07019000 MERAMEC RIVER NEAR EUREKA, MO

Lower Mississippi Basin
Meramec Subbasin

LOCATION.--Lat 38°30′20″, long 90°35′30″ referenced to North American Datum of 1927, in SE ¼ sec.32, T.44 N., R.4 E., St. Louis County, MO, 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^2.

SURFACE-WATER RECORDS

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 good except for estimated daily discharges, which are poor. June 17 to July 6 estimated due to backwater from the Mississippi River.

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^3/s, by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 22,000 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Feb 19	1900	24,800	15.14
Mar 21	2100	*123,000	*40.06
Apr 4	0500	45,700	23.21
Apr 13	0800	50,100	24.67
May 11	0530	25,800	15.56
Sep 18	1030	35,500	19.52

Minimum discharge, 459 ft^3/s, Oct. 6, 13, gage height, 1.84 ft.

07019000 MERAMEC RIVER NEAR EUREKA, MO—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	520	497	675	883	706	4,340	29,400	5,280	2,950	e1,280	2,710	1,140
2	519	497	683	840	691	3,780	38,600	4,740	2,650	e1,200	2,450	1,190
3	547	500	680	801	678	3,970	44,600	4,360	2,480	e1,110	2,160	1,080
4	528	496	676	811	691	6,200	43,500	4,060	2,460	e1,470	1,830	3,580
5	520	494	666	735	1,420	13,900	32,700	3,770	2,390	e2,440	1,550	10,700
6	488	489	660	711	9,770	15,400	24,300	3,510	3,300	e2,440	3,260	15,200
7	589	494	668	695	16,000	11,000	13,600	3,590	5,830	e1,840	5,340	17,700
8	566	493	678	1,380	19,500	8,420	9,900	10,600	5,580	e1,490	4,500	8,890
9	522	495	714	2,910	12,000	6,720	8,000	20,800	5,700	e1,320	3,760	4,800
10	498	496	784	6,840	5,950	5,560	12,800	25,100	4,140	e1,690	2,290	3,510
11	483	505	789	6,320	4,370	4,820	25,600	23,800	3,170	e1,490	1,880	2,810
12	474	524	885	3,950	3,580	4,270	39,500	17,800	2,720	1,720	1,560	2,430
13	479	550	1,000	2,940	3,040	3,820	48,000	15,100	2,460	1,690	1,330	2,120
14	496	561	1,130	2,360	2,670	3,440	28,600	10,600	2,360	1,570	1,170	15,200
15	494	566	1,280	1,960	2,400	3,140	11,200	8,170	2,260	1,470	1,080	30,500
16	497	599	1,370	1,650	2,180	2,870	8,550	7,620	2,300	e1,200	1,060	30,800
17	482	681	1,300	1,450	4,050	2,650	7,140	8,680	e2,320	e1,100	927	30,900
18	484	684	1,250	1,290	11,000	12,800	6,290	7,850	e3,050	e906	864	34,300
19	497	661	1,250	1,180	23,000	40,800	6,570	6,510	e3,790	e809	821	17,700
20	497	638	1,180	1,070	20,200	71,900	7,140	5,480	e2,630	e809	780	5,910
21	495	632	1,150	1,010	8,910	115,000	6,660	4,720	e2,100	773	916	4,320
22	511	627	1,180	953	6,020	112,000	6,070	4,230	e1,900	956	1,180	3,900
23	517	613	1,250	876	4,780	70,900	5,550	3,840	e1,670	1,000	966	3,590
24	503	613	1,200	843	4,090	21,800	5,230	3,520	e1,560	887	934	3,200
25	498	615	1,170	825	3,630	9,410	5,110	3,310	e1,540	2,260	878	2,790
26	521	660	1,150	808	3,530	7,980	6,410	4,530	e1,460	2,810	833	2,470
27	532	661	1,150	765	3,980	10,100	9,650	4,340	e1,340	2,410	775	2,220
28	528	666	1,090	724	5,710	7,900	10,100	3,750	e1,240	5,850	740	2,000
29	523	673	1,020	723	5,250	7,040	7,660	3,590	e1,160	5,840	782	1,850
30	518	673	972	686	---	9,710	6,110	3,300	e1,160	7,050	760	1,720
31	501	---	927	673	---	18,000	---	3,580	---	4,120	939	---
Mean	511	578	986	1,602	6,545	19,990	17,150	7,746	2,656	2,032	1,646	8,951
Max	589	684	1,370	6,840	23,000	115,000	48,000	25,100	5,830	7,050	5,340	34,300
Min	474	489	660	673	678	2,650	5,110	3,300	1,160	773	740	1,080
In.	0.16	0.17	0.30	0.49	1.86	6.09	5.05	2.36	0.78	0.62	0.50	2.64

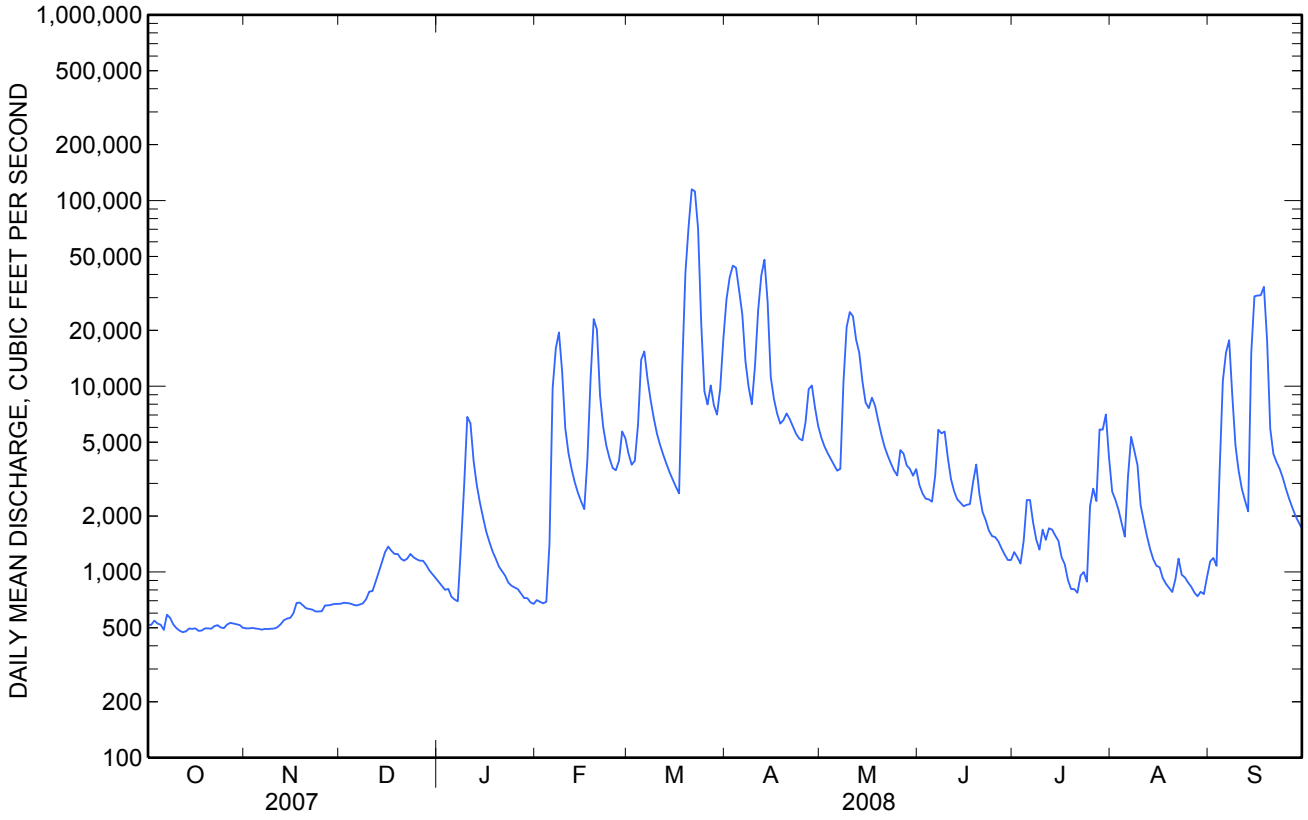
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1,361	2,472	2,974	3,316	3,866	5,346	6,280	5,461	3,526	1,865	1,188	1,470
Max	12,120	15,450	23,620	17,320	14,730	19,990	22,580	18,590	18,070	12,600	5,441	18,500
(WY)	(1950)	(1986)	(1983)	(1950)	(1982)	(2008)	(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

	Calendar Year 2007		Water Year 2008		Water Years 1904 - 2008	
Annual mean	2,324		5,846		3,247	
Highest annual mean					7,407	1985
Lowest annual mean					751	1954
Highest daily mean	29,200	Jan 16	115,000	Mar 21	139,000	Dec 6, 1982
Lowest daily mean	340	Aug 12	474	Oct 12	196	Aug 27, 1936
Annual seven-day minimum	349	Aug 12	486	Oct 11	209	Aug 26, 1936
Maximum peak flow			123,000	Mar 21[a]	145,000	Dec 6, 1982
Maximum peak stage			40.06	Mar 21	42.89	Dec 6, 1982
Instantaneous low flow			459	Oct 6[b]	196	Aug 27, 1936
Annual runoff (inches)	8.33		21.01		11.65	
10 percent exceeds	5,070		13,700		6,770	
50 percent exceeds	1,260		2,110		1,400	
90 percent exceeds	451		524		531	

[a]Also Mar 22

[b]Also Oct 13