

## LOWER MISSISSIPPI RIVER BASIN

07001985 WATKINS CREEK AT BELLEFONTAINE NEIGHBORS, MO

LOCATION.--Lat 38°45'44", long 90°11'48", St. Louis County, Hydrologic Unit 07140101, on left downstream wingwall of Fry Lane bridge, 0.34 mi south of Interstate 270, 2.34 mi east of Highway 367 (Lewis and Clark Blvd.), and 1.76 mi upstream of Mississippi River.

DRAINAGE AREA.--5.19 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 431.94 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except for estimated daily discharges and discharges below 1 ft<sup>3</sup>/s and above 800 ft<sup>3</sup>/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	0.15	0.55	0.48	1.0	1.3	3.1	1.2	2.6	1.0	1.4	0.41	99
2	7.6	0.50	0.57	3.4	e1.2	2.6	1.00	1.9	11	1.2	3.2	30
3	35	3.3	0.65	2.4	e1.4	1.6	1.0	1.5	7.7	1.2	2.5	1.9
4	7.9	1.1	0.82	1.2	0.98	1.7	1.3	26	2.0	1.1	1.6	2.3
5	0.85	7.5	1.3	1.8	0.47	1.9	1.1	23	1.3	1.0	0.41	0.77
6	3.1	1.4	1.2	2.0	0.72	1.3	7.8	14	5.8	0.94	0.28	0.66
7	0.70	0.66	0.58	1.3	e0.80	1.1	5.3	16	2.0	0.91	0.39	0.60
8	0.32	0.58	0.69	4.3	e0.45	1.0	1.5	7.3	0.97	0.88	0.51	0.38
9	0.26	0.49	0.38	0.98	0.50	0.95	1.0	4.2	0.60	0.91	0.32	0.35
10	0.22	0.45	0.36	0.65	0.75	0.82	0.83	73	e149	16	0.24	0.35
11	0.21	0.47	0.35	0.57	0.62	2.8	0.81	7.1	43	1.1	0.21	0.33
12	0.29	0.46	0.50	0.48	0.54	8.2	0.75	3.9	47	0.75	0.24	3.8
13	0.78	0.54	0.48	0.56	0.49	22	0.71	2.9	23	0.66	0.23	0.98
14	0.38	1.7	0.53	0.56	15	3.0	0.68	2.5	4.6	0.63	0.24	0.56
15	0.27	5.4	0.35	0.45	16	2.1	0.58	2.3	3.0	0.62	0.24	0.49
16	0.23	2.1	0.31	0.56	e2.6	1.7	20	2.0	2.1	1.5	0.24	0.37
17	0.22	0.56	0.33	0.47	e2.0	1.5	27	2.9	1.7	0.52	0.22	0.38
18	1.9	0.48	32	0.43	6.0	1.4	2.3	2.3	1.3	24	0.22	0.38
19	6.6	0.49	2.4	1.1	21	26	1.6	1.8	4.6	1.9	0.21	0.43
20	0.49	0.47	0.88	1.8	4.8	12	24	1.8	1.3	1.0	0.20	0.43
21	0.27	0.53	0.62	e0.47	2.8	5.0	2.4	1.0	0.83	0.72	0.23	0.45
22	0.26	0.53	0.57	e0.47	6.3	2.6	1.7	0.77	0.71	0.73	0.22	0.51
23	0.21	0.57	0.49	e0.51	2.3	2.1	1.2	0.72	0.59	0.94	0.23	0.54
24	0.20	0.57	0.64	e0.42	3.9	1.7	27	1.2	0.66	0.53	0.25	0.60
25	16	0.89	0.91	e1.3	e2.4	1.5	37	39	37	0.46	0.22	0.83
26	1.3	0.65	0.97	e0.64	e1.6	1.3	6.8	2.7	178	0.38	0.59	17
27	0.71	0.54	1.1	e0.65	e1.8	1.0	3.5	2.2	3.4	0.35	0.34	3.3
28	0.36	0.47	1.8	e0.58	2.5	7.4	8.5	1.1	2.3	2.1	0.19	0.60
29	18	0.45	1.7	0.57	---	2.1	4.9	0.87	1.7	0.68	0.26	0.39
30	1.1	0.52	3.5	0.50	---	1.3	3.8	4.5	1.5	0.42	1.0	0.99
31	1.6	---	5.7	3.0	---	1.2	---	3.0	---	0.36	17	---
MEAN	3.47	1.16	2.04	1.13	3.62	4.00	6.58	8.26	18.0	2.13	1.05	5.66
MAX	35	7.5	32	4.3	21	26	37	73	178	24	17	99
MIN	0.15	0.45	0.31	0.42	0.45	0.82	0.58	0.72	0.59	0.35	0.19	0.33
IN.	0.77	0.25	0.45	0.25	0.73	0.89	1.41	1.84	3.87	0.47	0.23	1.22

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

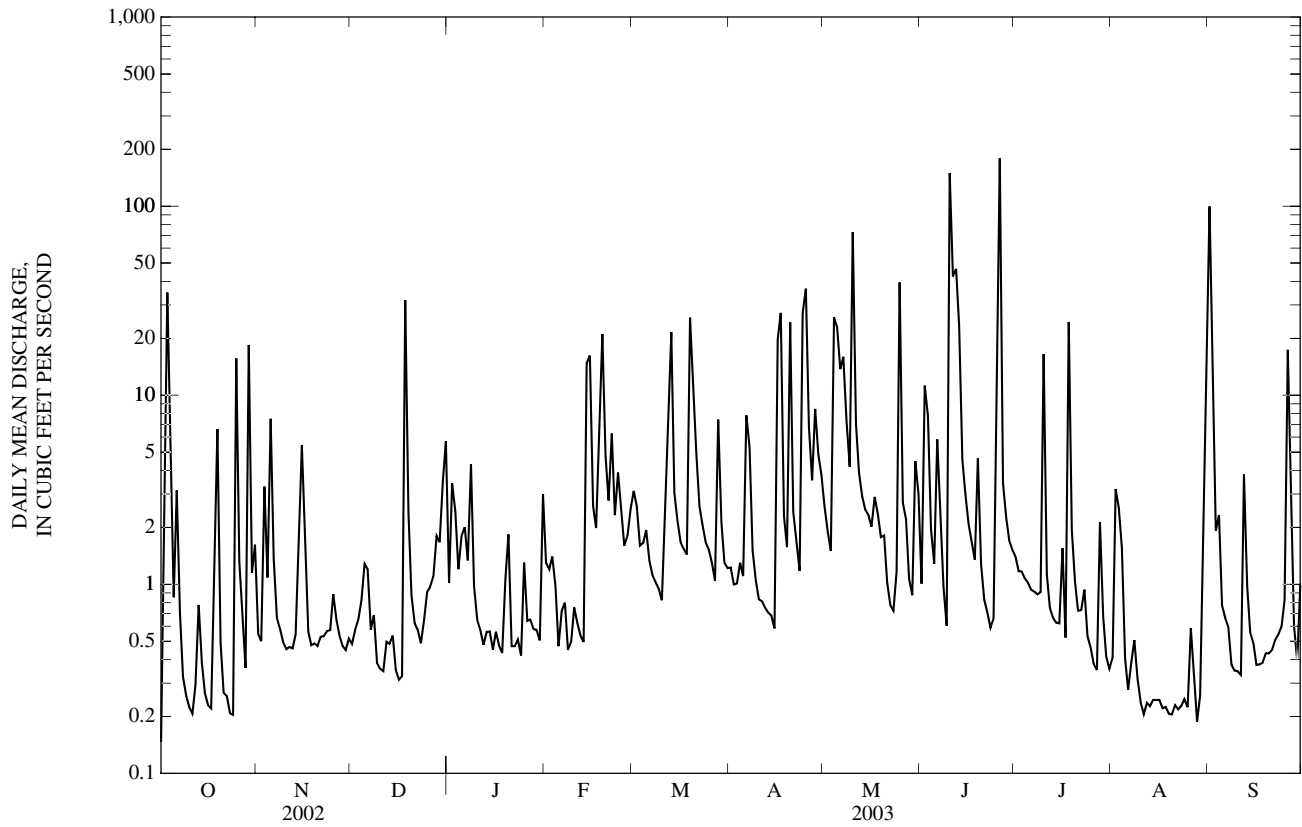
MEAN	3.27	2.60	2.76	4.78	6.57	6.76	6.41	9.75	8.71	6.10	3.36	2.34
MAX	5.38	4.36	8.45	13.2	17.1	18.5	11.3	22.2	18.0	18.5	10.9	5.66
(WY)	(2001)	(1999)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(2003)	(1998)	(1998)	(2003)
MIN	0.50	0.95	1.22	0.90	3.62	1.71	1.23	3.27	1.66	0.32	1.05	0.56
(WY)	(1998)	(2000)	(2001)	(2000)	(2003)	(2000)	(2000)	(2001)	(1997)	(1997)	(2001)	(1999)

07001985 WATKINS CREEK AT BELLEFONTAINE NEIGHBORS, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	5.52		4.73		5.49	
HIGHEST ANNUAL MEAN					8.19	1998
LOWEST ANNUAL MEAN					2.89	2001
HIGHEST DAILY MEAN	177	May 12	178	Jun 26	381	Jul 30, 1998
LOWEST DAILY MEAN	0.13	Sep 12	0.15	Oct 1	0.05	Oct 5-7, 1997
ANNUAL SEVEN-DAY MINIMUM	0.16	Sep 10	0.22	Aug 17	0.06	Oct 1, 1997
MAXIMUM PEAK FLOW	---		Unknown	Jun 10	Unknown	Jul 30, 1998
MAXIMUM PEAK STAGE	---		9.64	Jun 10	13.10	Jul 30, 1998
INSTANTANEOUS LOW FLOW	---		0.11	Oct 1	0.05 <sup>a</sup>	Oct 5-7, 1997
ANNUAL RUNOFF (INCHES)	14.45		12.38		14.37	
10 PERCENT EXCEEDS	9.9		8.0		9.5	
50 PERCENT EXCEEDS	1.3		1.0		1.0	
90 PERCENT EXCEEDS	0.26		0.34		0.24	

e Estimated

<sup>a</sup> Minimum daily, instantaneous unknown.



## LOWER MISSISSIPPI RIVER BASIN

07001985 WATKINS CREEK AT BELLEFONTAINE NEIGHBORS, 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 29...	0616	Environmental	54	3.0	8.8	83	7.5	231	11.3	75	21.0	5.50
DEC 17...	0815	Environmental	0.32	5.9	11.3	86	7.8	2,940	2.6	460	123	38.0
FEB 04...	0915	Environmental	1.2	4.9	10.8	76	7.7	2,110	0.4	320	85.0	25.0
MAR 28...	1433	Environmental	34	3.6	10.3	94	7.9	1,000	10.3	270	67.0	24.0
JUN 09...	1320	Environmental	0.62	9.1	5.6	64	7.6	862	20.6	280	73.0	23.0
AUG 12...	0840	Environmental	0.25	12	4.0	47	7.4	740	22.7	270	71.0	22.0

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd incrm. titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd incrm. titr., mg/L (00450)	Carbonate, wat unfltrd incrm. titr., 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...	55	53	65	<1	--	131	0.80	<0.01	0.390	0.02	0.240	0.39	15
DEC 17...	184	187	228	<1	760	4	4.2	2.50	0.520	0.04	0.100	0.14	22
FEB 04...	138	139	169	<1	580	16	1.6	0.99	0.660	0.07	0.100	0.13	<5
MAR 28...	155	157	192	<1	--	131	1.0	0.11	0.310	0.02	0.100	0.22	17
JUN 09...	171	171	209	<1	--	14	0.60	0.14	0.590	0.06	0.140	0.18	15
AUG 12...	164	164	200	<1	--	23	0.60	0.09	0.200	0.01	0.130	0.19	13

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC MF, col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Arsenic water, fltrd, $\mu$ g/L (01000)	Beryllium, water, fltrd, $\mu$ g/L (01010)	Cadmium water, fltrd, $\mu$ g/L (01025)	Chromium, water, fltrd, $\mu$ g/L (01030)	Copper, water, fltrd, $\mu$ g/L (01040)	Iron, water, fltrd, $\mu$ g/L (01046)	Lead, water, fltrd, $\mu$ g/L (01049)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recoverable, $\mu$ g/L (71900)
OCT 29...	45,000	48,000	14,200	4	<1	<1	<1.0	<1.0	1.5	42	<1	103	<0.1
DEC 17...	20k	400	188	<3	1	<1	<1.0	4.4	2.5	41	<1	1,230	<0.1
FEB 04...	900	1720k	460	<3	<1	<1	<1.0	1.8	3.8	18	<1	872	<0.1
MAR 28...	19,000	14,500	4,600	<3	2	<1	<1.0	2.5	2.9	15	<1	328	<0.1
JUN 09...	280k	700	168	<3	3	<1	<1.0	3.4	1.8	9	<1	402	<0.1
AUG 12...	120	420	880	<3	3	<1	<1.0	2.8	<1.0	4	<1	560	<0.1





07001985 WATKINS CREEK AT BELLEFONTAINE NEIGHBORS, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 29...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	M
DEC 17...	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--
MAR 28...	M	<1	<0.02	<2	<2	M	M	<1	<2	<2
JUN 09...	--	--	--	--	--	--	--	--	--	--
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

LOWER MISSISSIPPI RIVER BASIN

07005000 MALINE CREEK AT BELLEFONTAINE NEIGHBORS, MO

LOCATION.--Lat 38°44'12", long 90°13'35", in SE ¼ NE ¼ NE ¼ sec.9, T.46 N., R.7 E., St. Louis County, Hydrologic Unit 07140101, on left downstream wingwall of Bellefontaine Road bridge, 2.32 mi south of Interstate 270, 0.80 mi east of Highway 367 (Lewis and Clark Blvd.), and 1.03 mi upstream of Mississippi River.

DRAINAGE AREA.--24.4 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1996 to current year. Annual peaks only for 1968-1974 water years published in WRD MO 1974.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 409.96 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor.

REVISIONS.--Revised maximum discharges for water years 2001-2002 and revised daily discharges for high-water periods in these years, are given below. They supersede figures published in the reports of 2001-2002.

Water Year	Date	Maximum Discharge (ft <sup>3</sup> /s)	Gage height (ft)	
2001	Sept. 9, 2001	1,380 <sup>a</sup>	6.79	

Water Year	Date	Daily Mean Discharge	Date	Discharge	Monthly Mean Discharge	
2001	Sept. 9, 2001	120			September - 7.13	
2002	Oct. 10, 2001	132	Jan. 30, 2002	145	October - 17.8	January - 15.3
	Oct. 11, 2001	177	Jan. 31, 2002	226	November - 13.9	August - 11.9
	Nov. 24, 2001	238	Aug. 6, 2002	256		

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	1.2	11	4.5	7.4	10	15	3.8	15	3.5	9.8	4.0	331
2	12	6.5	5.5	18	9.0	14	3.1	9.5	35	5.3	11	122
3	141	26	5.3	16	9.6	8.1	2.9	7.6	36	6.0	22	12
4	33	11	5.9	8.7	9.3	9.2	4.1	80	11	3.6	19	5.1
5	9.1	37	10	10	4.9	11	4.4	59	7.2	3.2	2.8	4.2
6	17	13	7.6	12	6.2	7.8	28	23	25	3.3	6.9	2.7
7	7.9	5.9	4.6	7.1	5.8	7.1	20	51	11	4.0	3.0	1.8
8	3.5	6.2	7.0	6.1	2.1	5.8	5.7	16	9.5	3.7	5.9	4.7
9	2.4	e5.1	5.2	5.5	2.1	3.7	4.3	11	5.4	3.5	1.6	2.2
10	2.1	e4.7	2.3	3.0	3.1	3.4	3.1	157	491	72	1.1	2.5
11	1.7	e5.8	1.9	2.2	3.1	11	2.9	23	144	7.9	1.3	2.0
12	2.4	e6.8	3.7	1.7	3.7	44	2.8	17	72	4.7	1.1	20
13	12	e5.2	3.9	2.0	1.8	81	2.7	9.2	83	4.1	1.1	5.6
14	3.2	e7.8	5.9	2.2	46	17	2.8	12	20	4.2	1.1	2.1
15	1.8	29	3.4	1.7	44	7.4	3.2	8.9	15	4.8	1.3	1.8
16	1.4	5.7	2.8	1.8	9.7	5.7	87	5.5	11	5.0	1.3	1.4
17	1.4	2.9	3.0	1.9	6.3	5.6	63	9.2	8.6	4.0	0.98	1.1
18	7.9	2.1	125	1.8	18	5.2	12	6.5	9.1	63	1.7	0.97
19	42	2.8	24	2.5	62	66	8.7	7.1	32	13	1.7	1.4
20	5.8	3.1	9.7	4.6	16	51	82	8.6	7.9	7.5	0.99	1.2
21	2.8	2.0	6.1	6.9	9.4	18	13	5.3	5.5	6.4	2.2	1.0
22	3.3	1.7	5.3	4.3	26	9.7	10	4.1	6.0	3.9	0.92	1.4
23	2.0	1.7	4.7	2.6	9.8	7.3	12	3.5	4.3	7.0	0.57	1.6
24	1.2	1.8	5.4	1.5	15	6.8	86	4.8	4.7	3.2	0.64	1.2
25	56	4.0	8.9	7.4	9.1	6.7	82	70	83	2.7	1.2	1.8
26	11	3.0	9.4	11	5.0	5.5	24	5.8	796	1.9	0.86	94
27	8.7	2.6	12	17	5.8	4.2	11	4.8	15	1.9	0.59	27
28	10	3.5	15	18	12	26	34	4.2	9.9	6.9	1.7	5.0
29	74	4.2	15	15	---	10	38	4.0	6.3	5.7	0.84	2.4
30	15	4.1	15	14	---	4.0	24	18	42	2.5	6.2	3.8
31	12	---	25	25	---	3.3	---	6.3	---	2.1	61	---
MEAN	16.3	7.54	11.7	7.71	13.0	15.5	22.7	21.5	67.0	8.93	5.37	22.2
MAX	141	37	125	25	62	81	87	157	796	72	61	331
MIN	1.2	1.7	1.9	1.5	1.8	3.3	2.7	3.5	3.5	1.9	0.57	0.97
IN.	0.77	0.34	0.55	0.36	0.56	0.73	1.04	1.02	3.06	0.42	0.25	1.01

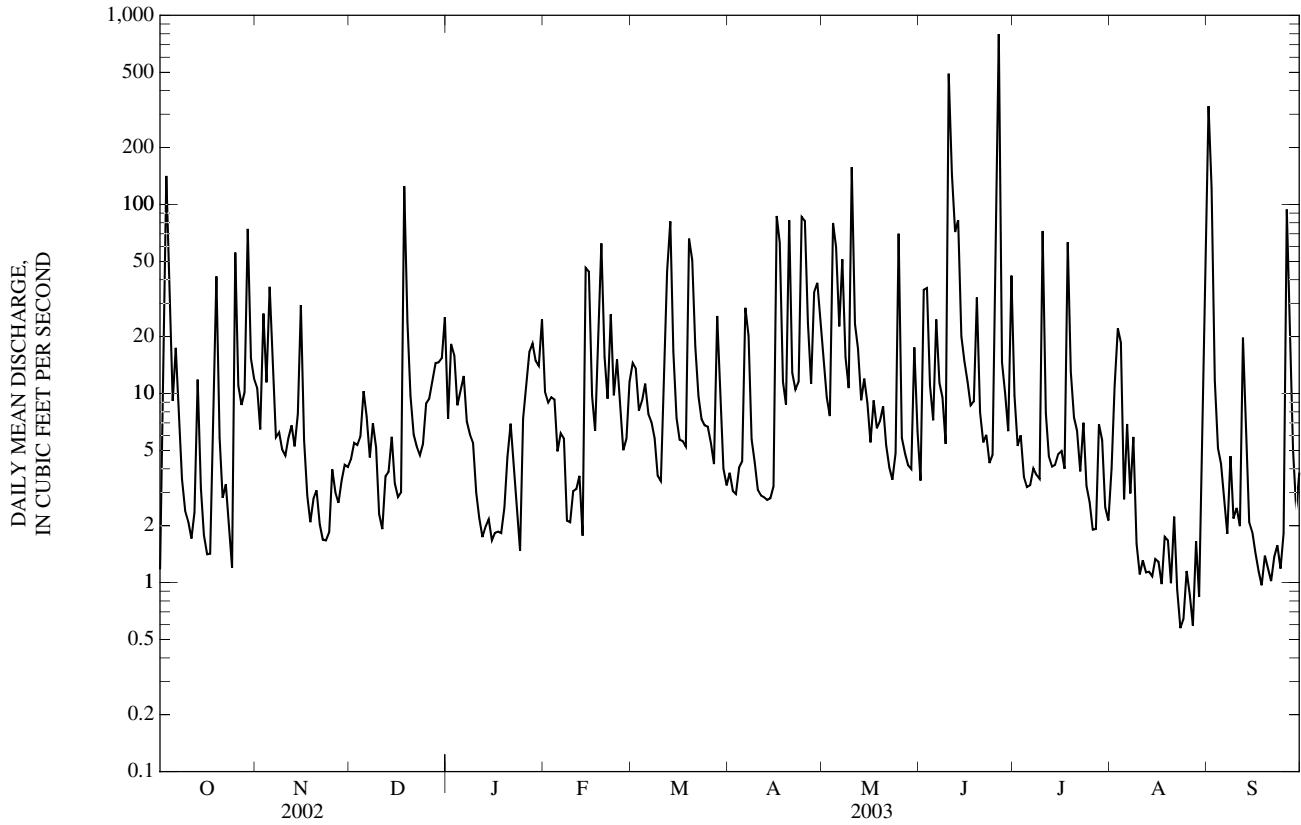
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)

MEAN	11.0	16.7	9.62	17.6	25.1	23.1	18.2	23.6	33.1	15.2	13.7	10.1
MAX	16.3	51.7	17.2	45.3	55.5	69.3	31.0	55.6	67.0	42.7	32.9	22.2
(WY)	(2003)	(1997)	(2000)	(1999)	(1999)	(1998)	(1998)	(2002)	(2003)	(1998)	(1998)	(2003)
MIN	6.56	7.54	2.89	7.54	7.18	7.12	7.57	7.73	6.96	1.16	4.14	3.12
(WY)	(2000)	(2003)	(2001)	(2001)	(2002)	(2000)	(2000)	(2001)	(2001)	(1997)	(2001)	(1999)

07005000 MALINE CREEK AT BELLEFONTAINE NEIGHBORS, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL MEAN	15.7		18.2		17.9	
HIGHEST ANNUAL MEAN					27.7	
LOWEST ANNUAL MEAN					7.08	
HIGHEST DAILY MEAN	450	May 12	796	Jun 26	1,050	Feb 7, 1999
LOWEST DAILY MEAN	0.43	Aug 3	0.57	Aug 23	0.06	Aug 15, 2001
ANNUAL SEVEN-DAY MINIMUM	0.64	Aug 27	0.91	Aug 23	0.13	Aug 31, 2001
MAXIMUM PEAK FLOW	---		5,960 <sup>b</sup>	Jun 26	5,960 <sup>b</sup>	Jun 26, 2003
MAXIMUM PEAK STAGE	---		12.22	Jun 26	16.26	Jul 28, 1996
INSTANTANEOUS LOW FLOW	---		0.26	Aug 23	0.05	Aug 15, 2001
ANNUAL RUNOFF (INCHES)	8.76		10.13		9.97	
10 PERCENT EXCEEDS	30		37		34	
50 PERCENT EXCEEDS	4.7		5.9		4.3	
90 PERCENT EXCEEDS	1.1		1.7		0.79	

c Estimated  
<sup>a</sup> From rating extended above 1,270 ft<sup>3</sup>/s on basis of indirect measurement of peak flow.  
<sup>b</sup> Discharge determined by indirect measurement of peak flow.





## LOWER MISSISSIPPI RIVER BASIN

07005000 MALINE CREEK AT BELLEFONTAINE NEIGHBORS, 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 29...	0516	Environmental	180	2.7	8.6	80	7.7	454	11.4	120	32.0	9.00
DEC 17...	0935	Environmental	3.2	5.6	7.0	57	7.8	3,710	5.2	400	109	32.0
FEB 04...	1015	Environmental	9.0	4.9	11.0	78	7.7	1,810	0.3	220	55.0	19.0
APR 16...	2109	Environmental	416	4.0	8.3	90	7.7	548	17.4	170	42.0	15.0
JUN 09...	1425	Environmental	6.0	4.4	10.5	130	7.7	788	24.9	220	60.0	16.0
AUG 12...	0940	Environmental	0.84	3.3	5.8	71	7.8	670	24.8	200	55.0	15.0

Date	ANC, wat unflxed end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfl incrm. titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfl incrm. titr., mg/L (00450)	Carbonate, wat unfl incrm. titr., 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...	72	72	87	<1	--	305	1.1	<0.01	0.440	0.02	0.200	0.48	13
DEC 17...	170	171	208	<1	910	7	2.5	1.50	0.140	0.01	0.130	0.30	34
FEB 04...	114	114	139	<1	470	22	0.90	0.07	0.630	0.06	0.020	0.11	20
APR 16...	105	102	125	<1	--	2,300	5.3	0.18	0.060	<0.01	0.050	1.60	39
JUN 09...	126	125	153	<1	--	11	0.50	0.03	0.560	0.04	0.090	0.15	22
AUG 12...	120	120	147	<1	--	29	0.60	0.06	0.030	<0.01	0.050	0.10	19

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC MF, col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Arsenic water, fltrd, $\mu$ g/L (01000)	Beryllium, water, fltrd, $\mu$ g/L (01010)	Cadmium water, fltrd, $\mu$ g/L (01025)	Chromium, water, fltrd, $\mu$ g/L (01030)	Copper, water, fltrd, $\mu$ g/L (01040)	Iron, water, fltrd, $\mu$ g/L (01046)	Lead, water, fltrd, $\mu$ g/L (01049)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recoverable, $\mu$ g/L (71900)
OCT 29...	16,000	12,800	14,700	4	1	<1	<1.0	<1.0	1.4	20	<1	95	<0.1
DEC 17...	1,600k	1,200k	2,000k	3	1	<1	<1.0	4.4	3.3	144	<1	531	<0.1
FEB 04...	140k	310	650	<3	9	<1	<1.0	1.9	3.9	10	<1	622	<0.1
APR 16...	12,000	14,500	21,000	<3	2	<1	<1.0	2.8	2.8	21	<1	452	0.1
JUN 09...	640	1,300	1,250	<3	3	<1	<1.0	2.7	2.5	4	<1	134	<0.1
AUG 12...	480	1,400	670	3	4	<1	<1.0	2.8	1.8	3	<1	247	<0.1





## 07005000 MALINE CREEK AT BELLEFONTAINE NEIGHBORS, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 29...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	M
DEC 17...	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--
APR 16...	E3	<1	<0.02	<2	<2	<2	<1	<1	<2	M
JUN 09...	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- 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

## MISSISSIPPI RIVER MAIN STEM

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO

LOCATION.--Lat 38°37'44", long 90°10'47", Hydrologic Unit 07140101, on downstream side of west pier of Eads Bridge at St. Louis, 15.0 mi downstream from Missouri River, 19.2 mi upstream from Meramec River, and at mile 180.0 above the Ohio River.

DRAINAGE AREA.--697,000 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--

DISCHARGE: January 1861 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE HEIGHT: March 1933 to current year. Since January 1861 in reports of Mississippi River Commission. Since January 1890 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. Datum of gage is 379.94 ft above National Geodetic Vertical Datum of 1929. Prior to May 5, 1934, nonrecording gage 0.4 mi downstream; May 5, 1934, to Dec. 9, 1952, water-stage recorder at site 20 ft downstream at present datum.

REMARKS.--Water-discharge records good except for estimated daily discharges, which are fair. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River Basin and by many reservoirs and diversions for irrigation in Missouri River Basin. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 27, 1844, reached a stage of 41.32 ft, from floodmarks, discharge, 1,000,000 ft<sup>3</sup>/s, computed by U.S. Army Corps of Engineers. Flood in April 1785 may have reached a stage of 42.0 ft. Minimum flow, 18,000 ft<sup>3</sup>/s, Dec. 23, 1863.

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	97,700	130,000	92,400	84,100	60,800	75,800	119,000	224,000	255,000	159,000	134,000	88,700
2	98,000	123,000	93,900	85,300	61,900	77,600	112,000	227,000	242,000	159,000	129,000	126,000
3	109,000	120,000	89,900	83,000	64,600	78,700	111,000	232,000	230,000	169,000	123,000	102,000
4	108,000	122,000	89,500	77,900	65,200	78,600	108,000	241,000	214,000	177,000	115,000	118,000
5	126,000	119,000	83,400	77,100	63,600	77,300	112,000	270,000	202,000	176,000	111,000	121,000
6	124,000	126,000	71,400	77,700	60,700	75,900	117,000	307,000	191,000	174,000	114,000	101,000
7	129,000	120,000	71,800	75,700	65,900	76,500	124,000	311,000	190,000	173,000	107,000	86,300
8	130,000	121,000	73,400	75,100	64,200	78,300	121,000	321,000	187,000	172,000	107,000	78,500
9	131,000	118,000	73,400	74,700	66,600	78,500	126,000	329,000	169,000	178,000	102,000	72,800
10	126,000	107,000	75,500	76,100	66,100	73,400	126,000	338,000	161,000	210,000	97,900	67,600
11	133,000	106,000	76,000	73,600	66,100	68,500	123,000	376,000	176,000	230,000	93,400	66,400
12	139,000	104,000	75,700	69,700	62,100	67,600	121,000	396,000	189,000	236,000	89,100	67,400
13	153,000	105,000	76,000	64,700	60,800	71,800	120,000	386,000	236,000	232,000	85,500	68,500
14	150,000	105,000	80,800	57,500	61,500	82,600	114,000	361,000	254,000	231,000	84,400	73,300
15	147,000	107,000	83,500	54,000	67,000	100,000	108,000	329,000	243,000	229,000	83,500	89,100
16	156,000	105,000	81,300	55,800	75,800	101,000	106,000	306,000	225,000	221,000	81,300	107,000
17	160,000	105,000	80,400	63,700	78,200	96,300	e108,000	296,000	212,000	219,000	78,400	103,000
18	157,000	103,000	86,100	66,600	71,600	104,000	e111,000	293,000	209,000	221,000	74,900	91,400
19	168,000	107,000	103,000	63,200	75,200	103,000	e115,000	288,000	204,000	236,000	74,100	79,200
20	163,000	102,000	98,300	59,600	77,700	131,000	e119,000	283,000	195,000	228,000	72,300	79,100
21	161,000	97,700	95,000	59,500	78,000	158,000	e125,000	279,000	181,000	212,000	69,100	86,400
22	157,000	100,000	90,800	58,500	80,800	148,000	e130,000	280,000	171,000	194,000	68,700	88,500
23	153,000	95,800	88,300	58,300	80,100	130,000	137,000	281,000	157,000	189,000	70,700	93,500
24	149,000	99,900	86,900	60,800	75,900	124,000	149,000	284,000	152,000	189,000	75,800	89,400
25	149,000	98,100	87,100	62,800	77,800	125,000	173,000	297,000	138,000	181,000	75,100	94,000
26	146,000	94,600	77,800	61,900	77,000	122,000	191,000	300,000	168,000	175,000	71,800	87,800
27	128,000	95,200	71,500	60,900	75,900	111,000	213,000	294,000	192,000	168,000	68,600	84,900
28	121,000	94,700	66,600	60,200	74,800	120,000	211,000	290,000	190,000	158,000	68,500	82,000
29	131,000	91,800	66,000	58,800	---	136,000	212,000	285,000	166,000	154,000	71,100	74,600
30	134,000	91,800	68,000	58,400	---	132,000	221,000	280,000	158,000	150,000	68,300	73,000
31	135,000	---	74,300	59,100	---	118,000	---	272,000	---	142,000	64,900	---
MEAN	137,700	107,200	81,550	66,910	69,850	100,700	136,100	298,600	195,200	191,700	88,050	88,010
MAX	168,000	130,000	103,000	85,300	80,800	158,000	221,000	396,000	255,000	236,000	134,000	126,000
MIN	97,700	91,800	66,000	54,000	60,700	67,600	106,000	224,000	138,000	142,000	64,900	66,400
IN.	0.23	0.17	0.13	0.11	0.10	0.17	0.22	0.49	0.31	0.32	0.15	0.14

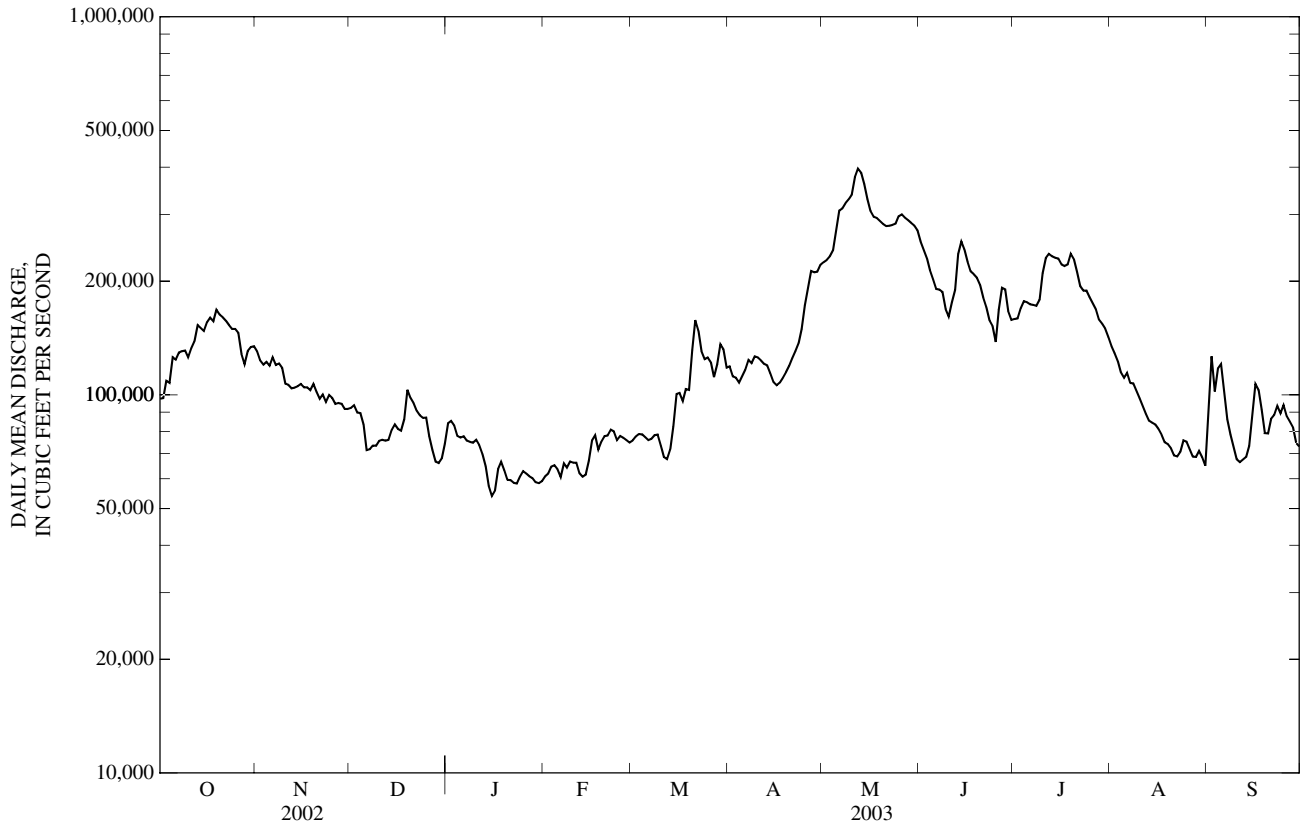
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2003, BY WATER YEAR (WY)

MEAN	139,300	143,400	123,500	114,800	144,900	228,600	303,700	296,200	272,200	222,400	144,900	136,500
MAX	575,300	359,200	452,400	307,800	301,400	521,800	692,500	588,700	600,600	808,800	700,200	531,800
(WY)	(1987)	(1986)	(1983)	(1973)	(1974)	(1973)	(1973)	(1995)	(1947)	(1993)	(1993)	(1993)
MIN	44,170	47,920	42,130	31,340	41,900	74,550	110,100	79,500	70,260	67,130	43,510	54,640
(WY)	(1940)	(1940)	(1938)	(1940)	(1940)	(1964)	(1934)	(1934)	(1934)	(1936)	(1936)	(1939)

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1933 - 2003	
ANNUAL MEAN	186,500		130,600		189,300	
HIGHEST ANNUAL MEAN					429,700	
LOWEST ANNUAL MEAN					67,700	
HIGHEST DAILY MEAN	679,000	May 17	396,000	May 12	1,050,000	Aug 1, 1993
LOWEST DAILY MEAN	66,000	Dec 29	54,000	Jan 15	27,800	Dec 12, 1937
ANNUAL SEVEN-DAY MINIMUM	73,000	Dec 25	60,000	Jan 26	28,200	Jan 18, 1940
MAXIMUM PEAK FLOW	---		400,000	May 12	1,080,000	Aug 1, 1993
MAXIMUM PEAK STAGE	---		25.00	May 12	49.58	Aug 1, 1993
INSTANTANEOUS LOW FLOW	---		53,400	Jan 15	27,800	Dec 12, 1937
ANNUAL RUNOFF (INCHES)	3.63		2.54		3.69	
10 PERCENT EXCEEDS	381,000		232,000		370,000	
50 PERCENT EXCEEDS	145,000		107,000		152,000	
90 PERCENT EXCEEDS	89,100		66,600		69,400	

e Estimated



## MISSISSIPPI RIVER MAIN STEM

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO—Continued

## WATER-QUALITY RECORDS

## PERIOD OF RECORD.--

WATER TEMPERATURES: October 1951 to current year.

SEDIMENT RECORDS: April 1948 to current year.

REMARKS.--Sediment discharge computed from turbidity readings. Sediment records fair.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 6,720 mg/L, Feb. 24, 1985; minimum daily mean, 19 mg/L, Jan. 21 and 22, 1967.

SEDIMENT LOADS: Maximum daily, 9,830,000 tons, Feb. 24, 1985; minimum daily, 2,800 tons, Jan. 21, 1967.

## EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,160 mg/L, May 13; minimum daily mean 41 mg/L, Jan. 24.

SEDIMENT LOADS: Maximum daily, 1,210,000 tons, May 13; minimum daily, 6,550 tons, Jan. 16.

## SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Day	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	OCTOBER			NOVEMBER			DECEMBER		
							Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)
1	97,700	141	37,200	130,000	109	38,300	92,400	65	16,200	92,400	65	16,200	92,400	65	16,200
2	98,000	122	32,400	123,000	91	30,300	93,900	63	16,000	93,900	63	16,000	93,900	63	16,000
3	109,000	125	36,800	120,000	79	25,700	89,900	65	15,700	89,900	65	15,700	89,900	65	15,700
4	108,000	120	34,800	122,000	80	26,300	89,500	69	16,700	89,500	69	16,700	89,500	69	16,700
5	126,000	99	33,400	119,000	81	26,200	83,400	67	15,100	83,400	67	15,100	83,400	67	15,100
6	124,000	78	26,000	126,000	84	28,400	71,400	51	9,860	71,400	51	9,860	71,400	51	9,860
7	129,000	80	27,900	120,000	89	28,800	71,800	57	11,000	71,800	57	11,000	71,800	57	11,000
8	130,000	84	29,700	121,000	88	28,700	73,400	48	9,560	73,400	48	9,560	73,400	48	9,560
9	131,000	90	31,900	118,000	80	25,600	73,400	43	8,560	73,400	43	8,560	73,400	43	8,560
10	126,000	79	26,800	107,000	96	27,900	75,500	49	10,000	75,500	49	10,000	75,500	49	10,000
11	133,000	78	28,100	106,000	85	24,300	76,000	46	9,460	76,000	46	9,460	76,000	46	9,460
12	139,000	75	28,000	104,000	77	21,500	75,700	66	13,400	75,700	66	13,400	75,700	66	13,400
13	153,000	89	36,700	105,000	81	22,800	76,000	64	13,200	76,000	64	13,200	76,000	64	13,200
14	150,000	108	43,600	105,000	71	20,200	80,800	61	13,200	80,800	61	13,200	80,800	61	13,200
15	147,000	107	42,600	107,000	71	20,600	83,500	64	14,500	83,500	64	14,500	83,500	64	14,500
16	156,000	114	47,800	105,000	70	19,800	81,300	61	13,400	81,300	61	13,400	81,300	61	13,400
17	160,000	120	51,900	105,000	77	21,900	80,400	60	13,000	80,400	60	13,000	80,400	60	13,000
18	157,000	113	47,800	103,000	78	21,700	86,100	79	18,400	86,100	79	18,400	86,100	79	18,400
19	168,000	125	56,800	107,000	81	23,500	103,000	175	48,800	103,000	175	48,800	103,000	175	48,800
20	163,000	131	57,900	102,000	81	22,200	98,300	126	33,500	98,300	126	33,500	98,300	126	33,500
21	161,000	125	54,100	97,700	86	22,600	95,000	119	30,600	95,000	119	30,600	95,000	119	30,600
22	157,000	122	51,900	100,000	82	22,300	90,800	71	17,500	90,800	71	17,500	90,800	71	17,500
23	153,000	128	52,700	95,800	78	20,100	88,300	68	16,200	88,300	68	16,200	88,300	68	16,200
24	149,000	125	50,300	99,900	76	20,500	86,900	58	13,600	86,900	58	13,600	86,900	58	13,600
25	149,000	124	49,800	98,100	84	22,200	87,100	60	14,000	87,100	60	14,000	87,100	60	14,000
26	146,000	121	47,900	94,600	73	18,700	77,800	59	12,300	77,800	59	12,300	77,800	59	12,300
27	128,000	109	37,600	95,200	71	18,100	71,500	59	11,500	71,500	59	11,500	71,500	59	11,500
28	121,000	108	35,100	94,700	81	20,800	66,600	63	11,400	66,600	63	11,400	66,600	63	11,400
29	131,000	106	37,400	91,800	83	20,600	66,000	57	10,200	66,000	57	10,200	66,000	57	10,200
30	134,000	100	36,300	91,800	72	17,900	68,000	58	10,700	68,000	58	10,700	68,000	58	10,700
31	135,000	99	36,000	---	---	---	74,300	62	12,500	74,300	62	12,500	74,300	62	12,500

## 07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO—Continued

## SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY),—CONTINUED WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Day	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)
	JANUARY			FEBRUARY			MARCH		
1	84,100	60	13,700	60,800	49	8,120	75,800	100	20,500
2	85,300	64	14,700	61,900	51	8,520	77,600	83	17,400
3	83,000	68	15,300	64,600	59	10,200	78,700	99	21,000
4	77,900	70	14,700	65,200	71	12,600	78,600	116	24,600
5	77,100	71	14,800	63,600	55	9,370	77,300	145	30,200
6	77,700	63	13,200	60,700	45	7,420	75,900	144	29,600
7	75,700	69	14,200	65,900	50	8,910	76,500	130	26,900
8	75,100	66	13,400	64,200	50	8,740	78,300	116	24,400
9	74,700	63	12,800	66,600	52	9,400	78,500	100	21,200
10	76,100	53	10,900	66,100	50	8,990	73,400	92	18,300
11	73,600	48	9,500	66,100	55	9,750	68,500	89	16,400
12	69,700	47	8,920	62,100	59	9,910	67,600	99	18,000
13	64,700	52	9,130	60,800	50	8,270	71,800	105	20,300
14	57,500	56	8,760	61,500	52	8,720	82,600	148	33,000
15	54,000	51	7,500	67,000	155	28,100	100,000	146	39,700
16	55,800	43	6,550	75,800	341	69,800	101,000	185	50,400
17	63,700	43	7,460	78,200	312	66,000	96,300	155	40,200
18	66,600	55	9,930	71,600	177	34,200	104,000	166	46,500
19	63,200	44	7,420	75,200	180	36,400	103,000	162	45,100
20	59,600	47	7,520	77,700	194	40,800	131,000	321	114,000
21	59,500	53	8,490	78,000	133	27,900	158,000	374	159,000
22	58,500	53	8,450	80,800	114	24,900	148,000	257	102,000
23	58,300	51	8,050	80,100	101	21,800	130,000	230	81,000
24	60,800	41	6,770	75,900	100	20,400	124,000	190	63,900
25	62,800	52	8,840	77,800	89	18,700	125,000	151	51,100
26	61,900	51	8,530	77,000	75	15,700	122,000	144	47,200
27	60,900	58	9,460	75,900	90	18,500	111,000	126	37,900
28	60,200	51	8,300	74,800	89	18,000	120,000	131	42,600
29	58,800	58	9,210	---	---	---	136,000	127	46,500
30	58,400	53	8,320	---	---	---	132,000	125	44,700
31	59,100	57	9,100	---	---	---	118,000	101	32,100
	APRIL			MAY			JUNE		
1	119,000	97	31,200	224,000	213	129,000	255,000	374	257,000
2	112,000	86	26,100	227,000	169	103,000	242,000	335	219,000
3	111,000	90	26,900	232,000	148	92,900	230,000	325	202,000
4	108,000	88	25,700	241,000	176	115,000	214,000	283	163,000
5	112,000	85	25,700	270,000	318	232,000	202,000	267	145,000
6	117,000	81	25,400	307,000	334	277,000	191,000	237	122,000
7	124,000	93	31,000	311,000	284	238,000	190,000	204	105,000
8	121,000	99	32,300	321,000	304	263,000	187,000	188	94,700
9	126,000	105	35,900	329,000	374	332,000	169,000	163	74,100
10	126,000	115	38,900	338,000	480	438,000	161,000	150	65,500
11	123,000	103	34,200	376,000	676	687,000	176,000	286	136,000
12	121,000	88	28,700	396,000	888	950,000	189,000	201	103,000
13	120,000	88	28,300	386,000	1,160	1,210,000	236,000	425	271,000
14	114,000	89	27,400	361,000	1,130	1,110,000	254,000	246	169,000
15	108,000	97	28,400	329,000	801	712,000	243,000	228	150,000
16	106,000	83	23,900	306,000	710	588,000	225,000	275	167,000
17	e108,000	72	20,900	296,000	525	419,000	212,000	472	270,000
18	e111,000	71	21,400	293,000	451	357,000	209,000	603	339,000
19	e115,000	69	21,300	288,000	330	257,000	204,000	476	262,000
20	e119,000	62	20,000	283,000	358	274,000	195,000	740	391,000
21	e125,000	65	22,000	279,000	329	248,000	181,000	679	331,000
22	e130,000	66	23,100	280,000	281	212,000	171,000	455	210,000
23	137,000	65	24,100	281,000	275	209,000	157,000	345	147,000
24	149,000	72	29,100	284,000	270	207,000	152,000	253	104,000
25	173,000	93	43,200	297,000	294	236,000	138,000	218	81,300
26	191,000	132	67,900	300,000	235	191,000	168,000	441	200,000
27	213,000	150	85,900	294,000	297	236,000	192,000	383	199,000
28	211,000	150	85,500	290,000	389	305,000	190,000	312	160,000
29	212,000	168	96,000	285,000	367	283,000	166,000	255	115,000
30	221,000	174	104,000	280,000	356	270,000	158,000	205	87,500
31	---	---	---	272,000	383	281,000	---	---	---



## 07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO—Continued

## SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY),—CONTINUED WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003

Day	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)
1	159,000	253	108,000	134,000	109	39,400	88,700	145	34,800
2	159,000	376	162,000	129,000	102	35,400	126,000	196	66,900
3	169,000	355	162,000	123,000	104	34,500	102,000	253	69,600
4	177,000	259	124,000	115,000	100	30,800	118,000	352	112,000
5	176,000	254	121,000	111,000	96	28,900	121,000	274	89,200
6	174,000	295	138,000	114,000	99	30,700	101,000	272	74,000
7	173,000	348	163,000	107,000	98	28,500	86,300	222	51,800
8	172,000	261	121,000	107,000	97	28,000	78,500	189	40,000
9	178,000	215	104,000	102,000	110	30,400	72,800	153	30,000
10	210,000	216	122,000	97,900	106	28,000	67,600	131	23,900
11	230,000	227	141,000	93,400	110	27,600	66,400	109	19,500
12	236,000	275	175,000	89,100	107	25,700	67,400	108	19,600
13	232,000	401	252,000	85,500	101	23,400	68,500	114	21,200
14	231,000	396	247,000	84,400	98	22,400	73,300	119	23,500
15	229,000	323	200,000	83,500	97	21,800	89,100	121	29,200
16	221,000	320	191,000	81,300	94	20,600	107,000	199	57,500
17	219,000	371	220,000	78,400	98	20,800	103,000	172	47,900
18	221,000	393	235,000	74,900	92	18,600	91,400	182	44,900
19	236,000	362	231,000	74,100	93	18,600	79,200	184	39,400
20	228,000	433	266,000	72,300	86	16,900	79,100	130	27,700
21	212,000	446	255,000	69,100	87	16,300	86,400	134	31,300
22	194,000	313	164,000	68,700	96	17,900	88,500	122	29,300
23	189,000	240	122,000	70,700	105	20,000	93,500	137	34,600
24	189,000	216	110,000	75,800	117	23,900	89,400	136	32,900
25	181,000	192	93,800	75,100	100	20,300	94,000	139	35,300
26	175,000	154	72,900	71,800	108	20,900	87,800	143	34,000
27	168,000	143	65,000	68,600	103	19,100	84,900	198	45,500
28	158,000	137	58,500	68,500	105	19,400	82,000	188	41,700
29	154,000	128	53,500	71,100	120	23,000	74,600	124	24,900
30	150,000	116	47,000	68,300	123	22,700	73,000	112	22,000
31	142,000	117	44,800	64,900	120	21,000	---	---	---

e Estimated

07010022 RIVER DES PERES NEAR UNIVERSITY CITY, MO

LOCATION.--Lat 38°40'07", long 90°19'26", St. Louis County, Hydrologic Unit 07140101, on top of left downstream abutment of Purdue Ave. bridge, 3.78 mi south of Interstate 70, and 2.01 mi east of Interstate 170.

DRAINAGE AREA.--8.94 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 491.97 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records fair except for discharges below 10 ft<sup>3</sup>/s, which are poor. U.S.G.S. satellite telemeter at station.

REVISIONS.--Revised maximum discharges for water years 1998-2002 are given below. They supersede figures published in the reports of 1998-2002.

Water Year	Date	Maximum Discharge (ft <sup>3</sup> /s)	Gage height (ft)
1998	July 22, 1998	3,280 <sup>a</sup>	13.87
1999	June 12, 1999	4,160 <sup>a</sup>	15.74
2000	June 24, 2000	3,450 <sup>a</sup>	14.24
2001	Sept. 8, 2001	2,460 <sup>a</sup>	11.98
2002	June 11, 2002	3,090 <sup>a</sup>	13.43

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	0.08	0.89	0.47	0.78	1.3	8.5	0.50	8.0	0.23	2.7	0.54	254
2	26	1.7	0.82	7.2	0.83	4.4	0.35	2.1	34	19	54	213
3	137	16	0.40	2.8	1.3	2.1	0.27	0.92	13	0.66	7.7	5.2
4	14	2.5	0.37	1.8	0.53	1.6	1.8	95	0.64	0.18	0.13	0.24
5	0.66	24	2.5	3.8	0.27	3.1	0.85	50	0.34	0.16	0.11	0.10
6	8.5	3.1	0.90	2.6	1.7	1.5	32	33	20	0.16	0.42	0.08
7	0.56	1.3	1.5	1.3	0.89	0.97	5.8	24	0.97	0.16	1.3	0.08
8	0.22	2.0	0.68	1.3	0.47	1.2	3.2	4.4	0.44	0.16	0.14	0.12
9	0.13	2.0	0.27	0.89	0.48	0.75	1.3	2.1	0.32	0.15	0.07	0.18
10	0.09	2.1	0.25	0.51	0.84	0.59	0.75	57	223	61	0.07	0.19
11	0.09	1.7	0.44	0.34	0.60	43	0.67	7.2	67	0.46	0.06	0.21
12	2.7	1.0	0.33	0.32	0.43	44	0.59	1.8	84	0.14	0.06	31
13	2.3	0.73	1.3	0.42	0.48	72	0.56	1.3	147	0.13	0.06	0.26
14	0.18	15	0.51	0.38	39	2.0	5.9	1.1	9.2	0.34	0.06	0.11
15	0.11	11	0.24	0.31	17	0.99	5.7	7.2	1.9	0.28	0.06	0.09
16	0.12	0.78	0.24	0.34	1.0	0.69	99	1.1	1.1	0.28	0.06	0.09
17	0.11	0.43	0.31	0.26	1.7	0.52	15	1.2	0.88	0.63	0.06	0.08
18	17	0.38	92	0.11	13	0.56	1.8	0.98	0.83	126	0.08	0.08
19	20	0.33	2.1	0.21	46	76	1.6	1.2	30	4.6	0.08	0.09
20	0.64	0.37	0.58	0.51	3.3	30	53	4.0	1.3	0.35	0.05	1.6
21	0.32	0.26	0.39	1.1	1.8	2.7	2.9	1.2	0.91	0.18	0.04	4.7
22	0.31	0.31	0.30	0.63	18	1.00	2.0	1.2	0.81	1.2	0.04	0.61
23	0.24	0.31	0.29	1.4	2.0	0.93	2.0	1.1	0.75	0.47	0.01	0.05
24	0.24	0.31	0.20	0.24	5.7	0.60	83	2.8	0.78	0.17	0.37	0.05
25	62	1.0	1.0	4.6	1.2	2.3	57	52	162	0.20	0.06	0.05
26	1.8	0.37	1.8	12	1.2	0.61	5.2	1.4	347	0.23	0.07	250
27	0.97	0.22	1.7	19	2.3	0.47	1.9	0.58	2.2	0.24	8.6	19
28	2.1	0.23	4.9	17	3.7	15	52	0.44	0.55	0.44	0.44	0.64
29	90	0.58	2.5	6.9	---	0.95	61	0.32	0.32	0.20	7.0	0.08
30	2.2	0.50	1.8	0.67	---	0.46	11	13	18	0.17	0.79	10
31	1.2	---	9.4	11	---	0.47	---	0.41	---	0.17	58	---
MEAN	12.6	3.05	4.21	3.25	5.96	10.3	17.0	12.2	39.0	7.14	4.53	26.4
MAX	137	24	92	19	46	76	99	95	347	126	58	254
MIN	0.08	0.22	0.20	0.11	0.27	0.46	0.27	0.32	0.23	0.13	0.01	0.05
IN.	1.63	0.38	0.54	0.42	0.69	1.33	2.12	1.57	4.87	0.92	0.58	3.30

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

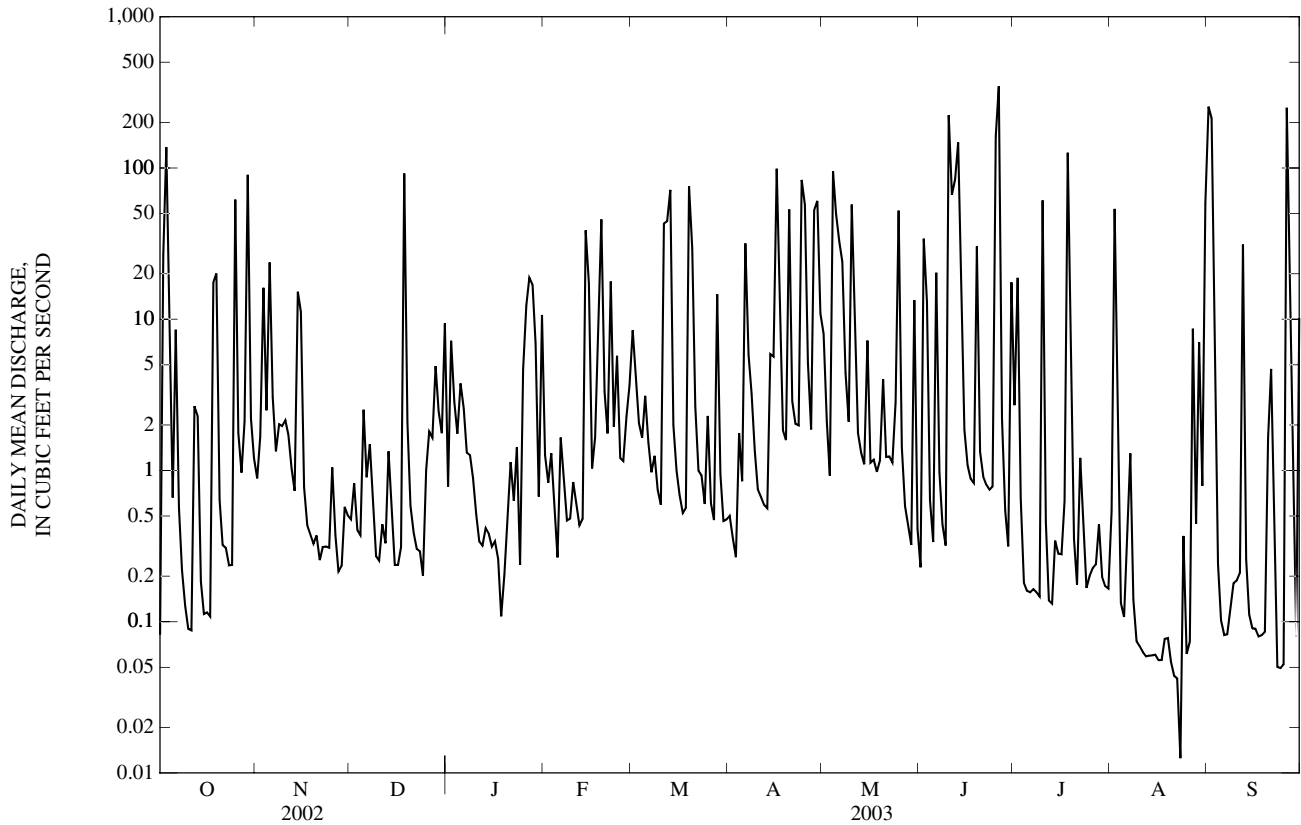
MEAN	7.76	5.43	5.16	8.69	11.2	12.1	11.7	16.7	26.1	7.96	5.43	8.27
MAX	18.5	10.9	13.3	20.9	27.7	33.4	18.4	35.4	39.0	20.1	8.29	26.4
(WY)	(2002)	(2002)	(2002)	(1999)	(1999)	(1998)	(2002)	(2002)	(2003)	(1998)	(2000)	(2003)
MIN	3.11	1.17	1.23	2.36	2.78	3.61	3.81	4.20	5.46	0.87	0.95	1.29
(WY)	(1998)	(2000)	(1999)	(2000)	(2002)	(2000)	(2000)	(1999)	(2001)	(2001)	(2001)	(1999)

07010022 RIVER DES PERES NEAR UNIVERSITY CITY, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	11.8		12.1		10.5	
HIGHEST ANNUAL MEAN					13.7	
LOWEST ANNUAL MEAN					5.55	
HIGHEST DAILY MEAN	267	Jun 11	347	Jun 26	711	Jun 24, 2000
LOWEST DAILY MEAN	0.02	Jul 31	0.01	Aug 23	0.00	Several Days 1997-2002
ANNUAL SEVEN-DAY MINIMUM	0.05	Jul 28	0.05	Aug 17	0.00	At Times 1997-2002
MAXIMUM PEAK FLOW	---		4,430 <sup>b</sup>	Jun 26	4,430 <sup>b</sup>	Jun 26, 2003
MAXIMUM PEAK STAGE	---		16.31	Jun 26	16.31	Jun 26, 2003
INSTANTANEOUS LOW FLOW	---		0.01	Apr 3, Aug 23,24	0.00	Several Days 1997-2002
ANNUAL RUNOFF (INCHES)	17.86		18.36		15.97	
10 PERCENT EXCEEDS	31		31		21	
50 PERCENT EXCEEDS	0.58		0.91		0.36	
90 PERCENT EXCEEDS	0.08		0.11		0.00	

<sup>a</sup> From rating extended above 563 ft<sup>3</sup>/s on basis of indirect measurement of peak flow.

<sup>b</sup> Discharge determined by indirect measurement of peak flow.



07010022 RIVER DES PERES NEAR UNIVERSITY CITY, 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)	Specific conductance, wat unfltrd μS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 29...	0156	Environmental	15	6.2	7.0	67	7.3	369	12.3	83	23.0	6.10
DEC 17...	0810	Environmental	0.22	4.0	8.8	76	7.9	3,360	6.7	350	98.0	25.0
FEB 04...	1500	Environmental	0.71	7.4	7.5	55	7.6	2,680	1.8	320	87.0	24.0
MAR 19...	0852	Environmental	161	2.9	9.4	95	7.8	565	14.3	110	33.0	7.50
JUN 09...	1130	Environmental	0.30	17	6.5	75	7.3	1,010	20.5	260	76.0	17.0
JUN 09...	1131	Replicate	--	--	7.0	79	7.3	1,010	20.5	260	77.0	17.0
AUG 12...	1245	Environmental	0.06	15	1.0	12	7.3	847	22.8	250	75.0	16.0

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd titr., field, mg/L (00450)	Carbonate, wat unfltrd 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...	65	65	79	<1	--	159	4.1	1.30	0.300	0.03	0.310	0.79	24
DEC 17...	152	152	185	<1	870	13	1.1	0.11	<0.020	<0.01	0.040	0.14	32
FEB 04...	149	152	185	<1	710	27	1.6	<0.01	<0.020	<0.01	0.240	0.50	11
MAR 19...	87	87	106	<1	--	322	4.3	0.87	1.10	0.12	0.120	0.76	31
JUN 09...	164	163	199	<1	--	2	1.1	0.47	0.570	0.22	0.120	0.16	17
JUN 09...	--	--	--	--	--	7	1.1	0.47	0.580	0.22	0.110	0.17	20
AUG 12...	145	145	177	<1	--	8	1.1	0.52	<0.020	<0.01	0.160	0.23	24

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 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...	39,000	32,000	27,000	7	<1	<1	<1.0	<1.0	1.6	78	<1	207	<0.1
DEC 17...	4k	23k	17k	<3	1	<1	<1.0	4.3	4.7	82	<1	151	<0.1
FEB 04...	220	760	112	<3	3	<1	<1.0	1.3	5.7	36	<1	870	<0.1
MAR 19...	16,000	22,000	14,000	8	2	<1	<1.0	2.6	5.8	32	<1	137	<0.1
JUN 09...	440	880	120	5	3	<1	<1.0	3.9	2.3	87	<1	188	<0.1
JUN 09...	520	800	108	<3	2	<1	<1.0	3.8	2.0	89	<1	190	<0.1
AUG 12...	520	780	400	10	3	<1	<1.0	2.9	1.0	81	<1	489	<0.1





## LOWER MISSISSIPPI RIVER BASIN

07010022 RIVER DES PERES NEAR UNIVERSITY CITY, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 29...	E2	<1	<0.02	<2	<2	<2	M	<1	<2	M
DEC 17...	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--
MAR 19...	4	<1	<0.02	<2	<2	M	M	<1	<2	M
JUN 09...	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- 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

07010030 RIVER DES PERES TRIBUTARY AT PAGEDALE, MO

LOCATION.--Lat 38°40'37", long 90°18'53", St. Louis County, Hydrologic Unit 07140101, on right culvert wall next to sidewalk handrail at Page Ave., 3.04 mi south of Interstate 70, and 2.37 mi east of Interstate 170.

DRAINAGE AREA.--2.01 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 504.56 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Record poor.

REVISIONS.--Revised maximum discharges for water years 1997-2002 are given below. They supersede figures published in the reports of 1998-2002.

Water Year	Date	Maximum Discharge (ft <sup>3</sup> /s)	Gage height (ft)
1997	Aug. 17, 1997	101 <sup>a</sup>	4.63
1998	July 22, 1998	1,290 <sup>a</sup>	8.84
1999	June 12, 1999	876 <sup>a</sup>	7.88
2000	June 24, 2000	585 <sup>a</sup>	7.03
2001	Sept. 8, 2001	395 <sup>a</sup>	6.33
2002	Aug. 6, 2002	744 <sup>a</sup>	7.52

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	0.12	0.22	0.53	0.18	0.17	1.1	e0.45	0.84	0.03	0.60	0.37	28
2	3.3	0.39	0.29	0.72	0.11	1.2	e0.39	0.51	2.1	0.76	3.3	24
3	14	1.5	0.23	0.44	0.17	0.97	e0.36	0.39	1.0	0.36	0.65	1.6
4	2.0	0.41	0.23	0.20	0.11	0.91	e0.48	12	0.12	0.25	0.11	0.80
5	0.37	2.7	0.43	0.30	0.06	0.86	e0.35	8.3	0.07	0.19	0.07	0.49
6	0.83	0.59	0.35	0.26	0.15	0.81	2.6	4.4	1.2	0.17	0.12	0.34
7	0.26	0.30	0.36	0.18	0.16	0.66	1.5	3.4	0.12	0.12	0.20	0.25
8	0.16	0.22	0.16	0.15	e0.06	0.57	0.71	0.95	0.05	e0.09	0.13	0.17
9	0.15	0.24	0.12	0.13	e0.04	0.49	e0.30	0.63	0.03	0.09	0.04	0.16
10	0.13	0.29	0.12	0.11	0.09	0.45	e0.24	6.6	37	3.0	0.04	0.13
11	0.12	0.24	0.13	0.09	0.06	5.1	e0.18	0.96	5.4	0.04	0.03	0.08
12	0.57	0.17	0.10	0.08	e0.04	6.8	e0.14	0.48	4.0	e0.03	0.03	2.9
13	0.46	0.16	0.33	0.09	e0.04	10	e0.10	0.48	15	e0.03	0.03	0.20
14	0.15	1.2	0.07	0.08	4.7	1.5	e0.09	0.28	1.3	e0.02	0.02	0.10
15	0.13	1.4	0.03	0.06	2.1	1.1	e0.09	0.28	0.54	e0.02	0.02	0.07
16	0.10	0.26	0.02	0.06	e0.59	0.91	4.1	0.20	0.35	e0.01	e0.01	0.06
17	0.09	0.21	0.02	0.06	e0.40	0.81	e2.0	0.20	0.28	e0.01	e0.01	2.2
18	1.4	0.17	17	0.05	1.3	0.74	e1.3	0.17	0.21	9.1	e0.01	0.97
19	2.4	0.18	8.0	e0.04	5.8	6.8	e1.5	0.20	4.4	e0.76	e0.01	0.05
20	0.24	0.19	2.5	e0.38	1.2	4.5	7.6	0.32	0.26	e0.25	0.02	0.05
21	0.14	0.18	1.2	e0.40	0.84	1.4	0.65	0.11	0.15	e0.16	0.02	0.04
22	0.12	0.22	0.66	e0.16	2.2	1.0	0.39	0.08	0.11	e0.09	0.03	0.05
23	0.10	0.16	0.46	e0.55	0.80	0.89	0.31	0.05	0.09	0.12	0.03	0.03
24	0.09	0.15	0.34	e0.23	1.1	0.79	9.1	0.25	0.05	0.06	0.03	0.02
25	6.2	0.29	0.29	e0.14	e1.1	1.0	8.2	6.6	38	0.18	0.28	0.01
26	0.46	0.23	0.26	e0.09	0.60	0.78	1.3	1.4	66	0.03	0.05	24
27	0.25	0.23	0.26	e0.08	0.65	0.65	0.71	0.57	1.8	0.02	0.13	1.8
28	0.30	0.24	0.47	e0.19	0.72	2.6	6.7	0.23	1.2	0.35	0.04	0.39
29	8.8	0.26	0.39	e0.22	---	0.90	6.3	0.11	0.64	0.13	0.28	0.20
30	0.57	0.32	0.28	e0.31	---	e0.57	1.5	0.58	1.4	0.10	0.12	0.60
31	0.32	---	0.92	0.93	---	e0.50	---	0.06	---	0.08	6.1	---
MEAN	1.43	0.44	1.18	0.22	0.91	1.85	1.99	1.67	6.10	0.56	0.40	2.99
MAX	14	2.7	17	0.93	5.8	10	9.1	12	66	9.1	6.1	28
MIN	0.09	0.15	0.02	0.04	0.04	0.45	0.09	0.05	0.03	0.01	0.01	0.01
IN.	0.82	0.25	0.68	0.13	0.47	1.06	1.10	0.96	3.39	0.32	0.23	1.66

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

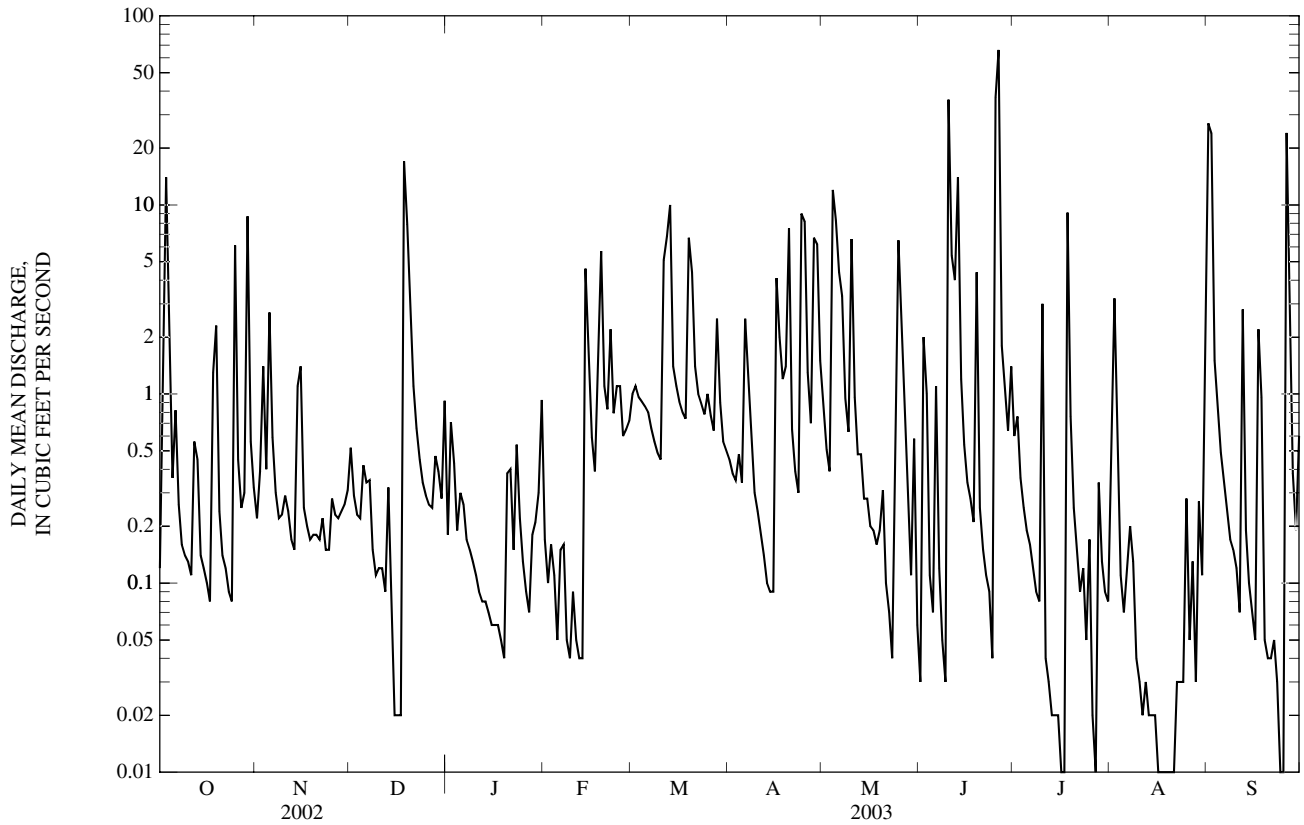
MEAN	1.01	0.82	0.82	1.47	2.20	2.16	1.69	2.63	4.32	1.43	1.16	1.00
MAX	2.59	1.55	1.98	4.50	7.35	6.56	3.06	7.29	6.10	6.51	2.79	2.99
(WY)	(2002)	(2002)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(2003)	(1998)	(2002)	(2003)
MIN	0.39	0.12	0.33	0.22	0.50	0.37	0.48	0.51	0.45	0.25	0.12	0.14
(WY)	(2000)	(2000)	(1999)	(2003)	(2002)	(2000)	(2000)	(1999)	(2001)	(1997)	(2001)	(1999)



07010030 RIVER DES PERES TRIBUTARY AT PAGEDALE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	2.17		1.64		1.74	
HIGHEST ANNUAL MEAN					2.53	
LOWEST ANNUAL MEAN					0.69	
HIGHEST DAILY MEAN	79	Jun 11	66	Jun 26	148	Feb 7, 1999
LOWEST DAILY MEAN	0.02	Jul 9, Dec 16, 17	0.01	Many Days	0.00	Many Days 2001-2002
ANNUAL SEVEN-DAY MINIMUM	0.05	Aug 30	0.01	Aug 14	0.00	At Times 2001
MAXIMUM PEAK FLOW	---		1,000 <sup>b</sup>	Jun 25	1,290 <sup>ac</sup>	Jul 22, 1998
MAXIMUM PEAK STAGE	---		8.20	Jun 25	8.84	Jul 22, 1998
INSTANTANEOUS LOW FLOW	---		0.01	Many Days	0.00	Many Days 2001-2002
ANNUAL RUNOFF (INCHES)	14.63		11.06		11.75	
10 PERCENT EXCEEDS	3.2		3.3		2.6	
50 PERCENT EXCEEDS	0.25		0.28		0.22	
90 PERCENT EXCEEDS	0.08		0.04		0.05	

e Estimated  
 a From rating extended above 48 ft<sup>3</sup>/s on basis of indirect measurement of peak flow.  
 b Discharge determined by indirect measurement of peak flow.  
 c Revised



07010035 ENGELHOLM CREEK NEAR WELLSTON, MO

LOCATION.--Lat 38°40'57", long 90°18'10", in NW ¼ NE ¼ SE ¼ sec.3, T.45 N., R.6 E., St. Louis County, Hydrologic Unit 07140101, on right downstream wingwall of Kingsland Ave. bridge, 2.70 mi south of Interstate 70, and 2.78 mi east of Interstate 170.

DRAINAGE AREA.--1.40 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1998 to current year. May 1997 to April 1998 published as Engelholm Creek at Pagedale (07010034).

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

REMARKS.--Water-discharge records poor.

REVISIONS.--Revised maximum discharges for water years 1998-2002 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 <sup>3</sup> /s)	Gage height (ft)
1998	July 22, 1998	1,086 <sup>a</sup>	8.88
1999	Feb. 7, 1999	384 <sup>a</sup>	6.12
2000	Feb. 18, 2000	384 <sup>a</sup>	6.12
2001	Sept. 9, 2001	156 <sup>a</sup>	4.52
2002	Aug. 6, 2002	998 <sup>a</sup>	8.61
Daily Mean Discharge			Monthly Mean
1999	Feb. 7, 1999	58	February - 3.64

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	0.14	0.32	0.20	0.28	0.28	0.93	0.34	0.81	0.34	0.58	0.18	18
2	1.8	0.45	0.21	0.73	0.25	0.85	0.31	0.54	2.4	0.96	1.8	13
3	7.8	1.2	0.20	0.47	0.30	0.69	0.30	0.46	1.3	0.42	0.48	0.46
4	1.7	0.50	0.20	0.35	0.23	0.64	0.31	7.7	0.50	0.31	0.14	0.14
5	0.29	2.1	0.27	0.44	0.20	0.66	0.27	6.8	0.40	0.24	0.13	0.08
6	0.64	0.55	0.22	0.40	0.26	0.47	1.6	3.6	1.5	0.22	0.36	0.05
7	0.26	0.35	0.23	0.33	e0.22	0.43	0.59	2.9	0.60	0.26	0.14	0.04
8	0.20	0.43	0.25	0.32	e0.20	0.44	0.32	1.0	0.44	0.21	0.14	0.05
9	0.20	0.65	0.19	0.27	0.20	0.41	0.22	0.78	0.32	0.19	0.13	0.05
10	0.21	e0.72	0.17	0.23	0.25	0.38	0.20	5.2	27	2.5	0.13	0.04
11	0.24	e0.54	0.18	0.22	0.22	3.1	0.20	1.1	5.1	0.23	0.13	0.04
12	0.56	e0.37	0.18	0.21	0.20	4.3	0.19	0.64	3.8	0.18	0.15	1.5
13	0.33	e0.29	0.22	0.20	0.21	6.1	0.15	0.49	6.8	0.15	0.15	0.08
14	0.20	e1.0	0.17	0.19	3.2	0.91	0.16	0.48	1.2	0.15	0.15	0.05
15	0.20	1.1	0.15	0.19	1.8	0.70	0.18	0.46	0.64	0.15	0.14	0.04
16	0.19	0.25	0.15	0.18	e0.64	0.61	7.2	0.41	0.48	0.13	0.13	0.04
17	0.19	0.20	0.15	e0.17	0.55	0.52	2.3	0.42	0.40	0.12	0.13	0.04
18	1.2	0.20	5.3	e0.16	1.0	0.50	0.61	0.42	0.32	4.3	0.11	0.04
19	1.9	0.20	0.48	e0.16	4.8	4.5	0.49	0.42	3.2	0.46	0.11	0.04
20	0.24	0.17	0.26	e0.35	0.89	4.5	3.2	0.45	0.43	0.24	0.11	0.04
21	0.20	0.19	0.22	e0.38	0.61	1.1	0.56	0.31	0.30	0.19	0.52	0.04
22	0.20	0.22	0.18	e0.17	1.5	0.71	0.41	0.35	0.87	0.17	0.08	0.05
23	0.19	0.21	0.17	e0.45	0.58	0.61	0.35	0.35	0.22	0.15	0.08	0.05
24	0.19	0.24	0.18	e0.27	e0.70	0.53	6.1	0.42	0.20	0.15	0.08	0.04
25	4.5	0.22	0.26	0.17	e0.50	0.66	6.3	2.5	32	0.14	0.08	0.05
26	0.49	0.20	0.30	e0.15	e0.38	0.46	1.3	0.39	49	0.13	0.33	13
27	0.33	0.18	0.29	e0.14	e0.45	0.44	0.71	0.32	1.2	0.14	0.09	1.3
28	0.37	0.18	0.45	0.17	0.54	1.6	4.8	0.31	0.69	0.63	0.09	0.16
29	6.3	0.20	0.44	0.28	---	0.52	2.4	0.32	0.49	0.14	0.20	0.09
30	0.52	0.20	0.38	0.27	---	0.41	1.1	0.99	1.9	0.12	0.08	0.28
31	0.38	---	0.89	0.62	---	0.36	---	0.38	---	0.12	3.7	---
MEAN	1.04	0.45	0.42	0.29	0.76	1.26	1.44	1.35	4.80	0.45	0.33	1.63
MAX	7.8	2.1	5.3	0.73	4.8	6.1	7.2	7.7	49	4.3	3.7	18
MIN	0.14	0.17	0.15	0.14	0.20	0.36	0.15	0.31	0.20	0.12	0.08	0.04
IN.	0.85	0.36	0.35	0.24	0.56	1.04	1.15	1.11	3.83	0.37	0.27	1.30

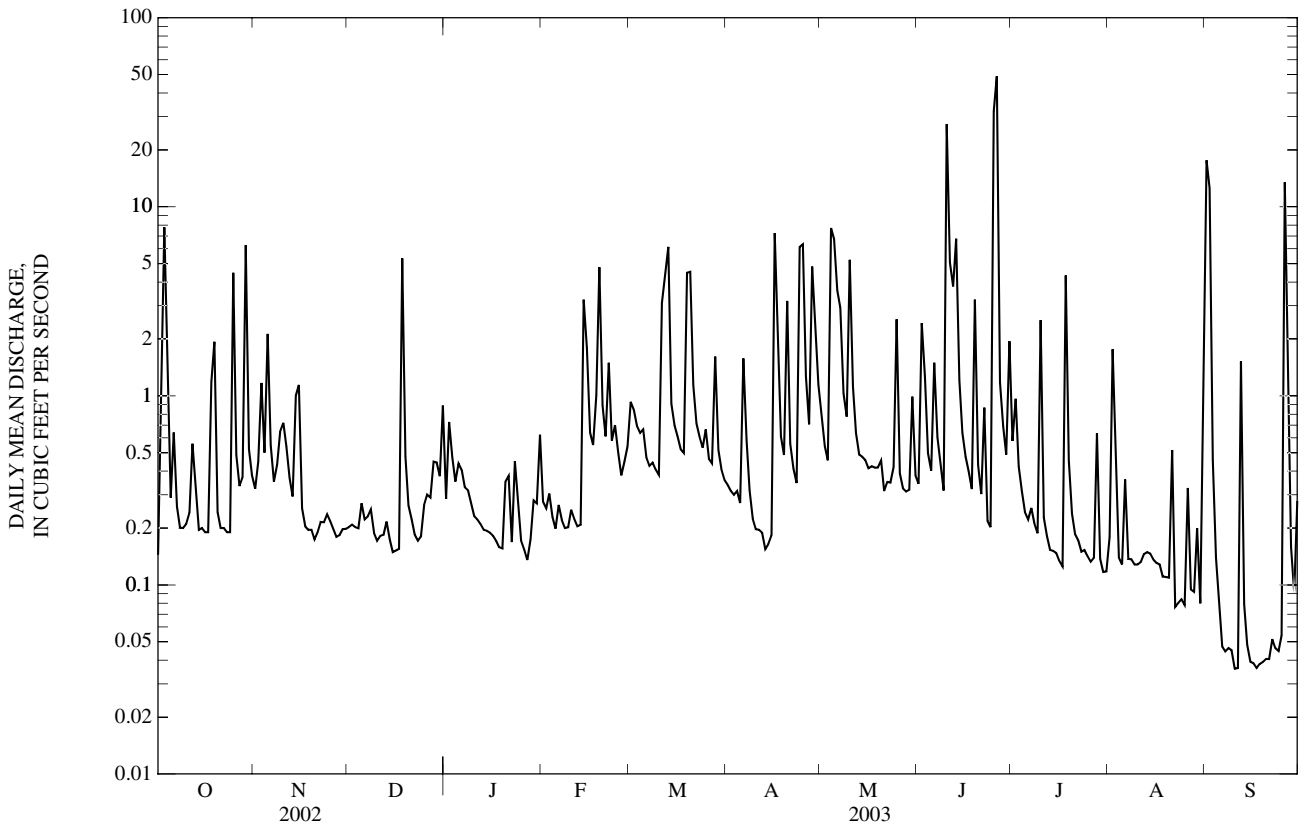
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2003, BY WATER YEAR (WY)

MEAN	0.75	0.70	0.68	1.07	1.28	1.05	1.13	1.63	2.12	0.85	0.68	0.64
MAX	1.15	1.39	1.51	3.14	3.29	1.86	2.04	3.56	4.80	2.86	1.40	1.63
(WY)	(2002)	(1999)	(2002)	(1999)	(1999)	(2002)	(2002)	(2002)	(2003)	(1998)	(1998)	(2003)
MIN	0.42	0.22	0.30	0.29	0.62	0.38	0.36	0.56	0.28	0.22	0.097	0.21
(WY)	(2001)	(2000)	(2001)	(2003)	(2002)	(2000)	(2000)	(2001)	(2001)	(2001)	(2001)	(1999)

07010035 ENGELHOLM CREEK NEAR WELLSTON, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1998 - 2003	
ANNUAL MEAN	1.24		1.18		0.99	
HIGHEST ANNUAL MEAN					1.38	
LOWEST ANNUAL MEAN					0.40	
HIGHEST DAILY MEAN	28		49		49	
LOWEST DAILY MEAN	0.05		0.04		0.04	
ANNUAL SEVEN-DAY MINIMUM	0.05		0.04		0.04	
MAXIMUM PEAK FLOW	---		986 <sup>b</sup>		1,086 <sup>ac</sup>	
MAXIMUM PEAK STAGE	---		8.57		8.88	
INSTANTANEOUS LOW FLOW	---		0.03		0.03	
ANNUAL RUNOFF (INCHES)	11.99		11.43		9.64	
10 PERCENT EXCEEDS	2.5		2.4		1.7	
50 PERCENT EXCEEDS	0.31		0.32		0.24	
90 PERCENT EXCEEDS	0.09		0.13		0.09	

e Estimated  
<sup>a</sup> From rating extended above 52 ft<sup>3</sup>/s on basis of indirect measurement of peak flow.  
<sup>b</sup> Discharge determined by indirect measurement of peak flow.  
<sup>c</sup> Revised.



07010035 ENGELHOLM CREEK NEAR WELLSTON, MO—Continued  
(Metropolitan St. Louis Sewer District Network)

WATER-QUALITY RECORDS

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

REMARKS.--Published as Engelholm Creek at Pagedale (07010034) October 1997 to September 1998.

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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 25...	0725	Environmental	11	1.4	9.1	87	7.8	259	12.3	64	19.0	3.90
DEC 17...	1330	Environmental	0.15	2.3	9.7	84	8.1	1,040	7.9	260	63.0	24.0
FEB 04...	1400	Environmental	0.22	1.0	15.5	121	8.4	1,120	4.2	230	59.0	21.0
APR 20...	0415	Environmental	20	11	8.4	86	7.2	469	15.1	130	36.0	9.80
JUN 09...	1630	Environmental	0.35	3.2	8.3	99	7.9	696	22.5	240	63.0	20.0
AUG 12...	1205	Environmental	0.15	6.4	5.4	63	7.5	728	22.3	200	49.0	20.0

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd incrm. titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd incrm. titr., mg/L (00450)	Carbonate, wat unfltrd incrm. titr., 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 25...	48	49	59	<1	--	213	1.6	0.03	0.430	<0.01	0.230	0.51	22
DEC 17...	139	140	171	<1	160	3	1.5	0.33	0.820	0.07	0.120	0.18	15
FEB 04...	126	126	139	7	190	6	0.80	0.27	0.920	0.03	0.110	0.10	26
APR 20...	87	85	103	<1	--	255	2.3	0.04	0.640	0.03	0.130	0.64	20
JUN 09...	140	141	173	<1	--	2	0.50	0.12	1.00	0.08	0.150	0.18	15
AUG 12...	107	107	130	<1	--	7	0.40	0.14	0.860	0.12	0.200	0.21	13

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Arsenic, water, fltrd, $\mu$ g/L (01000)	Beryllium, water, fltrd, $\mu$ g/L (01010)	Cadmium, water, fltrd, $\mu$ g/L (01025)	Chromium, water, fltrd, $\mu$ g/L (01030)	Copper, water, fltrd, $\mu$ g/L (01040)	Iron, water, fltrd, $\mu$ g/L (01046)	Lead, water, fltrd, $\mu$ g/L (01049)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recover-able, $\mu$ g/L (71900)
OCT 25...	3,000	8,200	28,000	6	1	<1	<1.0	<1.0	3.8	38	<1	45	<0.1
DEC 17...	4k	360k	92	<3	<1	<1	<1.0	4.2	1.8	66	<1	127	<0.1
FEB 04...	2k	2k	4k	<3	6	<1	<1.0	1.3	2.7	53	<1	145	<0.1
APR 20...	4,000	12,000	14,000	5	<1	<1	<1.0	<1.0	5.0	26	<1	88	<0.1
JUN 09...	200	255	320	4	2	<1	<1.0	3.0	2.4	29	<1	84	<0.1
AUG 12...	290	435k	460	4	2	<1	<1.0	2.3	1.2	22	<1	168	<0.1





## LOWER MISSISSIPPI RIVER BASIN

07010035 ENGELHOLM CREEK NEAR WELLSTON, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 25...	E12	<1	<0.02	<2	<2	<2	<1	<1	<2	M
DEC 17...	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--
APR 20...	3	<1	<0.02	<2	<2	<2	<1	<1	<2	M
JUN 09...	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than

E -- Estimated value

M -- Presence verified, not quantified

## Value qualifier codes used in this table:

k -- Counts outside acceptable range

07010075 DEER CREEK AT LADUE, MO

LOCATION.--Lat 38°36'58", long 90°21'50", St. Louis County, Hydrologic Unit 07140101, on left upstream bank at bridge to Rock Hill Quarry, on McCarthy Construction Company complex, 5 mi east of I-270, 0.93 mi south of Highway 64/40, 0.17 mi west of McKnight.

DRAINAGE AREA.--21.4 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 31, 2001 to current year.

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

REMARKS.--Water-discharge records poor.

REVISIONS.--Revised maximum discharges for water years 2001-2002 are given below. They supersede figures published in the report of 2002.

Water Year	Date	Maximum Discharge (ft <sup>3</sup> /s)	Gage height (ft)
2001	Sept. 9, 2001	3,190 <sup>a</sup>	12.24
2002	May 9, 2002	3,030 <sup>a</sup>	11.90

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	1.1	2.5	7.8	0.71	6.2	0.00	8.3	0.00	423
2	0.00	0.20	0.00	5.0	1.3	e6.5	0.67	3.6	11	9.7	30	1,040
3	204	6.5	0.00	4.3	1.4	e5.0	0.34	2.3	13	0.20	9.1	26
4	12	1.4	0.00	0.95	0.98	e4.0	0.12	171	2.0	0.41	0.00	4.6
5	0.75	17	0.00	1.0	0.72	e3.5	0.01	101	0.07	0.00	0.00	0.26
6	2.6	10	0.00	2.1	0.89	e3.0	14	28	8.6	0.00	0.00	0.00
7	0.48	2.2	0.00	0.74	1.2	1.6	7.1	55	2.4	0.00	0.00	0.00
8	0.00	0.75	0.00	0.40	0.72	1.1	1.5	6.6	0.34	0.00	0.00	0.00
9	0.00	0.01	0.00	0.55	0.79	1.1	0.72	4.2	0.00	0.00	0.00	0.05
10	0.00	0.00	0.00	0.25	0.78	0.72	0.25	94	455	61	0.00	0.00
11	0.00	7.2	0.00	0.02	0.76	28	0.08	17	133	0.06	0.00	0.00
12	0.00	0.95	0.00	0.00	0.72	107	0.11	3.8	343	0.01	0.00	37
13	0.00	0.16	0.06	0.00	0.72	132	0.02	2.7	323	0.17	0.00	2.4
14	0.00	1.7	0.00	0.00	32	10	0.00	2.1	11	0.00	0.00	0.03
15	0.00	12	0.00	0.00	17	6.3	0.00	11	1.5	0.00	0.00	0.24
16	0.00	0.61	0.00	0.00	4.3	4.8	130	2.4	0.04	0.00	0.00	0.22
17	0.00	2.2	0.00	0.00	2.5	4.0	29	1.7	0.00	0.00	0.00	0.00
18	1.8	0.52	97	0.00	6.8	3.0	4.3	1.6	0.00	254	0.00	2.7
19	24	0.09	5.0	0.00	67	46	2.5	0.89	4.6	9.1	0.00	0.26
20	0.19	0.00	1.2	0.00	8.7	57	65	2.5	0.07	0.02	0.00	0.00
21	0.00	0.00	0.49	0.62	3.9	9.3	5.5	0.89	0.00	0.00	0.00	0.00
22	0.00	0.00	0.06	0.70	16	4.3	3.7	0.00	0.00	0.00	0.00	6.8
23	0.00	0.00	0.00	0.48	5.8	4.6	2.3	0.00	0.00	0.00	0.00	0.41
24	0.00	0.00	0.00	0.20	6.0	2.3	150	0.39	0.00	0.00	0.00	0.00
25	71	0.00	0.00	0.00	3.4	6.4	111	131	63	0.00	0.00	0.00
26	2.0	0.00	0.00	1.7	2.2	2.2	14	2.6	775	0.00	0.00	257
27	0.52	0.00	0.12	0.93	2.5	1.3	4.0	0.61	5.9	0.00	1.7	27
28	0.00	0.00	1.3	2.5	4.2	11	28	0.00	0.18	0.15	0.00	1.7
29	136	0.00	3.3	2.0	---	3.5	19	0.00	0.00	0.00	0.28	0.07
30	3.0	0.00	3.2	2.0	---	1.2	8.2	2.5	0.00	0.00	0.00	1.6
31	0.55	---	7.6	7.0	---	0.83	---	0.84	---	0.00	20	---
MEAN	14.8	2.12	3.85	1.11	6.99	15.5	20.1	21.2	71.8	11.1	1.97	61.0
MAX	204	17	97	7.0	67	132	150	171	775	254	30	1,040
MIN	0.00	0.00	0.00	0.00	0.72	0.72	0.00	0.00	0.00	0.00	0.00	0.00
IN.	0.80	0.11	0.21	0.06	0.34	0.83	1.05	1.14	3.74	0.60	0.11	3.18

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

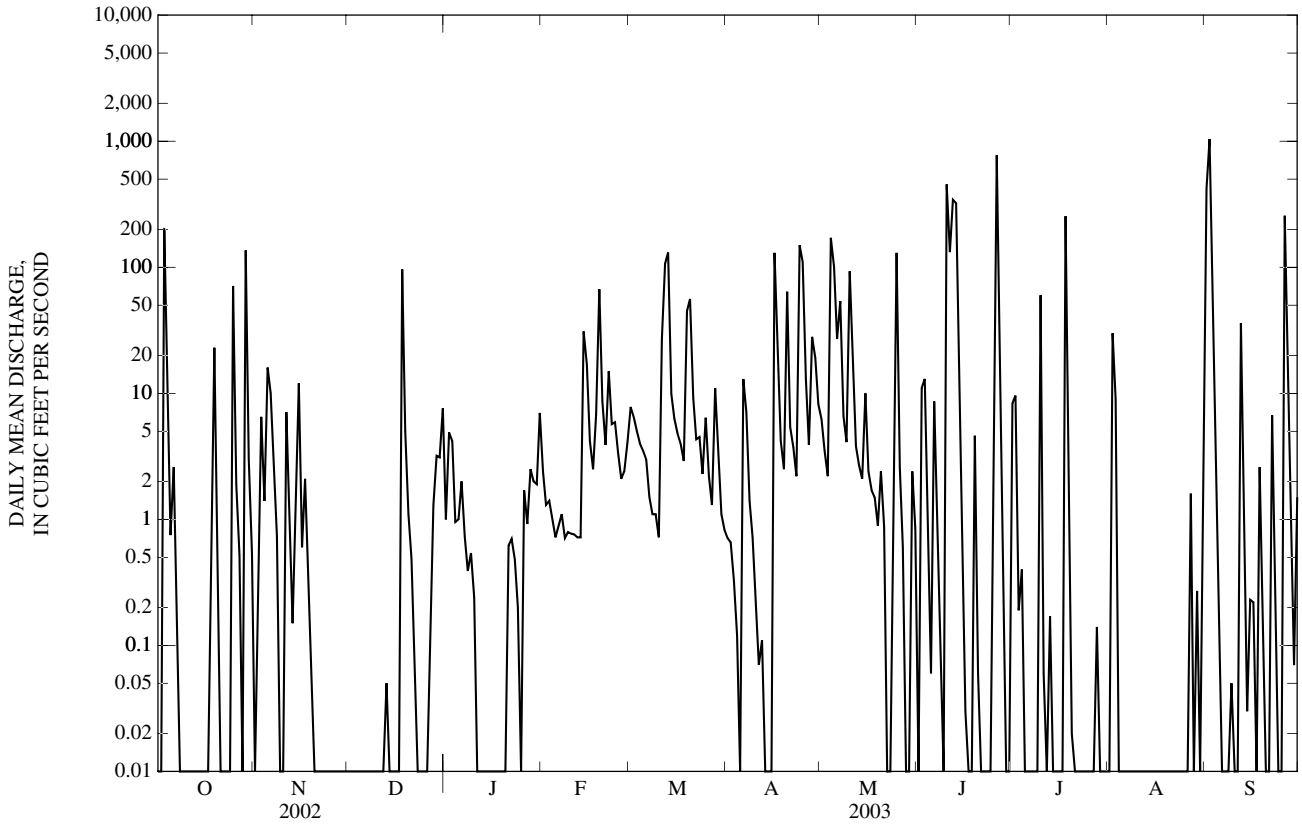
MEAN	19.9	8.93	14.9	13.0	5.23	18.9	19.7	42.1	40.8	5.65	1.42	25.3
MAX	25.1	15.7	26.0	24.9	6.99	22.3	20.1	62.9	71.8	11.1	1.97	61.0
(WY)	(2002)	(2002)	(2002)	(2002)	(2003)	(2002)	(2003)	(2002)	(2003)	(2003)	(2003)	(2003)
MIN	14.8	2.12	3.85	1.11	3.47	15.5	19.4	21.2	8.41	0.59	0.73	3.02
(WY)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2002)	(2003)	(2001)	(2002)	(2001)	(2002)



SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 2001 - 2003	
ANNUAL MEAN	16.9		19.2		20.0	
HIGHEST ANNUAL MEAN					20.8	
LOWEST ANNUAL MEAN					19.2	
HIGHEST DAILY MEAN	720	Jun 12	1,040	Sep 2	1,040	Sep 2, 2003
LOWEST DAILY MEAN	0.00	Many Days	0.00	Many Days	0.00	Many Days 2001-2003
ANNUAL SEVEN-DAY MINIMUM	0.00	At Times	0.00	At Times	0.00	At Times
MAXIMUM PEAK FLOW	---		5,530 <sup>a</sup>	Sep 2	5,530 <sup>a</sup>	Sep 2, 2003
MAXIMUM PEAK STAGE	---		16.86	Sep 2	16.86	Sep 2, 2003
INSTANTANEOUS LOW FLOW	---		0.00	Many Days	0.00	Many Days 2001-2003
ANNUAL RUNOFF (INCHES)	10.71		12.17		12.67	
10 PERCENT EXCEEDS	27		27		33	
50 PERCENT EXCEEDS	0.12		0.67		0.33	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated

<sup>a</sup> From rating extended above 364 ft<sup>3</sup>/s on basis of indirect measurement of peak flow.



07010075 DEER CREEK AT LADUE, MO—Continued  
(Metropolitan St. Louis Sewer District Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 2001 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)	Specific conductance, wat unfltrd μS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 25...	0542	Environmental	25	4.4	8.2	77	7.7	529	11.9	170	52.0	10.0
DEC 17...	0830	Environmental	<0.01	18	3.2	27	7.3	1,470	6.7	260	80.0	15.0
FEB 04...	1010	Environmental	1.3	6.4	12.1	85	7.5	1,370	0.1	190	49.0	17.0
APR 06...	1827	Environmental	44	2.2	10.5	90	8.1	1,150	8.0	210	56.0	16.0
06...	1828	Blank	--	--	--	--	--	--	--	--	0.23	<0.03
JUN 09...	1255	Environmental	<0.01	15	8.2	97	7.2	817	22.7	200	57.0	13.0
AUG 11...	1045	Environmental	<0.01	1.8	10.2	126	8.1	571	24.9	150	42.0	10.0
11...	1050	Blank	--	--	--	--	--	--	--	--	<0.02	<0.03

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd incrm. titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd incrm. titr., field, mg/L (00450)	Carbonate, wat unfltrd 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 25...	117	118	144	<1	--	40	0.90	0.11	0.570	0.02	0.120	0.19	20
DEC 17...	172	172	210	<1	310	19	0.80	0.12	<0.020	<0.01	0.080	0.18	29
FEB 04...	102	102	124	<1	420	6	0.80	0.46	0.940	0.03	0.080	0.07	14
APR 06...	132	131	159	<1	--	18	1.0	0.01	0.320	0.02	0.060	0.12	27
06...	--	--	--	--	--	<1	<0.20	<0.01	<0.020	<0.01	<0.010	<0.02	5
JUN 09...	126	127	155	<1	--	15	0.60	0.10	0.340	0.03	0.070	0.11	19
AUG 11...	108	107	131	<1	--	14	0.60	0.06	<0.020	<0.01	0.040	0.09	21
11...	--	--	--	--	--	<1	<0.20	<0.01	<0.020	<0.01	<0.010	<0.02	<5

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC MF, col/100 mL (31625)	Fecal streptococci MF, col/100 mL (31673)	Aluminum, water, fltrd, μg/L (01106)	Arsenic water, fltrd, ug/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 25...	7,400	8,200	4,000	<3	1	<1	<1.0	1.5	3.2	20	<1	120	<0.1
DEC 17...	110	191	26k	8	<1	<1	<1.0	5.5	2.2	83	<1	1,300	<0.1
FEB 04...	<10b	<10b	<10b	<3	<1	<1	<1.0	1.8	4.0	7	<1	67	<0.1
APR 06...	320k	4,400	2,850	<3	6	<1	<1.0	3.8	6.0	30	<1	78	<0.1
06...				<3	<1	<1	<1.0	1.3	<1.0	<2	<1	<1	<0.1
JUN 09...	180	152	36k			<1	<1.0	3.0	3.3	11	<1	149	<0.1
AUG 11...	51k	84	22k	11	3	<1	<1.0	1.9	2.3	12	<1	156	<0.1
11...				<3	<1	<1	<1.0	<1.0	<1.0	<2	<1	<1	<0.1





## LOWER MISSISSIPPI RIVER BASIN

07010075 DEER CREEK AT LADUE, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 25...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
DEC 17...	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--
APR 06...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
06...	M	<1	<0.03	<2	<2	<2	<1	<1	<2	<2
JUN 09...	--	--	--	--	--	--	--	--	--	--
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
- n -- Below the LRL and above the LT-MDL

07010086 DEER CREEK AT MAPLEWOOD, MO

LOCATION.--Lat 38°36'04", long 90°19'34", St. Louis County, Hydrologic Unit 07140101, on right downstream pier of Big Bend Road bridge, 0.44 mi north of Interstate 44, 4.35 mi east of U.S. 67 (Lindbergh Blvd.), and 0.63 mi upstream of River Des Peres Drainage Channel.

DRAINAGE AREA.--36.5 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1996 to current year. Annual peaks only for 1969-1974 water years published in WRD MO 1974.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 415.75 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records fair. U.S.G.S. satellite telemeter at station.

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 <sup>3</sup> /s)	Gage height (ft)
1996	Aug. 23, 1996	4,940 <sup>a</sup>	15.57
1997	Nov. 6, 1996	3,010 <sup>a</sup>	11.53
1998	July 30, 1998	4,140 <sup>a</sup>	14.19
1999	Feb. 7, 1999	5,310 <sup>a</sup>	16.17
2000	June 24, 2000	5,460 <sup>a</sup>	16.41
2001	July 18, 2001	2,930 <sup>a</sup>	11.38
2002	Nov. 24, 2001	2,470 <sup>a</sup>	10.52

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	1.3	1.9	1.2	3.7	4.9	18	2.2	11	2.0	6.6	2.2	606
2	2.1	2.8	1.3	9.9	2.5	17	2.3	6.1	31	59	41	1,370
3	294	14	1.3	8.5	3.0	8.5	1.9	3.8	37	4.7	50	34
4	21	4.2	1.7	3.6	2.9	7.9	1.8	276	4.6	1.8	1.7	5.9
5	4.0	31	2.5	4.1	2.7	9.2	1.7	195	2.4	1.9	1.1	2.9
6	6.6	12	2.2	4.6	2.8	5.8	38	49	24	1.4	2.3	2.3
7	3.2	3.8	2.6	2.7	2.8	4.2	16	115	6.6	1.3	1.0	1.9
8	1.5	2.2	1.5	2.0	1.9	3.6	4.0	13	2.2	1.3	1.1	1.5
9	1.2	2.1	1.3	1.7	3.2	3.1	2.9	8.2	1.7	1.3	0.94	1.3
10	1.0	3.0	1.0	1.5	6.7	2.8	1.8	177	628	121	0.84	1.0
11	1.1	6.1	0.99	1.4	2.0	39	1.4	47	238	3.1	0.82	1.7
12	1.2	3.2	0.96	1.1	2.0	190	1.2	7.5	308	1.4	0.74	76
13	1.9	1.5	4.0	1.1	2.0	197	1.1	5.2	366	2.4	0.74	5.4
14	1.3	11	1.9	1.1	75	14	1.1	4.1	24	1.3	0.93	1.9
15	2.0	22	1.3	0.99	42	7.3	1.1	23	6.1	1.4	0.79	2.2
16	1.2	2.5	1.2	1.1	8.0	5.3	196	5.0	3.3	1.2	0.83	1.1
17	1.3	2.1	1.1	1.3	5.5	4.4	69	3.7	2.5	1.1	0.79	1.0
18	15	2.0	142	0.97	17	3.8	5.6	3.4	2.3	374	0.79	1.0
19	52	1.4	12	1.1	125	118	2.9	3.5	18	38	0.72	1.6
20	2.9	1.3	3.6	1.6	17	99	112	5.9	4.3	3.0	0.69	1.8
21	1.6	1.1	1.6	2.7	7.3	17	6.8	3.4	2.2	1.5	0.82	1.6
22	1.4	1.2	1.2	1.3	32	6.1	3.5	2.0	2.1	2.0	0.88	3.4
23	1.3	1.5	1.2	1.2	11	6.6	2.6	1.8	1.6	2.2	0.75	3.1
24	1.8	1.4	1.3	0.94	11	4.2	234	3.9	1.7	2.0	1.0	1.1
25	144	2.9	2.7	5.6	6.3	24	227	262	100	1.2	0.78	1.1
26	6.5	1.3	2.2	1.3	4.1	4.8	28	7.5	1,070	1.0	0.80	388
27	2.4	0.95	2.4	1.8	5.1	2.8	6.8	3.9	13	1.1	16	73
28	2.8	0.98	3.6	2.9	7.5	31	67	3.1	3.5	6.3	3.5	7.6
29	242	1.2	4.6	3.8	---	7.8	93	2.6	2.2	1.7	12	2.3
30	7.6	1.1	4.1	3.0	---	3.1	21	11	8.4	1.3	4.2	7.5
31	2.9	---	17	9.6	---	2.3	---	4.3	---	1.0	74	---
MEAN	26.8	4.79	7.34	2.85	14.8	28.0	38.5	40.9	97.2	20.9	7.25	87.0
MAX	294	31	142	9.9	125	197	234	276	1,070	374	74	1,370
MIN	1.0	0.95	0.96	0.94	1.9	2.3	1.1	1.8	1.6	1.0	0.69	1.0
IN.	0.85	0.15	0.23	0.09	0.42	0.88	1.18	1.29	2.97	0.66	0.23	2.66

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

MEAN	17.2	22.5	11.6	23.4	35.5	34.6	26.9	38.2	60.8	24.6	15.9	20.7
MAX	40.0	82.3	40.8	48.4	77.0	108	46.9	89.2	101	48.5	35.3	87.0
(WY)	(2002)	(1997)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(1998)	(1998)	(1996)	(2003)
MIN	8.23	1.93	2.09	2.85	9.52	7.92	9.27	15.4	18.9	2.23	3.67	2.15
(WY)	(1998)	(2000)	(1999)	(2003)	(2002)	(2000)	(2000)	(1999)	(2001)	(1997)	(2001)	(1999)

LOWER MISSISSIPPI RIVER BASIN

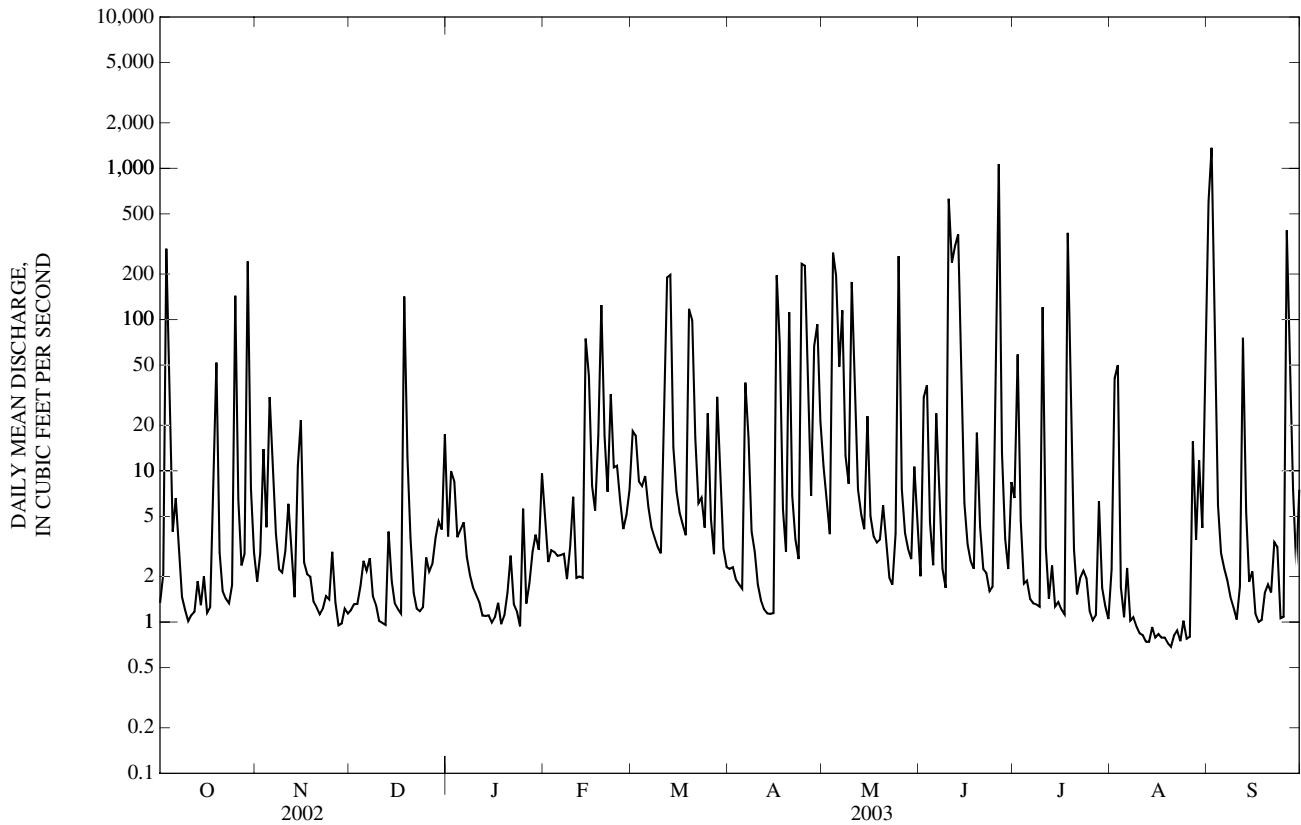
07010086 DEER CREEK AT MAPLEWOOD, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL MEAN	26.8		31.2		27.2	
HIGHEST ANNUAL MEAN					36.5	
LOWEST ANNUAL MEAN					15.7	
HIGHEST DAILY MEAN	860	Jun 12	1,370	Sep 2	1,980	Jun 24, 2000
LOWEST DAILY MEAN	0.85	Aug 5, Sep 29	0.69	Aug 20	0.24	Oct 20, 1996
ANNUAL SEVEN-DAY MINIMUM	1.0	Sep 25	0.78	Aug 15	0.30	Oct 1, 1996
MAXIMUM PEAK FLOW	---		5,320 <sup>b</sup>	Jun 26	5,460 <sup>ac</sup>	Jun 24, 2000
MAXIMUM PEAK STAGE	---		16.20	Jun 26	16.41	Jun 24, 2000
INSTANTANEOUS LOW FLOW	---		0.28	Aug 13	0.09	Oct 20, 1996
ANNUAL RUNOFF (INCHES)	9.99		11.61		10.13	
10 PERCENT EXCEEDS	54		62		50	
50 PERCENT EXCEEDS	2.6		2.9		2.3	
90 PERCENT EXCEEDS	1.2		1.1		0.82	

<sup>a</sup> From rating extended above 1,050 ft<sup>3</sup>/s on basis of indirect measurement of peak flow.

<sup>b</sup> Discharge determined by indirect measurement of peak flow.

<sup>c</sup> Revised



07010086 DEER CREEK AT MAPLEWOOD, MO—Continued  
(Metropolitan St. Louis Sewer District Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 2001 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)	Specific conductance, wat unfltrd μS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 25...	0632	Environmental	143	4.6	7.2	69	7.6	455	13.1	140	41.0	9.00
DEC 17...	0945	Environmental	1.1	6.6	5.8	50	7.7	2,830	7.6	270	78.0	19.0
FEB 04...	0840	Environmental	2.9	6.1	9.6	72	7.6	3,070	2.3	310	87.0	22.0
MAR 28...	1447	Environmental	118	9.5	10.6	99	7.3	875	11.4	170	52.0	10.0
JUN 09...	1430	Environmental	1.7	14	5.3	61	7.3	822	21.5	220	66.0	14.0
AUG 11...	1205	Environmental	0.89	11	7.0	86	7.4	989	24.6	250	71.0	17.0

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd incrm. titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd incrm. titr., field, mg/L (00450)	Carbonate, wat unfltrd 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 25...	86	85	103	<1	--	114	2.8	1.50	0.850	0.07	0.210	0.41	26
DEC 17...	176	177	216	<1	600	25	2.1	0.91	0.720	0.06	0.090	0.22	28
FEB 04...	132	134	164	<1	800	17	2.7	0.85	0.940	0.09	0.060	0.09	24
MAR 28...	98	99	121	<1	--	27	1.5	0.33	0.660	0.04	0.080	0.22	28
JUN 09...	151	150	183	<1	--	7	1.2	0.54	0.850	0.10	0.160	0.23	19
AUG 11...	145	146	179	<1	--	20	1.1	0.75	0.590	0.09	0.070	0.15	18

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 25...	17000k	55,000	11,700	6	2	<1	<1.0	1.2	3.4	58	<1	165	<0.1
DEC 17...	96	168k	33k	<3	<1	<1	<1.0	3.5	3.1	68	<1	707	<0.1
FEB 04...	<10b	10k	32k	<3	<1	<1	<1.0	1.8	5.4	24	<1	504	<0.1
MAR 28...	3,500	26,000	3,700	7	2	<1	<1.0	5.5	5.4	42	<1	222	<0.1
JUN 09...	60	64	76	5	2	<1	<1.0	3.6	2.6	72	<1	229	<0.1
AUG 11...	60	72	46	5	3	<1	<1.0	2.3	3.7	36	<1	223	<0.1







## LOWER MISSISSIPPI RIVER BASIN

07010086 DEER CREEK AT MAPLEWOOD, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 25...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	M
DEC 17...	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--
MAR 28...	E1	<1	<0.02	<2	<2	<2	M	<1	<2	<2
JUN 09...	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- 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

07010090 MACKENZIE CREEK NEAR SHREWSBURY, MO

LOCATION.--Lat 38°34'37", long 90°19'24", St. Louis County, Hydrologic Unit 07140101, on right downstream bridge abutment at Resurrection Cemetery, 1.24 mi south of Interstate 44, 4.48 mi east of U.S. 67 (Lindbergh Blvd.), and 0.85 mi upstream of River Des Peres Drainage Channel.

DRAINAGE AREA.--3.49 mi<sup>2</sup>.

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

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

REMARKS.--Record fair except for estimated daily discharges and discharges below 0.5 ft<sup>3</sup>/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 <sup>3</sup> /s)	Gage height (ft)	Water Year	Date	Maximum Discharge (ft <sup>3</sup> /s)	Gage height (ft)
1997	June 17, 1997	601 <sup>a</sup>	7.56	2000	July 31, 2000	1,260 <sup>a</sup>	9.65
1998	June 11, 1998	1,730 <sup>a</sup>	10.80	2001	June 20, 2001	1,070 <sup>a</sup>	9.10
1999	July 9, 1999	981 <sup>a</sup>	8.85	2002	June 11, 2002	1,570 <sup>a</sup>	10.43

Water Year	Date	Daily Mean			Monthly Mean	
		Discharge	Date	Discharge	Discharge	
1998	June 11, 1998	108	July 30, 1998	128	June - 11.7	
	Aug. 16, 1998	46	Aug. 18, 1998	58	July - 8.20	
1999	Feb. 7, 1999	115	July 9, 1999	25	February - 7.01	
	July 1, 1999	36			July - 2.51	
2000	June 24, 2000	160	July 31, 2000	65	June - 7.79	July - 4.88
2001	June 20, 2001	54	July 24, 2001	27	June - 3.66	
	July 4, 2001	22			July - 4.36	
2002	June 11, 2002	104	June 12, 2002	73	June - 7.08	

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

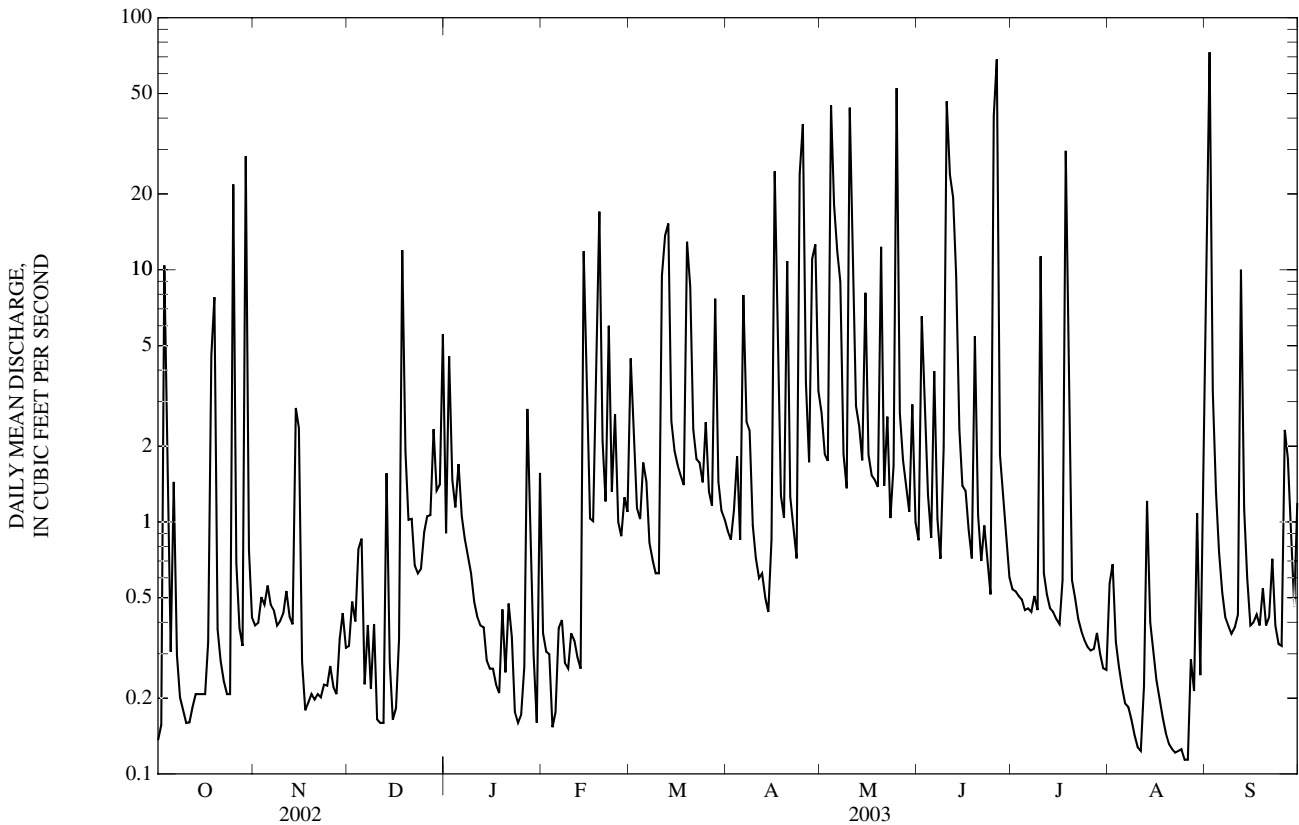
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.14	0.39	0.32	0.90	0.36	4.5	0.92	2.7	0.85	0.54	e0.57	e11
2	0.16	0.40	0.48	4.5	0.31	2.4	0.85	1.9	6.5	e0.53	e0.68	e73
3	10	0.50	0.40	1.5	0.30	1.1	1.1	1.7	3.3	e0.51	e0.33	e3.3
4	2.4	0.47	0.78	1.1	0.15	1.0	1.8	45	1.3	e0.49	e0.27	e1.3
5	0.31	0.56	0.86	1.7	0.18	1.7	0.85	18	0.86	e0.45	e0.22	e0.76
6	1.4	0.47	0.23	1.1	0.38	1.4	7.9	12	4.0	e0.45	e0.19	e0.52
7	0.30	0.45	0.39	0.86	0.41	0.83	2.5	9.0	1.0	e0.44	e0.18	e0.42
8	0.20	0.39	0.22	0.72	0.28	0.71	2.3	1.9	0.71	e0.51	e0.17	e0.39
9	0.18	e0.40	0.39	0.63	0.26	0.63	0.97	1.4	2.0	e0.45	e0.14	e0.36
10	0.16	e0.43	0.17	0.48	0.36	0.63	0.72	44	47	e11	e0.13	e0.38
11	0.16	e0.53	0.16	0.42	0.34	9.5	0.60	8.1	24	e0.63	e0.12	0.43
12	0.18	e0.42	0.16	0.39	0.29	14	0.63	2.9	19	e0.52	e0.22	10
13	0.21	0.39	1.6	0.38	0.26	15	0.50	2.4	9.5	e0.45	e1.2	1.1
14	0.21	2.8	0.28	0.28	12	2.5	0.44	1.8	2.3	e0.44	e0.40	0.60
15	0.21	2.4	0.16	0.26	5.0	1.9	0.85	8.1	1.4	e0.41	e0.30	0.39
16	0.21	0.28	0.18	0.26	1.0	1.7	25	1.8	1.3	e0.39	e0.24	e0.40
17	0.33	0.18	0.34	0.23	1.0	1.5	4.5	1.5	0.93	e0.59	e0.20	e0.43
18	4.6	0.19	12	0.21	5.3	1.4	1.3	1.5	0.72	e30	e0.17	0.39
19	7.8	0.21	1.9	0.45	17	13	1.0	1.4	5.4	e1.7	e0.15	e0.55
20	0.38	0.20	1.0	0.25	2.1	8.6	11	12	1.1	e0.59	e0.13	0.39
21	0.28	0.21	1.0	0.47	1.2	2.3	1.3	1.4	0.70	e0.50	e0.13	e0.42
22	0.23	e0.20	0.67	0.35	6.0	1.8	0.94	2.6	0.97	e0.41	e0.12	e0.71
23	0.21	e0.23	0.63	0.18	1.3	1.7	0.72	1.0	0.68	e0.37	e0.12	0.39
24	0.21	e0.22	0.65	0.16	2.7	1.4	24	1.7	0.52	e0.34	e0.13	0.33
25	22	e0.27	0.91	0.17	1.00	2.5	38	53	41	e0.32	e0.11	0.32
26	0.69	e0.22	1.1	0.27	0.88	1.3	3.6	2.7	68	e0.31	e0.11	2.3
27	0.38	0.21	1.1	2.8	1.3	1.2	1.7	1.8	1.8	e0.31	e0.28	1.8
28	0.32	0.34	2.3	1.2	1.1	7.7	11	1.4	1.2	e0.36	e0.21	0.80
29	28	0.43	1.3	0.30	---	1.4	13	1.1	0.82	e0.30	e1.1	0.46
30	0.78	0.32	1.4	0.16	---	1.1	3.3	2.9	0.60	e0.26	e0.25	1.2
31	0.42	---	5.5	1.6	---	1.0	---	1.00	---	e0.26	e1.2	---
MEAN	2.68	0.49	1.24	0.78	2.24	3.46	5.44	8.05	8.32	1.77	0.32	3.83
MAX	28	2.8	12	4.5	17	15	38	53	68	30	1.2	73
MIN	0.14	0.18	0.16	0.16	0.15	0.63	0.44	1.0	0.52	0.26	0.11	0.32
IN.	0.89	0.16	0.41	0.26	0.67	1.14	1.74	2.66	2.66	0.58	0.10	1.22

07010090 MACKENZIE CREEK NEAR SHREWSBURY, 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	2.02	1.48	1.71	2.42	3.58	3.99	3.83	5.46	7.17	3.90	2.46	1.67
MAX	3.42	2.27	4.41	4.97	8.01	11.4	5.68	9.82	13.2	10.1	7.16	3.83
(WY)	(2002)	(2002)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(1998)	(1998)	(1998)	(2003)
MIN	1.10	0.32	0.43	0.78	1.33	0.85	1.05	1.29	2.56	0.38	0.32	0.52
(WY)	(2001)	(2000)	(1999)	(2003)	(2002)	(2000)	(2000)	(1999)	(1999)	(2002)	(2003)	(1999)
SUMMARY STATISTICS				FOR 2002 CALENDAR YEAR			FOR 2003 WATER YEAR			WATER YEARS 1997 - 2003		
ANNUAL MEAN	3.36			3.21			3.38			1998		
HIGHEST ANNUAL MEAN							5.46			2001		
LOWEST ANNUAL MEAN							2.15			2001		
HIGHEST DAILY MEAN	139			Jun 11			73			Sep 2		
LOWEST DAILY MEAN	0.10			Sep 8,9,12			0.11			Aug 25		
ANNUAL SEVEN-DAY MINIMUM	0.12			Sep 6			0.12			Aug 20		
MAXIMUM PEAK FLOW	---			---			1,300 <sup>a</sup>			Sep 2		
MAXIMUM PEAK STAGE	---			---			9.76			Sep 2		
INSTANTANEOUS LOW FLOW	---			---			0.11			Aug 25,26		
ANNUAL RUNOFF (INCHES)	13.08			12.50			13.15			1998		
10 PERCENT EXCEEDS	6.7			8.1			6.3			1998		
50 PERCENT EXCEEDS	0.58			0.68			0.65			1998		
90 PERCENT EXCEEDS	0.16			0.20			0.18			1998		

e Estimated  
<sup>a</sup> From rating extended above 156 ft<sup>3</sup>/s on basis on indirect measurement of peak flow.  
<sup>b</sup> Revised.



07010097 RIVER DES PERES AT ST. LOUIS, MO

LOCATION.--Lat 38°33'34", long 90°16'59", City of St. Louis, Hydrologic Unit 07140101, on right downstream abutment of Morganford Bridge, 0.6 mi north of I-55, 2.1 mi east of Mackenzie Road, and 2.4 mi upstream from confluence to the Mississippi River.

DRAINAGE AREA.--82.5 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Feb. 8, 2002 to current year

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

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

EXTREMES FOR CURRENT YEAR.--Maximum stage for period Feb. 8 to Sept. 30, 9.93 ft, occurring during backwater, discharge, unknown; minimum discharge 0.22 ft<sup>3</sup>/s, Sept. 12.

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	---	---	---	---	---	4.6	6.5	e8.4	e5.0	0.94	1.4	1.3
2	---	---	---	---	---	336	7.4	e7.5	e4.4	1.0	1.1	0.53
3	---	---	---	---	---	26	6.8	e6.5	e4.4	0.74	0.79	0.56
4	---	---	---	---	---	51	5.4	e5.8	e4.0	0.70	1.6	0.63
5	---	---	---	---	---	7.8	5.6	e5.2	e97	0.70	184	0.56
6	---	---	---	---	---	8.1	5.1	e55	e5.0	0.68	560	0.52
7	---	---	---	---	---	6.6	6.7	e805	e3.9	0.60	7.0	0.47
8	---	---	---	---	4.8	5.9	233	e426	e3.3	0.70	2.0	0.53
9	---	---	---	---	4.3	488	15	e754	e6.8	0.43	1.3	0.52
10	---	---	---	---	5.0	16	8.3	e23	e85	0.52	1.1	0.49
11	---	---	---	---	5.8	9.7	6.8	e14	e868	1.4	87	0.31
12	---	---	---	---	5.0	9.1	20	e77	e1,480	5.7	9.5	0.88
13	---	---	---	---	4.1	7.8	11	e1,140	e19	1.0	11	0.63
14	---	---	---	---	3.9	7.0	7.9	e21	e9.2	0.61	6.5	0.99
15	---	---	---	---	4.0	231	5.3	e14	e6.1	0.47	2.9	0.64
16	---	---	---	---	4.0	51	4.8	e48	e4.5	35	1.8	1.4
17	---	---	---	---	3.7	10	4.9	e369	e3.6	22	1.7	120
18	---	---	---	---	3.4	8.1	4.8	e30	e3.3	137	336	22
19	---	---	---	---	189	50	211	e13	e2.9	6.8	11	167
20	---	---	---	---	23	35	385	e9.2	e2.4	1.5	3.3	248
21	---	---	---	---	8.5	12	28	e8.0	e1.9	1.3	1.9	9.5
22	---	---	---	---	5.6	8.5	e13	e7.0	e1.9	14	1.9	2.5
23	---	---	---	---	5.0	7.6	e9.0	e6.7	e1.6	74	2.2	1.8
24	---	---	---	---	4.8	8.6	e91	e13	e1.2	1.9	4.1	1.1
25	---	---	---	---	5.5	386	e16	e8.4	e44	0.83	1.5	1.4
26	---	---	---	---	9.8	60	e8.1	e5.4	1.0	0.79	0.95	1.1
27	---	---	---	---	9.0	24	e264	e80	1.1	1.1	0.71	1.3
28	---	---	---	---	5.8	13	e112	e150	0.60	0.78	0.69	1.8
29	---	---	---	---	---	10	e14	e15	0.67	0.73	0.80	3.0
30	---	---	---	---	---	8.8	e10	e7.3	e91	2.8	0.66	0.79
31	---	---	---	---	---	7.4	---	e5.5	---	2.0	0.63	---
MEAN	---	---	---	---	---	61.8	50.9	133	89.1	10.3	40.2	19.7
MAX	---	---	---	---	---	488	385	1,140	1,480	137	560	248
MIN	---	---	---	---	---	4.6	4.8	5.2	0.60	0.43	0.63	0.31

e Estimated

## LOWER MISSISSIPPI RIVER BASIN

07010097 RIVER DES PERES AT ST. LOUIS, MO—Continued

LOCATION.--Lat 38°33'34", long 90°16'59", City of St. Louis, Hydrologic Unit 07140101, on right downstream abutment of Morganford Bridge, 0.6 mi north of I-55, 2.1 mi east of Mackenzie Road, and 2.4 mi upstream from confluence to the Mississippi River.

DRAINAGE AREA.--82.5 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.-- Feb. 8, 2002 to current year.

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

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

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

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.70	3.6	3.0	9.4	8.3	11	e2.9	11	e1.7	3.9	1.1	1,560
2	0.83	3.1	2.2	16	3.8	15	e2.8	7.6	45	51	2.8	2,950
3	856	17	2.1	16	3.1	7.3	e2.6	4.4	106	9.3	171	54
4	42	7.8	3.0	8.0	3.2	5.2	5.1	642	7.2	2.6	2.6	9.2
5	6.9	63	4.6	7.0	3.8	6.5	3.0	e207	3.1	2.0	1.2	3.9
6	8.7	17	4.4	8.6	2.6	4.4	57	e40	37	1.9	1.2	2.2
7	4.5	7.4	3.9	6.2	6.7	2.8	30	e138	11	1.2	1.2	1.7
8	2.1	5.4	4.0	4.6	6.3	2.3	7.6	e13	2.9	1.1	0.75	1.1
9	1.5	4.3	2.7	3.7	2.4	1.8	4.7	e8.6	2.2	0.80	0.60	1.0
10	1.2	3.8	2.8	3.1	6.8	1.7	3.2	e399	1,240	304	0.43	0.89
11	1.0	4.5	2.5	5.1	2.8	36	2.7	e30	506	5.0	0.40	1.1
12	1.2	6.0	2.3	4.4	2.0	433	2.4	e9.9	411	2.5	0.37	178
13	1.3	4.1	5.4	5.2	2.2	373	2.2	e7.4	861	2.2	0.39	11
14	1.4	8.7	4.3	2.7	210	14	2.0	e6.5	43	2.1	0.45	3.0
15	1.7	58	2.6	4.4	66	8.1	2.0	e87	12	1.9	0.48	1.5
16	1.4	8.4	2.7	7.9	11	6.0	321	e8.7	4.6	1.7	0.46	1.7
17	1.5	4.8	2.4	9.0	9.9	5.6	224	e6.2	3.2	1.3	0.44	0.96
18	15	5.5	360	4.1	19	5.3	9.4	e5.2	2.3	799	0.42	0.74
19	228	4.2	31	4.2	291	300	4.8	e6.2	91	78	0.49	0.84
20	4.8	3.7	9.6	4.0	25	185	228	e31	7.8	4.0	0.54	1.0
21	2.1	2.8	12	9.2	7.9	22	9.3	e7.0	3.3	1.6	0.48	1.0
22	1.9	2.3	4.2	9.0	49	8.0	4.7	e6.2	2.3	1.2	1.0	0.83
23	1.9	2.6	3.6	3.6	13	e5.9	3.1	e4.7	1.9	2.3	0.28	3.0
24	1.1	2.6	4.3	5.3	9.4	e4.8	464	e4.2	1.4	2.0	0.32	1.3
25	509	3.1	7.6	12	10	e50	509	e1,160	140	1.8	0.31	0.65
26	13	3.0	9.3	8.6	4.4	e5.8	39	e13	3,350	1.2	0.53	1,040
27	4.7	2.1	9.9	12	3.6	e4.2	9.3	e7.2	14	1.1	3.7	332
28	4.1	2.1	9.4	15	6.0	e78	169	e5.1	3.5	4.4	4.6	10
29	667	2.4	10	6.6	---	e13	184	e4.0	1.8	2.8	9.9	2.7
30	16	2.2	9.3	4.8	---	e4.7	67	e13	3.8	1.2	7.4	4.7
31	5.2	---	30	9.3	---	e3.5	---	e4.7	---	1.0	234	---
MEAN	77.7	8.85	18.2	7.39	28.2	52.4	79.2	93.5	231	41.8	14.5	206
MAX	856	63	360	16	291	433	509	1,160	3,350	799	234	2,950
MIN	0.70	2.1	2.1	2.7	2.0	1.7	2.0	4.0	1.4	0.80	0.28	0.65

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

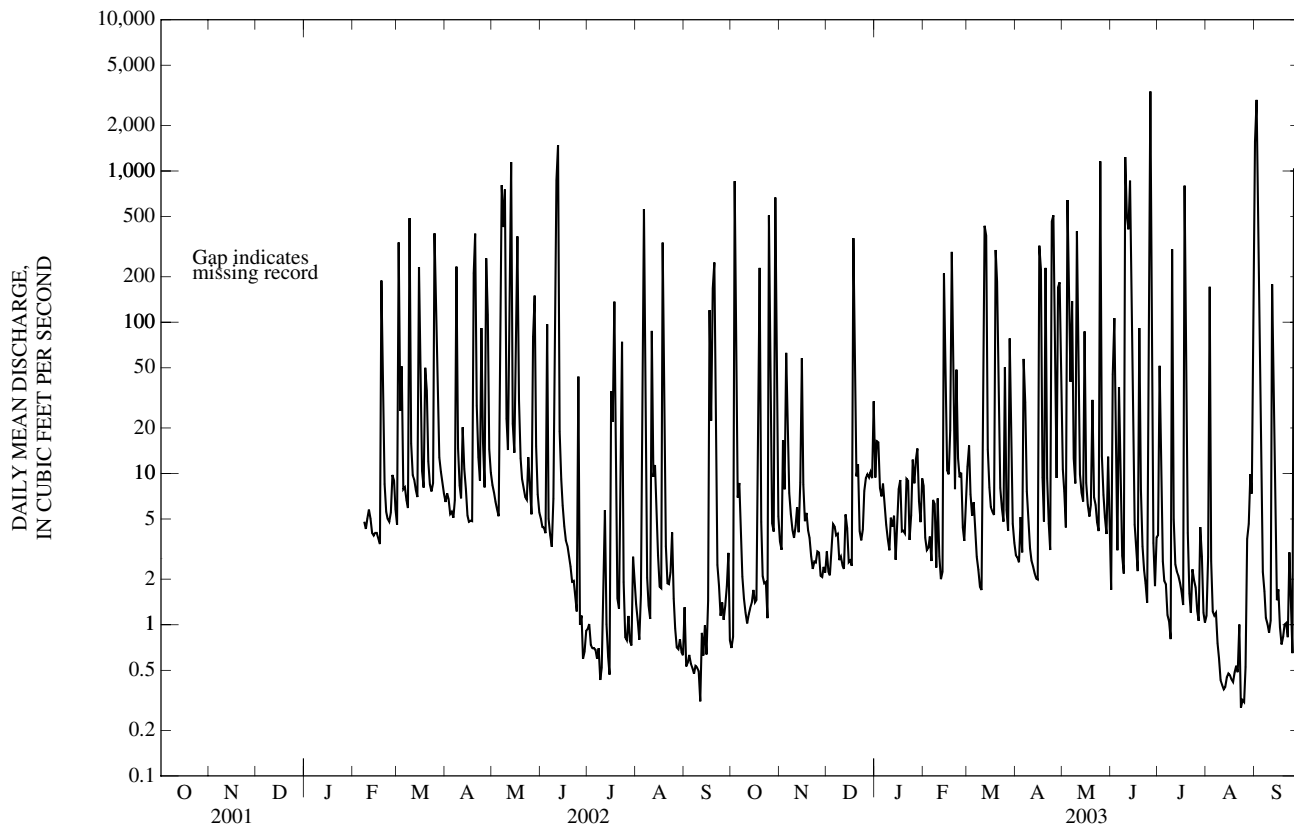
MEAN	77.7	8.85	18.2	7.39	28.2	57.1	65.0	113	160	26.0	27.4	113
MAX	77.7	8.85	18.2	7.39	28.2	61.8	79.2	133	231	41.8	40.2	206
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2002)	(2003)	(2003)	(2002)	(2003)
MIN	77.7	8.85	18.2	7.39	28.2	52.4	50.9	93.5	89.1	10.3	14.5	19.7
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2002)	(2002)	(2003)	(2002)

07010097 RIVER DES PERES AT ST. LOUIS, MO—Continued

SUMMARY STATISTICS	FOR 2003 WATER YEAR		WATER YEARS 2002 - 2003	
ANNUAL MEAN	71.2		71.2	
HIGHEST ANNUAL MEAN	71.2		71.2	
LOWEST ANNUAL MEAN	71.2		71.2	
HIGHEST DAILY MEAN	3,350	Jun 26	3,350	Jun 26, 2003
LOWEST DAILY MEAN	0.28	Aug 23	0.28	Aug 23, 2003
ANNUAL SEVEN-DAY MINIMUM	0.43	Aug 10	0.43	Aug 10, 2003
MAXIMUM PEAK FLOW	19,900 <sup>a</sup>	Jun 26	19,900 <sup>a</sup>	Jun 26, 2003
MAXIMUM PEAK STAGE	19.85	Jun 26	19.85	Jun 26, 2003
INSTANTANEOUS LOW FLOW	0.24	Aug 23	0.22	Sep 12, 2002
10 PERCENT EXCEEDS	52		152	
50 PERCENT EXCEEDS	4.6		4.6	
90 PERCENT EXCEEDS	1.1		1.1	

e Estimated

<sup>a</sup> Discharge determined by indirect measurement of peak flow.





## LOWER MISSISSIPPI RIVER BASIN

07010097 RIVER DES PERES AT ST. LOUIS, 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	
OCT 29...	0300	Environmental	314	3.0	8.8	85	7.4	1,450	12.4	51	16.0	2.60	
DEC 17...	1100	Environmental	2.4	2.7	12.7	108	8.0	1,920	7.2	250	68.0	20.0	
FEB 03...	1045	Environmental	3.2	2.9	11.5	100	7.9	2,030	7.6	240	63.0	19.0	
03...	1046	Blank	--	--	--	--	4.7	4	18.4	--	0.03	<0.03	
MAR 19...	1109	Environmental	752	3.6	8.1	81	7.7	744	14.0	140	42.0	7.80	
JUN 09...	1550	Environmental	2.4	0.1	--e	--e	9.2	769	31.6	180	49.0	14.0	
AUG 11...	1315	Environmental	0.32	0.2	13.4	182	8.9	647	30.3	170	46.0	14.0	
Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd titr., field, mg/L (00450)	Carbonate, wat unfltrd 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...	39	39	48	<1	--	79	1.5	0.26	0.470	0.02	0.170	0.39	12
DEC 17...	139	138	168	<1	430	6	0.60	0.03	0.610	0.05	<0.010	0.05	18
FEB 03...	130	130	159	<1	470	5	0.70	0.23	0.950	0.05	0.040	0.06	17
03...	--	--	--	--	<0.10	<1	<0.20	<0.01	<0.020	<0.01	<0.010	<0.02	<5
MAR 19...	100	110	134	<1	--	444	3.6	0.04	0.640	0.02	0.180	0.83	66
JUN 09...	110	107	74	28	--	<1	0.70	0.04	0.030	0.01	0.090	0.14	32
AUG 11...	91	90	70	20	--	2	0.60	0.02	<0.020	<0.01	0.060	0.10	17
Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Arsenic water, fltrd, $\mu$ g/L (01000)	Beryllium, water, fltrd, $\mu$ g/L (01010)	Cadmium water, fltrd, $\mu$ g/L (01025)	Chromium, water, fltrd, $\mu$ g/L (01030)	Copper, water, fltrd, $\mu$ g/L (01040)	Iron, water, fltrd, $\mu$ g/L (01046)	Lead, water, fltrd, $\mu$ g/L (01049)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recoverable, $\mu$ g/L (71900)
OCT 29...	39,000k	24,000k	36,000	9	<1	<1	<1.0	<1.0	3.0	46	<1	42	<0.1
DEC 17...	4k	40k	44k	11	<1	<1	<1.0	5.1	2.6	28	<1	112	<0.1
FEB 03...	23k	20k	14k	4	<1	<1	<1.0	2.1	3.9	12	<1	178	<0.1
03...	--	--	--	<3	<1	<1	<1.0	<1.0	<1.0	<2	<1	<1	<0.1
MAR 19...	25,000	74,000	14,000	8	2	<1	<1.0	2.7	2.9	21	<1	115	0.4
JUN 09...	240	520	58	121	3	<1	<1.0	1.9	3.5	80	<1	22	<0.1
AUG 11...	270	470	80	18	4	<1	<1.0	1.0	2.8	41	<1	19	<0.1





07010097 RIVER DES PERES AT ST. LOUIS, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 29...	M	<1	<0.02	<2	<2	<2	M	<1	<2	M
DEC 17...	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--
MAR 03...	--	--	--	--	--	--	--	--	--	--
MAR 19...	5	<1	<0.02	<2	<2	<2	M	<1	<2	M
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

Null value qualifier codes used in this table:

- e -- Required equipment not functional/available

## LOWER MISSISSIPPI RIVER BASIN

07010180 GRAVOIS CREEK NEAR MEHLVILLE, MO

LOCATION.--Lat 38°31'36", long 90°17'58", St. Louis County, Hydrologic Unit 07140101, on center downstream pier of Green Park Road bridge, 1.10 mi south of Interstate 55, 0.24 mi west of Highway 267 (Lemay Ferry Road), and 3.48 mi upstream of River Des Peres Drainage Channel.

DRAINAGE AREA.--18.1 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 422.15 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge 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	0.93	2.9	e1.1	2.5	e4.4	e13	3.2	11	7.0	3.7	e2.4	e550
2	0.93	2.9	e0.96	e8.4	e2.7	e14	2.9	7.5	17	3.6	e11	e1,290
3	e191	15	e0.91	e6.8	e2.3	e8.4	2.7	5.4	24	3.9	6.7	e41
4	e12	6.4	1.7	e3.2	e2.1	e5.7	27	224	11	e3.1	e2.6	e5.2
5	2.0	23	2.3	e2.8	e1.8	e6.3	6.9	144	8.7	e2.7	e1.7	e3.3
6	e4.2	5.5	2.6	e3.9	e1.9	e4.7	3.4	47	19	e2.3	e2.5	2.3
7	2.1	3.1	2.4	e2.0	e1.9	e3.1	3.6	68	4.8	e2.1	e1.5	2.3
8	1.4	2.7	e1.4	e1.6	e1.5	e3.1	3.4	13	3.7	e2.0	e1.4	2.0
9	1.2	2.2	e1.1	e1.3	e3.0	e2.5	3.4	8.4	3.6	2.4	e1.3	e1.9
10	e0.90	2.5	e0.89	e1.3	e5.1	e2.5	4.2	153	254	15	e1.1	e1.8
11	1.1	e7.2	e0.81	e1.1	e2.3	2.4	3.0	51	101	5.0	e1.0	1.6
12	1.1	5.2	e0.78	e0.98	e1.5	103	2.6	11	341	e2.4	e0.96	52
13	e1.5	2.6	e3.5	e0.83	e1.3	76	2.4	8.2	151	e3.2	e0.91	4.7
14	e1.3	e4.7	e1.8	e0.83	e48	12	2.3	7.2	21	e2.0	e1.1	2.1
15	e1.5	e15	e1.2	e0.78	e28	7.8	2.1	15	e13	e1.6	e0.93	1.5
16	1.0	2.6	e0.80	e0.88	e7.4	5.8	104	7.0	e6.5	e1.6	e1.0	1.3
17	1.1	2.1	e1.5	e1.1	e4.1	4.7	30	6.2	e4.7	e1.5	e1.0	1.2
18	1.4	1.8	e114	e0.74	e12	4.3	5.4	5.8	e4.1	277	e0.96	1.0
19	e36	e1.6	e9.0	e0.93	e90	46	3.6	6.0	25	21	e0.91	0.83
20	e2.7	e1.5	e2.7	e0.98	e19	46	e64	40	e10	e3.9	e0.77	0.69
21	2.0	e1.3	e1.4	e2.7	e7.9	13	5.5	6.0	e5.0	e2.7	e0.99	0.75
22	1.4	e1.1	e1.2	e1.6	e25	6.3	4.1	5.4	e4.1	e2.9	e0.93	0.83
23	e1.1	e1.2	e1.0	e1.2	e11	6.1	3.1	5.3	e3.4	e3.4	e0.85	0.81
24	1.3	e1.2	e1.1	e0.98	e9.5	5.2	88	5.2	e3.2	e2.9	e1.0	0.85
25	162	e2.3	e2.3	e4.6	e7.4	9.9	191	325	27	e2.3	e0.88	1.3
26	6.3	e1.5	e2.1	e2.3	e4.1	7.0	20	17	756	e1.7	e1.1	123
27	3.0	e0.86	e2.0	e1.6	e4.1	3.9	9.6	e7.5	8.8	e1.8	e11	24
28	2.3	e0.82	e2.6	e2.7	e6.8	30	98	6.3	e6.0	5.4	e2.3	2.7
29	177	e1.8	e4.2	e3.4	---	13	48	5.3	e4.9	e2.2	e8.8	1.7
30	7.4	e1.3	e3.6	e2.6	---	4.5	18	6.9	e4.0	e2.1	e3.5	5.7
31	4.0	---	e12	e8.3	---	3.4	---	9.0	---	e1.9	e10	---
MEAN	20.4	4.13	5.97	2.42	11.3	15.3	25.5	39.9	61.8	12.6	2.68	70.9
MAX	191	23	114	8.4	90	103	191	325	756	277	11	1,290
MIN	0.90	0.82	0.78	0.74	1.3	2.4	2.1	5.2	3.2	1.5	0.77	0.69
IN.	1.30	0.25	0.38	0.15	0.65	0.97	1.57	2.54	3.81	0.80	0.17	4.37

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

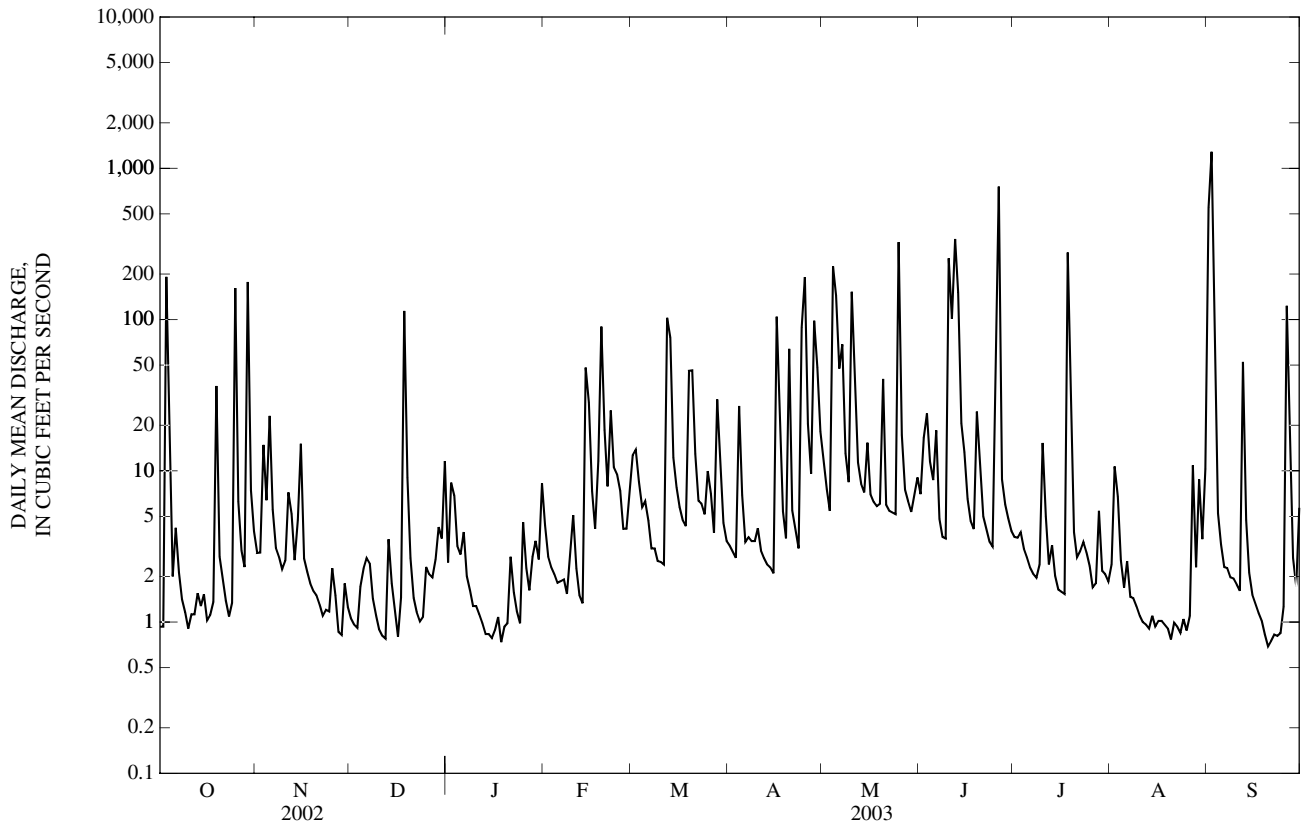
MEAN	12.2	15.2	10.8	19.9	24.6	24.2	19.9	27.5	39.9	19.9	12.7	17.9
MAX	20.4	45.0	34.1	51.4	49.5	69.8	32.0	53.1	65.6	44.3	27.3	70.9
(WY)	(2003)	(1997)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(1998)	(1998)	(2000)	(2003)
MIN	7.44	2.04	4.02	2.42	8.53	7.19	6.43	8.31	15.4	3.57	1.63	2.56
(WY)	(1998)	(2000)	(2001)	(2003)	(2002)	(2000)	(2000)	(1999)	(2001)	(2002)	(2001)	(1999)

07010180 GRAVOIS CREEK NEAR MEHLVILLE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL MEAN	18.6		22.6		20.2	
HIGHEST ANNUAL MEAN					27.4	
LOWEST ANNUAL MEAN					12.2	
HIGHEST DAILY MEAN	433	Jun 12	1,290	Sep 2	1,290	Sep 2, 2003
LOWEST DAILY MEAN	0.78	Dec 12	0.69	Sep 20	0.14	Aug 22, 2001
ANNUAL SEVEN-DAY MINIMUM	1.0	Sep 26	0.82	Sep 18	0.18	Aug 16, 2001
MAXIMUM PEAK FLOW	---		4,450 <sup>a</sup>	Sep 2	4,450 <sup>a</sup>	Sep 2, 2003
MAXIMUM PEAK STAGE	---		16.66	Sep 2	16.66	Sep 2, 2003
INSTANTANEOUS LOW FLOW	---		0.69	Sep 19-21	0.14	Aug 20, 2001
ANNUAL RUNOFF (INCHES)	13.92		16.98		15.17	
10 PERCENT EXCEEDS	35		32		38	
50 PERCENT EXCEEDS	3.8		3.2		4.0	
90 PERCENT EXCEEDS	1.2		1.00		1.1	

e Estimated

<sup>a</sup> From rating extended above 1,150 ft<sup>3</sup>/s on basis of indirect measurement of peak flow.



## LOWER MISSISSIPPI RIVER BASIN

07010180 GRAVOIS CREEK NEAR MEHLVILLE, 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 03...	0330	Environmental	e191	--	5.8	68	7.5	208	22.4	210	65.0	12.0
DEC 17...	1300	Environmental	1.5	8.8	10.2	87	7.6	3,730	6.7	400	124	22.0
FEB 03...	1250	Environmental	2.3	6.8	12.1	99	7.6	2,550	4.7	280	80.0	20.0
APR 04...	1628	Environmental	133	6.7	7.6	82	7.5	784	17.6	170	51.0	10.0
JUN 24...	1100	Environmental	e3.2	9.2	6.9	80	7.7	1,180	21.7	370	115	19.0
AUG 11...	1415	Environmental	1.0	12	7.3	95	7.5	1,200	27.6	350	106	20.0

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd incrm. titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd incrm. titr., mg/L (00450)	Carbonate, wat unfltrd incrm. titr., 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 03...	133	135	164	<1	--	778	2.1	0.13	0.440	<0.01	0.070	0.51	15
DEC 17...	185	186	227	<1	1,010	9	0.60	0.03	0.650	0.02	0.040	0.08	25
FEB 03...	153	153	186	<1	650	7	0.70	0.19	0.930	0.03	0.050	0.07	13
APR 04...	107	107	131	<1	--	325	2.7	0.19	0.450	0.02	0.060	0.44	32
JUN 24...	243	245	299	<1	--	10	0.50	0.06	0.750	0.01	0.030	0.06	11
AUG 11...	191	189	231	<1	--	15	0.40	0.04	0.320	<0.01	0.020	0.05	13

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC MF, col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Arsenic, water, fltrd, $\mu$ g/L (01000)	Beryllium, water, fltrd, $\mu$ g/L (01010)	Cadmium, water, fltrd, $\mu$ g/L (01025)	Chromium, water, fltrd, $\mu$ g/L (01030)	Copper, water, fltrd, $\mu$ g/L (01040)	Iron, water, fltrd, $\mu$ g/L (01046)	Lead, water, fltrd, $\mu$ g/L (01049)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recoverable, $\mu$ g/L (71900)
OCT 03...	1,900k	7,430	5,800	<3	1	<1	<1.0	2.2	2.3	6	<1	49	<0.1
DEC 17...	17k	4k	23k	17	1	<1	<1.0	4.9	3.2	58	<1	235	<0.1
FEB 03...	8k	43k	63k	<3	<1	<1	<1.0	2.5	4.2	12	<1	186	<0.1
APR 04...	4,800	6,600	2,600	5	7	<1	1.0	4.5	4.5	28	<1	211	<0.1
JUN 24...	270	420	152	<3	2	<1	<1.0	4.4	1.8	9	<1	199	<0.1
AUG 11...	88	228	84	3	2	<1	<1.0	2.0	2.5	6	<1	160	<0.1







07010180 GRAVOIS CREEK NEAR MEHLVILLE, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 03...	2	<1	<0.02	<2	<2	M	<1	<1	<2	M
DEC 17...	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--
APR 04...	E7	<1	<0.02	<2	<2	M	<1	<1	<2	M
JUN 24...	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--

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:

- k -- Counts outside acceptable range

Null value qualifier codes used in this table:

- e -- Required equipment not functional/avail

## LOWER MISSISSIPPI RIVER BASIN

07010208 MARTIGNEY CREEK NEAR ARNOLD, MO

LOCATION.--Lat 38°29'26", long 90°17'36", St. Louis County, Hydrologic Unit 07140101, on left downstream abutment of Sunrise Height Drive bridge, 0.1 mi south of Interstate 255, 0.5 mi east of Highway 231 (Telegraph Road), and 1.04 mi upstream of Mississippi River.

DRAINAGE AREA.--2.64 mi<sup>2</sup>.

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

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

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

REVISIONS.--Revised maximum discharges for water years 2000-2001 are given below. They supersede figures published in the reports of 2000-2001.

Water Year	Date	Maximum Discharge (ft <sup>3</sup> /s)	Gage height (ft)
2000	June 24, 2000	1,560 <sup>a</sup>	12.79
2001	July 24, 2001	1,220 <sup>a</sup>	10.47

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	0.43	e0.51	0.88	2.7	0.53	2.5	0.77	2.9	1.2	1.6	1.0	24
2	1.1	e1.00	0.87	5.3	0.43	2.2	0.67	2.1	5.0	1.1	1.1	45
3	3.0	e2.1	0.81	2.3	0.64	0.83	0.69	1.8	3.0	0.96	0.61	2.3
4	2.4	e0.90	0.93	1.9	0.44	0.78	18	30	1.2	0.94	0.41	1.2
5	0.73	e3.7	1.5	2.0	0.35	1.2	3.1	24	0.95	0.90	0.42	0.82
6	1.6	e1.3	0.75	1.6	0.57	0.62	5.5	75	4.9	0.85	0.39	0.71
7	0.48	e0.67	0.81	1.4	0.51	0.56	2.4	14	1.4	0.82	0.95	0.63
8	0.49	0.86	0.77	1.3	0.37	0.61	1.9	17	0.97	0.75	0.40	0.60
9	0.47	e0.75	0.60	1.3	0.36	0.70	1.3	4.7	0.96	0.73	0.39	0.59
10	0.72	e0.77	0.59	1.2	0.45	0.68	1.1	22	31	6.7	0.40	0.62
11	0.70	e0.67	0.55	1.1	0.40	7.0	0.91	7.2	21	0.89	0.41	0.60
12	0.62	e0.62	0.55	1.0	0.35	15	0.79	3.2	54	0.75	0.51	3.5
13	1.4	e0.61	3.5	1.1	0.34	11	0.74	2.6	39	0.71	0.61	1.0
14	0.90	e0.58	0.78	1.0	8.9	1.6	0.75	2.1	5.1	0.68	0.59	0.70
15	0.78	5.2	0.39	0.95	10	1.0	0.93	4.9	2.5	0.67	e0.51	0.68
16	0.73	0.92	0.43	0.96	0.97	0.84	10	2.2	1.8	0.67	e0.46	0.67
17	0.61	0.53	0.45	0.81	0.80	0.69	3.6	1.8	1.6	0.66	e0.43	0.69
18	4.3	0.50	15	0.76	7.9	0.65	1.3	1.7	1.4	20	e0.42	0.69
19	10	0.45	4.4	0.75	39	9.2	1.2	1.6	5.1	2.3	e0.40	0.72
20	0.87	0.47	1.4	0.78	3.7	6.2	8.2	11	1.3	0.92	e0.37	0.83
21	0.50	0.45	1.1	0.72	1.8	1.7	1.4	1.6	1.1	0.72	e0.36	0.80
22	e0.39	0.49	0.98	0.68	4.6	1.1	1.1	1.2	1.1	0.62	e0.34	0.77
23	e0.39	0.48	0.85	0.61	1.4	1.3	1.0	1.2	1.3	0.63	e0.33	0.70
24	e0.38	0.50	0.90	0.55	2.9	0.92	26	1.2	1.4	0.54	e0.34	0.66
25	e17	0.69	1.2	0.64	0.91	2.6	49	34	10	0.52	e0.33	0.65
26	e1.4	0.58	1.3	1.3	0.79	1.0	5.3	2.5	99	0.46	e0.33	19
27	e0.46	0.55	1.2	e0.43	0.93	0.88	3.1	1.7	2.0	0.46	2.5	3.1
28	e0.50	0.59	2.1	e0.57	0.74	5.2	10	1.8	1.4	0.61	0.32	0.86
29	e25	0.79	2.0	e0.61	---	1.3	4.2	1.5	1.2	0.63	5.4	0.62
30	e1.7	0.79	12	e0.50	---	0.70	2.7	2.1	4.2	0.68	1.0	2.4
31	e0.60	---	12	1.4	---	0.72	---	1.5	---	0.68	4.9	---
MEAN	2.60	0.97	2.31	1.23	3.25	2.62	5.59	9.10	10.2	1.62	0.87	3.87
MAX	25	5.2	15	5.3	39	15	49	75	99	20	5.4	45
MIN	0.38	0.45	0.39	0.43	0.34	0.56	0.67	1.2	0.95	0.46	0.32	0.59
IN.	1.14	0.41	1.01	0.54	1.28	1.15	2.36	3.98	4.31	0.71	0.38	1.64

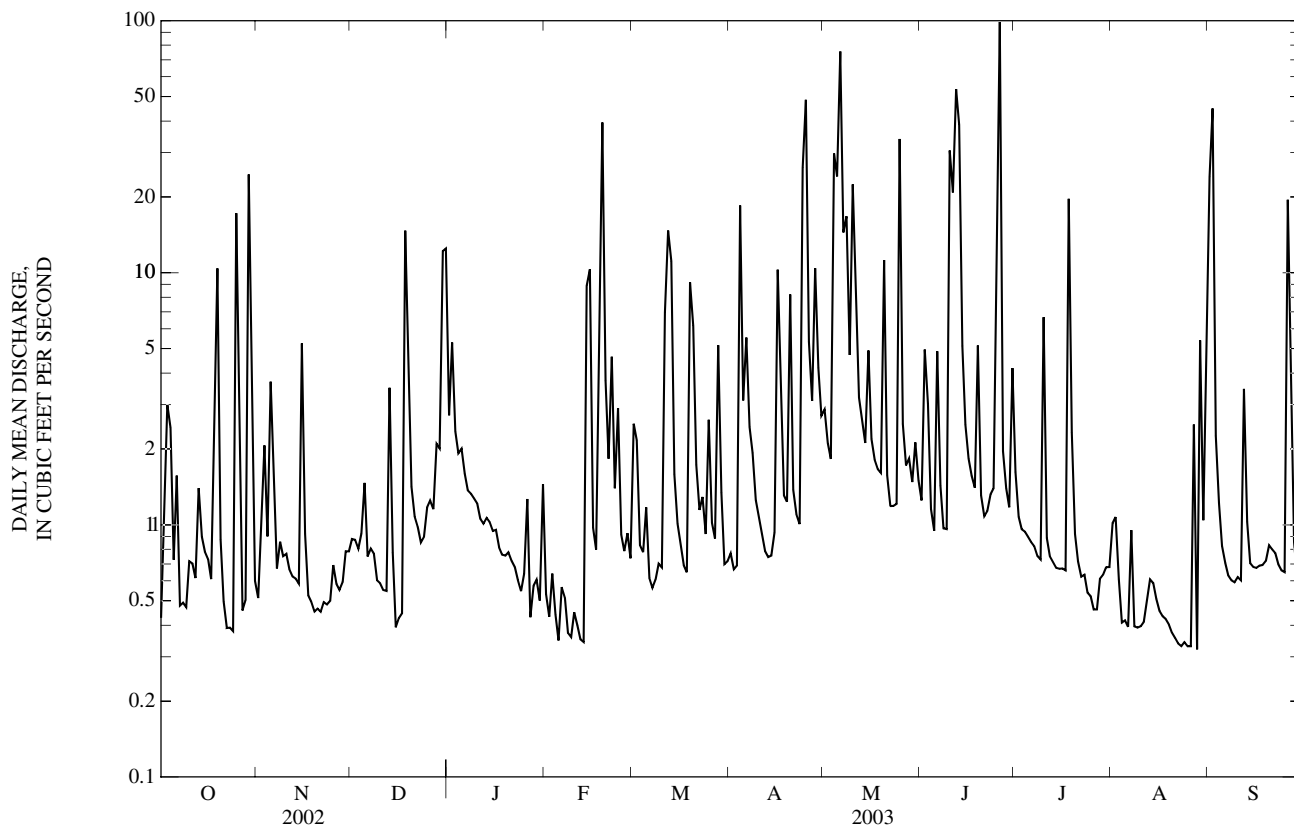
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	1.77	1.95	2.03	2.53	3.35	3.79	3.60	5.60	5.55	2.68	2.12	1.87
MAX	2.60	3.25	5.45	4.53	5.65	8.47	5.59	9.10	10.2	6.53	4.25	3.87
(WY)	(2003)	(2002)	(2002)	(1999)	(1999)	(1998)	(2003)	(2003)	(2003)	(1998)	(2000)	(2003)
MIN	1.21	0.74	0.38	1.23	1.49	1.69	1.30	1.44	2.10	0.71	0.87	0.49
(WY)	(1998)	(2000)	(1999)	(2003)	(2002)	(2000)	(2000)	(1999)	(1999)	(1997)	(2003)	(1999)

07010208 MARTIGNEY CREEK NEAR ARNOLD, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	2.94		3.67		3.15	
HIGHEST ANNUAL MEAN					3.97	
LOWEST ANNUAL MEAN					2.19	
HIGHEST DAILY MEAN	81 Jan 31		99 Jun 26		126 Jun 24, 2000	
LOWEST DAILY MEAN	0.21 Jul 20,21,27		0.32 Aug 28		0.17 Sep 23, 1999	
ANNUAL SEVEN-DAY MINIMUM	0.22 Jul 24		0.34 Aug 20		0.20 Dec 23, 1998	
MAXIMUM PEAK FLOW	---		1,430 <sup>b</sup> May 6		1,560 <sup>ac</sup> Jun 24, 2000	
MAXIMUM PEAK STAGE	---		12.29 May 6		12.79 Jun 24, 2000	
INSTANTANEOUS LOW FLOW	---		0.29 Aug 27,28		0.13 Oct 1, 1999	
ANNUAL RUNOFF (INCHES)	15.14		18.89		16.19	
10 PERCENT EXCEEDS	7.1		8.0		6.2	
50 PERCENT EXCEEDS	0.73		0.93		0.73	
90 PERCENT EXCEEDS	0.35		0.45		0.37	

e Estimated  
 a From rating extended above 419 ft<sup>3</sup>/s on basis of indirect measurement of peak flow.  
 b Discharge determined by indirect measurement of peak flow.  
 c Revised



MERAMEC RIVER BASIN

07010500 MARAMEC SPRING NEAR ST. JAMES, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°57'20", long 91°31'57", SE ¼ SW ¼ NE ¼ sec.1, T.37 N., R.6 W., Phelps County, Hydrologic Unit 07140102, in Maramec Spring Park, approximately 5 mi east of St. James on Highway 8.

PERIOD OF RECORD.--November 1993 to August 1997, 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 unfltrd, 25 degC (00095)	Temperature, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
NOV 13...	1110	Environmental	105	8.5	87	7.6	340	15.1	180	37.5	21.0	1.24
JAN 14...	1230	Environmental	92	8.3	81	7.0	314	13.6	--	--	--	--
MAR 04...	1210	Environmental	129	6.7	68	7.0	313	13.8	--	--	--	--
MAY 05...	1515	Environmental	215	7.8	78	7.2	226	13.5	110	23.5	13.1	1.48
JUL 30...	1350	Environmental	129	9.3	95	7.0	312	14.3	--	--	--	--
SEP 04...	1000	Environmental	123	5.7	57	7.0	342	14.0	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, titr., field, mg/L (00450)	Carbonate, wat unfltrd, 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 fltrd, 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...	4.11	184	184	224	<1	5.82	<0.20	4.8	182	<10	E.09	<0.04	0.38
JAN 14...	--	141	142	173	<1	--	--	--	--	<10	E.06	<0.04	0.83
MAR 04...	--	136	136	165	<1	--	--	--	--	<10	<0.10	<0.04	0.74
MAY 05...	3.81	104	103	126	<1	6.58	<0.17	5.5	129	<10	E.09	<0.04	0.61
JUL 30...	--	139	140	171	<1	--	--	--	--	<10	E.10	<0.04	0.82
SEP 04...	--	157	160	195	<1	--	--	--	--	<10	E.07n	<0.04	0.77

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 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	<0.04	E.03	20	12k	13k	<2	26	E.2	<0.04	<0.2	<6
JAN 14...	<0.008	E.02	0.04	E.03	1k	15k	14k	--	--	--	--	--	--
MAR 04...	<0.008	0.02	E.03	E.02	2k	18k	10k	--	--	--	--	--	--
MAY 05...	E.006	<0.02	E.03	0.04	33	46	32	3	232	<0.3	<0.04	<0.2	<6
JUL 30...	E.004	E.01	E.03	E.03	6k	38	265	--	--	--	--	--	--
SEP 04...	<0.008	<0.18d	<0.04	<0.04	8k	11k	71	--	--	--	--	--	--

07010500 MARAMEC SPRING NEAR ST. JAMES, 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	32	30
JAN 14...	--	--	--	--	--	--	--	--
MAR 04...	--	--	--	--	--	--	--	--
MAY 05...	<10	<0.08	<1	<2.0	<0.02	<0.5	1	E1
JUL 30...	--	--	--	--	--	--	--	--
SEP 04...	--	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than

E -- Estimated value

## 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

## MERAMEC RIVER BASIN

## 07013000 MERAMEC RIVER NEAR STEELVILLE, MO

LOCATION.--Lat 37°59'58", long 91°21'39", in NE 1/4 sec.21, T.38 N., R.4 W., Crawford County, Hydrologic Unit 07140102, on left bank 20 ft downstream from railroad bridge, 400 ft upstream from highway bridge, 0.8 mi upstream from Whittenburg Creek, 1.5 mi north of Steelville, and at mile 146.4.

DRAINAGE AREA.--781 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1922 to current year. Prior to January 1923 monthly discharges only, published in WSP 1311. Gage-height records for 1916-33 at site 1.0 mi upstream in reports of the National Weather Service.

REVISED RECORDS.--WSP 897: 1939. WSP 1007: Drainage Area.

GAGE.--Water-stage recorder. Datum of gage is 681.68 ft above National Geodetic Vertical Datum of 1929. Prior to May 24, 1934, and from July 20, 1966 to July 20, 1967, nonrecording gage, 400 ft downstream, same datum; May 24, 1934 to July 20, 1966, water-stage recorder at present site and datum; July 20, 1967 to Feb. 13, 1973, water-stage recorder at site 1,900 ft downstream and at datum 1.8 ft lower; Feb. 14, 1973 to current year, water-stage recorder at present site and datum.

REMARKS.--No estimated daily discharges. Records good. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 20, 1915, reached a stage of 26.5 ft, discharge, 60,000 ft<sup>3</sup>/s.

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

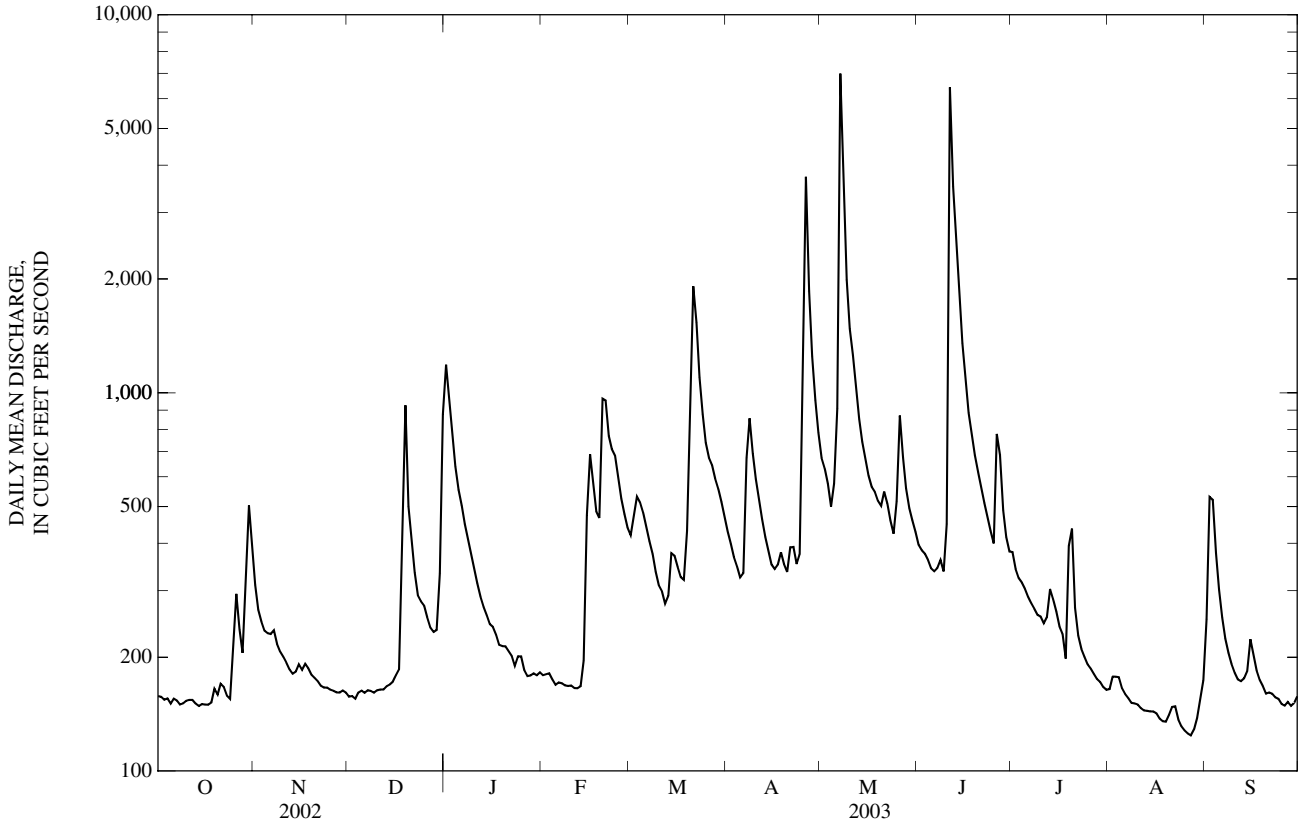
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	158	310	157	1,190	179	421	430	672	397	379	165	252
2	157	267	158	961	180	469	399	630	384	342	178	530
3	154	248	155	783	181	532	368	576	376	324	178	521
4	156	235	161	639	174	513	347	500	362	315	177	377
5	151	231	163	554	169	482	325	575	343	304	165	302
6	155	230	161	503	171	442	334	909	337	289	160	254
7	154	236	163	450	171	405	673	6,990	344	278	156	224
8	150	217	163	411	168	375	857	3,340	361	268	152	205
9	151	207	161	377	168	337	691	1,990	337	259	151	192
10	153	200	163	344	168	309	592	1,480	450	256	150	182
11	154	193	164	314	166	299	521	1,260	6,420	246	147	175
12	154	186	164	289	166	277	464	1,050	3,510	255	145	173
13	151	181	168	272	168	291	416	852	2,540	303	144	176
14	149	183	169	259	196	377	382	742	1,880	285	144	184
15	150	191	172	244	475	371	352	668	1,350	264	144	223
16	150	185	179	240	688	347	342	605	1,090	241	142	203
17	150	192	186	229	582	326	351	565	884	231	138	184
18	152	187	321	216	486	320	379	547	778	198	135	174
19	165	180	926	214	467	431	353	519	684	394	135	168
20	159	176	501	214	965	1,120	336	502	618	437	141	160
21	170	173	400	207	955	1,910	390	548	563	270	148	161
22	167	168	335	201	769	1,540	391	510	512	228	148	160
23	158	166	291	190	710	1,100	352	460	470	210	137	157
24	155	166	281	201	682	877	374	424	432	201	131	155
25	214	164	274	201	595	738	1,020	516	400	191	128	150
26	294	163	255	185	526	674	3,720	871	779	187	126	149
27	237	161	239	178	478	645	1,860	674	685	181	124	152
28	205	161	233	179	441	593	1,250	558	489	175	129	149
29	330	163	236	181	---	556	956	496	415	172	138	151
30	504	161	333	179	---	515	784	460	381	167	155	157
31	388	---	878	182	---	469	---	429	---	164	174	---
MEAN	190	196	268	348	402	583	667	997	952	259	148	213
MAX	504	310	926	1,190	965	1,910	3,720	6,990	6,420	437	178	530
MIN	149	161	155	178	166	277	325	424	337	164	124	149
IN.	0.28	0.28	0.40	0.51	0.54	0.86	0.95	1.47	1.36	0.38	0.22	0.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2003, BY WATER YEAR (WY)

MEAN	281	490	565	562	658	875	1,081	1,001	723	378	266	277
MAX	2,562	2,995	4,712	3,155	2,397	2,842	4,954	4,370	4,644	3,461	1,181	2,664
(WY)	(1950)	(1994)	(1983)	(1950)	(1985)	(1945)	(1994)	(2002)	(1935)	(1998)	(1982)	(1993)
MIN	85.2	118	116	114	126	141	138	131	134	92.9	104	82.2
(WY)	(1957)	(1965)	(1965)	(1956)	(1934)	(1954)	(1954)	(1977)	(1932)	(1934)	(1936)	(1956)

07013000 MERAMEC RIVER NEAR STEELVILLE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1923 - 2003	
ANNUAL MEAN	755		435		596	
HIGHEST ANNUAL MEAN					1,473	1985
LOWEST ANNUAL MEAN					177	1954
HIGHEST DAILY MEAN	21,300	May 18	6,990	May 7	44,600	Jul 27, 1998
LOWEST DAILY MEAN	149	Jan 23, Oct 14	124	Aug 27	76	Jul 22, 1934
ANNUAL SEVEN-DAY MINIMUM	151	Oct 12	130	Aug 23	78	Oct 5, 1956
MAXIMUM PEAK FLOW	---		10,300	May 7	55,800	Jul 27, 1998
MAXIMUM PEAK STAGE	---		11.64	May 7	27.22	Jul 27, 1998
INSTANTANEOUS LOW FLOW	---		123	Aug 26, 27	74	Jul 22, 1934
ANNUAL RUNOFF (INCHES)	13.12		7.56		10.36	
10 PERCENT EXCEEDS	1,110		778		1,090	
50 PERCENT EXCEEDS	245		264		266	
90 PERCENT EXCEEDS	160		153		131	





## MERAMEC RIVER BASIN

07014000 HUZZAH CREEK NEAR STEELVILLE, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°58'29", long 91°12'16", in SW ¼ SW ¼ SE ¼ sec.25, T.38 N., R.3 W., Crawford County, Hydrologic Unit 07140102, at bridge on State Highway 8 at Huzzah Valley Resort, approximately 9 mi east of Steelville.

DRAINAGE AREA.--259 mi<sup>2</sup>.

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)	Specific conductance, wat unfltrd, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)		
NOV 12...	1320	Environmental	84	15.3	144	8.2	383	11.8	210	43.6	25.2	0.95		
JAN 13...	1220	Environmental	127	14.8	119	7.9	325	5.6	--	--	--	--		
MAR 03...	1215	Environmental	255	13.5	112	7.6	317	6.2	--	--	--	--		
MAY 06...	1420	Environmental	478	9.3	102	7.8	286	18.4	150	30.7	17.1	1.18		
JUL 29...	1240	Environmental	69	8.9	108	8.0	392	23.6	210	39.2	25.0	1.24		
SEP 11...	1215	Environmental	56	10.6	124	8.1	399	22.0	--	--	--	--		
Date		ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, titr., field, mg/L (00450)	Carbonate, wat unfltrd, 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 fltrd 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...	4.84	208	208	254	<1	4.78	<0.20	13.6	213	<10	E.08	<0.04	0.12	
JAN 13...	--	184	184	225	<1	--	--	--	--	<10	E.07	<0.04	0.39	
MAR 03...	--	151	151	184	<1	--	--	--	--	<10	E.07	<0.04	0.27	
MAY 06...	4.79	138	136	166	<1	3.07	<0.17	13.1	166	<10	0.12	<0.04	0.17	
JUL 29...	6.44	186	187	228	<1	4.06	<0.20	15.5	197	<10	E.07	<0.04	0.24	
SEP 11...	--	185	186	227	<1	--	--	--	--	<10	E.10n	<0.04	0.18	
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, 100 mL (31633)	Fecal coliform, M-FC MF, 100 mL (31625)	Fecal streptococci KF MF, 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 12...	<0.008	<0.02	E.02	<0.04	<1b	13k	5k	<2	5	E.2	<0.04	<0.2	<6	
JAN 13...	<0.008	<0.02	<0.04	<0.04	1k	1k	<1b	--	--	--	--	--	--	
MAR 03...	<0.008	<0.02	<0.04	<0.04	<1b	1k	3k	--	--	--	--	--	--	
MAY 06...	<0.008	<0.02	<0.04	<0.04	8k	46	62	3	92	E.2	<0.04	<0.2	<6	
JUL 29...	<0.008	<0.02	<0.04	<0.04	7k	28	42	Mn	15	E.2n	<0.04	<0.2	<7	
SEP 11...	<0.008	<0.02	<0.04	<0.04	1k	31	24	--	--	--	--	--	--	

07014000 HUZAZH CREEK NEAR STEELVILLE, 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 12...	<10	<0.08	<1	E2.7b	<0.02	E.3	M	2
JAN 13...	--	--	--	--	--	--	--	--
MAR 03...	--	--	--	--	--	--	--	--
MAY 06...	<10	<0.08	<1	6.4	<0.02	<0.5	M	E2
JUL 29...	E4n	<0.08	<1	5.1	<0.02	<0.5	Mn	<2
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:

b -- Value was extrapolated below  
k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL

MERAMEC RIVER BASIN

07014200 COURTOIS CREEK AT BERRYMAN, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°55'05", long 91°06'04", in NE ¼ SW ¼ SW ¼ sec.13, T.37 N., R.2 W., Crawford County, Hydrologic Unit 07140102, at bridge on State Highway 8, approximately 13 mi east of Steelville.

DRAINAGE AREA.--173 mi<sup>2</sup>.

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)	Specific conductance, wat unfltrd, μS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
NOV												
12...	0850	Environmental	57	10.9	101	8.3	398	11.3	220	44.7	26.6	0.61
12...	0851	Blank	--	--	--	--	--	--	--	0.24	0.027	<0.10
JAN												
13...	1035	Environmental	97	15.1	116	7.8	326	3.7	--	--	--	--
13...	1036	Blank	--	--	--	--	--	--	--	--	--	--
MAR												
03...	1010	Environmental	150	13.1	102	7.4	300	3.8	--	--	--	--
03...	1011	Blank	--	--	--	--	--	--	--	--	--	--
MAY												
06...	1045	Blank	--	--	--	--	--	--	--	E.01n	<0.008	<0.16
06...	1130	Environmental	441	9.6	99	7.6	213	15.5	130	28.2	15.6	0.95
JUL												
29...	1010	Blank	--	--	--	--	--	--	--	--	--	--
29...	1030	Environmental	35	7.5	90	7.5	387	23.2	--	--	--	--
SEP												
11...	1020	Blank	--	--	--	--	--	--	--	--	--	--
11...	1030	Environmental	61	8.2	96	7.9	415	21.8	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, titr., field, mg/L (00450)	Carbonate, wat unfltrd, 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 fltrd 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...	2.88	189	186	227	0.0	3.52	<0.2	22.7	236	<10	E.08	<0.04	0.06
12...	0.88	--	--	--	--	<0.20	<0.2	0.2	<10	<10	E.05	<0.04	<0.06
JAN													
13...	--	161	159	194	0.0	--	--	--	--	<10	E.07	<0.04	0.20
13...	--	--	--	--	--	--	--	--	--	<10	<0.10	<0.04	<0.06
MAR													
03...	--	152	150	183	0.0	--	--	--	--	<10	E.06	<0.04	0.12
03...	--	--	--	--	--	--	--	--	--	<10	<0.10	<0.04	<0.06
MAY													
06...	<0.09	--	--	--	--	<0.20	<0.17	<0.2	<10	<10	<0.10	<0.04	<0.06
06...	1.58	125	125	152	0.0	2.08	<0.17	9.2	149	<10	E.10	<0.04	0.07
JUL													
29...	--	--	--	--	--	--	--	--	--	<10	<0.10	<0.04	<0.06
29...	--	185	187	228	0.0	--	--	--	--	<10	<0.10	<0.04	0.10
SEP													
11...	--	--	--	--	--	--	--	--	--	<10	<0.10	<0.04	<0.06
11...	--	189	192	234	0.0	--	--	--	--	<10	E.07n	<0.04	0.06

07014200 COURTOIS CREEK AT BERRYMAN, MO—Continued

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

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coli-form, M-FC col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, 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	<0.04	<1b	5k	13k	<2	4	E.2	<0.04	<0.2	<6
12...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.3	<0.04	<0.2	<6
JAN													
13...	<0.008	<0.02	<0.04	<0.04	1k	21	3k	--	--	--	--	--	--
13...	<0.008	<0.02	<0.04	<0.04	--	--	--	--	--	--	--	--	--
MAR													
03...	E.006	<0.02	<0.04	<0.04	<1b	2k	2k	--	--	--	--	--	--
03...	<0.008	<0.02	<0.04	<0.04	--	--	--	--	--	--	--	--	--
MAY													
06...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.3	<0.04	<0.2	<6
06...	<0.008	<0.02	<0.04	<0.04	46	118	156	3	112	E.2	<0.04	<0.2	<6
JUL													
29...	<0.008	<0.02	<0.04	<0.04	--	--	--	--	--	--	--	--	--
29...	<0.008	<0.02	<0.04	<0.04	21	41	35	--	--	--	--	--	--
SEP													
11...	<0.008	<0.02	<0.04	<0.04	--	--	--	--	--	--	--	--	--
11...	<0.008	<0.02	<0.04	<0.04	3k	34	63	--	--	--	--	--	--

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								
12...	<10	<0.08	<1	E2.1b	<0.02	<0.5	20	4
12...	<10	<0.08	<1	<2.0	<0.02	<0.5	<1	E1
JAN								
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
MAR								
03...	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--
MAY								
06...	<10	<0.08	<1	<1.6	<0.02	<0.5	<1	E1n
06...	E6	E.05	M	5.0	<0.02	<0.5	2	4
JUL								
29...	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--
SEP								
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
- n -- Below the LRL and above the LT-MDL

## MERAMEC RIVER BASIN

07014500 MERAMEC RIVER NEAR SULLIVAN, MO

LOCATION.--Lat 38°09'30", long 91°06'30", in SE ¼ NE ¼ sec.35, T.40 N., R.2 W., Crawford County, Hydrologic Unit 07140102, on right bank at upstream side of Sappington Bridge, 3.8 mi downstream from Brazil Creek, 4.0 mi southeast of Sullivan, and at mile 117.0.

DRAINAGE AREA.--1,475 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to September 1933, October 1943 to current year. Monthly discharge only for October 1943, published in WSP 1311.

REVISED RECORDS.--WSP 1007: 1922(M), 1924-30, 1933: Drainage area. WDR MO-02-1: 1982 peak stage.

GAGE.--Water-stage recorder. Datum of gage is 581.82 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 21, 1952, nonrecording gage at present site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1915 reached a stage of 33.5 ft, from information by local residents, discharge, 90,000 ft<sup>3</sup>/s.

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

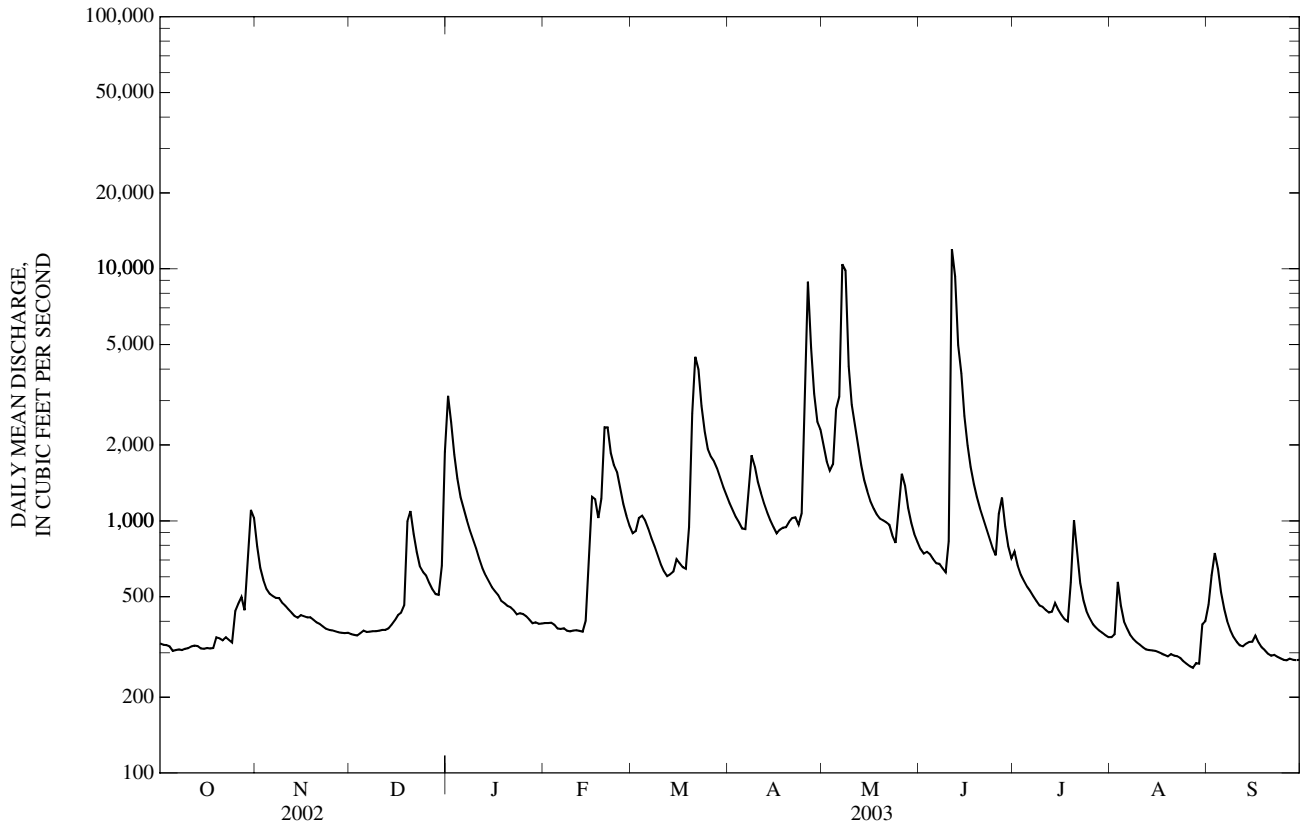
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	326	792	356	3,130	394	894	1,180	1,990	773	755	346	465
2	323	652	353	2,470	393	912	1,100	1,720	742	666	355	607
3	322	582	351	1,830	395	1,030	1,030	1,580	754	614	573	745
4	318	537	358	1,470	387	1,050	985	1,680	738	578	461	644
5	305	514	367	1,240	374	1,000	933	2,780	705	549	399	521
6	307	503	363	1,120	373	931	928	3,110	680	527	375	448
7	309	495	363	1,010	375	857	1,270	10,400	676	502	352	400
8	307	494	365	916	367	794	1,820	9,860	649	482	340	368
9	311	474	365	845	365	733	1,650	4,110	625	461	330	346
10	313	461	367	776	368	672	1,430	2,890	831	456	323	332
11	318	446	370	708	369	631	1,290	2,400	11,900	443	316	321
12	320	433	370	650	367	604	1,170	2,010	9,320	433	309	318
13	319	419	374	607	364	615	1,080	1,660	4,980	437	308	326
14	312	413	388	576	402	629	1,010	1,450	3,840	472	307	331
15	311	423	403	546	646	705	945	1,310	2,610	444	305	332
16	313	418	422	526	1,250	680	892	1,200	1,990	423	302	351
17	312	414	432	508	1,220	655	922	1,120	1,640	408	298	329
18	313	415	463	482	1,030	646	941	1,060	1,400	400	294	315
19	345	405	996	472	1,230	946	944	1,020	1,240	570	290	307
20	342	396	1,090	460	2,350	2,670	992	1,010	1,120	1,010	296	297
21	336	390	887	454	2,350	4,480	1,030	988	1,020	753	292	292
22	345	381	754	442	1,860	3,990	1,030	965	931	566	291	294
23	337	373	659	426	1,670	2,860	967	875	851	484	286	289
24	329	370	628	430	1,560	2,260	1,070	819	783	439	278	285
25	439	368	607	427	1,350	1,930	3,630	1,100	730	411	271	281
26	469	365	568	419	1,170	1,800	8,880	1,540	1,070	391	265	280
27	498	362	536	406	1,050	1,720	4,840	1,380	1,240	378	261	284
28	442	360	512	393	958	1,610	3,200	1,130	951	368	273	281
29	675	359	509	396	---	1,480	2,480	983	793	360	271	280
30	1,110	360	664	391	---	1,360	2,310	889	710	352	389	281
31	1,030	---	1,880	392	---	1,260	---	825	---	346	400	---
MEAN	399	446	552	804	892	1,368	1,732	2,124	1,876	499	328	365
MAX	1,110	792	1,880	3,130	2,350	4,480	8,880	10,400	11,900	1,010	573	745
MIN	305	359	351	391	364	604	892	819	625	346	261	280
IN.	0.31	0.34	0.43	0.63	0.63	1.07	1.31	1.66	1.42	0.39	0.26	0.28

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

MEAN	584	1,032	1,216	1,212	1,449	1,928	2,379	2,038	1,330	755	540	535
MAX	4,307	5,692	8,307	6,304	5,264	5,786	9,435	7,348	8,742	6,142	2,030	5,489
(WY)	(1950)	(1986)	(1983)	(1950)	(1982)	(1945)	(1994)	(2002)	(1945)	(1951)	(1982)	(1993)
MIN	156	249	232	216	281	295	347	292	263	205	199	146
(WY)	(1957)	(1957)	(1956)	(1956)	(1954)	(1954)	(1954)	(1932)	(1932)	(1954)	(1964)	(1956)

07014500 MERAMEC RIVER NEAR SULLIVAN, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	1,504		948		1,248	
HIGHEST ANNUAL MEAN					3,014	1985
LOWEST ANNUAL MEAN					341	1954
HIGHEST DAILY MEAN	31,500	May 18	11,900	Jun 11	70,600	Jun 9, 1945
LOWEST DAILY MEAN	305	Oct 5	261	Aug 27	131	Sep 20, 1956
ANNUAL SEVEN-DAY MINIMUM	310	Oct 4	272	Aug 23	133	Sep 16, 1956
MAXIMUM PEAK FLOW	---		14,800	May 8	77,300	Jun 9, 1945
MAXIMUM PEAK STAGE	---		13.94	May 8	32.34	Dec 4, 1982
INSTANTANEOUS LOW FLOW	---		258	Aug 26,28	131	Sep 20, 1956
ANNUAL RUNOFF (INCHES)	13.85		8.72		11.49	
10 PERCENT EXCEEDS	2,650		1,750		2,400	
50 PERCENT EXCEEDS	568		527		602	
90 PERCENT EXCEEDS	337		312		272	



## MERAMEC RIVER BASIN

07014500 MERAMEC RIVER NEAR SULLIVAN, MO—Continued  
(Ambient Water-Quality Monitoring Network)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1963 to July 1975, July 1977 to June 1990, 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	
OCT 01...	0930	Environmental	327	7.7	88	8.0	327	20.8	--	--	--	--	
NOV 14...	1010	Environmental	411	14.2	129	8.3	362	10.0	190	39.4	23.4	1.07	
DEC 02...	1010	Environmental	351	15.4	123	8.2	365	4.8	--	--	--	--	
DEC 02...	1011	Replicate	--	15.2	122	8.2	366	4.8	--	--	--	--	
JAN 14...	0930	Environmental	580	13.2	100	8.0	326	3.4	180	35.9	21.3	1.02	
FEB 04...	1150	Environmental	388	12.9	107	8.0	354	6.4	--	--	--	--	
MAR 04...	0945	Environmental	1,050	12.3	102	8.0	315	6.1	--	--	--	--	
APR 08...	1000	Environmental	1,870	9.4	89	7.9	291	12.6	--	--	--	--	
APR 08...	1001	Replicate	--	9.4	89	7.8	300	12.6	--	--	--	--	
MAY 05...	1110	Environmental	2,450	8.5	88	7.8	243	15.4	120	25.9	14.6	1.39	
JUN 09...	1220	Environmental	621	8.8	102	7.6	321	21.1	--	--	--	--	
JUL 30...	1400	Environmental	351	8.7	112	7.7	348	26.4	190	38.1	23.2	1.39	
AUG 06...	1450	Environmental	373	7.3	95	8.0	339	27.5	--	--	--	--	
SEP 04...	1350	Environmental	626	8.1	97	7.9	340	23.1	--	--	--	--	
Date		ANC, wat unfltrd, end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, titr., field, mg/L (00450)	Carbonate, wat unfltrd, 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 01...	--	167	167	204	<1	--	--	--	--	<10	<0.10	<0.04	0.08
NOV 14...	3.68	204	205	250	<1	4.40	<0.20	9.5	191	<10	0.10	<0.04	E.05
DEC 02...	--	175	175	213	<1	--	--	--	--	<10	E.06	<0.04	E.05
DEC 02...	--	--	--	--	--	--	--	--	--	<10	<0.10	<0.04	E.05
JAN 14...	5.33	162	159	194	<1	6.57	<0.17	10.8	184	<10	E.09	<0.04	0.24
FEB 04...	--	167	168	205	<1	--	--	--	--	<10	0.14	<0.04	0.15
MAR 04...	--	151	151	184	<1	--	--	--	--	<10	0.17	<0.04	0.23
APR 08...	--	136	136	166	<1	--	--	--	--	25	0.19	<0.04	0.20
APR 08...	--	--	--	--	--	--	--	--	--	11	0.17	<0.04	0.20
MAY 05...	2.73	112	112	136	<1	3.26	<0.17	8.8	140	46	0.38	<0.04	0.21
JUN 09...	--	156	157	191	<1	--	--	--	--	<10	0.17	<0.04	0.11
JUL 30...	4.02	168	169	206	<1	5.17	<0.20	8.3	193	10	0.11	<0.04	0.18
AUG 06...	--	169	169	206	<1	--	--	--	--	<10	0.13	<0.04	0.15
SEP 04...	--	162	162	198	<1	--	--	--	--	<10	0.17	<0.04	0.29

07014500 MERAMEC RIVER NEAR SULLIVAN, MO—Continued

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

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli-form, 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 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	27	29	27	--	--	--	--	--	--
NOV 14...	<0.008	<0.02	<0.04	<0.04	<1b	4k	3k	<2	22	E.2	<0.04	<0.2	<6
DEC 02...	<0.008	<0.02	<0.04	<0.04	<1b	<1b	1k	--	--	--	--	--	--
DEC 02...	<0.008	<0.02	<0.04	<0.04	<1b	2k	2k	--	--	--	--	--	--
JAN 14...	<0.008	<0.02	<0.04	<0.04	<1b	2k	3k	E1	27	E.2	<0.04	<0.2	<6
FEB 04...	<0.008	<0.02	<0.04	<0.04	<1b	<1b	2k	--	--	--	--	--	--
MAR 04...	<0.008	<0.02	<0.04	<0.04	1k	4k	3k	--	--	--	--	--	--
APR 08...	<0.008	<0.02	<0.04	E.02	31	48	20	--	--	--	--	--	--
APR 08...	<0.008	<0.02	<0.04	<0.04	38	51	24	--	--	--	--	--	--
MAY 05...	E.006	<0.02	E.02	0.06	590	1,420k	1,720	6	469	0.3	<0.04	<0.2	<6
JUN 09...	E.004	<0.02	<0.04	<0.04	3k	11k	5k	--	--	--	--	--	--
JUL 30...	E.006	<0.02	E.02	<0.04	1k	17k	16k	E2n	79	0.5	<0.04	<0.2	<7
AUG 06...	<0.008	<0.02	<0.04	E.03n	3k	17k	16k	--	--	--	--	--	--
SEP 04...	<0.008	<0.18d	<0.04	<0.04	8k	83k	24	--	--	--	--	--	--

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 14...	E8	<0.08	<1	5.4	<0.02	<0.5	4	2
DEC 02...	--	--	--	--	--	--	--	--
DEC 02...	--	--	--	--	--	--	--	--
JAN 14...	<10	0.25	M	7.2	<0.02	E.3	M	E2
FEB 04...	--	--	--	--	--	--	--	--
MAR 04...	--	--	--	--	--	--	--	--
APR 08...	--	--	--	--	--	--	--	--
APR 08...	--	--	--	--	--	--	--	--
MAY 05...	18	<0.08	2	9.5	<0.02	<0.5	M	4
JUN 09...	--	--	--	--	--	--	--	--
JUL 30...	<8	<0.08	Mn	7.6	<0.02	E.3n	Mn	E1n
AUG 06...	--	--	--	--	--	--	--	--
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:  
 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



## MERAMEC RIVER BASIN

07015720 BOURBEUSE RIVER NEAR HIGH GATE, MO

LOCATION.--Lat 38°08'49", long 91°34'50", in SW ¼ NE ¼ sec.4, T.39 N., R.6 W., Phelps County, Hydrologic Unit 07140103, on downstream side of right bridge pier on State Highway B, 1.8 mi downstream from Lanes Fork, 5.0 mi east of High Gate, and 11.0 mi north of St. James.

DRAINAGE AREA.--135 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1965 to current year. Occasional low-flow measurements 1963, 1964.

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

GAGE.--Water-stage recorder. Datum of gage is 802.1 ft above National Geodetic Vertical Datum of 1929 (levels by Missouri State Highway and Transportation Commission). Datum of gage prior to Oct. 1, 1987 was 2 ft higher. Prior to Aug. 17, 1966, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records fair except for discharges below 5 ft<sup>3</sup>/s, which are poor. U.S.G.S. satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1957 reached a stage of about 23 ft, from information by local resident.

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

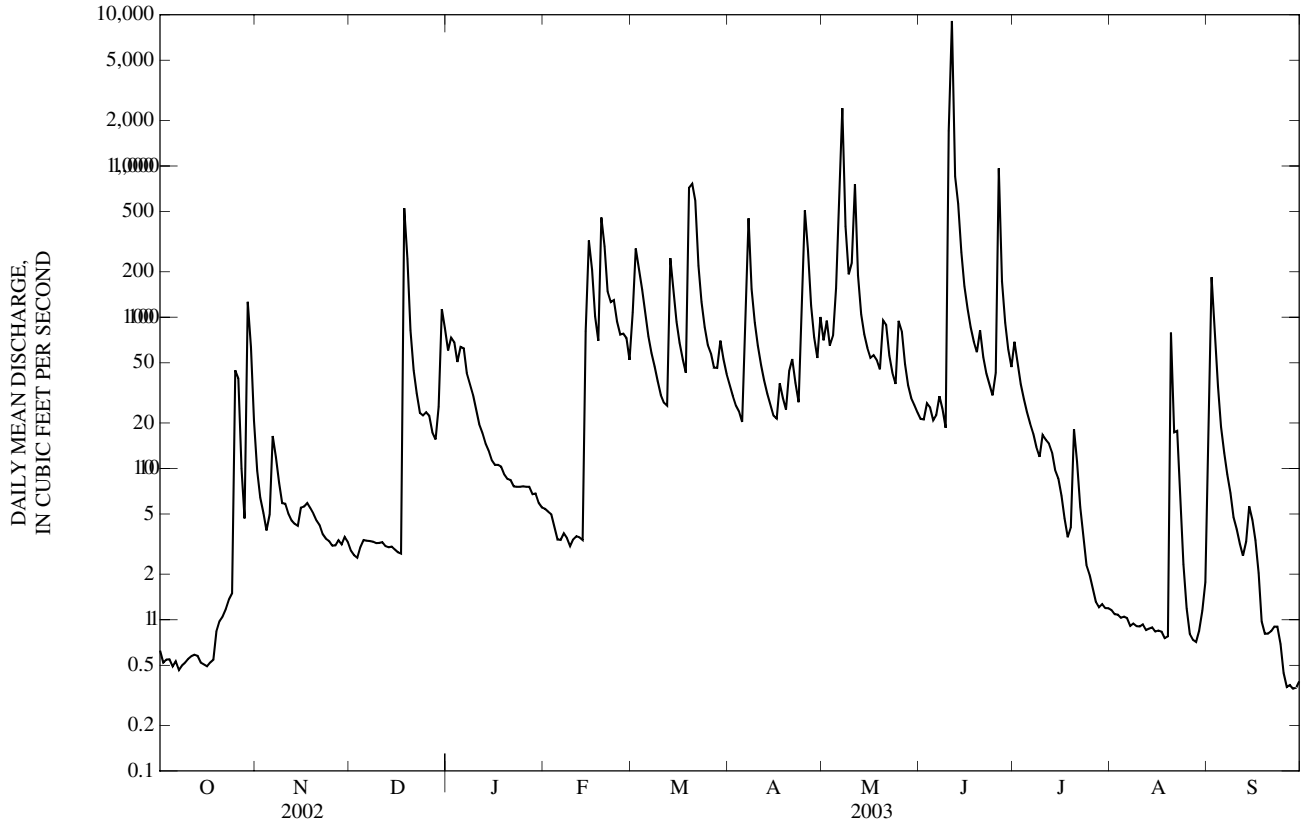
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.62	9.7	2.9	60	5.4	108	36	70	21	69	1.2	38
2	0.52	6.4	2.7	73	5.2	284	30	95	21	49	1.1	184
3	0.55	5.1	2.6	68	5.0	206	26	65	27	36	1.1	82
4	0.55	3.9	3.0	51	4.1	152	24	75	25	29	1.0	35
5	0.49	5.0	3.4	64	3.4	107	20	156	21	24	1.0	19
6	0.53	16	3.3	62	3.4	75	99	625	23	20	1.0	13
7	0.47	12	3.3	43	3.7	58	451	2,410	30	17	0.91	9.1
8	0.50	8.0	3.3	36	3.5	47	153	399	25	14	0.94	6.9
9	0.52	5.9	3.2	31	3.1	38	92	192	19	12	0.91	4.8
10	0.55	5.8	3.2	25	3.4	31	65	228	1,710	17	0.90	4.0
11	0.57	5.0	3.3	20	3.6	27	48	757	9,080	15	0.93	3.2
12	0.59	4.5	3.1	17	3.5	26	38	189	854	15	0.85	2.6
13	0.58	4.3	3.0	15	3.4	246	31	104	562	13	0.87	3.3
14	0.52	4.2	3.0	13	81	149	26	77	269	9.8	0.89	5.6
15	0.51	5.5	2.9	11	322	93	22	63	161	8.6	0.84	4.6
16	0.49	5.6	2.8	11	206	68	21	54	114	6.6	0.85	3.3
17	0.52	5.9	2.7	11	101	53	36	56	86	4.7	0.83	2.0
18	0.54	5.5	525	10	70	43	29	52	69	3.5	0.76	0.97
19	0.83	5.0	243	9.1	457	716	25	45	59	4.1	0.78	0.81
20	0.98	4.5	82	8.5	294	761	44	95	82	18	79	0.81
21	1.0	4.2	44	8.4	148	589	53	89	54	11	17	0.84
22	1.2	3.7	31	7.6	126	219	37	56	43	5.6	18	0.90
23	1.4	3.4	23	7.6	130	126	27	43	36	3.4	7.4	0.90
24	1.5	3.3	22	7.6	94	86	104	36	30	2.3	2.3	0.69
25	45	3.1	24	7.6	77	66	508	95	43	2.0	1.2	0.45
26	40	3.1	22	7.6	78	58	281	81	964	1.6	0.80	0.36
27	10	3.4	17	7.6	73	46	119	49	173	1.3	0.74	0.37
28	4.7	3.2	16	6.8	52	46	74	36	92	1.2	0.71	0.35
29	126	3.5	26	6.8	---	70	54	29	61	1.3	0.84	0.36
30	64	3.3	113	5.9	---	53	100	26	47	1.2	1.1	0.39
31	21	---	85	5.5	---	42	---	23	---	1.2	1.8	---
MEAN	10.6	5.40	42.7	23.1	84.3	151	89.1	205	493	13.5	4.79	14.3
MAX	126	16	525	73	457	761	508	2,410	9,080	69	79	184
MIN	0.47	3.1	2.6	5.5	3.1	26	20	23	19	1.2	0.71	0.35
IN.	0.09	0.04	0.37	0.20	0.65	1.29	0.74	1.76	4.08	0.12	0.04	0.12

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

MEAN	43.8	151	177	146	176	232	264	193	138	47.3	34.7	44.3
MAX	552	799	1,213	549	634	747	1,191	894	963	546	373	865
(WY)	(1987)	(1986)	(1983)	(1969)	(1985)	(1984)	(1994)	(1995)	(1985)	(1998)	(1982)	(1993)
MIN	0.34	0.94	1.68	0.65	12.4	1.32	1.57	3.88	0.95	0.25	0.19	0.14
(WY)	(1967)	(1981)	(1990)	(1977)	(1981)	(1981)	(1981)	(1977)	(1972)	(1972)	(1971)	(1971)

07015720 BOURBEUSE RIVER NEAR HIGH GATE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1965 - 2003	
ANNUAL MEAN	179		94.3		136	
HIGHEST ANNUAL MEAN					315 1985	
LOWEST ANNUAL MEAN					15.6 2000	
HIGHEST DAILY MEAN	6,160	May 17	9,080	Jun 11	21,000	Dec 3, 1982
LOWEST DAILY MEAN	0.37	Aug 12	0.35	Sep 28	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	0.46	Aug 7	0.42	Sep 24	0.00	Several Years
MAXIMUM PEAK FLOW	---		21,700	Jun 11	49,300	Dec 3, 1982
MAXIMUM PEAK STAGE	---		21.03	Jun 11	23.65	Dec 3, 1982
INSTANTANEOUS LOW FLOW	---		0.30	Sep 25,26,28	0.00	Several Years
ANNUAL RUNOFF (INCHES)	17.95		9.48		13.70	
10 PERCENT EXCEEDS	299		148		222	
50 PERCENT EXCEEDS	15		17		19	
90 PERCENT EXCEEDS	0.78		0.84		0.81	



## MERAMEC RIVER BASIN

07016400 BOURBEUSE RIVER ABOVE UNION, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 38°25'55", long 91°01'11", in NE ¼ NE ¼ SW ¼ sec.34, T.43 N., R.1 W., Franklin County, Hydrologic Unit 07140103, at bridge on North Bend Drive, 0.5 mi southwest of Union, 5.5 mi upstream from the Bourbeuse River near Union gaging station.

DRAINAGE AREA.--808 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--November 1983 to October 1987, 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)	Specific conductance, wat unfltrd, 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)		
NOV 05...	1515	Environmental	248	9.9	88	7.9	302	9.1	150	27.8	20.3	2.37		
JAN 08...	1140	Environmental	428	12.5	99	8.0	287	4.3	--	--	--	--		
MAR 05...	1250	Environmental	925	11.5	91	7.8	274	4.6	--	--	--	--		
MAY 21...	1315	Environmental	445	7.8	87	7.2	229	20.1	110	21.7	12.7	2.27		
JUL 23...	1130	Environmental	171	4.7	59	7.5	272	26.4	--	--	--	--		
SEP 04...	1120	Environmental	238	4.5	53	7.7	268	23.2	--	--	--	--		
SEP 04...	1121	Replicate	--	--	--	--	--	--	--	--	--	--		
Date		ANC, wat unfltrd, end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, titr., field, mg/L (00450)	Carbonate, wat unfltrd, 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 fltrd, mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	
NOV 05...	5.51	139	137	167	<1	5.46	<0.2	20.8	167	<10	0.23	<0.04	<0.06	
JAN 08...	--	113	113	138	<1	--	--	--	--	<10	0.20	<0.04	0.30	
MAR 05...	--	78	78	95	<1	--	--	--	--	27	0.36	<0.04	<0.30	
MAY 21...	4.80	87	87	107	<1	7.07	<0.2	13.8	145	17	1.7	<0.04	0.57	
JUL 23...	--	114	114	139	<1	--	--	--	--	<10	0.37	<0.04	<0.06	
SEP 04...	--	125	126	154	<1	--	--	--	--	11	0.34	<0.04	0.07	
SEP 04...	--	--	--	--	--	--	--	--	--	<10	0.32	<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, col/100 mL (31633)	Fecal coliform, M-FC MF, col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, µg/L (01106)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Arsenic water, fltrd, µg/L (01000)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Copper, water, fltrd, µg/L (01040)
NOV 05...	<0.008	E.01	<0.04	E.03	21	24	28	M	86	0.5	<0.04	<0.2	<6	
JAN 08...	E.005	E.01	<0.04	0.04	1k	10k	20	--	--	--	--	--	--	
MAR 05...	0.019	<0.02	E.02	0.06	5k	23k	40	--	--	--	--	--	--	
MAY 21...	0.017	0.02	E.03	0.06	5k	34k	135	4	301	0.7	<0.04	<0.2	<6	
JUL 23...	<0.008	<0.02	E.02	E.04	7k	26	20k	--	--	--	--	--	--	
SEP 04...	0.023	<0.18d	E.03n	0.04	23	50k	34	--	--	--	--	--	--	
SEP 04...	0.027	<0.18d	E.03n	E.04n	31	45k	30	--	--	--	--	--	--	

## 07016400 BOURBEUSE RIVER ABOVE UNION, 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 05...	19	<0.08	<1	26.9	<0.02	<0.5	M	E2
JAN 08...	--	--	--	--	--	--	--	--
MAR 05...	--	--	--	--	--	--	--	--
MAY 21...	38	E.05	1	70.6	E.01	<0.5	M	2
JUL 23...	--	--	--	--	--	--	--	--
SEP 04...	--	--	--	--	--	--	--	--
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

## MERAMEC RIVER BASIN

07016500 BOURBEUSE RIVER AT UNION, MO

LOCATION.--Lat 38°26'39", long 90°59'41", in SW ¼ NW ¼ SE ¼ sec.26, T.43 N., R.1 W., Franklin County, Hydrologic Unit 07140103, on left bank at upstream side of the bridge on U.S. Highway 50, 800 ft upstream from Flat Creek, 0.5 mi east of Union, 7.0 mi upstream from Birch Creek, and at mile 13.4.

DRAINAGE AREA.--808 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1921 to current year. October 1916 to June 1921 gage heights only in reports of the National Weather Service.

REVISED RECORDS.--WSP 957: 1941. WSP 1147: Drainage area. WSP 1281: 1924.

GAGE.--Water-stage recorder. Datum of gage is 488.58 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1948, datum of all gages 3.00 ft higher. Prior to Oct. 21, 1933, nonrecording gage, at site 30 ft upstream; Oct. 21, 1933, to June 11, 1944, nonrecording gage, at present site.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 22, 1915, reached a stage of 28.5 ft, present datum, from floodmarks, discharge, about 50,000 ft<sup>3</sup>/s, determined from extension of rating curve for main channel based on measurements made since 1921 and study of overflow areas in vicinity of gaging 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	41	163	52	211	80	349	370	773	196	421	104	210
2	40	179	51	258	81	365	347	600	183	357	85	325
3	65	219	51	415	82	453	308	535	185	315	74	225
4	43	171	52	363	80	858	281	1,520	170	269	65	159
5	43	152	54	331	79	913	255	5,320	167	237	63	132
6	47	122	52	323	77	747	251	5,540	180	223	57	125
7	42	103	51	300	76	609	298	8,050	168	203	53	166
8	39	92	50	278	73	491	373	8,890	156	181	52	152
9	38	85	50	274	70	401	893	5,250	151	163	50	120
10	36	88	51	261	69	335	710	2,040	215	174	48	97
11	34	103	51	229	68	299	535	1,740	806	151	49	81
12	34	96	51	203	60	359	432	2,180	7,730	140	49	71
13	33	90	51	183	55	767	359	1,560	12,200	133	50	75
14	30	91	51	164	74	1,840	304	948	8,420	125	51	65
15	29	94	51	146	89	1,750	263	712	1,630	120	50	56
16	29	85	51	133	106	1,020	246	581	1,010	112	48	50
17	29	78	51	130	397	737	240	499	747	105	45	47
18	35	73	610	e123	748	581	233	445	597	120	41	43
19	49	69	741	e113	734	1,000	250	409	502	123	40	40
20	44	67	1,150	e106	852	3,350	305	387	435	99	38	39
21	39	66	928	e99	1,160	5,410	293	352	379	94	39	39
22	38	64	608	e95	1,050	3,200	268	331	335	97	40	46
23	39	62	468	e90	746	1,830	263	323	298	103	39	40
24	38	60	386	e87	624	1,140	428	340	276	91	37	38
25	114	58	340	e84	588	848	684	440	271	82	36	37
26	75	58	296	e83	522	666	1,660	332	571	76	36	51
27	89	56	267	81	430	550	2,190	325	2,220	71	37	62
28	68	55	247	79	369	482	1,570	298	1,560	71	39	49
29	163	54	231	77	---	439	1,430	313	720	67	79	42
30	179	53	227	76	---	395	1,130	268	523	67	81	45
31	173	---	224	79	---	376	---	226	---	65	90	---
MEAN	57.9	93.5	245	177	337	1,050	572	1,662	1,433	150	53.7	90.9
MAX	179	219	1,150	415	1,160	5,410	2,190	8,890	12,200	421	104	325
MIN	29	53	50	76	55	299	233	226	151	65	36	37
IN.	0.08	0.13	0.35	0.25	0.43	1.50	0.79	2.37	1.98	0.21	0.08	0.13

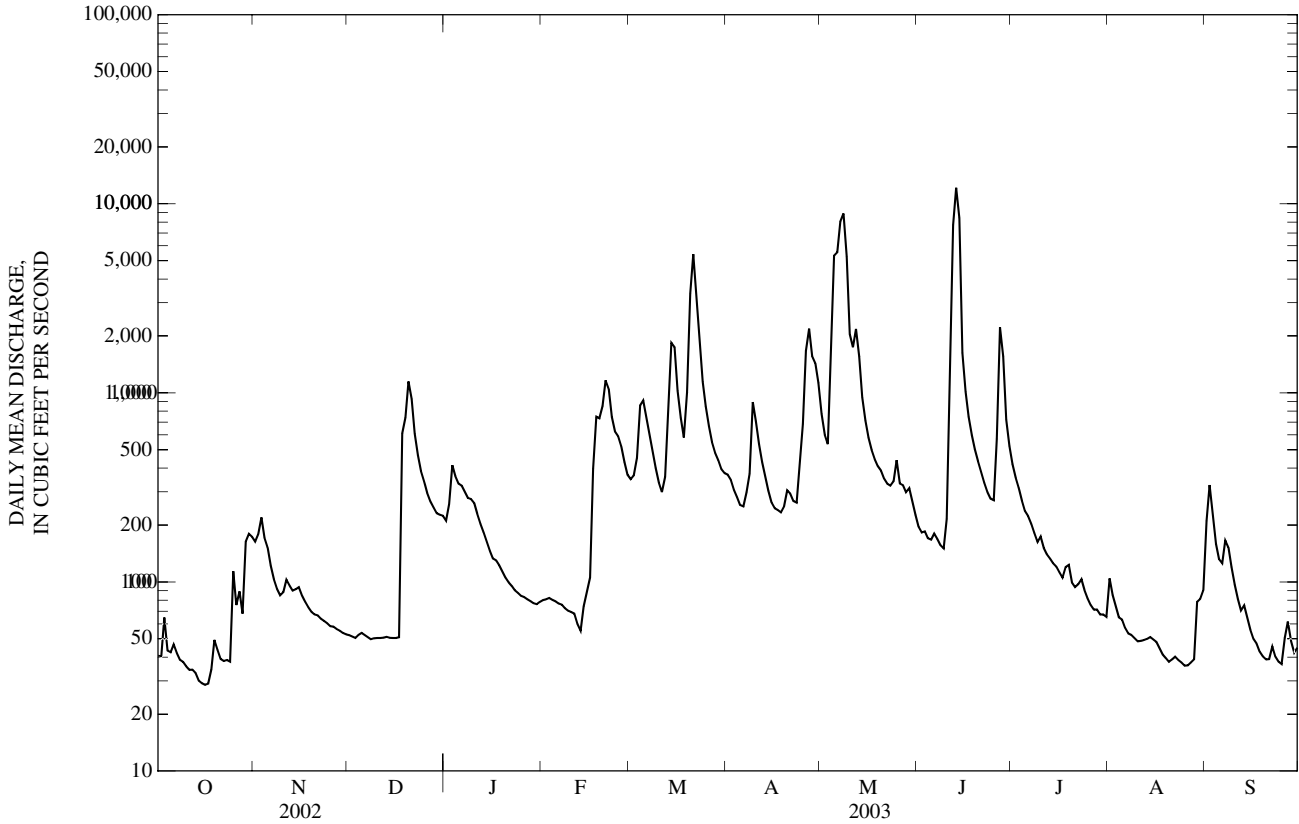
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2003, BY WATER YEAR (WY)

MEAN	295	525	646	637	793	1,124	1,285	1,166	853	331	187	245
MAX	4,575	3,320	6,107	3,518	3,214	4,207	5,303	4,578	4,583	3,650	1,927	4,859
(WY)	(1950)	(1986)	(1983)	(1950)	(1985)	(1984)	(1994)	(1995)	(1942)	(1993)	(1993)	(1993)
MIN	15.0	28.0	35.4	30.7	41.1	42.0	94.9	66.6	33.7	23.9	21.0	19.2
(WY)	(1957)	(1954)	(1954)	(1956)	(1963)	(1954)	(1956)	(1932)	(1936)	(1936)	(1936)	(1956)

07016500 BOURBEUSE RIVER AT UNION, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1921 - 2003	
ANNUAL MEAN	725		494		672	
HIGHEST ANNUAL MEAN					1,771	1993
LOWEST ANNUAL MEAN					106	1954
HIGHEST DAILY MEAN	14,500	May 10	12,200	Jun 13	63,000	Dec 5, 1982
LOWEST DAILY MEAN	29	Oct 15-17	29	Oct 15-17	12	Oct 10, 1956
ANNUAL SEVEN-DAY MINIMUM	31	Oct 11	31	Oct 11	13	Oct 6, 1956
MAXIMUM PEAK FLOW	---		15,200	Jun 14	73,300	Dec 5, 1982
MAXIMUM PEAK STAGE	---		17.71	Jun 14	33.80	Dec 5, 1982
INSTANTANEOUS LOW FLOW	---		28	Oct 15-17	11	Oct 10, 1956
ANNUAL RUNOFF (INCHES)	12.19		8.31		11.30	
10 PERCENT EXCEEDS	1,440		919		1,310	
50 PERCENT EXCEEDS	146		156		171	
90 PERCENT EXCEEDS	48		43		41	

e Estimated



## MERAMEC RIVER BASIN

07017200 BIG RIVER AT IRONDALE, MO

LOCATION.--Lat 37°49'48", long 90°41'27", in SE 1/4 SW 1/4 sec.15, T.36 N., R.3 E., Washington County, Hydrologic Unit 07140104, on right bank 50 ft upstream from bridge on State Highway U, 0.2 mi upstream from Mill Creek, and 0.8 mi west of Irondale.

DRAINAGE AREA.--175 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 753.28 ft above National Geodetic Vertical Datum of 1929 (Missouri State Highway and Transportation Commission bench mark).

REMARKS.--Records good above 1,000 ft<sup>3</sup>/s and fair below. 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	19	98	22	741	49	274	146	651	61	22	9.8	17
2	18	72	22	419	48	359	131	577	59	21	14	18
3	18	62	22	306	49	292	118	376	73	21	13	21
4	18	54	24	247	50	261	110	301	65	19	13	19
5	16	53	26	371	46	229	102	491	55	18	11	16
6	17	59	24	287	46	198	121	452	51	16	11	15
7	19	51	24	226	48	176	261	1,840	50	15	11	14
8	19	44	25	198	43	158	194	557	45	14	11	13
9	18	39	25	176	46	136	164	383	41	13	11	13
10	18	38	26	151	47	123	146	301	86	13	10	12
11	18	36	26	131	49	115	134	298	1,110	12	9.9	12
12	18	33	26	115	50	111	122	220	1,170	12	9.6	14
13	16	31	30	107	50	141	109	178	418	11	9.9	16
14	16	30	40	99	342	146	98	154	291	11	10	16
15	16	32	52	89	437	133	85	135	203	11	9.7	15
16	16	32	60	e79	318	124	82	117	151	11	9.8	14
17	16	30	73	e73	238	117	129	112	115	10	9.5	13
18	16	29	129	e70	201	108	138	106	90	10	8.9	13
19	18	28	453	e67	2,150	495	122	96	74	12	8.7	12
20	19	27	289	e64	1,080	1,110	122	273	61	12	9.2	12
21	18	27	180	e61	637	677	112	203	50	11	12	12
22	18	25	133	e58	931	403	101	128	42	10	11	12
23	17	25	107	e55	622	310	90	102	36	9.5	11	12
24	17	24	111	e52	420	256	133	82	32	9.3	9.8	12
25	21	25	97	e49	323	261	1,650	370	29	9.9	9.5	11
26	23	24	78	e47	275	319	934	234	35	9.7	9.0	11
27	22	23	74	e45	244	249	454	144	36	9.2	8.5	11
28	26	23	73	44	220	219	322	108	28	8.7	9.3	11
29	1,440	23	124	48	---	208	271	88	25	8.8	10	11
30	290	23	1,120	45	---	182	909	76	23	8.6	21	12
31	150	---	1,890	46	---	160	---	69	---	8.8	18	---
MEAN	77.1	37.3	174	147	324	260	254	297	154	12.5	10.9	13.7
MAX	1,440	98	1,890	741	2,150	1,110	1,650	1,840	1,170	22	21	21
MIN	16	23	22	44	43	108	82	69	23	8.6	8.5	11
IN.	0.51	0.24	1.15	0.97	1.93	1.71	1.62	1.96	0.98	0.08	0.07	0.09

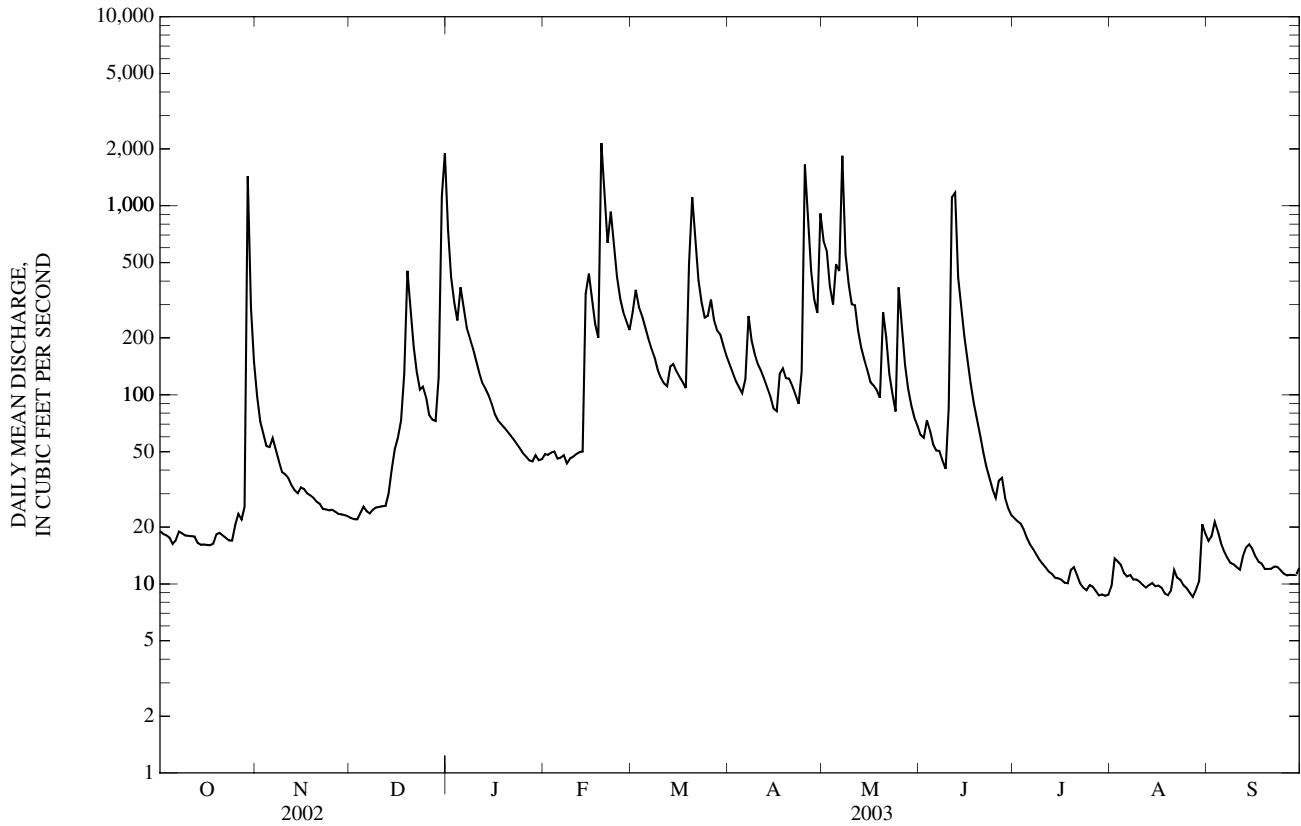
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2003, BY WATER YEAR (WY)

MEAN	58.8	218	260	203	255	325	356	274	118	50.2	54.4	60.8
MAX	339	1,147	1,027	734	695	867	1,329	1,788	872	262	393	669
(WY)	(1971)	(1994)	(1983)	(1969)	(1985)	(1978)	(1994)	(2002)	(1985)	(1981)	(1970)	(1993)
MIN	6.95	10.5	13.7	11.1	24.9	38.9	39.7	17.3	9.95	4.69	4.27	3.10
(WY)	(1981)	(1981)	(1977)	(1981)	(1977)	(1981)	(2000)	(2000)	(1980)	(1980)	(2000)	(2000)

07017200 BIG RIVER AT IRONDALE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1965 - 2003	
ANNUAL MEAN	289		146		186	
HIGHEST ANNUAL MEAN					449	1985
LOWEST ANNUAL MEAN					33.9	2000
HIGHEST DAILY MEAN	16,400	May 8	2,150	Feb 19	21,300	Nov 14, 1993
LOWEST DAILY MEAN	11	Aug 8-10	8.5	Aug 27	1.2	Sep 21, 2000
ANNUAL SEVEN-DAY MINIMUM	12	Aug 4	9.1	Jul 26	1.5	Sep 17, 2000
MAXIMUM PEAK FLOW	---		4,720	Oct 29	49,100	Nov 14, 1993
MAXIMUM PEAK STAGE	---		8.52	Oct 29	28.95	Nov 14, 1993
INSTANTANEOUS LOW FLOW	---		8.3	Aug 27	0.72	Sep 23, 2000
ANNUAL RUNOFF (INCHES)	22.41		11.30		14.41	
10 PERCENT EXCEEDS	511		331		368	
50 PERCENT EXCEEDS	50		49		56	
90 PERCENT EXCEEDS	16		11		10	

e Estimated





## MERAMEC RIVER BASIN

07018100 BIG RIVER NEAR RICHWOODS, MO

LOCATION.--Lat 38°09'34", long 90°42'22", in sec.33, T.40 N., R.3 E., Jefferson County, Hydrologic Unit 07140104, on left bank on downstream side of bridge on State Highway H, 1.8 mi east of Fletcher, 6.8 mi east of Richwoods, and at mile 53.7.

DRAINAGE AREA.--735 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1942 to current year. Prior to May 1949 monthly discharge only, published in WSP 1311. Prior to 1984 published as Big River near De Soto (07018000).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 523.00 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1983 at site 5.5 mi downstream at datum 15.79 ft higher.

REMARKS.--Water-discharge 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.--Flood of August 1915 reached a stage of about 29.4 ft (former datum), discharge, about 70,500 ft<sup>3</sup>/s, from rating curve extended above 37,000 ft<sup>3</sup>/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	146	659	159	4,010	240	782	558	1,780	394	391	187	213
2	141	485	165	1,900	238	1,080	507	1,530	367	294	418	222
3	137	403	164	1,270	239	1,150	472	1,320	401	259	305	207
4	138	356	170	982	237	984	441	1,500	382	240	231	177
5	136	335	175	816	229	878	410	3,500	360	225	181	154
6	137	343	173	799	225	774	415	3,610	346	214	162	140
7	140	325	171	746	226	682	690	10,000	340	203	149	133
8	140	304	174	645	213	613	795	4,500	316	193	139	125
9	137	284	173	571	216	551	687	2,180	298	184	133	119
10	136	267	168	511	213	495	586	1,600	338	180	127	115
11	137	251	168	456	216	457	525	1,330	7,430	173	123	112
12	137	234	168	406	219	439	480	1,190	9,670	162	118	118
13	135	222	178	376	222	450	443	999	4,440	157	119	163
14	131	214	212	354	259	438	417	865	3,500	151	127	149
15	129	218	236	334	753	454	388	767	1,730	147	126	138
16	129	216	248	318	1,160	435	380	684	1,230	145	119	129
17	127	205	264	308	905	415	462	638	998	140	114	119
18	127	201	387	e297	737	397	490	598	816	150	110	114
19	142	196	1,040	e287	1,460	568	496	564	694	230	108	111
20	144	191	1,180	e278	5,060	1,840	484	539	604	294	105	108
21	141	187	901	e266	2,640	2,360	458	598	515	198	105	107
22	137	179	655	e256	2,350	1,590	429	713	445	162	108	111
23	135	175	520	e248	2,710	1,150	391	530	388	150	100	117
24	132	174	472	e240	1,730	942	631	446	346	143	97	117
25	190	170	456	e233	1,250	815	2,660	1,080	317	135	96	114
26	226	167	398	e226	1,010	902	5,070	1,970	916	130	94	115
27	193	163	387	219	884	948	2,290	1,100	647	125	98	122
28	186	161	357	235	798	805	1,540	782	397	122	108	109
29	1,730	161	385	236	---	753	1,470	619	328	124	134	105
30	2,440	160	1,080	230	---	696	1,830	520	299	123	291	105
31	1,020	---	3,790	234	---	615	---	449	---	120	230	---
MEAN	299	254	489	590	951	821	896	1,565	1,308	183	150	133
MAX	2,440	659	3,790	4,010	5,060	2,360	5,070	10,000	9,670	391	418	222
MIN	127	160	159	219	213	397	380	446	298	120	94	105
IN.	0.47	0.38	0.77	0.93	1.35	1.29	1.36	2.45	1.99	0.29	0.24	0.20

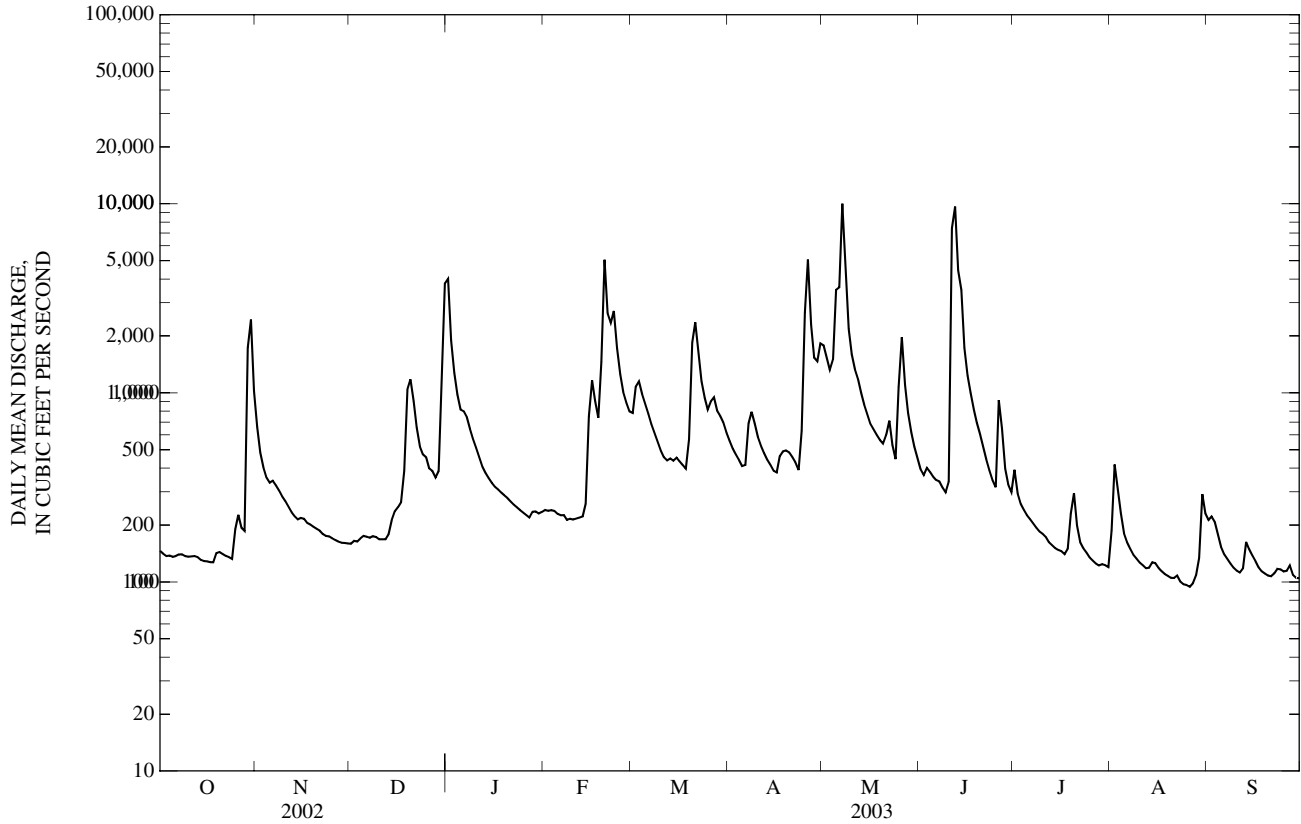
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2003, BY WATER YEAR (WY)

MEAN	268	643	812	710	927	1,211	1,283	1,081	576	384	259	304
MAX	1,641	4,223	4,332	3,845	2,935	2,851	5,642	3,964	3,150	2,492	1,357	4,022
(WY)	(1950)	(1986)	(1983)	(1950)	(1985)	(1998)	(1994)	(2002)	(1985)	(1951)	(1950)	(1993)
MIN	47.5	87.9	90.5	84.0	124	123	175	148	110	86.0	69.9	40.6
(WY)	(1957)	(1977)	(1956)	(1977)	(1954)	(1954)	(2000)	(2001)	(1980)	(1980)	(1955)	(1956)

07018100 BIG RIVER NEAR RICHWOODS, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1949 - 2003	
ANNUAL MEAN	848		634		704	
HIGHEST ANNUAL MEAN					1,766	1985
LOWEST ANNUAL MEAN					171	2000
HIGHEST DAILY MEAN	21,300	May 9	10,000	May 7	44,400	Nov 15, 1993
LOWEST DAILY MEAN	102	Sep 12,13	94	Aug 26	22	Sep 19, 1954
ANNUAL SEVEN-DAY MINIMUM	104	Sep 8	100	Aug 21	26	Sep 13, 1954
MAXIMUM PEAK FLOW	---		11,200	May 7	59,800	Sep 23, 1993
MAXIMUM PEAK STAGE	---		15.91	May 7	30.33	Sep 23, 1993
INSTANTANEOUS LOW FLOW	---		92	Aug 26,27	20	Sep 19, 1954
ANNUAL RUNOFF (INCHES)	15.66		11.71		13.01	
10 PERCENT EXCEEDS	1,680		1,320		1,320	
50 PERCENT EXCEEDS	299		294		281	
90 PERCENT EXCEEDS	137		123		100	

e Estimated



## MERAMEC RIVER BASIN

07018100 BIG RIVER NEAR RICHWOODS, MO—Continued  
(Ambient Water-Quality Monitoring Network)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1963 to July 1975, November 1983 to June 1987, November 1992 to current year. August 1963 to July 1975 published as Big River near De Soto (07018000).

## 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium, water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)		
NOV 07...	0930	Environmental	326	9.6	84	8.1	464	9.0	250	51.0	28.6	1.82		
JAN 08...	0920	Environmental	672	14.0	109	8.1	375	4.0	--	--	--	--		
MAR 05...	1010	Environmental	886	13.9	113	8.2	373	5.6	--	--	--	--		
MAY 21...	1040	Blank	--	--	--	--	--	--	--	0.01	<0.008	<0.16		
MAY 21...	1050	Environmental	551	8.5	93	7.9	443	19.0	240	50.1	27.4	1.63		
JUL 23...	0910	Environmental	150	5.7	71	7.6	495	24.9	--	--	--	--		
SEP 04...	0920	Environmental	179	6.6	78	7.8	516	22.6	--	--	--	--		
Date		ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, titr., field, mg/L (00450)	Carbonate, wat unfltrd, 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 fltrd 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 07...	5.24	209	209	255	<1	6.64	<0.2	32.6	268	<10	0.14	<0.04	0.41	
JAN 08...	--	171	170	208	<1	--	--	--	--	<10	0.11	<0.04	0.40	
MAR 05...	--	160	159	194	<1	--	--	--	--	11	0.22	E.02	0.21	
MAY 21...	<0.09	--	--	--	--	<0.20	<0.2	<0.2	<10	<10	<0.10	<0.04	<0.06	
MAY 21...	5.07	208	209	256	<1	7.26	<0.2	26.8	260	<10	0.21	<0.04	0.19	
JUL 23...	--	215	217	264	<1	--	--	--	--	<10	0.23	<0.04	0.24	
SEP 04...	--	216	217	265	<1	--	--	--	--	<10	0.21	<0.04	0.28	
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, col/100 mL (31633)	Fecal coliform, M-FC MF, col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Aluminum, water, unfltrd recoverable, $\mu$ g/L (01105)	Arsenic water, fltrd, $\mu$ g/L (01000)	Cadmium water, fltrd, $\mu$ g/L (01025)	Cadmium water, unfltrd $\mu$ g/L (01027)	Copper, water, fltrd, $\mu$ g/L (01040)
NOV 07...	<0.008	E.02	E.02	E.02	27	35	12k	M	47	0.5	0.16	0.3	<6	
JAN 08...	<0.008	E.01	<0.04	E.04	<1b	24	24	--	--	--	--	--	--	
MAR 05...	0.020	<0.02	E.03	E.04	4k	30k	25k	--	--	--	--	--	--	
MAY 21...	<0.008	<0.02	<0.04	<0.04	--	--	--	<2	<2	<0.3	<0.04	<0.2	<6	
MAY 21...	E.004	<0.02	<0.04	<0.04	7k	15k	52	E1	79	0.4	0.12	0.3	<6	
JUL 23...	<0.008	<0.02	<0.04	E.03	20	40	48	--	--	--	--	--	--	
SEP 04...	<0.008	<0.18d	E.03n	E.03n	22	105	37	--	--	--	--	--	--	

## 07018100 BIG RIVER NEAR RICHWOODS, 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 07...	E6	2.92	16	37.4	<0.02	<0.5	17	20
JAN 08...	--	--	--	--	--	--	--	--
MAR 05...	--	--	--	--	--	--	--	--
MAY 21...	<10	<0.08	<1	<2.0	<0.02	<0.5	<1	<2
21...	<10	4.13	28	31.5	<0.02	<0.5	6	14
JUL 23...	--	--	--	--	--	--	--	--
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:

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

## MERAMEC RIVER BASIN

07018500 BIG RIVER AT BYRNESVILLE, MO

LOCATION.--Lat 38°23'31", long 90°38'18, in SE ¼ sec.12, T.42 N., R.3 E., Jefferson County, Hydrologic Unit 07140104, on right bank on downstream side of pier of privately owned bridge at Byrnesville, 4.0 mi upstream from Heads Creek, and at mile 14.1.

DRAINAGE AREA.--917 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1921 to current year. Prior to June 1922 monthly discharge only, published WSP 1311.

REVISED RECORDS.--WSP 667: 1927. WSP 877: 1938. WSP 1007: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 433.69 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 9, 1940, nonrecording gage at present site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 21, 1915, reached a stage of 30.2 ft from floodmarks, discharge, 80,000 ft<sup>3</sup>/s, by slope-area measurement of peak flow.

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	169	936	182	4,650	280	841	637	2,100	503	393	145	293
2	161	640	181	3,210	281	888	585	1,710	469	427	204	307
3	156	520	185	1,680	279	1,190	538	1,630	461	368	359	270
4	152	444	190	1,210	277	1,130	506	3,050	459	329	330	244
5	145	408	193	969	275	978	474	6,210	439	303	267	222
6	146	380	197	826	271	864	454	5,080	427	282	214	202
7	144	373	e196	810	268	763	513	12,600	416	265	188	189
8	143	358	e196	741	264	676	704	12,000	396	250	173	182
9	143	341	e196	657	257	608	758	4,260	367	237	160	172
10	142	326	194	588	256	549	665	2,270	375	238	152	163
11	142	307	192	533	255	500	588	1,970	4,560	222	146	156
12	143	289	191	482	254	480	535	1,470	8,890	209	139	159
13	144	273	195	440	255	540	494	1,210	9,580	200	136	163
14	140	261	203	411	274	508	459	992	5,250	190	135	178
15	137	258	221	390	355	476	440	868	2,640	183	137	192
16	134	250	245	375	986	474	e428	780	1,570	179	139	178
17	132	246	257	359	1,100	453	e487	714	1,150	173	134	168
18	133	238	290	e349	869	430	e531	669	940	178	128	156
19	151	232	495	e338	1,190	559	e555	636	764	188	123	147
20	145	227	929	e328	3,600	1,470	e563	605	681	234	119	141
21	151	221	1,030	e319	4,420	2,730	550	579	618	293	116	136
22	150	215	783	e312	2,480	2,190	506	619	553	240	113	132
23	147	209	617	e306	2,850	1,510	464	647	500	197	114	130
24	145	206	526	e300	2,440	1,140	803	548	456	177	109	133
25	327	203	481	e296	1,620	957	4,280	858	418	168	105	134
26	290	199	452	e292	1,250	878	6,110	1,720	1,700	160	102	135
27	264	194	411	e288	1,040	945	4,460	1,530	1,050	154	103	144
28	232	190	397	284	922	918	2,300	982	692	149	107	144
29	627	187	380	284	---	817	2,080	756	513	144	116	135
30	2,500	185	433	281	---	758	2,390	632	431	141	135	127
31	2,120	---	1,980	280	---	705	---	558	---	140	233	---
MEAN	318	311	407	729	1,031	901	1,162	2,266	1,576	226	157	174
MAX	2,500	936	1,980	4,650	4,420	2,730	6,110	12,600	9,580	427	359	307
MIN	132	185	181	280	254	430	428	548	367	140	102	127
IN.	0.40	0.38	0.51	0.92	1.17	1.13	1.41	2.85	1.92	0.28	0.20	0.21

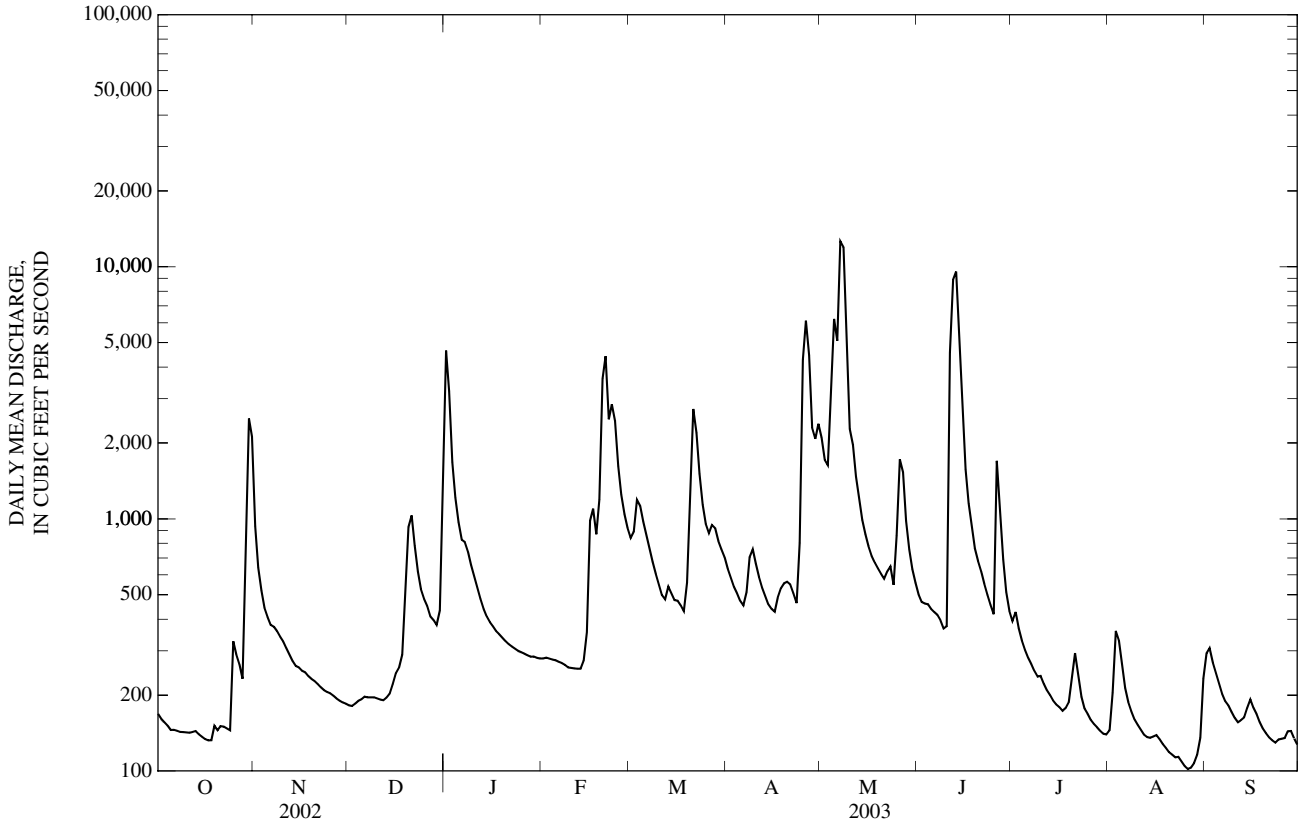
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2003, BY WATER YEAR (WY)

MEAN	324	695	867	903	1,106	1,432	1,665	1,458	830	478	293	344
MAX	2,290	5,084	5,594	5,064	3,696	4,539	7,230	5,196	4,530	3,895	1,490	6,464
(WY)	(1950)	(1994)	(1983)	(1950)	(1982)	(1945)	(1994)	(1990)	(1928)	(1957)	(1950)	(1993)
MIN	49.7	99.6	103	90.4	139	137	237	177	105	56.4	41.4	48.7
(WY)	(1957)	(1977)	(1956)	(1977)	(1954)	(1954)	(2000)	(1932)	(1936)	(1936)	(1936)	(1956)

07018500 BIG RIVER AT BYRNESVILLE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1922 - 2003	
ANNUAL MEAN	970		769		865	
HIGHEST ANNUAL MEAN					1,934	1985
LOWEST ANNUAL MEAN					227	1954
HIGHEST DAILY MEAN	21,600	May 10	12,600	May 7	57,800	Sep 25, 1993
LOWEST DAILY MEAN	110	Sep 14	102	Aug 26	25	Aug 30, 1936
ANNUAL SEVEN-DAY MINIMUM	116	Sep 10	108	Aug 22	34	Aug 28, 1936
MAXIMUM PEAK FLOW	---		13,800	May 7	63,600	Sep 25, 1993
MAXIMUM PEAK STAGE	---		18.71	May 7	29.37	Sep 25, 1993
INSTANTANEOUS LOW FLOW	---		101	Aug 26,27	25	Aug 30, 1936
ANNUAL RUNOFF (INCHES)	14.37		11.39		12.82	
10 PERCENT EXCEEDS	1,750		1,650		1,720	
50 PERCENT EXCEEDS	347		341		338	
90 PERCENT EXCEEDS	145		142		118	

e Estimated



## MERAMEC RIVER BASIN

## 07019000 MERAMEC RIVER NEAR EUREKA, MO

LOCATION.--Lat 38°30'20", long 90°35'30", in SE 1/4 sec.32, T.44 N., R.4 E., St. Louis County, Hydrologic Unit 07140102, on right bank, 44 ft upstream from bridge on north access roadway of I-44, 2.0 mi east of Eureka, 3.0 mi downstream from Big River, and at mile 34.1.

DRAINAGE AREA.--3,788 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1903 to July 1906, October 1921 to current year. Monthly discharge only for January, February, and March 1904, published in WSP 1311.

REVISED RECORDS.--WSP 877: 1938(M), WSP 977: 1942. WSP 1007: Drainage area. WSP 1281: 1924-25.

GAGE.--Water-stage recorder. Datum of gage is 404.18 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 17, 1933, nonrecording gage at site 200 ft upstream at different datum; Jan. 17, 1933, to Sept. 22, 1937, nonrecording gage; Sept. 23, 1937, to Sept. 30, 1971, water-stage recorder at present site at datum 2.00 ft higher.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 22, 1915, reached a stage of 42.2 ft, present datum, from floodmarks, discharge, 175,000 ft<sup>3</sup>/s, by slope-area measurement of peak flow.

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	766	2,570	915	6,530	1,070	3,080	2,870	7,200	2,070	2,130	730	1,060
2	736	2,070	926	7,510	1,070	3,060	2,690	5,980	1,930	1,970	867	1,810
3	812	1,770	925	5,570	1,070	3,350	2,520	5,050	1,910	1,870	940	1,790
4	862	1,600	929	4,290	1,060	3,530	2,370	6,910	1,860	1,700	978	1,410
5	734	1,470	939	3,480	1,050	3,760	2,240	18,300	1,810	1,580	1,110	1,290
6	718	1,390	947	2,940	1,040	3,570	2,110	18,400	1,780	1,480	893	1,120
7	714	1,310	959	2,680	1,040	3,240	2,210	28,100	1,750	1,420	853	989
8	741	1,270	956	2,510	1,030	2,970	2,600	37,200	1,680	1,350	790	943
9	667	1,200	947	2,300	1,020	2,700	3,230	31,400	1,630	1,250	726	860
10	658	1,180	951	2,120	1,010	2,480	3,630	17,100	1,730	1,300	656	802
11	665	1,150	952	1,970	1,010	2,300	3,180	10,600	7,300	1,300	641	763
12	671	1,120	961	1,820	1,010	2,420	2,840	8,400	23,100	1,220	626	743
13	669	1,090	978	1,690	1,000	2,880	2,590	7,300	31,800	1,210	620	721
14	668	1,080	995	1,590	1,040	3,090	2,380	5,620	29,100	1,160	645	696
15	659	1,080	1,010	1,500	1,120	3,890	2,190	4,520	17,600	1,170	623	702
16	659	1,070	1,060	1,440	1,740	3,430	2,070	3,910	8,180	1,110	615	674
17	660	1,060	1,090	1,370	2,690	2,860	2,300	3,610	5,890	1,030	622	666
18	672	1,050	1,220	1,300	3,010	2,510	2,180	3,330	4,640	956	624	679
19	756	1,040	2,040	e1,260	3,520	2,700	2,140	3,200	3,870	936	611	629
20	747	1,040	2,350	e1,220	6,430	6,040	2,340	3,160	3,340	997	594	629
21	745	1,020	3,520	e1,200	9,180	11,600	2,470	2,810	2,970	1,220	571	627
22	745	1,010	2,900	e1,180	7,600	12,700	2,430	2,720	2,690	1,460	589	567
23	737	1,000	2,300	e1,160	6,860	9,620	2,300	2,630	2,420	1,240	568	569
24	739	993	1,990	e1,160	6,230	6,690	2,800	2,350	2,190	1,070	550	557
25	955	973	1,810	e1,150	4,890	5,120	7,230	3,210	2,040	973	550	551
26	1,250	954	1,690	e1,140	4,190	4,300	14,500	4,130	5,530	895	510	542
27	1,120	940	1,590	e1,120	3,670	3,920	17,300	4,470	4,880	857	521	588
28	1,070	936	1,520	e1,110	3,310	3,780	13,100	3,780	5,450	818	515	574
29	1,550	931	1,460	e1,090	---	3,510	10,000	3,110	3,590	799	516	543
30	3,070	924	1,470	1,080	---	3,210	8,400	2,580	2,560	784	557	519
31	3,620	---	2,530	1,070	---	3,050	---	2,320	---	727	642	---
MEAN	962	1,210	1,446	2,179	2,820	4,237	4,374	8,497	6,243	1,225	673	820
MAX	3,620	2,570	3,520	7,510	9,180	12,700	17,300	37,200	31,800	2,130	1,110	1,810
MIN	658	924	915	1,070	1,000	2,300	2,070	2,320	1,630	727	510	519
IN.	0.29	0.36	0.44	0.66	0.78	1.29	1.29	2.59	1.84	0.37	0.20	0.24

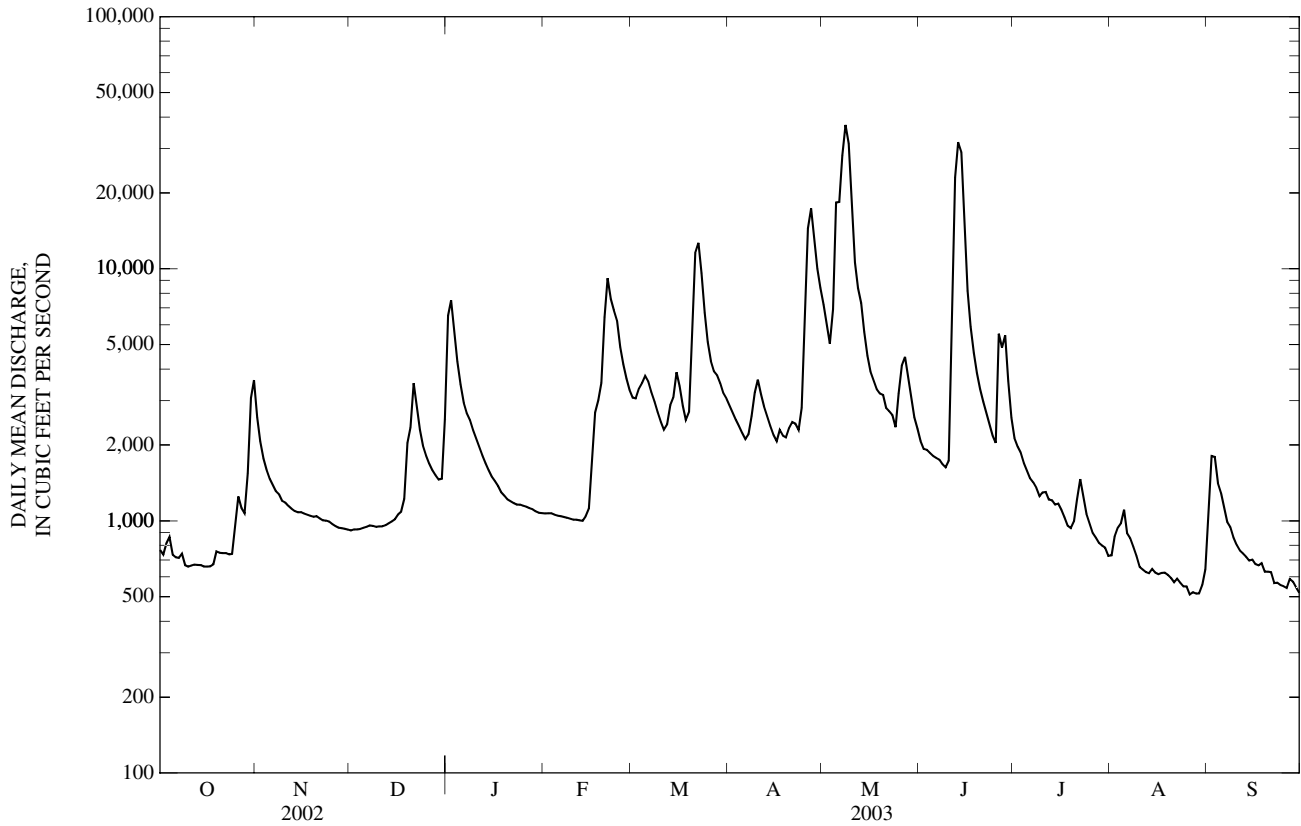
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1,399	2,465	2,980	3,166	3,883	5,206	6,235	5,480	3,642	1,903	1,189	1,405
MAX	12,120	15,450	23,620	17,320	14,730	13,960	22,580	18,590	18,070	12,600	5,441	18,500
(WY)	(1950)	(1986)	(1983)	(1950)	(1982)	(1978)	(1927)	(2002)	(1945)	(1951)	(1993)	(1993)
MIN	236	464	426	374	538	514	945	708	503	318	255	244
(WY)	(1957)	(1957)	(1956)	(1956)	(1954)	(1954)	(1954)	(1932)	(1936)	(1936)	(1936)	(1956)

07019000 MERAMEC RIVER NEAR EUREKA, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	3,880		2,888		3,232	
HIGHEST ANNUAL MEAN					7,407	1985
LOWEST ANNUAL MEAN					751	1954
HIGHEST DAILY MEAN	54,700	May 11	37,200	May 8	139,000	Dec 6, 1982
LOWEST DAILY MEAN	658	Oct 10	510	Aug 26	196	Aug 27, 1936
ANNUAL SEVEN-DAY MINIMUM	664	Oct 10	531	Aug 24	209	Aug 26, 1936
MAXIMUM PEAK FLOW	---		38,200	May 8	145,000	Dec 6, 1982
MAXIMUM PEAK STAGE	---		20.59	May 8	42.89	Dec 6, 1982
INSTANTANEOUS LOW FLOW	---		490	Aug 26-29	196	Aug 27, 1936
ANNUAL RUNOFF (INCHES)	13.91		10.35		11.59	
10 PERCENT EXCEEDS	7,500		5,930		6,750	
50 PERCENT EXCEEDS	1,430		1,410		1,400	
90 PERCENT EXCEEDS	806		659		530	

e Estimated





## MERAMEC RIVER BASIN

07019072 KIEFER CREEK NEAR BALLWIN, MO

LOCATION.--Lat 38°33'19", long 90°33'06", in NW ¼ SE ¼ NE ¼ sec.15, T.44 N., R.4 E., St. Louis County, Hydrologic Unit 07140102, on left downstream abutment of Castlewood Road bridge, 0.2 mi upstream of Spring Branch, 3.2 mi west of Highway 141, and 1.3 mi upstream of Meramec River.

DRAINAGE AREA.--3.91 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 438.90 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge 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	1.8	2.0	1.5	3.0	1.9	3.4	3.9	5.5	2.0	2.2	1.3	39
2	1.8	2.1	1.5	3.4	1.5	4.8	3.6	4.7	2.4	1.9	1.0	105
3	31	4.3	1.2	3.0	1.6	4.8	3.6	3.7	7.0	1.7	1.6	12
4	5.3	3.3	1.2	2.4	1.5	4.9	3.6	18	3.3	1.6	1.0	7.3
5	3.3	4.9	1.8	2.7	1.3	4.9	3.4	25	1.9	1.5	0.93	4.5
6	3.4	4.2	2.0	2.6	1.5	3.9	4.9	11	2.8	1.4	0.90	4.0
7	2.8	2.5	1.7	2.3	1.6	3.3	7.1	13	3.4	1.3	0.88	3.5
8	2.2	2.5	1.2	1.8	1.3	3.2	4.2	7.4	1.9	1.2	0.90	2.9
9	1.9	2.3	1.1	1.6	1.3	2.9	3.5	6.0	1.4	1.2	0.85	2.2
10	1.8	2.3	1.4	1.4	1.3	2.7	3.5	20	26	5.3	1.0	1.9
11	1.7	2.0	1.4	1.4	1.3	3.9	3.3	13	23	2.1	1.0	1.8
12	1.7	1.9	1.6	1.6	1.3	15	3.2	7.4	7.9	1.4	0.99	2.2
13	1.9	2.2	1.8	1.6	1.5	17	3.0	5.7	20	1.2	1.5	2.2
14	1.6	2.4	1.7	1.6	5.7	7.2	2.6	4.9	7.4	1.1	2.1	1.9
15	1.6	5.3	1.4	1.2	7.0	5.3	2.0	4.8	4.9	1.1	1.0	1.7
16	1.4	2.4	1.5	1.2	4.7	4.2	4.9	4.1	3.6	1.0	1.00	1.6
17	1.2	1.9	1.5	1.4	2.7	3.5	11	3.5	2.7	0.98	1.0	1.6
18	e1.9	1.8	21	1.4	3.1	3.1	4.8	3.3	2.3	16	0.86	1.5
19	e7.1	1.6	5.0	1.3	12	20	3.5	3.0	2.3	7.6	0.82	1.4
20	e3.5	1.5	2.4	1.1	6.7	26	7.6	3.0	2.0	2.6	0.82	1.3
21	1.6	1.5	1.5	1.1	4.3	11	5.1	2.6	1.7	1.8	0.76	1.3
22	1.5	1.1	1.4	1.2	4.4	7.5	3.7	2.4	1.4	1.4	0.75	1.5
23	1.4	1.1	1.2	1.1	4.4	6.4	3.2	2.3	1.2	1.3	0.72	1.3
24	1.4	1.2	1.2	1.1	3.4	5.9	15	2.2	1.1	1.2	0.62	1.7
25	12	1.2	1.4	1.2	3.1	6.1	16	25	13	1.1	0.62	1.9
26	4.1	1.2	1.4	1.3	2.5	5.2	11	6.3	39	1.1	0.64	13
27	2.3	1.2	1.4	1.3	2.4	4.6	6.7	4.0	6.2	1.0	0.52	9.1
28	2.0	1.2	1.7	1.2	2.7	4.9	12	3.1	3.8	1.2	0.53	3.4
29	22	1.1	2.4	1.5	---	5.1	8.6	2.6	2.7	1.0	0.78	2.1
30	4.7	1.5	2.7	1.6	---	3.9	6.4	2.9	2.1	0.95	0.98	2.4
31	2.7	---	3.9	1.9	---	3.8	---	2.6	---	0.92	1.3	---
MEAN	4.34	2.19	2.39	1.69	3.14	6.72	5.83	7.19	6.68	2.17	0.96	7.91
MAX	31	5.3	21	3.4	12	26	16	25	39	16	2.1	105
MIN	1.2	1.1	1.1	1.1	1.3	2.7	2.0	2.2	1.1	0.92	0.52	1.3
IN.	1.28	0.63	0.70	0.50	0.84	1.98	1.66	2.12	1.91	0.64	0.28	2.26

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

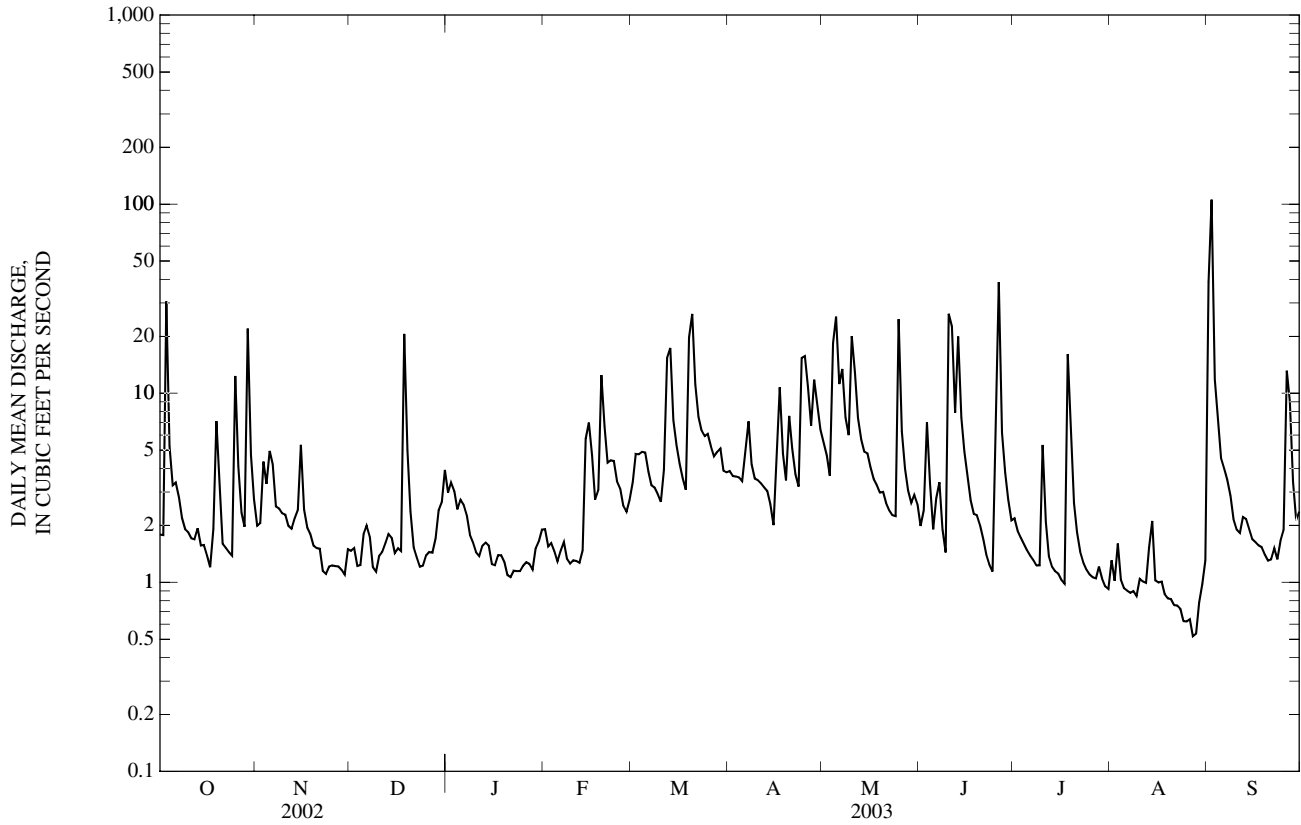
MEAN	3.50	3.85	2.92	4.45	7.19	6.86	5.17	7.75	7.70	3.35	2.58	4.12
MAX	6.61	10.7	6.35	10.3	12.5	16.1	7.65	16.2	16.9	8.87	6.29	12.1
(WY)	(1997)	(1997)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(1998)	(1998)	(1998)	(1996)
MIN	1.86	1.35	1.35	1.41	3.14	2.75	1.97	3.12	1.68	1.70	0.96	0.82
(WY)	(2000)	(2000)	(1999)	(2000)	(2003)	(2001)	(2000)	(1997)	(1999)	(1997)	(2003)	(1999)

07019072 KIEFER CREEK NEAR BALLWIN, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL MEAN	5.22		4.26		4.85	
HIGHEST ANNUAL MEAN					7.06	
LOWEST ANNUAL MEAN					3.11	
HIGHEST DAILY MEAN	116	Jun 12	105	Sep 2	251	May 7, 2000
LOWEST DAILY MEAN	0.95	Sep 13	0.52	Aug 27	0.52	Aug 27, 2003
ANNUAL SEVEN-DAY MINIMUM	1.1	Sep 10	0.63	Aug 22	0.63	Aug 22, 2003
MAXIMUM PEAK FLOW	---		830 <sup>a</sup>	Sep 2	Unknown	Jun 12, 2002
MAXIMUM PEAK STAGE	---		5.72	Sep 2	8.20	Jun 12, 2002
INSTANTANEOUS LOW FLOW	---		0.40	Aug 27-29	0.22	Sep 20, 2000
ANNUAL RUNOFF (INCHES)	18.11		14.80		16.85	
10 PERCENT EXCEEDS	10		7.6		9.2	
50 PERCENT EXCEEDS	2.3		2.2		2.2	
90 PERCENT EXCEEDS	1.4		1.1		1.0	

e Estimated

<sup>a</sup> From rating extended above 251 ft<sup>3</sup>/s.



## MERAMEC RIVER BASIN

07019072 KIEFER CREEK NEAR BALLWIN, 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 25...	0827	Environmental	62	9.4	10.5	102	7.2	2,010	12.9	110	36.0	5.70
DEC 16...	1345	Environmental	0.97	26	9.1	90	7.2	1,040	13.9	320	99.0	18.0
FEB 04...	1425	Environmental	1.4	30	9.2	89	7.1	1,530	13.4	350	110	19.0
MAR 19...	1052	Environmental	46	8.3	10.7	105	7.4	586	13.0	140	43.0	7.20
JUN 25...	1025	Environmental	1.1	36	9.6	95	7.1	924	14.4	330	104	17.0
AUG 12...	0815	Environmental	1.1	38	8.8	88	7.1	903	14.1	350	110	19.0

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd incrm. titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd incrm. titr., mg/L (00450)	Carbonate, wat unfltrd incrm. titr., 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 25...	84	84	102	<1	--	225	1.4	0.07	0.840	0.01	0.290	0.45	37
DEC 16...	220	222	271	<1	110	1	<0.20	<0.01	1.80	<0.01	0.020	0.02	<5
FEB 04...	202	205	250	<1	310	4	<0.20	<0.01	1.90	<0.01	0.030	0.02	24
MAR 19...	98	98	120	<1	--	334	1.7	0.10	1.10	0.03	0.180	0.42	18
JUN 25...	235	237	289	<1	--	1	<0.20	<0.01	2.10	<0.01	0.030	0.02	6
AUG 12...	229	231	282	<1	--	<1	<0.20	<0.01	2.10	<0.01	0.020	<0.02	<5

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Arsenic water, fltrd, $\mu$ g/L (01000)	Beryllium, water, fltrd, $\mu$ g/L (01010)	Cadmium water, fltrd, $\mu$ g/L (01025)	Chromium, water, fltrd, $\mu$ g/L (01030)	Copper, water, fltrd, $\mu$ g/L (01040)	Iron, water, fltrd, $\mu$ g/L (01046)	Lead, water, fltrd, $\mu$ g/L (01049)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recoverable, $\mu$ g/L (71900)
OCT 25...	10,000	28,000	6,800	4	<1	<1	<1.0	1.3	1.6	9	<1	12	<0.1
DEC 16...	15k	70	40	<3	<1	<1	<1.0	6.6	1.0	<2	<1	9	<0.1
FEB 04...	1k	73k	40	<3	<1	<1	<1.0	2.7	1.5	<2	<1	11	<0.1
MAR 19...	13,000	18,300k	14,000	4	1	<1	<1.0	1.4	2.3	16	<1	42	<0.1
JUN 25...	120	46	33k	<3	<1	<1	<1.0	5.4	<1.0	3	<1	26	<0.1
AUG 12...	10k	36k	230	<3	<1	<1	<1.0	3.6	1.3	<2	<1	14	<0.1





07019072 KIEFER CREEK NEAR BALLWIN, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 25...	M	--r	<0.02	<2	<2	<2	<1	<1	<2	<2
DEC 16...	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--
MAR 19...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
JUN 25...	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- 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:

r -- Sample ruined in preparation

## MERAMEC RIVER BASIN

07019090 WILLIAMS CREEK NEAR PEERLESS PARK, MO

LOCATION.--Lat 38°32'04", long 90°30'51", St. Louis County, Hydrologic Unit 07140102, on left downstream wingwall of Meramec Station Road bridge, 0.1 mi south of Interstate 44, 1.01 mi west of Highway 141, and 0.6 mi upstream of Meramec River.

DRAINAGE AREA.--7.62 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 415.75 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair except 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	0.34	e1.0	1.1	4.1	0.80	2.0	1.8	13	3.0	3.0	0.93	9.9
2	0.34	e0.96	1.1	3.0	0.94	4.5	1.7	9.4	2.8	3.0	1.3	42
3	0.96	e1.6	0.93	3.2	1.1	4.8	1.5	7.2	4.0	2.6	1.4	15
4	1.2	e1.2	0.84	2.6	1.2	4.4	1.5	25	3.1	2.2	1.4	6.5
5	1.1	e2.8	0.87	2.4	0.99	4.2	2.3	56	2.5	1.9	1.1	3.7
6	0.78	3.7	0.96	2.2	0.87	3.2	2.1	32	2.3	1.8	1.1	2.6
7	0.97	2.5	0.93	1.9	0.83	2.5	5.2	34	2.7	1.6	0.98	1.9
8	0.73	2.2	0.84	1.8	0.70	2.3	4.3	24	2.1	1.3	0.89	1.6
9	0.59	2.1	0.84	1.7	0.63	1.9	3.4	18	1.7	1.0	0.86	1.3
10	0.54	2.1	0.84	1.2	0.72	1.4	3.0	19	9.4	3.6	0.84	1.1
11	0.60	1.8	0.76	0.90	0.73	1.4	2.8	37	30	2.0	0.84	0.99
12	0.55	1.3	0.65	0.80	0.73	15	2.5	22	23	1.3	0.78	1.2
13	0.65	1.0	0.72	0.73	0.66	21	2.2	15	85	1.0	0.92	2.2
14	0.63	0.96	0.87	0.66	1.9	17	2.0	11	43	0.86	2.2	1.6
15	0.61	1.4	0.92	0.56	5.3	11	1.9	7.9	22	0.87	1.5	1.2
16	0.57	1.8	0.82	0.58	5.9	7.8	4.4	6.2	13	0.89	1.3	0.99
17	0.53	1.3	0.73	0.63	4.0	6.0	25	5.4	9.0	0.76	1.1	0.71
18	0.57	0.98	3.9	0.57	3.3	4.9	15	4.8	6.9	7.3	0.91	0.56
19	4.1	0.80	5.5	0.58	14	13	9.9	4.4	5.5	9.1	0.81	0.53
20	2.4	0.67	2.9	0.63	14	33	16	3.7	4.4	2.9	0.64	0.50
21	1.2	0.65	2.0	0.63	7.8	21	15	3.5	3.7	2.0	0.63	0.53
22	0.70	0.67	1.5	0.56	6.0	12	10	3.3	3.1	1.6	0.53	0.53
23	0.50	0.66	1.2	0.53	6.6	7.8	7.7	3.0	2.7	1.3	0.43	0.53
24	0.41	0.63	0.99	0.50	4.8	6.1	27	2.7	2.3	1.1	0.36	0.53
25	8.0	0.63	0.96	0.45	3.5	4.8	48	29	2.8	1.0	0.36	0.50
26	5.1	0.63	0.96	0.53	2.7	3.8	38	15	38	0.87	0.36	2.1
27	2.1	0.55	0.91	0.53	2.5	3.4	21	7.5	12	0.84	0.36	6.2
28	1.4	0.53	0.89	0.53	2.1	3.1	25	5.5	6.2	0.91	0.36	2.9
29	e6.6	0.67	1.9	0.71	---	2.8	29	4.6	4.1	0.96	0.33	1.8
30	e4.0	1.0	2.2	0.70	---	2.0	20	3.9	2.9	0.87	0.54	1.4
31	e1.3	---	3.4	0.73	---	1.8	---	3.6	---	0.80	0.64	---
MEAN	1.62	1.29	1.42	1.20	3.40	7.42	11.6	14.1	11.8	1.98	0.86	3.77
MAX	8.0	3.7	5.5	4.1	14	33	48	56	85	9.1	2.2	42
MIN	0.34	0.53	0.65	0.45	0.63	1.4	1.5	2.7	1.7	0.76	0.33	0.50
IN.	0.24	0.19	0.21	0.18	0.47	1.12	1.70	2.13	1.72	0.30	0.13	0.55

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

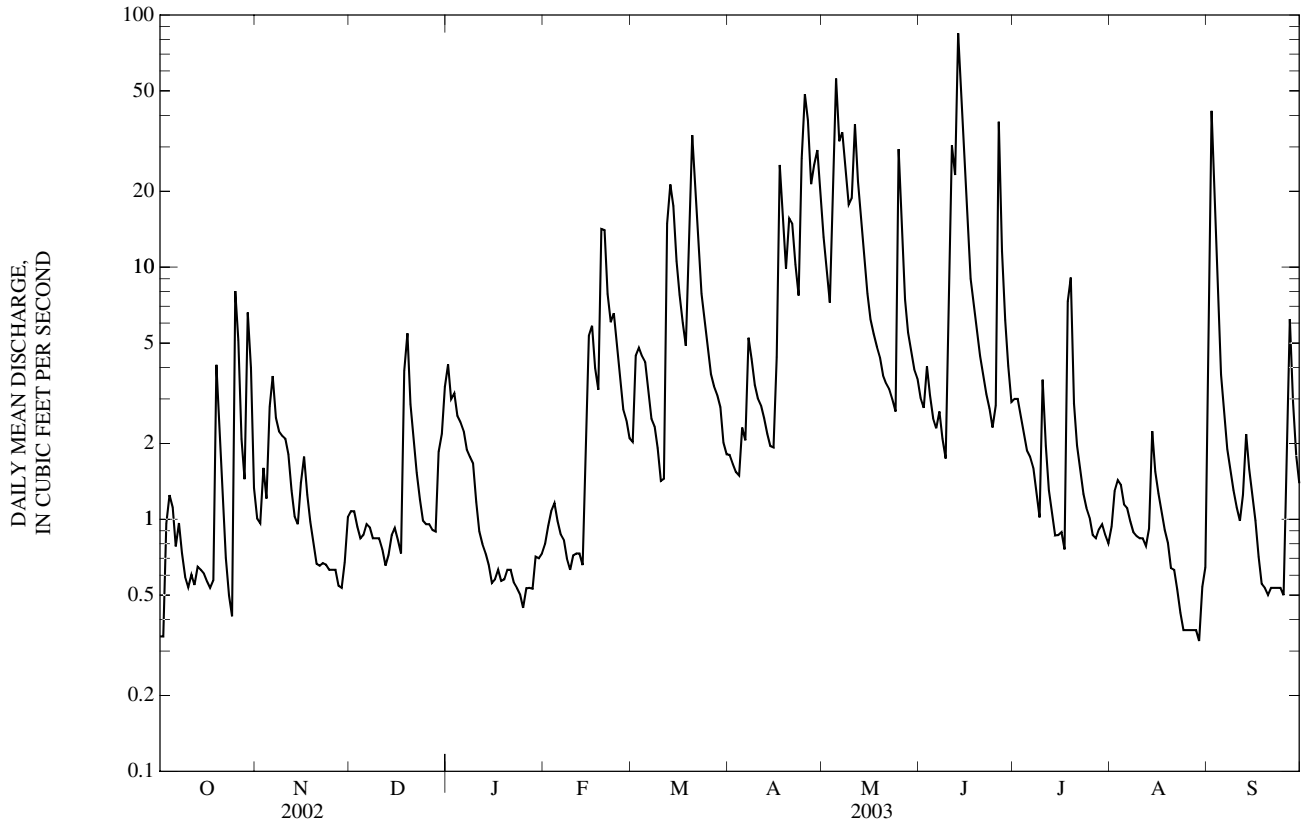
MEAN	1.57	1.72	2.84	4.10	8.89	11.0	9.55	10.7	7.50	3.16	2.21	1.54
MAX	3.22	2.96	10.4	11.1	21.5	30.5	17.8	25.3	16.7	8.27	5.75	3.77
(WY)	(2002)	(2002)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(1998)	(1998)	(1998)	(2003)
MIN	0.75	0.62	0.91	0.76	1.96	1.69	1.25	1.71	1.98	0.93	0.73	0.56
(WY)	(2000)	(2000)	(1999)	(2000)	(2000)	(2000)	(2000)	(2001)	(2001)	(2002)	(2002)	(1999)

07019090 WILLIAMS CREEK NEAR PEERLESS PARK, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	6.26		5.03		5.38	
HIGHEST ANNUAL MEAN					9.20	
LOWEST ANNUAL MEAN					2.61	
HIGHEST DAILY MEAN	94 May 8		85 Jun 13		208 Mar 20, 1998	
LOWEST DAILY MEAN	0.29 Sep 4-7,9,10		0.33 Aug 29		0.29 Several Days 2002,2003	
ANNUAL SEVEN-DAY MINIMUM	0.29 Sep 4		0.37 Aug 23		0.29 Sep 4, 2002	
MAXIMUM PEAK FLOW	---		161 Jun 13		583 <sup>a</sup> May 7, 2000	
MAXIMUM PEAK STAGE	---		6.27 Jun 13		9.31 May 7, 2000	
INSTANTANEOUS LOW FLOW	---		0.29 Oct 1,2,Aug 29,30		0.29 Several Days 2002,2003	
ANNUAL RUNOFF (INCHES)	11.16		8.96		9.60	
10 PERCENT EXCEEDS	18		14		13	
50 PERCENT EXCEEDS	1.5		1.8		1.6	
90 PERCENT EXCEEDS	0.52		0.57		0.63	

e Estimated

a From rating extended above 305 ft<sup>3</sup>/s.





## MERAMEC RIVER BASIN

07019090 WILLIAMS CREEK NEAR PEERLESS PARK, 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 29...	0322	Environmental	91	4.5	7.8	73	7.5	227	11.2	84	27.0	4.00
DEC 16...	1040	Environmental	.84	10	9.8	87	7.7	1,130	9.3	290	88.0	18.0
FEB 04...	1630	Environmental	1.1	9.2	11.7	86	7.6	904	2.0	280	86.0	17.0
MAR 20...	0029	Environmental	30	17	9.6	92	7.1	548	12.2	170	54.0	9.30
JUN 25...	0820	Environmental	2.1	13	9.2	92	7.5	573	14.7	240	76.0	11.0
AUG 12...	1110	Environmental	.84	15	9.0	94	7.4	635	16.3	260	81.0	15.0

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd incrm. titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd incrm. titr., mg/L (00450)	Carbonate, wat unfltrd incrm. titr., 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...	75	75	91	<1	--	83	0.90	<0.01	0.830	0.01	0.230	0.30	12
DEC 16...	277	278	340	<1	200	5	0.40	<0.01	4.60	<0.01	0.410	0.43	6
FEB 04...	208	210	256	<1	120	13	<0.20	0.02	5.40	<0.01	0.340	0.30	13
MAR 20...	124	124	152	<1	--	69	0.90	0.04	1.70	0.02	0.190	0.25	14
JUN 25...	203	204	249	<1	--	<1	<0.20	<0.01	1.60	<0.01	0.130	0.12	<5
AUG 12...	201	203	248	<1	--	<1	0.20	0.02	2.40	<0.01	0.240	0.22	<5

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC MF, col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Arsenic water, fltrd, $\mu$ g/L (01000)	Beryllium, water, fltrd, $\mu$ g/L (01010)	Cadmium water, fltrd, $\mu$ g/L (01025)	Chromium, water, fltrd, $\mu$ g/L (01030)	Copper, water, fltrd, $\mu$ g/L (01040)	Iron, water, fltrd, $\mu$ g/L (01046)	Lead, water, fltrd, $\mu$ g/L (01049)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recoverable, $\mu$ g/L (71900)
OCT 29...	5,400	28,000	12,500	4	<1	<1	<1.0	<1.0	1.9	11	<1	19	0.1
DEC 16...	86	148k	510	<3	<1	<1	<1.0	6.8	2.3	8	<1	14	<0.1
FEB 04...	4k	65k	31k	<3	<1	<1	<1.0	2.1	2.1	5	<1	9	<0.1
MAR 20...	2,200	2,800	4,560	<3	1	<1	<1.0	2.1	3.0	13	<1	10	<0.1
JUN 25...	270	107	98	<3	<1	<1	<1.0	4.3	<1.0	4	<1	11	<0.1
AUG 12...	790	740k	760	<3	<1	<1	<1.0	2.7	1.5	7	<1	15	<0.1





07019090 WILLIAMS CREEK NEAR PEERLESS PARK, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 29...	M	--r	<0.02	<2	<2	<2	<1	<1	<2	M
DEC 16...	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--
MAR 20...	M	<1	<0.02	<2	<2	M	<1	<1	<2	<2
JUN 25...	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- 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:

r -- Sample ruined in preparation

## MERAMEC RIVER BASIN

07019120 FISHPOT CREEK AT VALLEY PARK, MO

LOCATION.--Lat 38°33'07", long 90°30'41", in NE ¼ NE ¼ SE ¼ sec.13, T.44 N., R.4 E., St. Louis County, Hydrologic Unit 07140102, on right downstream abutment of Hanna Road bridge, 4.4 mi west of Interstate 270, 1.0 mi north of Interstate 44, and 1.7 mi upstream of confluence of Meramec River.

DRAINAGE AREA.--9.58 mi<sup>2</sup>.

## 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 422.02 ft above National Geodetic Vertical Datum of 1929. Prior to July 1996, at datum 420.00 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 12.00 ft, former datum, discharge 6,200 ft<sup>3</sup>/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	0.00	0.00	0.00	e0.44	e0.02	0.12	0.15	0.06	e0.34	0.66	0.02	126
2	0.00	0.00	0.00	e0.80	e0.01	0.13	0.15	0.04	e0.28	0.37	0.03	e817
3	13	0.01	0.00	e0.34	e0.00	0.10	0.13	0.03	e0.61	0.33	0.03	6.7
4	0.35	0.00	0.00	e0.06	e0.00	0.09	0.12	47	e0.33	0.32	0.02	3.8
5	0.22	0.02	0.00	e0.19	e0.00	0.10	0.12	28	e0.23	0.28	0.01	2.0
6	0.25	0.00	0.00	e0.02	e0.03	0.09	0.18	6.8	e0.18	0.22	0.00	1.6
7	0.15	0.00	0.00	e0.00	e0.10	0.09	0.09	8.7	e0.13	0.18	0.00	0.44
8	0.08	0.00	0.00	e0.00	e0.02	0.11	0.06	0.57	e0.11	0.14	0.00	0.09
9	0.04	0.01	0.00	e0.00	e0.01	0.13	0.05	0.38	e0.09	0.11	0.00	0.02
10	0.01	0.02	0.00	e0.00	e0.00	0.13	0.05	45	e41	4.9	0.00	e0.00
11	0.00	0.02	0.00	e0.00	e0.00	4.1	0.06	4.6	e19	0.43	0.00	e0.00
12	0.00	0.01	0.00	e0.00	e0.00	19	0.06	1.1	e36	0.34	0.00	e4.1
13	0.00	0.01	0.00	e0.00	e0.00	16	0.08	0.77	e63	0.31	0.08	e0.40
14	0.00	0.01	0.00	e0.00	0.80	0.64	0.09	0.62	e2.8	0.29	0.06	e0.14
15	0.00	0.06	0.00	e0.00	0.61	0.50	0.12	2.3	e1.1	0.25	0.07	e0.08
16	0.00	0.02	0.00	e0.00	e0.20	0.45	20	0.54	e0.58	0.18	0.05	e0.02
17	0.00	0.01	0.00	e0.00	0.13	0.42	2.9	0.44	e0.47	0.15	0.03	e0.00
18	0.27	0.01	16	e0.00	0.16	0.42	0.12	0.42	e0.41	43	0.01	e0.00
19	0.40	0.01	0.90	e0.00	6.7	16	0.09	0.34	e0.55	1.1	0.00	e0.00
20	0.07	0.00	e0.04	e0.00	0.45	21	7.2	0.33	e0.39	0.17	0.00	e0.00
21	0.01	0.00	e0.01	e0.00	0.14	0.59	0.11	0.26	e0.31	0.13	0.00	e0.00
22	0.09	0.00	e0.00	e0.00	0.22	0.34	0.08	0.24	e0.19	0.13	0.00	e0.00
23	0.08	0.00	e0.00	e0.00	0.19	0.29	0.06	0.22	e0.15	0.13	0.00	e0.00
24	0.05	0.00	e0.01	e0.00	0.16	0.25	27	0.22	e0.12	0.12	0.00	e0.00
25	18	0.00	e0.06	e0.00	e0.14	0.26	9.2	74	130	0.10	0.00	e0.20
26	0.05	0.00	e0.15	e0.00	e0.13	0.23	0.31	1.5	159	0.08	0.00	e12
27	0.00	0.00	e0.08	e0.00	0.12	0.21	0.08	0.80	0.88	0.05	0.00	e1.8
28	0.00	0.00	e0.20	e0.00	0.09	0.25	11	0.60	0.56	0.05	0.00	e0.26
29	53	0.00	e0.30	e0.00	---	0.18	0.20	0.52	0.43	0.04	0.03	e0.10
30	0.03	0.00	e0.14	e0.00	---	0.15	0.07	e0.50	0.37	0.01	0.04	e0.26
31	0.00	---	e1.6	0.12	---	0.15	---	e0.42	---	0.01	0.17	---
MEAN	2.78	0.01	0.63	0.06	0.37	2.66	2.66	7.33	15.3	1.76	0.02	32.6
MAX	53	0.06	16	0.80	6.7	21	27	74	159	43	0.17	817
MIN	0.00	0.00	0.00	0.00	0.00	0.09	0.05	0.03	0.09	0.01	0.00	0.00
IN.	0.33	0.00	0.08	0.01	0.04	0.32	0.31	0.88	1.78	0.21	0.00	3.79

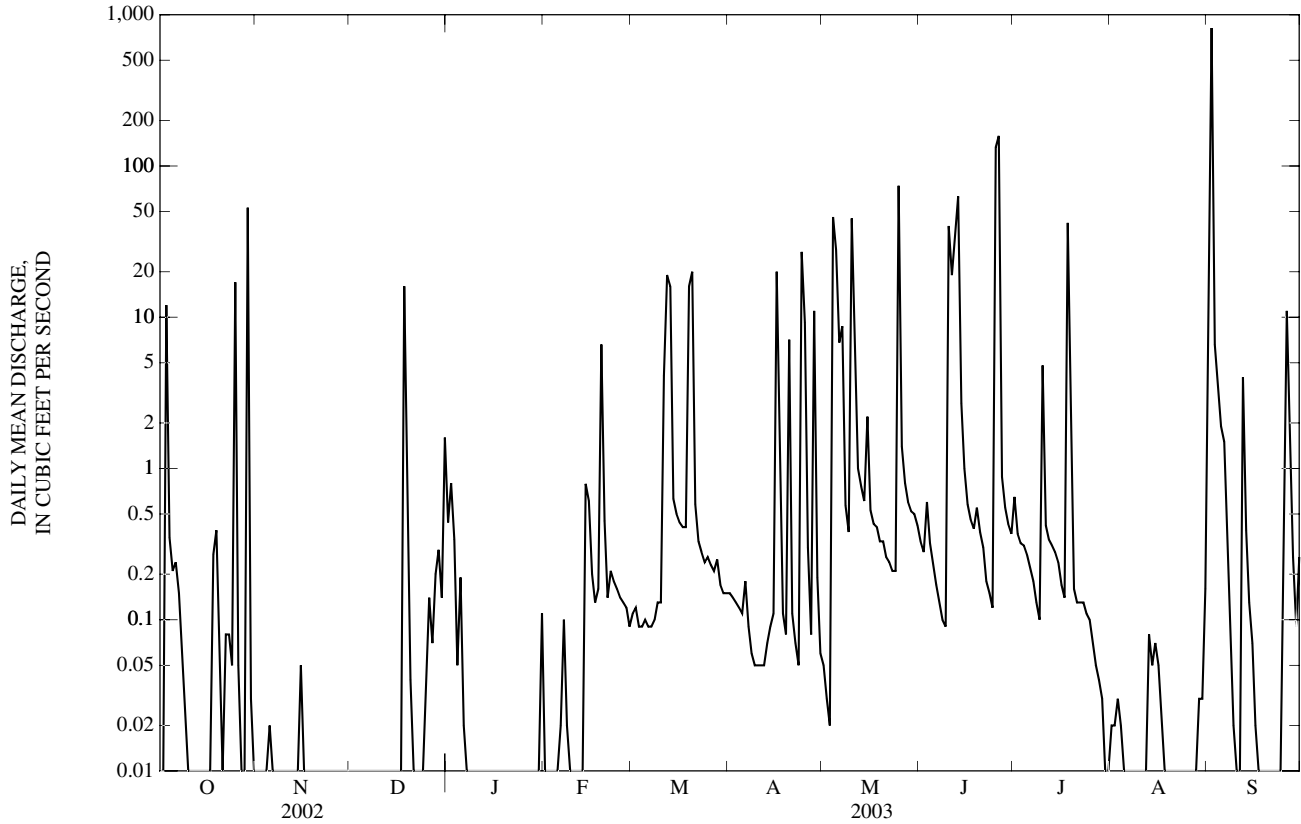
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2003, BY WATER YEAR (WY)

MEAN	2.69	4.95	2.05	4.80	10.4	6.09	3.78	10.8	13.3	3.57	1.93	6.93
MAX	8.26	20.9	9.44	9.61	19.0	21.5	6.23	28.2	31.5	12.5	4.95	32.6
(WY)	(2002)	(1997)	(2002)	(2002)	(2000)	(1998)	(1998)	(2000)	(2000)	(1998)	(1998)	(2003)
MIN	0.42	0.01	0.16	0.06	0.37	0.78	0.26	1.48	0.80	0.83	0.02	0.07
(WY)	(1999)	(2003)	(1999)	(2003)	(2003)	(2000)	(2000)	(1997)	(1999)	(1997)	(2003)	(1999)

07019120 FISHPOT CREEK AT VALLEY PARK, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL MEAN	5.37		5.48		5.80	
HIGHEST ANNUAL MEAN					7.88	
LOWEST ANNUAL MEAN					3.38	
HIGHEST DAILY MEAN	288	Jun 12	817	Sep 2	817	Sep 2, 2003
LOWEST DAILY MEAN	0.00	Many Days	0.00	Many Days	0.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	0.00	At Times	0.00	At Times	0.00	At Times
MAXIMUM PEAK FLOW	---		Unknown		Unknown	
MAXIMUM PEAK STAGE	---		9.20		10.08	
INSTANTANEOUS LOW FLOW	---		0.00		0.00	
ANNUAL RUNOFF (INCHES)	7.61		7.77		8.23	
10 PERCENT EXCEEDS	3.6		3.3		4.9	
50 PERCENT EXCEEDS	0.10		0.09		0.20	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated



## MERAMEC RIVER BASIN

07019120 FISHPOT CREEK AT VALLEY PARK, 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 25...	0855	Environmental	6.1	1.8	8.9	85	7.8	164	12.5	66	21.0	3.40
DEC 16...	1240	Environmental	e.01	15	10.0	84	7.4	869	7.0	300	96.0	15.0
FEB 04...	1525	Environmental	e.01	18	10.2	80	7.2	1,090	4.3	250	78.0	13.0
MAR 19...	1112	Environmental	54	2.5	10.7	105	7.8	632	12.9	87	26.0	5.30
JUN 25...	1155	Environmental	0.05	13	5.2	65	7.4	632	25.3	200	64.0	9.80
AUG 12...	1015	Environmental	e.01	44	2.0	23	6.9	626	23.3	230	72.0	11.0

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd incrm. titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd incrm. titr., mg/L (00450)	Carbonate, wat unfltrd incrm. titr., 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 25...	54	54	66	<1	--	459	1.4	0.05	0.670	0.02	0.240	0.51	16
DEC 16...	176	179	218	<1	91.0	5	0.20	<0.01	0.120	<0.01	0.090	0.12	<5
FEB 04...	161	162	198	<1	180	4	<0.20	<0.01	0.490	<0.01	0.100	0.10	11
MAR 19...	83	83	102	<1	--	228	1.9	0.15	0.950	0.04	0.200	0.40	21
JUN 25...	172	172	210	<1	--	2	0.20	0.02	0.160	<0.01	0.140	0.14	5
AUG 12...	179	180	220	<1	--	7	0.30	0.02	<0.020	<0.01	0.120	0.21	6

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC MF, col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Arsenic, water, fltrd, $\mu$ g/L (01000)	Beryllium, water, fltrd, $\mu$ g/L (01010)	Cadmium, water, fltrd, $\mu$ g/L (01025)	Chromium, water, fltrd, $\mu$ g/L (01030)	Copper, water, fltrd, $\mu$ g/L (01040)	Iron, water, fltrd, $\mu$ g/L (01046)	Lead, water, fltrd, $\mu$ g/L (01049)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recoverable, $\mu$ g/L (71900)
OCT 25...	6,000k	39,000	20,800	5	<1	<1	<1.0	<1.0	2.0	16	<1	24	<0.1
DEC 16...	1k	9k	6k	<3	<1	<1	<1.0	4.4	<1.0	40	<1	80	<0.1
FEB 04...	<1b	3k	3k	<3	<1	<1	<1.0	1.8	<1.0	11	<1	90	<0.1
MAR 19...	5,200	6,200	12,000	5	2	<1	<1.0	2.7	3.9	20	<1	86	<0.1
JUN 25...	42	54	62	<3	1	<1	<1.0	1.0	1.3	8	<1	112	<0.1
AUG 12...	28k	12k	1,540k	<3	2	<1	<1.0	2.2	<1.0	8	<1	343	<0.1







## 07019120 FISHPOT CREEK AT VALLEY PARK, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 25...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
DEC 16...	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--
MAR 19...	E1	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
JUN 25...	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--

## 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

## MERAMEC RIVER BASIN

07019150 GRAND GLAIZE CREEK NEAR MANCHESTER, MO

LOCATION.--Lat 38°35'33", long 90°29'35", in NE ¼ SE ¼ SE ¼ sec.31, T.45 N., R.5 E., St. Louis County, Hydrologic Unit 07140102, on left downstream abutment of Weidmann Road bridge, 0.15 mi south of Highway 100, 1.1 mi west of Interstate 270, and 6.9 mi upstream of confluence of Meramec River.

DRAINAGE AREA.--5.09 mi<sup>2</sup>.

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

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

REMARKS.--No estimated daily discharges. Records fair except for discharges above 900 ft<sup>3</sup>/s and below 1 ft<sup>3</sup>/s, which are poor.

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

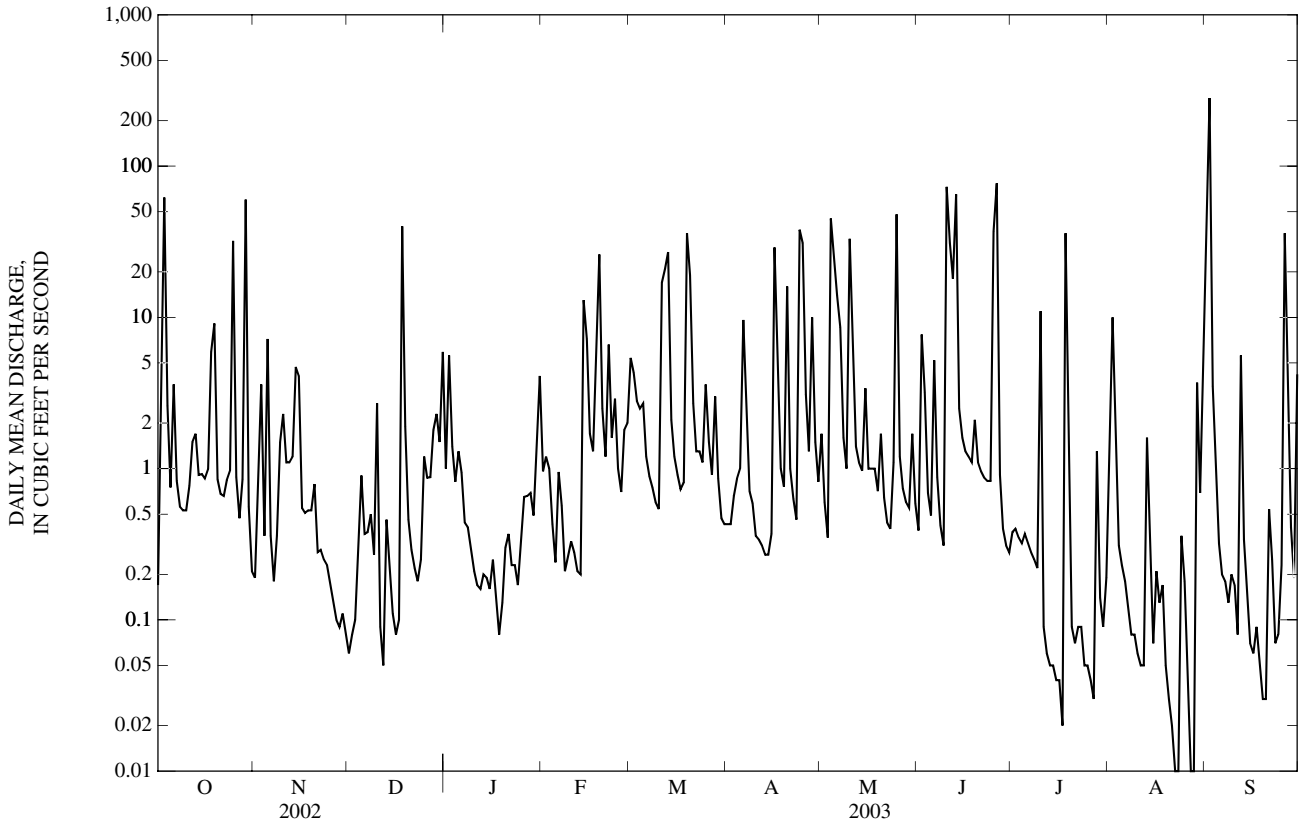
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	0.19	0.06	1.0	0.96	5.5	0.44	1.7	0.40	0.38	0.97	80
2	3.4	1.2	0.08	5.6	1.2	4.4	0.44	0.60	7.7	0.40	10	283
3	63	3.7	0.10	1.4	1.0	2.8	0.67	0.36	3.2	0.35	1.8	3.6
4	2.6	0.37	0.30	0.83	0.43	2.6	0.86	45	0.69	0.33	0.32	1.00
5	0.76	7.2	0.91	1.4	0.25	2.7	1.0	26	0.50	0.38	0.23	0.33
6	3.6	0.36	0.37	0.95	0.95	1.3	9.7	14	5.2	0.33	0.18	0.20
7	0.83	0.18	0.39	0.44	0.58	0.90	3.1	8.6	0.88	0.29	0.13	0.19
8	0.57	0.36	0.51	0.41	0.22	0.75	0.72	1.7	0.43	0.25	0.08	0.13
9	0.53	1.5	0.28	0.30	0.27	0.60	0.59	1.0	0.31	0.22	0.09	0.20
10	0.54	2.3	2.8	0.22	0.34	0.54	0.37	34	73	11	0.07	0.18
11	0.78	1.1	0.09	0.17	0.28	18	0.34	4.8	31	0.09	0.06	0.09
12	1.6	1.2	0.05	0.16	0.21	21	0.32	1.5	19	0.07	0.06	5.6
13	1.8	1.2	0.46	0.21	0.20	27	0.27	1.2	66	0.06	1.7	0.34
14	0.91	4.7	0.25	0.19	14	2.2	0.28	0.97	2.6	0.05	0.42	0.15
15	0.92	4.2	0.11	0.16	7.2	1.3	0.37	3.5	1.7	0.04	0.07	0.08
16	0.87	0.55	0.09	0.26	1.8	0.91	30	1.1	1.4	0.05	0.22	0.06
17	1.00	0.52	0.10	0.16	1.4	0.74	6.4	1.1	1.2	0.03	0.14	0.09
18	6.0	0.53	40	0.09	6.9	0.82	1.0	1.0	1.1	36	0.17	0.06
19	9.2	0.53	1.9	0.13	26	36	0.77	0.72	2.1	0.85	0.05	0.03
20	0.85	0.80	0.46	0.31	2.5	19	16	1.8	1.1	0.09	0.04	0.04
21	0.69	0.28	0.30	0.38	1.3	2.8	1.1	0.64	0.96	0.08	0.03	0.55
22	0.66	0.29	0.23	0.23	6.6	1.3	0.63	0.45	0.88	0.10	0.02	0.26
23	0.84	0.26	0.19	0.23	1.6	1.3	0.47	0.40	0.83	0.09	0.02	0.07
24	0.98	0.23	0.26	0.18	2.9	1.2	39	1.1	0.83	0.06	0.37	0.08
25	32	0.17	1.3	0.36	1.0	3.7	32	48	38	0.05	0.19	0.23
26	0.89	0.14	0.88	0.66	0.70	1.5	3.2	1.2	78	0.05	0.05	36
27	0.48	0.11	0.89	0.66	1.8	0.91	1.3	0.74	0.92	0.04	0.01	3.1
28	0.86	0.10	1.8	0.70	2.1	3.1	11	0.61	0.41	1.4	0.01	0.41
29	60	0.11	2.4	0.49	---	0.87	1.5	0.56	0.32	0.14	3.8	0.19
30	0.56	0.09	1.5	1.5	---	0.48	0.83	1.7	0.29	0.09	0.70	4.2
31	0.22	---	5.9	4.2	---	0.43	---	0.60	---	0.19	11	---
MEAN	6.39	1.15	2.10	0.77	3.02	5.38	5.49	6.67	11.4	1.73	1.06	14.0
MAX	63	7.2	40	5.6	26	36	39	48	78	36	11	283
MIN	0.18	0.09	0.05	0.09	0.20	0.43	0.27	0.36	0.29	0.03	0.01	0.03
IN.	1.45	0.25	0.47	0.18	0.62	1.22	1.20	1.51	2.49	0.39	0.24	3.07

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

	3.50	2.91	2.45	4.91	6.95	7.45	5.68	9.85	11.2	3.30	2.73	3.49
MEAN	3.50	2.91	2.45	4.91	6.95	7.45	5.68	9.85	11.2	3.30	2.73	3.49
MAX	6.39	5.17	7.17	13.0	12.6	19.9	9.61	22.0	27.7	9.57	5.92	14.0
(WY)	(2003)	(2002)	(2002)	(1999)	(1999)	(1998)	(1999)	(2000)	(2000)	(1998)	(1998)	(2003)
MIN	1.39	1.03	0.38	0.77	1.43	2.96	2.92	3.61	2.13	0.43	0.78	0.30
(WY)	(2000)	(2000)	(1999)	(2003)	(2002)	(2001)	(2000)	(1998)	(1997)	(1997)	(2001)	(1999)

07019150 GRAND GLAIZE CREEK NEAR MANCHESTER, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	4.79		4.91		5.52	
HIGHEST ANNUAL MEAN					7.66	
LOWEST ANNUAL MEAN					3.41	
HIGHEST DAILY MEAN	194	Jun 12	283	Sep 2	562	Jun 24, 2000
LOWEST DAILY MEAN	0.00	Sep 12	0.01	Aug 27,28	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	0.08	Sep 7	0.06	Jul 11	0.00	At Times
MAXIMUM PEAK FLOW	---		Unknown		Unknown	
MAXIMUM PEAK STAGE	---		7.78		9.37	
INSTANTANEOUS LOW FLOW	---		0.00		0.00	
ANNUAL RUNOFF (INCHES)	12.78		13.10		14.75	
10 PERCENT EXCEEDS	8.2		8.8		11	
50 PERCENT EXCEEDS	0.78		0.69		0.54	
90 PERCENT EXCEEDS	0.13		0.09		0.12	



## MERAMEC RIVER BASIN

07019175 SUGAR CREEK AT KIRKWOOD, MO

LOCATION.--Lat 38°34'36", long 90°27'52", in SE ¼ SE ¼ SW ¼ sec.4, T.44 N., R.5 E., St. Louis County, Hydrologic Unit 07140102, gage attached to left upstream abutment of Barrett Station Road bridge, 2.3 mi north of Interstate 44, 1.1 mi west of Interstate 270, and 4.7 mi upstream from confluence of Meramec River.

DRAINAGE AREA.--5.08 mi<sup>2</sup>.

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

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

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	0.14	0.43	0.19	e1.3	e0.93	e3.4	e0.75	2.1	0.75	0.90	0.41	93
2	0.11	0.44	0.19	e3.4	e0.70	e3.5	e0.70	1.3	3.8	0.75	1.8	e380
3	37	1.7	e0.21	e1.5	e0.71	e2.3	e0.69	0.99	3.1	0.65	1.4	4.1
4	0.78	0.79	e0.23	e1.2	e0.57	e2.4	e0.66	46	0.94	0.57	0.37	1.2
5	0.23	2.7	e0.44	e1.5	e0.28	e2.3	e0.66	21	0.71	0.55	0.37	0.76
6	0.64	0.66	e0.30	e1.4	0.25	e1.3	4.3	11	3.2	0.53	0.38	0.57
7	0.33	e0.36	e0.30	e1.1	e0.27	e1.1	e2.2	9.2	1.2	0.58	0.29	0.50
8	0.23	e0.48	e0.36	e0.95	e0.41	e1.0	e1.0	3.3	0.70	0.57	0.24	0.42
9	0.22	e0.63	e0.27	e0.90	e0.32	e1.00	e0.84	2.3	0.61	0.65	0.19	0.42
10	e0.22	e0.79	e1.1	e0.69	e0.37	e1.00	e0.75	40	86	10	0.19	0.39
11	e0.21	e0.72	e0.45	e0.58	e0.51	9.4	e0.58	9.1	22	0.60	0.15	0.38
12	e0.20	e1.4	e0.29	e0.47	e0.38	18	e0.47	3.0	60	0.45	0.14	8.9
13	e0.38	e1.2	e0.55	e0.51	e0.31	18	e0.38	2.0	75	0.41	0.21	1.0
14	e0.28	e2.7	e0.82	e0.51	15	2.6	0.31	1.5	4.2	0.37	0.27	0.53
15	e0.25	e3.0	e0.37	e0.41	7.8	1.6	0.33	3.4	2.4	0.38	0.18	0.43
16	e0.25	e0.84	0.33	e0.45	e1.5	1.2	e23	1.4	1.6	0.41	0.17	0.38
17	e0.24	e0.61	0.36	e0.41	e1.1	0.97	e6.0	1.3	1.3	0.35	0.15	0.40
18	1.1	e0.45	27	e0.30	5.2	0.95	1.7	1.2	1.1	47	0.13	0.37
19	5.3	0.32	1.0	e0.34	17	8.4	1.2	1.5	1.9	2.2	0.12	0.51
20	0.52	e0.70	e0.54	e0.58	4.8	8.8	14	1.6	1.2	0.68	0.12	0.55
21	0.40	e0.61	e0.28	e0.55	3.6	1.9	1.9	1.0	1.00	0.50	0.17	0.57
22	0.29	e0.51	e0.27	e0.38	6.3	0.97	1.3	0.74	0.93	0.40	0.12	0.74
23	0.24	e0.44	e0.25	e0.33	3.7	0.77	1.0	0.66	0.83	0.36	0.14	0.59
24	0.38	e0.38	e0.40	e0.47	e2.9	1.00	31	0.63	0.72	0.36	0.07	0.56
25	14	0.40	e1.2	e0.53	e1.2	1.5	27	50	11	0.35	0.07	0.54
26	0.67	0.42	e0.94	e0.59	e0.90	e0.69	5.0	2.5	156	0.33	0.07	22
27	0.41	0.37	e1.0	e0.39	e1.1	e0.63	2.5	1.4	2.3	0.33	0.09	2.1
28	0.44	0.36	e1.6	e0.55	e1.6	2.2	6.1	1.1	1.1	0.74	0.11	0.47
29	32	0.29	e2.1	e0.66	---	e1.0	2.3	0.96	0.81	0.41	0.56	0.90
30	0.67	0.19	e1.4	e0.83	---	e0.87	1.7	1.8	0.69	0.31	0.49	1.5
31	0.43	---	e3.6	e1.8	---	e0.76	---	0.96	---	0.31	4.1	---
MEAN	3.18	0.83	1.56	0.83	2.85	3.27	4.68	7.26	14.9	2.35	0.43	17.5
MAX	37	3.0	27	3.4	17	18	31	50	156	47	4.1	380
MIN	0.11	0.19	0.19	0.30	0.25	0.63	0.31	0.63	0.61	0.31	0.07	0.37
IN.	0.72	0.18	0.35	0.19	0.58	0.74	1.03	1.65	3.27	0.53	0.10	3.84

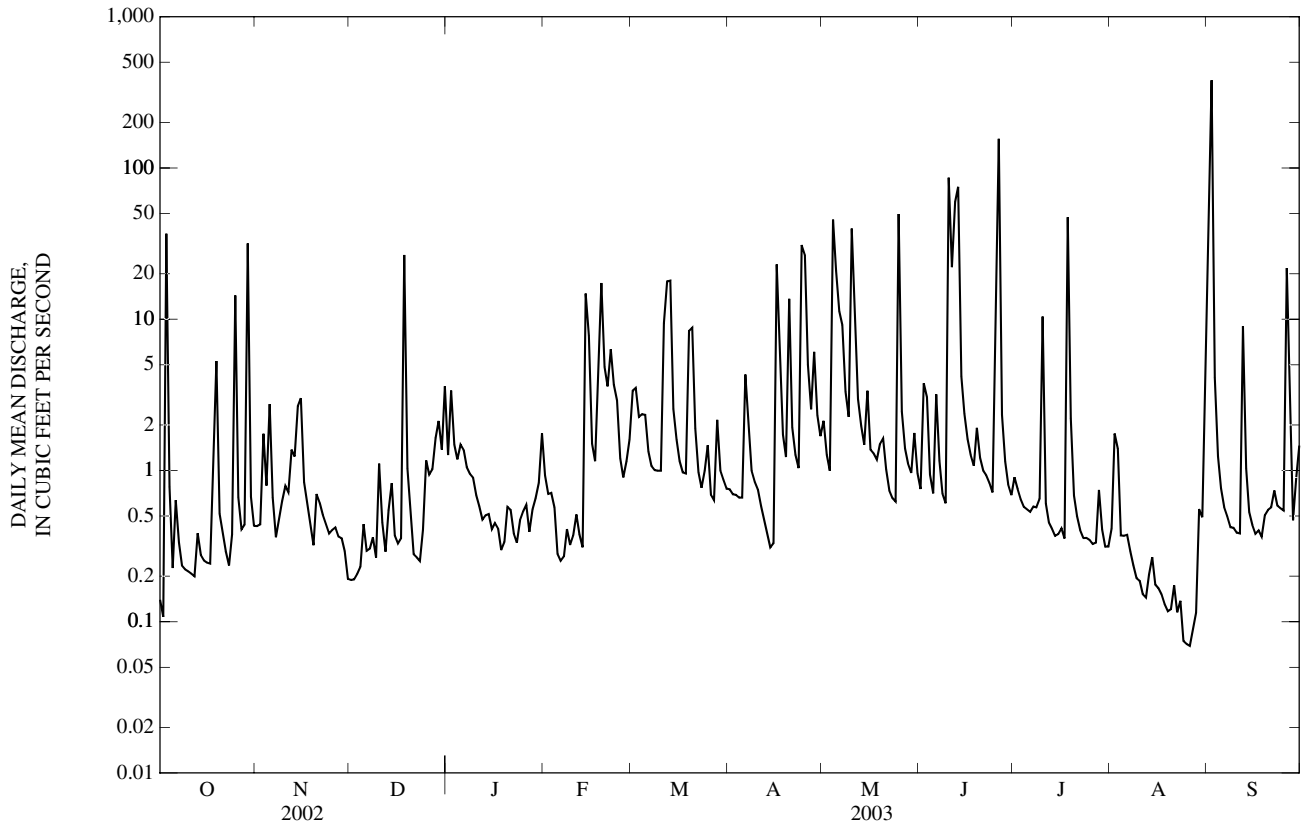
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	2.35	2.20	2.26	4.06	6.23	6.07	4.61	9.20	11.7	3.58	1.82	3.28
MAX	5.06	4.44	5.91	10.1	16.2	19.4	7.97	18.7	19.2	10.6	3.64	17.5
(WY)	(2002)	(2002)	(2002)	(1999)	(1999)	(1998)	(1998)	(2000)	(2000)	(1998)	(2000)	(2003)
MIN	1.19	0.71	0.75	0.83	1.60	1.89	1.43	2.31	2.54	0.27	0.40	0.20
(WY)	(1998)	(2000)	(2001)	(2003)	(2002)	(2001)	(2000)	(1998)	(1999)	(2002)	(2001)	(1999)

07019175 SUGAR CREEK AT KIRKWOOD, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	4.28		4.94		4.82	
HIGHEST ANNUAL MEAN					6.73	1998
LOWEST ANNUAL MEAN					2.46	2001
HIGHEST DAILY MEAN	186	Jun 12	380	Sep 2	465	May 7, 2000
LOWEST DAILY MEAN	0.10	Sep 13,14	0.07	Aug 24-26	0.02	Sep 26, 1999
ANNUAL SEVEN-DAY MINIMUM	0.13	Sep 8	0.10	Aug 22	0.04	Sep 5, 1999
MAXIMUM PEAK FLOW	---		Unknown	Sep 2	Unknown	Jun 24, 2000
MAXIMUM PEAK STAGE	---		16.28	Sep 2	17.50	Jun 24, 2000
INSTANTANEOUS LOW FLOW	---		0.07	Aug 24-26	0.01	Sep 25,26, 1999
ANNUAL RUNOFF (INCHES)	11.45		13.20		12.88	
10 PERCENT EXCEEDS	6.0		6.2		6.7	
50 PERCENT EXCEEDS	0.62		0.70		0.74	
90 PERCENT EXCEEDS	0.20		0.25		0.24	

e Estimated



## MERAMEC RIVER BASIN

07019185 GRAND GLAIZE CREEK NEAR VALLEY PARK, MO

LOCATION.--Lat 38°33'59", long 90°28'21", in NW ¼ NW ¼ SW ¼ sec.9, T.44 N., R.5 E., St. Louis County, Hydrologic Unit 07140102, on right upstream abutment of Quinette Road bridge, 1.7 mi north of Interstate 44, 1.8 mi west of Interstate 270, and 3.46 mi upstream of confluence of Meramec River.

DRAINAGE AREA.--21.8 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1997 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 1 ft<sup>3</sup>/s and above 3,000 ft<sup>3</sup>/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	0.73	e1.8	1.1	e7.6	5.4	18	4.0	11	3.7	5.3	3.7	364
2	0.70	e5.4	1.1	e21	3.8	20	3.7	6.9	21	5.2	14	e1,430
3	181	e16	1.2	e9.5	3.9	13	3.6	5.1	27	5.2	20	31
4	10	e3.6	1.2	6.5	3.2	13	3.6	185	6.4	3.1	1.9	11
5	3.7	e21	2.4	7.8	1.5	13	3.6	144	4.5	2.7	1.5	6.2
6	8.6	2.8	1.8	8.2	1.9	8.2	29	39	23	2.5	1.3	4.1
7	3.2	1.3	1.7	5.9	4.0	6.3	16	79	9.3	2.3	0.94	3.2
8	1.3	1.9	2.1	4.7	1.5	5.5	6.3	17	3.6	2.2	0.88	2.5
9	1.2	2.8	1.6	4.3	1.6	5.2	5.4	13	2.2	2.3	0.79	2.5
10	1.1	5.0	7.5	3.3	1.9	5.4	4.1	166	330	51	0.70	2.8
11	1.1	4.3	3.2	2.7	2.8	29	3.2	45	185	2.7	0.70	3.2
12	2.2	e8.9	1.7	2.2	1.9	124	3.1	15	197	1.4	0.65	38
13	4.1	e8.6	2.9	2.3	1.6	110	2.6	12	338	1.1	1.1	7.1
14	1.7	e18	5.5	2.4	45	16	2.1	8.4	23	0.94	3.0	3.5
15	1.6	20	2.2	1.9	34	11	2.2	20	12	1.0	0.98	2.7
16	1.5	4.7	1.8	2.1	11	8.3	114	8.7	9.1	2.2	0.77	2.5
17	1.5	2.9	2.0	1.9	6.6	7.4	49	8.2	7.0	0.74	0.81	2.2
18	11	2.7	e63	1.3	20	6.9	10	8.2	5.5	175	0.72	2.2
19	34	3.0	11	1.4	101	82	7.3	7.9	11	19	0.72	2.7
20	3.6	e3.8	3.0	2.6	15	85	77	11	5.3	4.7	1.1	2.9
21	2.3	3.1	1.4	2.5	8.6	17	12	5.9	3.2	2.8	1.1	3.9
22	e1.1	2.4	e1.3	1.8	26	11	7.5	3.8	2.5	1.8	0.77	6.9
23	e1.4	2.3	e1.2	1.5	11	9.1	5.6	3.1	2.0	1.7	0.68	4.4
24	e1.9	2.0	e1.8	2.2	11	7.9	164	3.1	1.5	1.5	0.57	4.4
25	e70	2.1	e6.4	2.4	7.4	16	152	237	15	1.3	0.67	4.5
26	8.2	2.1	e5.3	2.9	5.0	8.2	29	14	587	1.2	0.71	113
27	4.8	1.8	e5.3	2.0	6.3	6.7	15	7.5	14	1.1	0.63	33
28	6.3	1.8	e9.1	2.7	9.1	14	40	6.0	7.0	5.1	0.72	5.7
29	e109	e1.4	e1.3	3.2	---	8.8	13	5.4	4.8	2.6	6.6	2.8
30	e6.5	1.2	e8.0	4.2	---	5.2	9.4	9.8	3.9	1.5	5.4	9.3
31	e1.8	---	e21	10	---	4.2	---	5.3	---	1.4	27	---
MEAN	15.7	5.29	6.19	4.35	12.6	22.4	26.6	35.8	62.1	10.1	3.26	70.4
MAX	181	21	63	21	101	124	164	237	587	175	27	1,430
MIN	0.70	1.2	1.1	1.3	1.5	4.2	2.1	3.1	1.5	0.74	0.57	2.2
IN.	0.83	0.27	0.33	0.23	0.60	1.19	1.36	1.90	3.18	0.53	0.17	3.60

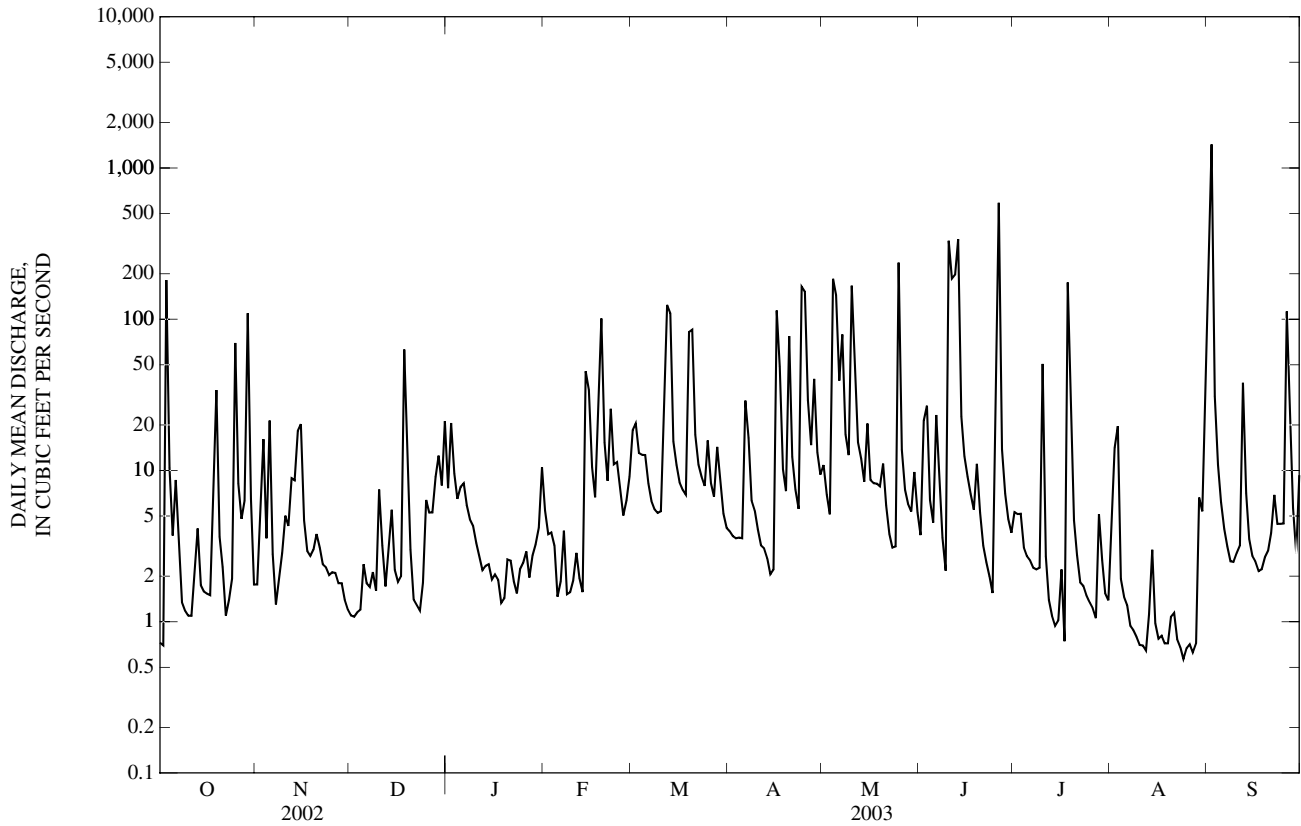
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	11.8	10.4	11.4	19.2	27.6	30.2	23.2	32.8	37.3	13.9	10.1	17.7
MAX	25.5	21.9	33.5	47.2	64.3	78.5	35.3	64.6	67.2	39.4	19.2	70.4
(WY)	(2002)	(2002)	(2002)	(1999)	(1999)	(1998)	(1998)	(2002)	(1998)	(1998)	(1998)	(2003)
MIN	5.23	3.68	4.52	4.35	10.8	11.1	5.64	12.5	8.40	2.80	2.01	5.04
(WY)	(2000)	(2000)	(2001)	(2003)	(2002)	(2001)	(2000)	(1998)	(1999)	(2002)	(2001)	(1998)

07019185 GRAND GLAIZE CREEK NEAR VALLEY PARK, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	20.6		22.8		20.9	
HIGHEST ANNUAL MEAN					28.4	1998
LOWEST ANNUAL MEAN					11.4	2001
HIGHEST DAILY MEAN	718	Jun 12	1,430	Sep 2	1,430	Sep 2, 2003
LOWEST DAILY MEAN	0.35	Sep 14	0.57	Aug 24	0.21	Jun 22, 1999
ANNUAL SEVEN-DAY MINIMUM	0.41	Sep 8	0.68	Aug 22	0.26	Jun 16, 1999
MAXIMUM PEAK FLOW	---		Unknown	Sep 2	Unknown	Jun 24, 2000
MAXIMUM PEAK STAGE	---		13.23	Sep 2	14.95	Jun 24, 2000
INSTANTANEOUS LOW FLOW	---		0.53	Aug 24	0.01	Sep 30, 1997
ANNUAL RUNOFF (INCHES)	12.86		14.20		13.00	
10 PERCENT EXCEEDS	41		33		40	
50 PERCENT EXCEEDS	4.3		4.4		4.0	
90 PERCENT EXCEEDS	0.73		1.2		0.93	

e Estimated





## MERAMEC RIVER BASIN

07019185 GRAND GLAIZE CREEK NEAR VALLEY PARK, 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)		
Date														
OCT 25...	0724	Environmental	130	3.1	10.6	99	8.0	497	11.6	230	64.0	17.0		
DEC 16...	1500	Blank	--	--	--	--	--	--	--	--	0.04	<0.03		
DEC 16...	1530	Environmental	1.8	4.5	13.0	102	7.9	2,440	4.0	410	112	31.0		
FEB 04...	1210	Environmental	2.7	5.4	8.6	64	7.7	3,260	2.0	360	100	27.0		
MAR 19...	0947	Environmental	178	1.5	9.9	99	8.4	1,240	13.5	240	65.0	18.0		
JUN 25...	1605	Environmental	1.4	4.7	9.7	123	8.0	1,160	26.2	360	100	27.0		
AUG 12...	0915	Environmental	0.60	12	4.2	51	7.4	881	24.1	270	75.0	20.0		
Date		ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd titr., field, mg/L (00450)	Carbonate, wat unfltrd 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 25...	155	155	189	<1	--	114	0.70	0.05	0.170	<0.01	0.080	0.17	9	
DEC 16...	--	--	--	--	0.30	2	<0.20	<0.01	<0.020	<0.01	<0.010	<0.02	<5	
DEC 16...	196	197	240	<1	590	25	0.60	0.02	0.130	<0.01	0.040	0.10	16	
FEB 04...	155	156	191	<1	850	15	0.40	0.08	0.430	0.02	0.040	0.06	20	
MAR 19...	183	179	200	9	--	596	2.1	0.13	0.380	0.02	0.090	0.39	17	
JUN 25...	221	223	272	<1	--	8	0.50	0.01	0.260	0.01	0.040	0.06	10	
AUG 12...	176	175	214	<1	--	23	0.50	0.07	0.050	<0.01	0.040	0.08	12	
Date		E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC MF, col/100 mL (31625)	Fecal streptococci, KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Arsenic, water, fltrd, $\mu$ g/L (01000)	Beryllium, water, fltrd, $\mu$ g/L (01010)	Cadmium, water, fltrd, $\mu$ g/L (01025)	Chromium, water, fltrd, $\mu$ g/L (01030)	Copper, water, fltrd, $\mu$ g/L (01040)	Iron, water, fltrd, $\mu$ g/L (01046)	Lead, water, fltrd, $\mu$ g/L (01049)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury, water, unfltrd recoverable, $\mu$ g/L (71900)
OCT 25...	1,000k	4,400	1,500k	<3	2	<1	<1.0	2.1	1.5	11	<1	64	<0.1	
DEC 16...	--	--	--	<3	<1	<1	<1.0	<1.0	<1.0	<2	<1	<1	<0.1	
DEC 16...	12k	48	16k	<3	<1	<1	<1.0	5.9	2.4	7	<1	170	<0.1	
FEB 04...	15k	36k	56	<3	<1	<1	<1.0	1.9	4.2	15	<1	283	<0.1	
MAR 19...	5,500	8,160k	9,170	<3	2	<1	<1.0	2.2	2.4	14	<1	253	<0.1	
JUN 25...	80k	76	40	<3	2	<1	<1.0	4.3	1.9	4	<1	130	<0.1	
AUG 12...	340k	840	108	4	3	<1	<1.0	2.9	1.8	4	<1	222	<0.1	





07019185 GRAND GLAIZE CREEK NEAR VALLEY PARK, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 25...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
DEC 16...	--	--	--	--	--	--	--	--	--	--
DEC 16...	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--
MAR 19...	M	<1	<0.02	<2	<2	<2	<1	<1	<2	<2
JUN 25...	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--

Remark codes used in this table:

&lt; -- Less than

E -- Estimated value

M -- Presence verified, not quantified

Value qualifier codes used in this table:

k -- Counts outside acceptable range

## MERAMEC RIVER BASIN

07019195 YARNELL CREEK AT FENTON, MO

LOCATION.--Lat 38°31'38", long 90°26'50", St. Louis County, Hydrologic Unit 07140102, on right downstream abutment of Fabick Drive bridge, 0.9 mi north of Highway 30, 1.05 mi south of Interstate 44, and 1.09 mi upstream from confluence of Meramec River.

DRAINAGE AREA.--2.71 mi<sup>2</sup>.

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

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

REMARKS.--Records fair except estimated daily discharges and discharges below 1 ft<sup>3</sup>/s and above 400 ft<sup>3</sup>/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	0.15	0.33	e0.26	e0.69	e0.25	1.5	0.29	1.0	0.61	0.49	0.47	27
2	0.15	0.58	e0.26	e1.9	e0.22	1.1	0.38	0.48	4.2	0.55	0.33	e138
3	7.2	2.1	e0.24	e0.71	e0.24	0.38	0.27	0.36	2.9	0.38	0.38	2.3
4	1.0	0.69	e0.28	e0.51	e0.21	0.33	0.77	27	0.77	0.35	0.27	0.84
5	0.31	3.2	e0.27	e0.53	e0.20	0.52	0.59	15	0.56	0.35	0.27	0.58
6	0.95	0.67	e0.25	e0.33	e0.23	0.37	4.4	7.3	2.6	0.35	0.25	0.47
7	0.32	0.39	e0.29	e0.30	e0.21	0.25	1.1	7.1	0.91	0.35	0.24	0.45
8	0.20	0.31	e0.24	e0.30	e0.20	0.20	0.40	0.98	0.57	0.35	0.24	0.43
9	0.18	0.32	e0.23	e0.28	e0.19	0.18	0.35	0.66	0.51	4.8	0.24	0.39
10	0.16	0.34	e0.23	e0.26	e0.21	e0.17	0.30	23	28	2.9	0.24	0.38
11	0.17	0.35	e0.22	e0.26	e0.19	3.9	0.44	5.0	29	0.31	0.22	0.41
12	0.16	0.32	e0.21	e0.25	e0.18	11	0.27	0.92	17	0.29	0.25	8.0
13	0.24	0.32	e0.63	e0.26	e0.20	10	0.28	0.64	24	0.27	0.71	0.62
14	0.18	1.2	e0.25	e0.23	4.8	0.97	0.25	0.56	2.3	0.27	0.51	0.43
15	0.18	2.4	e0.22	e0.23	1.9	0.65	0.26	2.0	1.2	0.27	0.33	0.44
16	0.16	e0.34	e0.21	e0.26	e0.66	0.51	27	0.66	0.86	0.27	0.30	0.42
17	0.16	e0.29	e0.20	e0.27	e0.39	0.43	3.4	0.59	0.74	0.27	0.29	0.43
18	3.3	e0.26	e6.9	e0.26	2.4	0.38	0.51	0.49	0.66	22	0.29	0.42
19	8.4	e0.24	e0.93	e0.26	9.3	7.6	0.36	0.54	2.3	0.70	0.31	0.43
20	0.35	e0.25	e0.47	e0.30	1.1	7.3	11	3.8	0.65	0.31	0.29	0.45
21	0.22	e0.25	e0.36	e0.28	0.57	1.2	0.59	0.50	0.43	0.27	0.26	0.43
22	0.21	e0.27	e0.33	e0.26	2.5	0.62	0.39	0.45	0.42	0.27	0.27	0.38
23	0.21	e0.26	e0.28	e0.32	0.61	0.72	0.34	0.43	0.35	0.27	0.27	0.42
24	0.18	e0.26	e0.29	e0.27	0.77	0.45	22	0.33	0.52	0.27	0.25	0.41
25	23	e0.24	e0.35	e0.24	0.33	0.63	16	43	7.5	0.27	0.24	0.43
26	0.66	e0.25	e0.37	e0.23	0.28	0.43	1.7	1.9	68	0.27	0.26	17
27	0.33	e0.28	e0.41	e0.22	0.28	0.35	0.67	1.5	1.1	0.25	0.30	1.8
28	0.27	e0.29	e0.61	e0.28	0.32	1.7	11	1.1	0.63	0.30	0.28	0.54
29	32	e0.30	e0.60	e0.25	---	0.58	1.5	0.78	0.52	0.27	1.4	0.45
30	0.91	e0.27	e0.66	e0.23	---	0.36	0.68	1.6	0.47	0.27	0.73	1.3
31	0.42	---	e3.1	e0.66	---	0.33	---	0.86	---	0.27	2.6	---
MEAN	2.66	0.59	0.65	0.38	1.03	1.78	3.58	4.86	6.68	1.25	0.43	6.87
MAX	32	3.2	6.9	1.9	9.3	11	27	43	68	22	2.6	138
MIN	0.15	0.24	0.20	0.22	0.18	0.17	0.25	0.33	0.35	0.25	0.22	0.38
IN.	1.13	0.24	0.28	0.16	0.40	0.76	1.48	2.07	2.75	0.53	0.18	2.83

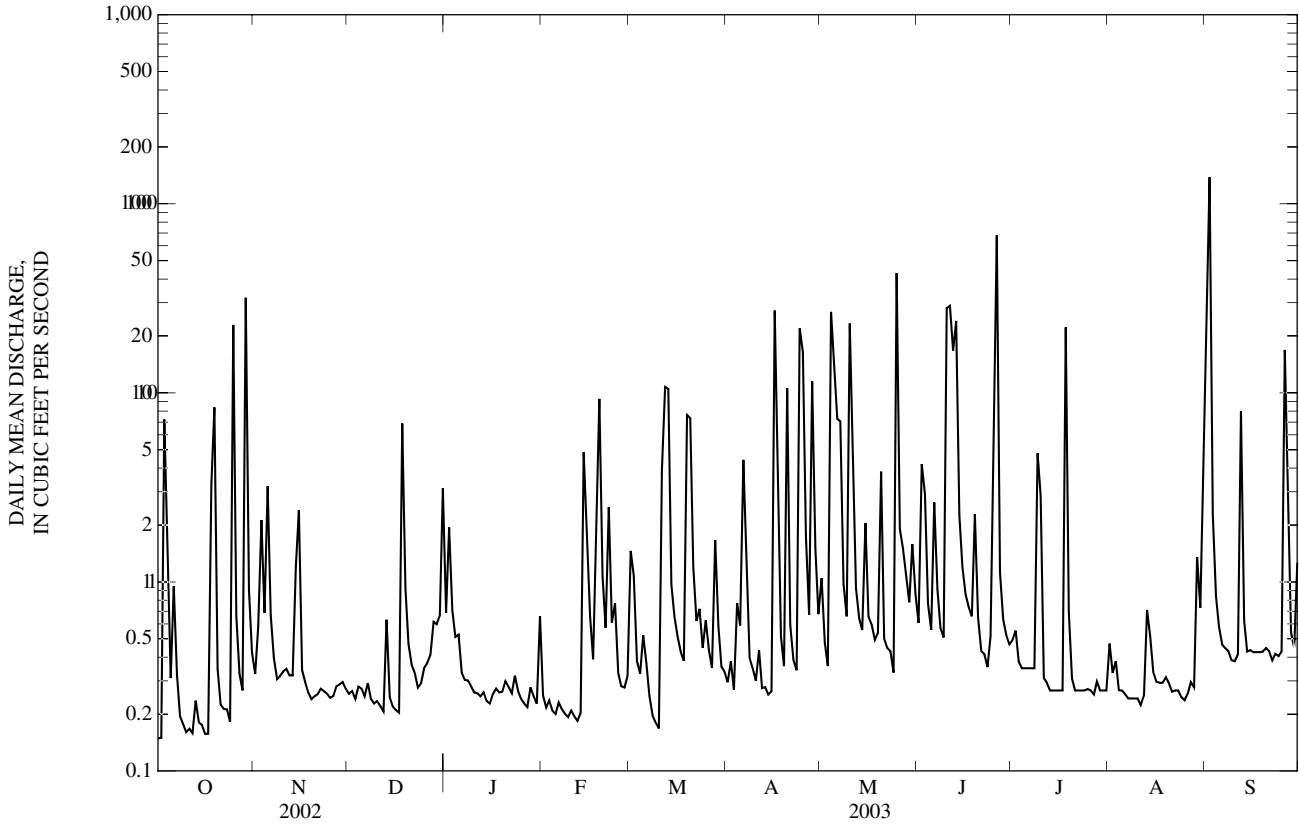
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	2002	2003
MEAN	1.99	1.60	1.52	2.63	3.81	4.01	3.60
MAX	2.96	2.57	4.32	6.59	9.37	11.8	6.08
(WY)	(2002)	(2002)	(2002)	(1999)	(1999)	(1998)	(1998)
MIN	1.37	0.40	0.44	0.38	1.03	1.18	0.81
(WY)	(2000)	(2000)	(1999)	(2003)	(2003)	(2000)	(2000)

07019195 YARNELL CREEK AT FENTON, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	2.87		2.55		3.05	
HIGHEST ANNUAL MEAN					4.64	
LOWEST ANNUAL MEAN					1.88	
HIGHEST DAILY MEAN	65	Jan 31	138	Sep 2	165	Feb 7, 1999
LOWEST DAILY MEAN	0.15	Sep 29,30,Oct 1,2	0.15	Oct 1,2	0.13	Oct 4, 2001
ANNUAL SEVEN-DAY MINIMUM	0.17	Sep 5	0.18	Oct 10	0.15	Sep 28, 2001
MAXIMUM PEAK FLOW	---		Unknown		Unknown	
MAXIMUM PEAK STAGE	---		8.11	Sep 2	8.11	Sep 2, 2003
INSTANTANEOUS LOW FLOW	---		0.09	Oct 24	0.09	Oct 24, 2002
ANNUAL RUNOFF (INCHES)	14.38		12.80		15.28	
10 PERCENT EXCEEDS	4.8		4.3		5.3	
50 PERCENT EXCEEDS	0.53		0.38		0.50	
90 PERCENT EXCEEDS	0.21		0.23		0.23	

e Estimated



## MERAMEC RIVER BASIN

07019220 FENTON CREEK NEAR FENTON, MO

LOCATION.--Lat 38°30'41", long 90°26'41", St. Louis County, Hydrologic Unit 07140102, on left bank 100 ft downstream of Highway 141 bridge, 0.66 mi north of county line, 0.24 mi south of Highway 30, and 1.4 mi upstream from confluence of Meramec River.

DRAINAGE AREA.--4.29 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 416.09 ft above National Geodetic Vertical Datum of 1929. Prior to May 1, 2001, gage was located on left downstream abutment of Highway 141 bridge, 100 ft upstream at same datum.

REMARKS.--Water-discharge records fair except for estimated daily discharges and discharges above 650 ft<sup>3</sup>/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	0.32	0.48	0.43	1.3	0.49	2.9	0.86	e3.2	1.4	0.80	0.63	38
2	0.32	0.94	0.45	2.9	0.41	2.6	0.82	2.5	8.3	0.79	0.74	e120
3	6.4	1.8	0.38	1.4	0.45	1.2	0.86	2.3	4.9	0.74	0.44	4.0
4	1.0	0.83	0.51	1.1	0.37	0.85	2.5	59	1.5	0.72	0.35	1.7
5	0.52	4.1	0.49	1.1	0.32	0.84	1.2	41	1.4	0.65	0.34	1.1
6	1.1	0.90	0.43	0.90	0.42	0.74	8.8	19	4.7	0.64	0.32	0.72
7	0.54	0.59	0.54	0.82	0.37	0.75	3.1	16	1.8	0.63	0.32	0.59
8	0.50	0.74	0.40	0.83	0.35	0.76	1.3	3.4	1.5	0.68	0.30	0.56
9	0.50	0.65	0.38	0.73	0.35	0.72	1.0	2.6	1.5	0.60	0.30	0.56
10	0.49	0.66	0.39	0.66	0.38	0.66	0.95	45	46	14	0.29	0.58
11	0.50	0.59	0.37	0.66	0.33	5.9	0.87	9.9	49	0.70	0.30	0.59
12	0.57	0.58	0.32	0.64	0.31	18	0.84	2.6	32	0.61	0.31	18
13	0.47	0.56	0.83	0.66	0.32	19	0.75	2.0	68	0.57	1.5	0.99
14	0.41	1.3	0.38	0.60	7.8	1.9	0.73	1.8	5.6	0.56	0.46	0.71
15	0.41	1.2	0.33	0.58	5.4	1.1	0.56	2.5	2.9	0.54	0.38	0.62
16	0.39	0.69	0.33	0.61	1.3	0.89	35	1.9	2.3	0.51	0.34	0.58
17	0.38	0.64	0.37	0.56	0.77	0.81	10	1.9	2.1	0.74	0.33	0.57
18	3.4	0.63	12	0.54	4.6	0.87	2.5	1.8	2.1	41	0.31	0.60
19	14	0.63	2.0	0.54	25	16	e0.79	1.8	4.3	2.2	0.30	0.61
20	0.55	0.63	1.1	0.61	2.5	14	e15	6.0	1.7	0.74	0.28	0.66
21	0.44	0.62	0.83	0.55	1.3	2.6	e2.0	2.0	1.6	0.63	0.27	0.55
22	0.42	0.64	0.67	0.51	5.7	1.4	e1.2	1.8	1.5	0.50	0.25	0.57
23	0.42	0.64	0.55	0.66	1.5	1.4	e0.99	1.9	1.4	0.44	0.25	0.50
24	0.41	0.55	0.63	0.52	1.6	0.95	e33	2.4	1.2	0.41	0.25	0.51
25	30	0.54	0.76	0.47	0.88	1.2	e23	83	13	0.40	0.25	0.52
26	0.91	0.51	0.71	0.44	0.69	0.90	e4.2	3.4	99	0.38	0.26	28
27	0.45	0.58	0.75	0.39	0.79	0.87	e2.6	2.0	2.5	0.39	0.34	5.0
28	0.48	0.58	1.3	0.51	0.73	3.3	e17	1.6	1.2	0.45	0.28	1.8
29	39	0.59	1.2	0.53	---	1.2	e3.8	1.6	1.00	0.38	1.4	1.5
30	1.2	0.45	1.3	0.45	---	0.89	e2.7	2.3	0.90	0.37	0.38	2.6
31	0.54	---	5.1	0.85	---	0.87	---	1.5	---	0.36	1.5	---
MEAN	3.45	0.83	1.17	0.76	2.34	3.42	5.96	10.6	12.2	2.36	0.45	7.78
MAX	39	4.1	12	2.9	25	19	35	83	99	41	1.5	120
MIN	0.32	0.45	0.32	0.39	0.31	0.66	0.56	1.5	0.90	0.36	0.25	0.50
IN.	0.93	0.22	0.31	0.20	0.57	0.92	1.55	2.86	3.18	0.63	0.12	2.02

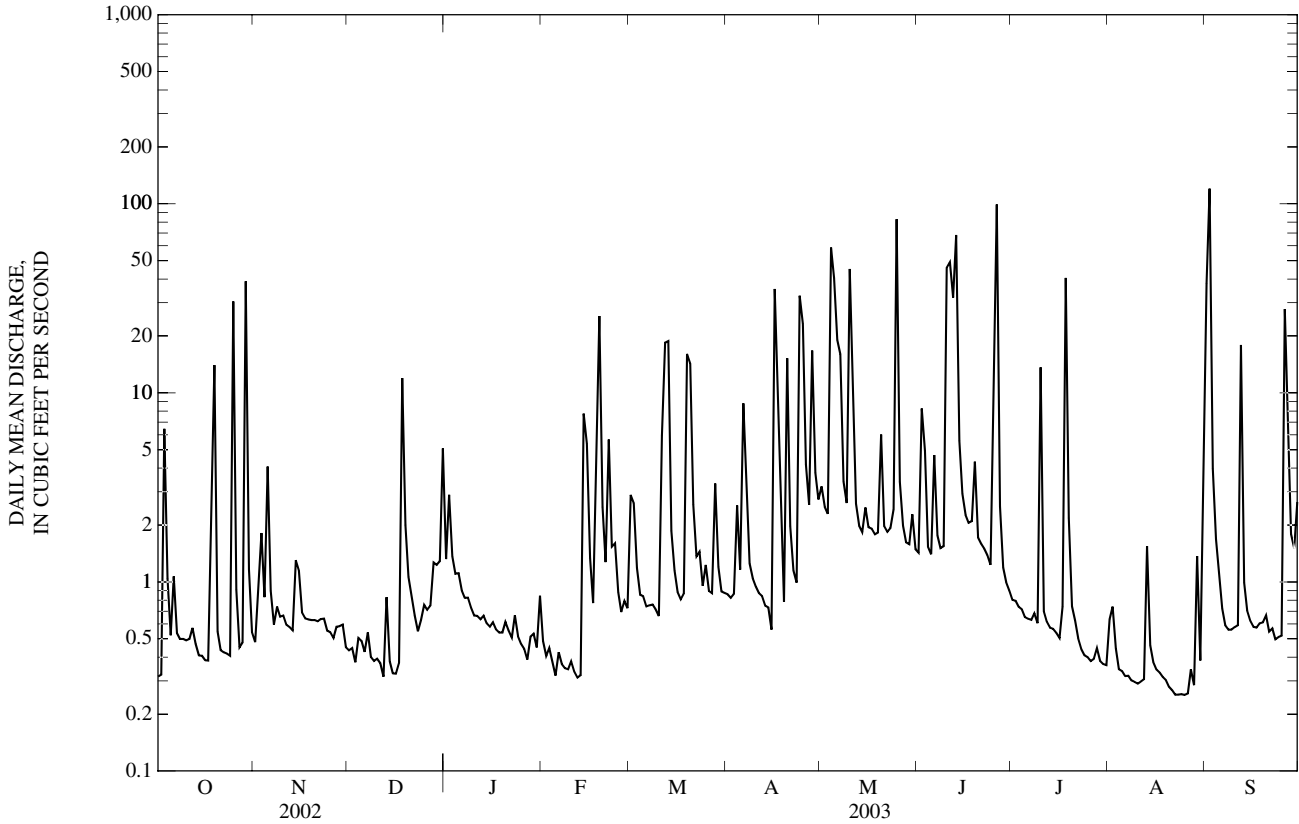
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2003, BY WATER YEAR (WY)

MEAN	2.36	2.14	2.35	4.33	5.69	6.31	5.84	7.32	7.82	3.18	2.25	2.02
MAX	3.45	3.36	7.10	12.7	12.6	18.1	10.4	15.3	14.3	8.12	4.80	7.78
(WY)	(2003)	(2002)	(2002)	(1999)	(1999)	(1998)	(2002)	(2002)	(1998)	(1998)	(2000)	(2003)
MIN	1.08	0.83	0.37	0.76	1.76	1.69	1.23	1.87	2.83	0.64	0.45	0.26
(WY)	(1998)	(2003)	(1999)	(2003)	(2002)	(2000)	(2000)	(1998)	(2001)	(2002)	(2003)	(1999)

07019220 FENTON CREEK NEAR FENTON, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1997 - 2003	
ANNUAL MEAN	4.35		4.27		4.31	
HIGHEST ANNUAL MEAN					6.07	
LOWEST ANNUAL MEAN					2.51	
HIGHEST DAILY MEAN	95	Apr 27	120	Sep 2	171	Feb 7, 1999
LOWEST DAILY MEAN	0.31	Sep 12,13,16,30	0.25	Aug 22-25	0.13	Sep 27, 1999
ANNUAL SEVEN-DAY MINIMUM	0.34	Sep 26	0.26	Aug 20	0.17	Sep 21, 1999
MAXIMUM PEAK FLOW	---		Unknown	Sep 2	Unknown	Jun 11, 1998
MAXIMUM PEAK STAGE	---		5.31	Sep 2	9.71	Jun 11, 1998
INSTANTANEOUS LOW FLOW	---		0.23	Aug 20-27	0.07	Sep 22, 1999
ANNUAL RUNOFF (INCHES)	13.75		13.51		13.65	
10 PERCENT EXCEEDS	7.2		8.0		8.3	
50 PERCENT EXCEEDS	0.76		0.76		0.74	
90 PERCENT EXCEEDS	0.39		0.37		0.30	

e Estimated





## MERAMEC RIVER BASIN

07019220 FENTON CREEK NEAR FENTON, 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 25...	0830	Environmental	160	1.9	8.7	83	7.8	203	12.6	92	26.0	6.50
DEC 16...	1145	Environmental	0.33	8.5	11.1	96	7.8	1,740	7.5	510	141	38.0
FEB 03...	1520	Environmental	0.60	25	10.2	94	7.2	3,140	9.9	430	120	32.0
MAR 13...	0257	Environmental	138	4.1	10.1	96	7.8	840	11.9	150	40.0	11.0
JUN 25...	0915	Environmental	1.1	8.2	6.5	75	7.8	1,410	21.3	600	163	46.0
AUG 12...	1225	Environmental	0.26	12	7.0	82	7.6	1,360	22.3	600	166	45.0

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd incrm. titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd incrm. titr., mg/L (00450)	Carbonate, wat unfltrd incrm. titr., 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 25...	65	66	81	<1	--	1,070	2.2	0.08	0.540	<0.01	0.130	0.57	13
DEC 16...	252	254	310	<1	230	3	0.40	<0.01	1.50	0.04	<0.010	0.02	12
FEB 03...	189	188	229	<1	740	94	1.2	0.11	1.20	0.03	0.020	0.13	37
MAR 13...	124	139	170	<1	--	385	1.9	0.13	0.910	0.06	0.230	0.49	17
JUN 25...	245	246	300	<1	--	6	0.40	0.04	4.00	0.02	0.030	0.04	7
AUG 12...	248	249	304	<1	--	2	0.30	0.04	2.30	0.02	<0.010	0.03	7

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC MF, col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Arsenic water, fltrd, $\mu$ g/L (01000)	Beryllium, water, fltrd, $\mu$ g/L (01010)	Cadmium water, fltrd, $\mu$ g/L (01025)	Chromium, water, fltrd, $\mu$ g/L (01030)	Copper, water, fltrd, $\mu$ g/L (01040)	Iron, water, fltrd, $\mu$ g/L (01046)	Lead, water, fltrd, $\mu$ g/L (01049)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recoverable, $\mu$ g/L (71900)
OCT 25...	12,000	15,800k	24,000	11	1	<1	<1.0	<1.0	2.0	22	<1	21	<0.1
DEC 16...	8k	78	168	3	<1	<1	<1.0	6.3	1.9	8	<1	222	<0.1
FEB 03...	640	1,450	18,400	6	<1	<1	<1.0	2.2	6.6	7	<1	208	<0.1
MAR 13...	600k	2,670k	6,200	5	1	<1	<1.0	1.7	2.3	23	<1	56	<0.1
JUN 25...	1,100	1,200	580	<3	1	<1	<1.0	<1.0	1.2	3	<1	96	<0.1
AUG 12...	220	460	144	<3	2	<1	<1.0	2.4	1.5	5	<1	152	<0.1





07019220 FENTON CREEK NEAR FENTON, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 25...	E1	<1	<0.02	<2	<2	<2	<1	<1	<2	M
DEC 16...	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--
MAR 13...	4	<1	<0.02	<2	<2	<2	<1	<1	<2	M
JUN 25...	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than

E -- Estimated value

M -- Presence verified, not quantified

## Value qualifier codes used in this table:

k -- Counts outside acceptable range

## MERAMEC RIVER BASIN

07019280 MERAMEC RIVER AT PAULINA HILLS, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 38°27'46", long 90°24'53", Jefferson County, Hydrologic Unit 07140102, at bridge on State Highway 21 at Paulina Hills, 0.3 mi downstream from Saline Creek, and 10 mi upstream from mouth of Meramec River.

DRAINAGE AREA.--3,950 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--August 1963 to July 1975, October 1981 to current year. August 1963 to September 1970 published as Meramec River at Paulina Hills, Mo. (07019045).

## 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)	Specific conductance, wat unfltrd, 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)
OCT 09...	0925	Environmental	756	7.3	79	7.8	415	18.2	--	--	--	--
OCT 09...	0926	Replicate	--	--	--	--	--	--	--	--	--	--
NOV 06...	0815	Environmental	1,550	8.2	72	7.8	379	9.3	170	37.3	19.8	2.16
DEC 19...	0845	Environmental	2,600	12.4	107	7.9	479	7.8	--	--	--	--
JAN 07...	1435	Environmental	2,930	11.7	92	8.2	351	4.6	170	35.7	18.6	1.59
FEB 26...	1045	Environmental	4,640	13.3	100	7.9	336	3.1	--	--	--	--
MAR 05...	0800	Environmental	4,150	11.8	95	8.0	404	5.2	--	--	--	--
APR 09...	0830	Environmental	3,410	9.5	87	7.7	378	11.2	--	--	--	--
MAY 21...	0845	Environmental	3,050	5.3	58	7.5	340	19.5	170	36.5	18.2	1.90
JUN 17...	1500	Environmental	6,270	7.2	85	7.4	277	23.2	--	--	--	--
JUN 17...	1501	Replicate	--	7.2	86	7.3	276	23.2	--	--	--	--
JUL 22...	1500	Environmental	1,540	8.7	117	7.8	413	29.3	190	40.2	20.6	2.08
AUG 06...	1210	Environmental	963	7.5	100	8.0	443	28.9	--	--	--	--
SEP 03...	1405	Environmental	2,040	5.5	66	7.4	360	23.6	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, titr., field, mg/L (00450)	Carbonate, wat unfltrd, 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 fltrd, 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 09...	--	167	167	204	<1	--	--	--	--	27	0.57	0.08	0.39
OCT 09...	--	--	--	--	--	--	--	--	--	44	0.65	0.07	0.39
NOV 06...	8.31	160	162	198	<1	10.4	<0.20	19.6	212	13	0.48	0.15	0.45
DEC 19...	--	187	188	230	<1	--	--	--	--	49	0.80	0.42	0.14
JAN 07...	8.71	141	142	173	<1	14.2	<0.17	18.1	201	44	0.47	0.09	0.23
FEB 26...	--	120	121	147	<1	--	--	--	--	15	0.39	0.10	0.39
MAR 05...	--	147	148	180	<1	--	--	--	--	13	0.34	0.10	0.33
APR 09...	--	155	155	189	<1	--	--	--	--	24	0.42	0.13	0.13
MAY 21...	7.67	146	148	181	<1	10.4	<0.20	15.7	200	18	0.39	E.04	0.56
JUN 17...	--	117	117	143	<1	--	--	--	--	53	0.59	<0.04	0.39
JUN 17...	--	--	--	--	--	--	--	--	--	58	0.56	<0.04	0.39
JUL 22...	10.5	172	173	211	<1	15.7	<0.20	18.3	231	93	0.80	<0.04	0.26
AUG 06...	--	173	174	212	<1	--	--	--	--	33	0.60	<0.04	0.15
SEP 03...	--	124	123	150	<1	--	--	--	--	57	0.80	0.04	0.52

## 07019280 MERAMEC RIVER AT PAULINA HILLS, 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 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													
09...	0.042	0.07	0.08	0.13	38	37	39	--	--	--	--	--	--
09...	0.043	0.07	0.08	0.16	--	--	--	--	--	--	--	--	--
NOV													
06...	0.032	0.07	0.06	0.10	110	175	24	E1	253	0.6	0.04	E.1	<6
DEC													
19...	0.017	0.07	0.09	0.13	140	270	680	--	--	--	--	--	--
JAN													
07...	<0.008	0.02	<0.04	0.07	21	145	67	E2	394	0.3	0.04	<0.4	<6
FEB													
26...	E.007	0.02	0.04	0.06	17k	180	116	--	--	--	--	--	--
MAR													
05...	E.007	E.02	E.03	0.05	130	330k	135	--	--	--	--	--	--
APR													
09...	0.015	E.02	<0.04	E.03	20k	28k	13k	--	--	--	--	--	--
MAY													
21...	0.031	0.02	E.03	0.08	23k	50	64	2	335	0.6	<0.04	<0.2	<6
JUN													
17...	0.010	0.03	0.04	0.12	150k	240	220k	--	--	--	--	--	--
17...	0.010	0.02	0.04	0.11	150k	240	188	--	--	--	--	--	--
JUL													
22...	0.028	0.04	0.08	0.21	110	213k	48	4	869	1.1	E.02	<0.2	<7
AUG													
06...	0.024	E.01n	0.04	0.13	13k	20k	25k	--	--	--	--	--	--
SEP													
03...	0.017	<0.18d	0.12	0.23	950k	600k	3,350k	--	--	--	--	--	--

## MERAMEC RIVER BASIN

07019280 MERAMEC RIVER AT PAULINA HILLS, MO—Continued

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								
09...	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--
NOV								
06...	E6	0.39	13	8.7	<0.02	<0.5	3	8
DEC								
19...	--	--	--	--	--	--	--	--
JAN								
07...	E9	0.40	27	12.2	<0.02	E.4	4	16
FEB								
26...	--	--	--	--	--	--	--	--
MAR								
05...	--	--	--	--	--	--	--	--
APR								
09...	--	--	--	--	--	--	--	--
MAY								
21...	E5	0.29	12	49.9	<0.02	E.3	1	6
JUN								
17...	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--
JUL								
22...	<8	0.43	29	15.4	E.01	<0.5	1	15
AUG								
06...	--	--	--	--	--	--	--	--
SEP								
03...	--	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than  
E -- Estimated value

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

07019317 MATTESE CREEK NEAR MATTESE, MO

LOCATION.--Lat 38°28'59", long 90°20'27", in SW 1/4 NW 1/4 NW 1/4 sec.10, T.43 N., R.6 E., St. Louis County, Hydrologic Unit 07140102, on right downstream pier of Ringer Road bridge, 0.86 mi east of Interstate 55, 1.4 mi south of Interstate 255, and 3.4 mi above confluence to Meramec River.

DRAINAGE AREA.--7.88 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 413.57 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor.

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 <sup>3</sup> /s)	Gage height (ft)
1996	Sept. 23, 1996	2,070 <sup>a</sup>	9.25
1997	June 17, 1997	2,760 <sup>a</sup>	10.15
1998	April 15, 1998	4,850 <sup>a</sup>	12.40
1999	Feb. 7, 1999	2,600 <sup>a</sup>	9.95
2000	June 24, 2000	4,780 <sup>a</sup>	12.33
2001	July 24, 2001	5,290 <sup>a</sup>	12.82
2002	June 12, 2002	2,710 <sup>a</sup>	10.09

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	0.10	0.00	2.1	0.31	4.4	0.78	4.4	1.1	3.0	0.35	81
2	0.00	0.52	0.00	7.2	0.08	4.0	0.65	2.6	7.1	1.6	0.32	367
3	9.2	4.7	0.15	2.3	0.04	1.7	0.50	2.1	5.6	1.4	0.55	5.9
4	3.6	1.0	0.01	1.7	0.03	1.6	14	87	1.6	1.1	0.01	0.67
5	0.36	6.3	e0.05	2.0	0.00	1.6	2.2	36	1.1	0.90	0.00	0.09
6	2.4	0.79	e0.12	1.4	0.09	1.1	6.9	41	7.5	0.96	0.00	0.00
7	0.38	0.16	e0.06	0.81	e0.20	0.89	3.1	12	2.0	0.74	0.00	0.00
8	0.00	0.06	0.00	0.74	e0.08	0.85	1.5	4.0	1.0	0.52	0.32	0.00
9	0.12	0.02	0.00	0.50	e0.02	0.62	1.1	1.9	0.74	0.37	0.00	0.00
10	0.50	0.00	0.00	0.26	e0.01	0.45	0.96	75	96	36	0.00	0.00
11	0.00	0.00	0.00	e0.16	e0.00	8.9	0.70	13	52	1.0	0.05	0.00
12	0.00	0.00	0.00	e0.10	0.00	27	0.56	5.4	152	0.57	0.00	15
13	0.08	0.00	2.2	e0.04	0.00	22	0.41	4.0	136	0.35	0.00	0.16
14	0.00	0.53	0.36	e0.00	12	2.9	0.31	3.2	7.7	0.24	0.00	0.00
15	0.00	4.4	0.00	e0.00	14	2.1	0.25	8.1	4.0	0.21	0.00	0.00
16	0.00	0.06	0.00	e0.00	e3.6	1.6	33	3.8	3.2	0.13	0.00	0.00
17	0.00	0.00	0.00	e0.00	e2.6	1.2	6.0	3.2	2.5	0.02	0.00	0.00
18	7.1	0.00	29	e0.00	6.7	1.0	1.6	2.6	2.1	103	0.00	0.00
19	21	0.00	3.4	e0.00	30	23	1.1	2.1	7.6	4.0	0.00	0.00
20	0.91	0.00	1.1	e0.00	4.6	13	22	16	2.0	1.0	0.04	0.00
21	0.02	0.00	0.31	e0.00	2.6	3.5	2.2	2.4	1.5	0.63	0.00	0.00
22	0.16	0.00	0.09	e0.00	6.2	2.2	1.4	1.7	1.4	1.4	0.00	0.00
23	0.35	0.00	0.01	e0.00	2.4	2.4	1.1	1.4	1.3	1.0	0.00	0.00
24	0.00	0.00	0.07	e0.00	e4.0	1.5	49	1.2	1.1	0.30	0.00	0.00
25	64	0.00	0.28	e0.00	e3.0	3.8	77	86	44	0.14	0.00	0.00
26	1.3	0.00	0.31	e0.00	e2.0	1.3	7.3	4.1	244	0.27	0.00	58
27	0.22	0.00	0.32	e0.00	e2.8	1.0	4.1	2.5	4.6	0.00	0.00	4.5
28	0.11	0.00	3.1	e0.00	1.5	8.5	28	2.0	2.4	0.07	0.00	0.05
29	56	0.00	2.5	e0.00	---	1.9	15	1.6	1.8	0.01	3.5	0.01
30	1.6	0.00	10	e0.00	---	1.2	5.4	3.1	10	0.00	0.48	2.5
31	0.42	---	13	e0.00	---	0.94	---	1.7	---	0.01	7.0	---
MEAN	5.48	0.62	2.14	0.62	3.53	4.78	9.60	14.0	26.8	5.19	0.41	17.8
MAX	64	6.3	29	7.2	30	27	77	87	244	103	7.0	367
MIN	0.00	0.00	0.00	0.00	0.00	0.45	0.25	1.2	0.74	0.00	0.00	0.00
IN.	0.80	0.09	0.31	0.09	0.47	0.70	1.36	2.05	3.80	0.76	0.06	2.53

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

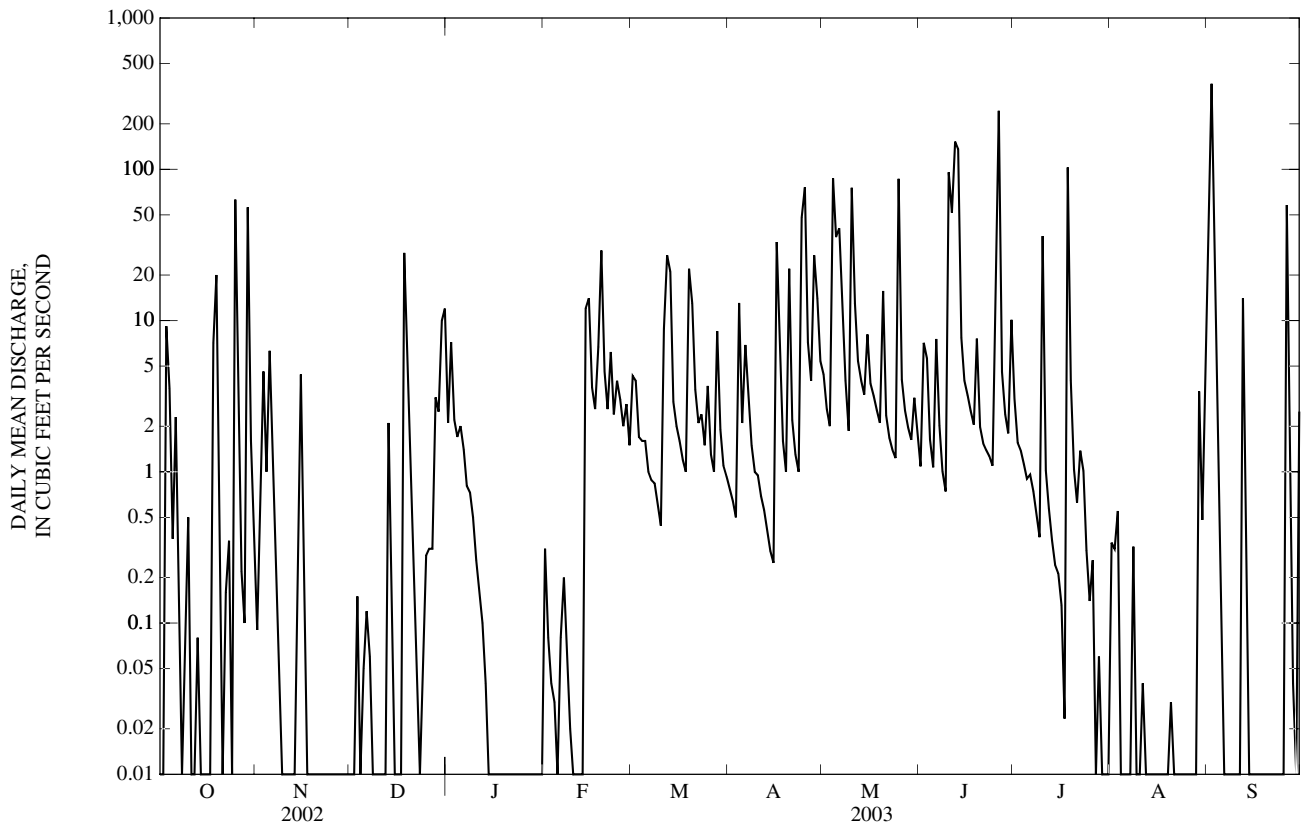
MEAN	3.78	5.94	3.81	6.88	10.3	10.5	8.76	11.3	17.9	8.08	4.55	5.67
MAX	8.11	19.7	11.3	16.0	23.9	31.9	19.6	19.3	30.8	18.7	10.7	17.8
(WY)	(2002)	(1997)	(2002)	(1997)	(1997)	(1998)	(1998)	(2002)	(2000)	(1998)	(1998)	(2003)
MIN	1.58	0.62	0.66	0.62	3.00	2.63	2.33	3.50	3.01	1.12	0.41	0.27
(WY)	(2000)	(2003)	(1999)	(2003)	(2002)	(2001)	(2000)	(1999)	(2001)	(2002)	(2003)	(1999)



07019317 MATTESE CREEK NEAR MATTESE, MO—Continued

SUMMARY STATISTICS	FOR 2002 CALENDAR YEAR		FOR 2003 WATER YEAR		WATER YEARS 1996 - 2003	
ANNUAL MEAN	6.40		7.56		8.06	
HIGHEST ANNUAL MEAN					12.0	
LOWEST ANNUAL MEAN					4.85	
HIGHEST DAILY MEAN	150	Jun 12	367	Sep 2	512	Jun 24, 2000
LOWEST DAILY MEAN	0.00	Many Days	0.00	Many Days	0.00	Many Days 1997, 2001-2003
ANNUAL SEVEN-DAY MINIMUM	0.00	At Times	0.00	At Times	0.00	At Times
MAXIMUM PEAK FLOW	---		5,010 <sup>a</sup>	Sep 2	5,290 <sup>ab</sup>	Jul 24, 2001
MAXIMUM PEAK STAGE	---		12.56	Sep 2	12.82	Jul 24, 2001
INSTANTANEOUS LOW FLOW	---		0.00	Many Days	0.00	Many Days 1997, 2001-2003
ANNUAL RUNOFF (INCHES)	11.02		13.02		13.90	
10 PERCENT EXCEEDS	14		13		16	
50 PERCENT EXCEEDS	0.70		0.70		0.83	
90 PERCENT EXCEEDS	0.00		0.00		0.00	

e Estimated  
<sup>a</sup> From rating extended above 571 ft<sup>3</sup>/s on basis of indirect measurement of peak flow.  
<sup>b</sup> Revised.



07019317 MATTESE CREEK NEAR MATTESE, 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)	Specific conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, unfltrd mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 19...	0345	Environmental	121	3.0	7.7	77	7.6	309	14.5	60	19.0	3.00
DEC 17...	1410	Environmental	<0.01	5.0	12.5	111	7.9	2,340	8.6	270	84.0	15.0
FEB 03...	1400	Environmental	0.01	6.1	11.0	99	7.8	2,490	8.6	430	132	25.0
APR 16...	2010	Environmental	236	4.1	8.7	94	7.7	734	17.4	84	26.0	4.70
JUN 24...	1005	Environmental	1.1	9.3	9.5	110	7.7	1,200	21.7	370	114	21.0
AUG 11...	1515	Environmental	<0.01	4.9	9.5	122	7.9	1,200	26.9	370	112	22.0

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd incrm. titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd incrm. titr., mg/L (00450)	Carbonate, wat unfltrd incrm. titr., 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 19...	56	54	66	<1	--	421	1.5	0.03	0.580	0.02	0.150	0.44	12
DEC 17...	207	209	255	<1	580	24	0.60	0.04	0.670	<0.01	0.090	0.14	14
FEB 03...	209	211	257	<1	640	6	0.50	0.18	0.950	0.02	0.060	0.06	15
APR 16...	95	93	113	<1	--	1,420	4.8	0.15	0.600	0.05	0.060	0.89	36
JUN 24...	253	256	312	<1	--	2	0.20	0.02	0.280	<0.01	0.030	0.04	6
AUG 11...	190	191	234	<1	--	16	0.40	0.02	0.050	<0.01	0.030	0.05	10

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC MF, col/100 mL (31625)	Fecal streptococci KF MF, col/100 mL (31673)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Arsenic water, fltrd, $\mu$ g/L (01000)	Beryllium, water, fltrd, $\mu$ g/L (01010)	Cadmium water, fltrd, $\mu$ g/L (01025)	Chromium, water, fltrd, $\mu$ g/L (01030)	Copper, water, fltrd, $\mu$ g/L (01040)	Iron, water, fltrd, $\mu$ g/L (01046)	Lead, water, fltrd, $\mu$ g/L (01049)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recoverable, $\mu$ g/L (71900)
OCT 19...	5,200	13,800	11,500	6	<1	<1	<1.0	<1.0	1.6	15	<1	6	0.1
DEC 17...	130	440	84	<3	<1	<1	<1.0	5.5	2.0	12	<1	24	<0.1
FEB 03...	120	357k	92	<3	<1	<1	<1.0	1.9	3.0	19	<1	122	<0.1
APR 16...	4,200	4,400	2,850	6	1	<1	<1.0	3.9	2.8	28	<1	119	0.1
JUN 24...	150	30k	32k	<3	2	<1	<1.0	4.6	1.7	10	<1	71	<0.1
AUG 11...	100	280	460	3	2	<1	<1.0	<1.0	2.3	14	<1	16	<0.1





07019317 MATTESE CREEK NEAR MATTESE, MO—Continued

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

Date	Pyrene, water, unfltrd µg/L (34469)	Toxa- phene, water, unfltrd µg/L (39400)	Tribu- phos, water, unfltrd µg/L (39040)	1,2,4- Tri- chloro- benzene water unfltrd µg/L (34551)	1,2-Di- chloro- benzene water unfltrd µg/L (34536)	1,3-Di- chloro- benzene water unfltrd µg/L (34566)	1,4-Di- chloro- benzene water unfltrd µg/L (34571)	Hexa- chloro- buta- diene, water, unfltrd µg/L (39702)	Hexa- chloro- ethane, water, unfltrd µg/L (34396)	Naphth- alene, water, unfltrd µg/L (34696)
OCT 19...	E2	<1	<0.02	<2	<2	<2	<1	<1	<2	M
DEC 17...	--	--	--	--	--	--	--	--	--	--
FEB 03...	--	--	--	--	--	--	--	--	--	--
APR 16...	3	<1	<0.02	<2	<2	<2	<1	<1	<2	M
JUN 24...	--	--	--	--	--	--	--	--	--	--
AUG 11...	--	--	--	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- 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