-29	55	Mar 4	25	Mar 25, 1977
ANNUAL SEVEN-DAY MINIMUM	83	Sep 23	58	Mar 6	33	Oct 20, 1973
MAXIMUM PEAK FLOW	---		6,100	Aug 27	14,800	Oct 1, 1986
MAXIMUM PEAK STAGE	---		17.61	Aug 27	24.91	Feb 23, 1985
INSTANTANEOUS LOW FLOW	---		50	Mar 3,4	24	Mar 25, 1977
ANNUAL RUNOFF (INCHES)	11.44		4.45		12.28	
10 PERCENT EXCEEDS	2,930		1,530		3,170	
50 PERCENT EXCEEDS	470		133		531	
90 PERCENT EXCEEDS	121		67		69	



06919500 CEDAR CREEK NEAR PLEASANT VIEW, MO

LOCATION.--Lat 37°50'03", long 93°52'31", in NE $^1/_4$ sec.2, T.35 N., R.27 W., Cedar County, Hydrologic Unit 10290106, on downstream side of right pier of bridge on State Highway 39, 1.5 mi north of Pleasant View, 1.8 mi downstream from Alder Creek, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--420 mi^2.

PERIOD OF RECORD.--April 1923 to September 1926, October 1948 to current year.

REVISED RECORDS.--WSP 1146: 1923-26, drainage area. WSP 1176: 1924(M).

GAGE.--Water-stage recorder. Datum of gage is 739.46 ft above National Geodetic Vertical Datum of 1929. Apr. 22, 1923, to Sept. 30, 1926 and Oct. 1, 1948, to May 10, 1950, nonrecording gage at site 50 ft downstream at same datum; May 11, 1950, to Dec. 17, 1952, nonrecording gage, at present site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 27.7 ft, July 20, 1909, from floodmark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	0.35	0.29	3.4	3.9	31	152	160	56	11	1.7	45
2	3.5	0.36	0.30	3.5	4.1	31	128	270	57	11	1.5	1,010
3	3.5	0.38	0.28	3.4	3.9	37	110	204	69	9.5	24	315
4	4.0	0.38	0.31	3.4	3.3	52	97	171	81	8.6	61	154
5	3.6	0.41	0.40	3.7	3.0	54	85	1,230	83	7.8	34	94
6	3.6	0.40	0.46	4.1	2.9	51	86	850	72	7.2	21	64
7	3.0	0.37	0.55	4.0	2.9	44	1,100	1,610	63	6.5	15	47
8	2.5	0.35	0.66	4.1	2.9	39	923	897	54	5.8	12	36
9	2.0	0.34	0.68	4.2	2.9	33	387	502	49	5.2	8.7	30
10	1.7	0.31	0.64	6.4	2.8	29	258	328	41	8.1	7.1	25
11	1.4	0.31	0.65	5.9	2.7	27	198	244	39	6.8	6.3	21
12	1.2	0.29	0.76	5.6	2.7	26	161	190	38	5.8	5.2	19
13	1.0	0.30	0.86	5.4	2.6	30	134	153	149	290	4.1	29
14	0.83	0.37	0.84	5.0	5.4	37	114	230	108	225	3.5	41
15	0.75	0.50	0.81	4.7	7.3	48	98	392	78	92	2.9	52
16	0.67	0.47	0.73	e4.5	15	54	86	277	60	50	2.4	39
17	0.70	0.45	0.75	e4.3	21	55	80	704	49	31	2.1	29
18	0.57	0.42	1.3	e4.1	31	54	75	928	39	22	1.7	23
19	0.49	0.38	1.8	e4.0	31	56	69	480	32	16	1.5	20
20	0.40	0.38	1.8	3.9	87	167	69	508	27	13	1.2	16
21	0.32	0.38	1.8	3.7	131	687	67	625	23	9.7	0.94	16
22	0.27	0.38	2.1	e3.6	103	484	70	395	20	7.8	0.79	92
23	0.24	0.41	2.2	e3.6	78	267	71	248	18	6.6	0.61	39
24	0.22	0.42	2.9	e3.5	63	190	415	182	16	5.7	0.49	31
25	0.31	0.38	3.6	e3.5	58	153	1,090	152	14	4.8	0.42	19
26	0.29	0.37	3.9	e3.4	50	130	653	159	14	3.9	0.32	14
27	0.26	0.31	4.0	e3.4	36	114	384	136	13	3.4	0.38	12
28	0.27	0.31	3.6	3.4	32	112	257	110	12	3.0	0.36	10
29	0.42	0.31	3.5	3.3	---	160	192	91	12	2.7	0.68	9.6
30	0.42	0.31	3.8	3.3	---	236	153	77	11	2.4	1.2	10
31	0.41	---	3.6	3.8	---	190	---	66	---	2.1	2.3	---
MEAN	1.37	0.37	1.61	4.07	28.2	119	259	405	46.6	28.5	7.27	78.7
MAX	4.0	0.50	4.0	6.4	131	687	1,100	1,610	149	290	61	1,010
MIN	0.22	0.29	0.28	3.3	2.6	26	67	66	11	2.1	0.32	9.6
IN.	0.00	0.00	0.00	0.01	0.07	0.33	0.69	1.11	0.12	0.08	0.02	0.21

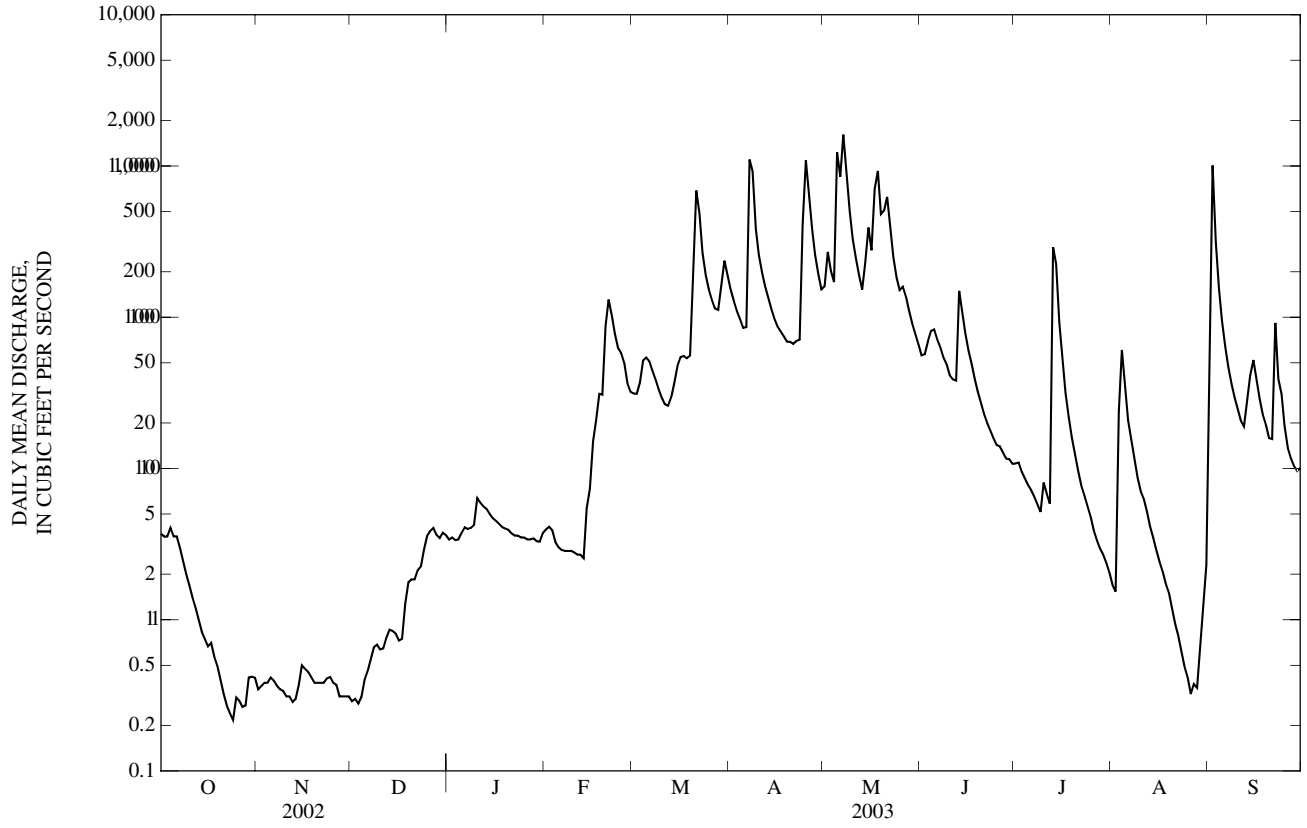
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	190	332	280	256	400	556	537	533	366	227	77.6	170
MAX	3,055	1,923	1,490	1,063	2,307	2,275	2,766	2,969	1,753	2,229	641	2,033
(WY)	(1987)	(1993)	(1993)	(1949)	(1985)	(1973)	(1994)	(1961)	(1981)	(1958)	(1950)	(1993)
MIN	0.00	0.00	0.06	0.12	0.14	0.23	4.09	39.1	4.52	0.03	0.00	0.00
(WY)	(1954)	(1954)	(1954)	(1954)	(1954)	(1954)	(1956)	(1988)	(1991)	(1954)	(1954)	(1953)

06919500 CEDAR CREEK NEAR PLEASANT VIEW, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	272		81.9		326	
HIGHEST ANNUAL MEAN					807	1993
LOWEST ANNUAL MEAN					16.0	1954
HIGHEST DAILY MEAN	10,600	May 9	1,610	May 7	26,200	Jul 17, 1958
LOWEST DAILY MEAN	0.22	Oct 24	0.22	Oct 24	0.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	0.27	Oct 22	0.27	Oct 22	0.00	Many Years
MAXIMUM PEAK FLOW	---		1,940	May 7	37,000	Jul 17, 1958
MAXIMUM PEAK STAGE	---		9.73	May 7	27.36	Apr 12, 1994
INSTANTANEOUS LOW FLOW	---		0.22	Oct 23,24	0.00	Many Years
ANNUAL RUNOFF (INCHES)	8.80		2.65		10.55	
10 PERCENT EXCEEDS	444		200		662	
50 PERCENT EXCEEDS	26		9.5		70	
90 PERCENT EXCEEDS	0.39		0.38		1.2	

e Estimated



06919900 SAC RIVER NEAR CAPLINGER MILLS, MO

LOCATION.--Lat 37°52'12", long 93°48'11", in NW ¼ NE ¼ SW ¼ sec.21, T.36 N., R.26 W., St. Clair County, Hydrologic Unit 10290106, on right downstream wingwall of bridge on State Highway W, 1.5 mi downstream from Cedar Creek, and 5.0 mi north of Caplinger Mills.

DRAINAGE AREA.--1,810 mi^2.

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 720.82 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Some regulation from Stockton Lake (06918990). U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,220	757	110	748	81	318	322	414	188	1,310	1,440	515
2	1,510	162	115	140	80	168	295	642	187	1,590	1,470	1,090
3	1,910	151	109	621	80	159	259	546	193	2,550	154	541
4	1,680	143	118	1,140	78	166	241	451	210	1,430	538	293
5	1,190	142	993	162	77	167	222	2,350	205	1,630	1,900	205
6	135	142	139	147	77	161	275	1,690	188	129	1,870	160
7	114	139	125	126	75	152	1,670	3,000	172	727	2,130	133
8	108	134	125	124	75	143	1,590	1,780	153	1,820	2,310	118
9	105	129	124	122	76	135	784	1,020	149	1,880	1,410	108
10	97	126	124	122	76	126	558	735	135	1,940	714	101
11	654	117	124	123	76	123	459	558	124	1,780	946	97
12	134	111	124	120	75	122	387	440	131	1,430	1,700	95
13	113	111	128	120	74	134	328	383	294	1,240	2,100	111
14	519	115	125	121	95	149	294	405	221	1,540	1,410	114
15	1,330	120	124	100	96	166	270	638	178	1,040	511	120
16	1,380	115	124	84	99	180	258	1,050	156	1,540	1,440	144
17	1,670	121	126	586	105	180	240	890	322	1,120	143	841
18	848	119	133	e300	111	184	235	1,340	1,600	e1,350	180	652
19	164	119	125	100	113	212	233	823	1,620	e1,300	2,290	124
20	140	115	123	91	138	510	238	809	1,470	188	2,030	103
21	134	118	123	87	226	961	229	961	1,360	1,380	2,120	101
22	127	114	124	81	195	797	222	721	139	2,130	2,230	154
23	130	113	124	e400	173	507	205	487	302	1,810	1,740	312
24	661	110	130	e600	150	385	720	387	1,580	2,170	2,070	458
25	164	109	128	260	131	328	1,610	332	2,160	2,080	2,270	117
26	150	109	128	92	123	289	1,130	316	1,630	1,520	2,340	100
27	144	110	128	88	526	256	745	374	966	131	1,950	91
28	145	111	128	85	916	266	542	992	124	407	2,140	85
29	746	110	128	84	---	319	426	838	111	1,730	1,460	80
30	728	112	129	82	---	441	365	1,170	400	1,690	151	71
31	753	---	129	83	---	379	---	227	---	1,470	149	---
MEAN	610	143	153	230	150	277	512	864	556	1,421	1,461	241
MAX	1,910	757	993	1,140	916	961	1,670	3,000	2,160	2,550	2,340	1,090
MIN	97	109	109	81	74	122	205	227	111	129	143	71
IN.	0.39	0.09	0.10	0.15	0.09	0.18	0.32	0.55	0.34	0.91	0.93	0.15

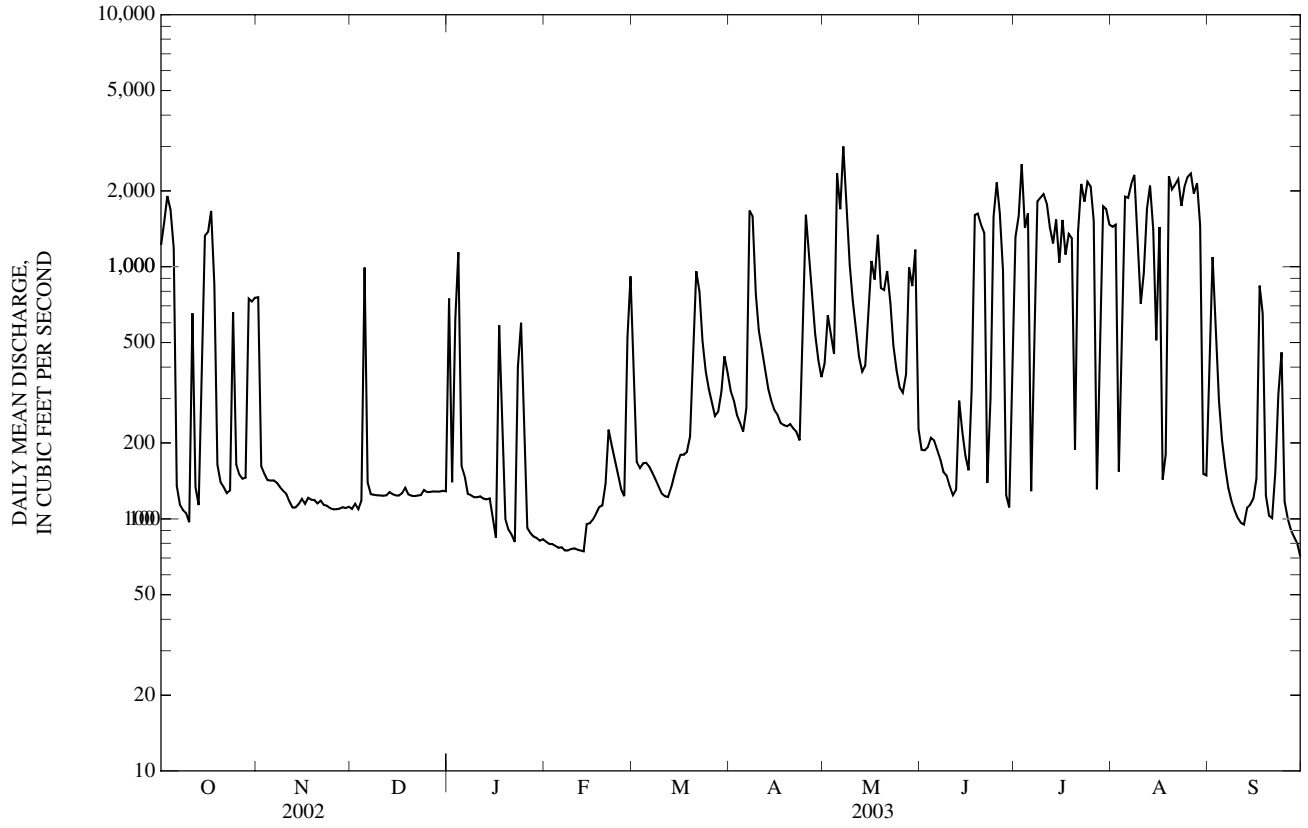
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2003, BY WATER YEAR (WY)

MEAN	1,183	1,372	1,601	1,411	1,691	2,139	2,390	2,452	2,097	1,440	1,066	970
MAX	11,070	5,392	5,838	5,487	5,202	5,630	6,805	5,782	7,046	5,283	2,850	5,283
(WY)	(1987)	(1994)	(1986)	(1993)	(1985)	(1985)	(1994)	(1995)	(1995)	(1995)	(1992)	(1993)
MIN	61.1	66.7	56.6	53.5	101	82.7	76.3	278	241	170	77.3	103
(WY)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(2001)	(1991)	(1988)	(1991)	(1991)

06919900 SAC RIVER NEAR CAPLINGER MILLS, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1975 - 2003	
ANNUAL MEAN	1,568		557		1,650	
HIGHEST ANNUAL MEAN					3,267	1994
LOWEST ANNUAL MEAN					399	1977
HIGHEST DAILY MEAN	17,400	May 8	3,000	May 7	51,200	Oct 2, 1986
LOWEST DAILY MEAN	84	Sep 27	71	Sep 30	34	Aug 25, 1999
ANNUAL SEVEN-DAY MINIMUM	91	Sep 23	75	Feb 7	47	Oct 7, 1980
MAXIMUM PEAK FLOW	---		4,960	Aug 26	61,500	Apr 12, 1994
MAXIMUM PEAK STAGE	---		12.61	Aug 26	30.95	Apr 12, 1994
INSTANTANEOUS LOW FLOW	---		67	Sep 30	33	Aug 24, 1999
ANNUAL RUNOFF (INCHES)	11.76		4.18		12.39	
10 PERCENT EXCEEDS	5,080		1,650		4,040	
50 PERCENT EXCEEDS	753		193		913	
90 PERCENT EXCEEDS	120		101		95	

e Estimated



06921070 POMME DE TERRE RIVER NEAR POLK, MO

LOCATION.--Lat 37°40'56", long 93°22'12", in NE ¼ NW ¼ NW ¼ sec.17, T.34 N., R.22 W., Polk County, Hydrologic Unit 10290107, on right bank 150 ft upstream from Jefferson Bridge on State Highway D, and 5 mi southwest of Polk.

DRAINAGE AREA.--276 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 872.61 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records fair. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

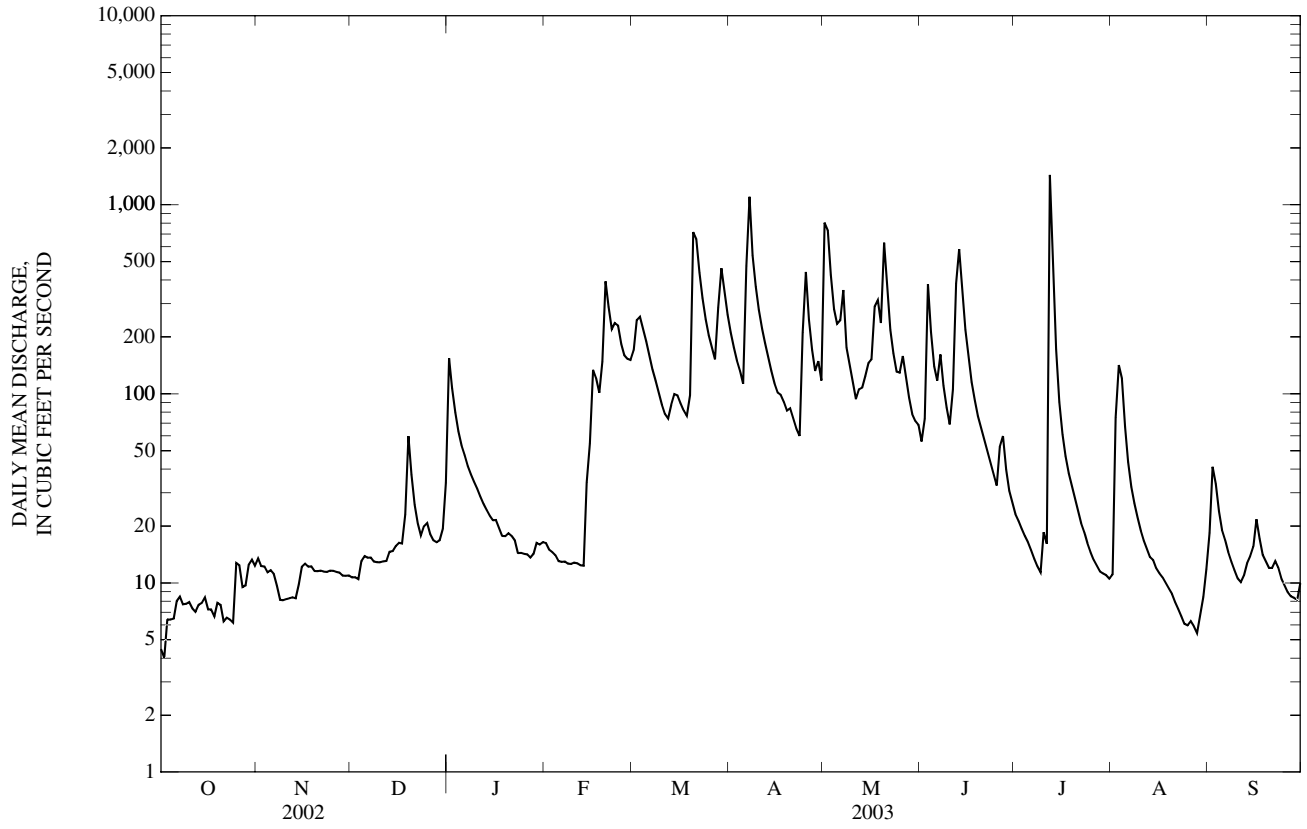
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	13	11	154	16	170	212	805	56	23	11	18
2	4.0	12	11	107	15	246	176	733	74	21	75	41
3	6.4	12	10	80	15	256	150	426	380	19	142	33
4	6.4	11	13	63	14	219	132	281	212	18	121	24
5	6.5	12	14	53	13	190	113	235	140	16	67	19
6	8.0	11	14	47	13	159	474	245	118	15	44	17
7	8.5	9.7	14	42	13	135	1,100	354	161	13	32	15
8	7.7	8.1	13	38	13	117	539	176	110	12	26	13
9	7.8	8.1	13	34	13	101	368	139	84	11	22	12
10	7.9	8.2	13	32	13	88	278	114	69	19	19	11
11	7.3	8.3	13	29	13	78	222	94	105	16	17	10
12	7.0	8.4	13	26	12	74	185	106	384	1,440	15	11
13	7.7	8.3	15	24	12	88	156	108	583	442	14	13
14	7.9	9.8	15	23	34	100	132	124	359	172	13	14
15	8.4	12	16	21	55	98	114	145	218	91	12	16
16	7.2	13	16	22	134	89	102	152	154	61	11	22
17	7.2	12	16	19	121	81	99	289	115	47	11	17
18	6.7	12	23	18	101	76	91	313	92	38	10	14
19	7.9	12	60	18	148	98	82	237	76	32	9.3	13
20	7.7	12	37	18	393	716	84	631	65	27	8.8	12
21	6.3	12	26	18	288	661	74	353	56	24	7.9	12
22	6.5	11	21	17	220	437	65	217	49	21	7.3	13
23	6.4	11	18	14	237	321	60	164	42	18	6.7	12
24	6.2	12	20	14	230	247	210	131	37	16	6.1	11
25	13	12	21	14	184	204	442	129	33	14	6.0	9.7
26	12	11	18	14	160	176	248	158	52	13	6.3	8.9
27	9.5	11	17	14	153	152	171	123	60	12	5.9	8.5
28	9.7	11	16	14	151	286	132	95	40	12	5.4	8.3
29	13	11	17	16	---	462	149	78	31	11	6.7	8.1
30	13	11	19	16	---	355	118	72	27	11	8.4	10
31	12	---	34	16	---	262	---	69	---	11	12	---
MEAN	8.07	10.9	18.6	33.4	99.4	217	216	235	133	87.0	24.5	14.9
MAX	13	13	60	154	393	716	1,100	805	583	1,440	142	41
MIN	4.0	8.1	10	14	12	74	60	69	27	11	5.4	8.1
IN.	0.03	0.04	0.08	0.14	0.38	0.91	0.87	0.98	0.54	0.36	0.10	0.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2003, BY WATER YEAR (WY)

MEAN	150	343	319	262	339	518	507	411	222	92.3	40.1	149
MAX	1,094	1,408	1,488	822	1,496	1,673	1,978	1,658	1,252	450	154	2,348
(WY)	(1987)	(1986)	(1983)	(1991)	(1985)	(1973)	(1994)	(2002)	(1995)	(2000)	(1985)	(1993)
MIN	8.07	9.94	8.94	10.8	42.5	43.4	26.8	23.5	15.9	4.16	2.72	1.70
(WY)	(2003)	(1990)	(1990)	(1977)	(1981)	(1996)	(1981)	(2000)	(1988)	(1980)	(1980)	(1980)

06921070 POMME DE TERRE RIVER NEAR POLK, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1969 - 2003	
ANNUAL MEAN	258		91.4		279	
HIGHEST ANNUAL MEAN					554	1993
LOWEST ANNUAL MEAN					85.6	2000
HIGHEST DAILY MEAN	11,900	May 8	1,440	Jul 12	24,300	Sep 25, 1993
LOWEST DAILY MEAN	4.0	Oct 2	4.0	Oct 2	0.30	Aug 10, 1980
ANNUAL SEVEN-DAY MINIMUM	5.4	Sep 26	6.2	Aug 23	0.34	Aug 9, 1980
MAXIMUM PEAK FLOW	---		3,640	Jul 12	34,300	Sep 24, 1993
MAXIMUM PEAK STAGE	---		8.99	Jul 12	27.10	Sep 24, 1993
INSTANTANEOUS LOW FLOW	---		3.7	Oct 2	0.30	Aug 10, 1980
ANNUAL RUNOFF (INCHES)	12.69		4.50		13.72	
10 PERCENT EXCEEDS	414		240		560	
50 PERCENT EXCEEDS	39		21		84	
90 PERCENT EXCEEDS	7.3		8.3		10	



06921070 POMME DE TERRE RIVER NEAR POLK, MO—Continued
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1983 to February 1986, November 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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...	1210	Environmental	11	9.4	82	7.8	371	8.2	190	36.7	24.3	2.75
JAN 23...	0930	Environmental	17	14.1	98	8.0	355	0.5	--	--	--	--
MAR 18...	1040	Environmental	76	9.7	100	8.0	413	14.5	--	--	--	--
MAY 14...	1115	Environmental	125	6.9	75	7.6	419	17.5	210	44.3	24.2	3.28
JUL 09...	1405	Environmental	11	5.2	71	7.8	429	29.6	--	--	--	--
SEP 08...	1345	Environmental	13	6.6	78	7.7	386	22.0	--	--	--	--

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 04...	3.53	192	195	238	<1	5.71	<0.20	7.2	213	<10	0.21	<0.04	<0.06
JAN 23...	--	211	211	257	<1	--	--	--	--	<10	0.14	<0.04	0.09
MAR 18...	--	178	179	218	<1	--	--	--	--	<10	0.36	<0.04	0.09
MAY 14...	6.11	193	193	235	<1	13.6	<0.17	9.6	221	18	0.42	E.03	0.41
JUL 09...	--	200	200	245	<1	--	--	--	--	19	0.54	<0.04	0.17
SEP 08...	--	181	182	222	<1	--	--	--	--	<10	0.37	<0.04	0.07

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...	<0.008	0.02	E.03	E.03	72	105	98k	M	47	0.6	<0.04	<0.2	<6
JAN 23...	<0.008	<0.02	<0.04	<0.04	3k	10k	11k	--	--	--	--	--	--
MAR 18...	E.005	<0.02	<0.04	<0.04	21	28	29	--	--	--	--	--	--
MAY 14...	0.018	0.03	0.05	0.07	170	195k	174	E1	153	0.7	<0.04	<0.2	<6
JUL 09...	E.007	0.09	0.11	0.13	18k	48	22k	--	--	--	--	--	--
SEP 08...	<0.008	0.05	0.06	0.09	--e	--e	59	--	--	--	--	--	--

06921070 POMME DE TERRE RIVER NEAR POLK, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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								
04...	<10	<0.08	<1	12.8	<0.02	<0.5	1	<2
JAN								
23...	--	--	--	--	--	--	--	--
MAR								
18...	--	--	--	--	--	--	--	--
MAY								
14...	E8	<0.08	<1	18.4	<0.02	E.4	3	E2
JUL								
09...	--	--	--	--	--	--	--	--
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:
k -- Counts outside acceptable range

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

06921200 LINDLEY CREEK NEAR POLK, MO

LOCATION.--Lat 37°45'02", long 93°15'58", in NE ¼ SE ¼ sec.29, T.35 N., R.21 W., Polk County, Hydrologic Unit 10290107, on left bank 30 ft upstream from county highway bridge, 0.5 mi downstream from Panther Creek, 2.5 mi northeast of Polk, and 11 mi upstream from Ingalls Creek.

DRAINAGE AREA.--112 mi^2.

PERIOD OF RECORD.--April 1957 to current year.

GAGE.--Water-stage recorder. Datum of gage is 884.08 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 25, 1957, nonrecording gage at site 30 ft downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges and discharges below 5 ft^3/s, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	2.5	1.7	11	3.6	49	74	234	23	5.1	0.46	2.1
2	0.00	1.5	1.7	11	3.5	62	62	169	40	3.9	24	2.7
3	0.00	1.5	1.6	9.8	3.6	55	55	94	78	3.2	15	2.1
4	0.00	1.3	2.4	8.9	3.1	49	50	82	42	2.4	3.8	1.3
5	0.00	1.6	2.7	7.9	2.4	46	42	167	31	1.8	1.7	0.80
6	0.00	1.6	2.6	7.2	2.7	40	597	191	35	1.4	0.96	0.55
7	0.00	1.4	2.9	6.4	2.6	36	494	698	69	1.0	0.65	0.41
8	0.00	1.1	2.8	5.8	2.6	34	194	206	34	0.92	0.66	0.41
9	0.00	0.81	2.7	6.0	3.2	30	131	140	23	1.0	0.53	0.33
10	0.00	1.2	2.9	5.2	3.4	26	98	104	19	2.4	0.38	0.28
11	0.00	1.1	2.9	4.4	3.3	25	80	81	57	2.6	0.32	0.38
12	0.00	0.85	3.3	3.8	3.1	25	68	63	114	812	0.26	0.91
13	0.00	0.70	3.8	4.1	4.2	65	58	57	302	70	0.19	0.77
14	0.00	0.89	3.8	3.5	37	70	51	76	135	13	0.13	1.6
15	0.00	2.0	3.3	4.0	76	55	45	60	62	6.9	0.11	1.0
16	0.00	5.4	3.4	5.0	55	49	41	107	41	4.6	0.06	0.79
17	0.00	6.6	2.8	4.5	42	44	44	190	30	3.1	0.05	1.1
18	0.00	4.8	7.0	3.4	35	41	38	148	22	2.6	0.04	1.0
19	0.00	3.5	24	3.0	83	105	36	100	18	2.0	0.05	0.81
20	0.00	2.7	14	3.5	90	675	40	483	15	1.4	0.04	0.60
21	0.00	2.6	11	3.5	62	321	36	227	12	1.2	0.03	0.64
22	0.00	2.3	8.3	3.4	53	176	31	142	8.4	0.68	0.00	1.2
23	0.00	2.3	7.1	3.1	51	121	28	95	5.6	0.42	0.00	0.96
24	0.00	2.3	7.4	2.9	46	92	203	79	3.3	0.32	0.00	0.79
25	0.00	2.1	7.3	2.7	37	77	280	83	2.0	0.40	0.00	1.2
26	1.2	2.0	5.9	2.5	e34	70	120	69	362	0.34	0.00	1.2
27	3.5	1.9	5.3	2.3	e32	61	77	51	33	0.30	0.00	1.3
28	2.5	1.7	5.5	2.2	e30	240	61	42	12	0.37	0.00	0.88
29	3.1	1.9	6.0	2.7	---	205	52	36	8.0	0.61	0.11	0.59
30	11	2.0	7.4	3.0	---	118	46	34	6.0	0.45	0.18	0.99
31	6.2	---	9.4	3.7	---	89	---	29	---	0.40	0.35	---
MEAN	0.89	2.14	5.58	4.85	28.7	102	108	140	54.7	30.5	1.61	0.99
MAX	11	6.6	24	11	90	675	597	698	362	812	24	2.7
MIN	0.00	0.70	1.6	2.2	2.4	25	28	29	2.0	0.30	0.00	0.28
IN.	0.01	0.02	0.06	0.05	0.27	1.05	1.07	1.44	0.55	0.31	0.02	0.01

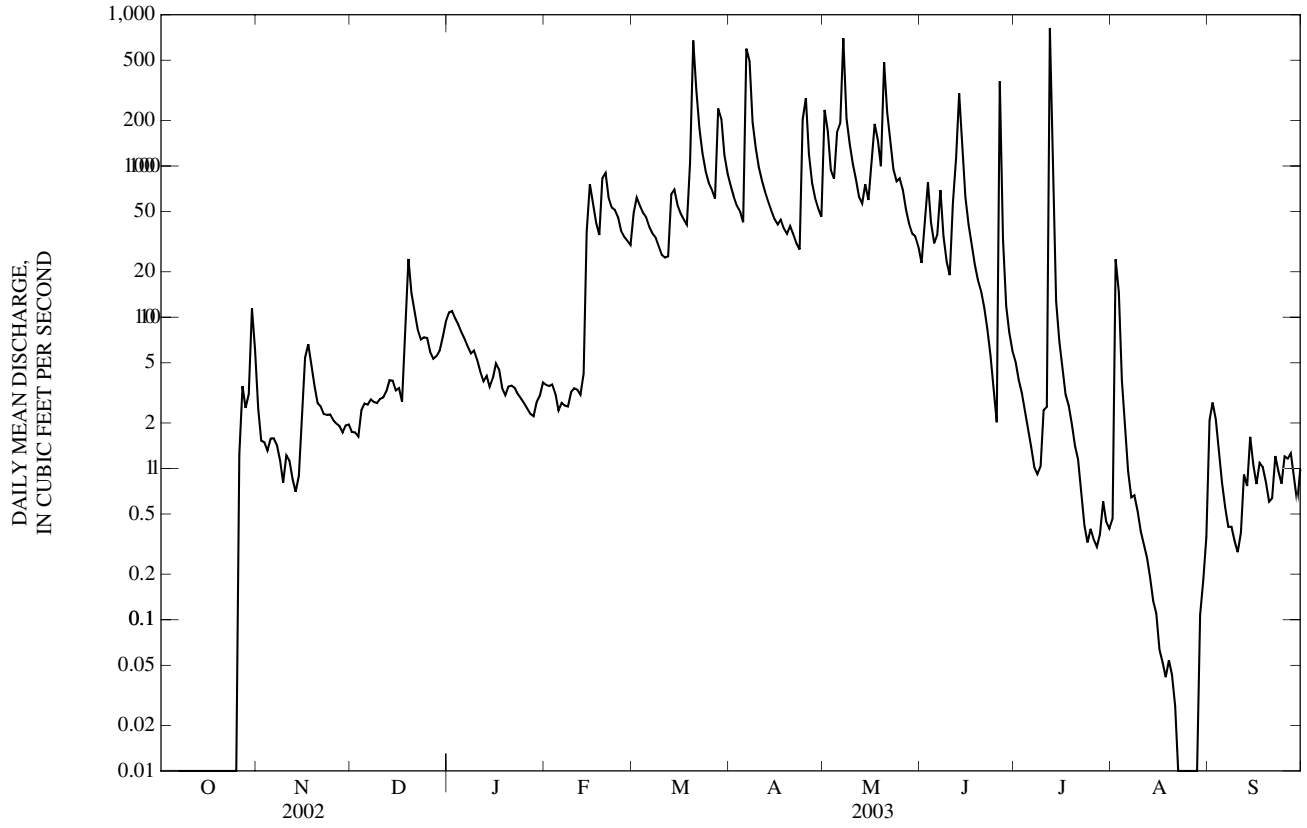
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2003, BY WATER YEAR (WY)

MEAN	78.9	104	113	95.4	128	189	178	172	80.6	36.9	13.8	52.3
MAX	812	566	526	358	764	855	903	854	421	534	100	1,134
(WY)	(1987)	(1986)	(1983)	(1973)	(1985)	(1973)	(1994)	(2002)	(1985)	(1958)	(1958)	(1993)
MIN	0.00	0.04	0.38	0.75	1.49	15.9	4.86	6.04	0.73	0.08	0.00	0.00
(WY)	(1977)	(1964)	(1964)	(1964)	(1964)	(1996)	(1981)	(2000)	(1988)	(1980)	(1980)	(1960)

06921200 LINDLEY CREEK NEAR POLK, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1957 - 2003	
ANNUAL MEAN	123		40.0		103	
HIGHEST ANNUAL MEAN					247	1993
LOWEST ANNUAL MEAN					18.8	2000
HIGHEST DAILY MEAN	5,960	May 13	812	Jul 12	12,000	Oct 1, 1986
LOWEST DAILY MEAN	0.00	Several Days	0.00	Many Days	0.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 23	0.00	Oct 1, Aug 22	0.00	Many Years
MAXIMUM PEAK FLOW	---		3,500	Jul 12	31,900	Oct 1, 1986
MAXIMUM PEAK STAGE	---		11.73	Jul 12	23.60	May 5, 1961
INSTANTANEOUS LOW FLOW	---		0.00	Many Days	0.00	Many Years
ANNUAL RUNOFF (INCHES)	14.95		4.85		12.51	
10 PERCENT EXCEEDS	169		96		183	
50 PERCENT EXCEEDS	17		3.8		25	
90 PERCENT EXCEEDS	0.02		0.05		0.44	

e Estimated



06921325 POMME DE TERRE LAKE NEAR HERMITAGE, MO

LOCATION.--Lat 37°54'06", long 93°19'05", in NE $\frac{1}{4}$ sec.2, T.36 N., R.22 W., Hickory County, Hydrologic Unit 10290107, in intake tower at dam on Pomme de Terre River, 3.0 mi southwest of Hermitage.

DRAINAGE AREA.--611 mi^2.

PERIOD OF RECORD.--June 1960 to current year.

GAGE.--Water-stage recorder. Nonrecording gage prior to Nov. 9, 1961. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers).

REMARKS.--Lake is formed by earthfill embankment with a concrete gravity section-type dam. Closure operation began on June 28, 1960; conservation pool level reached June 15, 1963. Capacity at top of flood control pool, 648,700 ac-ft at elevation 874.0 ft, crest of spillway, of which 407,200 ac-ft between elevations 839.0 ft and 874.0 ft is used for flood control, and 228,700 ac-ft between elevation 783.0 ft and 839.0 ft is used for conservation and 12,840 ac-ft below elevation 783.0 ft is sediment storage. Lake is used for flood control and recreational purposes. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 506,000 ac-ft, Sept. 27, 1993, elevation, 864.58 ft; minimum, since initial filling to conservation pool level, 216,000 ac-ft, Mar. 3, 1964, elevation, 835.61 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 272,000 ac-ft, May 7, elevation 843.17 ft; minimum, 222,000 ac-ft, Feb. 12, 13, elevation, 837.04 ft.

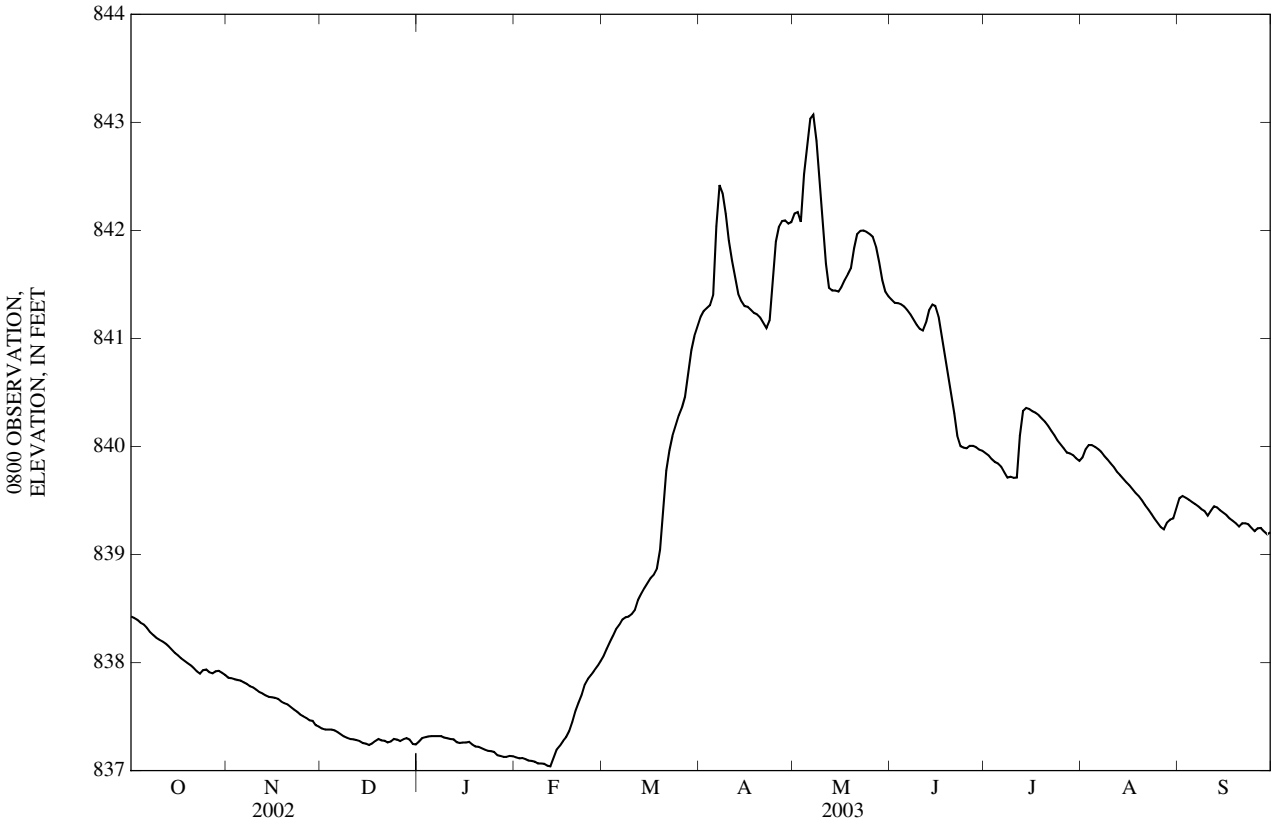
ELEVATION, IN FEET, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	838.44	837.88	837.41	837.25	837.13	838.03	841.14	842.09	841.38	839.96	839.86	839.47
2	838.42	837.85	837.38	837.28	837.12	838.08	841.23	842.19	841.35	839.93	839.92	839.55
3	838.41	837.86	837.38	837.31	837.11	838.15	841.27	842.16	841.32	839.91	840.00	839.54
4	838.39	837.84	837.38	837.31	837.12	838.21	841.29	842.04	841.33	839.87	840.02	839.52
5	838.36	837.84	837.38	837.32	837.10	838.27	841.32	842.76	841.31	839.85	840.01	839.50
6	838.35	837.83	837.37	837.32	837.09	838.33	841.44	842.76	841.29	839.84	839.99	839.48
7	838.31	837.81	837.35	837.32	837.09	838.36	842.34	843.17	841.25	839.80	839.97	839.46
8	838.27	837.80	837.33	837.32	837.08	838.42	842.46	843.02	841.21	839.74	839.94	839.44
9	838.25	837.77	837.31	837.32	837.06	838.42	842.29	842.73	841.16	839.70	839.90	839.41
10	838.22	837.77	837.30	837.30	837.07	838.43	842.08	842.35	841.11	839.73	839.87	839.40
11	838.21	837.74	837.29	837.30	837.06	838.46	841.82	841.97	841.08	839.70	839.83	839.34
12	838.19	837.72	837.29	837.29	837.04	838.50	841.67	841.55	841.07	839.72	839.80	839.44
13	838.17	837.71	837.28	837.29	837.04	838.62	841.52	841.43	841.19	840.29	839.75	839.45
14	838.14	837.69	837.27	837.25	837.16	838.65	841.36	841.45	841.30	840.35	839.73	839.43
15	838.11	837.68	837.25	837.26	837.21	838.71	841.34	841.44	841.32	840.36	839.69	839.40
16	838.08	837.68	837.25	837.26	837.24	838.75	841.28	841.43	841.29	840.34	839.66	839.38
17	838.06	837.67	837.23	837.26	837.29	838.80	841.30	841.50	841.16	840.32	839.63	839.36
18	838.03	837.66	837.26	837.27	837.32	838.82	841.25	841.56	840.99	840.31	839.59	839.32
19	838.01	837.63	837.28	837.23	837.39	838.89	841.23	841.61	840.81	840.28	839.56	839.31
20	837.99	837.62	837.30	837.22	837.48	839.12	841.22	841.67	840.62	840.25	839.53	839.28
21	837.97	837.61	837.27	837.22	837.59	839.61	841.18	841.92	840.44	840.22	839.49	839.25
22	837.94	837.58	837.28	837.20	837.65	839.86	841.13	841.99	840.24	840.18	839.44	839.31
23	837.91	837.56	837.25	837.19	837.73	840.02	841.08	842.00	840.03	840.13	839.41	839.28
24	837.89	837.54	837.28	837.18	837.83	840.14	841.21	842.00	839.99	840.09	839.36	839.28
25	837.95	837.51	837.30	837.18	837.86	840.22	841.73	841.98	839.99	840.04	839.32	839.23
26	837.93	837.50	837.28	837.17	837.90	840.32	841.98	841.96	839.98	840.01	839.28	839.21
27	837.90	837.48	837.27	837.13	837.94	840.38	842.06	841.93	840.02	839.97	839.24	839.26
28	837.90	837.46	837.30	837.14	837.98	840.50	842.10	841.81	840.00	839.93	839.23	839.24
29	837.93	837.46	837.30	837.12	---	840.78	842.09	841.66	839.99	839.94	839.33	839.20
30	837.92	837.40	837.28	837.13	---	840.95	842.05	841.48	839.96	839.91	839.32	839.18
31	837.90	---	837.23	837.14	---	841.06	---	841.41	---	839.88	839.34	---
MAX	838.44	837.88	837.41	837.32	837.98	841.06	842.46	843.17	841.38	840.36	840.02	839.55
MIN	837.89	837.40	837.23	837.12	837.04	838.03	841.08	841.41	839.96	839.70	839.23	839.18
(-)	229,000	225,000	224,000	223,000	230,000	254,000	262,000	257,000	245,000	244,000	240,000	239,000
(=)	-4,000	-4,000	-1,000	-1,000	+7,000	+24,000	+8,000	-5,000	-12,000	-1,000	-4,000	-1,000

CAL YR 2002....-35,000
WTR YR 2003.... -6,000

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

06921325 POMME DE TERRE LAKE NEAR HERMITAGE, MO—Continued



06921350 POMME DE TERRE RIVER NEAR HERMITAGE, MO

LOCATION.--Lat 37°54'20", long 93°19'45", in NW ¼ NW ¼ sec.2, T.36 N., R.22 W., Hickory County, Hydrologic Unit 10290107, on right bank 2,000 ft downstream from outlet of Pomme de Terre Lake, 2.5 mi southwest of Hermitage, 4.5 mi upstream from Green Branch, and at mile 43.4.

DRAINAGE AREA.--615 mi^2.

PERIOD OF RECORD.--August 1960 to current year.

GAGE.-- Water-stage recorder. Datum of gage is 749.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Pomme de Terre Lake (06921325), 0.5 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

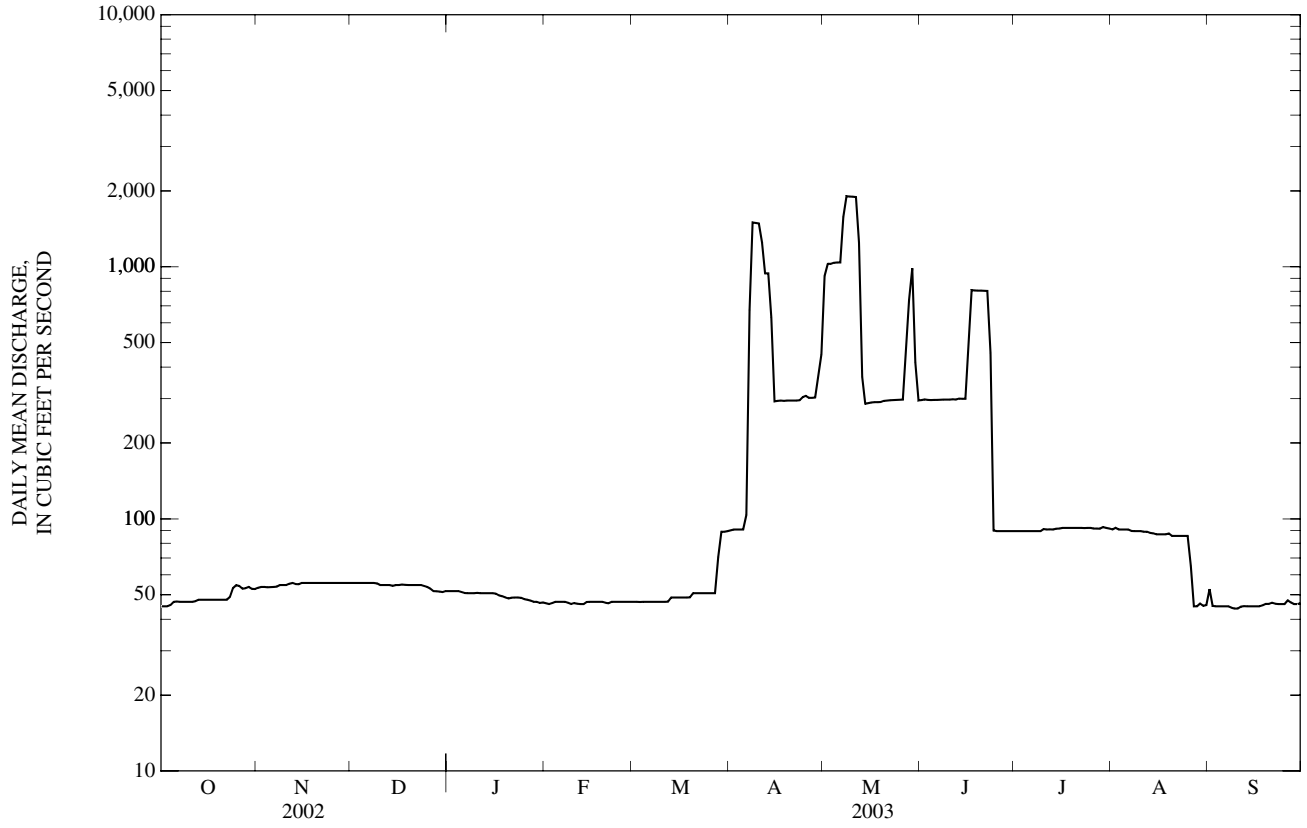
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	53	56	52	46	47	90	921	296	89	91	53
2	45	54	56	52	46	47	91	1,030	298	89	92	45
3	45	54	56	52	46	47	91	1,030	297	89	91	45
4	46	54	56	52	47	47	91	1,040	296	89	91	45
5	47	54	56	51	47	47	91	1,040	296	89	91	45
6	47	54	56	51	47	47	104	1,040	297	89	91	45
7	47	54	56	51	47	47	673	1,580	297	89	90	45
8	47	55	56	51	46	47	1,500	1,910	297	89	89	44
9	47	55	55	51	46	47	1,490	1,900	297	90	89	44
10	47	55	55	51	46	47	1,490	1,900	297	91	89	44
11	47	55	55	51	46	47	1,250	1,890	298	91	89	45
12	47	56	55	51	46	47	943	1,250	297	91	89	45
13	48	55	55	51	46	49	942	366	300	91	88	45
14	48	55	54	51	47	49	630	286	300	91	88	45
15	48	56	55	51	47	49	293	288	300	92	87	45
16	48	56	55	50	47	49	294	289	483	92	87	45
17	48	56	55	50	47	49	295	290	808	92	87	45
18	48	56	55	49	47	49	294	290	806	92	87	45
19	48	56	55	49	47	49	295	291	804	92	87	46
20	48	56	55	48	46	51	295	294	804	92	86	46
21	48	56	55	49	46	51	295	295	803	92	86	46
22	48	56	55	49	47	51	295	296	802	92	86	46
23	49	56	55	49	47	51	296	296	455	92	86	46
24	53	56	54	49	47	51	304	296	90	92	86	46
25	55	56	54	48	47	51	307	297	89	92	86	46
26	54	56	53	48	47	51	302	297	89	92	65	48
27	53	56	52	47	47	51	302	499	89	92	45	47
28	53	56	52	47	47	70	303	741	89	91	45	46
29	54	56	51	47	---	89	374	987	89	93	46	46
30	53	56	51	46	---	89	449	418	89	92	45	46
31	53	---	52	47	---	89	---	295	---	92	46	---
MEAN	48.8	55.3	54.5	49.7	46.6	53.3	482	763	362	91.0	80.7	45.7
MAX	55	56	56	52	47	89	1,500	1,910	808	93	92	53
MIN	45	53	51	46	46	47	90	286	89	89	45	44
IN.	0.09	0.10	0.10	0.09	0.08	0.10	0.88	1.43	0.66	0.17	0.15	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2003, BY WATER YEAR (WY)

MEAN	321	535	611	492	566	850	841	903	634	350	118	131
MAX	3,116	2,872	2,886	2,042	2,100	3,487	2,948	4,799	2,397	2,349	480	1,110
(WY)	(1994)	(1987)	(1986)	(1993)	(1975)	(1985)	(1984)	(1961)	(2002)	(1995)	(1978)	(1993)
MIN	13.1	7.50	20.5	20.4	21.5	24.6	26.8	26.4	31.9	26.0	18.6	1.27
(WY)	(1969)	(1977)	(1963)	(1962)	(1963)	(1963)	(1963)	(1963)	(1969)	(1970)	(1961)	(1960)

06921350 POMME DE TERRE RIVER NEAR HERMITAGE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1960 - 2003	
ANNUAL MEAN	616		178		529	
HIGHEST ANNUAL MEAN					1,163	1973
LOWEST ANNUAL MEAN					67.8	1963
HIGHEST DAILY MEAN	3,300	May 21	1,910	May 8	9,000	May 9, 1961
LOWEST DAILY MEAN	43	Aug 11,15,16	44	Sep 8-10	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	44	Aug 10	45	Sep 4	0.00	At Times
MAXIMUM PEAK FLOW	---		1,920	May 7,8,29	5,910	May 5, 1970
MAXIMUM PEAK STAGE	---		7.24	May 7	12.15	May 5, 1970
INSTANTANEOUS LOW FLOW	---		44	Sep 8-11	0.00	Several Years
ANNUAL RUNOFF (INCHES)	13.59		3.93		11.69	
10 PERCENT EXCEEDS	2,500		305		1,920	
50 PERCENT EXCEEDS	102		55		103	
90 PERCENT EXCEEDS	45		46		44	



06921582 SOUTH GRAND RIVER BELOW FREEMAN, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 38°35'20", long 94°26'30", in NW $^1/_4$ NW $^1/_4$ NE $^1/_4$ sec.27, T.44N., R.32 W., Cass County, Hydrologic Unit 10290108, on the left bank on upstream side of bridge on gravel road, approximately 2 mi south of State Highway 2, approximately 6.1 mi southwest of Harrisonville, and 4 mi southeast of Freeman.

DRAINAGE AREA.--150 mi^2.

PERIOD OF RECORD.--October 1997 to current year. October 1998 to September 2000 published as South Grand River at Grand River Church (06921881).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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												
21...	1310	Environmental	1.3	9.1	87	8.0	916	12.0	--	--	--	--
NOV												
14...	1110	Environmental	0.95	5.4	48	7.8	794	8.5	230	68.3	13.8	7.38
DEC												
13...	1120	Environmental	1.4	11.9	95	8.3	860	4.5	--	--	--	--
JAN												
07...	1105	Environmental	1.5	12.0	92	8.4	904	3.5	280	85.1	15.6	8.36
07...	1115	Blank	--	--	--	--	--	--	--	E.01	<0.008	<0.10
FEB												
11...	1150	Environmental	1.5	--e	--e	9.5	890	5.0	--	--	--	--
MAR												
05...	1145	Environmental	1.9	17.3	131	9.6	781	2.5	--	--	--	--
APR												
10...	1130	Environmental	2.8	9.2	85	8.3	760	10.5	--	--	--	--
MAY												
30...	1050	Environmental	2.8	7.2	88	8.1	566	23.0	260	86.2	10.5	5.06
JUN												
19...	1130	Environmental	3.8	7.3	92	8.0	485	25.5	--	--	--	--
JUL												
23...	1045	Environmental	0.35	4.6	58	7.9	601	26.0	--	--	--	--
AUG												
22...	0905	Environmental	0.12	2.5	32	7.9	580	27.0	210	63.7	11.9	6.09
SEP												
23...	1110	Environmental	1.2	7.8	85	8.0	447	18.0	--	--	--	--

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)
OCT													
21...	--	184	184	225	<1	--	--	--	--	10	0.43	<0.04	E.04
NOV													
14...	78.5	175	173	211	<1	38.7	0.40	167	510	<10	0.55	<0.04	E.04
DEC													
13...	--	203	202	246	<1	--	--	--	--	<10	0.62	<0.04	<0.06
JAN													
07...	91.6	220	221	257	6	49.5	0.44	179	582	22	0.91	<0.04	<0.06
07...	<0.09	--	--	--	--	<0.20	<0.17	<0.2	<10	<10	<0.10	<0.04	<0.06
FEB													
11...	--	198	192	128	52	--	--	--	--	28	1.8	<0.04	0.22
MAR													
05...	--	128	126	99	27	--	--	--	--	24	1.6	<0.04	2.99
APR													
10...	--	189	190	231	<1	--	--	--	--	28	1.0	0.08	E.04
MAY													
30...	23.5	198	198	242	<1	23.6	0.30	57.2	337	36	0.85	<0.04	<0.06
JUN													
19...	--	176	177	216	<1	--	--	--	--	43	0.85	<0.04	0.21
JUL													
23...	--	177	178	217	<1	--	--	--	--	17	0.90	<0.04	<0.30
AUG													
22...	43.2	163	164	200	<1	41.9	0.50	57.2	356	12	0.97	<0.04	<0.06
SEP													
23...	--	143	144	176	<1	--	--	--	--	12	0.59	0.04	0.42

06921582 SOUTH GRAND RIVER BELOW FREEMAN, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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													
21...	<0.008	0.03	0.04	0.07	27k	18k	45	--	--	--	--	--	--
NOV													
14...	<0.008	0.07	0.08	0.12	14k	10k	16k	<2	140	1.6	0.07	<0.2	<6
DEC													
13...	<0.008	0.03	0.04	0.08	64	34	11k	--	--	--	--	--	--
JAN													
07...	<0.008	0.03	E.04	0.13	12k	3k	43k	E1	530	1.8	0.05	<0.2	E3
07...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.3	<0.04	<0.2	<6
FEB													
11...	0.011	0.12	0.14	0.41	12k	430k	4k	--	--	--	--	--	--
MAR													
05...	0.082	0.33	0.39	0.60	5k	15k	19k	--	--	--	--	--	--
APR													
10...	E.005	0.05	0.07	0.15	13k	27k	13k	--	--	--	--	--	--
MAY													
30...	<0.008	0.02	0.04	0.15	2k	50k	62	5	669	1.8	E.02	<0.2	<7
JUN													
19...	0.012	0.03	0.05	0.17	<1b	76k	240	--	--	--	--	--	--
JUL													
23...	E.006	0.08	0.07	0.17	2k	120	150	--	--	--	--	--	--
AUG													
22...	<0.008	0.07	0.10	0.18	32k	70	78	5	285	4.7	E.03n	0.05	1.1
SEP													
23...	0.008	0.07	0.07	0.13	35k	150	130	--	--	--	--	--	--

06921582 SOUTH GRAND RIVER BELOW FREEMAN, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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								
21...	--	--	--	--	--	--	--	--
NOV								
14...	37	0.10	<1	188	<0.02	0.8	12	4
DEC								
13...	--	--	--	--	--	--	--	--
JAN								
07...	19	E.08	M	200	<0.02	0.7	2	4
07...	<10	<0.08	<1	<2.0	<0.02	<0.5	M	<2
FEB								
11...	--	--	--	--	--	--	--	--
MAR								
05...	--	--	--	--	--	--	--	--
APR								
10...	--	--	--	--	--	--	--	--
MAY								
30...	<8	<0.08	1	48.6	<0.02	0.7	M	4
JUN								
19...	--	--	--	--	--	--	--	--
JUL								
23...	--	--	--	--	--	--	--	--
AUG								
22...	10	<0.08	M	229	<0.02	0.6	Mn	3
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 was extrapolated below
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

06921760 SOUTH GRAND RIVER NEAR CLINTON, MO

LOCATION.--Lat 38°22'16", long 93°51'23", in NW ¼ SW ¼ SE ¼ sec.1, T.4l N., R.27 W., Henry County, Hydrologic Unit 10290108, at right upstream end of bridge on State Highway 18, 4.4 mi west of Clinton, and 5.4 mi downstream from Big Creek.

DRAINAGE AREA.--1,270 mi^2.

PERIOD OF RECORD.--October 1986 to current year.

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft above National Geodetic Vertical Datum of 1929. Auxiliary water-stage recorder 3.3 mi upstream from base gage at same datum.

REMARKS.--Discharge is calculated using fall computations due to backwater from Harry S. Truman Reservoir. Records poor. U.S. Army Corps of Engineers satellite telemeter at base and auxiliary gage.

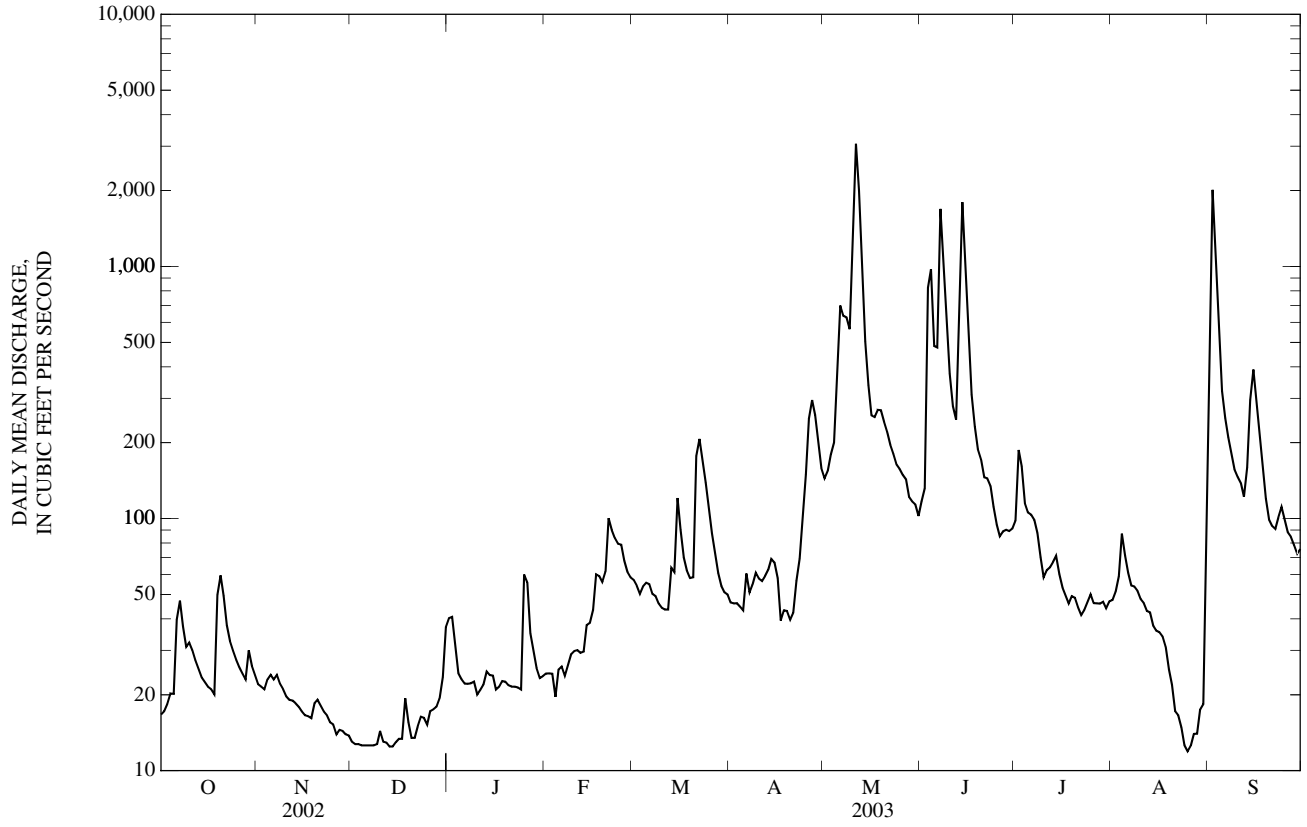
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,220 ft^3/s, May 11, gage height 14.41 ft; minimum 0.00 ft^3/s, Oct. 18, Dec. 1, Jan. 21-25, and Aug. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	e22	e13	40	24	e57	46	144	117	98	48	721
2	17	e22	e13	41	24	e54	46	155	132	187	51	2,010
3	18	e21	e13	31	24	e50	46	179	823	161	59	962
4	20	e23	e13	24	20	e54	45	200	974	115	87	511
5	20	e24	e13	23	25	e56	43	410	484	106	71	320
6	40	e23	e13	22	26	e55	61	e700	478	104	61	e250
7	47	e24	e13	22	24	e50	51	637	1,690	99	54	e210
8	37	e22	e13	22	26	e49	55	628	1,070	88	54	180
9	31	e21	e13	23	29	e46	61	563	578	70	e52	157
10	32	e20	e14	20	30	e44	58	1,460	376	58	e48	146
11	30	e19	e13	21	30	e44	57	3,060	279	62	e46	138
12	e27	e19	13	22	29	e44	59	2,010	247	64	e43	122
13	e25	e19	12	25	30	e64	63	910	e800	67	e42	159
14	e23	e18	12	e24	38	e61	69	504	e1,800	71	e38	296
15	e22	e17	13	e24	39	e121	67	338	e1,000	60	e36	390
16	e21	e17	13	e21	43	e90.0	58	257	e600	53	e35	288
17	e21	e16	13	e22	60	e70	39	253	310	50	e34	211
18	e20	e16	19	e23	59	62	43	270	232	46	31	157
19	e50	e19	16	e23	56	58	43	269	188	49	25	120
20	e59	e19	13	e22	e62	59	40	242	171	48	22	99
21	e49	e18	13	e22	e100	177	42	221	146	45	17	94
22	e38	e17	15	e22	e90	207	57	196	144	41	17	91
23	e33	e17	16	e21	e84	170	69	181	135	43	15	101
24	e30	e16	16	e21	e79	139	100	164	111	47	13	111
25	e28	e15	15	e60	e79	110	149	157	95	50	12	99
26	e26	e14	17	56	e68	87	249	149	85	46	13	88
27	e24	e15	18	35	e61	74	295	143	89	46	14	85
28	e23	e14	18	30	e58	61	257	122	90	46	14	79
29	e30	e14	19	26	---	54	198	117	89	47	17	73
30	e26	e14	24	23	---	e51	158	114	91	44	18	76
31	e24	---	37	24	---	50	---	102	---	47	61	---
MEAN	29.3	18.5	15.4	26.9	47.0	76.4	87.5	479	447	69.6	37.0	278
MAX	59	24	37	60	100	207	295	3,060	1,800	187	87	2,010
MIN	17	14	12	20	20	44	39	102	85	41	12	73
IN.	0.03	0.02	0.01	0.02	0.04	0.07	0.08	0.44	0.39	0.06	0.03	0.24

e Estimated

06921760 SOUTH GRAND RIVER NEAR CLINTON, MO—Continued



06922440 HARRY S. TRUMAN RESERVOIR AT WARSAW, MO

LOCATION.-- Lat 38°15'30", long 93°23'40", in NW ¼ NE ¼ sec.7, T.40 N., R.22 W., Benton County, Hydrologic Unit 10290105, in control room near middle of dam on Osage River, 1.5 mi northwest of Warsaw, and at mile 175.

DRAINAGE AREA.--11,500 mi^2, with 7,856 mi^2 uncontrolled area below other reservoirs.

PERIOD OF RECORD.--October 1981 to current year. Records collected at same site since 1977 available from U.S. Army Corps of Engineers.

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. Storage began on July 21, 1977. Spillway is equipped with 4 tainter gates 40 ft wide by 47.3 ft high. Capacity of surcharge pool 2,911,000 ac-ft (elevation 739.6 ft to 751.1 ft); of flood control pool 4,006,000 ac-ft (elevation 706.0 ft to 739.6 ft); and of multipurpose pool 1,203,000 ac-ft (elevation 635.0 ft to 706.0). Lake is used for flood control, power, recreation, and fish and wildlife enhancement. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 5,020,000 ac-ft, Oct. 11, 12, 1986, elevation, 738.69 ft, Oct. 11, 1986; minimum, 41,700 ac-ft, Nov. 14, 1978, elevation, 661.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,340,000 ac-ft, May 7, 8, elevation, 708.72 ft; minimum, 1,120,000 ac-ft, Aug. 26, elevation, 704.84 ft.

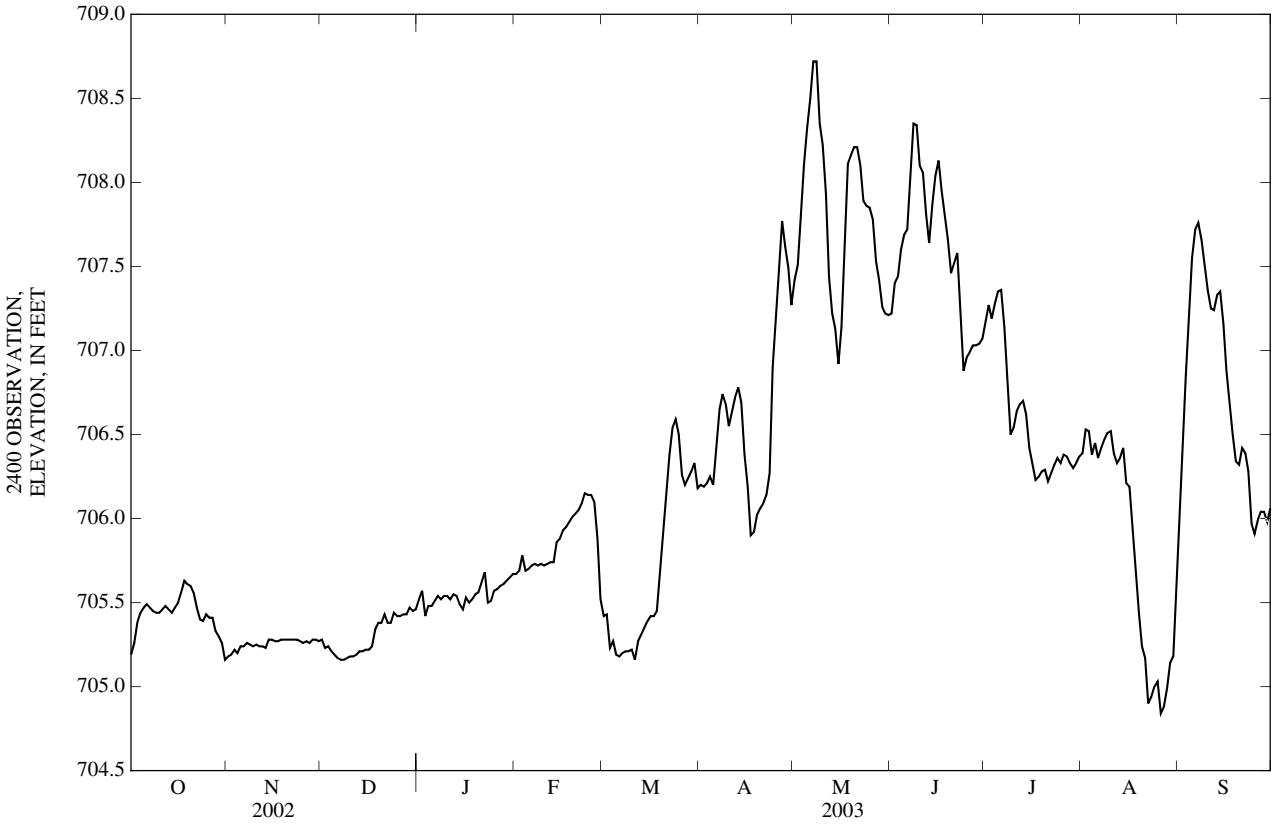
ELEVATION, IN FEET, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
OBSERVATION AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	705.19	705.18	705.28	705.52	705.67	705.42	706.20	707.42	707.22	707.17	706.39	705.95
2	705.26	705.19	705.23	705.57	705.69	705.43	706.19	707.51	707.40	707.27	706.53	706.35
3	705.38	705.22	705.24	705.42	705.78	705.23	706.21	707.79	707.44	707.19	706.52	706.85
4	705.44	705.20	705.21	705.48	705.69	705.27	706.25	708.11	707.60	707.28	706.38	707.19
5	705.47	705.24	705.19	705.48	705.70	705.19	706.20	708.32	707.69	707.35	706.45	707.55
6	705.49	705.24	705.17	705.51	705.72	705.18	706.41	708.50	707.72	707.36	706.36	707.72
7	705.47	705.26	705.16	705.54	705.73	705.20	706.65	708.72	708.02	707.14	706.42	707.76
8	705.45	705.25	705.16	705.52	705.72	705.21	706.74	708.72	708.35	706.80	706.47	707.66
9	705.44	705.24	705.17	705.54	705.73	705.21	706.68	708.35	708.34	706.50	706.51	707.51
10	705.44	705.25	705.18	705.54	705.72	705.22	706.55	708.22	708.10	706.54	706.52	707.36
11	705.46	705.24	705.18	705.52	705.73	705.16	706.64	707.93	708.06	706.64	706.39	707.25
12	705.48	705.24	705.19	705.55	705.74	705.27	706.72	707.44	707.81	706.68	706.33	707.24
13	705.46	705.23	705.21	705.54	705.74	705.31	706.78	707.22	707.64	706.70	706.36	707.33
14	705.44	705.28	705.21	705.49	705.86	705.35	706.69	707.13	707.87	706.62	706.42	707.35
15	705.47	705.28	705.22	705.46	705.88	705.39	706.38	706.92	708.04	706.42	706.21	707.16
16	705.50	705.27	705.22	705.53	705.93	705.42	706.19	707.14	708.13	706.32	706.19	706.88
17	705.56	705.27	705.24	705.50	705.95	705.42	705.90	707.67	707.95	706.23	705.97	706.68
18	705.63	705.28	705.34	705.52	705.98	705.45	705.92	708.11	707.80	706.25	705.71	706.50
19	705.61	705.28	705.38	705.55	706.01	705.67	706.02	708.16	707.66	706.28	705.44	706.34
20	705.60	705.28	705.38	705.56	706.03	705.90	706.06	708.21	707.46	706.29	705.24	706.32
21	705.56	705.28	705.43	705.62	706.05	706.12	706.09	708.21	707.52	706.22	705.17	706.42
22	705.47	705.28	705.38	705.68	706.09	706.38	706.14	708.10	707.58	706.27	704.90	706.39
23	705.40	705.28	705.38	705.50	706.15	706.54	706.27	707.89	707.18	706.32	704.94	706.28
24	705.39	705.27	705.44	705.51	706.14	706.59	706.90	707.86	706.88	706.36	705.00	705.97
25	705.43	705.26	705.42	705.57	706.14	706.50	707.19	707.85	706.96	706.33	705.03	705.91
26	705.41	705.27	705.42	705.58	706.10	706.26	707.44	707.78	706.99	706.38	704.84	705.99
27	705.41	705.26	705.43	705.60	705.88	706.20	707.77	707.53	707.03	706.37	704.88	706.04
28	705.33	705.28	705.43	705.61	705.52	706.24	707.62	707.42	707.03	706.33	704.99	706.04
29	705.30	705.28	705.47	705.63	---	706.28	707.49	707.26	707.04	706.30	705.14	705.98
30	705.26	705.27	705.45	705.65	---	706.33	707.27	707.22	707.07	706.33	705.18	706.06
31	705.16	---	705.46	705.67	---	706.18	---	707.21	---	706.37	705.52	---
MAX	705.63	705.28	705.47	705.68	706.15	706.59	707.77	708.72	708.35	707.36	706.53	707.76
MIN	705.16	705.18	705.16	705.42	705.52	705.16	705.90	706.92	706.88	706.22	704.84	705.91
(-)	1,140,000	1,140,000	1,150,000	1,160,000	1,150,000	1,190,000	1,250,000	1,250,000	1,240,000	1,200,000	1,150,000	1,180,000
(=)	0	0	+10,000	+10,000	-10,000	+40,000	+60,000	0	-10,000	-40,000	-50,000	+30,000

CAL YR 2002.... -70,000
WTR YR 2003....+40,000

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

06922440 HARRY S. TRUMAN RESERVOIR AT WARSAW, MO—Continued



06923700 NIANGUA RIVER BELOW BENNETT SPRINGS, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°44'17", long 92°51'37", in NE ¼ SE ¼ SE ¼ sec.25, T.35 N., R.18 W., Dallas County, Hydrologic Unit 10290110, at bridge on Highway 64, 1,200 ft downstream from inflow of Bennett Spring Branch.

DRAINAGE AREA.--4,370 mi2.

PERIOD OF RECORD.--October 1983 to September 1988, July 1991 to current year.

REMARKS.--Ambient Water-Quality Monitoring Network station October 1983 to September 1988, November 1993 to current year. Special project station July 1991 to October 1995.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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...	1045	Environmental	151	10.6	102	7.9	407	12.7	220	46.5	25.8	1.17
JAN												
14...	1045	Environmental	160	13.1	114	7.9	414	8.8	--	--	--	--
MAR												
11...	1110	Environmental	256	14.0	127	7.8	389	9.7	--	--	--	--
MAY												
28...	1040	Environmental	160	9.3	98	7.6	373	16.5	180	35.9	20.8	1.55
28...	1041	Replicate	--	9.4	99	7.6	377	16.5	180	36.1	20.8	1.62
JUL												
17...	0945	Environmental	153	6.6	75	7.6	327	20.2	--	--	--	--
SEP												
08...	1045	Environmental	110	9.5	100	7.6	395	16.3	--	--	--	--

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...	2.80	213	213	260	<1	4.48	<0.2	4.4	223	<10	E.08	<0.04	0.81
JAN													
14...	--	200	198	241	<1	--	--	--	--	<10	0.13	<0.04	0.71
MAR													
11...	--	166	168	205	<1	--	--	--	--	<10	0.12	<0.04	0.73
MAY													
28...	4.07	176	177	211	<1	8.32	<0.2	5.9	210	<10	0.22	<0.04	0.60
28...	4.09	--	--	--	--	8.22	<0.2	5.9	203	<10	0.20	<0.04	0.62
JUL													
17...	--	153	152	186	<1	--	--	--	--	12	0.35	<0.04	0.87
SEP													
08...	--	203	203	248	<1	--	--	--	--	<10	0.13	<0.04	0.81

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...	E.004	0.02	E.03	E.03	<1b	13k	8k	<2	15	E.2	<0.04	<0.2	E3n
JAN													
14...	<0.008	0.02	E.02	E.04	7k	6k	4k	--	--	--	--	--	--
MAR													
11...	E.006	<0.02	<0.04	<0.04	1k	3k	22	--	--	--	--	--	--
MAY													
28...	E.004	0.02	0.04	E.02	15k	25	18k	E1n	64	0.3	<0.04	<0.2	<7
28...	E.005	E.02	0.05	E.03	5k	28	21	E1	62	0.3	<0.04	<0.2	<7
JUL													
17...	<0.008	0.03	0.05	0.07	30	84k	130	--	--	--	--	--	--
SEP													
08...	E.004n	0.02	E.03n	E.03n	--e	--e	28k	--	--	--	--	--	--

06923700 NIANGUA RIVER BELOW BENNETT SPRINGS, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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...	<10	<0.08	<1	5.3	<0.02	<0.5	<1	<2
JAN								
14...	--	--	--	--	--	--	--	--
MAR								
11...	--	--	--	--	--	--	--	--
MAY								
28...	<8	<0.08	<1	9.2	<0.02	<0.5	Mn	E1n
28...	<8	<0.08	M	9.2	<0.02	<0.5	M	E1
JUL								
17...	--	--	--	--	--	--	--	--
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:
b -- Value was extrapolated below
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

06923950 NIANGUA RIVER AT TUNNEL DAM NEAR MACKS CREEK, MO

LOCATION.--Lat 37°56'14", long 92°51'03", in SE ¼ SW ¼ SW ¼ sec.19, T.37 N., R.17 W., Camden County, Hydrologic Unit 10290110, at left end of concrete structure on top of Tunnel Dam, 6.5 mi southeast of Macks Creek.

DRAINAGE AREA.--598 mi^2.

PERIOD OF RECORD.--September 1995 to current year.

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

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversion upstream through tunnel for power generation. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	224	183	266	191	179	420	216	302	142	175	153
2	136	217	180	293	190	238	496	312	201	128	184	167
3	143	215	181	304	190	292	474	543	129	135	186	164
4	143	210	196	e289	188	320	411	423	159	126	236	154
5	147	221	193	e275	186	305	214	378	206	139	201	155
6	151	219	186	e265	186	271	360	327	214	269	114	153
7	152	214	184	e255	189	233	679	871	202	262	201	148
8	154	211	183	e245	185	198	764	522	201	174	115	144
9	159	211	184	e235	185	167	304	293	186	205	72	142
10	161	210	184	e227	186	156	238	163	169	226	123	139
11	165	210	184	e220	183	157	268	204	239	234	129	145
12	165	202	e183	e216	182	142	323	180	269	257	165	171
13	166	197	183	214	182	283	269	170	331	431	183	178
14	167	203	182	214	297	295	230	158	900	485	183	172
15	168	216	180	210	405	292	250	151	812	218	176	161
16	175	216	181	211	399	267	202	172	514	129	171	155
17	181	214	193	209	396	234	189	188	333	109	168	149
18	187	212	234	203	298	204	172	215	223	114	165	151
19	188	206	263	200	210	299	165	263	177	224	166	161
20	189	201	266	202	259	727	203	287	154	223	160	162
21	189	198	264	203	296	886	190	326	145	211	154	163
22	190	198	248	201	346	665	176	466	116	202	151	171
23	188	195	234	199	316	533	163	340	136	193	153	167
24	186	194	236	191	295	412	261	252	125	197	153	159
25	227	189	231	191	253	332	494	228	123	202	153	150
26	225	186	215	191	218	274	500	178	250	193	150	156
27	217	186	209	188	184	250	418	155	1,510	188	145	170
28	214	185	205	188	162	279	317	151	525	185	147	188
29	253	184	211	190	---	351	245	152	251	204	154	181
30	257	183	215	188	---	429	211	139	164	201	153	178
31	243	---	231	192	---	457	---	170	---	192	116	---
MEAN	181	204	207	222	241	327	320	277	309	206	158	160
MAX	257	224	266	304	405	886	764	871	1,510	485	236	188
MIN	136	183	180	188	162	142	163	139	116	109	72	139
IN.	0.35	0.38	0.40	0.43	0.42	0.63	0.60	0.53	0.58	0.40	0.30	0.30

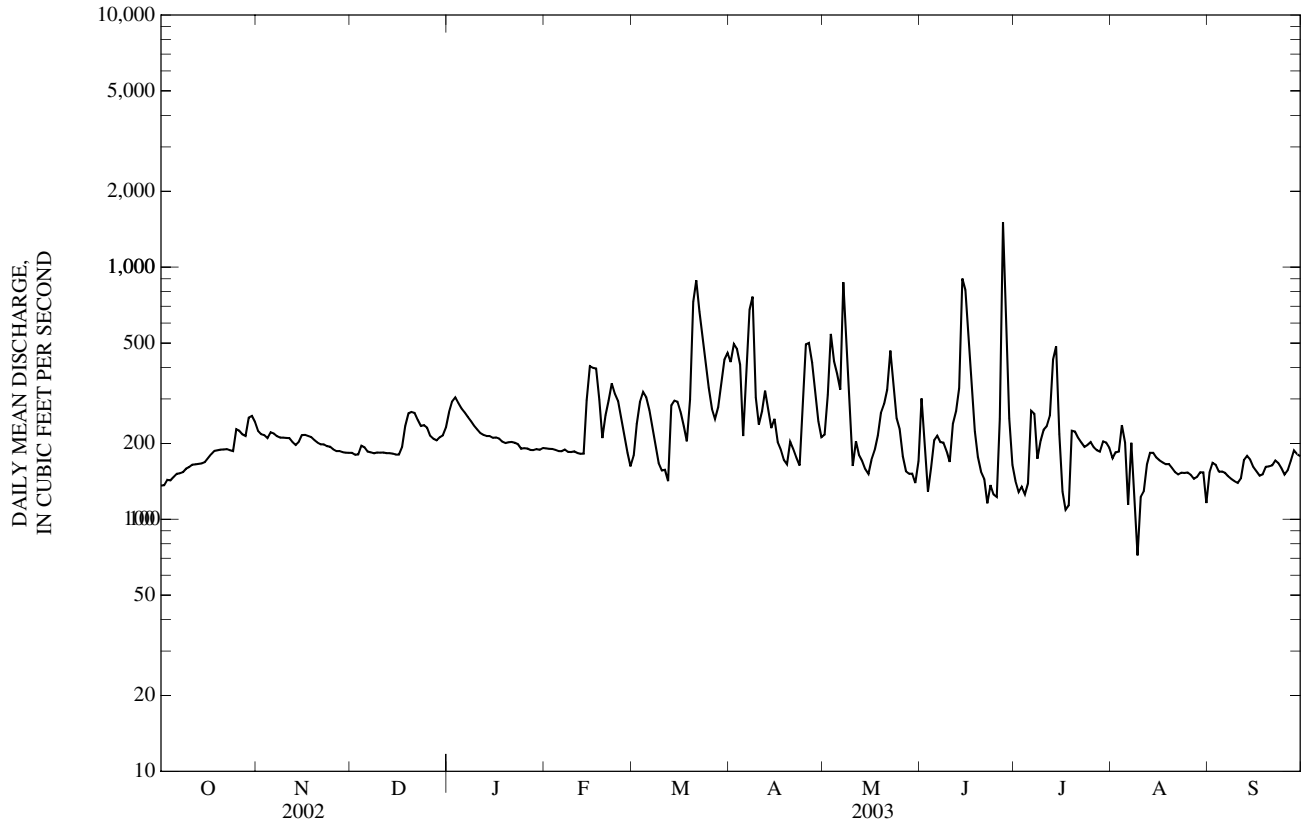
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2003, BY WATER YEAR (WY)

MEAN	220	326	254	185	452	499	565	820	242	169	168	186
MAX	492	1,345	535	317	845	1,458	1,696	2,819	370	248	385	462
(WY)	(1999)	(1997)	(2002)	(1999)	(2001)	(1998)	(1999)	(2002)	(1999)	(2001)	(1997)	(1996)
MIN	59.8	66.8	130	56.9	39.2	47.9	106	28.1	55.4	54.8	43.9	110
(WY)	(1998)	(1998)	(1998)	(1997)	(1996)	(1996)	(2000)	(1997)	(1996)	(1997)	(1996)	(1999)

06923950 NIANGUA RIVER AT TUNNEL DAM NEAR MACKS CREEK, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1995 - 2003	
ANNUAL MEAN	503		234		343	
HIGHEST ANNUAL MEAN					555	1999
LOWEST ANNUAL MEAN					143	2000
HIGHEST DAILY MEAN	12,000	May 14	1,510	Jun 27	14,500	Nov 8, 1996
LOWEST DAILY MEAN	84	Jul 14	72	Aug 9	0.00	Oct 18, 1997
ANNUAL SEVEN-DAY MINIMUM	98	Jul 9	131	Aug 6	8.1	Sep 25, 1997
MAXIMUM PEAK FLOW	---		2,210	Jun 27	15,200[a]	Nov 8, 1996
MAXIMUM PEAK STAGE	---		5.09	Jun 27	14.19	Nov 8, 1996
INSTANTANEOUS LOW FLOW	---		41	Aug 10	0.00	Oct 18, 1997
ANNUAL RUNOFF (INCHES)	11.43		5.32		7.79	
10 PERCENT EXCEEDS	609		336		524	
50 PERCENT EXCEEDS	215		198		168	
90 PERCENT EXCEEDS	143		150		58	

e Estimated
[a] From rating extended above 10,500 ft^3/s.



06925500 LAKE OF THE OZARKS NEAR BAGNELL, MO

LOCATION.--Lat 38°12'19", long 92°37'21", in SE ¼ sec.19, T.40 N., R.15 W., Miller County, Hydrologic Unit 10290111, at left end of powerhouse section near left end of Bagnell Dam on Osage River, 2 mi southwest of Bagnell, and at mile 81.7.

DRAINAGE AREA.--14,000 mi^2.

PERIOD OF RECORD.--April 1931 to current year. Gage-height records collected at same site since 1932 are in reports of the National Weather Service, published as "Osage River at Bagnell Dam, Lakeside".

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum, adjustment of 1912. To obtain National Geodetic Vertical Datum of 1929, subtract 0.88 ft.

REMARKS.--Lake is formed by concrete gravity dam. Spillway is equipped with 12 tainter gates 34 ft wide by 22 ft high. Storage began in 1931. Usable capacity 1,218,000 ac-ft between elevation 630.00 ft (maximum draw-down) and 660.00 ft (top of gates). Dead storage, 708,800 ac-ft. Figures given herein are usable contents. Lake is used for flood control, power, and recreational purposes.

COOPERATION.--Records were provided by the AmerenUE of Missouri.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,527,000 ac-ft, May 22, 1943, elevation, 665.45 ft; minimum, 322,100 ac-ft, Feb. 13, 1948, elevation, 639.95 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,223,000 ac-ft, June 10, elevation, 660.10 ft; minimum, 901,000 ac-ft, Mar. 6-10, elevation, 654.10 ft.

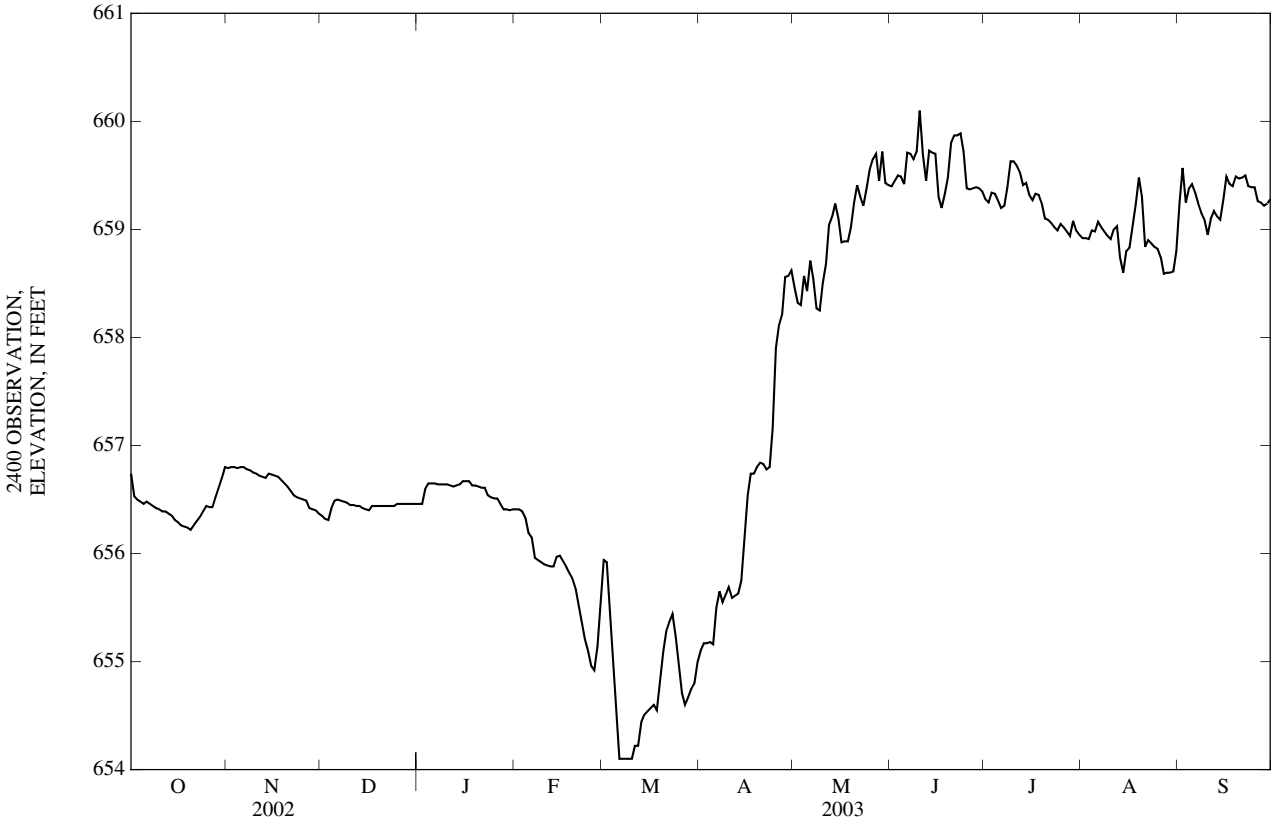
ELEVATION, IN FEET, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
OBSERVATION AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	656.74	656.79	656.35	656.46	656.41	655.94	655.10	658.46	659.40	659.28	658.92	659.25
2	656.53	656.80	656.32	656.46	656.41	655.92	655.17	658.32	659.45	659.25	658.92	659.57
3	656.50	656.80	656.31	656.60	656.39	655.56	655.17	658.30	659.50	659.34	658.91	659.25
4	656.48	656.79	656.42	656.65	656.33	655.13	655.18	658.57	659.49	659.33	658.99	659.38
5	656.46	656.80	656.49	656.65	656.19	654.69	655.16	658.43	659.42	659.27	658.98	659.42
6	656.48	656.80	656.50	656.65	656.15	654.10	655.50	658.71	659.71	659.20	659.07	659.34
7	656.46	656.78	656.49	656.64	655.96	654.10	655.65	658.54	659.70	659.22	659.02	659.24
8	656.44	656.77	656.48	656.64	655.94	654.10	655.55	658.27	659.65	659.39	658.98	659.15
9	656.42	656.75	656.47	656.64	655.92	654.10	655.62	658.25	659.72	659.63	658.94	659.09
10	656.41	656.74	656.45	656.64	655.90	654.10	655.69	658.50	660.10	659.63	658.91	658.95
11	656.39	656.72	656.45	656.63	655.89	654.22	655.59	658.68	659.69	659.59	659.00	659.10
12	656.39	656.71	656.44	656.62	655.88	654.22	655.61	659.04	659.45	659.53	659.03	659.17
13	656.37	656.70	656.44	656.63	655.88	654.44	655.63	659.12	659.73	659.41	658.74	659.12
14	656.35	656.74	656.42	656.64	655.97	654.51	655.75	659.24	659.71	659.43	658.60	659.09
15	656.31	656.73	656.41	656.67	655.98	654.54	656.14	659.10	659.70	659.32	658.80	659.28
16	656.29	656.72	656.40	656.67	655.93	654.57	656.54	658.88	659.30	659.27	658.83	659.49
17	656.26	656.71	656.44	656.67	655.88	654.60	656.74	658.89	659.20	659.33	659.03	659.42
18	656.25	656.68	656.44	656.63	655.82	654.55	656.74	658.89	659.33	659.32	659.23	659.40
19	656.24	656.65	656.44	656.63	655.77	654.84	656.80	659.02	659.48	659.24	659.48	659.49
20	656.22	656.62	656.44	656.62	655.68	655.09	656.84	659.25	659.80	659.10	659.30	659.47
21	656.26	656.58	656.44	656.61	655.52	655.28	656.83	659.41	659.87	659.09	658.84	659.48
22	656.30	656.54	656.44	656.61	655.36	655.37	656.78	659.30	659.87	659.06	658.90	659.50
23	656.34	656.52	656.44	656.54	655.21	655.44	656.80	659.22	659.89	659.02	658.87	659.40
24	656.39	656.51	656.44	656.52	655.10	655.23	657.16	659.38	659.72	658.99	658.84	659.39
25	656.44	656.50	656.46	656.51	654.96	654.98	657.90	659.55	659.38	659.05	658.82	659.39
26	656.43	656.49	656.46	656.51	654.92	654.71	658.11	659.65	659.37	659.02	658.74	659.26
27	656.43	656.42	656.46	656.46	655.14	654.60	658.21	659.70	659.38	658.98	658.59	659.25
28	656.52	656.41	656.46	656.41	655.56	654.67	658.56	659.45	659.39	658.94	658.60	659.22
29	656.61	656.40	656.46	656.41	---	654.75	658.57	659.72	659.38	659.08	658.60	659.24
30	656.70	656.37	656.46	656.40	---	654.80	658.62	659.43	659.35	658.99	658.61	659.28
31	656.80	---	656.46	656.41	---	655.00	---	659.41	---	658.95	658.80	---
MEAN	656.43	656.65	656.44	656.58	655.79	654.78	656.46	658.99	659.57	659.23	658.90	659.30
MAX	656.80	656.80	656.50	656.67	656.41	655.94	658.62	659.72	660.10	659.63	659.48	659.57
MIN	656.22	656.37	656.31	656.40	654.92	654.10	655.10	658.25	659.20	658.94	658.59	658.95
(-)	1,039,000	1,016,000	1,021,000	1,018,000	975,000	946,000	1,139,000	1,184,000	1,181,000	1,158,000	1,149,000	1,177,000
(=)	0	-23,000	+5,000	-3,000	-43,000	-29,000	+193,000	+45,000	-3,000	-23,000	-9,000	+28,000

CAL YR 2002.... -182,000
WTR YR 2003....+138,000

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

06925500 LAKE OF THE OZARKS NEAR BAGNELL, MO—Continued



06926000 OSAGE RIVER NEAR BAGNELL, MO

LOCATION.--Lat 38°11'29", long 92°36'26", in NW ¼ NE ¼ SE ¼ sec.29, T.40 N., R.15 W., Miller County, Hydrologic Unit 10290111, on center pier of U.S. Highway 54 bridge, 1.3 mi downstream from hydroelectric plant of AmerenUE of Missouri, and at mile 80.5.

DRAINAGE AREA.--14,000 mi^2, approximately.

PERIOD OF RECORD.--October 1880 to current year. Monthly discharge only for some periods published in WSP 1310. Gage-height records collected in this vicinity 1880-1931 are contained in reports of the Missouri River Commission or the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 549.13 ft above National Geodetic Vertical Datum of 1929 (levels by the Missouri State Highway and Transportation Commission). Nonrecording gage from October 1880 to Oct. 15, 1930, and recording gage from Oct. 15, 1930, to Sept. 30, 1979, at site 1.7 mi downstream at datum 0.56 ft lower.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Lake of the Ozarks (06925500), 1.3 mi upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximim stage prior to 1943, 43.1 ft in June 1844 (former site and datum), discharge, 164,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,130	438	526	464	435	444	441	11,000	489	3,040	1,380	6,900
2	4,460	466	707	483	443	852	405	9,950	443	2,090	964	5,180
3	2,780	465	463	467	992	13,100	2,010	2,790	616	4,270	876	12,100
4	516	896	454	440	2,390	11,400	857	495	897	1,230	2,500	2,500
5	443	447	468	437	4,400	12,700	429	9,160	2,900	2,220	1,700	1,260
6	429	419	464	459	1,280	14,700	508	9,370	978	2,640	1,220	3,000
7	417	516	539	771	4,700	1,490	5,520	17,700	799	5,420	1,450	3,140
8	443	463	651	507	577	457	7,620	29,800	1,940	6,340	1,630	5,960
9	469	766	647	448	438	429	7,700	25,500	7,960	4,490	1,360	7,350
10	468	544	965	601	450	417	5,350	15,700	11,700	1,510	1,040	8,520
11	469	458	513	461	434	583	6,200	10,300	30,600	1,510	977	5,880
12	467	479	402	446	445	948	552	14,200	22,000	1,680	978	1,650
13	465	449	408	463	471	871	451	10,600	4,240	2,960	7,740	2,570
14	458	444	1,120	462	489	1,380	1,470	3,440	3,660	3,890	4,600	1,050
15	981	544	458	470	1,740	470	679	14,200	1,090	7,260	2,190	932
16	496	463	451	474	2,260	466	894	9,000	9,910	7,280	1,800	2,210
17	462	465	464	536	2,250	478	3,660	1,580	10,700	2,900	1,310	7,070
18	450	868	1,310	1,390	2,240	1,790	518	455	6,110	1,030	1,160	8,280
19	458	1,170	489	485	2,240	815	471	2,820	2,930	2,140	1,160	1,970
20	459	1,160	421	464	3,000	1,340	470	4,560	1,740	3,780	7,690	957
21	458	1,130	427	476	5,760	837	461	5,470	873	3,180	14,900	1,170
22	478	1,360	426	473	5,680	444	1,540	12,500	780	968	5,230	1,630
23	487	604	453	2,630	5,410	452	1,060	14,400	8,300	889	1,100	5,650
24	474	461	460	4,640	3,140	4,080	2,430	1,650	14,800	888	1,260	8,360
25	481	459	446	549	3,890	15,600	1,630	476	14,400	885	2,870	1,930
26	489	428	453	480	3,570	15,700	670	1,090	2,040	892	7,640	6,600
27	629	2,020	437	1,600	1,450	8,980	469	8,440	1,160	1,120	4,690	1,740
28	697	456	428	2,060	733	3,260	2,780	10,400	885	1,470	2,650	873
29	1,170	438	434	487	---	621	7,840	2,630	876	1,030	1,370	898
30	705	822	452	715	---	754	8,220	8,140	2,160	2,780	919	923
31	434	---	476	474	---	1,620	---	2,970	---	1,190	909	---
MEAN	781	670	542	817	2,190	3,790	2,444	8,735	5,599	2,677	2,815	3,942
MAX	4,460	2,020	1,310	4,640	5,760	15,700	8,220	29,800	30,600	7,280	14,900	12,100
MIN	417	419	402	437	434	417	405	455	443	885	876	873
IN.	0.06	0.05	0.04	0.07	0.16	0.31	0.19	0.72	0.45	0.22	0.23	0.31

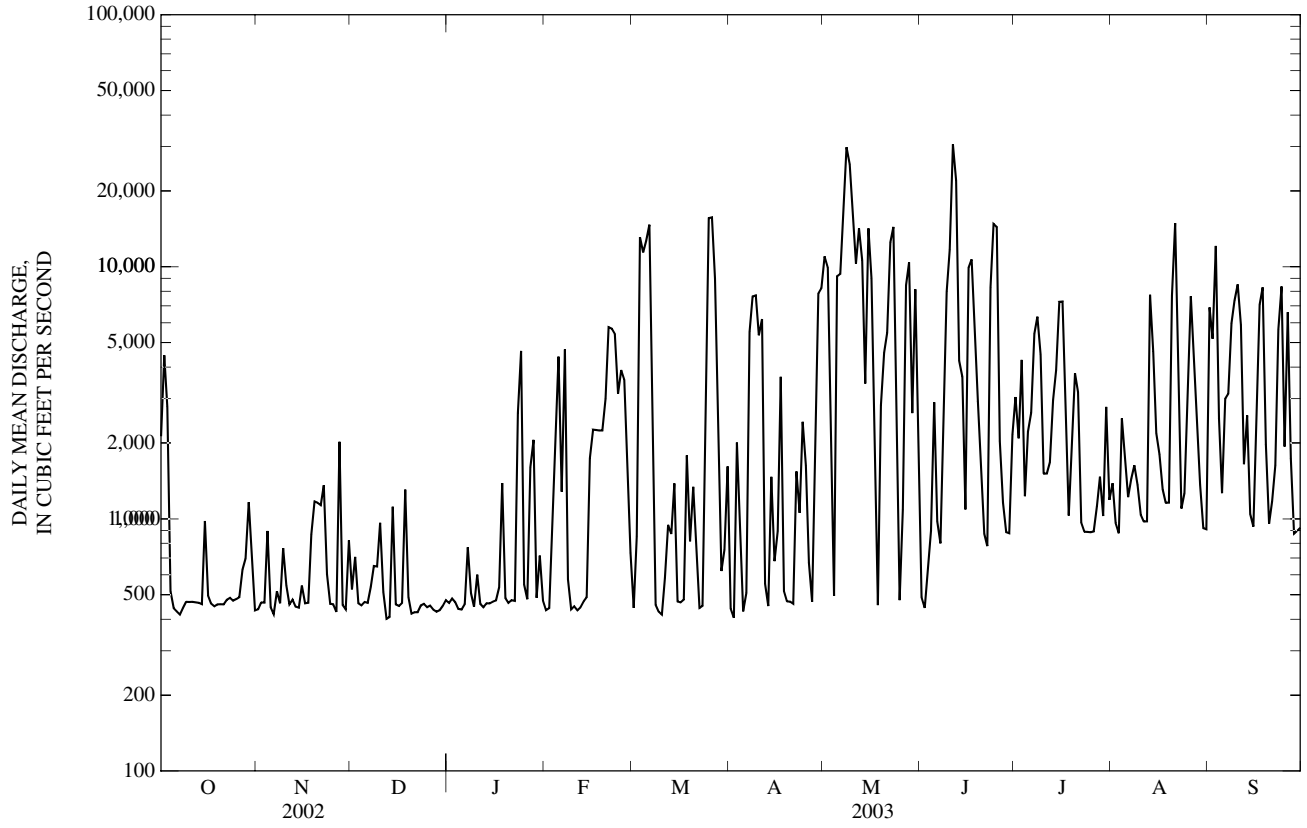
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2003[a], BY WATER YEAR (WY)

MEAN	7,106	8,414	8,005	7,914	9,930	13,440	15,430	15,890	15,410	9,552	4,908	5,695
MAX	67,300	45,270	45,050	34,700	34,720	57,300	70,040	92,260	78,160	96,780	26,560	54,540
(WY)	(1987)	(1987)	(1993)	(1993)	(1949)	(1973)	(1973)	(1943)	(1935)	(1951)	(1993)	(1951)
MIN	471	538	542	554	535	359	452	516	515	492	510	486
(WY)	(1957)	(1957)	(2003)	(2001)	(1964)	(1931)	(1931)	(1956)	(1931)	(1931)	(1956)	(1954)

06926000 OSAGE RIVER NEAR BAGNELL, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1931 - 2003[a]	
ANNUAL MEAN	8,829		2,920		10,130	
HIGHEST ANNUAL MEAN					23,360	1973
LOWEST ANNUAL MEAN					1,046	1954
HIGHEST DAILY MEAN	49,200	May 25	30,600	Jun 11	212,000	May 19, 1943
LOWEST DAILY MEAN	402	Dec 12	402	Dec 12	235	Apr 23, 1971
ANNUAL SEVEN-DAY MINIMUM	441	Dec 20	441	Dec 20	320	Mar 3, 1931
MAXIMUM PEAK FLOW	---		34,100	May 8	220,000	May 19, 1943
MAXIMUM PEAK STAGE	---		15.85	May 8	48.80	May 19, 1943
INSTANTANEOUS LOW FLOW	---		392	Mar 11	183	Sep 9, 1969
ANNUAL RUNOFF (INCHES)	8.56		2.83		9.83	
10 PERCENT EXCEEDS	34,900		8,290		30,000	
50 PERCENT EXCEEDS	2,440		1,050		3,940	
90 PERCENT EXCEEDS	458		448		502	

[a] Post-regulation period.



06926510 OSAGE RIVER BELOW ST. THOMAS, MO

LOCATION.--Lat 38°25'18", long 92°12'31", in NW ¼ NW ¼ sec.1, T.42 N., R.12 W., Cole County, Hydrologic Unit 10290111, on downstream bridge pier of State Highway B, 3.8 mi north of St. Thomas, and at mile 34.5.

DRAINAGE AREA.--14,584 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Oct. 1, 1996 to current year. August 1931 to Sept. 30, 1996, records collected at site 8.6 mi upstream, published as Osage River near St. Thomas (06926500).

GAGE.--Water-stage recorder. Datum of gage is 525.72 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records fair. Considerable regulation by Lake of the Ozarks (06925500), 47.2 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

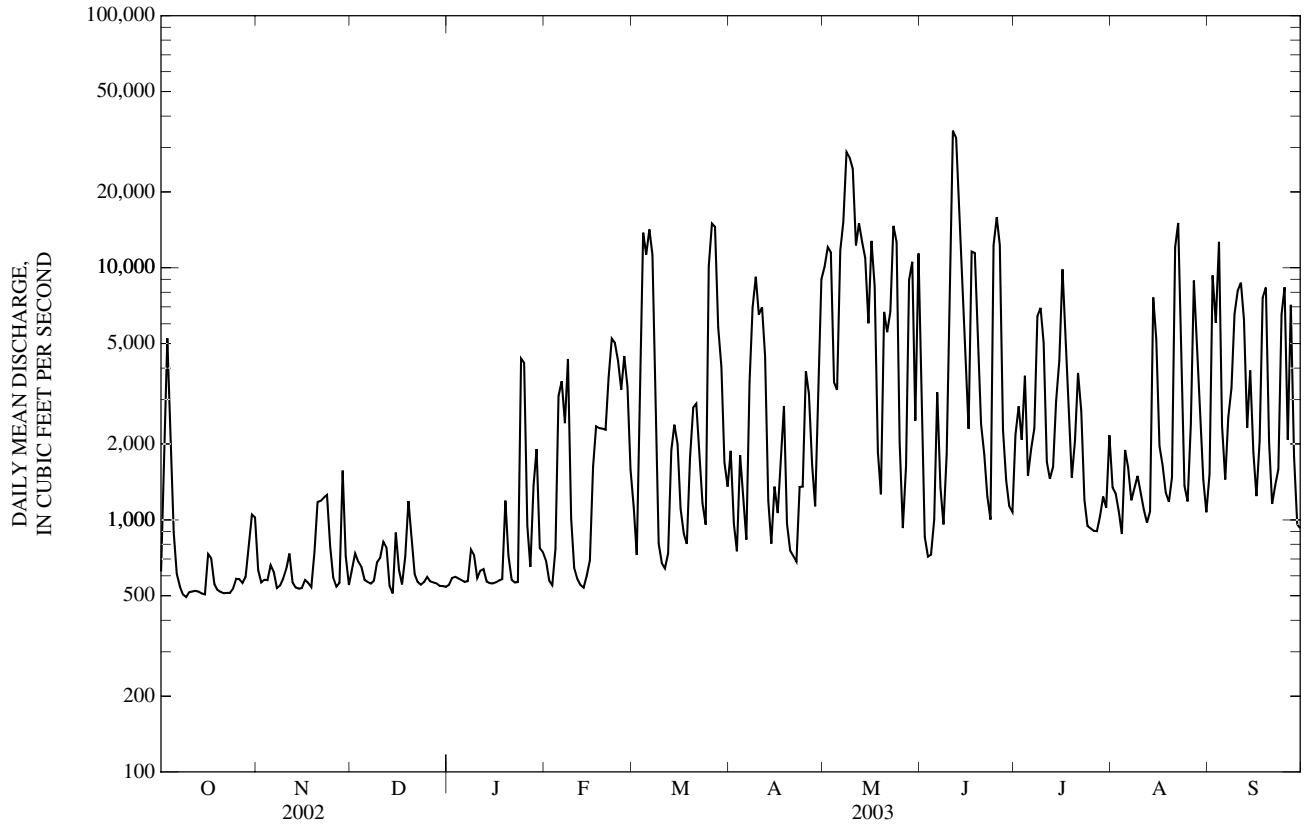
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	624	632	633	553	689	1,130	1,880	10,100	2,470	2,180	1,340	1,520
2	1,630	565	736	588	574	726	966	12,100	856	2,820	1,270	9,330
3	5,250	579	682	594	551	3,220	750	11,500	716	2,080	1,080	6,060
4	2,600	577	653	586	770	13,800	1,810	3,520	728	3,730	879	12,700
5	892	662	578	577	3,100	11,300	1,240	3,280	1,000	1,500	1,890	2,360
6	612	624	568	568	3,550	14,200	835	11,700	3,200	1,910	1,620	1,450
7	543	537	559	572	2,420	11,300	3,530	15,200	1,350	2,310	1,200	2,550
8	506	549	573	762	4,340	1,850	6,960	28,800	960	6,420	1,330	3,340
9	494	584	679	724	1,010	804	9,220	27,300	1,820	6,930	1,490	6,550
10	517	640	707	588	646	673	6,520	24,700	10,000	5,040	1,270	8,100
11	520	736	818	628	583	642	6,970	12,300	35,000	1,700	1,100	8,730
12	524	564	776	639	552	737	4,470	15,000	32,800	1,450	975	6,240
13	519	539	548	570	539	1,880	1,190	12,600	14,800	1,620	1,080	2,320
14	511	533	511	561	600	2,390	805	10,900	6,430	2,970	7,620	3,910
15	507	537	890	559	691	2,000	1,360	6,030	3,640	4,280	5,200	1,850
16	732	577	634	565	1,630	1,110	1,060	12,800	2,300	9,860	1,960	1,240
17	705	562	555	575	2,350	883	1,750	8,450	11,600	5,620	1,640	2,060
18	557	541	713	581	2,310	803	2,830	1,860	11,400	2,640	1,290	7,600
19	528	751	1,190	1,190	2,300	1,770	964	1,260	6,310	1,470	1,180	8,340
20	518	1,180	834	721	2,280	2,790	755	6,680	2,400	2,070	1,470	2,040
21	512	1,190	610	579	3,670	2,890	721	5,550	1,820	3,830	12,100	1,160
22	514	1,220	567	564	5,240	1,850	683	6,690	1,240	2,720	15,100	1,380
23	513	1,260	553	567	5,040	1,160	1,350	14,700	1,000	1,200	3,850	1,590
24	533	783	566	4,370	4,280	956	1,350	12,700	12,300	946	1,370	6,540
25	584	591	594	4,200	3,290	10,200	3,890	2,030	15,900	925	1,180	8,370
26	582	543	571	949	4,460	15,000	3,160	927	12,300	905	2,390	2,080
27	562	562	565	651	3,370	14,500	1,660	1,640	2,270	902	8,890	7,120
28	593	1,570	560	1,370	1,580	5,810	1,130	8,940	1,430	1,030	4,730	1,790
29	808	720	548	1,910	---	4,050	4,180	10,600	1,130	1,240	2,470	960
30	1,050	552	547	773	---	1,690	9,020	2,470	1,070	1,120	1,440	926
31	1,020	---	542	745	---	1,350	---	11,400	---	2,170	1,070	---
MEAN	857	715	647	948	2,229	4,305	2,767	10,120	6,675	2,761	2,951	4,340
MAX	5,250	1,570	1,190	4,370	5,240	15,000	9,220	28,800	35,000	9,860	15,100	12,700
MIN	494	533	511	553	539	642	683	927	716	902	879	926
IN.	0.07	0.05	0.05	0.07	0.16	0.34	0.21	0.80	0.51	0.22	0.23	0.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)

MEAN	8,501	8,781	7,673	6,696	12,350	16,430	14,040	17,910	21,020	10,180	4,415	4,286
MAX	41,410	35,360	16,580	18,890	27,140	35,430	32,900	43,010	37,210	21,200	8,775	14,790
(WY)	(1999)	(1999)	(1999)	(1998)	(1999)	(1997)	(1998)	(1999)	(1999)	(1999)	(1998)	(1998)
MIN	661	629	647	687	2,229	4,305	1,814	1,334	6,089	2,761	2,257	1,263
(WY)	(2001)	(2001)	(2003)	(2001)	(2003)	(2003)	(2000)	(2000)	(2000)	(2003)	(2002)	(2001)

06926510 OSAGE RIVER BELOW ST. THOMAS, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL MEAN	9,382		3,281		11,020	
HIGHEST ANNUAL MEAN					22,740	1999
LOWEST ANNUAL MEAN					3,281	2003
HIGHEST DAILY MEAN	53,500	May 9	35,000	Jun 11	63,600	Jul 27, 1998
LOWEST DAILY MEAN	494	Oct 9	494	Oct 9	320	Sep 24, 1999
ANNUAL SEVEN-DAY MINIMUM	513	Oct 8	513	Oct 8	513	Oct 8, 2002
MAXIMUM PEAK FLOW	---		39,100	Jun 11	74,700	Jul 26, 1998
MAXIMUM PEAK STAGE	---		14.18	Jun 11	21.86	Jul 26, 1998
INSTANTANEOUS LOW FLOW	---		490	Oct 8,9	320	Sep 24, 1999
ANNUAL RUNOFF (INCHES)	8.74		3.05		10.27	
10 PERCENT EXCEEDS	35,100		9,920		34,200	
50 PERCENT EXCEEDS	2,600		1,270		4,410	
90 PERCENT EXCEEDS	563		559		632	



06926510 OSAGE RIVER BELOW ST. THOMAS, MO—Continued
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1974 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1981.
WATER TEMPERATURE: October 1974 to September 1981.

REMARKS.--National Stream-Quality Accounting Network station October 1975 to September 1995. Ambient Water-Quality Monitoring Network station October 1995 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 398 microsiemens per centimeter, Jan. 1, 1981; minimum daily, 140 microsiemens per centimeter, Sept. 3, 1981.
WATER TEMPERATURE: Maximum daily, 30.0 °C, July 29, 1977, July 25 and Aug. 11, 1980; minimum daily, 0.0 °C, Jan. 21, 1978.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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												
12...	1150	Environmental	562	9.5	89	7.9	288	12.3	140	38.2	10.7	3.32
JAN												
13...	1100	Environmental	568	14.5	108	8.3	300	2.6	--	--	--	--
MAR												
10...	1130	Environmental	676	13.2	109	7.8	281	6.7	--	--	--	--
MAY												
27...	1000	Environmental	820	8.7	95	7.8	310	18.6	140	35.2	12.4	2.70
JUL												
14...	1400	Environmental	3,450	7.2	93	7.9	303	27.4	--	--	--	--
SEP												
03...	1000	Environmental	6,110	5.0	59	7.5	297	22.2	--	--	--	--

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													
12...	5.82	115	115	140	<1	7.78	<0.2	17.7	165	19	0.38	<0.04	0.13
JAN													
13...	--	127	127	154	<1	--	--	--	--	<10	0.33	<0.04	<0.06
MAR													
10...	--	116	117	142	<1	--	--	--	--	<10	0.42	E.02	<0.06
MAY													
27...	5.30	135	136	166	<1	7.46	<0.2	15.0	172	<10	0.36	<0.04	E.05
JUL													
14...	--	133	133	162	<1	--	--	--	--	14	0.38	<0.04	<0.06
SEP													
03...	--	119	122	149	<1	--	--	--	--	25	0.47	0.05	0.14

06926510 OSAGE RIVER BELOW ST. THOMAS, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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)
NOV													
12...	<0.008	0.02	0.04	0.06	2k	9k	8k	<2	209	1.2	<0.04	<0.2	E4n
JAN													
13...	<0.008	<0.02	E.03	E.03	2k	1k	2k	--	--	--	--	--	--
MAR													
10...	<0.008	0.98	1.08	1.04	--e	--e	2k	--	--	--	--	--	--
MAY													
27...	<0.008	<0.02	<0.04	<0.04	3k	7k	72k	2	139	0.8	<0.04	<0.2	<7
JUL													
14...	<0.008	<0.02	<0.04	E.04	25	24	5k	--	--	--	--	--	--
SEP													
03...	E.006n	<0.18d	0.04	0.09	310k	620	1,680	--	--	--	--	--	--

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								
12...	<10	<0.08	M	23.3	<0.02	E.3	<1	2
JAN								
13...	--	--	--	--	--	--	--	--
MAR								
10...	--	--	--	--	--	--	--	--
MAY								
27...	<8	0.13	2	48.2	<0.02	<0.5	1	3
JUL								
14...	--	--	--	--	--	--	--	--
SEP								
03...	--	--	--	--	--	--	--	--

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

Null value qualifier codes used in this table:
e -- Required equipment not functional/avail

06927000 MARIES RIVER AT WESTPHALIA, MO

LOCATION.--Lat 38°25'55", lone 91°59'23", in NE $^1/_4$ sec.35, T.43 N., R.10 W., Osage County, Hydrologic Unit 10290111, on the downstream side of bridge on U.S. Highway 63, 0.8 mi southeast of Westphalia, 1.2 mi downstream from Little Maries Creek, and at mile 9.9.

DRAINAGE AREA.--257 mi^2.

PERIOD OF RECORD.--December 1947 to September 1970, Oct. 1, 2002 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 542.74 ft above National Geodetic Vertical Datum of 1929. Prior to June 8, 1951, nonrecording gage at site 200 ft downstream at same datum.

REMARKS.--Records good. U.S.G.S. satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 26, 1998 reached a stage of 24.84 ft from crest-stage gage, discharge, 56,000 ft^3/s, from rating extended above 35,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	26	9.2	28	16	71	150	137	31	116	3.9	7.2
2	3.0	21	9.0	33	16	111	120	149	30	82	3.8	166
3	6.9	19	8.7	35	16	158	98	114	35	56	3.6	290
4	21	17	9.3	37	15	158	84	1,200	36	44	3.2	100
5	20	21	9.7	42	14	139	71	1,610	33	36	2.4	58
6	14	32	9.5	54	14	117	123	1,400	32	31	1.9	38
7	12	36	9.4	53	14	98	665	2,570	31	27	1.5	28
8	9.8	32	9.2	49	13	85	446	896	32	23	1.7	20
9	7.7	29	9.2	44	13	72	245	454	31	20	2.3	16
10	6.6	26	e9.0	38	13	63	170	363	839	24	2.1	14
11	5.8	22	e8.9	33	13	60	130	302	9,280	20	1.7	12
12	5.5	18	8.7	30	13	106	105	181	1,770	19	1.4	12
13	5.4	17	8.7	28	12	1,320	87	131	1,310	17	1.9	14
14	5.0	16	8.6	26	21	875	73	105	614	15	1.9	363
15	4.4	17	8.5	24	88	406	63	90	333	14	1.9	124
16	3.9	16	8.6	23	142	254	58	78	224	12	1.7	72
17	3.7	15	8.9	21	115	181	66	72	164	11	1.7	47
18	4.2	15	74	19	99	140	60	67	129	11	1.8	33
19	5.9	15	109	18	87	249	54	62	104	13	1.5	25
20	5.3	14	58	18	84	1,140	64	60	91	14	1.0	20
21	4.5	13	44	18	106	703	65	54	84	12	1.6	55
22	4.1	12	34	17	107	402	61	49	70	9.5	1.2	263
23	3.9	12	28	16	99	254	55	44	59	8.1	0.65	80
24	3.9	11	27	14	114	186	73	40	50	7.1	0.48	57
25	7.5	11	26	14	103	146	396	46	47	6.6	0.74	40
26	9.1	10	25	14	85	123	432	67	831	5.9	0.66	33
27	9.8	10	24	14	77	102	240	73	189	5.5	0.86	75
28	11	9.7	23	15	71	177	208	60	111	5.4	0.83	44
29	17	9.9	23	15	---	444	251	48	80	4.9	1.0	28
30	49	9.5	26	15	---	299	147	40	63	4.4	1.1	22
31	37	---	27	16	---	197	---	35	---	4.0	1.5	---
MEAN	9.99	17.7	22.6	26.5	56.4	285	162	342	558	21.9	1.73	71.9
MAX	49	36	109	54	142	1,320	665	2,570	9,280	116	3.9	363
MIN	2.9	9.5	8.5	14	12	60	54	35	30	4.0	0.48	7.2
IN.	0.04	0.08	0.10	0.12	0.23	1.28	0.70	1.53	2.42	0.10	0.01	0.31

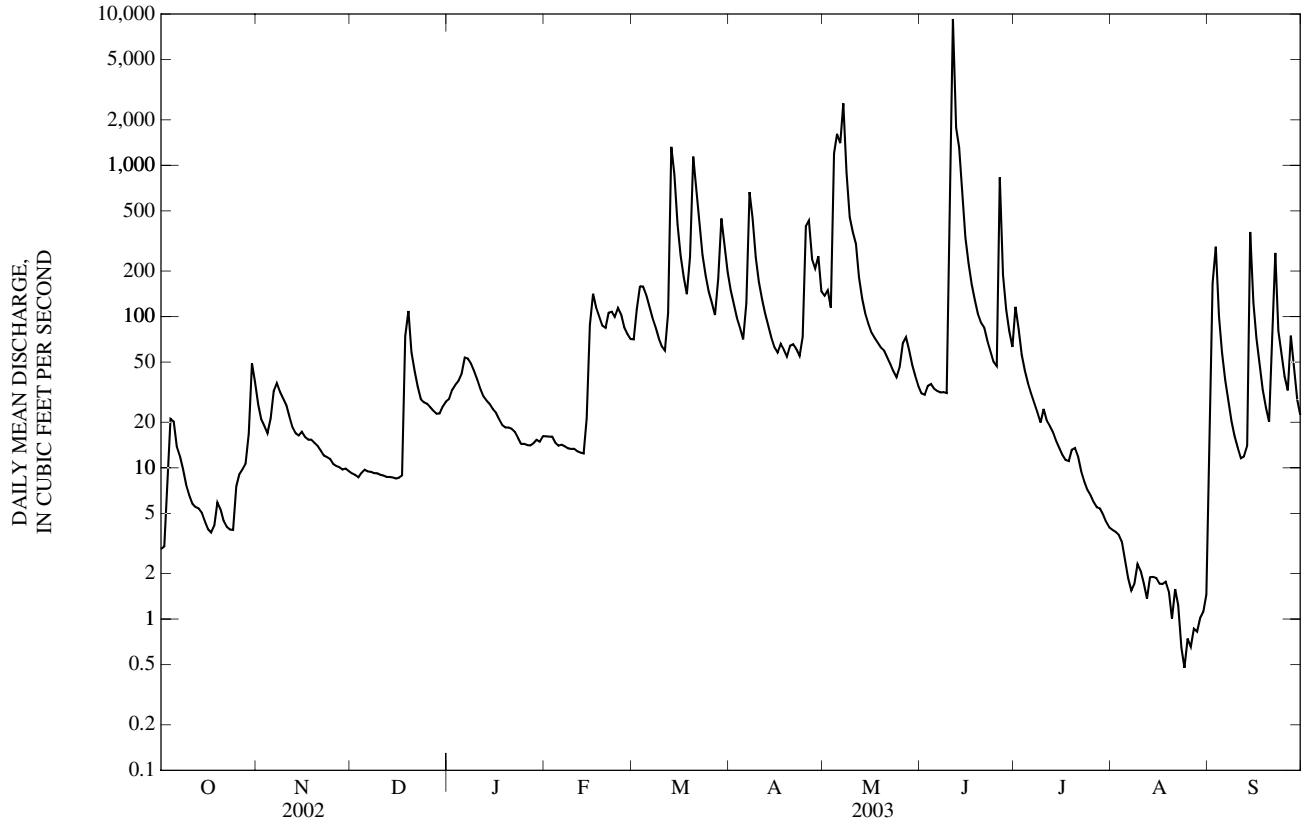
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	117	78.5	128	184	237	358	348	400	360	140	52.8	99.6
MAX	1,034	539	815	987	623	752	997	1,335	1,304	793	303	661
(WY)	(1970)	(1969)	(1968)	(1950)	(1951)	(1962)	(1966)	(1961)	(1949)	(1951)	(1951)	(1965)
MIN	0.24	2.24	4.12	4.27	6.97	9.92	37.4	24.0	8.16	3.99	0.85	0.43
(WY)	(1957)	(1954)	(1954)	(1956)	(1954)	(1954)	(1956)	(1965)	(1952)	(1959)	(1959)	(1953)

06927000 MARIES RIVER AT WESTPHALIA, MO—Continued

SUMMARY STATISTICS	FOR 2003 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	131		208	
HIGHEST ANNUAL MEAN			435	1970
LOWEST ANNUAL MEAN			40.7	1956
HIGHEST DAILY MEAN	9,280	Jun 11	18,700	Oct 12, 1969
LOWEST DAILY MEAN	0.48	Aug 24	0.10	Oct 5, 1956
ANNUAL SEVEN-DAY MINIMUM	0.75	Aug 23	0.10	Oct 5, 1956
MAXIMUM PEAK FLOW	11,400	Jun 11	26,100	Oct 12, 1969
MAXIMUM PEAK STAGE	13.73	Jun 11	20.83	Oct 12, 1969
INSTANTANEOUS LOW FLOW	0.33	Aug 24	0.10	Sep 22, 1956
ANNUAL RUNOFF (INCHES)	6.93		10.98	
10 PERCENT EXCEEDS	30		415	
50 PERCENT EXCEEDS	28		36	
90 PERCENT EXCEEDS	3.9		3.4	

e Estimated



06928000 GASCONADE RIVER NEAR HAZELGREEN, MO

LOCATION.--Lat 37°45'33", long 92°27'06", in SE ¼ SE ¼ sec.15, T.35 N., R.14 W., Laclede County, Hydrologic Unit 10290201 on downstream end of center pier of bridge on south outer road, 400 ft upstream from eastbound bridge of Interstate 44, 1 mi downstream from Osage Fork, 1.5 mi west of Hazelgreen, and at mile 180.

DRAINAGE AREA.--1,250 mi^2.

PERIOD OF RECORD.--October 1928 to September 1971, October 2000 to current year. Prior to April 1929 monthly discharge only published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 844.75 ft above National Geodetic Vertical Datum of 1929. Prior to March 6, 1956, nonrecording gage at present site and datum. March 6, 1956 to Dec. 17, 1957, nonrecording gage at site 750 ft downstream at present datum and Dec. 18, 1957 to Aug. 20, 1958, nonrecording gage at present site and datum. Aug. 20, 1958 to September 1971, water-stage recorder at present site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 4-5, 1982 reached a stage of 34.46 ft, discharge 87,000 ft^3/s from rating extended above 74,400 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	164	118	2,730	182	946	828	846	275	295	121	116
2	88	207	116	2,040	181	985	755	845	269	280	161	213
3	84	203	116	1,440	177	1,170	692	1,090	268	262	175	3,290
4	80	189	127	1,120	174	1,250	640	1,060	262	260	192	2,310
5	77	184	130	920	170	1,180	594	914	260	240	207	1,240
6	75	176	128	782	170	1,070	664	864	284	223	225	869
7	75	170	125	676	170	946	1,480	837	293	207	210	646
8	74	164	125	592	165	833	2,000	670	278	191	198	514
9	73	158	125	531	162	741	1,670	651	259	178	183	426
10	71	156	125	479	162	661	1,280	584	251	170	162	361
11	70	155	125	432	161	593	1,060	581	326	163	149	312
12	70	153	124	394	160	543	910	551	1,550	182	142	290
13	71	150	129	362	159	624	792	533	3,320	191	132	274
14	69	151	133	335	212	646	698	484	3,520	170	124	265
15	67	162	136	314	326	618	622	444	2,310	157	117	249
16	67	160	141	298	1,220	604	568	451	1,560	149	109	473
17	68	156	150	283	1,280	568	537	458	1,170	147	101	468
18	70	152	191	275	1,040	535	506	496	936	143	94	399
19	77	151	297	255	942	636	473	547	789	139	89	359
20	78	149	808	250	1,410	930	465	606	682	132	84	308
21	78	147	751	239	2,230	1,360	447	755	584	125	79	270
22	76	144	574	233	1,760	1,500	436	676	511	119	75	251
23	76	140	476	e231	1,640	1,380	425	579	454	112	71	228
24	78	137	434	e229	1,830	1,180	431	512	406	106	67	207
25	109	134	399	227	1,520	1,030	516	478	372	100	63	193
26	112	131	359	206	1,260	916	733	443	1,020	95	61	183
27	110	126	325	197	1,110	848	1,030	401	576	91	66	189
28	108	122	294	189	1,010	846	908	365	413	88	65	178
29	139	120	277	188	---	896	777	334	356	106	62	172
30	148	119	316	183	---	964	884	315	321	106	84	177
31	151	---	1,080	183	---	918	---	295	---	104	96	---
MEAN	86.5	154	282	542	749	901	794	602	796	162	121	514
MAX	151	207	1,080	2,730	2,230	1,500	2,000	1,090	3,520	295	225	3,290
MIN	67	119	116	183	159	535	425	295	251	88	61	116
IN.	0.08	0.14	0.26	0.50	0.62	0.83	0.71	0.56	0.71	0.15	0.11	0.46

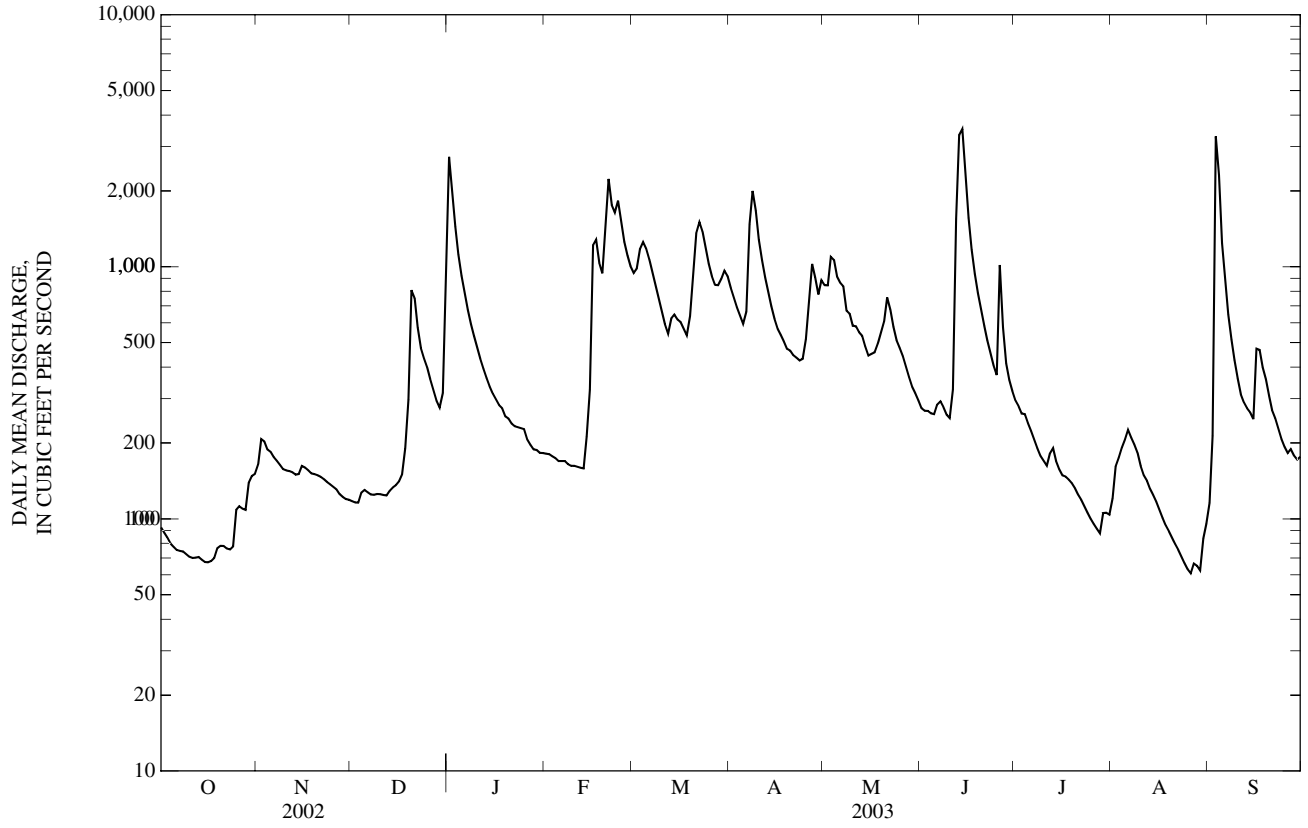
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	486	633	704	929	1,194	1,557	1,723	1,890	1,105	532	284	364
MAX	4,943	4,273	3,361	4,805	3,209	6,584	10,180	7,340	8,710	5,322	1,467	2,519
(WY)	(1950)	(1952)	(1943)	(1950)	(1938)	(1945)	(1945)	(1943)	(1935)	(1958)	(1946)	(1970)
MIN	31.6	65.8	72.6	68.0	91.2	141	130	202	83.2	41.8	30.8	25.6
(WY)	(1957)	(1954)	(1956)	(1956)	(1964)	(1956)	(1956)	(1932)	(1936)	(1934)	(1936)	(1954)

06928000 GASCONADE RIVER NEAR HAZELGREEN, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	1,140		472		948	
HIGHEST ANNUAL MEAN					2,236	1950
LOWEST ANNUAL MEAN					123	1954
HIGHEST DAILY MEAN	37,800	May 9	3,520	Jun 14	58,800	Mar 12, 1935
LOWEST DAILY MEAN	67	Oct 15,16	61	Aug 26	19	Sep 20, 1954
ANNUAL SEVEN-DAY MINIMUM	69	Oct 11	65	Aug 23	21	Sep 14, 1954
MAXIMUM PEAK FLOW	---		5,640	Sep 3	76,400	Apr 14, 1945
MAXIMUM PEAK STAGE	---		7.99	Sep 3	29.60	Apr 14, 1945
INSTANTANEOUS LOW FLOW	---		60	Aug 26,29	18	Aug 1, 1936
ANNUAL RUNOFF (INCHES)	12.39		5.13		10.31	
10 PERCENT EXCEEDS	2,050		1,070		2,000	
50 PERCENT EXCEEDS	256		265		343	
90 PERCENT EXCEEDS	101		90		85	

e Estimated



06928300 ROUBIDOUX CREEK ABOVE FT. LEONARD WOOD, MO

LOCATION.--Lat 37°36'04", long 92°14'02", in NE ¼ SW ¼ NE ¼ sec.3, T.33 N., R.12 W., Pulaski County, Hydrologic Unit 10290201, on State Highway 17 bridge, 12 mi south of Ft. Leonard Wood.

DRAINAGE AREA.--165 mi^2.

PERIOD OF RECORD.--Dec. 29, 1999 to current year.

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

REMARKS.--No estimated daily discharges. Records fair. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

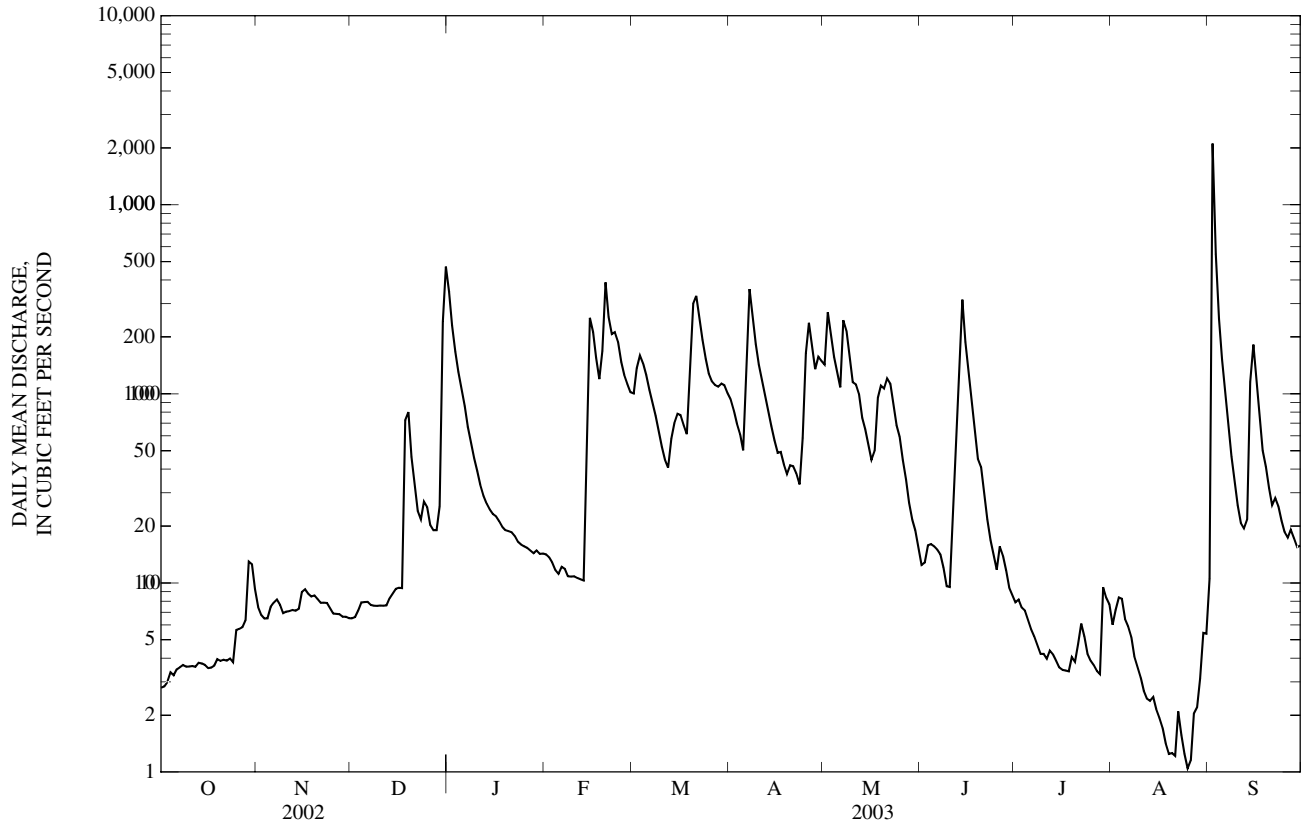
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	7.4	6.5	346	14	100	94	143	12	7.9	6.0	11
2	2.8	6.8	6.6	229	14	137	82	270	13	8.2	7.2	2,110
3	3.0	6.5	7.2	167	13	160	70	210	16	7.4	8.4	549
4	3.4	6.5	7.9	131	12	145	61	157	16	7.1	8.2	250
5	3.2	7.5	7.9	106	11	126	50	132	16	6.4	6.4	152
6	3.5	7.9	7.9	86	12	105	126	108	15	5.7	5.9	103
7	3.6	8.2	7.7	67	12	90	358	245	14	5.2	5.2	69
8	3.7	7.7	7.6	56	11	77	255	215	12	4.7	4.1	47
9	3.6	6.9	7.6	46	11	64	183	153	9.6	4.2	3.6	34
10	3.6	7.1	7.6	39	11	52	142	115	9.5	4.2	3.2	26
11	3.6	7.1	7.6	33	11	45	116	112	23	4.0	2.7	21
12	3.6	7.2	7.6	29	10	41	97	100	52	4.4	2.4	19
13	3.8	7.1	8.3	26	10	58	81	75	135	4.2	2.4	22
14	3.7	7.3	8.8	24	40	70	68	65	315	3.9	2.5	116
15	3.7	8.9	9.3	23	252	78	57	53	188	3.6	2.1	182
16	3.5	9.2	9.4	23	213	77	49	45	125	3.5	1.9	117
17	3.6	8.8	9.4	21	155	68	49	50	88	3.4	1.7	75
18	3.7	8.5	73	20	120	61	42	95	62	3.4	1.4	50
19	4.0	8.6	80	19	169	120	38	111	45	4.1	1.2	41
20	3.9	8.2	46	19	389	300	42	107	41	3.8	1.3	32
21	3.9	7.8	33	19	255	330	41	121	29	4.7	1.2	26
22	3.9	7.9	24	18	207	251	38	113	22	6.1	2.1	28
23	4.0	7.8	22	17	212	193	33	88	17	5.2	1.6	26
24	3.8	7.3	27	16	188	154	58	68	14	4.2	1.3	21
25	5.6	6.9	25	16	148	128	164	59	12	3.9	1.0	19
26	5.7	6.9	20	15	126	116	237	45	16	3.7	1.2	17
27	5.8	6.8	19	15	112	112	179	35	14	3.4	2.0	19
28	6.3	6.6	19	14	102	109	135	27	12	3.3	2.2	17
29	13	6.6	25	15	---	113	157	22	9.5	9.5	3.1	15
30	13	6.5	241	14	---	111	150	19	8.6	8.4	5.4	16
31	9.3	---	471	14	---	101	---	15	---	7.7	5.4	---
MEAN	4.66	7.48	40.6	54.3	101	119	108	102	45.4	5.14	3.36	141
MAX	13	9.2	471	346	389	330	358	270	315	9.5	8.4	2,110
MIN	2.8	6.5	6.5	14	10	41	33	15	8.6	3.3	1.0	11
IN.	0.03	0.05	0.28	0.38	0.64	0.83	0.73	0.72	0.31	0.04	0.02	0.95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

MEAN	5.31	17.4	116	65.7	193	160	113	297	42.6	8.61	4.70	39.6
MAX	6.66	36.0	298	163	401	423	296	1,027	73.6	10.5	5.92	141
(WY)	(2002)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2003)
MIN	4.60	7.48	8.49	17.2	35.2	43.4	18.0	8.17	7.71	5.14	3.36	2.31
(WY)	(2001)	(2003)	(2001)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2003)	(2003)	(2000)

06928300 ROUBIDOUX CREEK ABOVE FT. LEONARD WOOD, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL MEAN	189		60.6		110	
HIGHEST ANNUAL MEAN					214	2002
LOWEST ANNUAL MEAN					54.5	2001
HIGHEST DAILY MEAN	7,580	May 8	2,110	Sep 2	7,580	May 8, 2002
LOWEST DAILY MEAN	2.1	Sep 14	1.0	Aug 25	1.0	Aug 25, 2003
ANNUAL SEVEN-DAY MINIMUM	2.3	Sep 9	1.4	Aug 19	1.3	Aug 29, 2000
MAXIMUM PEAK FLOW	---		6,550	Sep 2	12,900	May 8, 2002
MAXIMUM PEAK STAGE	---		10.93	Sep 2	14.86	May 8, 2002
INSTANTANEOUS LOW FLOW	---		0.83	Aug 25	0.82	Sep 1, 2000
ANNUAL RUNOFF (INCHES)	15.59		4.99		9.03	
10 PERCENT EXCEEDS	400		156		227	
50 PERCENT EXCEEDS	19		17		17	
90 PERCENT EXCEEDS	3.6		3.6		4.0	



06928430 ROUBIDOUX CREEK BELOW FT. LEONARD WOOD, MO

LOCATION.--Lat 37°49'40", long 92°12'19", in SE ¼ SW ¼ SW ¼ sec.24, T.36 N., R.12 W., Pulaski County, Hydrologic Unit 10290201, on right bank 400 ft downstream from Interstate 44 bridge, on Superior Road, 0.9 mi south of Business 44, and 0.6 mi upstream from Roubidoux Spring.

DRAINAGE AREA.--287 mi^2.

PERIOD OF RECORD.--Feb. 23, 2000 to current year.

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

REMARKS.--No estimated daily discharges. Records fair. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

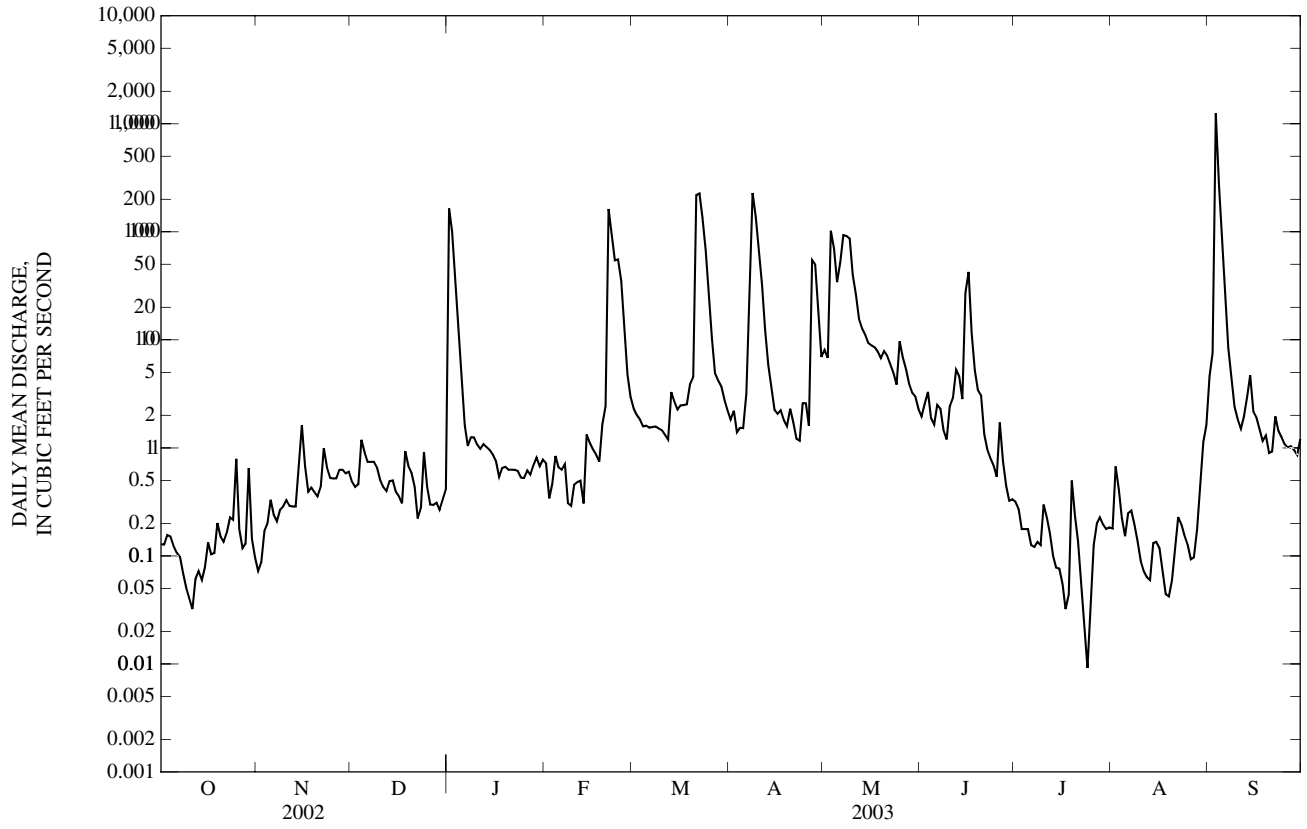
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.13	0.07	0.49	164	0.72	2.3	1.8	8.1	2.0	0.32	0.18	4.6
2	0.13	0.09	0.43	100	0.34	2.0	2.2	6.8	2.6	0.27	0.67	7.5
3	0.16	0.17	0.46	40	0.47	1.8	1.4	102	3.3	0.18	0.41	1,250
4	0.15	0.20	1.2	17	0.84	1.6	1.5	70	1.9	0.18	0.22	270
5	0.12	0.33	0.91	5.8	0.66	1.6	1.5	34	1.7	0.18	0.15	95
6	0.11	0.24	0.74	1.6	0.63	1.5	3.2	52	2.5	0.13	0.25	28
7	0.10	0.21	0.74	1.0	0.71	1.6	22	93	2.3	0.12	0.26	8.4
8	0.07	0.27	0.74	1.3	0.31	1.6	228	92	1.5	0.14	0.20	4.3
9	0.05	0.29	0.65	1.3	0.29	1.5	136	86	1.2	0.13	0.14	2.4
10	0.04	0.33	0.51	1.1	0.46	1.5	71	40	2.4	0.30	0.09	1.8
11	0.03	0.29	0.43	0.98	0.48	1.3	32	26	2.9	0.23	0.07	1.5
12	0.06	0.29	0.40	1.1	0.50	1.2	12	16	5.3	0.16	0.06	2.0
13	0.07	0.29	0.49	1.0	0.31	3.3	5.8	13	4.6	0.10	0.06	3.0
14	0.06	0.69	0.50	0.96	1.3	2.7	3.6	11	2.8	0.08	0.13	4.7
15	0.08	1.6	0.39	0.87	1.1	2.3	2.2	9.3	27	0.08	0.14	2.2
16	0.13	0.68	0.36	0.75	0.96	2.5	2.1	8.9	43	0.06	0.12	1.9
17	0.10	0.39	0.31	0.54	0.87	2.5	2.2	8.5	12	0.03	0.07	1.5
18	0.11	0.43	0.93	0.65	0.75	2.5	1.8	7.7	5.2	0.04	0.04	1.2
19	0.20	0.39	0.68	0.67	1.6	3.9	1.6	6.8	3.4	0.50	0.04	1.3
20	0.15	0.36	0.59	0.63	2.4	4.5	2.3	7.9	3.1	0.23	0.06	0.90
21	0.14	0.44	0.43	0.63	162	218	1.7	7.1	1.3	0.14	0.12	0.92
22	0.16	1.00	0.22	0.63	95	226	1.2	5.9	0.97	0.05	0.23	2.0
23	0.23	0.66	0.28	0.61	54	134	1.2	5.0	0.80	0.02	0.20	1.4
24	0.22	0.53	0.92	0.53	55	67	2.6	3.9	0.69	0.01	0.16	1.3
25	0.79	0.52	0.44	0.53	35	29	2.6	9.7	0.54	0.03	0.13	1.1
26	0.18	0.52	0.30	0.62	13	10	1.6	6.8	1.7	0.13	0.09	1.0
27	0.12	0.63	0.30	0.57	4.8	4.9	55	5.4	0.75	0.20	0.10	1.0
28	0.13	0.63	0.31	0.69	3.0	4.2	50	3.9	0.44	0.23	0.18	0.96
29	0.65	0.58	0.27	0.81	---	3.7	19	3.2	0.32	0.19	0.48	0.86
30	0.14	0.60	0.33	0.68	---	2.8	6.9	3.0	0.33	0.18	1.1	1.2
31	0.10	---	0.41	0.78	---	2.2	---	2.3	---	0.18	1.6	---
MEAN	0.16	0.46	0.52	11.2	15.6	24.0	22.5	24.4	4.62	0.16	0.25	56.8
MAX	0.79	1.6	1.2	164	162	226	228	102	43	0.50	1.6	1,250
MIN	0.03	0.07	0.22	0.53	0.29	1.2	1.2	2.3	0.32	0.01	0.04	0.86
IN.	0.00	0.00	0.00	0.05	0.06	0.10	0.09	0.10	0.02	0.00	0.00	0.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

MEAN	1.13	1.30	87.2	21.5	216	118	65.1	312	25.6	0.57	0.48	14.4
MAX	1.94	1.88	260	52.8	350	412	234	1,204	94.5	0.81	1.14	56.8
(WY)	(2002)	(2002)	(2002)	(2002)	(2001)	(2002)	(2002)	(2002)	(2001)	(2001)	(2002)	(2003)
MIN	0.16	0.46	0.52	0.61	15.6	2.55	1.76	0.87	0.70	0.16	0.24	0.19
(WY)	(2003)	(2003)	(2003)	(2001)	(2003)	(2000)	(2000)	(2000)	(2000)	(2003)	(2000)	(2000)

06928430 ROUBIDOUX CREEK BELOW FT. LEONARD WOOD, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL MEAN	183		13.3		86.2	
HIGHEST ANNUAL MEAN					206	2002
LOWEST ANNUAL MEAN					13.3	2003
HIGHEST DAILY MEAN	7,240	May 13	1,250	Sep 3	7,240	May 13, 2002
LOWEST DAILY MEAN	0.03	Sep 25,Oct 11	0.01	Jul 24	0.01	Jul 24, 2003
ANNUAL SEVEN-DAY MINIMUM	0.05	Oct 8	0.05	Oct 8	0.05	Oct 8, 2002
MAXIMUM PEAK FLOW	---		3,910	Sep 3	14,000	May 9, 2002
MAXIMUM PEAK STAGE	---		9.20	Sep 3	14.13	May 9, 2002
INSTANTANEOUS LOW FLOW	---		0.01	Jul 23-25	0.01	Jul 23-25, 2003
ANNUAL RUNOFF (INCHES)	8.67		0.63		4.08	
10 PERCENT EXCEEDS	315		18		110	
50 PERCENT EXCEEDS	1.3		0.84		1.3	
90 PERCENT EXCEEDS	0.16		0.12		0.18	



06928440 ROUBIDOUX SPRING AT WAYNESVILLE, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°49'30", long 92°11'53", in SW $^1/_4$ NW $^1/_4$ NE $^1/_4$ sec.25, T.36 N., R.12 W., Pulaski County, Hydrologic Unit 10290201, from I-44 Exit 159 at Waynesville to Business 44, approximately 1.5 mi to Superior Road, south on Superior Road 0.3 mi to spring.

PERIOD OF RECORD.--November 1993 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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...	1330	Environmental	16	5.8	60	7.4	425	15.2	230	48.4	27.5	1.08
JAN 14...	1325	Environmental	53	11.6	106	7.3	321	10.7	--	--	--	--
MAR 12...	0950	Environmental	92	12.1	107	7.5	313	8.9	--	--	--	--
MAY 28...	1330	Environmental	117	6.5	68	7.3	337	15.9	160	32.9	19.7	1.43
JUL 16...	1445	Environmental	36	5.5	59	7.4	363	16.7	--	--	--	--
SEP 04...	1300	Environmental	252	4.9	51	7.1	409	15.8	--	--	--	--

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...	2.16	221	221	270	<1	2.93	<0.2	5.5	230	<10	E.07	<0.04	0.50
JAN 14...	--	147	149	182	<1	--	--	--	--	<10	0.12	<0.04	1.22
MAR 12...	--	130	130	159	<1	--	--	--	--	<10	E.05	<0.04	0.70
MAY 28...	2.55	161	162	197	<1	5.04	<0.2	7.3	184	<10	0.10	<0.04	0.26
JUL 16...	--	184	188	229	<1	--	--	--	--	<10	0.43	<0.04	0.32
SEP 04...	--	206	207	253	<1	--	--	--	--	<10	<0.10	<0.04	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 13...	<0.008	E.01	E.03	<0.04	5k	11k	5k	<2	6	E.2	<0.04	<0.2	E5n
JAN 14...	<0.008	<0.02	E.02	<0.04	7k	8k	17k	--	--	--	--	--	--
MAR 12...	<0.008	<0.02	E.03	<0.04	1k	1k	1k	--	--	--	--	--	--
MAY 28...	<0.008	<0.02	0.04	<0.04	6k	23k	105	E1n	27	E.2n	<0.04	<0.2	<7
JUL 16...	<0.008	<0.02	E.019	0.05	1k	7k	22	--	--	--	--	--	--
SEP 04...	<0.008	<0.18d	<0.04	<0.04	9k	18k	50	--	--	--	--	--	--

06928440 ROUBIDOUX SPRING AT WAYNESVILLE, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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								
13...	<10	<0.08	<1	<2.0	<0.02	<0.5	<1	<2
JAN								
14...	--	--	--	--	--	--	--	--
MAR								
12...	--	--	--	--	--	--	--	--
MAY								
28...	<8	<0.08	<1	<0.4	<0.02	<0.5	Mn	<2
JUL								
16...	--	--	--	--	--	--	--	--
SEP								
04...	--	--	--	--	--	--	--	--

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

06930000 BIG PINEY RIVER NEAR BIG PINEY, MO

LOCATION.--Lat 37°39'56", long 92°03'01", in NE ¼ SE ¼ sec. 8, T.34 N., R.10 W., Pulaski County, Hydrologic Unit 10290202, on downstream side of left pier of Ross bridge, 3.0 mi east of Big Piney, 14.8 mi upstream from Spring Creek, and at river mile 22.

DRAINAGE AREA.--560 mi^2.

PERIOD OF RECORD.--October 1921 to Sept. 30, 1982, April 4 1988 to Sept. 30, 1996, Nov. 23, 1999 to current year.

REVISED RECORDS.--WSP 826: 1935. WSP 1176: 1943, 1945. WSP 1340: 1922-23, 1927-28(M), 1933(M), 1935(M).

GAGE.--Water-stage recorder. Datum of gage is 800.99 ft above National Geodetic Vertical Datum of 1929. Prior to July 12, 1961, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. U.S.G.S. satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 24.54 ft, Dec. 4, 1982, from floodmark, present datum, discharge, 81,200 ft^3/s, from indirect measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

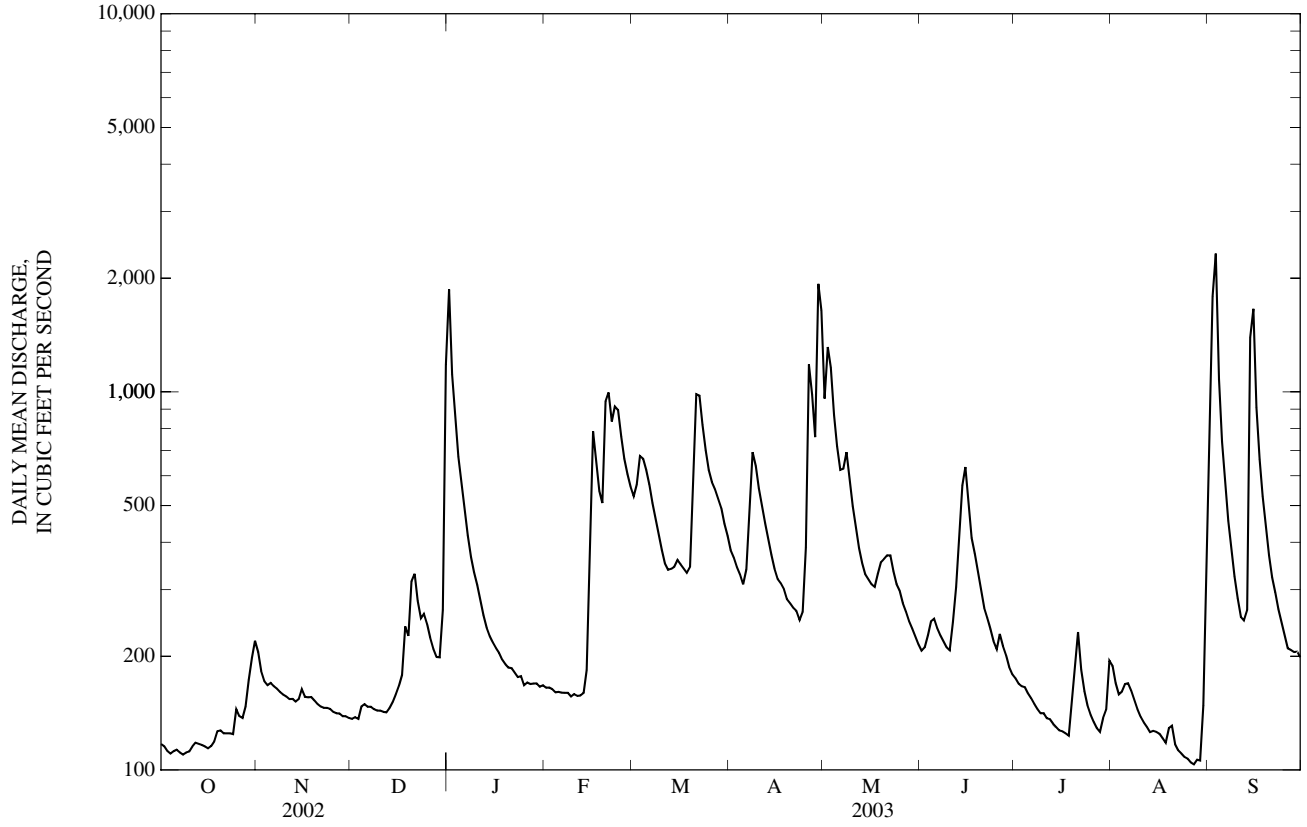
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	205	136	1,870	165	530	382	960	207	175	188	714
2	116	182	138	1,110	165	569	365	1,310	211	169	170	1,790
3	112	172	136	839	164	677	345	1,160	227	167	158	2,320
4	111	168	147	674	161	666	329	869	247	165	161	1,080
5	112	170	149	567	161	622	310	718	251	159	169	738
6	113	167	147	485	160	568	339	622	237	155	170	564
7	111	164	147	417	160	509	477	626	227	149	162	456
8	110	161	145	366	160	460	693	693	219	145	153	379
9	111	158	144	334	156	421	637	581	211	141	145	325
10	112	156	144	309	159	381	556	498	207	141	138	284
11	115	154	142	282	157	352	499	436	246	137	134	254
12	118	154	142	257	157	339	450	387	305	136	130	248
13	117	152	146	238	160	341	410	352	429	133	126	265
14	116	154	151	226	184	345	371	329	566	130	127	1,390
15	115	164	158	217	406	359	341	319	633	127	126	1,660
16	114	156	167	210	786	350	320	310	497	127	125	909
17	116	156	178	204	653	341	312	305	411	125	121	663
18	119	156	240	196	547	332	301	330	373	123	118	529
19	127	153	226	190	508	345	283	354	333	154	129	441
20	127	149	315	187	943	574	276	362	299	186	131	369
21	125	147	330	186	996	985	269	369	268	232	117	323
22	125	146	280	181	835	977	263	370	252	184	113	294
23	125	146	252	176	915	817	249	336	236	162	111	267
24	124	145	259	177	896	700	262	310	219	148	108	246
25	145	142	243	167	762	621	388	298	209	140	107	227
26	139	141	224	170	666	577	1,180	276	229	134	105	210
27	137	141	209	169	606	553	984	262	213	129	104	208
28	147	139	199	169	562	522	759	248	201	126	106	205
29	173	139	199	169	---	492	1,930	237	187	137	106	206
30	198	137	265	166	---	448	1,640	226	179	144	148	199
31	220	---	1,180	167	---	416	---	215	---	195	353	---
MEAN	128	156	224	357	441	522	531	473	284	151	141	592
MAX	220	205	1,180	1,870	996	985	1,930	1,310	633	232	353	2,320
MIN	110	137	136	166	156	332	249	215	179	123	104	199
IN.	0.26	0.31	0.46	0.74	0.82	1.08	1.06	0.97	0.57	0.31	0.29	1.18

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

MEAN	265	473	449	547	630	823	980	933	597	286	236	260
MAX	1,261	2,127	1,940	2,554	2,237	2,565	3,637	3,324	4,490	1,969	1,947	1,959
(WY)	(1950)	(1952)	(1943)	(1950)	(1982)	(1945)	(1927)	(1990)	(1983)	(1951)	(1927)	(1993)
MIN	82.3	106	98.5	98.5	127	154	168	132	111	89.3	80.7	72.9
(WY)	(1957)	(1965)	(1956)	(1956)	(1934)	(1981)	(2000)	(2000)	(1934)	(1934)	(2001)	(1954)

06930000 BIG PINEY RIVER NEAR BIG PINEY, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	611		332		541	
HIGHEST ANNUAL MEAN					1,179	1927
LOWEST ANNUAL MEAN					149	1954
HIGHEST DAILY MEAN	21,400	May 9	2,320	Sep 3	22,900	Sep 26, 1993
LOWEST DAILY MEAN	110	Oct 8	104	Aug 27	60	Sep 7, 2001
ANNUAL SEVEN-DAY MINIMUM	111	Oct 3	107	Aug 23	63	Sep 2, 2001
MAXIMUM PEAK FLOW	---		4,520	Apr 29	38,300	May 9, 2002
MAXIMUM PEAK STAGE	---		8.82	Apr 29	20.70	Dec 27, 1942
INSTANTANEOUS LOW FLOW	---		104	Aug 26-29	58	Sep 7,8, 2001
ANNUAL RUNOFF (INCHES)	14.81		8.04		13.12	
10 PERCENT EXCEEDS	996		675		1,060	
50 PERCENT EXCEEDS	209		211		256	
90 PERCENT EXCEEDS	126		126		122	



06930060 BIG PINEY RIVER BELOW FT. LEONARD WOOD, MO

LOCATION.--Lat 37°45'35", long 92°03'30", in SE ¼ SW ¼ NW ¼ sec.17, T.35 N. R.10 W., Pulaski County, Hydrologic Unit 10290202, on right downstream wingwall of bridge on East Gate Ft. Leonard Wood road, 1.8 mi west of Highway J, 8.5 mi south of Interstate 44.

DRAINAGE AREA.--593 mi^2.

PERIOD OF RECORD.--Dec. 3, 1999 to current year.

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

REMARKS.--Records good. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	251	173	1,890	197	564	433	1,040	255	208	221	690
2	170	230	173	1,150	197	570	413	1,160	257	201	202	e1,280
3	169	214	172	880	194	674	393	1,190	268	196	188	e2,500
4	165	207	181	724	192	695	374	954	285	194	178	e1,150
5	165	212	184	619	188	661	357	826	298	190	192	e817
6	165	207	181	543	190	600	377	742	291	184	191	655
7	165	200	183	475	189	543	517	704	276	179	186	542
8	163	199	180	428	188	515	692	780	263	171	173	458
9	164	197	178	391	188	461	715	703	253	167	166	399
10	164	194	177	363	187	432	627	627	252	169	160	357
11	166	190	177	339	186	396	567	569	289	167	154	325
12	166	188	176	314	186	375	517	502	336	165	148	311
13	165	186	179	292	185	385	471	455	492	161	145	316
14	164	189	185	279	210	381	437	421	556	158	144	644
15	164	198	187	268	274	400	400	400	702	154	144	1,840
16	163	194	196	260	741	397	376	386	563	153	143	1,040
17	160	191	206	251	692	382	361	377	466	152	140	754
18	162	192	274	244	590	373	351	387	421	152	139	600
19	171	188	321	236	540	389	336	426	374	178	138	513
20	171	185	305	230	718	483	330	448	353	181	161	432
21	169	184	382	229	1,030	912	317	450	317	257	138	374
22	169	182	335	222	861	971	315	468	296	226	131	349
23	164	180	305	218	816	856	298	430	279	194	130	322
24	164	180	309	208	931	749	318	397	262	178	127	291
25	191	177	292	206	800	672	403	380	249	168	127	272
26	184	177	273	202	677	617	967	350	271	160	125	253
27	177	175	258	201	641	592	1,030	327	257	156	121	245
28	183	175	246	200	595	569	835	309	239	153	125	236
29	217	174	242	201	---	536	1,180	293	225	158	135	240
30	216	174	316	198	---	502	2,060	282	214	163	152	236
31	257	---	717	198	---	463	---	266	---	193	166	---
MEAN	174	193	247	402	449	552	559	550	329	177	155	615
MAX	257	251	717	1,890	1,030	971	2,060	1,190	702	257	221	2,500
MIN	160	174	172	198	185	373	298	266	214	152	121	236
IN.	0.34	0.36	0.48	0.78	0.79	1.07	1.05	1.07	0.62	0.34	0.30	1.16

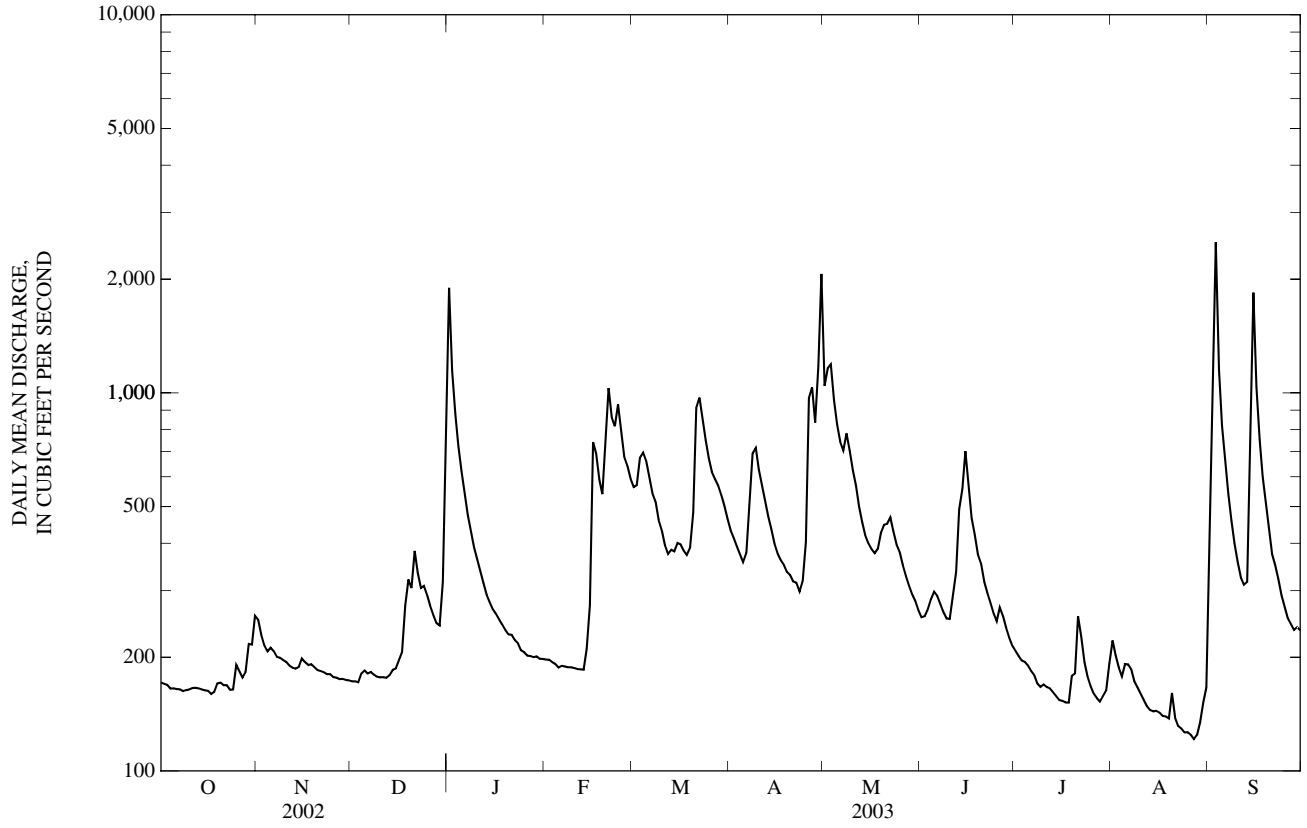
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

MEAN	145	183	396	281	845	602	502	1,138	284	186	162	266
MAX	174	198	778	402	1,798	1,103	994	3,628	377	264	224	615
(WY)	(2003)	(2002)	(2002)	(2003)	(2001)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2003)
MIN	129	158	164	195	269	305	200	160	168	147	121	124
(WY)	(2001)	(2001)	(2001)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2001)	(2000)

06930060 BIG PINEY RIVER BELOW FT. LEONARD WOOD, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL MEAN	716		365		484	
HIGHEST ANNUAL MEAN					758	2002
LOWEST ANNUAL MEAN					329	2001
HIGHEST DAILY MEAN	32,300	May 9	2,500	Sep 3	32,300	May 9, 2002
LOWEST DAILY MEAN	160	Oct 17	121	Aug 27	103	Sep 6, 2001
ANNUAL SEVEN-DAY MINIMUM	163	Oct 12	127	Aug 22	107	Sep 2, 2001
MAXIMUM PEAK FLOW	---		4,070	Apr 30	43,400	May 9, 2002
MAXIMUM PEAK STAGE	---		7.26	Apr 30	18.89	May 9, 2002
INSTANTANEOUS LOW FLOW	---		120	Aug 27	103	Sep 6, 2001
ANNUAL RUNOFF (INCHES)	16.39		8.37		11.09	
10 PERCENT EXCEEDS	1,110		708		817	
50 PERCENT EXCEEDS	259		257		232	
90 PERCENT EXCEEDS	174		164		131	

e Estimated



06930450 BIG PINEY RIVER AT DEVIL'S ELBOW, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°50'53", long 92°03'44, in NW ¼ SE ¼ NE ¼ sec.18, T.36 N., R.10 W., Pulaski County, Hydrologic Unit 10290202, at bridge on County Highway V at Devil's Elbow.

DRAINAGE AREA.--746 mi^2.

PERIOD OF RECORD.--July 1977 to October 1989, November 1992 to currrent year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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...	1515	Environmental	239	13.0	119	8.0	354	10.7	190	39.8	22.6	1.25
JAN 14...	1445	Environmental	305	16.3	129	8.1	334	5.1	--	--	--	--
MAR 12...	1100	Environmental	305	12.1	109	8.1	308	9.5	--	--	--	--
MAY 28...	1540	Environmental	345	10.2	117	7.9	314	20.5	150	29.6	17.9	1.28
JUL 16...	1315	Environmental	178	9.2	121	8.1	328	28.2	--	--	--	--
SEP 05...	1120	Environmental	1,300	7.3	84	7.8	271	20.6	--	--	--	--

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...	3.18	185	187	228	<1	4.38	<0.2	4.6	180	<10	E.08	<0.04	0.19
JAN 14...	--	153	153	186	<1	--	--	--	--	<10	0.12	<0.04	0.81
MAR 12...	--	135	134	164	<1	--	--	--	--	<10	0.13	<0.04	0.47
MAY 28...	3.10	152	153	187	<1	5.84	<0.2	5.3	174	<10	0.19	<0.04	0.25
JUL 16...	--	159	159	194	<1	--	--	--	--	<10	0.23	<0.04	0.20
SEP 05...	--	126	126	154	<1	--	--	--	--	13	0.45	<0.04	0.66

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...	<0.008	0.02	E.03	E.02	<1b	2k	1k	<2	9	E.2	<0.04	<0.2	E6n
JAN 14...	<0.008	<0.02	E.02	<0.04	2k	3k	<1b	--	--	--	--	--	--
MAR 12...	E.005	E.02	E.02	E.02	1k	2k	1k	--	--	--	--	--	--
MAY 28...	<0.008	E.01	0.04	<0.04	5k	12k	8k	E1n	47	0.3	<0.04	<0.2	<7
JUL 16...	<0.008	0.03	0.04	0.06	1k	7k	37	--	--	--	--	--	--
SEP 05...	0.008	<0.18d	0.05	0.06	84	96	114	--	--	--	--	--	--

06930450 BIG PINEY RIVER AT DEVIL'S ELBOW, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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...	11	<0.08	<1	3.7	<0.02	<0.5	<1	<2
JAN								
14...	--	--	--	--	--	--	--	--
MAR								
12...	--	--	--	--	--	--	--	--
MAY								
28...	12	<0.08	<1	11.6	<0.02	<0.5	Mn	<2
JUL								
16...	--	--	--	--	--	--	--	--
SEP								
05...	--	--	--	--	--	--	--	--

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 was extrapolated below
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

06930800 GASCONADE RIVER ABOVE JEROME, MO
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°55'12", long 91°58'33", in SW ¼ NW ¼ NE ¼ sec.24, T.37 N., R.10 W., Phelps County, Hydrologic Unit 10290203, at bridge on State Highway D at Jerome, 150 ft upstream from Little Piney Creek, and 0.7 mi upstream from gaging station.

DRAINAGE AREA.--2,570 mi^2.

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1978 to September 1981.
WATER TEMPERATURE: March 1978 to September 1981.

REMARKS.--National Stream-Quality Accounting Network station January 1978 to September 1993. Ambient Water-Quality Monitoring Network station November 1993 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 588 microsiemens per centimeter, Sept. 23, 1981; minimum, 133 microsiemens per centimeter, Sept. 1, 1981.
WATER TEMPERATURE: Maximum daily, 34.0 °C, Aug. 11 and 17, 1980; minimum, 0.0 °C on many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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												
01...	1240	Environmental	498	9.3	107	8.2	314	21.2	--	--	--	--
NOV												
13...	0905	Environmental	547	12.2	108	8.2	356	9.2	190	38.2	22.9	1.43
DEC												
05...	0945	Environmental	547	11.0	84	8.1	365	3.5	--	--	--	--
JAN												
15...	0940	Environmental	952	16.7	128	8.1	343	3.7	180	37.3	21.2	1.71
15...	0941	Blank	--	--	--	--	--	--	--	E.01	<0.008	<0.10
FEB												
04...	0930	Environmental	631	10.9	89	7.9	351	5.9	--	--	--	--
MAR												
05...	1020	Environmental	2,660	10.9	91	7.9	331	6.4	--	--	--	--
APR												
08...	1315	Environmental	2,720	9.1	87	7.7	318	12.8	--	--	--	--
MAY												
08...	0940	Environmental	4,900	6.8	74	7.3	256	17.7	130	27.4	15.8	2.37
JUN												
09...	0950	Environmental	952	7.0	79	7.4	333	20.1	--	--	--	--
JUL												
28...	1229	Blank	--	--	--	--	--	--	--	E.01n	E.006n	<0.16
28...	1230	Environmental	475	7.6	99	7.7	347	26.7	190	35.4	23.8	1.52
AUG												
07...	0915	Environmental	554	5.5	68	7.8	344	24.7	--	--	--	--
07...	0916	Replicate	--	5.7	70	7.9	344	24.7	--	--	--	--
SEP												
05...	0940	Environmental	5,300	6.6	77	7.6	298	21.8	--	--	--	--

06930800 GASCONADE RIVER ABOVE JEROME, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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													
01...	--	169	169	206	<1	--	--	--	--	<10	E.05	<0.04	0.07
NOV													
13...	2.94	188	188	229	<1	3.67	<0.20	3.6	140	<10	0.11	0.08	E.06
DEC													
05...	--	174	174	212	<1	--	--	--	--	<10	E.06	<0.04	0.10
JAN													
15...	3.92	172	175	213	<1	7.98	<0.17	7.2	187	<10	0.12	<0.04	0.76
15...	<0.09	--	--	--	--	0.24	<0.17	<0.2	<10	<10	<0.10	<0.04	<0.06
FEB													
04...	--	172	172	210	<1	--	--	--	--	<10	0.15	<0.04	0.38
MAR													
05...	--	143	143	175	<1	--	--	--	--	<10	0.19	<0.04	0.92
APR													
08...	--	153	154	188	<1	--	--	--	--	<10	0.26	<0.04	0.19
MAY													
08...	2.99	113	113	138	<1	5.45	<0.17	6.0	149	71	0.66	<0.04	0.41
JUN													
09...	--	144	143	174	<1	--	--	--	--	<10	0.19	<0.04	0.22
JUL													
28...	<0.10	--	--	--	--	<0.20	<0.20	<0.2	<10	<10	<0.10	E.03	<0.06
28...	3.48	163	163	198	<1	6.14	<0.20	4.6	181	<10	0.12	<0.04	0.07
AUG													
07...	--	172	171	209	<1	--	--	--	--	<10	0.17	<0.04	<0.06
07...	--	--	--	--	--	--	--	--	--	<10	0.20	<0.04	<0.06
SEP													
05...	--	132	135	164	<1	--	--	--	--	<10	0.70	<0.04	0.53

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													
01...	<0.008	<0.02	<0.04	<0.04	13k	6k	3k	--	--	--	--	--	--
NOV													
13...	E.007	<0.02	<0.04	<0.04	11k	5k	1k	<2	12	E.3	<0.04	<0.2	<6
DEC													
05...	<0.008	<0.02	<0.04	<0.04	1k	2k	<1b	--	--	--	--	--	--
JAN													
15...	E.004	<0.02	E.02	<0.04	1k	1k	4k	E1	29	0.3	<0.04	<0.2	<6
15...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	E1	<0.3	<0.04	<0.2	<6
FEB													
04...	E.006	<0.02	<0.04	<0.04	<1b	4k	3k	--	--	--	--	--	--
MAR													
05...	0.008	<0.02	<0.04	E.02	3k	21	6k	--	--	--	--	--	--
APR													
08...	<0.008	<0.02	<0.04	<0.04	17k	25	35	--	--	--	--	--	--
MAY													
08...	0.008	0.02	E.02	0.09	720	1,350	2,250	4	723	0.4	<0.04	<0.2	<6
JUN													
09...	E.005	<0.02	E.02	E.03	3k	8k	3k	--	--	--	--	--	--
JUL													
28...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.3	<0.04	<0.2	<7
28...	<0.008	<0.02	E.02	<0.04	1k	8k	13k	2	34	0.6	<0.04	<0.2	<7
AUG													
07...	<0.008	<0.02	<0.04	<0.04	15k	8k	24	--	--	--	--	--	--
07...	<0.008	<0.02	<0.04	<0.04	5k	12k	21	--	--	--	--	--	--
SEP													
05...	0.010	<0.18d	0.06	0.11	58k	117k	400	--	--	--	--	--	--

06930800 GASCONADE RIVER ABOVE JEROME, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

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								
01...	--	--	--	--	--	--	--	--
NOV								
13...	E6	<0.08	<1	5.2	<0.02	<0.5	M	2
DEC								
05...	--	--	--	--	--	--	--	--
JAN								
15...	<10	<0.08	<1	5.4	<0.02	<0.5	<1	<2
15...	<10	<0.08	<1	<2.0	<0.02	<0.5	<1	2
FEB								
04...	--	--	--	--	--	--	--	--
MAR								
05...	--	--	--	--	--	--	--	--
APR								
08...	--	--	--	--	--	--	--	--
MAY								
08...	21	<0.08	2	5.3	E.01	<0.5	<1	4
JUN								
09...	--	--	--	--	--	--	--	--
JUL								
28...	<8	<0.08	<1	<0.4	<0.02	<0.5	<1	<2
28...	11	E.05n	<1	18.1	<0.02	<0.5	1	<2
AUG								
07...	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--
SEP								
05...	--	--	--	--	--	--	--	--

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 was extrapolated below
d -- Diluted sample: method hi range exceeded
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

06932000 LITTLE PINEY CREEK AT NEWBURG, MO

LOCATION.--Lat 37°54'35", long 91°54'12", in SW ¼ SE ¼ sec.22, T.37 N., R.9 W., Phelps County, Hydrologic Unit 10290203, on pier on downstream side of bridge on State Highway P and T at Newburg, and 2 mi upstream from Mill Creek.

DRAINAGE AREA.--200 mi^2.

PERIOD OF RECORD.--October 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is 693.40 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1951, all gages at datum 3.0 ft higher. Prior to Nov. 21, 1963, nonrecording gage at site 100 ft downstream; Nov. 21, 1963 to May 9, 1966, nonrecording gage at present site.

REMARKS.--No estimated daily discharges. Records good. U.S.G.S satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 16.7 ft, Aug. 20, 1915, from floodmark, present datum; discharge, 30,000 ft^3/s, from rating curve based on discharge measurements made in 1935 and extended above 25,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

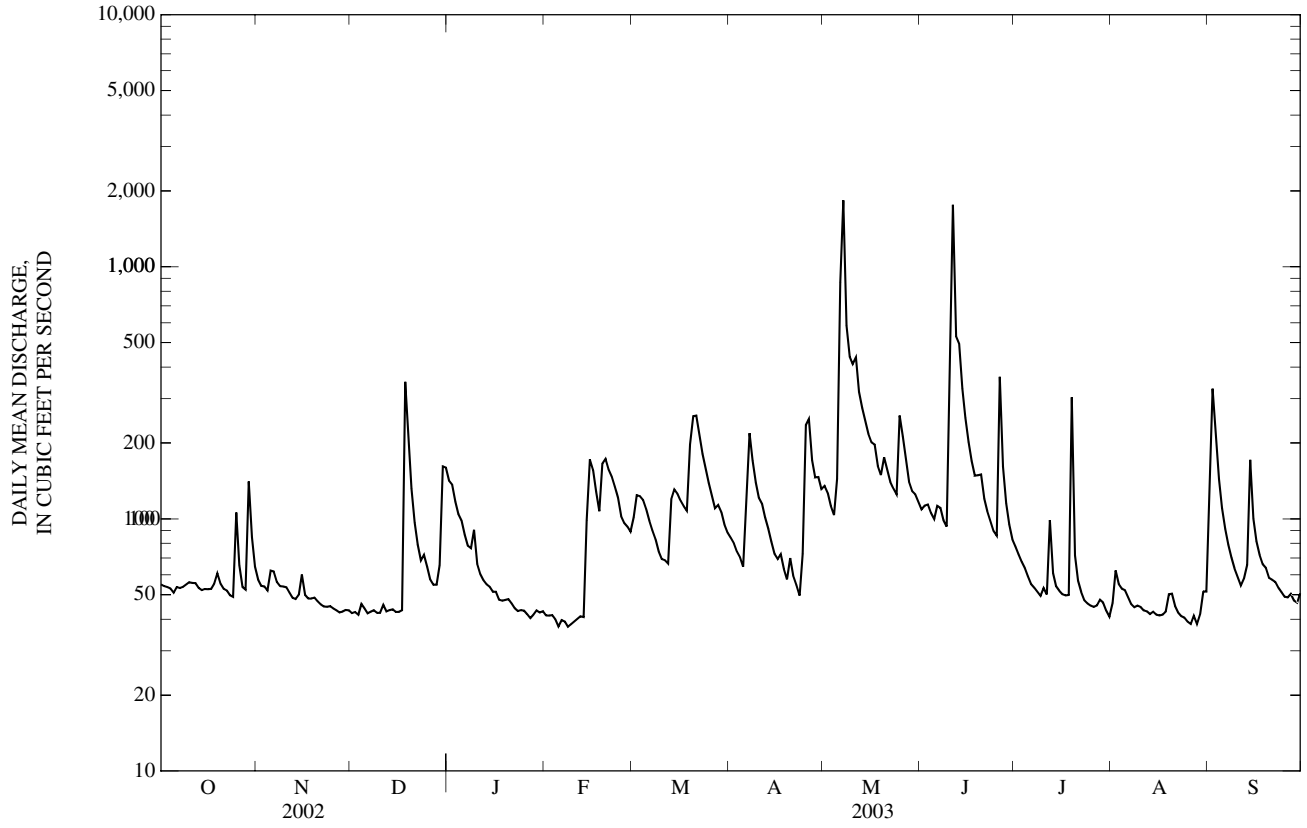
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	57	42	142	41	102	84	135	109	78	46	133
2	54	54	43	137	41	124	80	127	113	72	62	329
3	54	54	42	117	42	123	74	113	114	68	55	216
4	53	52	46	105	40	119	70	104	106	64	53	144
5	51	62	44	99	37	109	65	144	100	59	52	110
6	54	62	42	87	40	98	119	867	113	55	49	91
7	53	56	43	78	39	90	219	1,830	111	53	46	79
8	54	54	43	76	37	83	170	585	99	51	45	70
9	55	54	42	91	38	74	140	441	93	50	45	64
10	56	54	42	66	39	69	121	411	254	53	45	59
11	56	51	46	60	40	69	115	437	1,760	50	43	54
12	56	49	43	57	41	67	101	320	530	99	43	58
13	53	48	43	55	41	120	91	275	496	61	42	66
14	52	50	44	54	99	131	81	245	329	54	43	171
15	53	60	43	51	172	126	73	217	252	52	42	100
16	53	50	43	51	156	118	69	201	202	50	41	82
17	53	48	43	48	128	112	72	197	170	50	42	72
18	55	48	350	47	107	108	63	162	148	50	43	66
19	61	49	224	48	166	197	57	149	149	304	50	64
20	55	47	132	48	173	255	70	176	150	72	51	58
21	53	46	97	46	157	257	60	158	120	57	45	57
22	52	45	79	44	147	213	55	140	107	51	43	56
23	50	45	68	43	135	181	50	132	98	47	41	53
24	49	45	72	43	121	157	73	125	90	46	41	51
25	106	44	65	43	102	139	235	257	86	45	39	49
26	66	43	58	42	96	123	249	212	366	45	38	49
27	54	43	55	40	93	110	171	170	161	45	41	50
28	52	43	55	42	89	114	146	140	115	48	38	47
29	141	44	66	43	---	107	147	129	95	47	42	46
30	85	43	161	43	---	95	131	125	83	43	52	51
31	65	---	160	43	---	88	---	117	---	41	51	---
MEAN	60.0	50.0	76.6	64.2	87.8	125	108	285	224	63.2	45.5	86.5
MAX	141	62	350	142	173	257	249	1,830	1,760	304	62	329
MIN	49	43	42	40	37	67	50	104	83	41	38	46
IN.	0.35	0.28	0.44	0.37	0.46	0.72	0.60	1.64	1.25	0.36	0.26	0.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2003, BY WATER YEAR (WY)

MEAN	96.8	137	150	150	177	234	268	276	200	106	81.8	86.8
MAX	913	694	1,300	770	678	822	1,335	1,346	1,545	684	493	706
(WY)	(1950)	(1994)	(1983)	(1950)	(1985)	(1945)	(1945)	(2002)	(1935)	(1998)	(1946)	(1993)
MIN	26.9	33.1	35.7	34.9	35.6	42.8	42.0	43.7	32.2	27.6	27.6	28.1
(WY)	(1957)	(1957)	(1956)	(1956)	(1934)	(1956)	(1956)	(1932)	(1934)	(1934)	(1936)	(1954)

06932000 LITTLE PINEY CREEK AT NEWBURG, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1929 - 2003	
ANNUAL MEAN	239		106		163	
HIGHEST ANNUAL MEAN					391	1985
LOWEST ANNUAL MEAN					47.0	1954
HIGHEST DAILY MEAN	6,980	May 17	1,830	May 7	19,600	Dec 3, 1982
LOWEST DAILY MEAN	42	Dec 1,3,6,9,10	37	Feb 5,8	24	1936,1954,1956
ANNUAL SEVEN-DAY MINIMUM	43	Nov 27	39	Feb 4	24	Aug 22, 1936
MAXIMUM PEAK FLOW	---		6,050	May 6	32,500	Aug 14, 1946
MAXIMUM PEAK STAGE	---		9.79	May 6	16.60	Jun 17, 1985
INSTANTANEOUS LOW FLOW	---		36	Feb 5,7,Aug 26-28	24	Several Years
ANNUAL RUNOFF (INCHES)	16.25		7.22		11.09	
10 PERCENT EXCEEDS	414		174		284	
50 PERCENT EXCEEDS	80		62		87	
90 PERCENT EXCEEDS	50		43		43	



06933500 GASCONADE RIVER AT JEROME, MO

LOCATION.--Lat 37°55'47", long 91°58'38", in NE ¼ NE ¼ SE ¼ sec.13, T.37 N., R.10 W., Phelps County, Hydrologic Unit 10290203, on left bank at Jerome, 0.5 mi downstream from Little Piney Creek, and at mile 107.

DRAINAGE AREA.--2,840 mi^2.

PERIOD OF RECORD.--April 1903 to July 1906, January 1923 to current year. April 1903 to July 1906 published as "at Arlington". October to December 1922 monthly discharge only, published in WSP 1310. Gage-height records collected intermittently in the vicinity 1885-1926 and at same site since 1938 are contained in reports of the National Weather Service.

REVISED RECORDS.--WSP 172: 1904. WSP 566: Drainage area. WSP 1340: 1903-04, 1928(M).

GAGE.--Water-stage recorder. Datum of gage is 657.64 ft above National Geodetic Vertical Datum of 1929. Prior to July 26, 1904, nonrecording gage at site 0.8 mi downstream at different datum; July 26, 1904, to July 21, 1906, nonrecording gage at site 0.5 mi upstream from present site at datum about 0.85 ft higher than present gage; Jan. 3, 1923, to Sept. 29, 1928, nonrecording gage at site 400 ft downstream from present site at datum 0.14 ft lower than present datum; Sept. 30, 1928, to Jan. 17, 1939, nonrecording gage at present site and datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. National Weather Service gage-height and U.S.G.S. satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 6, 1897, reached a stage of about 29.0 ft, discharge, 120,000 ft^3/s. A stage of 28.6 ft was reached on Aug. 20 and 22, 1915, discharge, 114,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	499	628	527	2,670	649	2,290	1,990	2,960	1,040	935	497	728
2	478	618	523	4,800	648	2,240	1,840	2,690	1,010	e883	555	1,500
3	481	605	524	4,160	651	2,280	1,710	3,280	998	e839	525	4,130
4	470	600	539	3,170	632	2,490	1,600	2,910	967	e802	501	4,350
5	438	647	544	2,600	620	2,640	1,490	2,870	956	e775	514	5,010
6	432	657	541	2,220	622	2,510	1,500	2,830	982	e741	558	2,990
7	427	630	541	1,940	623	2,310	2,080	7,820	983	e716	561	2,190
8	407	605	541	1,710	613	2,120	2,720	4,810	957	e696	569	1,740
9	395	594	541	1,540	613	1,890	3,700	3,410	937	e671	567	1,440
10	388	591	538	1,390	616	1,690	3,380	2,820	1,110	e663	552	1,220
11	388	576	537	1,260	613	1,550	2,790	2,710	3,490	e645	535	1,080
12	391	562	535	1,160	605	1,440	2,400	2,290	2,420	e692	522	991
13	389	552	539	1,080	603	1,550	2,130	2,080	2,550	e635	503	964
14	385	559	541	1,010	701	1,650	1,930	1,900	4,190	e611	495	1,090
15	385	600	541	938	889	1,690	1,730	1,730	5,200	e605	484	2,630
16	384	591	546	903	1,180	1,600	1,570	1,590	4,190	e600	478	2,100
17	383	573	557	862	1,770	1,530	1,500	1,550	3,120	e594	469	1,480
18	388	571	840	827	2,520	1,460	1,370	1,480	2,490	e575	464	1,340
19	425	574	933	792	2,420	1,590	1,290	1,450	2,170	e681	471	1,300
20	435	569	842	763	2,370	2,030	1,300	1,600	2,010	e668	480	1,120
21	421	564	877	770	2,980	2,650	1,250	1,700	1,670	e625	480	1,030
22	417	554	1,090	747	4,100	3,610	1,190	1,800	1,460	e627	459	989
23	414	552	1,220	719	3,670	3,610	1,130	1,810	1,310	e605	445	903
24	416	549	1,170	680	3,540	3,380	1,190	1,650	1,190	e556	428	834
25	577	548	1,100	676	3,490	2,750	1,480	1,740	1,090	e522	420	781
26	571	542	1,000	678	3,140	2,470	1,950	1,700	1,320	e499	415	737
27	517	541	947	676	2,740	2,220	2,740	1,490	1,290	e484	410	713
28	513	537	896	659	2,460	2,130	2,680	1,350	1,470	e473	406	679
29	699	535	869	659	---	2,110	2,480	1,250	1,170	456	424	654
30	674	536	962	655	---	2,060	4,200	1,170	1,020	446	465	664
31	621	---	1,120	648	---	2,020	---	1,100	---	452	513	---
MEAN	458	579	743	1,399	1,646	2,179	2,010	2,308	1,825	638	489	1,579
MAX	699	657	1,220	4,800	4,100	3,610	4,200	7,820	5,200	935	569	5,010
MIN	383	535	523	648	603	1,440	1,130	1,100	937	446	406	654
IN.	0.19	0.23	0.30	0.57	0.60	0.88	0.79	0.94	0.72	0.26	0.20	0.62

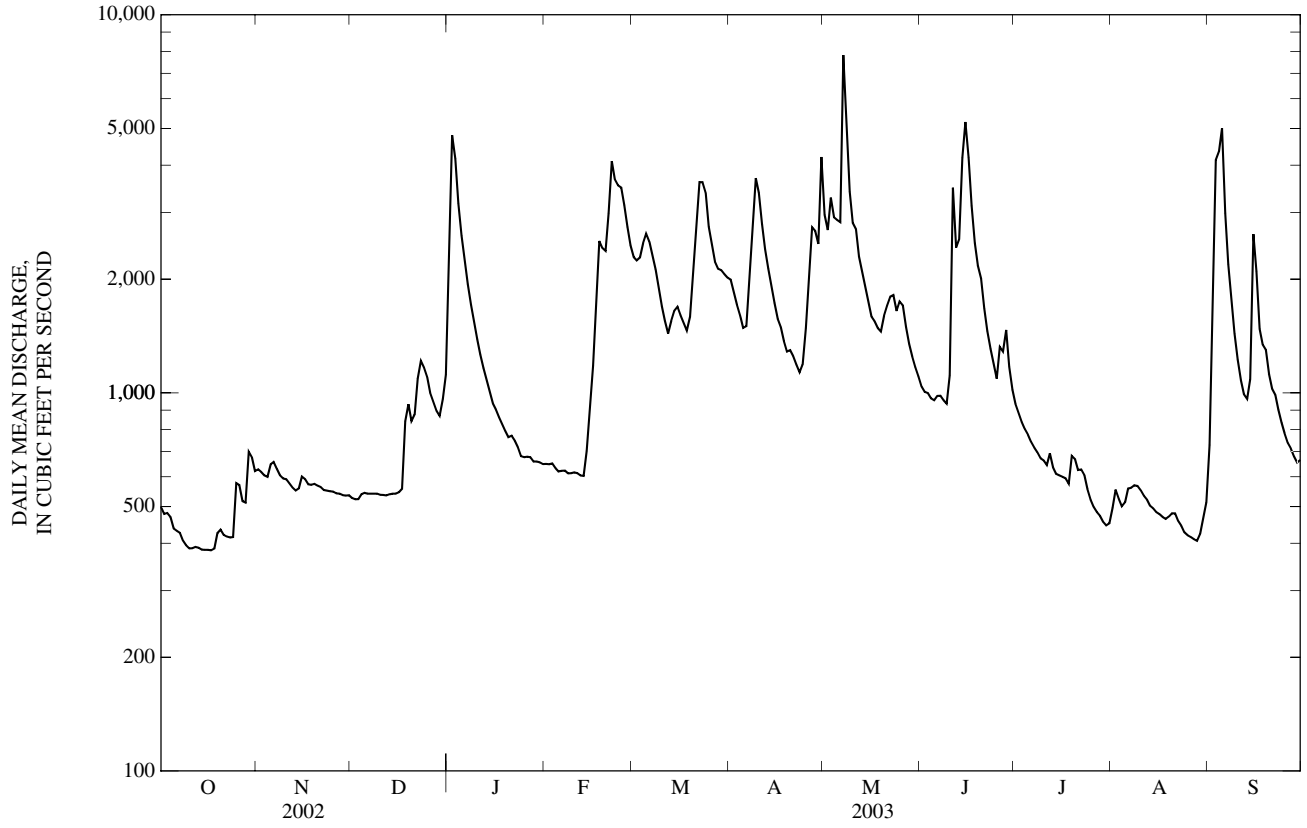
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1,361	2,286	2,453	2,394	2,996	4,022	4,590	4,414	2,999	1,516	1,157	1,261
MAX	10,390	10,400	17,740	10,980	11,540	13,110	20,450	15,390	18,500	10,730	9,244	12,580
(WY)	(1950)	(1994)	(1983)	(1950)	(1985)	(1945)	(1945)	(1990)	(1935)	(1951)	(1927)	(1993)
MIN	289	368	392	368	491	597	504	532	518	339	324	293
(WY)	(1957)	(1957)	(1956)	(1956)	(1964)	(1956)	(1956)	(2000)	(1934)	(1934)	(1936)	(1956)

06933500 GASCONADE RIVER AT JEROME, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PEARIOD OF RECORD	
ANNUAL MEAN	2,982		1,316		2,608	
HIGHEST ANNUAL MEAN					6,491	1985
LOWEST ANNUAL MEAN					544	1954
HIGHEST DAILY MEAN	47,000	May 10	7,820	May 7	121,000	Dec 5, 1982
LOWEST DAILY MEAN	383	Oct 17	383	Oct 17	259	Sep 21, 1956
ANNUAL SEVEN-DAY MINIMUM	386	Oct 11	386	Oct 11	266	Sep 16, 1956
MAXIMUM PEAK FLOW	---		9,950	May 7	136,000	Dec 5, 1982
MAXIMUM PEAK STAGE	---		7.75	May 7	31.34	Dec 5, 1982
INSTANTANEOUS LOW FLOW	---		381	Oct 14-18	254	Sep 21, 1956
ANNUAL RUNOFF (INCHES)	14.25		6.29		12.48	
10 PERCENT EXCEEDS	5,950		2,740		5,460	
50 PERCENT EXCEEDS	866		903		1,220	
90 PERCENT EXCEEDS	515		472		512	

e Estimated



06934000 GASCONADE RIVER NEAR RICH FOUNTAIN, MO

LOCATION.--Lat 38°23'20", long 91°49'15", in SE $^1/_4$ sec.16, T.41 N., R.8 W., Osage County, Hydrologic Unit 10290203, on downstream side of State Highway 89 bridge, 100 ft downstream from Brush Creek Slough, 800 ft upstream from Swan Creek, and 4 mi east of Rich Fountain.

DRAINAGE AREA.--3,180 mi^2 (by U.S. Army Corps of Engineers).

PERIOD OF RECORD.--Nov. 1, 1921 to Sept. 30, 1959, Oct. 1, 1986 to current year. Annual peaks only for water years 1959 to 1986.

GAGE.--Water-stage recorder. Datum of gage 553.70 ft above National Geodetic Vertical Datum of 1929. From Oct. 10, 1921, to Sept. 13, 1932, chain gage on former bridge, 50 ft downstream; Sept. 14, 1932, to Mar. 9, 1934, wire-weight gage on former bridge; Mar. 10, 1934, to Aug. 26, 1956, water-stage recorder on former bridge; Aug. 26, 1956, to May 11, 1966, gage readings were obtained by measuring from a reference point on present bridge; May 11, 1966, to Oct. 31, 1986, Type-A wire-weight gage on present bridge. All gages have been maintained at present datum.

REMARKS.--No estimated daily discharges. Records good. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

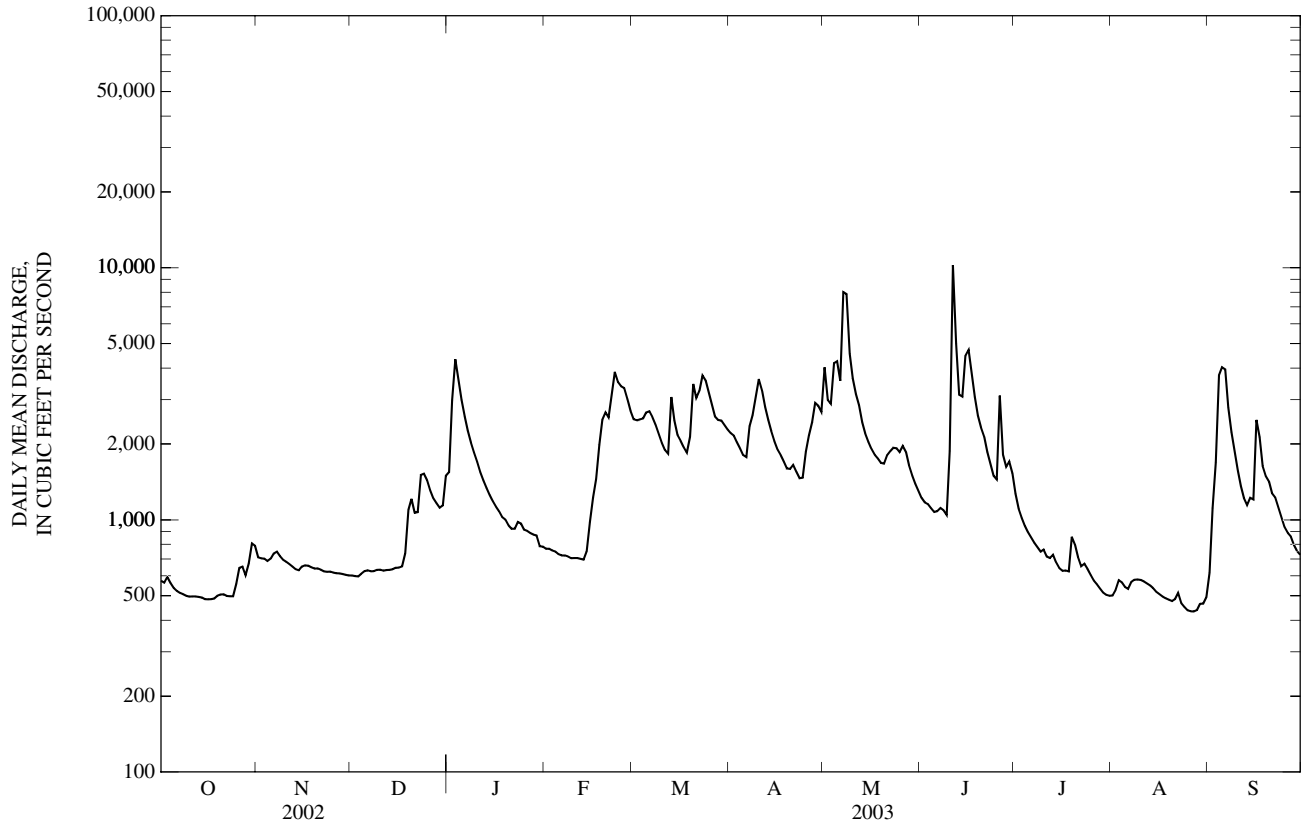
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	574	710	602	1,550	768	2,510	2,210	4,030	1,220	1,270	502	617
2	564	704	599	2,980	768	2,480	2,160	2,990	1,170	1,110	527	1,110
3	595	702	597	4,340	756	2,500	2,030	2,890	1,160	1,020	576	1,690
4	562	686	612	3,640	748	2,530	1,920	4,190	1,110	948	565	3,750
5	537	702	627	2,990	731	2,670	1,810	4,260	1,080	895	542	4,030
6	523	736	631	2,570	723	2,700	1,780	3,560	1,080	851	532	3,960
7	513	748	626	2,260	723	2,560	2,350	8,010	1,120	811	567	2,790
8	507	718	627	2,030	716	2,380	2,600	7,870	1,090	780	579	2,230
9	500	695	633	1,850	705	2,200	3,080	4,560	1,050	749	580	1,870
10	496	681	634	1,700	706	2,020	3,620	3,640	1,880	763	578	1,580
11	497	668	629	1,550	706	1,900	3,260	3,150	10,200	715	571	1,360
12	497	653	633	1,430	701	1,830	2,820	2,860	5,010	706	559	1,220
13	495	638	633	1,340	696	3,070	2,490	2,440	3,140	728	550	1,150
14	492	630	637	1,260	750	2,480	2,250	2,200	3,080	679	535	1,220
15	485	652	646	1,180	978	2,170	2,050	2,040	4,480	644	519	1,210
16	484	660	647	1,130	1,230	2,060	1,900	1,910	4,730	628	507	2,490
17	485	658	653	1,080	1,450	1,940	1,810	1,810	3,820	630	496	2,130
18	488	649	737	1,030	1,980	1,850	1,700	1,750	3,070	624	488	1,640
19	500	641	1,100	1,000	2,500	2,140	1,600	1,680	2,600	858	482	1,490
20	506	642	1,210	952	2,670	3,460	1,590	1,670	2,320	798	477	1,420
21	507	635	1,070	923	2,550	3,040	1,650	1,800	2,130	712	486	1,270
22	499	625	1,070	923	3,180	3,260	1,550	1,870	1,860	654	513	1,230
23	498	623	1,510	981	3,860	3,740	1,460	1,930	1,660	670	467	1,120
24	498	624	1,520	966	3,520	3,570	1,470	1,920	1,500	641	451	1,020
25	558	618	1,440	915	3,390	3,220	1,870	1,860	1,450	605	438	936
26	645	614	1,310	904	3,330	2,870	2,160	1,970	3,110	575	434	888
27	653	614	1,220	887	3,010	2,570	2,440	1,860	1,810	556	434	860
28	604	610	1,160	874	2,710	2,490	2,910	1,650	1,620	535	439	795
29	672	605	1,120	868	---	2,480	2,840	1,500	1,700	515	465	750
30	807	602	1,140	787	---	2,380	2,690	1,390	1,530	504	465	727
31	790	---	1,500	783	---	2,280	---	1,300	---	500	493	---
MEAN	549	658	896	1,538	1,663	2,560	2,202	2,792	2,426	731	510	1,618
MAX	807	748	1,520	4,340	3,860	3,740	3,620	8,010	10,200	1,270	580	4,030
MIN	484	602	597	783	696	1,830	1,460	1,300	1,050	500	434	617
IN.	0.20	0.23	0.32	0.56	0.54	0.93	0.77	1.01	0.85	0.27	0.19	0.57

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

MEAN	1,618	2,416	2,476	2,818	3,275	4,515	5,524	5,376	3,713	1,769	1,330	1,391
MAX	12,060	12,230	12,750	12,700	7,637	14,640	22,720	18,300	19,810	12,630	9,365	15,330
(WY)	(1950)	(1994)	(1988)	(1950)	(1949)	(1945)	(1945)	(1990)	(1935)	(1951)	(1927)	(1993)
MIN	288	394	403	374	558	620	531	670	647	385	334	295
(WY)	(1957)	(1957)	(1956)	(1956)	(1954)	(1956)	(1956)	(2000)	(1934)	(1954)	(1936)	(1954)

06934000 GASCONADE RIVER NEAR RICH FOUNTAIN, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	3,422		1,508		3,014	
HIGHEST ANNUAL MEAN					6,560	1927
LOWEST ANNUAL MEAN					629	1954
HIGHEST DAILY MEAN	47,900	May 11	10,200	Jun 11	101,000	Sep 28, 1993
LOWEST DAILY MEAN	484	Oct 16	434	Aug 26,27	275	Sep 19, 1954
ANNUAL SEVEN-DAY MINIMUM	489	Oct 12	447	Aug 24	279	Oct 6, 1956
MAXIMUM PEAK FLOW	---		13,800	Jun 11	134,000	Dec 6, 1982
MAXIMUM PEAK STAGE	---		10.33	Jun 11	33.27	Dec 6, 1982
INSTANTANEOUS LOW FLOW	---		425	Aug 26-28	275	Sep 19, 1954
ANNUAL RUNOFF (INCHES)	14.61		6.44		12.88	
10 PERCENT EXCEEDS	6,620		3,070		6,360	
50 PERCENT EXCEEDS	1,070		1,090		1,450	
90 PERCENT EXCEEDS	587		513		561	



06934500 MISSOURI RIVER AT HERMANN, MO

LOCATION.--Lat 38°42'36", long 91°26'21", in SW $^1/_4$ sec.25, T.46 N., R.5 W., Montgomery County, Hydrologic Unit 10300200, on downstream side of third pier from right abutment of bridge on State Highway 19 at Hermann, and at mile 97.9.

DRAINAGE AREA.--522,500 mi^2. The 3,959 mi^2 in Great Divide basin are not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1897 to current year. Prior to August 1928 monthly discharge only published in WSP 1310. Gage-height records 1873-99 collected at site 480 ft downstream are contained in reports of Missouri River Commission; since 1900 in reports of the National Weather Service.

REVISED RECORDS.--WDR MO-76-1: Drainage area, WDR MO-98-1: Extreme outside period of record.

GAGE.--Water-stage recorder and nonrecording gage. Datum of gage is 481.56 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 26, 1930, nonrecording gage at site 480 ft downstream at datum 0.07 ft lower; Sept. 26, 1930, to Mar. 27, 1932, nonrecording gage; Mar. 28, 1932, to June 12, 1945, water-stage recorder; June 13, 1945, to Apr. 2, 1946, May 13 to Sept. 30, 1978, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Some regulation from many upstream reservoirs. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1844 reached a stage of 35.5 ft, discharge, about 700,000 ft^3/s, computed by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38,100	45,200	38,800	25,500	24,500	35,800	39,800	67,600	58,500	57,300	40,100	39,600
2	38,000	43,800	38,000	25,700	24,300	38,400	39,300	65,200	52,000	63,300	39,900	58,900
3	39,800	43,100	36,500	26,900	24,300	36,100	38,200	63,300	50,100	64,300	39,300	91,200
4	43,500	43,100	34,700	28,000	24,200	33,600	37,400	70,900	50,300	61,400	39,200	81,600
5	42,200	43,600	32,900	27,400	24,500	39,800	37,700	90,000	51,700	59,300	38,600	65,200
6	41,700	43,500	31,300	27,100	25,600	38,400	38,600	83,300	53,100	56,000	38,700	50,200
7	42,500	42,800	29,900	27,100	27,900	39,200	40,700	98,200	51,700	53,800	39,000	43,800
8	43,900	42,200	29,000	26,900	26,700	36,200	44,200	99,400	50,900	53,300	38,700	40,300
9	45,200	41,400	28,200	26,600	27,900	29,600	46,600	109,000	51,200	55,500	38,200	39,300
10	47,100	40,400	27,400	26,500	26,000	28,500	48,300	127,000	52,600	55,100	38,100	41,000
11	47,900	39,500	27,000	26,400	25,300	28,400	46,600	155,000	72,500	53,000	37,600	42,700
12	45,800	39,100	26,900	26,300	25,000	29,000	46,200	146,000	102,000	53,600	37,300	43,800
13	43,700	39,000	26,600	26,400	24,900	35,800	44,500	129,000	88,600	58,200	37,000	45,600
14	42,500	39,000	25,900	26,300	25,000	40,100	41,700	105,000	87,700	56,800	37,500	48,900
15	42,100	39,400	25,500	26,000	26,600	36,400	40,500	87,300	87,900	56,000	41,800	57,700
16	41,800	39,400	25,800	25,800	33,400	32,900	39,300	79,700	90,500	62,300	41,200	55,200
17	41,400	39,200	26,300	25,600	35,000	31,800	39,700	76,900	87,400	69,600	38,700	55,800
18	41,500	39,200	28,400	25,600	33,500	30,900	40,000	69,900	79,200	62,900	37,500	53,700
19	41,600	39,200	30,700	25,100	32,500	31,000	41,000	64,100	70,300	59,200	36,900	54,900
20	41,500	39,200	29,500	24,500	31,700	41,600	40,600	63,300	62,100	55,100	36,000	53,200
21	42,000	39,500	28,500	24,000	30,300	43,500	41,300	65,100	55,700	51,700	35,500	46,800
22	41,900	39,700	27,600	23,500	30,700	42,400	41,300	64,000	52,100	50,700	43,000	44,800
23	41,700	39,200	27,000	23,500	33,600	42,200	44,300	65,600	49,900	48,600	44,000	46,700
24	41,500	38,800	27,100	23,300	35,000	40,400	49,200	71,600	49,900	45,900	35,500	48,100
25	41,900	38,800	27,200	23,800	34,200	37,300	61,200	68,400	59,600	44,000	33,000	50,800
26	42,400	38,800	27,000	26,400	32,500	43,500	71,200	60,700	81,300	42,800	33,500	50,800
27	42,500	38,600	26,800	24,200	33,100	51,400	66,800	57,000	74,100	42,000	34,600	45,600
28	43,200	38,400	26,700	23,500	33,800	52,300	62,800	55,500	62,300	41,500	39,300	46,900
29	43,800	38,800	26,700	23,700	---	49,800	72,100	60,400	59,600	40,900	36,900	42,600
30	44,600	38,900	26,500	24,900	---	44,300	73,900	60,300	56,200	40,600	34,900	39,900
31	45,500	---	25,800	25,100	---	41,300	---	55,000	---	40,300	34,000	---
MEAN	42,670	40,360	28,910	25,540	29,000	38,130	47,170	81,730	65,030	53,390	37,920	50,850
MAX	47,900	45,200	38,800	28,000	35,000	52,300	73,900	155,000	102,000	69,600	44,000	91,200
MIN	38,000	38,400	25,500	23,300	24,200	28,400	37,400	55,000	49,900	40,300	33,000	39,300
IN.	0.09	0.09	0.06	0.06	0.06	0.08	0.10	0.18	0.14	0.12	0.08	0.11

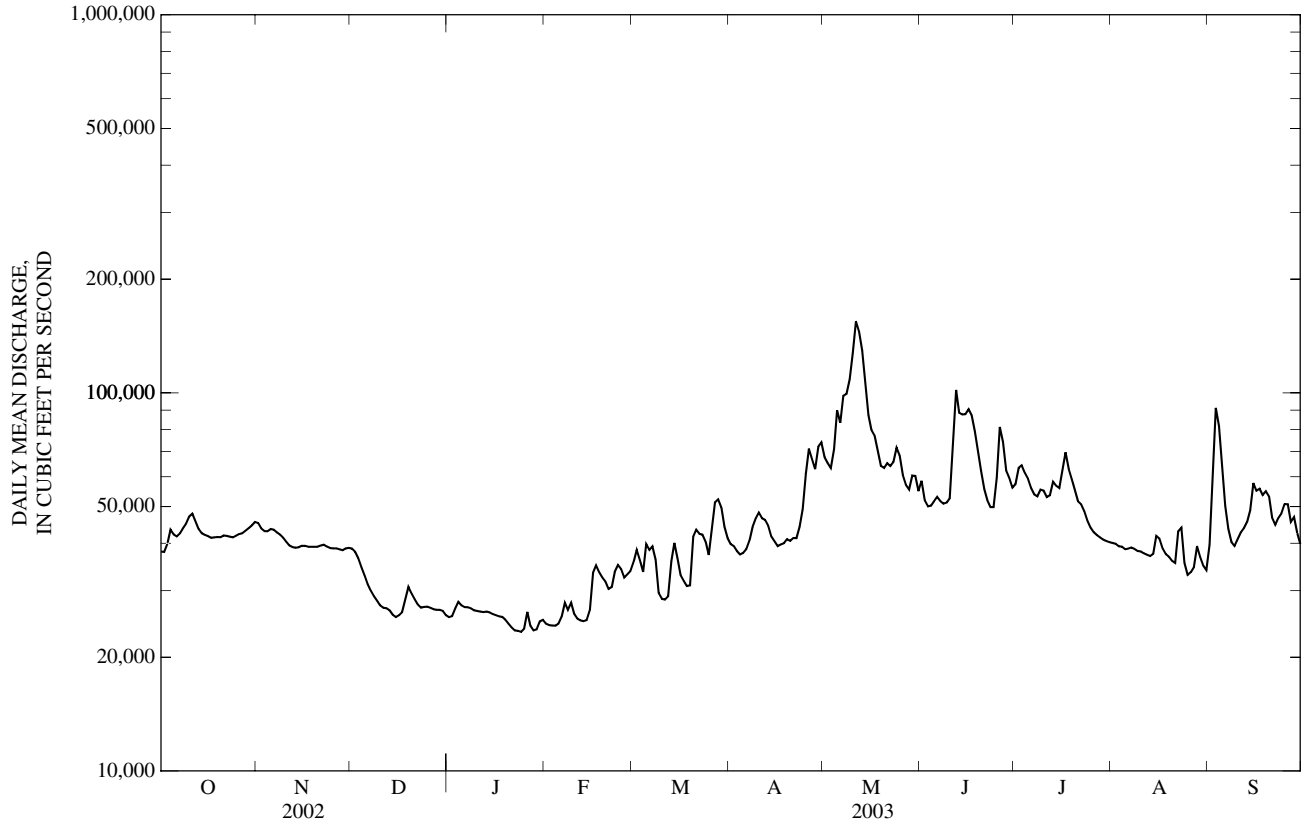
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2003[a], BY WATER YEAR (WY)

MEAN	78,640	78,600	62,650	50,430	68,110	96,240	120,500	122,700	120,200	99,950	74,020	76,020
MAX	286,700	174,800	178,900	129,000	136,800	267,500	333,400	313,000	282,300	376,300	306,600	243,500
(WY)	(1987)	(1999)	(1983)	(1973)	(1982)	(1973)	(1973)	(1995)	(1995)	(1993)	(1993)	(1993)
MIN	36,680	29,400	17,060	17,350	19,250	22,810	45,800	47,710	46,150	44,010	37,920	37,800
(WY)	(1964)	(1991)	(1964)	(1963)	(1964)	(1964)	(1963)	(1989)	(1988)	(1988)	(2003)	(1963)

06934500 MISSOURI RIVER AT HERMANN, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1958 - 2003[a]	
ANNUAL MEAN	60,970		45,130		86,470	
HIGHEST ANNUAL MEAN					181,800	1993
LOWEST ANNUAL MEAN					44,980	1963
HIGHEST DAILY MEAN	345,000	May 14	155,000	May 11	739,000	Jul 31, 1993
LOWEST DAILY MEAN	25,500	Dec 15	23,300	Jan 24	6,210	Dec 23, 1963
ANNUAL SEVEN-DAY MINIMUM	26,300	Dec 11	24,000	Jan 19	7,400	Dec 20, 1963
MAXIMUM PEAK FLOW	---		158,000	May 11	750,000	Jul 31, 1993
MAXIMUM PEAK STAGE	---		18.78	May 11	36.97	Jul 31, 1993
INSTANTANEOUS LOW FLOW	---		23,000	Jan 25	602	Dec 23, 1963
ANNUAL RUNOFF (INCHES)	1.58		1.17		2.25	
10 PERCENT EXCEEDS	107,000		66,100		162,000	
50 PERCENT EXCEEDS	43,800		41,000		66,800	
90 PERCENT EXCEEDS	32,800		26,400		36,300	

[a] Post-regulation period.



06934500 MISSOURI RIVER AT HERMANN, MO—Continued
(National Stream-Quality Accounting Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to September 1996.
WATER TEMPERATURE: October 1974 to September 1996.
DISSOLVED OXYGEN: June 1984 to September 1984, April 1985 to September 1985, April 1986 to September 1986.

INSTRUMENTATION.--Water-quality monitor, June 1984 to September 1984, April 1985 to September 1985, April 1986 to September 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: (water years 1976 to 1996): Maximum daily, 2,150 microsiemens per centimeter, Dec. 9, 1978; minimum daily, 205 microsiemens per centimeter, Apr. 16, 1979.
WATER TEMPERATURE: (water years 1976 to 1996): Maximum daily, 32.5 °C, July 31, 1987; minimum daily, 0.0 °C on many days during winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Turbidity, wat unf lab, Hach 2100AN NTU (99872)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	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)
OCT												
22...	1010	Environmental	41,900	E28	E.066	E.047	9.2	90	8.2	732	13.5	240
DEC												
11...	1210	Environmental	27,000	17	0.062	0.043	13.2	100	8.3	747	3.2	260
11...	1218	Blank	--	--	--	--	--	--	--	--	--	--
FEB												
13...	1105	Environmental	25,000	12	0.062	0.045	14.4	125	8.2	787	8.8	270
MAR												
03...	1220	Environmental	36,200	49	0.105	0.079	14.1	105	8.2	661	2.5	220
24...	1205	Environmental	40,500	38	0.099	0.073	9.9	97	8.2	616	13.4	200
24...	1213	Blank	--	--	0.004	0.003	--	--	--	--	--	--
APR												
09...	1140	Environmental	46,700	41	0.089	0.065	9.8	87	8.2	582	9.9	210
30...	1050	Environmental	73,800	190	0.136	0.101	7.6	82	7.6	540	17.5	190
MAY												
06...	0950	Environmental	80,600	140	0.153	0.115	9.1	98	8.0	527	17.7	190
09...	1150	Environmental	109,000	360	0.138	0.101	10.4	115	7.9	454	17.9	170
12...	1110	Environmental	145,000	1,200	0.174	0.131	4.7	50	7.8	365	18.3	130
JUN												
03...	0950	Environmental	50,000	51	0.084	0.059	7.3	83	8.3	707	20.0	240
13...	1100	Environmental	87,400	78	0.120	0.089	6.9	80	8.1	504	21.6	180
JUL												
08...	1005	Environmental	52,900	140	0.097	0.070	11.1	149	8.2	652	29.7	240
08...	1015	Replicate	--	--	--	--	--	--	--	--	--	240
AUG												
05...	1015	Environmental	38,700	32	0.075	0.053	8.1	107	8.1	763	28.1	260
SEP												
09...	1010	Environmental	39,200	37	0.090	0.064	6.6	81	8.3	677	24.6	220
09...	1018	Blank	--	--	--	--	--	--	--	--	--	--

06934500 MISSOURI RIVER AT HERMANN, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end field, mg/L as $CaCO_3$ (39036)	Alkalinity, wat flt inc tit field, mg/L as $CaCO_3$ (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)
OCT													
22...	59.1	22.2	5.65	66.5	171	172	210	<1	22.6	0.50	7.81	171	474
DEC													
11...	66.5	23.8	5.64	59.9	151	152	185	<1	26.5	0.40	11.5	151	514
11...	0.01	<0.008	--	<0.09	--	--	--	--	--	--	<0.13	--	--
FEB													
13...	70.8	23.0	5.67	67.1	210	213	242	9	37.8	0.49	12.8	152	520
MAR													
03...	56.8	19.6	6.23	49.9	171	172	210	<1	29.9	0.37	14.5	110	421
24...	52.0	18.1	6.03	40.4	162	162	198	<1	25.2	0.36	12.2	103	377
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
09...	52.4	18.4	5.20	42.7	159	158	178	7	20.3	0.36	10.2	113	376
30...	48.5	15.9	5.06	38.6	131	132	161	<1	18.8	0.34	7.42	94.9	337
MAY													
06...	47.6	16.3	5.72	34.8	139	138	169	<1	18.3	0.34	8.16	94.4	338
09...	45.1	13.8	5.21	26.8	131	133	162	<1	15.9	0.30	6.91	75.6	303
12...	36.9	9.60	5.46	18.8	106	106	129	<1	12.3	0.29	7.35	53.0	233
JUN													
03...	62.4	21.4	5.98	50.0	183	185	216	5	22.2	0.50	8.44	137	454
13...	44.8	16.2	4.39	29.3	150	149	183	<1	14.8	0.30	5.37	76.6	305
JUL													
08...	61.6	20.9	6.78	46.7	165	168	205	<1	20.5	0.50	13.1	120	401
08...	62.3	20.9	6.85	47.2	--	--	--	--	20.4	0.50	13.2	120	404
AUG													
05...	63.8	23.4	7.32	60.2	188	189	230	<1	25.7	0.60	7.41	167	498
SEP													
09...	55.2	20.1	6.18	59.0	152	153	186	<1	22.2	0.50	6.03	145	426
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Ammonia + org-N, water, fltrd, mg/L as N (00623)	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)	Orthophosphate, water, fltrd, mg/L as P (00671)	Particulate nitrogen, susp, water, mg/L (49570)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)
OCT													
22...	E.19	E.69	<0.04	E.58	E.005	E.064	E.40	E.077	E.19	E2.9	<0.1	E2.9	E3.0
DEC													
11...	0.23	0.46	E.03	0.94	<0.008	0.049	0.22	0.059	0.133	1.9	<0.1	1.9	3.1
11...	--	--	<0.015	<0.022	<0.002	<0.007	--	--	--	--	--	--	--
FEB													
13...	0.22	0.58	<0.04	1.05	E.005	0.060	0.27	0.070	0.152	1.9	<0.1	1.9	2.9
MAR													
03...	0.40	0.89	0.10	1.34	0.017	0.091	0.30	0.106	0.24	2.0	<0.1	2.0	4.1
24...	0.34	0.68	E.02	1.28	0.017	0.099	0.39	0.114	0.23	3.0	<0.1	3.0	3.7
24...	--	--	--	--	--	--	0.05	--	--	<0.1	<0.1	<0.1	3.9
APR													
09...	0.28	0.59	<0.04	0.91	0.009	0.084	0.28	0.101	0.20	2.1	<0.1	2.1	3.4
30...	0.42	1.4	<0.04	0.86	0.018	0.068	0.69	0.085	0.48	5.5	0.1	5.4	4.9
MAY													
06...	0.45	1.4	<0.04	1.00	0.020	0.085	0.59	0.100	--	4.3	<0.1	4.2	4.9
09...	0.41	2.1	<0.04	1.24	0.013	0.087	0.84	0.105	0.72	8.0	<0.1	7.9	4.9
12...	0.45	5.3	<0.04	1.71	0.009	0.084	1.25	0.096	1.88	12.6	0.6	12.0	5.5
JUN													
03...	0.27	0.77	<0.04	1.81	0.008	0.116	0.41	0.126	0.25	3.2	<0.1	3.2	3.0
13...	0.31	0.88	<0.04	0.79	E.007	0.066	2.36	0.077	0.37	1.5	1.0	0.5	3.9
JUL													
08...	0.30	0.92	<0.04	2.77	<0.008	0.144	0.59	0.153	0.42	5.3	0.2	5.1	3.6
08...	0.33	1.0	<0.04	2.77	<0.008	0.141	0.58	0.152	0.40	5.5	0.1	5.4	3.5
AUG													
05...	0.26	0.75	<0.04	1.04	0.008	0.105	0.35	0.119	0.22	2.5	<0.1	2.5	3.1
SEP													
09...	0.26	0.80	<0.04	0.21	E.006n	0.080	0.58	0.099	0.24	4.2	0.1	4.0	3.5
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

06934500 MISSOURI RIVER AT HERMANN, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pheophytin a, phytoplankton, ug/L (62360)	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)	Chlorophyll a phytoplankton, fluoro, µg/L (70953)	Aluminum, water, fltrd, µg/L (01106)	Antimony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryllium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)
OCT													
22...	17.5	140	240	67	33.7	--	--	2.8	--	--	117	--	--
DEC													
11...	6.5	8k	41	10k	29.1	--	--	2.0	--	--	126	--	--
11...	--	--	--	--	--	<2	<0.30	<0.3	M	<0.06	<7	<0.04	<0.8
FEB													
13...	6.1	25	60k	24	30.8	--	--	2.3	--	--	113	--	--
MAR													
03...	E4.0	10k	160	74	15.4	E2	E.29	2.4	85	<0.06	98	E.03	<0.8
24...	E5.9	35k	48	43k	7.2	--	--	2.8	--	--	82	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
09...	9.7	240	210	218	19.1	2	0.32	2.7	77	<0.06	82	E.03	<0.8
30...	E19.1	1,000	1,700	1,850	22.3	--	--	1.9	--	--	69	--	--
MAY													
06...	11.2	1,300	1,800	3,200	15.7	--	--	2.2	--	--	71	--	--
09...	9.8	400	800	1,280	6.2	5	0.34	2.1	88	<0.06	65	E.03	<0.8
12...	36.1	2,600	3,800	3,800	18.5	--	--	1.8	--	--	50	--	--
JUN													
03...	10.3	38k	48	96	18.3	--	--	3.5	--	--	97	--	--
13...	19.3	160	180	460	17.1	--	--	2.1	--	--	61	--	--
JUL													
08...	8.6	140	230	42	8.4	4	0.51	3.6	104	<0.06	81	<0.04	<0.8
08...	9.0	--	--	--	10.4	4	0.50	3.8	103	<0.06	80	<0.04	<0.8
AUG													
05...	<0.1	9k	25	9k	155	--	--	4.7	--	--	124	--	--
SEP													
09...	25.9	71	62k	32	45.3	--	--	2.9	--	--	123	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Cobalt water, fltrd, µg/L (01035)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lithium water, fltrd, µg/L (01130)	Manganese, water, fltrd, µg/L (01056)	Molybdenum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Strontium, water, fltrd, µg/L (01080)	Vanadium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)
OCT													
22...	--	--	E5	--	39.5	--	--	--	1.9	--	477	2.7	--
DEC													
11...	--	--	<10	--	39.7	--	--	--	2.0	--	523	1.9	--
11...	<0.01	<0.2	<10	0.08	<0.5	0.3	E.2	0.04	<0.5	<0.20	<0.20	<0.1	<1
FEB													
13...	--	--	E7	--	35.4	--	--	--	1.9	--	552	2.3	--
MAR													
03...	0.35	2.4	E8	<0.08	30.1	6.5	2.7	5.38	1.9	<0.20	424	2.3	1
24...	--	--	<10	--	25.1	--	--	--	2.2	--	370	5.1	--
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
09...	0.31	2.4	<10	<0.08	25.2	3.5	2.9	2.72	1.5	<0.20	376	2.8	1
30...	--	--	<10	--	21.3	--	--	--	1.4	--	326	3.3	--
MAY													
06...	--	--	10	--	20.6	--	--	--	1.2	--	328	3.1	--
09...	0.20	2.1	<10	<0.08	18.0	1.4	2.3	3.58	1.3	<0.20	287	3.2	1
12...	--	--	12	--	12.3	--	--	--	1.4	--	223	3.1	--
JUN													
03...	--	--	<8	--	30.6	--	--	--	2.7	--	423	4.3	--
13...	--	--	E5	--	19.9	--	--	--	1.2	--	265	3.1	--
JUL													
08...	0.20	2.0	<8	<0.08	30.9	0.5	3.9	2.61	2.4	<0.20	441	5.5	Mn
08...	0.20	2.3	<8	<0.08	30.3	0.5	3.9	2.42	2.3	<0.20	439	5.6	Mn
AUG													
05...	--	--	<8	--	41.7	--	--	--	2.6	--	492	7.0	--
SEP													
09...	--	--	<8	--	36.6	--	--	--	1.4	--	399	4.0	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--

06934500 MISSOURI RIVER AT HERMANN, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	2,6-Diethylaniline water fltrd 0.7µ GF µg/L (82660)	CIAT, water, fltrd, µg/L (04040)	Acetochlor, water, fltrd, µg/L (49260)	Alachlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)	Atrazine, water, fltrd, µg/L (39632)	Azinphos-methyl, water, fltrd 0.7µ GF µg/L (82686)	Benfluralin, water, fltrd 0.7µ GF µg/L (82673)	Butylate, water, fltrd, µg/L (04028)	Carbaryl, water, fltrd 0.7µ GF µg/L (82680)	Carbofuran, water, fltrd 0.7µ GF µg/L (82674)	Chlorpyrifos water, fltrd, µg/L (38933)	cis-Permethrin water fltrd 0.7µ GF µg/L (82687)
OCT													
22...	<0.006	E.020	<0.006	<0.004	<0.005	0.078	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
DEC													
11...	<0.006	E.013	0.007	<0.004	<0.005	0.073	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
13...	<0.006	E.013	<0.006	<0.004	<0.005	0.070	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
MAR													
03...	<0.006	E.018	E.006n	<0.004	<0.005	0.121	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
24...	<0.006	E.008	E.006n	<0.004	<0.005	0.067	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
09...	<0.006	E.013	0.011	<0.004	<0.005	0.100	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
30...	<0.006	E.052	0.509	0.041	<0.005	3.65	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
MAY													
06...	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r
09...	<0.006	E.065	1.56	0.051	<0.005	3.30	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
12...	<0.006	E.208	1.85	0.084	<0.005	8.60	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
JUN													
03...	<0.006	E.057	0.102	<0.004	<0.005	0.990	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
13...	<0.006	E.052	0.057	0.019	<0.005	1.18	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
JUL													
08...	<0.006	E.111	0.085	0.013	<0.005	1.30	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
08...	<0.006	E.152	0.085	0.013	<0.005	1.33	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
AUG													
05...	<0.006	E.047	0.010	0.005	<0.005	0.179	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
SEP													
09...	<0.006	E.027	0.008	E.004n	<0.005	0.226	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006
09...	<0.006	<0.006	<0.006	<0.004	<0.005	<0.007	<0.050	<0.010	<0.002	<0.041	<0.020	<0.005	<0.006

Date	Cyanazine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µ GF µg/L (82682)	Diazinon, water, fltrd, µg/L (39572)	Dieldrin, water, fltrd, µg/L (39381)	Disulfoton, water, fltrd 0.7µ GF µg/L (82677)	EPTC, water, fltrd 0.7µ GF µg/L (82668)	Ethalfluralin, water, fltrd 0.7µ GF µg/L (82663)	Ethoprop, water, fltrd 0.7µ GF µg/L (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)	Linuron water fltrd 0.7µ GF µg/L (82666)	Malathion, water, fltrd, µg/L (39532)	Methyl parathion, water, fltrd 0.7µ GF µg/L (82667)
OCT													
22...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
DEC													
11...	<0.018	<0.003	<0.005	<0.005	<0.02	0.009	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
13...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
MAR													
03...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
24...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
09...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
30...	<0.018	<0.003	E.005n	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
MAY													
06...	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r
09...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
12...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
JUN													
03...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
13...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
JUL													
08...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
08...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
AUG													
05...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
SEP													
09...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006
09...	<0.018	<0.003	<0.005	<0.005	<0.02	<0.002	<0.009	<0.005	<0.003	<0.004	<0.035	<0.027	<0.006

06934500 MISSOURI RIVER AT HERMANN, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Metolachlor, water, fltrd, µg/L (39415)	Metribuzin, water, fltrd, µg/L (82630)	Molinate, water, fltrd 0.7µ GF µg/L (82671)	Napropamide, water, fltrd 0.7µ GF µg/L (82684)	p,p'-DDE, water, fltrd, µg/L (34653)	Parathion, water, fltrd, µg/L (39542)	Pebulate, water, fltrd 0.7µ GF µg/L (82669)	Pendimethalin, water, fltrd 0.7µ GF µg/L (82683)	Phorate water fltrd 0.7µ GF µg/L (82664)	Prometon, water, fltrd, µg/L (04037)	Pronamide, water, fltrd 0.7µ GF µg/L (82676)	Propachlor, water, fltrd, µg/L (04024)	Propanil, water, fltrd 0.7µ GF µg/L (82679)
OCT													
22...	0.020	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011
DEC													
11...	0.026	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	Mn	<0.004	<0.010	<0.011
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
13...	0.023	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011
MAR													
03...	0.051	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011
24...	0.021	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	Mn	<0.004	<0.010	<0.011
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
09...	0.014	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011
30...	0.516	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	E.01n	<0.004	<0.010	<0.011
MAY													
06...	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r	--r
09...	0.921	0.012	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	E.01n	<0.004	<0.010	<0.011
12...	2.13	0.031	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	E.01n	<0.004	<0.010	<0.011
JUN													
03...	0.182	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011
13...	0.180	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011
JUL													
08...	0.334	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	0.02	<0.004	<0.010	<0.011
08...	0.348	0.007	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	E.01n	<0.004	<0.010	<0.011
AUG													
05...	0.119	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011
SEP													
09...	0.040	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	E.01n	<0.004	<0.010	<0.011
09...	<0.013	<0.006	<0.002	<0.007	<0.003	<0.010	<0.004	<0.022	<0.011	<0.01	<0.004	<0.010	<0.011

06934500 MISSOURI RIVER AT HERMANN, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Propargite, water, fltrd 0.7µ GF µg/L (82685)	Simazine, water, fltrd, µg/L (04035)	Tebuthiuron water fltrd 0.7µ GF µg/L (82670)	Terbacil, water, fltrd 0.7µ GF µg/L (82665)	Terbufos, water, fltrd 0.7µ GF µg/L (82675)	Thiobencarb water fltrd 0.7µ GF µg/L (82681)	Triallate, water, fltrd 0.7µ GF µg/L (82678)	Trifluralin, water, fltrd 0.7µ GF µg/L (82661)	Uranium natural water, fltrd, µg/L (22703)	Suspnd. sediment, sieve diametr percent <.063mm (70331)	Suspended sediment concentration mg/L (80154)
OCT											
22...	<0.02	<0.010	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	--	63	91
DEC											
11...	<0.02	0.005	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	<0.02	50	56
11...	--	--	--	--	--	--	--	--		--	--
FEB											
13...	<0.02	<0.005	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	--	67	38
MAR											
03...	<0.02	0.010	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	3.88	55	133
24...	<0.02	0.014	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	--	66	116
24...	--	--	--	--	--	--	--	--	--	--	--
APR											
09...	<0.02	0.008	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	3.74	61	128
30...	<0.02	0.134	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	--	84	392
MAY											
06...	--r	--r	--r	--r	--r	--r	--r	--r	--	75	661
09...	<0.02	0.038	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	2.80	76	337
12...	<0.02	0.123	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	--	91	2,150
JUN											
03...	<0.02	<0.005	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	--	19	23
13...	<0.02	<0.005	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	--	76	190
JUL											
08...	<0.02	0.013	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	4.20	90	249
08...	<0.02	0.013	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	4.16	82	275
AUG											
05...	<0.02	<0.005	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	--	82	72
SEP											
09...	<0.02	0.133	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	--	91	94
09...	<0.02	<0.005	<0.02	<0.034	<0.02	<0.005	<0.002	<0.009	--	--	--

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

Value qualifier codes used in this table:
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

Null value qualifier codes used in this table:
r -- Sample ruined in preparation

06935755 BONHOMME CREEK NEAR ELLISVILLE, MO

LOCATION.--Lat 38°36'35", long 90°40'20", St. Louis County, Hydrologic Unit 10300200, on right downstream side of Rieger Road bridge, 0.14 mi southwest of State Road 109, 1.56 mi north of State Road 100 (Manchester Road), 1.25 mi west of St. Louis County Highway C, and 9.55 mi upstream of Missouri River.

DRAINAGE AREA.--4.44 mi^2.

PERIOD OF RECORD.--September 1997 to current year. Annual peaks only for 1972-1974 water years published in WRD MO 1974.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 568.56 ft above National Geodetic Vertical Datum of 1929. Prior to September 1997, at datum of 570.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except estimated daily discharges and discharges below 0.5 ft^3/s and above 500 ft^3/s, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 23, 1973 reached a stage of 8.64 ft, former datum, discharge, 2,640 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.25	e0.45	0.30	0.58	0.33	1.5	1.3	1.8	1.2	0.74	0.09	37
2	2.7	e0.36	0.29	0.68	0.26	2.6	1.2	1.5	1.4	0.65	0.09	39
3	61	e1.0	0.28	0.78	0.25	2.5	1.1	1.4	1.9	0.55	0.11	2.2
4	1.00	e0.60	0.28	1.3	0.23	3.2	1.1	21	1.1	0.43	0.05	0.32
5	0.60	e1.6	0.30	0.80	0.27	2.6	0.89	23	0.93	0.38	0.04	0.14
6	0.43	0.95	0.25	0.75	0.31	1.8	2.1	5.0	1.3	0.35	0.03	0.10
7	0.43	0.69	0.29	0.62	0.27	1.7	3.2	7.8	1.1	0.29	0.02	0.09
8	0.24	0.57	0.30	0.63	0.25	1.8	1.6	3.2	0.81	0.26	0.02	0.08
9	0.20	0.52	0.27	0.61	0.28	1.5	1.4	3.3	0.72	0.26	0.02	0.09
10	0.15	0.51	0.26	0.64	0.30	1.3	1.2	20	27	0.85	0.02	0.11
11	0.16	0.46	0.24	0.34	0.29	6.3	1.1	4.4	53	0.36	0.02	0.09
12	0.16	0.38	0.24	0.64	0.27	25	1.1	2.9	15	0.29	0.01	0.05
13	0.17	0.36	0.26	0.40	0.26	34	1.1	2.2	14	0.21	0.03	0.08
14	0.23	0.41	0.25	0.34	1.7	5.5	0.97	2.1	3.6	0.15	0.11	0.06
15	0.18	0.92	0.25	0.30	2.6	3.9	0.95	2.3	1.8	0.14	0.04	0.04
16	0.16	0.65	0.26	0.30	1.2	2.8	3.4	2.0	1.3	0.11	0.04	0.03
17	0.18	0.48	0.24	0.22	0.86	2.1	2.9	1.9	1.0	0.10	0.03	0.02
18	0.25	0.42	55	0.20	1.7	1.9	1.1	1.8	0.90	4.1	0.03	0.01
19	e1.0	0.41	2.3	0.25	17	62	0.96	1.7	0.85	0.79	0.02	0.02
20	e0.33	0.37	1.0	0.26	3.5	42	2.0	1.7	0.72	0.25	0.02	0.02
21	e0.27	0.37	0.73	0.17	2.4	7.6	1.1	1.3	0.68	0.18	0.02	0.31
22	e0.15	0.36	0.49	0.19	2.1	3.9	0.92	1.2	0.64	0.12	0.02	0.33
23	e0.11	0.35	0.39	0.28	1.7	3.0	0.83	1.3	0.58	0.10	0.01	0.04
24	e0.13	0.35	0.40	0.18	1.4	2.4	15	0.97	0.58	0.10	0.02	0.02
25	e3.0	0.32	0.42	0.21	1.2	4.9	26	16	20	0.06	0.01	0.03
26	e0.74	0.30	0.32	0.17	1.2	2.7	6.3	1.8	59	0.06	0.00	7.4
27	e0.33	0.28	0.33	0.13	1.1	2.0	3.1	1.4	1.9	0.06	0.01	1.8
28	e0.28	0.32	0.36	0.21	1.1	2.2	6.8	1.2	1.2	0.07	0.00	0.25
29	e20	0.36	0.70	0.20	---	1.8	2.9	1.2	0.90	0.07	0.02	0.14
30	e2.1	0.35	0.68	0.33	---	1.5	2.2	1.1	0.75	0.05	0.05	0.14
31	e0.84	---	0.72	0.40	---	1.4	---	0.93	---	0.04	1.7	---
MEAN	3.15	0.52	2.21	0.42	1.58	7.72	3.19	4.50	7.20	0.39	0.087	3.00
MAX	61	1.6	55	1.3	17	62	26	23	59	4.1	1.7	39
MIN	0.11	0.28	0.24	0.13	0.23	1.3	0.83	0.93	0.58	0.04	0.00	0.01
IN.	0.82	0.13	0.57	0.11	0.37	2.01	0.80	1.17	1.81	0.10	0.02	0.75

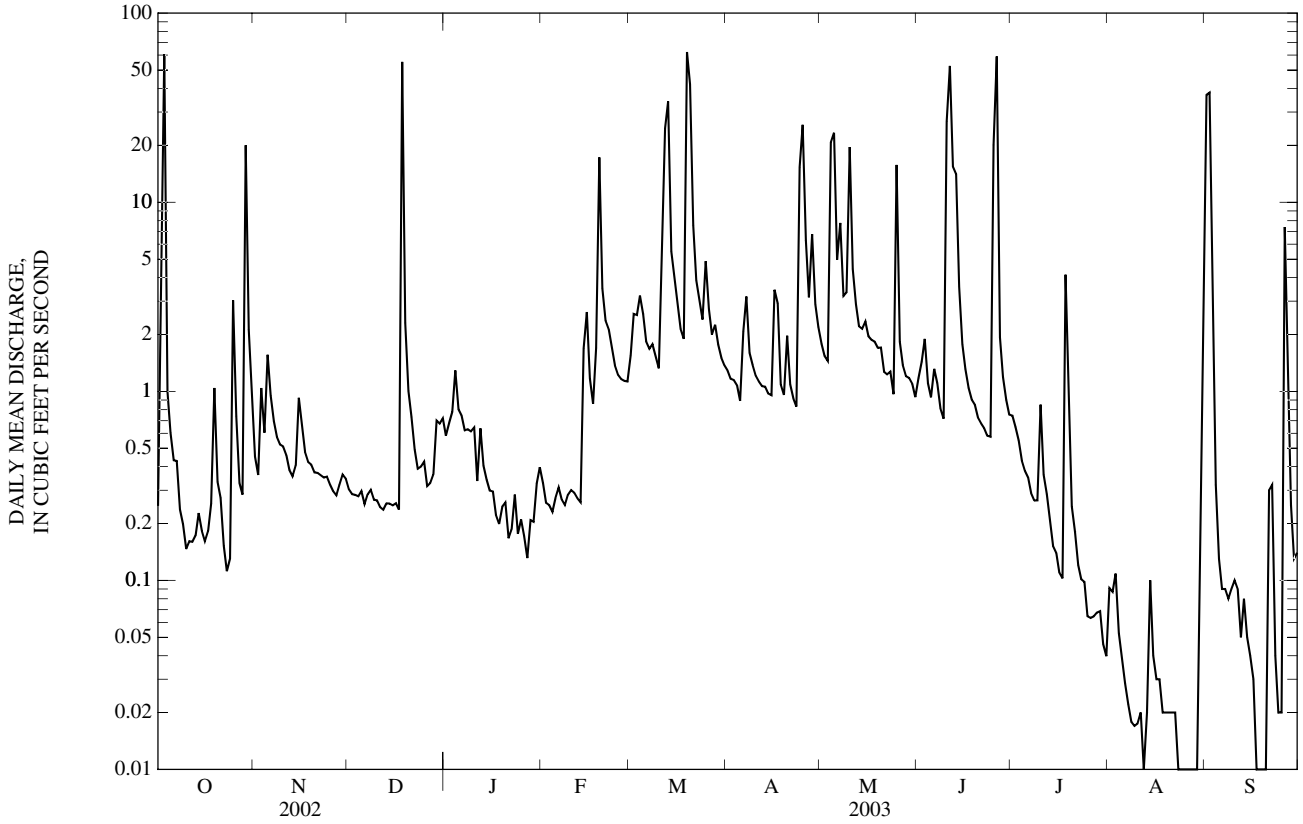
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	1.34	1.21	1.82	3.68	4.62	5.52	3.00	5.71	5.89	1.32	0.43	0.88
MAX	3.21	2.74	5.87	11.2	11.2	13.2	4.47	13.5	13.7	3.95	1.07	3.00
(WY)	(2002)	(1999)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(1998)	(1998)	(1998)	(2003)
MIN	0.22	0.13	0.36	0.13	1.58	1.03	0.39	1.29	0.71	0.26	0.09	0.01
(WY)	(2000)	(2000)	(2001)	(2000)	(2003)	(2000)	(2000)	(1999)	(1999)	(2001)	(2003)	(1999)

06935755 BONHOMME CREEK NEAR ELLISVILLE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	3.52		2.83		2.95	
HIGHEST ANNUAL MEAN					4.35	1998
LOWEST ANNUAL MEAN					1.11	2001
HIGHEST DAILY MEAN	119	Jan 31	62	Mar 19	246	May 7, 2000
LOWEST DAILY MEAN	0.04	Sep 16	0.00	Aug 26,28	0.00	1999,2001-2003
ANNUAL SEVEN-DAY MINIMUM	0.06	Sep 10	0.01	Aug 22	0.00	Sep 6, 1999
MAXIMUM PEAK FLOW	---		885[a]	Dec 18	Unknown	Jun 24, 2000
MAXIMUM PEAK STAGE	---		6.00	Dec 18	9.11	Jun 24, 2000
INSTANTANEOUS LOW FLOW	---		0.00	Many Days	0.00	1999,2001-2003
ANNUAL RUNOFF (INCHES)	10.77		8.67		9.02	
10 PERCENT EXCEEDS	5.4		3.5		4.3	
50 PERCENT EXCEEDS	0.54		0.58		0.49	
90 PERCENT EXCEEDS	0.17		0.05		0.08	

e Estimated
[a] From rating extended above 243 ft^3/s.



06935770 BONHOMME CREEK NEAR CLARKSON VALLEY, MO

LOCATION.--Lat 38°39'28", long 90°37'10", St. Louis County, Hydrologic Unit 10300200, on right downstream wingwall of Highway CC Bridge, 0.96 mi south of U.S. Highway 40, 3.3 mi west of State Highway 340, 1.48 mi east of County Highway C, and 1.48 mi upstream from Missouri River.

DRAINAGE AREA.--11.3 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1997 to current year. Annual peaks only for 1972-1974 water years published in WRD MO 1974.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 449.19 ft above National Geodetic Vertical Datum of 1929. Prior to June 1997, at datum 450.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except for the period Nov. 3 to Dec. 18, estimated daily discharges and discharges above 1,300 ft^3/s, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 11, 1979 reached a stage of 20.10 ft, former datum, discharge 5,620 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.74	1.0	1.5	5.0	2.3	4.6	4.9	6.8	2.9	4.1	1.7	70
2	7.5	0.97	1.6	5.7	1.7	6.4	4.7	5.8	4.1	5.0	2.5	66
3	172	2.0	1.5	6.0	1.4	5.6	4.4	5.0	6.9	3.2	1.8	6.3
4	2.2	1.6	1.6	5.5	1.1	6.4	4.8	40	3.6	2.9	1.3	2.0
5	0.78	5.1	1.8	6.1	0.72	6.9	4.3	52	3.0	2.7	1.1	1.1
6	0.90	3.1	1.7	6.9	0.72	5.2	7.5	15	4.0	2.5	0.90	0.77
7	0.48	1.4	1.6	5.8	0.90	4.6	13	25	4.0	2.2	0.81	0.53
8	0.41	1.2	1.6	5.3	0.95	4.2	7.1	11	2.9	2.1	0.79	0.51
9	0.45	1.1	1.6	5.2	1.0	3.8	5.8	9.1	2.6	1.9	0.72	0.45
10	0.54	1.7	1.5	4.7	1.4	3.5	5.2	64	57	7.8	0.67	0.46
11	0.69	2.0	1.5	4.0	1.7	6.2	4.9	16	95	2.5	0.59	0.49
12	0.82	1.7	1.5	3.3	2.0	61	4.7	9.6	15	1.9	0.57	0.75
13	0.73	1.6	1.5	3.0	2.1	66	4.5	7.7	26	1.7	0.87	0.91
14	0.70	2.0	1.4	3.0	9.3	15	4.3	6.7	9.1	1.7	1.4	0.98
15	0.73	3.3	1.4	2.6	15	11	4.1	7.3	6.4	1.7	0.65	0.77
16	0.75	2.4	1.3	2.3	e7.1	8.6	7.1	5.6	4.9	1.5	0.70	0.66
17	0.82	1.9	1.2	2.2	4.3	7.3	12	5.1	4.1	1.5	0.80	0.64
18	1.6	1.8	171	2.1	6.8	6.4	5.3	4.8	3.6	20	0.85	0.64
19	3.5	2.0	12	1.8	37	109	4.6	4.6	3.7	8.6	0.73	0.64
20	1.2	2.0	5.2	1.7	14	133	7.1	5.3	3.1	2.5	0.62	0.60
21	0.94	1.9	3.7	1.7	7.9	23	5.2	4.0	2.7	1.7	0.57	1.5
22	0.55	1.7	3.1	1.6	7.0	13	4.5	3.5	2.5	1.4	0.42	1.6
23	0.44	1.9	2.8	1.5	5.8	11	3.9	3.3	2.4	1.3	0.31	1.1
24	0.51	2.0	2.9	1.4	e4.9	8.8	30	3.3	2.3	1.2	0.29	0.75
25	18	2.0	3.3	1.2	e4.3	9.7	56	30	31	1.2	0.32	0.86
26	3.1	1.9	3.0	0.89	e3.7	7.8	22	6.1	306	1.1	0.33	32
27	1.2	1.8	2.8	0.80	3.6	6.7	12	4.2	10	1.1	0.30	18
28	0.79	1.7	3.2	0.76	3.7	7.1	13	3.6	6.1	1.3	0.35	1.8
29	46	1.7	3.9	0.93	---	6.4	10	3.3	4.6	1.3	0.98	0.90
30	4.2	1.7	5.0	0.79	---	5.3	7.7	3.4	3.8	1.2	1.2	1.2
31	1.7	---	5.6	2.4	---	5.0	---	3.2	---	1.1	4.4	---
MEAN	8.87	1.94	8.17	3.10	5.44	18.7	9.49	12.1	21.1	2.96	0.95	7.16
MAX	172	5.1	171	6.9	37	133	56	64	306	20	4.4	70
MIN	0.41	0.97	1.2	0.76	0.72	3.5	3.9	3.2	2.3	1.1	0.29	0.45
IN.	0.91	0.19	0.83	0.32	0.50	1.90	0.94	1.23	2.08	0.30	0.10	0.71

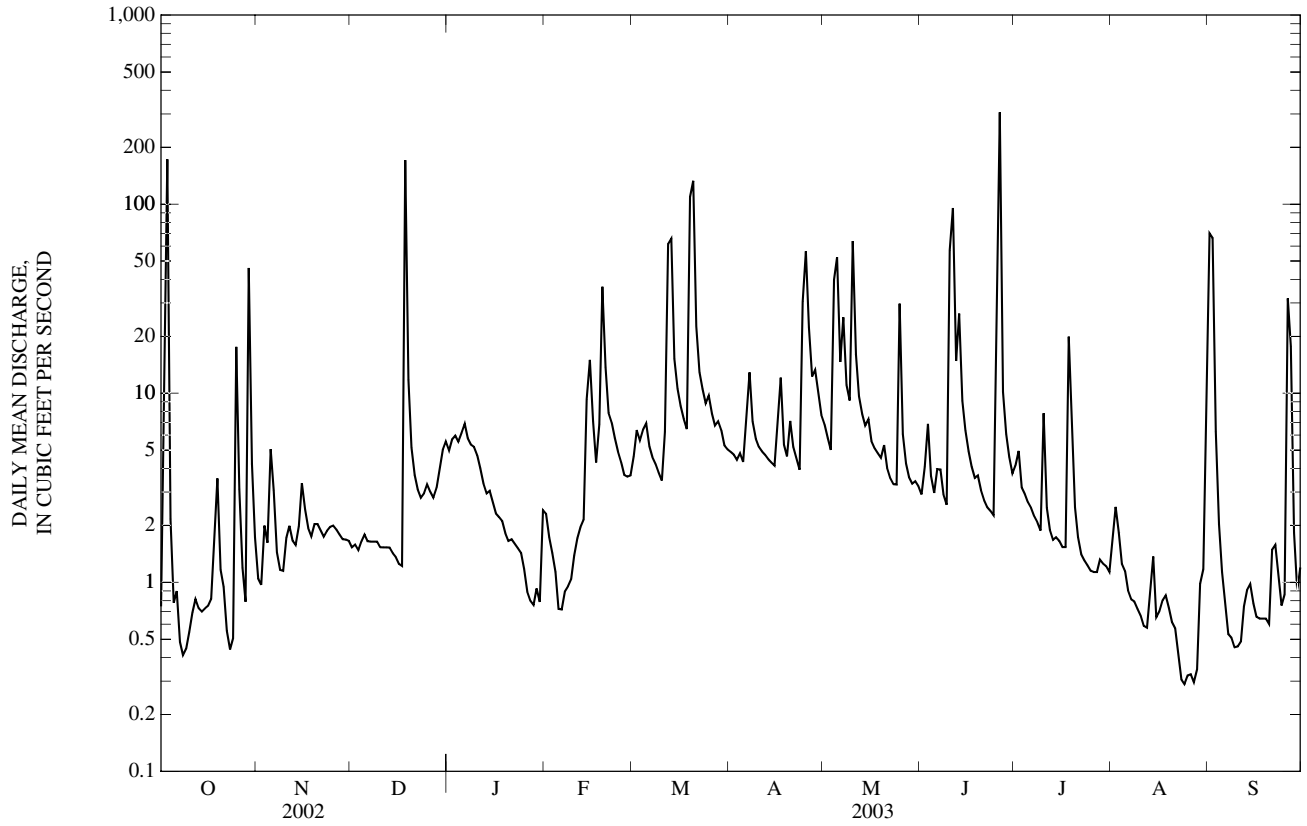
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	3.58	3.28	5.05	9.15	15.6	15.1	9.04	18.3	16.6	3.88	1.99	2.94
MAX	8.87	6.11	12.8	18.8	36.6	40.9	14.5	45.7	28.9	8.51	3.25	7.16
(WY)	(2003)	(1998)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(2000)	(1998)	(2000)	(2003)
MIN	0.79	0.96	0.63	0.96	5.44	3.09	1.72	4.13	3.31	1.08	0.95	0.69
(WY)	(2000)	(2000)	(2001)	(2000)	(2003)	(2000)	(2000)	(2001)	(1999)	(1997)	(2003)	(1999)

06935770 BONHOMME CREEK NEAR CLARKSON VALLEY, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	11.5		8.33		8.70	
HIGHEST ANNUAL MEAN					12.3	1998
LOWEST ANNUAL MEAN					3.54	2001
HIGHEST DAILY MEAN	414	Jan 31	306	Jun 26	932	May 7, 2000
LOWEST DAILY MEAN	0.24	Sep 12,13	0.29	Aug 24	0.14	Oct 4, 2001
ANNUAL SEVEN-DAY MINIMUM	0.28	Sep 8	0.33	Aug 22	0.22	Sep 14, 2000
MAXIMUM PEAK FLOW	---		1,490[a]	Jun 26	Unknown	Jun 24, 2000
MAXIMUM PEAK STAGE	---		14.89	Jun 26	19.62	Jun 24, 2000
INSTANTANEOUS LOW FLOW	---		0.24	Aug 23,25-27	0.14	Oct 3-5, 2001
ANNUAL RUNOFF (INCHES)	13.78		10.01		10.46	
10 PERCENT EXCEEDS	14		13		13	
50 PERCENT EXCEEDS	2.8		2.8		2.2	
90 PERCENT EXCEEDS	0.65		0.73		0.59	

e Estimated
[a] From rating extended above 631 ft^3/s.



06935770 BONHOMME CREEK NEAR CLARKSON VALLEY, MO—Continued
(Metropolitan St. Louis Sewer District Network)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Carbon dioxide water, unfltrd mg/L (00405)	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)
OCT												
02...	2330	Environmental	128	--	7.1	81	7.1	203	21.0	100	30.0	7.20
DEC												
16...	1100	Environmental	1.3	12	13.5	105	7.7	764	4.0	290	88.0	18.0
16...	1101	Replicate	--	--	--	--	--	--	--	290	88.0	17.0
FEB												
03...	1200	Environmental	1.5	7.9	13.9	109	7.6	714	3.6	220	65.0	13.0
03...	1201	Replicate	--	--	--	--	--	--	--	210	64.0	13.0
MAR												
13...	0414	Environmental	88	3.6	8.9	82	7.7	495	10.6	130	38.0	7.40
JUN												
25...	1450	Environmental	2.3	7.7	8.7	109	7.8	613	25.6	260	80.0	14.0
AUG												
11...	1025	Environmental	0.64	12	7.6	89	7.5	676	22.3	290	90.0	17.0
11...	1026	Replicate	--	--	--	--	--	--	--	300	90.0	18.0

Date	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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, unfltrd mg/L as N (00610)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)
OCT													
02...	56	56	69	<1	--	2,420	3.7	0.08	1.10	0.06	0.310	2.10	19
DEC													
16...	324	328	400	<1	79.0	4	0.30	0.04	0.310	<0.01	0.020	0.04	6
16...	--	--	--	--	78.0	4	0.30	0.03	0.310	<0.01	0.010	0.03	6
FEB													
03...	158	160	195	<1	100	5	0.20	0.02	0.340	<0.01	0.020	0.02	7
03...	--	--	--	--	100	5	0.20	0.03	0.340	<0.01	0.010	<0.02	7
MAR													
13...	94	92	112	<1	--	297	1.3	0.10	0.800	0.03	0.150	0.47	16
JUN													
25...	223	226	276	<1	--	8	0.30	0.06	0.420	0.01	0.040	0.05	<5
AUG													
11...	182	185	226	<1	--	33	0.40	0.06	0.280	<0.01	0.030	0.05	10
11...	--	--	--	--	--	30	0.30	0.06	0.290	<0.01	0.030	0.06	10

06935770 BONHOMME CREEK NEAR CLARKSON VALLEY, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	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)	Arsenic water, fltrd, µg/L (01000)	Beryll-ium, water, fltrd, µg/L (01010)	Cadmium water, fltrd, µg/L (01025)	Chrom-ium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Mangan-ese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover-able, µg/L (71900)
OCT													
02...	36,000	27,600k	48,000	7	2	<1	<1.0	1.4	2.9	5	<1	9	<0.1
DEC													
16...	<4b	4k	8k	<3	<1	<1	<1.0	8.6	<1.0	21	<1	142	<0.1
16...	<4b	10k	4k	<3	<1	<1	<1.0	7.9	<1.0	19	<1	140	<0.1
FEB													
03...	<2b	17k	46	<3	<1	<1	<1.0	2.4	<1.0	8	<1	295	<0.1
03...	<2b	22k	52	<3	<1	<1	<1.0	2.5	<1.0	9	<1	294	<0.1
MAR													
13...	600k	667k	2,500k	4	1	<1	<1.0	<1.0	1.8	30	<1	97	<0.1
JUN													
25...	90k	108	28k	<3	2	<1	<1.0	1.7	<1.0	6	<1	252	<0.1
AUG													
11...	90	158k	118	<3	2	<1	<1.0	4.8	<1.0	4	<1	198	<0.1
11...	98	143k	116	<3	2	<1	<1.0	4.8	2.5	4	<1	200	<0.1

Date	Nickel, water, fltrd, µg/L (01065)	Selen-ium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	1,2-Di-phenyl-hydra-zine, water, unfltrd µg/L (82626)	2,4,6-Tri-chloro-phenol, water, unfltrd µg/L (34621)	2,4-Di-chloro-phenol, water, unfltrd µg/L (34601)	2,4-Di-methyl-phenol, water, unfltrd µg/L (34606)	2,4-Di-nitro-phenol, water, unfltrd µg/L (34616)	2,4-Di-nitro-toluene water unfltrd µg/L (34611)	2,6-Di-nitro-toluene water unfltrd µg/L (34626)	2-Chloro-naphth-alene, water, unfltrd µg/L (34581)
OCT													
02...	2.9	<1	<1.0	<2	<7	<1	<3	<2	<2.0	<3	<3	<2	<2
DEC													
16...	3.6	<1	<1.0	<2	--	--	--	--	--	--	--	--	--
16...	3.2	<1	<1.0	<2	--	--	--	--	--	--	--	--	--
FEB													
03...	3.4	<1	<1.0	5	--	--	--	--	--	--	--	--	--
03...	3.0	<1	<1.0	6	--	--	--	--	--	--	--	--	--
MAR													
13...	2.2	<1	<1.0	2	<7	<1	<3	M	<2.0	E1	<3	<2	<2
JUN													
25...	3.4	<1	<1.0	<2	--	--	--	--	--	--	--	--	--
AUG													
11...	3.1	<1	<1.0	<2	--	--	--	--	--	--	--	--	--
11...	3.1	<1	<1.0	3	--	--	--	--	--	--	--	--	--

Date	2-chloro-phenol, water, unfltrd µg/L (34586)	2-Methyl-4,6-di-nitro-phenol, wat unf µg/L (34657)	2-nitro-phenol, water unfltrd µg/L (34591)	3,3-Di' chloro-benzi-dine, water, unfltrd µg/L (34631)	4-Bromo-phenyl phenyl ether, wat unf µg/L (34636)	4-Chloro-3-methyl-phenol, wat unf µg/L (34452)	4-Chloro-phenyl phenyl ether, wat unf µg/L (34641)	4-Nitro-phenol, water, unfltrd µg/L (34646)	9H-Fluor-ene, water, unfltrd µg/L (34381)	Ace-naphth-ene, water, unfltrd µg/L (34205)	Ace-naphth-ylene, water, unfltrd µg/L (34200)	Aldrin, water, unfltrd µg/L (39330)	alpha-Endo-sulfan, water, unfltrd µg/L (39388)
OCT													
02...	<2	<2	<1	<0.9	<2	<3	<2	<4	<2	<2	<2	<0.01	<0.02
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<2	M	<1	<0.9	<2	<3	<2	<4	M	M	<2	<0.01	<0.02
JUN													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

06935770 BONHOMME CREEK NEAR CLARKSON VALLEY, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Anthracene, water, unfltrd µg/L (34220)	Benzidine, water, unfltrd µg/L (39120)	Benzo-[a]-anthracene, water, unfltrd µg/L (34526)	Benzo-[a]-pyrene, water, unfltrd µg/L (34247)	Benzo-[b]-fluoranthene water unfltrd µg/L (34230)	Benzo-[g,h,i]-perylene, water, unfltrd µg/L (34521)	Benzo-[k]-fluoranthene water unfltrd µg/L (34242)	Benzyl n-butyl phthalate, water, unfltrd µg/L (34292)	Bis(2-chloroethoxy) methane water unfltrd µg/L (34278)	Bis(2-chloroethyl) ether, water, unfltrd µg/L (34273)	Bis(2-chloroisopropyl) ether, wat unf µg/L (34283)	Bis(2-ethylhexyl) phthalate, wat unf µg/L (39100)	Carbophenothion, water, unfltrd µg/L (39786)
OCT													
02...	<2	<1,000	<2	<1	<2	<2	<1	<2	<3	<2	<2	E5	<0.02
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	M	<1,000	<2	M	M	M	M	<2	<3	<2	<2	<2	<0.02
JUN													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Chlordane, technical, water, unfltrd µg/L (39350)	Chlorpyrifos water unfltrd µg/L (38932)	Chrysene, water, unfltrd µg/L (34320)	Diazinon, water, unfltrd µg/L (39570)	Dibenzo-[a,h]-anthracene, wat unf µg/L (34556)	Dieldrin, water, unfltrd µg/L (39380)	Diethyl phthalate, water, unfltrd µg/L (34336)	Dimethyl phthalate, water, unfltrd µg/L (34341)	Di-n-butyl phthalate, water, unfltrd µg/L (39110)	Di-n-octyl phthalate, water, unfltrd µg/L (34596)	Disulfoton, water, unfltrd µg/L (39011)	Endrin, water, unfltrd µg/L (39390)	Ethion, water, unfltrd µg/L (39398)
OCT													
02...	<0.1	<0.01	<3	<0.02	<1	E.002	E1	M	<2	<2	<0.10	<0.02	<0.01
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<0.1	<0.01	M	<0.02	<1	<0.017	<2	<1	<2	<2	<0.10	<0.02	<0.01
JUN													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Fluoranthene water unfltrd µg/L (34376)	Fonofos water unfltrd µg/L (82614)	Heptachlor epoxide water unfltrd µg/L (39420)	Heptachlor, water, unfltrd µg/L (39410)	Hexachlorobenzene water unfltrd µg/L (39700)	Hexachlorocyclopentadiene, wat unf µg/L (34386)	Indeno-[1,2,-3-cd]-pyrene, water, unfltrd µg/L (34403)	Isophorone water unfltrd µg/L (34408)	Lindane water, unfltrd µg/L (39340)	Malathion, water, unfltrd µg/L (39530)	Methyl parathion, water, unfltrd µg/L (39600)	Mirex, water, unfltrd µg/L (39755)	Nitrobenzene water unfltrd µg/L (34447)
OCT													
02...	M	<0.01	<0.009	<0.01	<2	<1	<3	M	<0.014	E.01	<0.01	<0.012	<1
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	M	<0.01	<0.009	<0.01	<2	<1	M	M	<0.014	<0.10	<0.02	<0.012	<1
JUN													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

06935770 BONHOMME CREEK NEAR CLARKSON VALLEY, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	N-Nitroso-di-methylamine, wat unf µg/L (34438)	N-Nitroso-di-n-propylamine, wat unf µg/L (34428)	N-Nitroso-di-phenylamine, wat unf µg/L (34433)	p,p'-DDD, water, unfltrd µg/L (39360)	p,p'-DDE, water, unfltrd µg/L (39365)	p,p'-DDT, water, unfltrd µg/L (39370)	p,p'-Methoxychlor, water, unfltrd µg/L (39480)	Parathion, water, unfltrd µg/L (39540)	PCBs, water, unfltrd µg/L (39516)	Pentachlorophenol, water, unfltrd µg/L (39032)	Phenanthrene, water, unfltrd µg/L (34461)	Phenol, water, unfltrd µg/L (34694)	Phorate water unfltrd µg/L (39023)
OCT													
02...	<3	<2	<2	E.003	<0.014	<0.009	<0.020	<0.01	<0.1	M	<2	E.4	<0.02
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
13...	<3	<2	<2	<0.016	<0.014	<0.009	<0.020	<0.01	<0.1	M	M	E.1	<0.02
JUN													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Pyrene, water, unfltrd µg/L (34469)	Toxaphene, water, unfltrd µg/L (39400)	Tribuphos, water, unfltrd µg/L (39040)	1,2,4-Trichlorobenzene water unfltrd µg/L (34551)	1,2-Dichlorobenzene water unfltrd µg/L (34536)	1,3-Dichlorobenzene water unfltrd µg/L (34566)	1,4-Dichlorobenzene water unfltrd µg/L (34571)	Hexachlorobutadiene, water, unfltrd µg/L (39702)	Hexachloroethane, water, unfltrd µg/L (34396)	Naphthalene, water, unfltrd µg/L (34696)
OCT										
02...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
DEC										
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
FEB										
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
MAR										
13...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
JUN										
25...	--	--	--	--	--	--	--	--	--	--
AUG										
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--

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 was extrapolated below
k -- Counts outside acceptable range

06935830 CAULKS CREEK AT CHESTERFIELD, MO

LOCATION.--Lat 38°39'16", long 90°35'42", St. Louis County, Hydrologic Unit 10300200, on downstream side of middle pier of Highway CC bridge, 2.0 mi west of State Highway 340, 1.1 mi south of U.S. Route 40, and 1.09 mi upstream of Bonhomme Creek.

DRAINAGE AREA.--17.1 mi^2.

PERIOD OF RECORD.--July 1996 to current year. Annual peaks only for the 1972-1974 water years published in WRD MO 1974.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 453.98 ft above National Geodetic Vertical Datum of 1929. Prior to July 1996, at datum 450.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated daily discharges and discharges above 1,100 ft^3/s, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 11, 1979 reached a stage of 19.97 ft, former datum, discharge 7,940 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e6.9	11	6.4	e11	e7.4	10	10	15	11	e13	8.4	258
2	e24	10	6.6	e12	6.1	14	10	14	12	e13	9.2	460
3	e399	15	e6.2	e13	e5.8	13	10	12	27	10	11	60
4	e33	13	e6.5	e12	e5.4	14	9.7	87	13	9.7	8.1	26
5	e7.7	23	e6.8	e13	5.2	14	9.5	90	11	9.4	7.6	15
6	e8.2	17	6.4	e15	e5.1	10	13	35	14	9.1	7.4	12
7	e7.4	12	6.3	e13	e5.2	9.7	25	50	14	8.9	7.0	11
8	e7.1	11	6.2	e12	5.3	9.3	12	25	11	8.6	6.8	9.8
9	e7.5	10	6.0	e12	e5.5	e8.9	10	21	10	8.5	6.7	9.4
10	e7.9	9.6	6.1	e11	5.3	8.5	9.8	100	123	21	6.6	9.0
11	e8.4	8.8	6.1	e10	5.3	9.7	9.5	44	162	11	6.7	8.8
12	e8.7	8.5	6.0	e9.4	5.1	103	9.4	24	43	9.3	6.6	8.8
13	e8.6	7.8	6.2	e8.2	5.3	110	9.3	18	62	8.7	6.9	9.1
14	e8.4	8.2	6.1	e9.1	17	36	9.4	16	29	8.5	9.1	8.6
15	e8.4	14	5.9	e7.8	e21	22	8.9	18	18	8.3	7.2	8.1
16	8.1	10	5.9	e7.3	e12	16	11	14	14	8.0	6.9	7.9
17	7.9	8.9	5.9	e7.3	e8.2	14	45	13	12	7.9	6.8	7.6
18	8.1	8.3	204	e6.9	9.9	12	15	12	11	59	6.5	7.6
19	17	7.9	31	e6.5	61	89	11	12	11	37	6.4	7.5
20	11	7.8	12	e6.5	35	152	18	12	11	13	6.3	7.3
21	9.3	7.5	8.7	e6.6	16	48	12	11	10	10	6.3	7.8
22	8.6	7.2	7.5	e6.3	13	28	10	11	9.5	9.2	6.3	9.7
23	8.5	7.2	e7.9	e6.1	e12	20	9.8	11	9.3	8.5	6.1	8.3
24	8.0	7.3	e9.0	e5.8	e10	17	63	10	9.3	8.1	6.1	7.7
25	54	7.0	e9.0	e5.7	e9.4	18	71	82	e86	7.8	6.1	7.2
26	23	6.8	e8.7	e5.5	e8.7	15	45	23	e815	7.6	6.2	35
27	13	6.8	e8.0	e5.4	e8.7	13	24	15	e29	7.6	6.1	42
28	11	6.8	e8.3	5.3	9.0	13	25	13	e19	8.2	6.1	13
29	115	7.0	e8.9	e5.2	---	13	24	12	e14	7.8	6.8	9.7
30	28	6.6	e11	e6.9	---	11	17	12	e12	7.4	9.3	9.1
31	15	---	e13	e8.1	---	10	---	12	---	7.3	19	---
MEAN	28.9	9.73	14.6	8.71	11.5	28.4	18.9	27.2	54.4	12.0	7.50	36.7
MAX	399	23	204	15	61	152	71	100	815	59	19	460
MIN	6.9	6.6	5.9	5.2	5.1	8.5	8.9	10	9.3	7.3	6.1	7.2
IN.	1.95	0.64	0.98	0.59	0.70	1.92	1.23	1.84	3.55	0.81	0.51	2.40

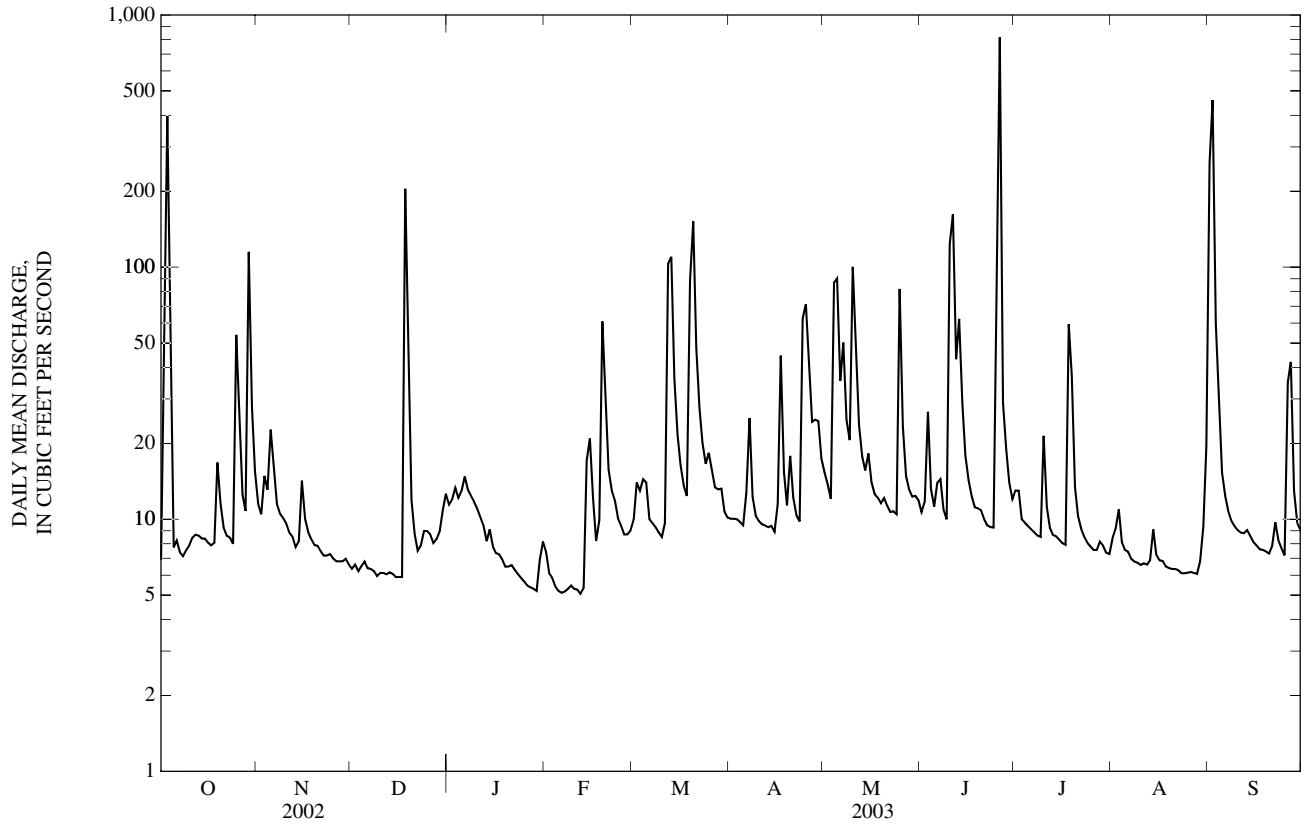
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)

MEAN	15.1	19.3	12.8	18.8	37.0	29.5	19.4	35.7	39.7	14.7	11.7	13.7
MAX	28.9	62.0	27.7	34.4	72.6	78.1	29.2	82.9	59.3	35.4	20.2	36.7
(WY)	(2003)	(1997)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(1998)	(1998)	(1996)	(2003)
MIN	8.15	6.33	5.76	5.33	11.5	9.70	6.64	12.5	8.40	7.52	7.11	4.33
(WY)	(2000)	(2000)	(1999)	(2000)	(2003)	(2000)	(2000)	(1999)	(1999)	(2002)	(2002)	(1999)

06935830 CAULKS CREEK AT CHESTERFIELD, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL MEAN	25.6		21.5		22.0	
HIGHEST ANNUAL MEAN					30.4	1998
LOWEST ANNUAL MEAN					13.2	2001
HIGHEST DAILY MEAN	1,030	Jun 12	815	Jun 26	1,920	May 7, 2000
LOWEST DAILY MEAN	4.5	Aug 9,Sep 12	5.1	Feb 6,12	1.9	Sep 1, 2001
ANNUAL SEVEN-DAY MINIMUM	4.7	Sep 8	5.3	Feb 6	3.7	Sep 21, 1999
MAXIMUM PEAK FLOW	---		Unknown	Jun 26	Unknown	Jun 24, 2000
MAXIMUM PEAK STAGE	---		10.99	Jun 26	14.95	Jun 24, 2000
INSTANTANEOUS LOW FLOW	---		5.1	Feb 5,8,11-13	0.61[a]	Sep 4, 2001
ANNUAL RUNOFF (INCHES)	20.33		17.10		17.45	
10 PERCENT EXCEEDS	42		34		34	
50 PERCENT EXCEEDS	8.7		9.7		9.0	
90 PERCENT EXCEEDS	5.2		6.3		5.2	

e Estimated
[a] Occurred during period of construction upstream. Verified by field visit.



06935830 CAULKS CREEK AT CHESTERFIELD, MO—Continued
(Metropolitan St. Louis Sewer District Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 2002 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Carbon dioxide water, unfltrd mg/L (00405)	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)
OCT												
29...	0602	Environmental	474	4.8	8.7	83	7.8	543	12.4	180	56.0	10.0
DEC												
16...	1215	Environmental	5.9	14	12.2	106	7.6	1,060	8.7	310	95.0	18.0
FEB												
03...	1305	Environmental	5.7	65	7.4	71	6.6	1,710	11.5	340	104	19.0
MAR												
19...	1156	Environmental	85	6.1	8.7	86	7.6	725	12.8	170	53.0	10.0
JUN												
25...	1400	Environmental	8.3	16	8.2	92	7.5	881	20.1	300	94.0	17.0
AUG												
11...	1115	Environmental	6.6	20	8.3	91	7.3	871	18.7	330	102	18.0

Date	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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, unfltrd mg/L as N (00610)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)
OCT													
29...	150	150	183	<1	--	346	1.1	0.03	1.70	0.02	0.210	0.38	8
DEC													
16...	284	285	348	<1	160	4	0.30	0.02	1.60	<0.01	0.030	0.04	7
FEB													
03...	143	145	177	<1	380	6	0.30	0.04	1.60	0.01	0.040	0.05	19
MAR													
19...	123	124	151	<1	--	638	1.9	0.14	1.50	0.02	0.170	0.63	15
JUN													
25...	234	234	286	<1	--	120	0.50	0.03	1.90	0.01	0.050	0.14	<5
AUG													
11...	224	226	276	<1	--	14	0.30	0.02	1.70	<0.01	0.030	0.04	8

Date	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)	Arsenic water, fltrd, µg/L (01000)	Beryllium, water, fltrd, µg/L (01010)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recoverable, µg/L (71900)
OCT													
29...	3,000k	3,000k	4,500k	<3	<1	<1	<1.0	<1.0	<1.0	11	<1	61	<0.1
DEC													
16...	4k	10k	4k	<3	<1	<1	<1.0	9.1	1.1	4	<1	63	<0.1
FEB													
03...	4k	46	50	<3	<1	<1	<1.0	3.3	1.5	4	<1	149	<0.1
MAR													
19...	3,900	5,600	5,200	4	2	<1	<1.0	1.9	1.6	13	<1	85	<0.1
JUN													
25...	1,200k	450	1,090k	<3	<1	<1	<1.0	<1.0	1.1	<2	<1	124	<0.1
AUG													
11...	110	228	152	<3	<1	<1	<1.0	4.8	<1.0	3	<1	115	<0.1

06935830 CAULKS CREEK AT CHESTERFIELD, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	1,2-Diphenylhydrazine, water, unfltrd µg/L (82626)	2,4,6-Trichlorophenol, water, unfltrd µg/L (34621)	2,4-Dichlorophenol, water, unfltrd µg/L (34601)	2,4-Dimethylphenol, water, unfltrd µg/L (34606)	2,4-Dinitrophenol, water, unfltrd µg/L (34616)	2,4-Dinitrotoluene water unfltrd µg/L (34611)	2,6-Dinitrotoluene water unfltrd µg/L (34626)	2-Chloronaphthalene, water, unfltrd µg/L (34581)
OCT 29...	1.0	<1	<1.0	<2	<7	<1	<3	<2	<2.0	<3	<3	<2	<2
DEC 16...	4.2	<1	<1.0	<2	--	--	--	--	--	--	--	--	--
FEB 03...	4.2	1	<1.0	<2	--	--	--	--	--	--	--	--	--
MAR 19...	2.4	<1	<1.0	<2	<7	<1	<3	M	<2.0	<3	<3	<2	<2
JUN 25...	4.0	1	<1.0	4	--	--	--	--	--	--	--	--	--
AUG 11...	3.1	1	<1.0	<2	--	--	--	--	--	--	--	--	--

Date	2-chlorophenol, water, unfltrd µg/L (34586)	2-Methyl-4,6-dinitrophenol, wat unf µg/L (34657)	2-nitrophenol, water unfltrd µg/L (34591)	3,3-Dichlorobenzidine, water, unfltrd µg/L (34631)	4-Bromophenyl phenyl ether, wat unf µg/L (34636)	4-Chloro-3-methylphenol, wat unf µg/L (34452)	4-Chlorophenyl phenyl ether, wat unf µg/L (34641)	4-Nitrophenol, water, unfltrd µg/L (34646)	9H-Fluorene, water, unfltrd µg/L (34381)	Acenaphthene, water, unfltrd µg/L (34205)	Acenaphthylene, water, unfltrd µg/L (34200)	Aldrin, water, unfltrd µg/L (39330)	alpha-Endosulfan, water, unfltrd µg/L (39388)
OCT 29...	<2	<2	<1	<0.9	<2	<3	<2	<4	<2	<2	<2	<0.01	<0.02
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	<2	<2	<1	<0.9	<2	<3	<2	<4	<2	M	<2	<0.01	<0.02
JUN 25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Anthracene, water, unfltrd µg/L (34220)	Benzidine, water, unfltrd µg/L (39120)	Benzo-[a]-anthracene, water, unfltrd µg/L (34526)	Benzo-[a]-pyrene, water, unfltrd µg/L (34247)	Benzo-[b]-fluoranthene water unfltrd µg/L (34230)	Benzo-[g,h,i]-perylene, water, unfltrd µg/L (34521)	Benzo-[k]-fluoranthene water unfltrd µg/L (34242)	Benzyl n-butyl phthalate, water, unfltrd µg/L (34292)	Bis(2-chloroethoxy) methane water unfltrd µg/L (34278)	Bis(2-chloroethyl) ether, water, unfltrd µg/L (34273)	Bis(2-chloroisopropyl) ether, wat unf µg/L (34283)	Bis(2-ethylhexyl) phthalate, wat unf µg/L (39100)	Carbophenothion, water, unfltrd µg/L (39786)
OCT 29...	<2	<1,000	M	M	<2	<2	<1	<2	<3	<2	<2	<2	<0.02
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	<2	<1,000	<2	M	M	<2	M	<2	<3	<2	<2	<2	<0.06
JUN 25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

06935830 CAULKS CREEK AT CHESTERFIELD, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Chlordane, technical, water, unfltrd µg/L (39350)	Chlorpyrifos water unfltrd µg/L (38932)	Chrysene, water, unfltrd µg/L (34320)	Diazinon, water, unfltrd µg/L (39570)	Dibenzo-[a,h]-anthracene, wat unf µg/L (34556)	Dieldrin, water, unfltrd µg/L (39380)	Diethyl phthalate, water, unfltrd µg/L (34336)	Dimethyl phthalate, water, unfltrd µg/L (34341)	Di-n-butyl phthalate, water, unfltrd µg/L (39110)	Di-n-octyl phthalate, water, unfltrd µg/L (34596)	Disulfoton, water, unfltrd µg/L (39011)	Endrin, water, unfltrd µg/L (39390)	Ethion, water, unfltrd µg/L (39398)
OCT													
29...	<0.1	<0.01	M	E.01	<1	<0.017	<2	<1	<2	<2	<0.10	<0.02	<0.01
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
19...	<0.1	<0.04	M	E.04	<1	<0.017	<2	<1	<2	<2	<0.30	<0.02	<0.04
JUN													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Fluoranthene water unfltrd µg/L (34376)	Fonofos water unfltrd µg/L (82614)	Heptachlor epoxide water unfltrd µg/L (39420)	Heptachlor, water, unfltrd µg/L (39410)	Hexachlorobenzene water unfltrd µg/L (39700)	Hexachlorocyclopentadiene, wat unf µg/L (34386)	Indeno-[1,2,-3-cd]-pyrene, water, unfltrd µg/L (34403)	Isophorone water unfltrd µg/L (34408)	Lindane water, unfltrd µg/L (39340)	Malathion, water, unfltrd µg/L (39530)	Methyl parathion, water, unfltrd µg/L (39600)	Mirex, water, unfltrd µg/L (39755)	Nitrobenzene water unfltrd µg/L (34447)
OCT													
29...	M	<0.01	<0.009	<0.01	<2	<1	<3	M	<0.014	<0.10	<0.01	<0.012	<1
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
19...	M	<0.04	<0.009	<0.01	<2	<1	<3	M	<0.014	<0.30	<0.04	<0.012	<1
JUN													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	N-NItroso-di-methyl-amine, wat unf µg/L (34438)	N-NItroso-di-n-propyl-amine, wat unf µg/L (34428)	N-NItroso-di-phenyl-amine, wat unf µg/L (34433)	p,p'-DDD, water, unfltrd µg/L (39360)	p,p'-DDE, water, unfltrd µg/L (39365)	p,p'-DDT, water, unfltrd µg/L (39370)	p,p'-Methoxychlor, water, unfltrd µg/L (39480)	Parathion, water, unfltrd µg/L (39540)	PCBs, water, unfltrd µg/L (39516)	Pentachlorophenol, water, unfltrd µg/L (39032)	Phenanthrene, water, unfltrd µg/L (34461)	Phenol, water, unfltrd µg/L (34694)	Phorate water unfltrd µg/L (39023)
OCT													
29...	<3	<2	<2	<0.016	<0.014	<0.009	<0.020	<0.01	<0.1	<2	M	<3.0	<0.02
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
19...	<3	<2	<2	<0.016	<0.014	<0.009	<0.020	<0.04	<0.1	<2	M	<3.0	<0.06
JUN													
25...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

06935830 CAULKS CREEK AT CHESTERFIELD, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pyrene, water, unfltrd µg/L (34469)	Toxaphene, water, unfltrd µg/L (39400)	Tribuphos, water, unfltrd µg/L (39040)	1,2,4-Trichlorobenzene water unfltrd µg/L (34551)	1,2-Dichlorobenzene water unfltrd µg/L (34536)	1,3-Dichlorobenzene water unfltrd µg/L (34566)	1,4-Dichlorobenzene water unfltrd µg/L (34571)	Hexachlorobutadiene, water, unfltrd µg/L (39702)	Hexachloroethane, water, unfltrd µg/L (34396)	Naphthalene, water, unfltrd µg/L (34696)
OCT										
29...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
DEC										
16...	--	--	--	--	--	--	--	--	--	--
FEB										
03...	--	--	--	--	--	--	--	--	--	--
MAR										
19...	M	<1	<0.06	<2	<2	<2	<1	<1	<2	<2
JUN										
25...	--	--	--	--	--	--	--	--	--	--
AUG										
11...	--	--	--	--	--	--	--	--	--	--

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

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

06935850 CREVE COEUR CREEK AT CHESTERFIELD, MO

LOCATION.--Lat 38°38'47", long 90°31'35", in SW ¼ NW ¼ NW ¼ sec.13, T.45 N., R.4 E., St. Louis County, Hydrologic Unit 10300200, on left downstream abutment of Highway 40 bridge, 3.71 mi north of State Highway 100 (Manchester Road), 0.75 mi west of State Highway 141, and 10.33 mi upstream of Missouri River.

DRAINAGE AREA.--5.62 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 495.20 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges and discharges above 600 ft^3/s and below 1 ft^3/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.40	1.0	0.85	1.3	1.3	4.5	1.2	2.5	0.94	3.6	1.0	156
2	7.3	2.2	0.84	4.0	0.89	5.4	1.0	1.4	7.7	1.7	15	220
3	166	7.6	1.3	2.2	0.85	3.1	1.1	1.1	7.3	1.3	4.7	5.4
4	2.2	2.5	0.88	1.3	0.71	2.8	1.1	57	1.3	0.99	0.41	1.1
5	0.70	10	1.7	2.0	0.45	2.7	0.99	32	0.91	0.86	0.23	0.42
6	2.2	1.7	1.6	2.2	0.52	1.6	9.4	6.9	7.6	0.92	0.16	0.48
7	0.82	1.2	1.5	1.2	0.78	1.3	6.9	15	1.7	1.2	0.11	0.16
8	0.55	e0.92	1.4	1.00	0.41	1.5	1.8	3.2	1.1	1.2	0.13	0.22
9	0.37	e0.79	0.92	0.83	0.43	1.6	1.5	2.1	0.87	0.87	0.18	0.65
10	0.29	e0.72	0.83	1.3	0.45	1.5	1.1	53	124	24	0.17	1.1
11	0.48	e0.68	0.94	0.79	0.49	15	0.99	5.6	64	1.2	0.21	1.1
12	0.89	e0.65	0.71	0.48	0.39	45	1.1	2.6	16	0.63	0.24	2.9
13	1.5	e0.62	0.84	0.46	0.32	55	1.0	1.9	67	0.46	0.34	0.43
14	0.41	e0.60	0.92	0.45	15	4.9	0.99	1.6	4.2	0.64	0.36	0.43
15	0.30	7.2	0.75	0.38	10	2.5	0.98	5.4	2.3	0.70	0.25	0.46
16	0.27	0.84	0.66	0.41	2.6	1.9	18	1.5	1.7	0.79	0.18	0.69
17	0.29	0.53	0.66	0.42	1.4	1.5	13	1.7	1.5	0.83	0.18	0.62
18	1.9	0.48	89	0.36	5.2	1.4	1.7	1.6	1.2	63	0.16	0.50
19	7.3	0.45	4.2	0.41	30	42	1.2	1.2	3.2	6.4	0.15	0.59
20	0.74	0.41	1.2	0.69	4.5	41	9.3	2.5	1.2	1.0	0.14	0.46
21	0.53	0.45	1.0	0.51	2.0	5.7	1.5	1.1	0.83	0.49	0.17	0.76
22	0.38	0.51	1.2	0.43	5.1	2.6	1.1	0.93	0.69	0.34	0.16	1.5
23	0.33	0.62	0.87	0.55	2.1	2.5	0.85	0.87	0.74	0.35	0.12	0.68
24	0.25	0.62	0.95	0.62	2.8	1.7	44	1.2	0.77	0.33	0.22	0.67
25	33	0.88	1.6	0.62	1.4	4.2	36	43	44	0.31	0.21	0.93
26	1.6	1.1	1.5	0.58	1.1	1.7	5.7	2.1	e206	0.30	0.11	43
27	0.71	0.75	1.5	0.47	1.3	1.5	2.2	1.5	4.0	0.29	0.07	9.0
28	0.96	0.65	2.3	0.55	2.2	3.9	9.4	1.3	1.9	1.00	0.25	1.5
29	60	0.76	2.5	0.72	---	1.8	2.7	0.89	1.3	0.80	1.5	0.58
30	2.4	0.87	2.7	0.59	---	1.2	1.6	2.0	13	0.69	0.39	2.0
31	1.0	---	4.9	3.3	---	1.1	---	1.1	---	0.24	15	---
MEAN	9.55	1.61	4.28	1.00	3.38	8.52	5.98	8.25	19.6	3.79	1.37	15.1
MAX	166	10	89	4.0	30	55	44	57	206	63	15	220
MIN	0.25	0.41	0.66	0.36	0.32	1.1	0.85	0.87	0.69	0.24	0.07	0.16
IN.	1.96	0.32	0.88	0.21	0.63	1.75	1.19	1.69	3.90	0.78	0.28	3.01

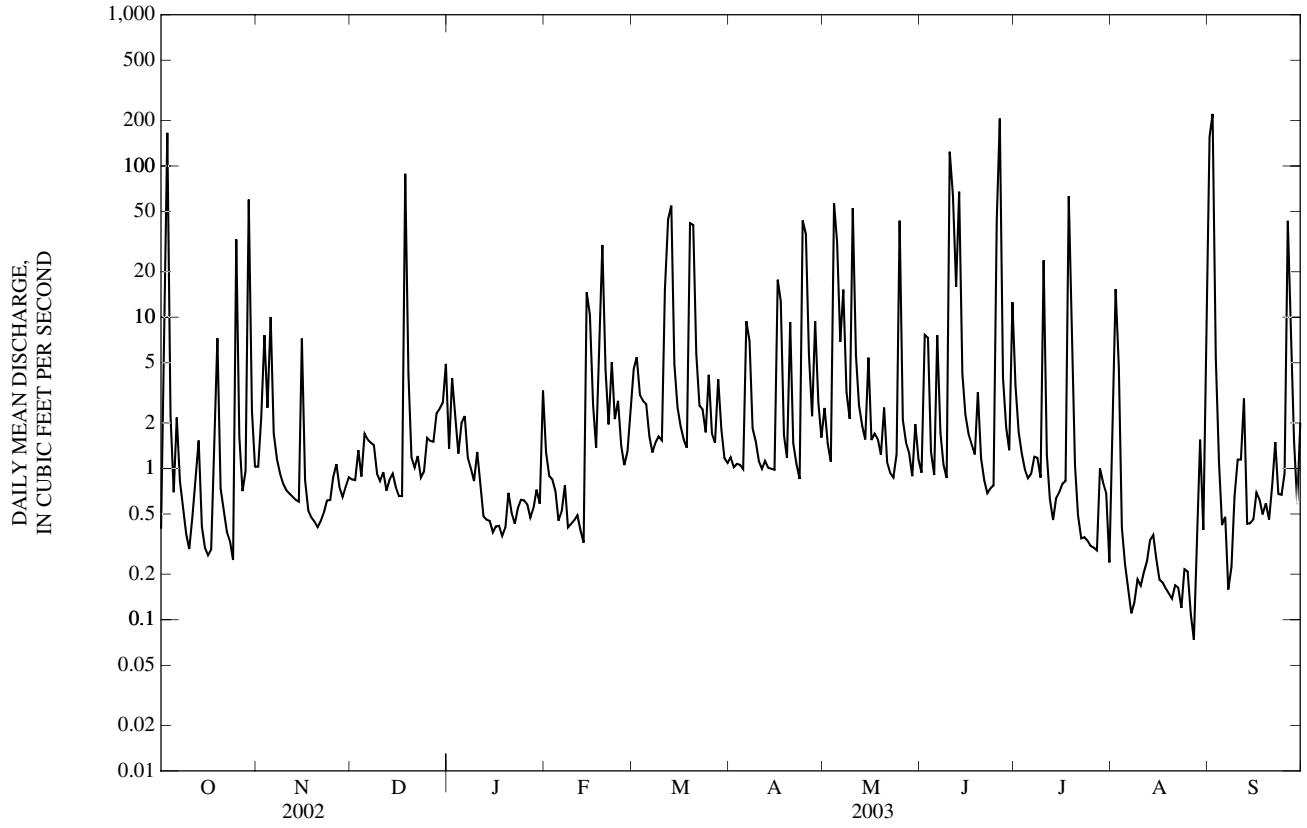
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	5.28	4.65	3.79	4.93	7.49	7.55	6.06	12.0	13.8	4.49	2.50	3.62
MAX	9.55	7.82	10.3	10.3	14.9	15.5	8.84	24.2	20.5	10.5	5.45	15.1
(WY)	(2003)	(2002)	(2002)	(1999)	(1998)	(1998)	(1999)	(2002)	(2000)	(1998)	(1998)	(2003)
MIN	2.14	0.77	0.93	0.85	3.38	3.49	1.62	4.36	3.13	0.54	0.44	0.33
(WY)	(1998)	(2000)	(2001)	(2000)	(2003)	(2000)	(2000)	(1998)	(1999)	(2002)	(2001)	(1999)

06935850 CREVE COEUR CREEK AT CHESTERFIELD, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	7.05		6.86		6.39	
HIGHEST ANNUAL MEAN					8.03	1998
LOWEST ANNUAL MEAN					4.54	2001
HIGHEST DAILY MEAN	251	Jun 12	220	Sep 2	480	May 7, 2000
LOWEST DAILY MEAN	0.21	Aug 9,10	0.07	Aug 27	0.02	Sep 17, 1999
ANNUAL SEVEN-DAY MINIMUM	0.25	Jul 30	0.15	Aug 21	0.05	Sep 28, 2001
MAXIMUM PEAK FLOW	---		Unknown	Jun 26	Unknown	Jun 24, 2000
MAXIMUM PEAK STAGE	---		14.19	Jun 26	15.88	Jun 24, 2000
INSTANTANEOUS LOW FLOW	---		0.07	Aug 27	0.02	Sep 24, 1999
ANNUAL RUNOFF (INCHES)	17.03		16.58		15.45	
10 PERCENT EXCEEDS	10		9.6		12	
50 PERCENT EXCEEDS	1.1		1.1		1.2	
90 PERCENT EXCEEDS	0.33		0.34		0.30	

e Estimated



06935890 CREVE COEUR CREEK NEAR CREVE COEUR, MO

LOCATION.--Lat 38°40'55", long 90°29'18", St. Louis County, Hydrologic Unit 10300200, 200 ft downstream of Highway 340 bridge, 2.10 mi west of Interstate 270, 2.95 mi north U.S. Route 40, and 5.80 mi upstream of Missouri River.

DRAINAGE AREA.--22.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1997 to current year. Annual peaks only for 1972-1974 water years published in WRD MO 1974.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 449.43 ft above National Geodetic Vertical Datum of 1929. Prior to June 1997, at datum 451.10 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in April 11, 1979 reached a stage of 14.78 ft, former datum, discharge 4,820 ft^3/s.

REVISIONS.--Revised maximum discharges for water years 1997-2002 and revised daily discharges for high-water periods in these years, are given below. They supersede figures published in the reports of 1998-2002.

Water Year	Date	Maximum Discharge (ft^3/s)	Gage height (ft)	Water Year	Date	Maximum Discharge (ft^3/s)	Gage height (ft)
1997	June 17, 1997	994[a]	8.34	2000	June 24, 2000	6,560[a]	16.43
1998	Feb. 27, 1998	2,430[a]	12.27	2001	Feb. 24, 2001	1,780[a]	10.69
1999	Feb. 7, 1999	4,440[a]	14.89	2002	June 12, 2002	3,780[a]	14.30

Water Year	Daily Mean Date	Daily Mean Discharge	Daily Mean Date	Daily Mean Discharge	Monthly Mean Discharge	
1998	Feb. 27, 1998	515	March 20, 1998	939	February - 48.3	March - 102
	June 4, 1998	591	June 14, 1998	490	June - 97.3	
1999	Jan. 31, 1999	822	Feb. 7, 1999	1,660	January - 70.8	February - 77.7
	May 12, 1999	592			May - 35.1	
2000	Feb. 18, 2000	947	May 7, 2000	1,700	February - 38.0	May - 72.0
	June 24, 2000	2,050			June - 98.9	
2001	May 31, 2001	295			May - 30.0	
2002	Nov. 24, 2001	422	Jan. 31, 2002	644	November - 24.9	January - 37.3
	May 7, 2002	49	May 13, 2002	698	May - 10.0	
	June 12,2002	1,140			June - 73.6	

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	4.8	2.3	7.7	7.5	15	7.2	11	5.6	21	4.2	e477
2	8.4	4.0	2.5	13	4.4	21	7.2	9.7	15	13	64	e939
3	608	19	2.4	12	4.2	14	5.7	7.0	42	8.9	64	e31
4	16	11	2.7	7.0	3.6	12	5.5	202	9.1	7.4	7.2	e4.8
5	6.9	32	3.4	7.8	2.5	11	5.0	111	7.8	6.7	5.0	e2.0
6	9.7	11	3.5	10	2.6	11	28	21	22	5.8	4.1	e2.1
7	8.1	5.5	3.3	6.9	3.8	14	30	76	12	5.9	3.7	e1.7
8	3.9	4.6	3.5	5.7	2.5	6.2	9.6	16	6.9	6.9	3.2	e1.8
9	3.5	5.3	3.1	5.1	2.4	5.5	8.1	13	5.8	5.1	2.9	e3.0
10	3.5	5.6	2.9	5.0	2.5	7.8	6.6	166	590	106	5.1	4.6
11	2.6	5.3	2.7	4.5	2.6	21	6.4	29	345	9.5	3.0	3.6
12	2.6	5.4	2.8	3.3	2.3	210	6.0	12	209	6.2	2.7	16
13	6.3	4.5	3.1	3.1	2.1	237	5.2	9.4	437	5.0	2.8	7.3
14	3.5	5.8	3.1	3.5	49	25	4.5	8.5	28	4.7	3.0	4.2
15	2.7	28	2.9	3.4	35	15	4.7	31	15	4.5	2.7	3.4
16	2.4	6.5	2.8	3.1	13	12	94	11	12	4.4	2.5	2.8
17	2.0	3.9	2.9	2.8	7.1	11	85	8.9	10	4.5	2.7	3.1
18	3.1	3.3	337	2.2	14	9.0	12	9.0	9.0	369	2.2	2.9
19	36	3.3	23	2.3	108	90	8.2	7.9	14	50	2.2	2.6
20	5.6	3.2	7.7	2.7	22	126	50	11	9.5	11	2.3	2.4
21	3.1	3.1	5.1	2.8	11	27	11	8.4	7.2	7.8	1.9	2.7
22	2.6	2.7	4.4	2.5	25	13	7.5	7.0	6.6	6.2	3.2	4.0
23	2.2	2.7	4.0	2.2	13	13	6.3	6.2	6.6	5.3	1.6	3.2
24	2.0	2.8	3.9	2.0	11	13	165	6.0	6.4	5.0	1.5	2.7
25	116	3.0	4.8	2.4	9.0	16	90	134	47	4.3	1.6	2.6
26	12	2.9	4.6	2.7	6.2	11	27	14	1,060	4.0	1.6	272
27	5.2	2.8	4.5	2.3	6.5	9.0	13	9.0	23	3.9	1.4	85
28	4.8	2.6	5.9	3.1	10	17	40	7.9	12	4.8	1.8	9.4
29	215	2.6	10	3.6	---	14	17	6.3	9.1	5.0	4.0	5.0
30	16	2.6	9.8	2.8	---	8.1	9.7	9.1	103	4.4	8.7	7.4
31	7.8	---	16	9.5	---	7.4	---	7.9	---	4.1	50	---
MEAN	36.2	6.66	15.8	4.74	13.7	33.0	25.8	31.8	103	22.9	8.61	63.6
MAX	608	32	337	13	108	237	165	202	1,060	369	64	939
MIN	1.8	2.6	2.3	2.0	2.1	5.5	4.5	6.0	5.6	3.9	1.4	1.7
IN.	1.90	0.34	0.83	0.25	0.65	1.73	1.31	1.67	5.22	1.20	0.45	3.23

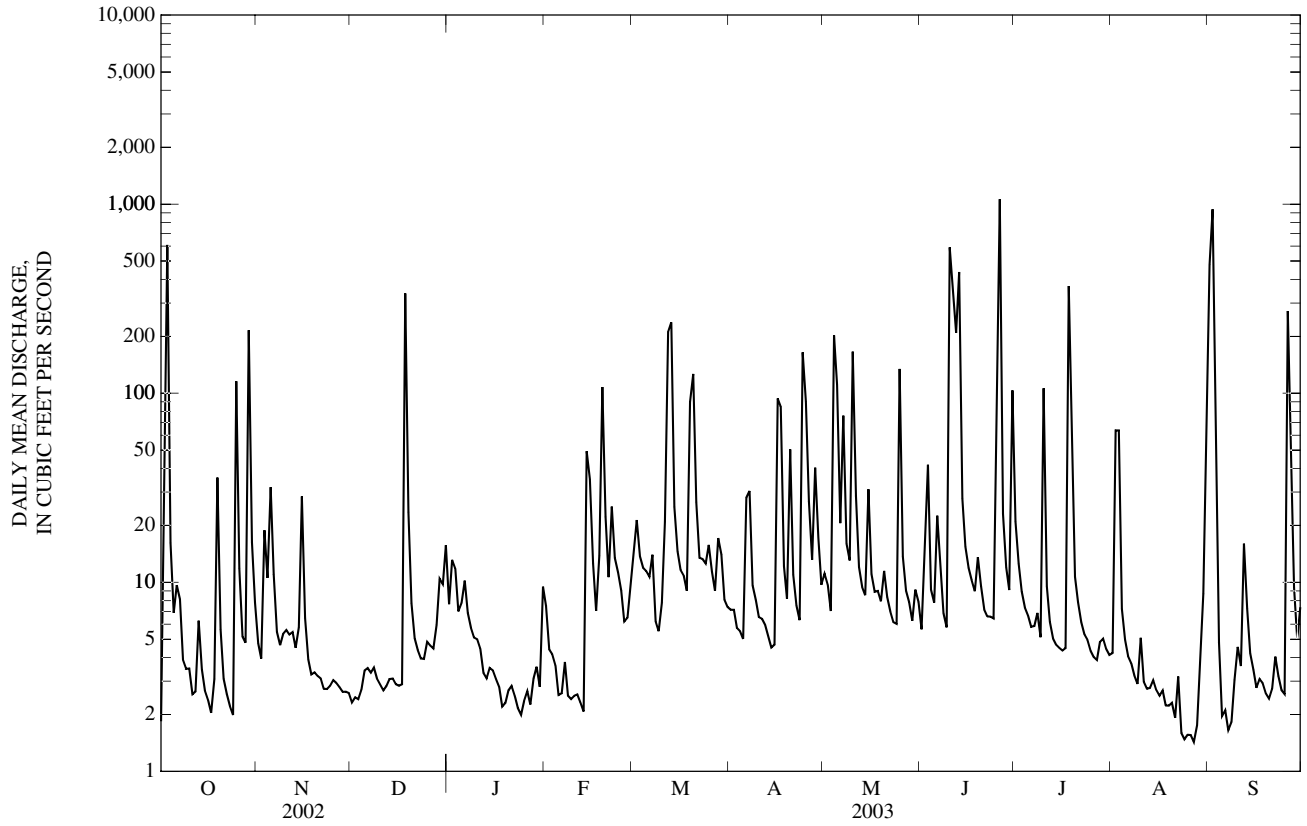
06935890 CREVE COEUR CREEK NEAR CREVE COEUR, MO—Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)												
MEAN	17.1	14.0	13.2	24.5	36.4	36.5	25.4	49.0	68.3	14.4	11.0	15.3
MAX	36.2	24.9	35.3	70.8	77.7	102	48.2	105	103	22.9	28.6	63.6
(WY)	(2003)	(2002)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(2003)	(2003)	(1998)	(2003)
MIN	6.51	4.16	5.43	3.40	10.3	9.31	6.56	20.3	15.8	4.05	1.70	1.16
(WY)	(1998)	(2000)	(1999)	(2000)	(2002)	(2000)	(2000)	(1998)	(2001)	(1997)	(2001)	(1999)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	30.8		30.4		27.2	
HIGHEST ANNUAL MEAN					35.3	1998
LOWEST ANNUAL MEAN					13.5	2001
HIGHEST DAILY MEAN	1,140	Jun 12	1,060	Jun 26	2,050	Jun 24, 2000
LOWEST DAILY MEAN	1.1	Sep 6,14,15	1.4	Aug 27	0.20	Sep 17, 1999
ANNUAL SEVEN-DAY MINIMUM	1.4	Sep 5	1.8	Aug 22	0.30	Sep 15, 1999
MAXIMUM PEAK FLOW	---		3,830[b]	Jun 26	6,560[ac]	Jun 24, 2000
MAXIMUM PEAK STAGE	---		14.35	Jun 26	16.43	Jun 24, 2000
INSTANTANEOUS LOW FLOW	---		1.3	Aug 27	0.16	Sep 17, 1999
ANNUAL RUNOFF (INCHES)	19.03		18.77		16.79	
10 PERCENT EXCEEDS	35		48		39	
50 PERCENT EXCEEDS	5.4		6.3		5.5	
90 PERCENT EXCEEDS	2.0		2.5		1.9	

e Estimated
[a] From rating extended above 588 ft^3/s on basis of indirect measurement of peak flow.
[b] Discharge determined by indirect measurement of peak flow.
[c] Revised.



06935890 CREVE COEUR CREEK NEAR CREVE COEUR, MO—Continued
(Metropolitan St. Louis Sewer District Network)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Carbon dioxide water, unfltrd mg/L (00405)	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)
OCT												
02...	2330	Environmental	113	--	6.2	73	7.4	256	21.9	98	28.0	6.80
DEC												
16...	1305	Environmental	2.7	8.3	10.4	81	7.9	1,880	3.6	420	119	29.0
FEB												
03...	1405	Environmental	4.1	6.7	11.8	89	7.7	2,780	2.2	350	99.0	25.0
MAR												
19...	1144	Environmental	117	3.6	9.1	92	8.0	1,360	13.8	250	69.0	18.0
JUN												
24...	1525	Environmental	6.8	7.1	7.2	88	7.8	1,050	24.7	360	104	24.0
AUG												
11...	1240	Environmental	2.7	11	5.6	68	7.5	850	23.7	320	93.0	21.0

Date	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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, unfltrd mg/L as N (00610)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)
OCT													
02...	58	57	69	<1	--	944	2.7	0.13	0.710	0.04	0.250	1.10	17
DEC													
16...	340	343	419	<1	390	3	0.70	0.08	0.110	<0.01	0.060	0.10	11
FEB													
03...	186	188	230	<1	690	11	0.70	0.19	0.390	0.02	0.030	0.09	18
MAR													
19...	171	172	210	<1	--	495	2.0	0.20	0.560	0.03	0.070	0.42	16
JUN													
24...	248	252	308	<1	--	45	0.70	0.09	1.30	0.13	0.080	0.15	10
AUG													
11...	196	199	243	<1	--	22	0.60	0.04	0.580	0.01	0.080	0.11	17

Date	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)	Arsenic water, fltrd, µg/L (01000)	Beryllium, water, fltrd, µg/L (01010)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recoverable, µg/L (71900)
OCT													
02...	12,000	12,700	24,000	<3	2	<1	1.5	1.3	2.3	15	<1	133	<0.1
DEC													
16...	4k	4k	10k	<3	1	<1	<1.0	8.0	1.8	55	<1	273	<0.1
FEB													
03...	54	620	152	<3	<1	<1	<1.0	2.8	2.8	20	<1	444	<0.1
MAR													
19...	800k	917k	1440k	3	2	<1	<1.0	1.1	2.4	8	<1	265	<0.1
JUN													
24...	43k	164	140	<3	3	<1	<1.0	2.8	1.4	9	<1	230	<0.1
AUG													
11...	120	277k	100	<3	3	<1	<1.0	3.7	1.4	4	<1	172	<0.1

06935890 CREVE COEUR CREEK NEAR CREVE COEUR, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	1,2-Diphenylhydrazine, water, unfltrd µg/L (82626)	2,4,6-Trichlorophenol, water, unfltrd µg/L (34621)	2,4-Dichlorophenol, water, unfltrd µg/L (34601)	2,4-Dimethylphenol, water, unfltrd µg/L (34606)	2,4-Dinitrophenol, water, unfltrd µg/L (34616)	2,4-Dinitrotoluene water unfltrd µg/L (34611)	2,6-Dinitrotoluene water unfltrd µg/L (34626)	2-Chloronaphthalene, water, unfltrd µg/L (34581)
OCT 02...	3.1	<1	<1.0	2	<7	<1	<3	<2	<2.0	<3	<3	<2	<2
DEC 16...	5.2	<1	<1.0	<2	--	--	--	--	--	--	--	--	--
FEB 03...	4.8	1	<1.0	3	--	--	--	--	--	--	--	--	--
MAR 19...	3.2	1	<1.0	<2	<7	<1	<3	<2	<2.0	<3	<3	<2	<2
JUN 24...	5.0	1	<1.0	2	--	--	--	--	--	--	--	--	--
AUG 11...	3.6	1	<1.0	2	--	--	--	--	--	--	--	--	--

Date	2-chlorophenol, water, unfltrd µg/L (34586)	2-Methyl-4,6-dinitrophenol, wat unf µg/L (34657)	2-nitrophenol, water unfltrd µg/L (34591)	3,3-Di'chlorobenzidine, water, unfltrd µg/L (34631)	4-Bromophenyl phenyl ether, wat unf µg/L (34636)	4-Chloro-3-methylphenol, wat unf µg/L (34452)	4-Chlorophenyl phenyl ether, wat unf µg/L (34641)	4-Nitrophenol, water, unfltrd µg/L (34646)	9H-Fluorene, water, unfltrd µg/L (34381)	Acenaphthene, water, unfltrd µg/L (34205)	Acenaphthylene, water, unfltrd µg/L (34200)	Aldrin, water, unfltrd µg/L (39330)	alpha-Endosulfan, water, unfltrd µg/L (39388)
OCT 02...	<2	<2	<1	<0.9	<2	<3	<2	<4	M	M	M	<0.01	<0.02
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	<2	<2	<1	<0.9	<2	<3	<2	<4	M	M	M	<0.01	<0.02
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Anthracene, water, unfltrd µg/L (34220)	Benzidine, water, unfltrd µg/L (39120)	Benzo[a]anthracene, water, unfltrd µg/L (34526)	Benzo[a]pyrene, water, unfltrd µg/L (34247)	Benzo[b]fluoranthene water unfltrd µg/L (34230)	Benzo[g,h,i]perylene, water, unfltrd µg/L (34521)	Benzo[k]fluoranthene water unfltrd µg/L (34242)	Benzyl n-butyl phthalate, water, unfltrd µg/L (34292)	Bis(2-chloroethoxy) methane water unfltrd µg/L (34278)	Bis(2-chloroethyl) ether, water, unfltrd µg/L (34273)	Bis(2-chloroisopropyl) ether, wat unf µg/L (34283)	Bis(2-ethylhexyl) phthalate, wat unf µg/L (39100)	Carbophenothion, water, unfltrd µg/L (39786)
OCT 02...	M	<1,000	M	M	M	M	M	<2	<3	<2	<2	E2	<0.02
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	M	<1,000	M	M	M	M	M	<2	<3	<2	<2	<2	<0.02
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

06935890 CREVE COEUR CREEK NEAR CREVE COEUR, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Chlordane, technical, water, unfltrd µg/L (39350)	Chlorpyrifos water unfltrd µg/L (38932)	Chrysene, water, unfltrd µg/L (34320)	Diazinon, water, unfltrd µg/L (39570)	Dibenzo-[a,h]-anthracene, wat unf µg/L (34556)	Dieldrin, water, unfltrd µg/L (39380)	Diethyl phthalate, water, unfltrd µg/L (34336)	Dimethyl phthalate, water, unfltrd µg/L (34341)	Di-n-butyl phthalate, water, unfltrd µg/L (39110)	Di-n-octyl phthalate, water, unfltrd µg/L (34596)	Disulfoton, water, unfltrd µg/L (39011)	Endrin, water, unfltrd µg/L (39390)	Ethion, water, unfltrd µg/L (39398)
OCT 02...	E.1	<0.01	M	0.06	M	E.001	M	M	<2	<2	<0.10	<0.02	<0.01
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	<0.1	<0.01	M	<0.02	M	<0.017	<2	M	<2	<2	<0.10	<0.02	<0.01
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Fluoranthene water unfltrd µg/L (34376)	Fonofos water unfltrd µg/L (82614)	Heptachlor epoxide water unfltrd µg/L (39420)	Heptachlor, water, unfltrd µg/L (39410)	Hexachlorobenzene water unfltrd µg/L (39700)	Hexachlorocyclopentadiene, wat unf µg/L (34386)	Indeno-[1,2,-3-cd]-pyrene, water, unfltrd µg/L (34403)	Isophorone water unfltrd µg/L (34408)	Lindane water, unfltrd µg/L (39340)	Malathion, water, unfltrd µg/L (39530)	Methyl parathion, water, unfltrd µg/L (39600)	Mirex, water, unfltrd µg/L (39755)	Nitrobenzene water unfltrd µg/L (34447)
OCT 02...	M	<0.01	<0.009	<0.01	<2	<1	M	M	<0.014	E.01	<0.01	<0.012	<1
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	M	<0.01	<0.009	<0.01	<2	<1	M	M	<0.014	<0.10	<0.02	<0.012	<1
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	N-NItroso-di-methyl-amine, wat unf µg/L (34438)	N-NItroso-di-n-propyl-amine, wat unf µg/L (34428)	N-NItroso-di-phenyl-amine, wat unf µg/L (34433)	p,p'-DDD, water, unfltrd µg/L (39360)	p,p'-DDE, water, unfltrd µg/L (39365)	p,p'-DDT, water, unfltrd µg/L (39370)	p,p'-Methoxychlor, water, unfltrd µg/L (39480)	Parathion, water, unfltrd µg/L (39540)	PCBs, water, unfltrd µg/L (39516)	Pentachlorophenol, water, unfltrd µg/L (39032)	Phenanthrene, water, unfltrd µg/L (34461)	Phenol, water, unfltrd µg/L (34694)	Phorate water unfltrd µg/L (39023)
OCT 02...	<3	<2	<2	E.002	E.001	<0.009	<0.020	<0.01	<0.1	M	M	<3.0	<0.02
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	<3	<2	<2	<0.016	<0.014	<0.009	<0.020	<0.01	<0.1	<2	M	<3.0	<0.02
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

06935890 CREVE COEUR CREEK NEAR CREVE COEUR, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pyrene, water, unfltrd µg/L (34469)	Toxaphene, water, unfltrd µg/L (39400)	Tribuphos, water, unfltrd µg/L (39040)	1,2,4-Trichlorobenzene water unfltrd µg/L (34551)	1,2-Dichlorobenzene water unfltrd µg/L (34536)	1,3-Dichlorobenzene water unfltrd µg/L (34566)	1,4-Dichlorobenzene water unfltrd µg/L (34571)	Hexachlorobutadiene, water, unfltrd µg/L (39702)	Hexachloroethane, water, unfltrd µg/L (34396)	Naphthalene, water, unfltrd µg/L (34696)
OCT										
02...	M	<1	<0.02	<2	<2	<2	M	<1	<2	<2
DEC										
16...	--	--	--	--	--	--	--	--	--	--
FEB										
03...	--	--	--	--	--	--	--	--	--	--
MAR										
19...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
JUN										
24...	--	--	--	--	--	--	--	--	--	--
AUG										
11...	--	--	--	--	--	--	--	--	--	--

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

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

06935955 FEE FEE CREEK NEAR BRIDGETON, MO

LOCATION.--Lat 38°43'39", long 90°26'52", St. Louis County, Hydrologic Unit 10300200, on left abutment of old bridge at McKelvey Road, 0.17 mi west of Interstate 270, 0.92 mi north of Dorsett Road, and 0.65 mi upstream of Creve Coeur Creek.

DRAINAGE AREA.--11.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1996 to current year. Annual peaks only for 1972-1974 water years published in WRD MO 1974.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 451.99 ft above National Geodetic Vertical Datum of 1929. Prior to 1996 datum of gage 450.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 11, 1979 reached a stage of 21.62 ft, former datum, discharge 3,810 ft^3/s.

REVISIONS.--Revised maximum discharges for water years 1996-2002 are given below. They supersede figures published in the reports of 1998-2002.

Water Year	Date	Maximum Discharge (ft^3/s)	Gage height (ft)	Water Year	Date	Maximum Discharge (ft^3/s)	Gage height (ft)
1996	Aug. 23, 1996	2,760[a]	15.87	2000	June 24, 2000	3,380[a]	17.45
1997	Nov. 6, 1996	1,490[a]	11.97	2001	Feb. 24, 2001	1,300[a]	11.28
1998	April 29, 1998	1,700[a]	12.71	2002	June 12, 2002	2,340[a]	14.71
1999	Feb. 7, 1999	2,510[a]	15.17				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.1	1.8	3.2	2.8	10	2.0	6.5	1.8	e8.0	3.3	359
2	56	3.2	e2.4	11	2.0	7.1	2.1	3.3	26	e10	89	120
3	201	19	e2.5	7.6	2.3	4.0	2.2	2.7	18	5.5	15	8.3
4	10	4.2	2.4	4.9	2.1	3.7	2.5	85	3.0	3.8	2.3	3.4
5	2.5	26	3.7	7.6	1.3	4.4	2.3	41	2.8	3.1	1.8	2.3
6	11	4.6	e2.7	7.4	3.0	2.9	28	26	18	3.0	1.8	2.0
7	2.2	2.7	e2.8	4.3	e2.6	2.1	14	32	4.4	2.6	2.3	1.7
8	1.4	2.4	3.1	3.5	1.6	1.8	6.1	5.3	2.4	2.3	2.7	1.5
9	1.3	2.5	1.8	2.7	1.7	1.7	3.2	4.3	2.0	2.3	e0.80	1.4
10	1.3	2.7	1.5	1.9	2.4	1.6	2.3	e100	305	106	e0.50	1.3
11	1.2	2.6	1.3	1.6	2.2	28	e3.5	e37	122	3.9	0.82	1.4
12	4.3	2.5	1.2	1.4	2.0	48	2.2	e14	71	2.5	2.9	17
13	5.1	2.4	1.4	1.4	1.9	125	2.0	e7.3	212	2.1	1.0	2.9
14	1.2	9.9	1.6	1.4	40	7.2	1.8	e5.4	8.8	2.0	1.1	1.7
15	1.1	20	1.3	1.3	27	4.7	1.8	e7.3	4.6	2.0	1.1	1.2
16	1.3	2.6	1.2	1.4	e4.8	4.0	123	e4.8	3.4	2.1	1.7	1.0
17	1.5	2.0	1.1	1.5	e2.8	4.0	31	e12	2.8	9.3	1.0	1.1
18	18	1.8	164	1.3	17	3.5	4.8	e7.0	2.6	154	0.91	1.3
19	24	2.1	e8.1	1.3	49	107	3.5	e4.1	18	11	2.2	1.5
20	2.1	2.1	e5.9	2.4	7.5	70	34	e8.8	3.0	3.5	0.95	0.89
21	1.5	2.0	e3.8	e7.1	4.6	12	4.0	e5.6	2.0	2.6	0.79	1.2
22	1.4	1.7	e2.9	e5.3	18	6.2	3.0	e3.0	1.8	2.0	0.72	2.7
23	1.3	1.7	e2.1	e3.8	5.1	5.1	2.5	e2.8	2.1	1.5	0.68	1.0
24	1.8	1.9	e2.4	e2.7	7.9	4.2	91	e5.1	1.8	0.56	0.69	1.2
25	75	3.0	e2.6	e5.6	e4.0	4.8	34	49	103	2.9	0.96	2.2
26	4.7	2.1	e3.6	e9.0	2.8	3.4	8.4	3.3	e500	1.6	0.76	198
27	2.3	1.7	e6.6	e8.0	3.8	2.6	4.3	2.2	11	1.5	10	20
28	3.3	1.7	10	e4.7	6.8	18	35	2.3	5.5	3.8	2.2	3.1
29	92	1.8	6.7	2.5	---	4.3	7.9	2.6	4.2	1.9	7.8	1.8
30	4.8	1.7	5.9	2.0	---	2.6	5.8	14	e80	1.5	3.3	7.5
31	2.7	---	13	13	---	2.3	---	2.7	---	1.6	70	---
MEAN	17.4	4.56	8.75	4.28	8.18	16.3	15.6	16.3	51.4	11.6	7.45	25.7
MAX	201	26	164	13	49	125	123	100	500	154	89	359
MIN	1.1	1.7	1.1	1.3	1.3	1.6	1.8	2.2	1.8	0.56	0.50	0.89
IN.	1.71	0.43	0.86	0.42	0.73	1.61	1.49	1.61	4.91	1.15	0.73	2.45

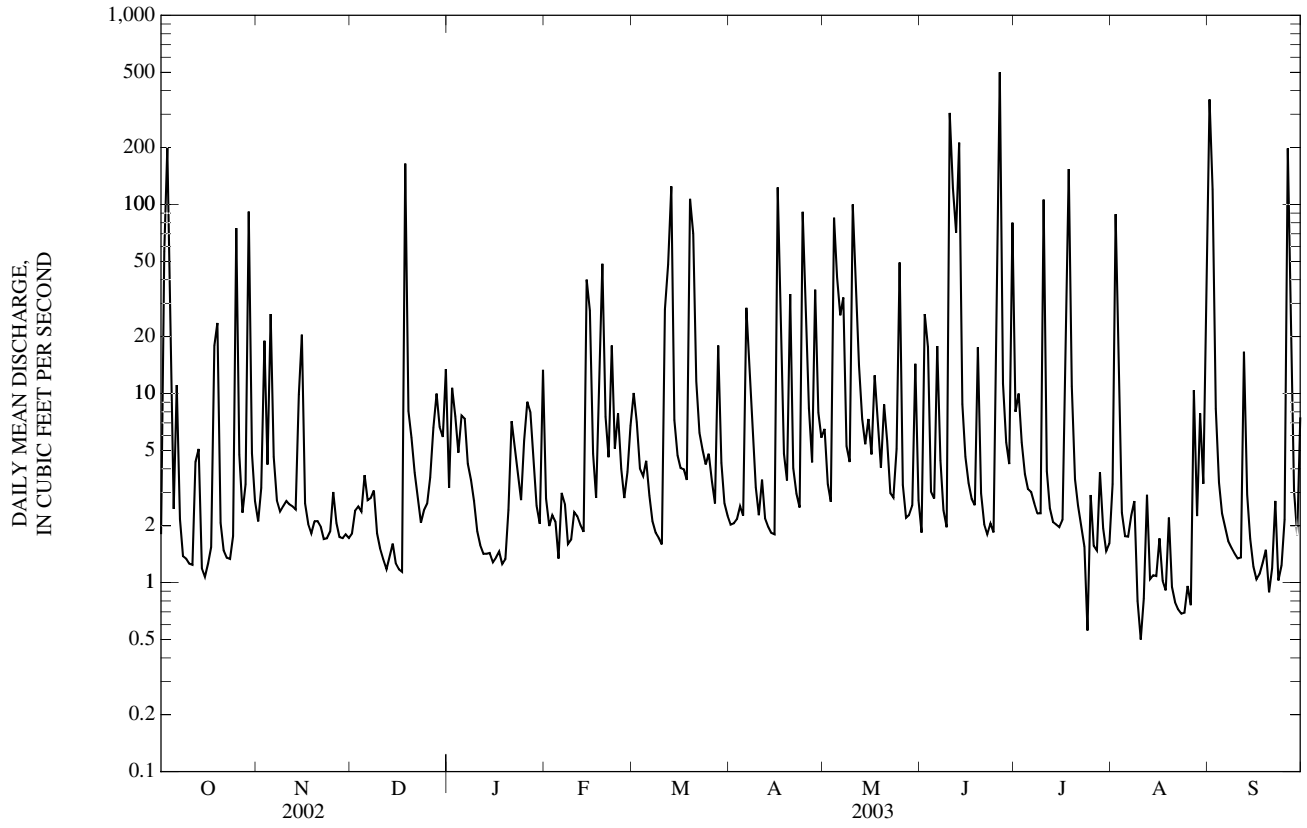
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)

MEAN	11.1	14.7	7.51	13.8	20.1	16.7	16.2	20.5	26.9	9.30	9.02	9.93
MAX	20.2	49.1	17.4	25.7	39.6	34.2	26.6	51.6	51.4	20.3	15.7	25.7
(WY)	(2002)	(1997)	(2002)	(1999)	(1997)	(1998)	(1998)	(2002)	(2003)	(1998)	(1997)	(2003)
MIN	1.86	1.47	3.09	2.99	5.15	6.58	5.30	9.41	9.32	2.83	2.53	1.53
(WY)	(2000)	(2000)	(1999)	(2000)	(2002)	(2000)	(2000)	(1999)	(2001)	(2000)	(2001)	(1999)

06935955 FEE FEE CREEK NEAR BRIDGETON, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL MEAN	17.2		15.6		14.5	
HIGHEST ANNUAL MEAN					18.9	2002
LOWEST ANNUAL MEAN					8.31	2000
HIGHEST DAILY MEAN	391	Jun 11	500	Jun 26	665	Feb 7, 1999
LOWEST DAILY MEAN	0.56	Sep 13,25-28,30,Oct 1	0.50	Aug 10	0.28	Sep 22, 1999
ANNUAL SEVEN-DAY MINIMUM	0.75	Sep 1	0.79	Aug 20	0.30	Sep 21, 1999
MAXIMUM PEAK FLOW	---		3,730[b]	Jun 26	3,730[b]	Jun 26, 2003
MAXIMUM PEAK STAGE	---		18.30	Jun 26	18.30	Jun 26, 2003
INSTANTANEOUS LOW FLOW	---		0.26	Aug 11,12	0.26	Aug 11, 2003
ANNUAL RUNOFF (INCHES)	19.94		18.10		16.79	
10 PERCENT EXCEEDS	28		31		29	
50 PERCENT EXCEEDS	3.0		2.9		2.7	
90 PERCENT EXCEEDS	1.2		1.3		0.90	

e Estimated
[a] From rating extended above 1,130 ft^3/s on basis of indirect measurement of peak flow.
[b] Discharge determined by indirect measurement of peak flow.



06935955 FEE FEE CREEK NEAR BRIDGETON, MO—Continued
(Metropolitan St. Louis Sewer District Network)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Carbon dioxide water, unfltrd mg/L (00405)	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)
OCT												
18...	2103	Environmental	59	5.3	7.8	80	7.7	393	15.3	250	68.0	19.0
DEC												
16...	1635	Environmental	1.2	2.5	16.7	136	8.2	3,160	5.1	430	118	33.0
FEB												
04...	0800	Environmental	2.5	5.9	8.5	63	7.7	3,000	1.9	370	104	26.0
APR												
06...	0838	Environmental	4.0	4.6	9.8	83	7.8	787	7.4	330	89.0	27.0
JUN												
24...	1335	Environmental	1.9	7.3	7.3	89	7.8	1,300	24.7	400	110	31.0
AUG												
12...	0750	Environmental	1.3	6.7	5.2	61	7.6	1,100	22.9	330	90.0	26.0

Date	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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, unfltrd mg/L as N (00610)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)
OCT													
18...	148	144	176	<1	--	127	1.2	0.10	0.400	0.02	0.120	0.29	21
DEC													
16...	187	189	231	<1	820	3	1.8	0.15	0.430	0.03	0.070	0.17	21
FEB													
04...	159	157	194	<1	810	7	0.60	0.14	0.690	0.03	0.050	0.07	16
APR													
06...	153	153	187	<1	--	143	1.0	0.03	0.220	0.02	0.060	0.20	23
JUN													
24...	217	220	268	<1	--	28	0.60	0.08	0.680	0.03	0.080	0.14	10
AUG													
12...	148	148	181	<1	--	48	0.70	0.10	0.470	0.02	0.080	0.14	15

Date	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)	Arsenic water, fltrd, µg/L (01000)	Beryllium, water, fltrd, µg/L (01010)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recoverable, µg/L (71900)
OCT													
18...	6,600	7,000	10,800	31	<1	<1	<1.0	1.0	2.8	54	<1	124	<0.1
DEC													
16...	10k	10k	20k	<3	1	<1	<1.0	4.0	2.7	76	<1	792	<0.1
FEB													
04...	360	1,300	250	<3	<1	<1	<1.0	1.8	3.7	28	<1	953	<0.1
APR													
06...	2,900	4,400	1,750	<3	7	<1	<1.0	2.3	2.3	25	<1	310	<0.1
JUN													
24...	88	277k	132	<3	4	<1	<1.0	3.9	1.8	9	<1	302	<0.1
AUG													
12...	920	1,640k	1,740	4	4	<1	<1.0	3.7	1.8	6	<1	274	<0.1

06935955 FEE FEE CREEK NEAR BRIDGETON, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	1,2-Diphenylhydrazine, water, unfltrd µg/L (82626)	2,4,6-Trichlorophenol, water, unfltrd µg/L (34621)	2,4-Dichlorophenol, water, unfltrd µg/L (34601)	2,4-Dimethylphenol, water, unfltrd µg/L (34606)	2,4-Dinitrophenol, water, unfltrd µg/L (34616)	2,4-Dinitrotoluene water unfltrd µg/L (34611)	2,6-Dinitrotoluene water unfltrd µg/L (34626)	2-Chloronaphthalene, water, unfltrd µg/L (34581)
OCT													
18...	2.8	<1	<1.0	14	E3n	<1	<3	<2	<2.0	<3	<3	<2	<2
DEC													
16...	5.7	1	<1.0	5	--	--	--	--	--	--	--	--	--
FEB													
04...	6.3	2	<1.0	11	--	--	--	--	--	--	--	--	--
APR													
06...	6.4	2	<1.0	8	<7	<1	<3	M	<2.0	<3	<3	<2	<2
JUN													
24...	6.0	2	<1.0	2	--	--	--	--	--	--	--	--	--
AUG													
12...	4.6	2	<1.0	2	--	--	--	--	--	--	--	--	--

Date	2-chlorophenol, water, unfltrd µg/L (34586)	2-Methyl-4,6-dinitrophenol, wat unf µg/L (34657)	2-nitrophenol, water unfltrd µg/L (34591)	3,3-Di'chlorobenzidine, water, unfltrd µg/L (34631)	4-Bromophenyl phenyl ether, wat unf µg/L (34636)	4-Chloro-3-methylphenol, wat unf µg/L (34452)	4-Chlorophenyl phenyl ether, wat unf µg/L (34641)	4-Nitrophenol, water, unfltrd µg/L (34646)	9H-Fluorene, water, unfltrd µg/L (34381)	Acenaphthene, water, unfltrd µg/L (34205)	Acenaphthylene, water, unfltrd µg/L (34200)	Aldrin, water, unfltrd µg/L (39330)	alpha-Endosulfan, water, unfltrd µg/L (39388)
OCT													
18...	<2	<2	<1	<0.9	<2	<3	<2	<4	M	M	M	<0.01	<0.02
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
06...	<2	<2	M	<0.9	<2	<3	<2	M	M	M	M	E.001	<0.002
JUN													
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Anthracene, water, unfltrd µg/L (34220)	Benzidine, water, unfltrd µg/L (39120)	Benzo-[a]-anthracene, water, unfltrd µg/L (34526)	Benzo-[a]-pyrene, water, unfltrd µg/L (34247)	Benzo-[b]-fluoranthene water unfltrd µg/L (34230)	Benzo-[g,h,i]-perylene, water, unfltrd µg/L (34521)	Benzo-[k]-fluoranthene water unfltrd µg/L (34242)	Benzyl n-butyl phthalate, water, unfltrd µg/L (34292)	Bis(2-chloroethoxy) methane water unfltrd µg/L (34278)	Bis(2-chloroethyl) ether, water, unfltrd µg/L (34273)	Bis(2-chloroisopropyl) ether, wat unf µg/L (34283)	Bis(2-ethylhexyl) phthalate, wat unf µg/L (39100)	Carbophenothion, water, unfltrd µg/L (39786)
OCT													
18...	M	<1,000	M	M	M	M	M	<2	<3	<2	M	E5	<0.02
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR													
06...	M	<1,000	M	M	M	M	M	M	<3	<2	<2	M	<0.02
JUN													
24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
12...	--	--	--	--	--	--	--	--	--	--	--	--	--

06935955 FEE FEE CREEK NEAR BRIDGETON, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Chlordane, technical, water, unfltrd µg/L (39350)	Chlorpyrifos water unfltrd µg/L (38932)	Chrysene, water, unfltrd µg/L (34320)	Diazinon, water, unfltrd µg/L (39570)	Dibenzo-[a,h]-anthracene, wat unf µg/L (34556)	Dieldrin, water, unfltrd µg/L (39380)	Diethyl phthalate, water, unfltrd µg/L (34336)	Dimethyl phthalate, water, unfltrd µg/L (34341)	Di-n-butyl phthalate, water, unfltrd µg/L (39110)	Di-n-octyl phthalate, water, unfltrd µg/L (34596)	Disulfoton, water, unfltrd µg/L (39011)	Endrin, water, unfltrd µg/L (39390)	Ethion, water, unfltrd µg/L (39398)
OCT 18...	<0.1	<0.01	M	0.03	M	E.003	E1	M	M	<2	<0.10	<0.02	<0.01
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 06...	M	<0.01	M	E.02n	M	0.005	<2	M	M	<2	<0.10	E.001	<0.01
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Fluoranthene water unfltrd µg/L (34376)	Fonofos water unfltrd µg/L (82614)	Heptachlor epoxide water unfltrd µg/L (39420)	Heptachlor, water, unfltrd µg/L (39410)	Hexachlorobenzene water unfltrd µg/L (39700)	Hexachlorocyclopentadiene, wat unf µg/L (34386)	Indeno-[1,2,-3-cd]-pyrene, water, unfltrd µg/L (34403)	Isophorone water unfltrd µg/L (34408)	Lindane water, unfltrd µg/L (39340)	Malathion, water, unfltrd µg/L (39530)	Methyl parathion, water, unfltrd µg/L (39600)	Mirex, water, unfltrd µg/L (39755)	Nitrobenzene water unfltrd µg/L (34447)
OCT 18...	M	<0.01	<0.009	<0.01	<2	<1	M	M	E.001	E.03	<0.01	<0.012	<1
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 06...	E1	<0.01	<0.003	<0.002	<2	<1	M	M	0.002	<0.10	<0.01	<0.002	<1
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	N-NItroso-di-methyl-amine, wat unf µg/L (34438)	N-NItroso-di-n-propyl-amine, wat unf µg/L (34428)	N-NItroso-di-phenyl-amine, wat unf µg/L (34433)	p,p'-DDD, water, unfltrd µg/L (39360)	p,p'-DDE, water, unfltrd µg/L (39365)	p,p'-DDT, water, unfltrd µg/L (39370)	p,p'-Methoxychlor, water, unfltrd µg/L (39480)	Parathion, water, unfltrd µg/L (39540)	PCBs, water, unfltrd µg/L (39516)	Pentachlorophenol, water, unfltrd µg/L (39032)	Phenanthrene, water, unfltrd µg/L (34461)	Phenol, water, unfltrd µg/L (34694)	Phorate water unfltrd µg/L (39023)
OCT 18...	<3	<2	<2	E.002	E.001	E.002	E.003	<0.01	<0.1	M	M	E.3	<0.02
DEC 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
APR 06...	<3	<2	<2	0.006	E.002n	0.003	<0.003	<0.01	<0.1	M	M	<3.0	<0.02
JUN 24...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--	--	--	--

06935955 FEE FEE CREEK NEAR BRIDGETON, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pyrene, water, unfltrd µg/L (34469)	Toxaphene, water, unfltrd µg/L (39400)	Tribuphos, water, unfltrd µg/L (39040)	1,2,4-Trichlorobenzene water unfltrd µg/L (34551)	1,2-Dichlorobenzene water unfltrd µg/L (34536)	1,3-Dichlorobenzene water unfltrd µg/L (34566)	1,4-Dichlorobenzene water unfltrd µg/L (34571)	Hexachlorobutadiene, water, unfltrd µg/L (39702)	Hexachloroethane, water, unfltrd µg/L (34396)	Naphthalene, water, unfltrd µg/L (34696)
OCT										
18...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
DEC										
16...	--	--	--	--	--	--	--	--	--	--
FEB										
04...	--	--	--	--	--	--	--	--	--	--
APR										
06...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
JUN										
24...	--	--	--	--	--	--	--	--	--	--
AUG										
12...	--	--	--	--	--	--	--	--	--	--

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

Value qualifier codes used in this table:
k -- Counts outside acceptable range
n -- Below the LRL and above the the LT-MDL

06935965 MISSOURI RIVER AT ST. CHARLES, MO

LOCATION.--Lat 38°47'08", long 90°28'19", SE $^1/_4$ sec. 29, T.47 N., R.5 E., St. Louis County, Hydrologic Unit 10300200, on right bank approximately 0.25 mi downstream from State Highway A, on the St. Charles Sand Company property, and at mile 27.9.

DRAINAGE AREA.--524,000 mi^2. The 3,959 mi^2 in Great Divide basin are not included.

PERIOD OF RECORD.--April 1, 2000 to current year. April 15, 1932 to October 1944 recording gage; Feb. 16, 1984 to Sept. 30, 1997 stage only operated by U.S.G.S.; Oct. 1, 1997 to April 1, 2000, stage only operated by U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage 413.472 ft above North American Vertical Datum of 1988. Prior to March 4, 1994 datum of gage was 413.585 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 2-3, 1993 reached a stage of 40.04 ft. by levels of good highwater mark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38,800	45,900	38,800	25,800	24,800	33,900	42,500	74,800	57,300	57,600	40,500	35,400
2	38,400	45,700	38,700	25,500	24,300	35,600	40,700	68,500	59,300	59,200	40,300	41,500
3	41,100	44,600	37,900	25,400	23,900	38,500	40,000	66,100	54,000	64,600	40,500	64,800
4	40,900	43,700	36,500	26,300	23,900	36,900	39,400	65,400	51,300	65,000	39,500	92,000
5	43,400	43,800	34,600	27,600	23,800	34,300	e39,200	88,400	51,100	62,100	39,300	78,900
6	42,900	44,200	32,700	27,500	24,100	38,800	e39,400	94,300	52,700	59,900	38,800	63,200
7	42,200	43,900	31,000	27,100	24,900	39,200	40,300	94,200	53,900	56,700	38,800	50,900
8	42,800	43,100	29,700	27,000	27,000	39,300	42,200	105,000	52,400	54,600	39,100	44,400
9	44,200	42,400	28,600	26,800	26,700	36,900	45,500	106,000	51,600	54,100	38,800	40,600
10	45,500	41,700	27,800	26,500	27,300	30,400	47,800	117,000	53,000	56,700	38,400	39,300
11	47,300	40,600	27,000	26,300	26,300	28,400	49,000	146,000	60,000	55,700	38,200	40,600
12	48,200	39,700	26,500	26,200	25,200	29,200	47,700	152,000	85,600	53,600	37,900	42,300
13	46,400	39,100	26,300	26,100	24,700	31,100	46,800	139,000	101,000	54,600	37,500	43,600
14	44,100	39,100	26,100	26,200	24,800	38,900	45,500	120,000	88,800	58,600	37,400	45,100
15	42,900	39,400	25,500	26,000	25,100	42,100	42,600	100,000	87,900	57,400	37,900	49,100
16	42,500	39,600	25,000	25,800	26,600	38,200	41,300	85,000	87,700	57,000	41,500	56,800
17	42,200	39,600	25,100	25,600	32,600	34,100	40,800	80,800	90,300	64,100	41,500	55,200
18	41,700	39,200	27,600	25,400	35,300	32,300	40,700	76,200	85,200	70,200	39,400	55,500
19	42,100	39,200	30,300	25,200	34,700	32,400	40,900	69,100	77,400	63,800	37,900	54,000
20	42,000	39,100	30,600	24,900	33,900	40,200	41,900	64,600	68,700	59,800	37,200	54,800
21	42,000	39,000	29,900	24,400	32,800	47,700	41,600	65,000	61,400	55,800	36,500	52,800
22	42,300	39,400	28,500	23,700	31,100	46,500	42,000	66,900	56,500	52,500	e36,200	47,400
23	42,200	39,500	27,500	23,200	30,800	44,400	42,100	65,700	53,000	51,200	42,000	45,100
24	41,900	39,200	26,900	23,300	33,400	43,600	45,400	68,700	50,900	49,100	43,900	46,600
25	42,400	38,900	26,900	23,100	35,100	41,700	51,700	75,200	51,500	46,400	36,700	48,100
26	42,700	38,800	27,000	22,900	34,600	38,700	64,900	69,500	69,200	44,400	32,600	51,300
27	42,800	38,700	26,700	25,700	32,900	43,400	72,500	62,400	87,300	43,200	32,700	51,600
28	42,900	38,600	26,500	24,200	33,100	52,200	68,300	58,900	72,800	42,400	33,800	46,400
29	44,500	38,400	26,300	23,100	---	54,100	67,800	58,000	63,700	41,800	38,000	46,600
30	44,800	38,700	26,400	23,100	---	50,600	75,300	62,400	60,900	41,200	36,900	43,000
31	45,200	---	26,300	24,100	---	46,500	---	61,400	---	40,700	34,900	---
MEAN	43,010	40,760	29,200	25,290	28,700	39,360	47,530	84,730	66,550	54,650	38,210	50,900
MAX	48,200	45,900	38,800	27,600	35,300	54,100	75,300	152,000	101,000	70,200	43,900	92,000
MIN	38,400	38,400	25,000	22,900	23,800	28,400	39,200	58,000	50,900	40,700	32,600	35,400
IN.	0.09	0.09	0.06	0.06	0.06	0.09	0.10	0.19	0.14	0.12	0.08	0.11

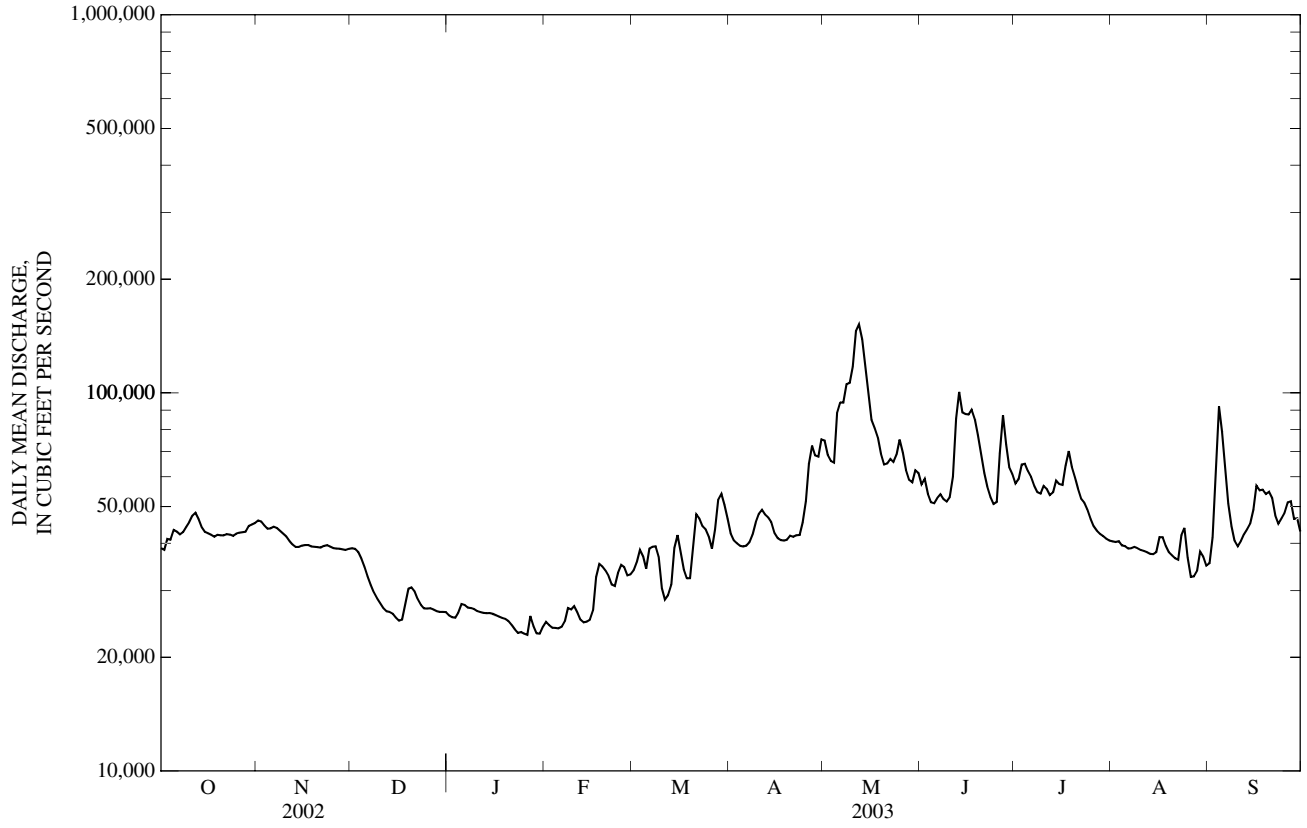
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2003, BY WATER YEAR (WY)

MEAN	50,650	45,800	35,880	30,530	57,480	71,740	72,270	115,300	113,600	71,310	52,060	50,570
MAX	60,810	50,230	46,870	34,290	84,820	129,000	121,100	196,100	202,100	104,600	65,550	62,060
(WY)	(2002)	(2001)	(2002)	(2002)	(2001)	(2001)	(2001)	(2002)	(2001)	(2001)	(2001)	(2001)
MIN	43,010	40,760	29,200	25,290	28,700	39,360	47,530	59,440	66,550	51,100	38,210	43,620
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)	(2003)	(2002)	(2003)	(2002)

06935965 MISSOURI RIVER AT ST. CHARLES, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2000 - 2003	
ANNUAL MEAN	63,800		45,820		66,860	
HIGHEST ANNUAL MEAN					87,470	2001
LOWEST ANNUAL MEAN					45,820	2003
HIGHEST DAILY MEAN	347,000	May 15	152,000	May 12	347,000	May 15, 2002
LOWEST DAILY MEAN	25,000	Dec 16	22,900	Jan 26	22,900	Jan 26, 2003
ANNUAL SEVEN-DAY MINIMUM	25,900	Dec 11	23,600	Jan 24	23,600	Jan 24, 2003
MAXIMUM PEAK FLOW	---		156,000	May 12	350,000	May 15, 2002
MAXIMUM PEAK STAGE	---		21.24	May 12	31.69	May 15, 2002
INSTANTANEOUS LOW FLOW	---		22,500	Jan 26	22,500	Jan 26, 2003
ANNUAL RUNOFF (INCHES)	1.65		1.19		1.73	
10 PERCENT EXCEEDS	115,000		68,600		129,000	
50 PERCENT EXCEEDS	44,800		41,700		49,100	
90 PERCENT EXCEEDS	33,500		26,200		30,300	

e Estimated



06935980 COWMIRE CREEK AT BRIDGETON, MO

LOCATION.--Lat 38°45'50", long 90°25'59", St. Louis County, Hydrologic Unit 10300200, on left bank of bridge at Kirchner Brick Co., 1.11 mi west of Interstate 70 and 270 interchange, 1.7 mi south of State Highway 370, 0.16 mi north of County Highway A (St Charles Rock Road), and 6.29 mi upstream of the Missouri River.

DRAINAGE AREA.--3.74 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1997 to current year. Annual peaks only for 1972-1974 water years published in WRD MO 1974.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 464.46 ft above National Geodetic Vertical Datum of 1929. Prior to May 1997, at datum 464.55 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except for estimated daily discharges and discharges below 0.5 ft^3/s, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 11, 1979 reached a stage of 13.86 ft, former datum, discharge, 2,500 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.28	0.62	0.37	0.84	0.68	2.0	0.83	2.0	0.55	1.5	0.96	89
2	94	1.4	0.46	3.2	0.57	1.5	0.78	1.2	10	0.89	30	13
3	36	4.4	0.41	2.0	0.60	1.0	0.76	1.0	3.0	0.97	3.4	1.4
4	3.9	0.83	e0.50	1.4	0.47	0.98	3.4	22	0.78	0.90	1.0	0.89
5	0.62	9.6	e1.3	2.6	0.44	1.3	0.85	13	0.61	0.75	0.59	0.72
6	4.4	1.1	e0.90	2.0	1.0	1.00	12	11	5.0	0.60	0.60	0.64
7	0.58	0.56	e1.1	1.2	e0.70	0.98	3.9	5.1	0.87	1.1	0.49	0.62
8	0.60	0.48	0.68	1.3	0.48	0.95	2.9	1.5	0.61	0.54	0.45	0.49
9	0.35	0.50	0.50	0.89	0.46	0.85	1.1	1.4	0.63	0.50	0.44	0.44
10	0.50	0.66	0.48	0.68	0.64	0.79	0.91	38	211	59	0.44	0.57
11	0.53	0.49	0.48	0.59	0.58	6.1	0.90	2.1	52	1.2	0.42	0.42
12	0.84	0.45	0.48	0.56	0.54	5.2	0.81	1.5	27	1.0	0.35	4.3
13	0.72	0.46	0.51	0.57	0.50	34	1.1	1.3	49	0.90	1.4	0.64
14	0.54	3.6	0.55	0.59	12	1.8	0.76	1.2	2.1	0.85	0.54	0.55
15	0.49	4.4	0.53	0.59	6.3	1.3	0.67	1.2	1.1	0.85	0.43	0.41
16	0.40	0.57	0.53	0.68	1.4	1.1	46	1.6	0.93	1.4	0.38	0.36
17	0.33	0.47	0.53	0.79	1.4	1.3	39	1.3	0.81	0.74	0.35	0.32
18	6.7	0.45	69	0.74	3.7	0.97	2.0	0.90	0.76	33	0.34	0.30
19	3.6	0.49	2.3	0.73	8.5	29	1.6	0.73	5.8	1.9	0.30	0.35
20	0.46	0.47	1.0	e1.0	1.4	22	8.1	2.1	0.76	1.0	0.33	0.32
21	0.36	0.49	0.98	e3.4	1.1	3.7	1.5	0.76	0.71	0.98	0.32	0.48
22	0.36	0.51	0.69	e1.9	2.8	1.6	1.3	0.69	0.67	0.81	0.26	0.51
23	0.33	0.48	0.63	e1.0	1.1	1.2	1.5	0.68	0.66	0.70	0.25	0.29
24	0.32	0.48	0.65	e0.68	2.1	1.1	26	1.5	0.63	1.0	0.26	0.29
25	23	0.81	0.99	e3.0	e1.2	1.1	15	17	79	0.56	0.33	0.36
26	0.80	0.50	1.1	e5.0	e0.80	0.86	2.4	0.81	121	0.57	0.34	48
27	0.59	0.40	1.1	e4.1	e1.5	0.82	1.5	0.66	2.0	0.63	0.56	3.3
28	0.62	0.37	2.2	e2.2	e1.4	4.3	11	0.60	1.5	1.5	0.46	0.90
29	26	0.41	1.8	0.72	---	1.1	1.9	0.79	1.2	0.73	5.1	0.64
30	1.1	0.38	1.9	0.60	---	0.86	1.3	6.4	13	0.59	0.85	2.9
31	0.82	---	2.6	4.1	---	1.3	---	0.71	---	0.60	36	---
MEAN	6.78	1.23	3.14	1.60	1.94	4.26	6.39	4.54	19.8	3.81	2.84	5.78
MAX	94	9.6	69	5.0	12	34	46	38	211	59	36	89
MIN	0.28	0.37	0.37	0.56	0.44	0.79	0.67	0.60	0.55	0.50	0.25	0.29
IN.	2.09	0.37	0.97	0.49	0.54	1.31	1.91	1.40	5.91	1.18	0.87	1.72

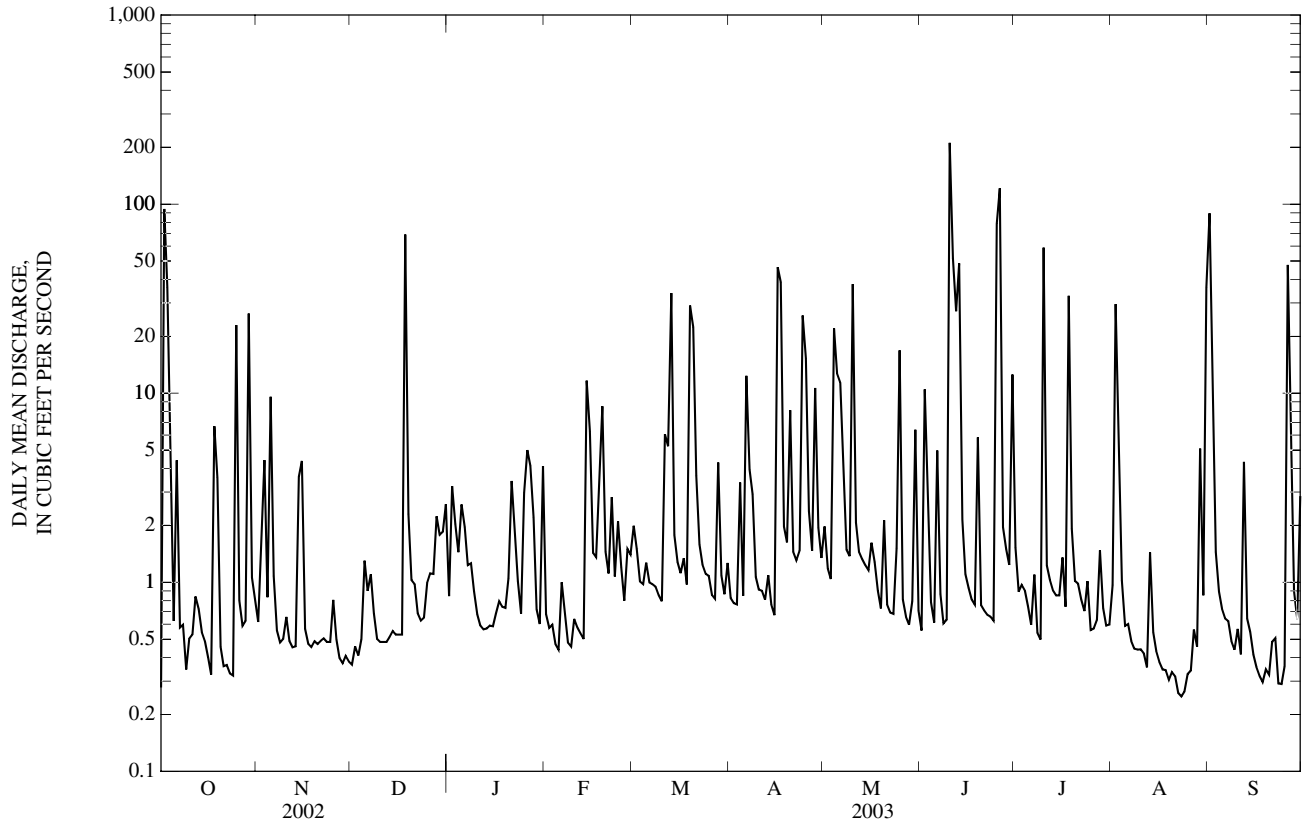
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	3.37	2.34	2.22	3.61	5.07	4.26	6.32	6.50	9.66	4.16	2.99	2.74
MAX	6.78	4.26	4.75	8.86	11.3	9.35	12.9	13.2	19.8	10.4	7.23	5.78
(WY)	(2003)	(2002)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(2003)	(1998)	(2002)	(2003)
MIN	1.44	0.84	0.75	0.84	1.46	1.57	1.66	2.45	3.48	0.73	1.14	0.57
(WY)	(1998)	(2000)	(1999)	(2000)	(2002)	(2001)	(2000)	(2001)	(1997)	(2002)	(1999)	(1999)

06935980 COWMIRE CREEK AT BRIDGETON, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	5.62		5.17		4.56	
HIGHEST ANNUAL MEAN					5.91	2002
LOWEST ANNUAL MEAN					2.63	2001
HIGHEST DAILY MEAN	173	Aug 6	211	Jun 10	240	Feb 7, 1999
LOWEST DAILY MEAN	0.15	Sep 11	0.25	Aug 23	0.05	Aug 19, 2001
ANNUAL SEVEN-DAY MINIMUM	0.20	Jul 29	0.29	Aug 19	0.07	Oct 27, 1999
MAXIMUM PEAK FLOW	---		3,490[a]	Jun 10	3,490[a]	Jun 10, 2003
MAXIMUM PEAK STAGE	---		16.04	Jun 10	16.04	Jun 10, 2003
INSTANTANEOUS LOW FLOW	---		0.19	Oct 2,Aug 23-25	0.04	Sep 6, 2001
ANNUAL RUNOFF (INCHES)	20.39		18.76		16.55	
10 PERCENT EXCEEDS	7.5		8.9		7.7	
50 PERCENT EXCEEDS	0.93		0.86		0.73	
90 PERCENT EXCEEDS	0.36		0.42		0.18	

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



06935980 COWMIRE CREEK AT BRIDGETON, MO—Continued
(Metropolitan St. Louis Sewer District Network)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Carbon dioxide water, unfltrd mg/L (00405)	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)
OCT												
18...	2036	Environmental	59	4.0	8.6	88	7.7	368	15.5	190	45.0	19.0
DEC												
17...	1110	Environmental	0.53	7.4	10.9	92	7.9	2,500	6.3	590	137	59.0
FEB												
04...	1210	Environmental	0.48	6.7	11.5	88	7.9	2,270	3.3	540	133	51.0
MAR												
28...	1300	Environmental	29	3.0	10.0	90	8.1	767	10.0	360	86.0	35.0
JUN												
09...	1730	Environmental	0.53	7.7	9.2	106	7.8	1,450	21.2	520	120	53.0
AUG												
11...	1620	Environmental	0.53	7.3	6.2	75	7.8	1,300	23.7	510	113	55.0

Date	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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, unfltrd mg/L as N (00610)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)
OCT													
18...	115	116	141	<1	--	579	2.4	0.11	0.430	0.02	0.090	0.72	29
DEC													
17...	277	280	341	<1	590	1	0.80	0.16	0.170	0.02	0.070	0.11	26
FEB													
04...	268	269	328	<1	550	15	0.50	0.02	0.490	0.03	0.030	0.08	29
MAR													
28...	205	206	251	<1	--	147	1.6	0.06	0.570	0.05	0.050	0.24	32
JUN													
09...	253	255	311	<1	--	2	0.40	0.04	0.520	0.04	0.090	0.10	20
AUG													
11...	218	224	273	<1	--	9	0.40	0.05	0.120	<0.01	0.060	0.08	12

Date	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)	Arsenic water, fltrd, µg/L (01000)	Beryllium, water, fltrd, µg/L (01010)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recoverable, µg/L (71900)
OCT													
18...	4,300k	86,000	12,400	5	1	<1	<1.0	<1.0	2.4	13	<1	165	<0.1
DEC													
17...	57k	93k	152	<3	1	<1	<1.0	7.9	2.7	85	<1	743	<0.1
FEB													
04...	150	307k	60k	<3	7	<1	<1.0	2.2	3.2	54	<1	945	<0.1
MAR													
28...	4,400k	10,800k	4,600	25	2	<1	<1.0	8.4	4.4	20	<1	432	<0.1
JUN													
09...	520	840	196	3	3	<1	<1.0	4.7	1.6	23	<1	156	<0.1
AUG													
11...	500	960	440	<3	3	<1	<1.0	3.7	1.4	11	<1	204	<0.1

06935980 COWMIRE CREEK AT BRIDGETON, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	1,2-Diphenylhydrazine, water, unfltrd µg/L (82626)	2,4,6-Trichlorophenol, water, unfltrd µg/L (34621)	2,4-Dichlorophenol, water, unfltrd µg/L (34601)	2,4-Dimethylphenol, water, unfltrd µg/L (34606)	2,4-Dinitrophenol, water, unfltrd µg/L (34616)	2,4-Dinitrotoluene water unfltrd µg/L (34611)	2,6-Dinitrotoluene water unfltrd µg/L (34626)	2-Chloronaphthalene, water, unfltrd µg/L (34581)
OCT 18...	2.1	1	<1.0	8	E4n	<1	<3	<2	<2.0	<3	<3	<2	<2
DEC 17...	5.9	2	<1.0	10	--	--	--	--	--	--	--	--	--
FEB 04...	6.1	2	<1.0	10	--	--	--	--	--	--	--	--	--
MAR 28...	5.4	2	<1.0	14	<7	<1	<3	M	<2.0	<3	<3	<2	<2
JUN 09...	5.6	2	<1.0	<2	--	--	--	--	--	--	--	--	--
AUG 11...	4.0	2	<1.0	<2	--	--	--	--	--	--	--	--	--

Date	2-chlorophenol, water, unfltrd µg/L (34586)	2-Methyl-4,6-dinitrophenol, wat unf µg/L (34657)	2-nitrophenol, water unfltrd µg/L (34591)	3,3-Di'chlorobenzidine, water, unfltrd µg/L (34631)	4-Bromophenyl phenyl ether, wat unf µg/L (34636)	4-Chloro-3-methylphenol, wat unf µg/L (34452)	4-Chlorophenyl phenyl ether, wat unf µg/L (34641)	4-Nitrophenol, water, unfltrd µg/L (34646)	9H-Fluorene, water, unfltrd µg/L (34381)	Acenaphthene, water, unfltrd µg/L (34205)	Acenaphthylene, water, unfltrd µg/L (34200)	Aldrin, water, unfltrd µg/L (39330)	alpha-Endosulfan, water, unfltrd µg/L (39388)
OCT 18...	<2	<2	<1	<0.9	<2	<3	<2	<4	M	M	M	<0.01	<0.02
DEC 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 28...	<2	<2	<1	<0.9	<2	<3	<2	E2	M	M	<2	<0.002	<0.002
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Anthracene, water, unfltrd µg/L (34220)	Benzidine, water, unfltrd µg/L (39120)	Benzo-[a]-anthracene, water, unfltrd µg/L (34526)	Benzo-[a]-pyrene, water, unfltrd µg/L (34247)	Benzo-[b]-fluoranthene water unfltrd µg/L (34230)	Benzo-[g,h,i]-perylene, water, unfltrd µg/L (34521)	Benzo-[k]-fluoranthene water unfltrd µg/L (34242)	Benzyl n-butyl phthalate, water, unfltrd µg/L (34292)	Bis(2-chloroethoxy) methane water unfltrd µg/L (34278)	Bis(2-chloroethyl) ether, water, unfltrd µg/L (34273)	Bis(2-chloroisopropyl) ether, wat unf µg/L (34283)	Bis(2-ethylhexyl) phthalate, wat unf µg/L (39100)	Carbophenothion, water, unfltrd µg/L (39786)
OCT 18...	M	<1,000	M	E1	E3	M	M	M	<3	<2	<2	E18	<0.02
DEC 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 28...	M	<1,000	M	M	E2	M	M	<2	<3	<2	<2	E2	<0.02
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

06935980 COWMIRE CREEK AT BRIDGETON, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Chlordane, technical, water, unfltrd µg/L (39350)	Chlorpyrifos water unfltrd µg/L (38932)	Chrysene, water, unfltrd µg/L (34320)	Diazinon, water, unfltrd µg/L (39570)	Dibenzo-[a,h]-anthracene, wat unf µg/L (34556)	Dieldrin, water, unfltrd µg/L (39380)	Diethyl phthalate, water, unfltrd µg/L (34336)	Dimethyl phthalate, water, unfltrd µg/L (34341)	Di-n-butyl phthalate, water, unfltrd µg/L (39110)	Di-n-octyl phthalate, water, unfltrd µg/L (34596)	Disulfoton, water, unfltrd µg/L (39011)	Endrin, water, unfltrd µg/L (39390)	Ethion, water, unfltrd µg/L (39398)
OCT 18...	<0.1	<0.01	E2	0.04	M	E.001	E1	M	M	M	<0.10	<0.02	<0.01
DEC 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 28...	<0.1	<0.01	E1	E.01	M	<0.002	M	M	M	<2	<0.10	<0.002	<0.01
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Fluoranthene water unfltrd µg/L (34376)	Fonofos water unfltrd µg/L (82614)	Heptachlor epoxide water unfltrd µg/L (39420)	Heptachlor, water, unfltrd µg/L (39410)	Hexachlorobenzene water unfltrd µg/L (39700)	Hexachlorocyclopentadiene, wat unf µg/L (34386)	Indeno-[1,2,-3-cd]-pyrene, water, unfltrd µg/L (34403)	Isophorone water unfltrd µg/L (34408)	Lindane water, unfltrd µg/L (39340)	Malathion, water, unfltrd µg/L (39530)	Methyl parathion, water, unfltrd µg/L (39600)	Mirex, water, unfltrd µg/L (39755)	Nitrobenzene water unfltrd µg/L (34447)
OCT 18...	3	<0.01	<0.009	<0.01	M	<1	E1	M	<0.014	E.07	<0.01	<0.012	<1
DEC 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 28...	3	<0.01	<0.003	<0.002	<2	<1	M	M	<0.002	E.01	<0.01	<0.002	<1
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	N-NItroso-di-methyl-amine, wat unf µg/L (34438)	N-NItroso-di-n-propyl-amine, wat unf µg/L (34428)	N-NItroso-di-phenyl-amine, wat unf µg/L (34433)	p,p'-DDD, water, unfltrd µg/L (39360)	p,p'-DDE, water, unfltrd µg/L (39365)	p,p'-DDT, water, unfltrd µg/L (39370)	p,p'-Methoxychlor, water, unfltrd µg/L (39480)	Parathion, water, unfltrd µg/L (39540)	PCBs, water, unfltrd µg/L (39516)	Pentachlorophenol, water, unfltrd µg/L (39032)	Phenanthrene, water, unfltrd µg/L (34461)	Phenol, water, unfltrd µg/L (34694)	Phorate water unfltrd µg/L (39023)
OCT 18...	<3	<2	<2	E.002	E.001	E.002	E.002	<0.01	<0.1	M	E2	E.3	<0.02
DEC 17...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 28...	<3	<2	<2	<0.002	<0.002	<0.002	<0.003	<0.01	<0.1	M	M	E.4	<0.02
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--	--	--	--

06935980 COWMIRE CREEK AT BRIDGETON, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pyrene, water, unfltrd µg/L (34469)	Toxaphene, water, unfltrd µg/L (39400)	Tribuphos, water, unfltrd µg/L (39040)	1,2,4-Trichlorobenzene water unfltrd µg/L (34551)	1,2-Dichlorobenzene water unfltrd µg/L (34536)	1,3-Dichlorobenzene water unfltrd µg/L (34566)	1,4-Dichlorobenzene water unfltrd µg/L (34571)	Hexachlorobutadiene, water, unfltrd µg/L (39702)	Hexachloroethane, water, unfltrd µg/L (34396)	Naphthalene, water, unfltrd µg/L (34696)
OCT										
18...	3	<1	<0.02	<2	<2	M	<1	<1	<2	M
DEC										
17...	--	--	--	--	--	--	--	--	--	--
FEB										
04...	--	--	--	--	--	--	--	--	--	--
MAR										
28...	E2	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
JUN										
09...	--	--	--	--	--	--	--	--	--	--
AUG										
11...	--	--	--	--	--	--	--	--	--	--

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

Value qualifier codes used in this table:
k -- Counts outside acceptable range
n -- Below the LRL and above the LT-MDL

06935997 MILL CREEK NEAR FLORISSANT, MO

LOCATION.--Lat 38°50'54", long 90°17'10", St. Louis County, Hydrologic Unit 10300200, on right downstream wingwall of Old Jamestown Road bridge, 2.50 mi west of U.S. 367 and 67 (Lewis and Clark Blvd.), 2.08 mi north of U.S. Route 67 (Lindbergh Blvd.), and 1.70 mi upstream of the Missouri River.

DRAINAGE AREA.--2.12 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 432.34 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.10	0.23	0.27	0.24	0.48	e1.1	0.67	0.82	1.0	1.0	0.22	e12
2	2.6	0.23	0.28	0.62	0.37	e1.0	0.59	0.56	3.5	0.98	0.72	e5.9
3	7.2	0.62	0.34	0.51	0.34	e0.71	0.56	0.51	3.5	0.85	0.81	e0.90
4	0.77	0.41	0.23	0.42	0.21	e0.72	2.4	5.7	1.5	0.75	0.42	e0.90
5	0.30	1.9	0.30	0.68	0.22	e0.80	0.87	6.9	1.1	0.62	0.24	e0.44
6	0.98	0.46	0.30	0.76	e0.39	e0.62	3.2	2.6	2.6	0.60	0.22	e0.38
7	0.30	0.37	0.27	0.56	e0.43	e0.55	2.5	3.8	1.3	0.60	0.17	e0.35
8	0.24	0.46	0.29	0.48	e0.29	e0.51	0.94	1.8	0.93	0.56	0.16	e0.25
9	0.24	0.58	0.21	0.36	e0.30	e0.48	0.70	1.4	0.78	0.50	0.15	e0.21
10	0.24	0.46	0.20	0.28	e0.40	e0.44	0.57	16	19	2.9	0.14	e0.20
11	0.25	0.33	0.19	0.24	e0.36	e1.0	0.54	3.2	3.3	0.88	0.14	e0.18
12	0.30	0.28	0.27	0.24	e0.32	e2.1	0.54	1.7	1.7	0.72	e0.18	e1.2
13	0.38	0.29	0.34	0.30	e0.30	e4.3	0.48	1.3	16	0.70	e0.17	e0.52
14	0.24	0.42	0.44	0.28	e2.9	1.2	0.44	1.2	1.7	0.62	e0.18	e0.34
15	0.21	1.0	0.37	0.26	e3.6	0.92	0.36	1.1	1.1	0.58	e0.18	e0.30
16	0.20	0.39	0.30	0.30	e1.1	0.77	4.6	1.0	0.93	0.51	e0.18	e0.25
17	0.17	0.33	0.44	0.24	e0.82	0.64	4.6	1.8	0.82	0.40	e0.17	e0.25
18	0.38	0.34	13	0.25	e1.7	0.65	1.0	1.4	0.76	1.5	e0.17	e0.25
19	1.4	0.34	0.92	0.31	e4.2	4.7	0.77	1.0	2.0	0.82	e0.16	e0.27
20	0.23	0.33	0.44	0.33	e1.6	4.5	2.3	1.2	1.0	0.58	e0.16	e0.27
21	0.20	0.32	0.34	0.30	e1.1	1.7	0.73	0.81	0.94	0.50	e0.17	e0.28
22	0.17	0.33	0.27	0.22	e1.8	1.1	0.57	0.81	0.75	0.57	e0.17	e0.31
23	0.18	0.32	0.24	0.20	e0.95	0.86	0.47	0.87	0.79	0.46	e0.17	e0.32
24	0.22	0.24	0.25	0.21	e1.3	0.79	4.5	1.2	0.76	0.34	e0.18	e0.35
25	3.7	0.29	0.36	0.25	e0.95	0.76	5.6	8.3	11	0.30	e0.17	e0.43
26	0.29	0.24	0.27	0.28	e0.71	0.66	1.8	1.5	72	0.29	e0.33	e3.3
27	0.24	0.24	0.27	0.28	e0.76	0.70	0.91	1.1	1.8	0.26	e0.24	e1.3
28	0.24	0.22	0.37	0.35	e0.94	1.7	1.8	0.94	1.4	0.55	e0.16	e0.38
29	3.9	0.28	0.48	0.33	---	0.84	1.0	0.74	1.2	0.32	e0.19	e0.26
30	0.45	0.28	0.41	0.31	---	0.65	0.83	2.1	1.1	0.25	e0.47	e0.48
31	0.29	---	0.45	0.94	---	0.65	---	1.2	---	0.23	e3.3	---
MEAN	0.86	0.42	0.75	0.37	1.03	1.23	1.56	2.41	5.21	0.67	0.34	1.09
MAX	7.2	1.9	13	0.94	4.2	4.7	5.6	16	72	2.9	3.3	12
MIN	0.10	0.22	0.19	0.20	0.21	0.44	0.36	0.51	0.75	0.23	0.14	0.18
IN.	0.47	0.22	0.41	0.20	0.51	0.67	0.82	1.31	2.74	0.36	0.18	0.58

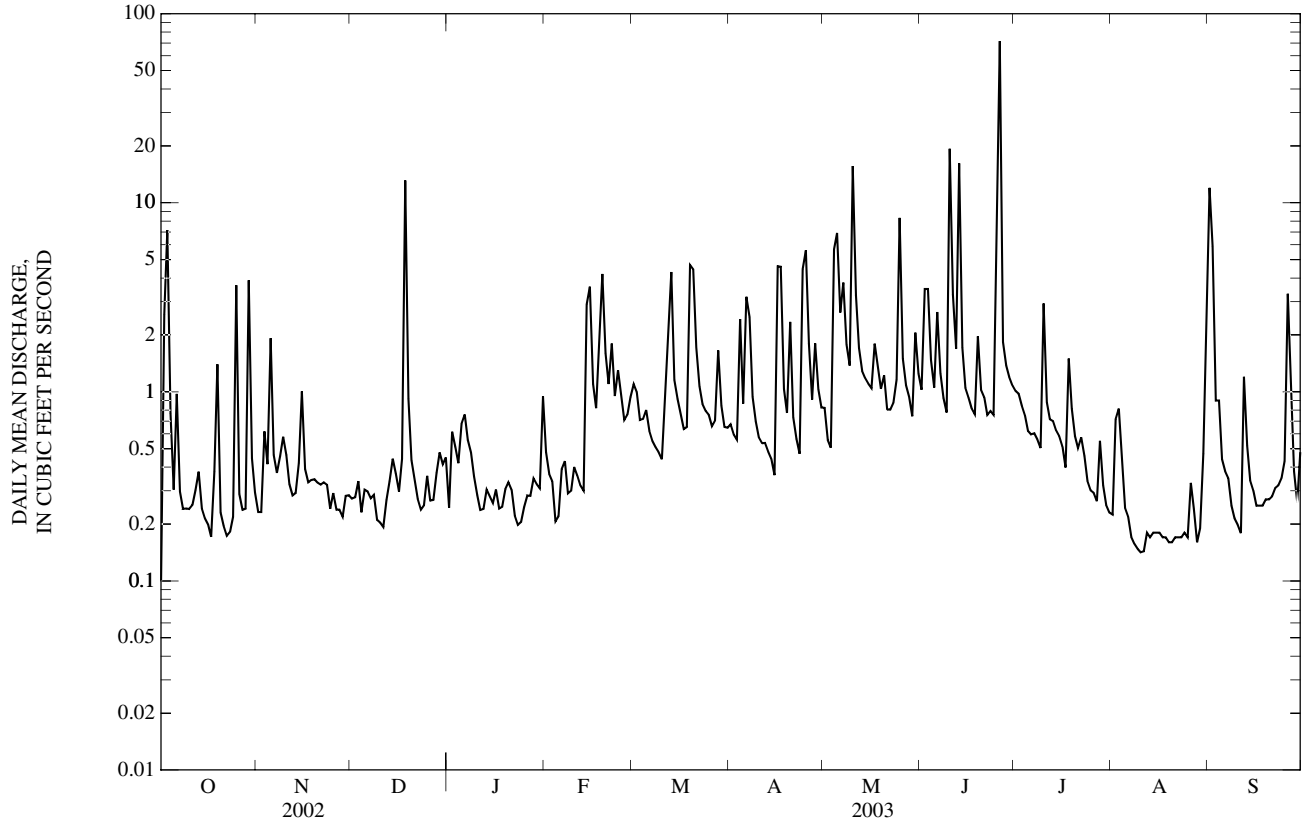
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	1.14	0.91	0.75	1.40	2.29	1.73	2.31	4.50	3.23	1.26	0.98	0.80
MAX	3.05	2.34	1.83	3.70	6.73	4.56	5.02	11.3	5.92	3.28	1.72	1.11
(WY)	(2001)	(2002)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(1998)	(1998)	(1998)	(2002)
MIN	0.24	0.32	0.42	0.30	1.03	0.57	0.52	0.46	0.72	0.47	0.34	0.33
(WY)	(1998)	(2000)	(2001)	(2000)	(2003)	(2000)	(2000)	(2001)	(2001)	(2002)	(2003)	(1998)

06935997 MILL CREEK NEAR FLORISSANT, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	2.06		1.32		1.77	
HIGHEST ANNUAL MEAN					2.65	1998
LOWEST ANNUAL MEAN					1.18	2001
HIGHEST DAILY MEAN	176	May 12	72	Jun 26	215	Jun 11, 1999
LOWEST DAILY MEAN	0.10	Sep 10	0.10	Oct 1	0.03	Aug 1,6-8, 2001
ANNUAL SEVEN-DAY MINIMUM	0.10	Sep 25	0.16	Aug 7	0.05	Jul 26, 2001
MAXIMUM PEAK FLOW	---		827[a]	Jun 26	Unknown	Jun 11, 1999
MAXIMUM PEAK STAGE	---		6.34	Jun 26	10.53	Jun 11, 1999
INSTANTANEOUS LOW FLOW	---		0.08	Oct 1,2	0.02	Aug 6,8, 2001
ANNUAL RUNOFF (INCHES)	13.19		8.46		11.37	
10 PERCENT EXCEEDS	2.4		2.5		2.5	
50 PERCENT EXCEEDS	0.50		0.50		0.46	
90 PERCENT EXCEEDS	0.20		0.21		0.16	

e Estimated
[a] From rating extended above 80.2 ft^3/s on basis of indirect measurement of peak flow.



06936475 COLDWATER CREEK NEAR BLACK JACK, MO

LOCATION.--Lat 38°49'04", long 90°15'04", in NE ¼ SE ¼ NW ¼ sec.17, T.47 N., R.7 E., St. Louis County, Hydrologic Unit 10300200, on right downstream abutment of Old Jamestown Road bridge, 0.36 mi south of U.S. Route 67 (Lindbergh Blvd.), 1.1 mi west of Highway 367 (Lewis and Clark Blvd.), and 3.8 mi upstream of the Missouri River.

DRAINAGE AREA.--40.4 mi^2.

WATER-DISCHARGE RECORDS

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

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

REMARKS.--Water-discharge records fair except for estimated daily discharges and discharges below 5 ft^3/s, which are poor.

REVISIONS.--Revised maximum discharges for water years 1997-2002 and revised daily discharges for high-water periods in these years, are given below. They supersede figures published in the reports of 1998-2002.

Water Year	Date	Maximum Discharge (ft^3/s)	Gage height (ft)	Water Year	Date	Maximum Discharge (ft^3/s)	Gage height (ft)
1997	Nov. 6, 1996	2,990[a]	7.77	2000	May 7, 2000	6,360[a]	11.46
1998	July 30,1998	5,600[a]	10.74	2001	April 11, 2001	5,530[a]	10.67
1999	Feb. 7, 1999	6,190[a]	11.30	2002	June 12, 2002	3,960[a]	9.02

Water Year	Daily Mean Date	Daily Mean Discharge	Date	Discharge	Monthly Mean Discharge	
1998	July 30, 1998	1320	Aug. 18, 1998	583	July -- 78.3	Aug. -- 37.2
1999	Jan. 31, 1999	1,060	Feb. 7, 1999	2,240	Jan. -- 64.3	Feb. -- 109
	June 12, 1999	921	July 1, 1999	668	June -- 76.0	July -- 46.3
2000	Feb. 18, 2000	1,010	May 7, 2000	1,680	Feb. -- 44.5	May -- 91.7
	June 24, 2000	1,480			June -- 93.6	
2001	April 10, 2001	407	April 11, 2001	581	April -- 51.3	
2002	May 12, 2002	1,030	May 13, 2002	834	May -- 167	
	June 11, 2002	709	June 12, 2002	1,070	June -- 86.0	
	Aug. 6, 2002	637			Aug. -- 35.5	

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	7.4	3.6	11	13	21	8.5	27	9.2	39	5.2	801
2	74	9.6	4.1	24	6.8	21	7.8	20	52	22	12	107
3	472	37	4.2	24	6.3	13	7.8	16	91	21	80	25
4	36	12	4.4	14	6.8	13	19	220	14	11	25	13
5	9.7	69	7.5	17	5.2	15	13	170	10	9.6	4.9	12
6	34	16	9.7	21	e6.6	12	72	35	53	8.4	17	9.5
7	8.8	8.3	6.1	13	e6.6	10	50	171	19	8.1	5.7	5.8
8	3.1	5.6	7.3	11	e5.9	9.8	15	30	9.9	7.2	8.3	3.7
9	2.3	5.9	4.5	10	5.5	8.8	12	23	8.0	6.9	4.2	3.4
10	1.9	8.5	3.9	7.4	7.3	7.6	8.9	389	979	316	3.1	3.9
11	1.6	8.0	4.0	6.0	8.0	8.4	8.4	45	442	14	2.7	3.6
12	1.8	6.9	4.4	5.1	5.9	89	7.6	24	230	8.7	2.6	34
13	12	6.5	4.5	5.0	5.1	265	6.8	19	888	7.2	3.0	13
14	2.9	7.2	5.6	5.2	109	19	6.8	17	45	7.2	3.1	4.7
15	1.4	64	4.2	4.6	98	14	7.0	19	29	7.9	3.2	3.6
16	1.2	8.6	3.7	4.8	19	12	162	15	22	6.9	2.6	3.1
17	1.2	5.2	3.8	4.8	14	10	222	27	21	7.0	2.6	2.9
18	1.8	4.3	407	4.5	39	11	20	16	17	135	2.3	2.8
19	89	4.4	25	4.2	114	186	16	13	98	30	2.5	2.8
20	5.3	4.7	11	4.2	29	159	122	20	20	8.6	2.1	2.8
21	2.3	4.8	7.0	11	18	36	17	12	14	6.1	2.6	2.6
22	2.1	4.5	5.4	e7.7	38	18	14	10	11	6.2	2.9	4.2
23	1.7	4.4	4.9	e5.8	19	15	12	10	10	17	3.0	3.8
24	1.6	4.4	5.3	e4.3	26	13	241	15	11	5.3	2.8	2.8
25	187	6.8	5.7	e8.8	19	13	170	299	54	5.3	2.4	2.9
26	14	6.2	8.9	e13	13	12	40	18	2,450	4.8	3.0	186
27	7.2	4.9	11	e15	13	9.8	21	13	42	5.0	9.1	110
28	5.4	4.8	18	e8.6	21	49	73	11	24	22	8.6	10
29	200	4.7	22	9.0	---	18	114	10	18	8.3	5.7	5.1
30	17	3.9	20	7.1	---	9.4	77	44	326	5.1	18	5.1
31	13	---	35	37	---	8.2	---	16	---	5.0	249	---
MEAN	39.1	11.6	21.7	10.6	24.2	35.7	52.4	57.2	201	24.9	16.1	46.3
MAX	472	69	407	37	114	265	241	389	2,450	316	249	801
MIN	1.2	3.9	3.6	4.2	5.1	7.6	6.8	10	8.0	4.8	2.1	2.6
IN.	1.12	0.32	0.62	0.30	0.62	1.02	1.45	1.63	5.54	0.71	0.46	1.28

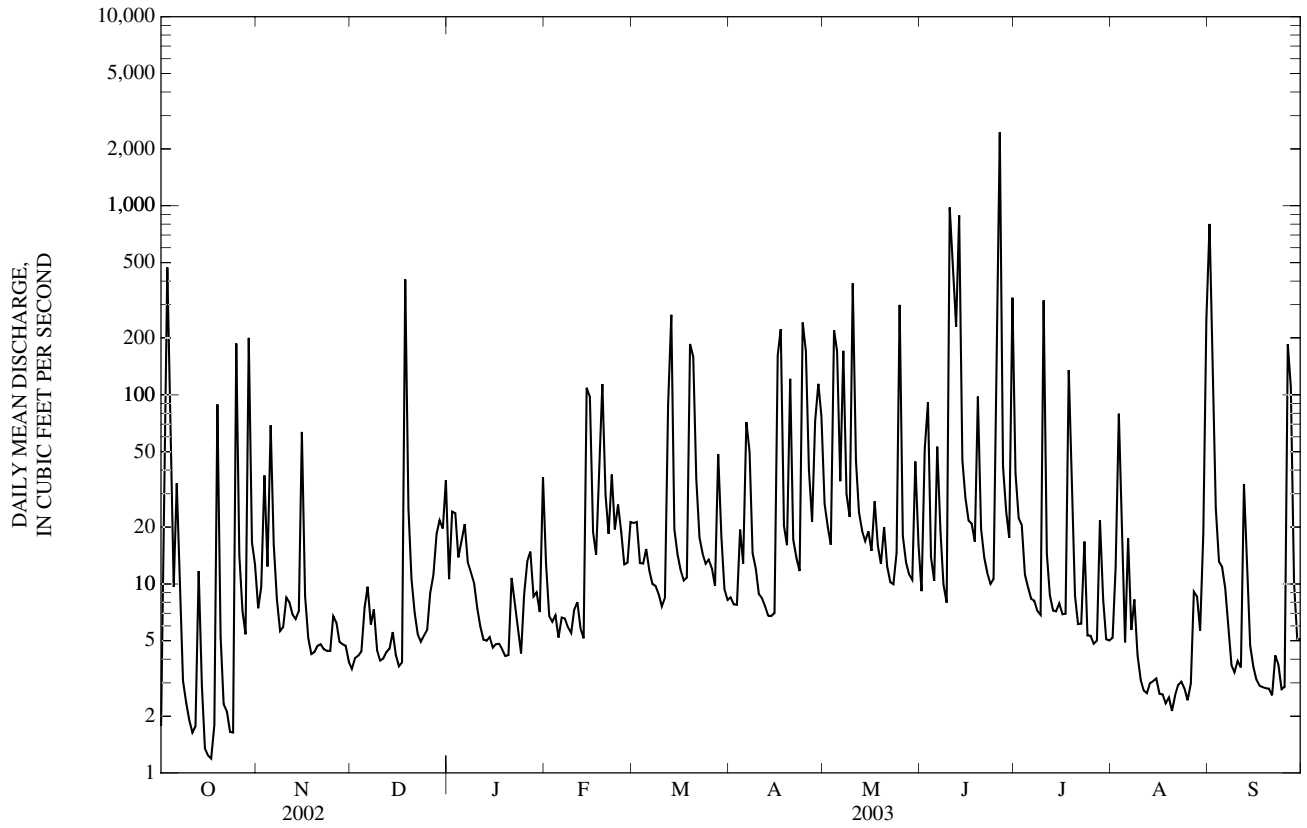
06936475 COLDWATER CREEK NEAR BLACK JACK, MO—Continued

DISCHARGE, CUBIC FEET PER SECOND WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)												
MEAN	32.1	34.1	21.2	35.3	65.8	46.0	52.3	75.2	98.6	39.3	27.5	23.7
MAX	60.6	95.6	57.6	79.3	173	118	82.3	185	201	109	44.5	46.3
(WY)	(2002)	(1997)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(2003)	(1998)	(1998)	(2003)
MIN	14.8	7.37	8.59	8.25	18.6	14.9	17.3	27.0	23.2	10.6	16.1	6.60
(WY)	(2000)	(2000)	(1999)	(2000)	(2002)	(2000)	(2000)	(2001)	(1997)	(2002)	(2003)	(1999)

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL MEAN	52.1		44.8		45.8	
HIGHEST ANNUAL MEAN					59.7	2002
LOWEST ANNUAL MEAN					30.3	2001
HIGHEST DAILY MEAN	1,470	Jun 12	2,450	Jun 26	2,450	Jun 26, 2003
LOWEST DAILY MEAN	1.2	Oct 16	1.2	Oct 16	1.2	Oct 16, 2002
ANNUAL SEVEN-DAY MINIMUM	1.8	Sep 4	2.5	Aug 16	1.8	Sep 4, 2002
MAXIMUM PEAK FLOW	---		7,670[b]	Jun 26	7,670[b]	Jun 26, 2003
MAXIMUM PEAK STAGE	---		12.59	Jun 26	12.59	Jun 26, 2003
INSTANTANEOUS LOW FLOW	---		0.82	Oct 18	0.75	Sep 29, 1997
ANNUAL RUNOFF (INCHES)	17.52		15.07		15.41	
10 PERCENT EXCEEDS	74		90		86	
50 PERCENT EXCEEDS	9.2		9.9		8.6	
90 PERCENT EXCEEDS	2.7		3.1		3.1	

e Estimated
[a] From rating extended above 1,250 ft^3/s, on basis of indirect measurement of peak flow.
[b] Discharge determined by indirect measurement of peak flow.



06936475 COLDWATER CREEK NEAR BLACK JACK, MO—Continued
(Metropolitan St. Louis Sewer District Network)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Carbon dioxide water, unfltrd mg/L (00405)	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)
OCT												
29...	0714	Environmental	641	3.8	7.6	71	7.7	423	11.4	130	35.0	11.0
29...	0715	Replicate	--	--	--	--	--	--	--	130	34.0	11.0
DEC												
16...	1530	Environmental	3.6	11	6.5	50	7.8	3,510	3.1	400	104	34.0
FEB												
03...	1645	Environmental	6.3	7.9	4.9	36	7.5	1,520	1.5	190	46.0	18.0
MAR												
19...	1247	Environmental	761	3.9	5.0	49	7.7	619	13.1	120	32.0	10.0
JUN												
09...	1200	Blank	--	--	--	--	--	--	--	--	0.03	<0.03
09...	1215	Environmental	7.9	7.2	5.9	70	7.5	520	22.6	160	41.0	13.0
AUG												
11...	1520	Environmental	2.7	3.7	8.4	109	7.8	596	27.5	200	52.0	16.0

Date	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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, unfltrd mg/L as N (00610)	Nitrite + nitrate water unfltrd mg/L as N (00630)	Nitrite water, unfltrd mg/L as N (00615)	Orthophosphate, water, unfltrd mg/L as P (70507)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)
OCT													
29...	95	94	115	<1	--	409	1.4	0.01	0.800	0.02	0.180	0.54	16
29...	--	--	--	--	--	386	1.3	<0.01	0.790	0.02	0.180	0.53	15
DEC													
16...	376	440	537	<1	1,400	12	4.4	0.58	<0.020	<0.01	0.040	0.06	530
FEB													
03...	124	124	152	<1	550	20	2.1	0.59	0.530	0.10	0.030	0.14	50
MAR													
19...	104	108	131	<1	--	611	2.9	0.26	0.740	0.09	0.060	0.68	33
JUN													
09...	--	--	--	--	--	<1	<0.20	<0.01	<0.020	<0.01	<0.010	<0.02	<5
09...	112	111	135	<1	--	5	0.50	0.11	0.870	0.08	0.100	0.13	18
AUG													
11...	121	123	150	<1	--	9	0.70	0.03	0.510	0.03	0.060	0.10	20

Date	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)	Arsenic water, fltrd, µg/L (01000)	Beryllium, water, fltrd, µg/L (01010)	Cadmium water, fltrd, µg/L (01025)	Chromium, water, fltrd, µg/L (01030)	Copper, water, fltrd, µg/L (01040)	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Manganese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recoverable, µg/L (71900)
OCT													
29...	5,400	38,000	7,600	5	<1	<1	<1.0	<1.0	1.5	41	<1	107	<0.1
29...	--	--	--	4	<1	<1	<1.0	<1.0	1.6	44	<1	113	<0.1
DEC													
16...	2k	2k	2k	<3	2	<1	<1.0	5.2	3.3	93	<1	1,880	<0.1
FEB													
03...	140	320	300	<3	<1	<1	<1.0	1.8	3.0	47	<1	459	<0.1
MAR													
19...	5,800	10,500	10,100	4	2	<1	<1.0	1.8	1.8	39	<1	251	<0.1
JUN													
09...				<3	<1	<1	<1.0	<1.0	<1.0	<2	<1	<1	<0.1
09...	48	64	52	5	2	<1	<1.0	2.5	3.0	20	<1	102	<0.1
AUG													
11...	76	118	230	3	3	<1	<1.0	2.4	1.4	4	<1	254	<0.1

06936475 COLDWATER CREEK NEAR BLACK JACK, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)	Oil and grease, water, unfltrd freon extract mg/L (00556)	1,2-Diphenylhydrazine, water, unfltrd µg/L (82626)	2,4,6-Trichlorophenol, water, unfltrd µg/L (34621)	2,4-Dichlorophenol, water, unfltrd µg/L (34601)	2,4-Dimethylphenol, water, unfltrd µg/L (34606)	2,4-Dinitrophenol, water, unfltrd µg/L (34616)	2,4-Dinitrotoluene water unfltrd µg/L (34611)	2,6-Dinitrotoluene water unfltrd µg/L (34626)	2-Chloronaphthalene, water, unfltrd µg/L (34581)
OCT													
29...	1.8	4	<1.0	4	<7	<1	<3	<2	<2.0	<3	<3	<2	<2
29...	1.7	3	<1.0	5	<7	<1	<3	<2	<2.0	<3	<3	<2	<2
DEC													
16...	4.8	1	<1.0	16	--	--	--	--	--	--	--	--	--
FEB													
03...	5.6	2	<1.0	20	--	--	--	--	--	--	--	--	--
MAR													
19...	2.8	1	<1.0	8	<7	<1	M	M	<2.0	E2	<3	<2	<2
JUN													
09...	<1.0	<1	<1.0	<2	--	--	--	--	--	--	--	--	--
09...	3.4	1	<1.0	10	--	--	--	--	--	--	--	--	--
AUG													
11...	3.2	2	<1.0	<2	--	--	--	--	--	--	--	--	--

Date	2-chlorophenol, water, unfltrd µg/L (34586)	2-Methyl-4,6-dinitrophenol, wat unf µg/L (34657)	2-nitrophenol, water unfltrd µg/L (34591)	3,3-Di'chlorobenzidine, water, unfltrd µg/L (34631)	4-Bromophenyl phenyl ether, wat unf µg/L (34636)	4-Chloro-3-methylphenol, wat unf µg/L (34452)	4-Chlorophenyl phenyl ether, wat unf µg/L (34641)	4-Nitrophenol, water, unfltrd µg/L (34646)	9H-Fluorene, water, unfltrd µg/L (34381)	Acenaphthene, water, unfltrd µg/L (34205)	Acenaphthylene, water, unfltrd µg/L (34200)	Aldrin, water, unfltrd µg/L (39330)	alpha-Endosulfan, water, unfltrd µg/L (39388)
OCT													
29...	<2	<2	<1	<0.9	<2	<3	<2	<4	M	M	M	<0.01	<0.02
29...	<2	<2	<1	<0.9	<2	<3	<2	<4	M	M	M	<0.01	<0.02
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
19...	<2	M	<1	<0.9	<2	<3	<2	E1	M	M	M	<0.01	<0.02
JUN													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Anthracene, water, unfltrd µg/L (34220)	Benzidine, water, unfltrd µg/L (39120)	Benzo-[a]-anthracene, water, unfltrd µg/L (34526)	Benzo-[a]-pyrene, water, unfltrd µg/L (34247)	Benzo-[b]-fluoranthene water unfltrd µg/L (34230)	Benzo-[g,h,i]-perylene, water, unfltrd µg/L (34521)	Benzo-[k]-fluoranthene water unfltrd µg/L (34242)	Benzyl n-butyl phthalate, water, unfltrd µg/L (34292)	Bis(2-chloroethoxy) methane water unfltrd µg/L (34278)	Bis(2-chloroethyl) ether, water, unfltrd µg/L (34273)	Bis(2-chloroisopropyl) ether, wat unf µg/L (34283)	Bis(2-ethylhexyl) phthalate, wat unf µg/L (39100)	Carbophenothion, water, unfltrd µg/L (39786)
OCT													
29...	M	<1,000	M	M	E1	M	M	E4	<3	<2	<2	E6	<0.02
29...	M	<1,000	M	M	E1	M	M	<2	<3	<2	<2	<2	<0.02
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
19...	M	<1,000	M	E1	E2	E1	M	<2	<3	<2	<2	<4	<0.02
JUN													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

06936475 COLDWATER CREEK NEAR BLACK JACK, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Chlordane, technical, water, unfltrd µg/L (39350)	Chlorpyrifos water unfltrd µg/L (38932)	Chrysene, water, unfltrd µg/L (34320)	Diazinon, water, unfltrd µg/L (39570)	Dibenzo-[a,h]-anthracene, wat unf µg/L (34556)	Dieldrin, water, unfltrd µg/L (39380)	Diethyl phthalate, water, unfltrd µg/L (34336)	Dimethyl phthalate, water, unfltrd µg/L (34341)	Di-n-butyl phthalate, water, unfltrd µg/L (39110)	Di-n-octyl phthalate, water, unfltrd µg/L (34596)	Disulfoton, water, unfltrd µg/L (39011)	Endrin, water, unfltrd µg/L (39390)	Ethion, water, unfltrd µg/L (39398)
OCT													
29...	<0.1	<0.01	M	0.06	M	E.002	<2	<1	<2	<2	<0.10	<0.02	<0.01
29...	<0.1	<0.01	M	0.05	M	E.001	<2	M	<2	<2	<0.10	<0.02	<0.01
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
19...	<0.1	<0.01	E2	0.09	M	<0.017	M	M	M	<2	<0.10	<0.02	<0.01
JUN													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Fluoranthene water unfltrd µg/L (34376)	Fonofos water unfltrd µg/L (82614)	Heptachlor epoxide water unfltrd µg/L (39420)	Heptachlor, water, unfltrd µg/L (39410)	Hexachlorobenzene water unfltrd µg/L (39700)	Hexachlorocyclopentadiene, wat unf µg/L (34386)	Indeno-[1,2,-3-cd]-pyrene, water, unfltrd µg/L (34403)	Isophorone water unfltrd µg/L (34408)	Lindane water, unfltrd µg/L (39340)	Malathion, water, unfltrd µg/L (39530)	Methyl parathion, water, unfltrd µg/L (39600)	Mirex, water, unfltrd µg/L (39755)	Nitrobenzene water unfltrd µg/L (34447)
OCT													
29...	E1	<0.01	<0.009	<0.01	<2	<1	M	M	E.001	E.07	<0.01	<0.012	<1
29...	E1	<0.01	<0.009	<0.01	<2	<1	M	M	E.001	E.06	<0.01	<0.012	<1
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
19...	4	<0.01	<0.009	<0.01	<2	<1	E1	M	<0.014	<0.10	<0.02	<0.012	<1
JUN													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	N-NItroso-di-methyl-amine, wat unf µg/L (34438)	N-NItroso-di-n-propyl-amine, wat unf µg/L (34428)	N-NItroso-di-phenyl-amine, wat unf µg/L (34433)	p,p'-DDD, water, unfltrd µg/L (39360)	p,p'-DDE, water, unfltrd µg/L (39365)	p,p'-DDT, water, unfltrd µg/L (39370)	p,p'-Methoxychlor, water, unfltrd µg/L (39480)	Parathion, water, unfltrd µg/L (39540)	PCBs, water, unfltrd µg/L (39516)	Pentachlorophenol, water, unfltrd µg/L (39032)	Phenanthrene, water, unfltrd µg/L (34461)	Phenol, water, unfltrd µg/L (34694)	Phorate water unfltrd µg/L (39023)
OCT													
29...	<3	<2	<2	E.002	E.001	E.002	<0.020	<0.01	<0.1	M	M	<3.0	<0.02
29...	<3	<2	<2	E.002	E.001	<0.009	<0.020	<0.01	<0.1	M	M	<3.0	<0.02
DEC													
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB													
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR													
19...	<3	<2	M	<0.016	<0.014	<0.009	<0.020	<0.01	<0.1	M	E2	E.3	<0.02
JUN													
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG													
11...	--	--	--	--	--	--	--	--	--	--	--	--	--

06936475 COLDWATER CREEK NEAR BLACK JACK, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Date	Pyrene, water, unfltrd µg/L (34469)	Toxaphene, water, unfltrd µg/L (39400)	Tribuphos, water, unfltrd µg/L (39040)	1,2,4-Trichlorobenzene water unfltrd µg/L (34551)	1,2-Dichlorobenzene water unfltrd µg/L (34536)	1,3-Dichlorobenzene water unfltrd µg/L (34566)	1,4-Dichlorobenzene water unfltrd µg/L (34571)	Hexachlorobutadiene, water, unfltrd µg/L (39702)	Hexachloroethane, water, unfltrd µg/L (34396)	Naphthalene, water, unfltrd µg/L (34696)
OCT										
29...	E1	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
29...	E1	<1	<0.02	<2	<2	<2	<1	<1	<2	M
DEC										
16...	--	--	--	--	--	--	--	--	--	--
FEB										
03...	--	--	--	--	--	--	--	--	--	--
MAR										
19...	3	<1	<0.02	<2	<2	<2	<1	<1	<2	M
JUN										
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
AUG										
11...	--	--	--	--	--	--	--	--	--	--

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

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

06936530 SPANISH LAKE TRIBUTARY NEAR BLACK JACK, MO

LOCATION.--Lat 38°48'04", long 90°12'59", in SE ¼ SE ¼ NW ¼ sec.22, T.47 N., R.7 E., St. Louis County, Hydrologic Unit 10300200, on left downstream wingwall of Bellefontaine Ave. bridge, 2.14 mi north of Interstate 270, 0.65 mi east of Highway 367 (Lewis and Clark Blvd.), and 1.9 mi upstream of the Missouri River.

DRAINAGE AREA.--0.25 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 502.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	e0.14	0.00	0.19	e0.28	e0.37	e0.25	0.17	0.08	0.05	0.00	15
2	0.88	e0.11	0.00	e0.29	e0.16	e0.29	e0.14	0.18	1.1	0.04	0.58	1.7
3	2.4	e0.36	0.00	e0.23	e0.11	e0.16	e0.11	0.15	0.58	0.02	0.12	0.18
4	0.89	e0.25	0.00	e0.18	e0.05	e0.18	e1.1	e2.4	0.18	0.01	0.01	0.07
5	0.18	e0.74	0.03	e0.27	e0.08	e0.25	e0.22	e3.6	0.10	0.01	0.01	0.04
6	0.41	e0.23	0.06	e0.50	e0.16	e0.21	e1.4	e0.72	0.46	0.00	0.02	0.02
7	0.15	e0.09	0.02	e0.32	e0.14	e0.17	e0.72	e1.6	0.16	0.00	0.01	0.01
8	0.10	e0.10	0.03	e0.23	e0.06	0.14	e0.38	e0.55	0.09	0.00	0.00	0.01
9	0.05	e0.21	0.02	0.18	e0.04	0.12	e0.22	e0.26	0.05	0.00	0.00	0.01
10	0.00	e0.09	0.01	0.12	e0.09	0.11	0.12	e7.2	12	1.1	0.00	0.01
11	0.00	0.01	0.01	0.10	e0.08	e0.20	0.11	e1.6	5.4	0.02	0.00	0.00
12	0.00	0.00	0.02	e0.07	0.06	e0.58	0.09	e0.58	4.0	0.00	0.00	0.21
13	0.04	0.00	e0.04	e0.14	0.05	e1.4	0.07	e0.31	3.3	0.00	0.00	0.04
14	0.00	0.03	e0.09	e0.03	e0.37	e0.58	0.07	e0.21	0.27	0.00	0.00	0.01
15	0.00	e0.34	e0.03	e0.02	e1.4	0.39	0.06	e0.14	0.16	0.00	0.00	0.01
16	0.00	0.12	0.01	e0.06	e0.43	0.30	e0.12	e0.04	0.11	0.00	0.00	0.00
17	0.00	0.04	0.01	e0.02	e0.19	0.23	e3.3	e0.58	0.09	0.00	0.00	0.00
18	0.08	0.02	e5.7	e0.00	e0.54	0.19	e0.43	e0.28	0.07	1.7	0.00	0.00
19	0.56	0.02	e0.77	e0.03	e1.9	2.6	e0.17	e0.12	0.15	0.12	0.00	0.00
20	0.08	0.01	0.20	e0.10	e0.70	1.1	e1.1	e0.25	0.06	0.04	0.00	0.00
21	0.03	0.01	0.15	e0.04	e0.41	0.45	0.21	e0.10	0.04	0.01	0.00	0.00
22	0.01	e0.00	0.11	e0.01	e0.76	0.30	0.18	e0.04	0.03	0.01	0.00	0.00
23	0.00	e0.00	0.09	e0.00	e0.31	0.25	0.13	e0.08	0.01	0.02	0.00	0.00
24	0.05	e0.00	0.09	e0.01	e0.48	0.22	e2.1	e0.14	0.02	0.01	0.00	0.00
25	e1.2	0.03	0.10	e0.02	e0.32	0.21	e2.8	e3.6	2.4	0.01	0.00	0.00
26	0.24	0.02	0.10	e0.08	e0.22	0.17	e0.48	e0.38	14	0.00	0.00	0.95
27	0.12	0.01	0.14	e0.06	e0.29	0.16	e0.16	e0.18	0.20	0.00	0.00	0.17
28	0.16	0.01	0.19	e0.11	e0.35	e0.69	e0.58	e0.13	0.11	0.13	0.00	0.01
29	e1.4	0.02	0.21	e0.08	---	e0.32	e0.26	e0.11	0.06	0.01	0.00	0.01
30	e0.38	0.01	0.22	e0.06	---	e0.19	0.16	e0.73	0.06	0.00	0.00	0.02
31	e0.20	---	0.27	e0.51	---	e0.19	---	0.12	---	0.00	1.4	---
MEAN	0.31	0.10	0.28	0.13	0.36	0.41	0.57	0.86	1.51	0.11	0.069	0.62
MAX	2.4	0.74	5.7	0.51	1.9	2.6	3.3	7.2	14	1.7	1.4	15
MIN	0.00	0.00	0.00	0.00	0.04	0.11	0.06	0.04	0.01	0.00	0.00	0.00
IN.	1.43	0.45	1.30	0.60	1.49	1.89	2.57	3.95	6.75	0.49	0.32	2.75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	0.23	0.23	0.28	0.39	0.58	0.56	0.49	0.78	0.67	0.51	0.16	0.17
MAX	0.45	0.43	0.70	0.80	1.81	1.28	0.74	2.01	1.51	1.25	0.26	0.62
(WY)	(2001)	(1999)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(2003)	(1998)	(1998)	(2003)
MIN	0.06	0.02	0.13	0.13	0.18	0.23	0.12	0.14	0.18	0.00	0.07	0.00
(WY)	(2000)	(2000)	(1999)	(2003)	(2002)	(2001)	(2000)	(2001)	(2001)	(2002)	(2003)	(1999)

06936530 SPANISH LAKE TRIBUTARY NEAR BLACK JACK, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	0.42		0.44		0.42	
HIGHEST ANNUAL MEAN					0.54	1998
LOWEST ANNUAL MEAN					0.28	2001
HIGHEST DAILY MEAN	15	May 12	15	Sep 1	31	Jul 30, 1998
LOWEST DAILY MEAN	0.00	Jun 24	0.00	Many Days	0.00	Each Year
ANNUAL SEVEN-DAY MINIMUM	0.00	At TImes	0.00	Aug 8,Sep 16	0.00	At TImes
MAXIMUM PEAK FLOW	---		180	Jun 10	Unknown	Jul 30, 1998
MAXIMUM PEAK STAGE	---		3.83	Jun 10	5.39	Jul 30, 1998
INSTANTANEOUS LOW FLOW	---		0.00	Many Days	0.00	Each Year
ANNUAL RUNOFF (INCHES)	22.72		23.99		22.93	
10 PERCENT EXCEEDS	0.92		0.81		0.86	
50 PERCENT EXCEEDS	0.10		0.10		0.09	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated