

Prepared in cooperation with the State of Missouri and other agencies

# **Water Resources Data Missouri Water Year 2005**



Water-Data Report MO-05-1



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By H. S. Hauck, T. E. Harris

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**U.S. Department of the Interior**  
**U.S. Geological Survey**

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## PREFACE

This hydrologic-data report for Missouri is one of a series of annual reports that document hydrologic data collected from the U.S. Geological Survey's surface- and ground-water data collection networks in each State, Puerto Rico, and the Trust Territories. These records of surface water, surface-water quality, and ground-water levels provide the hydrologic information needed by local, State, and Federal agencies and the private sector for developing and managing our Nation's land and water resources.

This report is the culmination of a concerted effort by personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for ensuring that the information is accurate, complete, and adheres to U.S. Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER,  
FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

[Letter after station name designates type of data: (d) discharge, (c) chemical,  
(m) microbiological, (t) water temperature, (s) sediment, and (e) elevation and/or contents]

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Jacks Fork above Powell Spring above Two Rivers (c,m).....	371026091183301	604
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Big Spring near Van Buren (d,c,m).....	07067500	610
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Big Sugar Creek near Powell (d,c,m).....	07188653	639
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## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Missouri have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Discontinued project stations with less than three years of record have not been included. Information regarding these stations may be obtained from the Center Director at the address given on the back side of the title page of this report.

[Letters after station name designate type of data collected:  
(D) discharge and (E) elevation (stage only)]

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
Middle Fabius River near Baring	05497500	185	D	1936-1961
North River at Bethel	05500500	58.0	D	1930-1973
Oak Dale Branch near Emden	05503000	2.64	D	1955-1975
North Fork Salt River near Hunnewell	05503500	626	D	1931-1940, 1979-1988
Youngs Creek near Mexico	05506000	67.4	D	1937-1982
Middle Fork Salt River at Duncan's Bridge	05506190	200	D	1980-1982
Elk Fork Salt River near Paris	05507000	262	D	1930-1954, 1980-1982
Salt River near Monroe City	05507500	2,230	D	1940-1981
Calumet Creek near Clarksville	05509700	15.7	D	1965-1972
Tarkio River at Fairfax	06813000	508	D	1922-1990
Mill Creek at Oregon	06816000	4.90	D	1950-1976
Nodaway River near Burlington Junction	06817500	1,240	D	1922-1983
Platte River at Ravenwood	06818900	486	D	1921-1923, 1924-1925, 1928-1932, 1958-1971
White Cloud Creek near Maryville	06820000	6.06	D	1948-1970
Jenkins Branch at Gower	06821000	2.72	D	1950-1976
Line Creek at Riverside	06821280	19.2	D	1975-1981
Brush Creek at Main Street in Kansas City	06893560	14.8	D	1970-1979
Rock Creek at Independence	06893600	5.20	D	1967-1974
Shoal Creek at Claycomo	06893670	29.8	D	1975-1981
L. Blue River bl Longview Dam at Kansas City	06893793	50.3	D	1966-1999
East Fork L. Blue River near Blue Springs	06893890	34.4	D	1974-1999
East Fork Fishing River at Excelsior Spring	06894500	20.0	D	1951-1972
Sni-A-Bar Creek near Tarsney	06894680	29.1	D	1970-1979
Crooked River near Richmond	06895000	159	D	1948-1970
Wakenda Creek at Carrollton	06896000	248	D	1948-1970
Thompson Branch near Albany	06896500	5.58	D	1956-1972
Thompson River at Mount Moriah	06898100	891	D	1960-1977
Weldon River near Mercer	06898500	246	D	1939-1959
Weldon River at Mill Grove	06899000	494	D	1929-1972
Shoal Creek near Braymer	06899700	391	D	1957-1977
Medicine Creek near Galt	06900000	225	D	1921-1975, 1977-1990
West Yellow Creek near Brookfield	06902200	135	D	1959-1977
Hamilton Branch near New Boston	06902500	2.51	D	1955-1972
Thomas Hill Lake near Thomas Hill	06906350	147	E	1966-1974
Middle Fork Chariton River below Salisbury	06906470	201	D	1964-1970
Burge Branch near Arrow Rock	06906600	0.33	D	1959-1973
Flat Creek near Sedalia	06906700	148	D	1961-1967
Lamine River at Clifton City	06907000	598	D	1922-1971
South Fork Blackwater River near Elm	06907500	16.6	D	1954-1979
Blackwater River at Valley City	06907700	547	D	1958-1973
Shiloh Branch near Marshall	06908500	2.87	D	1952-1965
Petite Saline Creek near Boonville	06910000	182	D	1948-1967
Hinkson Creek at Columbia	06910230	44.8	D	1964-1976, 1986-1991
Cedar Creek near Columbia	06910410	70.2	D	1966-1982, 1987-1991

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
Chesapeake Spring at Chesapeake	06918444	--	D	1926,1932 1936,1954 1966-1967
Oak Grove Branch near Brighton	06918700	1.30	D	1956-1975
Little Sac River at Aldrich	06918800	304	D	1967-1968
Pomme de Terre River near Bolivar	06921000	225	D	1950-1969
Pomme de Terre River at Hermitage	06921500	655	D	1921-1965
South Grand River at Archie	06921590	356	D	1969-1986
South Grand River at Ulrich	06921600	670	D	1960-1969
Big Creek at Blairstown	06921720	414	D	1960-1974
Brushy Creek near Blairstown	06921740	1.15	D	1960-1975
South Grand River near Brownington	06922000	1,660	D	1921-1971
Osage River bl Harry S. Truman Dam at Warsaw	06922450	11,500	D	1978-2002
Big Buffalo Creek near Stover	06922800	24.2	D	1965-1977
Niangua River near Windyville	06923250	338	D	1991-1996
Bennett Spring at Bennett Springs	06923500	--	D	1916-1920, 1928-1941, 1965-1995
Niangua River near Decaturville	06924000	627	D	1930-1969
Starks Creek at Preston	06925200	4.18	D	1956-1976
Van Cleve Branch near Meta	06926200	0.75	D	1956-1972
Osage River near St. Thomas	06926500	14,500	D	1931-1996
Big Hollow near Fulton	06927200	4.05	D	1957-1972
Osage Fork Gasconade River at Drynob	06927800	404	D	1962-1981
Laquey Branch near Hazlegreen	06928200	1.58	D	1958-1972
Gasconade River near Waynesville	06928500	1,680	D	1915-1971
Beeler Branch near Cabool	06928700	7.78	D	1967-1976
Little Beaver Creek near Rolla	06931500	6.45	D	1947-1975
Loutre River at Mineola	06935500	202	D	1947-1967
Coldwater Creek near Hazelwood	06936200	12.1	D	1996-2001
Coldwater Creek near St. Louis	06936500	43.6	D	1961-1965
Meramec River at Cook Station	07010350	199	D	1966-1981
Maramec Spring near St. James	07010500	--	D	1903-1906, 1921-1929, 1965-1986
Green Acre Branch near Rolla	07011500	0.62	D	1947-1975
Bourbeuse River near St. James	07015000	21.3	D	1947-1981
Lanes Fork near Rolla	07015500	0.225	D	1952-1971
Bourbeuse River near Spring Bluff	07016000	608	D	1966-1981
Dry Branch near Bonne Terre	07017500	3.35	D	1956-1975
Sandy Creek near Pevely	07019690	32.5	D	1966-1968, 1969-1972
Plattin Creek at Plattin	07019790	65.8	D	1966-1972
Saline Creek near Minnith	07020270	82.6	D	1968-1981
South Fork Saline Creek near Perryville	07020550	55.3	D	1998-2004
Brewers Creek near Ironton	07033800	2.19	D	1965-1966
St. Francis River near Roselle	07034000	234	D	1983-1997
Little St. Francis River at Fredericktown	07035000	90.5	D	1983-1997
Barnes Creek near Fredericktown	07035500	3.35	D	1956-1975
St. Francis River near Saco	07036100	664	D	1983-1997
Clark Creek near Piedmont	07037700	4.39	D	1957-1976
Little River Ditch 81 near Kennett	07041000	111	D	1927-1979
Little River Ditch 1 near Kennett	07042000	235	D	1927-1979
Little River Ditch 251 near Lilbourn	07042500	235	D	1946-1991
Castor River at Aquilla	07043000	175	D	1946-1981
Little River Ditch 251 near Kennett	07044000	883	D	1927-1979
Little River Ditch 66 near Kennett	07045000	--	D	1927-1979



## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
Little River Ditch 66-A near Kennett	07045500	--	D	1927-1965
Little River Ditch 259 near Kennett	07046000	89.0	D	1927-1979
Roaring River Spring near Cassville	07050150	--	D	1966-1968
James River near Strafford	07050580	165	D	1974-1986
Wilson Creek below Springfield	07052150	47.2	D	1967-1972
Wilson Creek near Battlefield	07052160	58.3	D	1968-1970, 1972-1982, 1999-2004
White River near Branson	07053500	4,022	D	1952-2002
Hodgson Mill Spring at Sycamore	07057800	--	D	1966-1968
Taum Sauk Creek near Lesterville	07061280	10.1	D	2001-2002
East Fork L. Black River near Lesterville	07061300	94.5	D	1960-1990
Black River near Leeper	07062500	987	D	1921-1994
Fudge Hollow near Licking	07064300	1.72	D	1956-1976
Montauk Springs at Montauk	07064400	--	D	1964-1968
Big Creek near Yukon	07064500	8.36	D	1949-1975
Round Spring at Round Spring	07065000	--	D	1928-1939, 1965-1979
Alley Spring at Alley	07065500	--	D	1928-1939, 1965-1979
Current River near Eminence	07066500	1,272	D	1921-1975
Middle Fork Little Black River at Grandin	07068250	6.85	D	1980-1984
North Prong Little Black River near Grandin	07068300	39.4	D	1980-1984
Little Black River near Grandin	07068380	79.5	D	1980-1984
Little Black River below Fairdealing	07068510	194	D	1980-1986
Logan Creek at Oxly	07068540	37.5	D	1980-1984
Little Black River at Success, AR	07068600	386	D	1981-1986
Fourche River near Poynor	07068863	87.2	D	1976-1983
Eleven Point River near Thomasville	07070500	361	D	1951-1976
Stahl Creek near Miller	07185500	3.86	D	1950-1976
Spring River at La Russell	07185700	306	D	1957-1981
Center Creek near Cartersville	07186400	232	D	1962-1991
Center Creek below Carl Junction	07186475	299	D	1993-1995
Turkey Creek near Joplin	07186600	41.8	D	1964-1972

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

The following surface-water-quality stations in Missouri have been discontinued or converted to partial-record stations. Water-quality data (daily or periodic samples with collection frequency not less than quarterly) were collected and published for the period of record shown for each station. Discontinued project stations with less than three years of record are not included. Information regarding these stations may be obtained from the Missouri Water Science Center at the address given on the back of the title page of this report.

[Type of record: (B) biological, (C) chemical, (M) microbiological, (S) sediment, (T) temperature]

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
Mississippi River at Canton	05495150	--	C,T	1969-1975
Middle Fabius River near Monticello	05498000	393	S	1980-1986
Troublesome Creek near Ewing	05499900	2.88	C,M	2000-2004
North River at Palmyra	05501000	373	C	1972-1975
Mississippi River at Hannibal	05501600	--	C,M	1982-1989
North Fork Salt River near Shelbina	05502500	481	S	1988-1994
North Fork Salt River near Hunnewell	05503500	626	S	1980-1988
Middle Fork Salt River at Paris	05506500	356	S	1980-1997
Salt River near New London	05508000	2,480	C,M,T	1967-1975, 1977-1990 ,
			S	1980-1997
Mississippi River at Alton, IL	05587500	171,500	S	1980-1985, 1986-1989
Mississippi River below Alton, IL	05587550	171,500	C,M	1975-1989
Nodaway River near Oregon	06817800	--	C,M	1968-1975, 1977-1989
Platte River at Platte City	06821200	--	C	1967-1975
Missouri River at Sibley	06894100	--	C,T	1972-1975
Thompson River near Chillicothe	06899620	--	C,M	1968-1975, 1983-1987
East Fork Little Chariton River near Macon	06906200	112	C	1971-1974
Middle Fork L. Chariton R. below Salisbury	06906470	201	C,M	1983-1986
Burge Branch near Arrow Rock	06906600	0.33	S	1961-1964
Lamine River near Blackwater	06908800	2,610	B,C,M,T	1979-1986
Missouri River at Boonville	06909000	505,700	T	1953-1959, 1960-1964
Hinkson Creek at Columbia	06910230	70.2	T	1987-1991
Cedar Creek near Columbia	06910410	44.8	C,M	1987-1991
Cedar Creek near Ashland	06910414	--	C,M	1983-1989
Marais Des Cygnes River near Worland	06916650	3,230	C,M	1962-1963, 1972-1975, 1977-1981
East Fork Drywood Creek at Prairie State Park	06917630	--	C,M	1994-1997
Sac River near Dadeville	06918440	257	C,M,T	1974-1978, 1980-1982, 1983-1987
Stockton Lake near Stockton	06918990	1,160	T	1974-1977
Pomme de Terre River near Hermitage	06921350	615	T	1974-1977
Pomme de Terre River at Hermitage	06921500	615	T	1970-1978
South Grand River at Ulrich	06921600	670	C,M	1983-1987
South Grand River near Clinton	06921760	1,270	S	1991-1999
West Fork Tebo Creek near Lewis	06922190		C,M	1983-1991
Trib. to Middle Fork Tebo Creek nr Leeton	06922075	--	C	1989-1992
Tebo Creek at Leesville	06922200	--	B,C,M,T	1978-1983
Osage River at Warsaw	06922500	11,500	T	1969-1978
Big Buffalo Creek near Stover	06922800	24.2	T	1965-1977
Big Buffalo Creek at Big Buffalo Wildlife Area	06922850	24.5	C,M	1994-1997
Dousinbury Creek near Wall Street	06923150	39.5	C,M	1993-1997
Niangua River near Windyville	06923250	338	C,M	1991-1995
Bennett Spring at Bennett Springs	06923500	--	C,M	1991-1993
Ha Ha Tonka Spring at Ha Ha Tonka State Park	06924500	--	C,M	1994-1996
Coakley Hollow Spr. Br. at Lake of the Ozarks	06925445	--	C,M	1994-1996
Gasconade River near Hooker	06928600	--	C,M	1977-1986
Missouri River near St. Louis	06935840	--	C,T	1969-1974
Paddy Creek above Slabtown Springs	06929318	338	C,M	1991-1995
Shanghai Spring near Waynesville	06930400		C,M	1994-1997

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
Bonhomme Creek near Clarkson Valley	06935770	11.3	C,M	1997-2004
Caulks Creek at Chesterfield	06935830	17.1	C,M	2003-2004
Fee Fee Creek near Bridgeton	06935955	11.7	C,M	1996-2004
Cowmire Creek at Bridgeton	06935980	3.74	C,M	1997-2004
Mississippi River at East St. Louis, IL	07001000	--	C	1969-1973
Watkins Creek at Bellefontaine Neighbors	07001985	5.19	C,M	1997-2004
Engelhom Creek near Wellston	07010035	1.40	C,M	1998-2004
Deer Creek at Ladue	07010075	21.4	C,M	2001-2004
Black Creek near Brentwood	07010082	5.8	C,M	2004
Deer Creek at Maplewood	07010086	36.5	C,M	2001-2004
Gravois Creek near Mehlville	07010180	18.1	C,M	1996-2004
Maramec Spring near St. James	07010500	--	C,M	1994-1997, 2000-2004
Crooked Creek near Dillard	07013050	--	C	1982-1988
Coonville Creek at St. Francis State Park	07017605	--	C,M	1993-1997
Meramec River near Eureka	07019000	3,788	C,M	1978-1994
Kiefer Creek near Ballwin	07019072	3.91	C,M	1996-2004
Williams Creek near Peerless Park	07019090	7.62	C,M	1997-2004
Fishpot Creek at Valley Park	07019120	9.58	C,M	1996-2004
Fenton Creek near Fenton	07019220	4.29	C,M	1997-2004
Mattese Creek enar Mattese	07019317	7.88	C,M	1996-2004
Pickle Creek at Hawn State Park	07020200	--	C,M	1994-1997
Mississippi River at Cape Girardeau	07020850	--	C,T	1969-1974
Headwater Diversion Channel near Allenville	07021800	--	C	1969-1975
Big Creek at Chloride	07036940	--	C	1969-1975, 1983-1990
St. Francis River at St. Francis, AR	07040100	--	C	1969-1975
Little River Ditch 1 near Morehouse	07043500	450	C,M	1996-1997
Little River Ditches near Kennett	07046001	--	C,M	1969-1970, 1972-1973, 1977-1989, 1992-1993
Roaring River at Roaring River State Park	07050152	--	C,M	1991-1993
Pearson Creek near Springfield	07050690	21	C,M	2001-2004
James River near Nixa	07050750	273	T	1966-1975, 1977-1980
James River near Wilson Creek	07051600	--	C,M	1967-1982, 1983-1987
Wilson Creek near Springfield	07052100	31.4	C,T	1972-1982
Wilson Creek below Springfield	07052150	47.2	C,T	1967-1970, 1970-1972
Wilson Creek near Battlefield	07052160	58.3	C,M	2001-2004
James River west of Nixa	07052200	440	C	1962-1963, 1965-1967
Finley Creek at Riverdale	07052340	--	C	1967-1975
Double Spring near Dora	07057475	--	C,M	1994-1997
West Fork Black River at Centerville	07061150	137	C,M	2000-2004
East Fork Black River near Ironton	07061260	16	C,M	2000-2004
Black River at Poplar Bluff	07063000	1,245	C,M	1983-1987
Black River below Poplar Bluff	07063050	--	C	1969-1975
Main Ditch near Neelyville	07063300	--	C	1969-1975
Middle Fork Little Black River at Grandin	07068250	6.85	T	1980-1984
North Prong Little Black River near Grandin	07068300	39.4	C,M	1980-1984
Little Black River near Grandin	07068380	79.5	C,M,S,T	1980-1984
Logan Creek at Oxly	07068540	37.5	C,M,S,T	1980-1984
Little Black River near Naylor	07068550	--	C	1969-1975
Little Black River at Success, AR	07068600	386	C,M,S,T	1980-1986
Fourche River near Poynor	07068863	87.2	T	1976-1983
Fourche River near Middlebrook, AR	07068867	--	C	1969-1975

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (mi <sup>2</sup> )	Type of record	Period of record
Spring River near Thayer	07069170	--	C	1969-1975
Mammoth Spring at Mammoth Spring, AR	07069200	--	C,M	1994-1996
Eleven Point River below Bardley	07071900	--	C	1969-1975
Spring River near Waco	07186000	1,164	C	1965-1975, 1977-1978, 1980-1981
Center Creek near Cartersville	07186400	232	C,M	1980-1989
Shoal Creek above Joplin	07187000	427	C,M	1968-1968, 1979-1982
Shoal Creek near Galena, KS	07187560	--	C	1968-1975
Lost Creek at Seneca	07188500	42	C	1967-1975
Little Sugar Creek at Caverna	07188820	--	C	1967-1975
Patterson Creek near Tiff City	07188950	9.73	C,M	2000-2004

## WATER RESOURCES DATA - MISSOURI 2005

### INTRODUCTION

The U.S. Geological Survey, Missouri Water Science Center, in cooperation with local, State, and Federal agencies and organizations, obtains a large quantity of data pertaining to the water resources of Missouri each water year (October 1 to September 30). These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of Missouri. To make these data readily available to interested parties outside the U.S. Geological Survey, the data are published annually in this report series, entitled "WATER RESOURCES DATA - MISSOURI."

Water resources data reported for the 2005 water year for Missouri consists of records of discharge and water quality (physical measurements and chemical concentrations) of streams, lakes, and ground-water levels. Data from selected sites in Nebraska and Kansas, also are included. This volume contains records for water discharge at 177 gaging stations; gage height at 6 surface-water gaging stations; elevation at 13 lakes and reservoirs; water quality at 97 sampling stations (including 2 lakes); data for 39 crest-stage stations; data for 6 water-quality partial-record stations; and water-level records for 8 ground-water monitoring wells.

Records of discharge and stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey Water-Supply Papers entitled, "Surface Water Supply of the United States." These Water-Supply Papers were in an annual series through September 30, 1960, and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperature, and suspended sediment were published from 1941 to 1970 in an annual series of Water-Supply Papers entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of Water-Supply Papers entitled, "Ground-Water Levels in the United States." Water-Supply Papers are in the libraries of the principal cities in the United States or may be purchased from the U.S. Geological Survey, Information Services, Federal Center, Box 25286, Denver, CO 80225.

For water years 1961 through 1974, streamflow data were released by the U.S. Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 similarly were released either in separate reports or in conjunction with streamflow records.

Beginning with water year 1975, water data for streamflow, water quality, and ground water are published in Survey reports on a State-boundary basis. These reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report MO-05-1."

For archiving and general distribution, the reports for water years 1971-74 also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the Missouri Water Science Center at the address given on back of the title page or by telephone (573) 308-3667.

### COOPERATION

The U.S. Geological Survey and State and local agencies and organizations in Missouri have had cooperative agreements for the systematic collection of streamflow records since 1921, and for water-quality records since 1964. Organizations that assisted in collecting data published in this report through cooperative agreements are:

City of Columbia  
City of Independence  
City of Springfield  
Greenway Network  
Holt County  
Kansas City Water Service Department  
Metropolitan St. Louis Sewer District  
Missouri Department of Conservation  
Missouri Department of Natural Resources  
    Geological Survey and Resource Assessment Division  
    Water Protection and Soil Conservation Division  
    Water Pollution Control Program  
Missouri Department of Transportation

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Ameren UE Company of Missouri  
Sho-Me Power Electric Cooperative  
U.S. Department of Agriculture  
    U.S. Forest Service  
U.S. Department of Commerce  
    National Oceanic and  
    Atmospheric Administration  
    National Weather Service  
U.S. Department of Defense  
    U.S. Army  
    U.S. Army Corps of Engineers  
U.S. Department of the Interior  
    National Park Service  
U.S. Fish and Wildlife Service

## WATER USE--2000

Listed below are general water-use facts for the state of Missouri. The major water uses and percentage of surface water and ground water for the 2000 calendar year are shown in figure 1.

## MISSOURI WATER USE FACT SHEET

1. Total water use in Missouri was 8,240 million gallons per day (Mgal/d).
2. Total population was 5.60 million, an increase of 5.3 percent from 1995.
3. Per capita water use for all uses was 1,470 gallons per person per day.
4. Surface-water withdrawals totalled 6,450 Mgal/d, about 78.3 percent of the total use. The largest use was in the St. Louis and Kansas City metropolitan areas.
5. Ground-water withdrawals totalled 1,790 Mgal/d, about 21.7 percent of total use. The largest ground-water use was for irrigation in southeastern Missouri.
6. The largest overall use of water was for thermoelectric power generation, about 5,640 Mgal/d to produce 76,700 gigawatt-hours of electricity.
7. Surface water accounts for 5,620 Mgal/d (99.8 percent) of the thermoelectric power generation use. About 5,200 Mgal/d of surface water was used by plants with once-through cooling water systems; the remainder was used by plants with recirculating cooling water systems.
8. The largest use of ground water was 1,380 Mgal/d for irrigation. Total irrigation water use was 1,430 Mgal/d.
9. Water withdrawals by public suppliers was 872 Mgal/d; 68.1 percent surface water and 31.9 percent ground water.
10. Domestic water use was 491 Mgal/d; 11 percent self-supplied and 89 percent public-supplied. Per capita domestic water use was 87.8 gallons per person per day.
11. Commercial water use was 87.0 Mgal/d; 14 percent self-supplied and 86 percent public-supplied.
12. Industrial and mining water use was 200 Mgal/d; 40 percent self-supplied and 60 percent public-supplied.
13. Public use and losses were 238 Mgal/d, calculated from the total water withdrawals for public supply minus deliveries to domestic, commercial, industrial, and thermoelectric uses.
14. Non-irrigation agriculture water use was 156 Mgal/d for livestock and aquaculture use. About 83.3 Mgal/d is used for fish farms and in-stream fish hatcheries.
15. Water use for in-stream and off-stream hydroelectric power generation was 10,900 Mgal/d to produce 408 gigawatt-hours of electricity. These values are not included in the withdrawal totals, as the water was left in or returned to the stream with no appreciable losses.

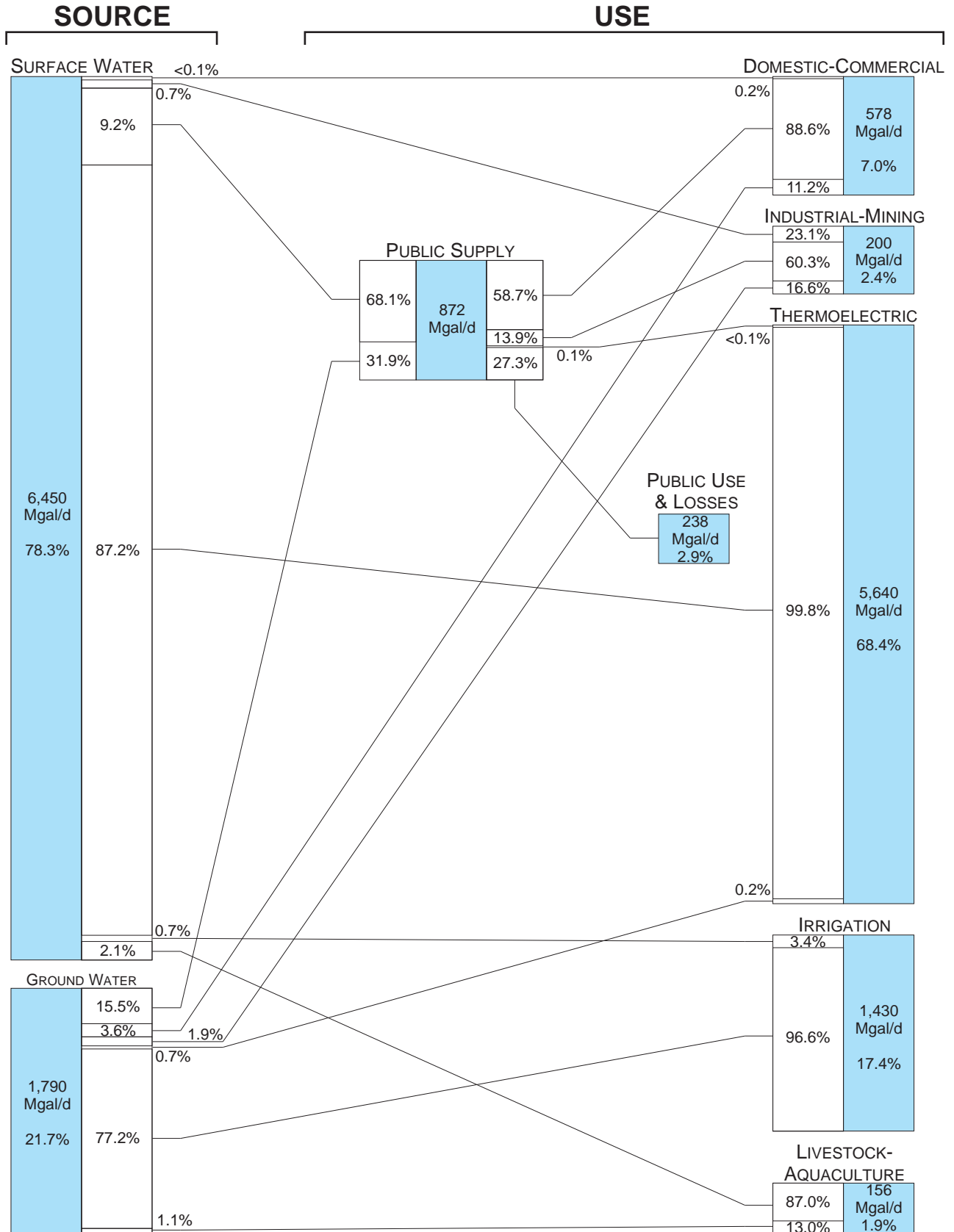


Figure 1. Source and use values and percentages for major offshore water-use categories in Missouri during the 2000 calendar year.

## PHYSIOGRAPHY

Missouri has three distinct physiographic areas--the Central Lowland in the north and west, the Mississippi Alluvial Plain in the southeast, and between them the Ozark Plateaus (Figure 2).

The Central Lowland includes most of the area north of the Missouri River and a large area south of the river in the western part of the State. Elevations range from about 450 to 1,000 feet above North American Vertical Datum of 1988. The area has numerous wide, flat valleys incised by rivers.

The Ozark Plateaus in the southern part of the State is wooded, rugged, and has deep, narrow valleys with sharp ridges separating the valleys. Elevations range from about 1,000 to 1,600 feet above North American Vertical Datum of 1988.

The Mississippi Alluvial Plain (Bootheel) is a relatively flat area of about 3,000 square miles in the extreme southeast part of the State. Elevations range from about 200 to 300 feet above North American Vertical Datum of 1988. The area is well drained and contains excellent farmland.

## SUMMARY OF HYDROLOGIC CONDITIONS

Surface-Water-Streamflow

Streamflow varies seasonally in Missouri and often reflects precipitation patterns unless the stream is regulated. Precipitation was above normal throughout most of the state during October, November, January, and August. Missouri received below normal precipitation during December, March, April, and May. February and September had varying precipitation levels across the State but were generally above normal and June and July were generally below normal. March and May were notably dry with all regions (figure 3) receiving at least 1 inch less than normal rainfall. However, all regions except the Northwest Prairie greater than normal total precipitation for the year.

Generally, the 2005 water year mean discharges were greater than long-term mean discharges in southwest Missouri (excluding the upper Sac River basin) and less than long-term mean discharges in northwest and southeastern Missouri (figure 2). Monthly discharges during the 2005 water year and median of long-term monthly mean discharges at six representative stations are shown in Figure 3.

Peak discharges for the 2005 water year are compared to the peak discharges for the period of record at 14 selected gaging stations in Table 1. The 7-day low flow for the 2005 water year is compared to the 7-day, 2-year low flow and minimum flow for selected stations in Table 2. The 7-day, 2-year low flow is the 7-day minimum flow with a recurrence interval of 2 years.

**Table 1: Comparisons of peak discharge for the 2005 water year with those for period of record for selected stations**

Station identification	Peak discharge during 2005 water year		Peak discharge for period of record	
	Cubic feet per second	Date	Cubic feet per second	Date
05495000 Fox River at Wayland (1922-2005)	5,290	Feb. 14	26,400	Apr. 22, 1973
05587450 Mississippi River at Grafton, Ill. (1928-2005)	239,000	Jan. 14	598,000	Aug. 1, 1993
06893000 Missouri River at Kansas City (1898-2005)	140,000	June 12, 13	573,000	July 14, 1951
06894000 Little Blue River near Lake City (1948-2005)	5,840	June 4	42,300	Aug. 13, 1982
06897500 Grand River near Gallatin (1921-2005)	24,200	April 22	89,800	July 7, 1993
06905500 Chariton River near Prairie Hill (1929-2005)	18,900	April 13	37,100	May 13, 2002
06933500 Gasconade River at Jerome (1923-2005)	37,800	Jan. 8	136,000	Dec. 5, 1982
06934500 Missouri River at Hermann (1898-2005)	267,000	Jan. 6	750,000	July 31, 1993
07010000 Mississippi River at St. Louis (1861-2005)	479,000	Jan. 7	1,080,000	Aug. 1, 1993
07019000 Meramec River near Eureka (1922-2005)	50,900	Jan. 8	145,000	Dec. 6, 1982
07022000 Mississippi River at Thebes, Ill. (1933-2005)	539,000	Jan. 8	996,000	Aug. 7, 1993
07057500 North Fork River near Tecumseh (1945-2005)	6,590	Jan. 13	133,000	Nov. 19, 1985
07068000 Current River at Doniphan (1919-2005)	18,500	Jan. 15	122,000	Dec. 3, 1982
07186000 Spring River near Waco (1924-2005)	26,300	Jan. 6	151,000	Sept. 26, 1993

**Table 2.--Comparisons of 2005 7-day low flows to 7-day, 2-year low flows and minimum flows for the period of record for selected stations**

Station identification and period of record (water years)	[Flows in cubic feet per second]			
	7-day low flows		Minimum flows for period of record	
	2005	Period of Record	Discharge	Date
05495000 Fox River at Wayland (1922-2005)	2.2	0	0	Several years
06820500 Platte River near Agency (1933-2005)	47	0	0	Several years
06921070 Pomme de Terre River near Polk (1969-2005)	3.4	3.4	0.3	Aug. 10, 1980
07016500 Bourbeuse River at Union (1921-2005)	15	13	11	Oct. 10, 1956
07067000 Current River at Van Buren (1912-2005)	715	479	473	Oct. 7, 1956
07187000 Shoal Creek above Joplin (1942-2005)	71	16	12	Sept. 7, 1954



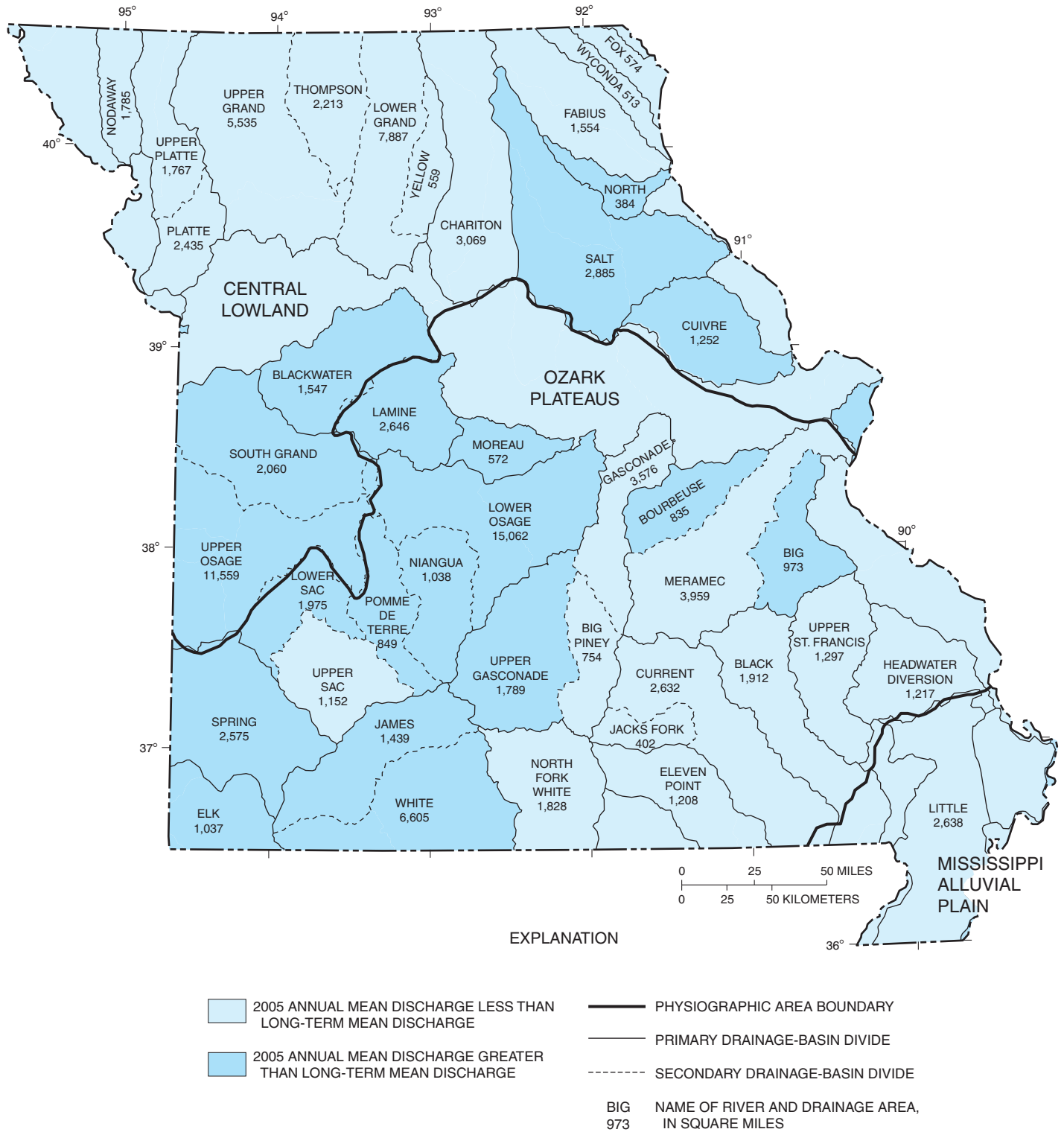
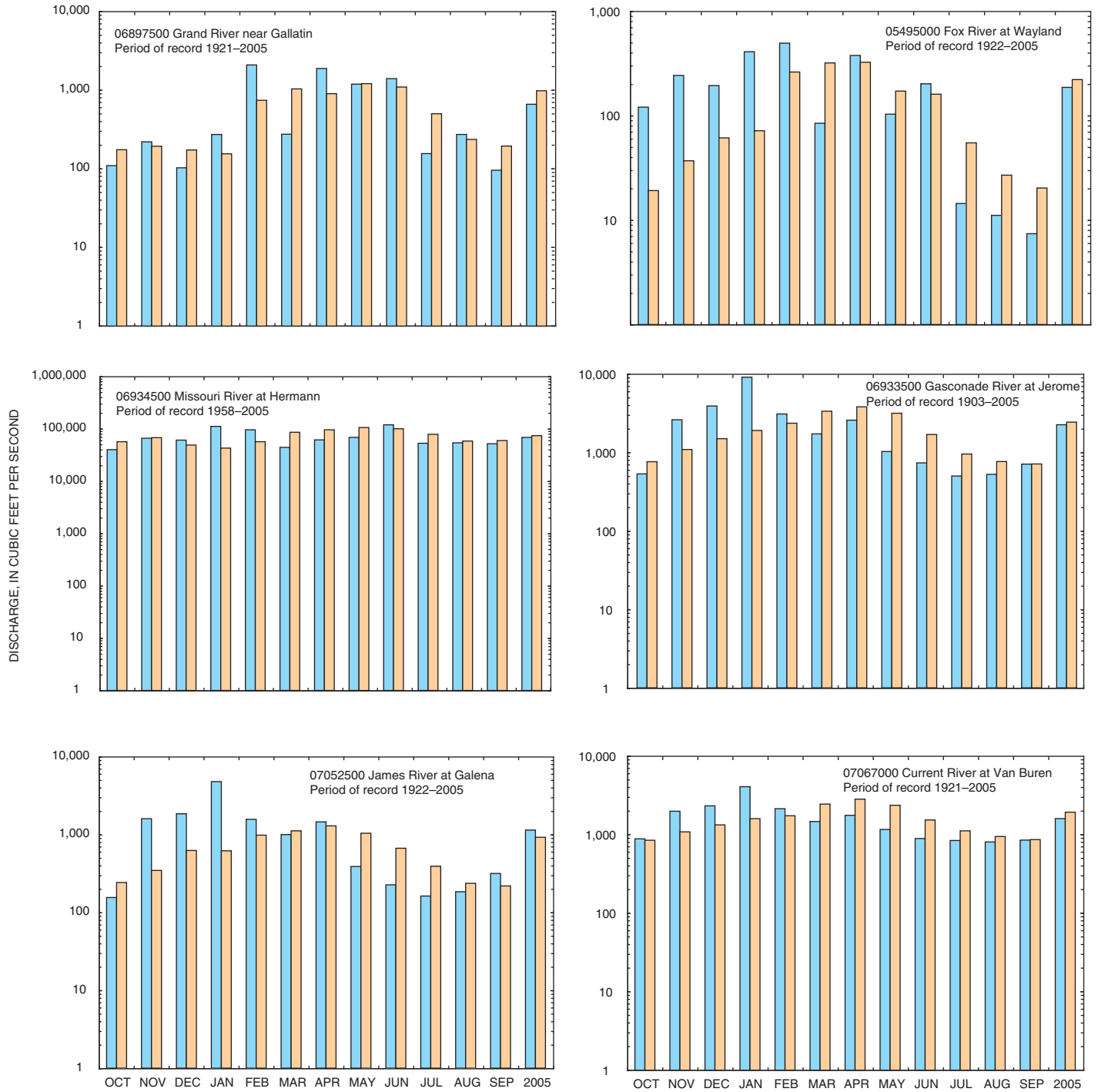


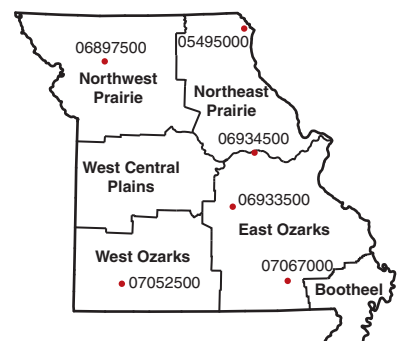
Figure 2. Major drainage basins, physiographic areas, and areas of mean discharge during the 2005 water year.



EXPLANATION

- MONTHLY AND YEARLY MEAN DISCHARGE FOR WATER YEAR 2005
- MEDIAN OF MONTHLY AND YEARLY MEAN DISCHARGE

Figure 3. Comparison of 2005 water-year mean discharge to period of record median discharge at six representative gaging stations.



Surface-Water-Quality

Samples for determining the chemical quality of streamflow were collected at 97 stations in Missouri. Data collected at these stations, in addition to streamflow data, include some or all of the following properties or constituents: water temperature, specific conductance, dissolved oxygen, pH, carbonate, bicarbonate, alkalinity, major ions, nutrients, trace elements, indicator bacteria, sediment, and pesticides.

Missouri streams generally are not contaminated by industrial wastes. Localized contamination may occur near urban areas, industrialized centers, agricultural-chemical-use areas, and waste-dump sites.

**Table 3.--Comparison of range of dissolved-solids concentrations in selected streams for the 2005 water year with those for period of record.**

Station identification and Period of Record	Dissolved-solids concentration (milligrams per liter)			
	2005 Water Year		Period of Record	
	Minimum	Maximum	Minimum	Maximum
05514500 Cuivre River near Troy (1983-2005)	97	257	77	276
06818000 Missouri River at St. Joseph (1970-2005)	458	513	217	592
06902000 Grand River near Sumner (1967-2005)	230	296	72	456
06926510 Osage River below St. Thomas (1975-2005)	164	181	113	274
06930800 Gasconade River above Jerome (1978-2005)	142	191	82	222
06934500 Missouri River at Hermann (1969-2005)	203	446	154	636
07019280 Meramec River at Paulina Hills (1963-75, 1981-2005)	169	238	85	323

Daily suspended-sediment samples and data on the particle size of suspended sediment were collected at four stations in Missouri.

The following table lists two selected stations on the Mississippi River at Grafton and Thebes, Ill. and their minimum and maximum daily mean suspended-sediment concentrations during water year.

**Table 4.--Comparison of minimum and maximum daily mean suspended-sediment concentrations at two selected stations for the 2005 water year with those for period of record.**

Station identification and Period of Record	Daily mean suspended-sediment concentration (milligrams per liter)			
	2005 Water Year		Period of Record	
	Minimum	Maximum	Minimum	Maximum
05587455 Mississippi River below Grafton, IL (1989-2005)	49	640	1	1,910
07022000 Mississippi River at Thebes, IL (1981-2005)	97	1,110	13	3,890

## SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 61 sites in small drainage basins in 39 States that was established in 1963 to provide consistent streamflow data representative of undeveloped watersheds nationwide, and from which data could be analyzed on a continuing basis for use in comparison and contrast with conditions observed in basins more obviously affected by human activities. At selected sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program may be accessed from <http://my.cf.er.usgs.gov/hbn/>.

National Stream-Quality Accounting Network (NASQAN) is a network of sites used to monitor the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande River basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia Rivers so that a network of five stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water

quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound trace elements, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment (NAWQA) Program; (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program may be accessed from <http://water.usgs.gov/nasqan/>.

The Ambient Water-Quality Monitoring Network (AWQMN) is a statewide data-collection network designed by both the U.S. Geological Survey and the Missouri Department of Natural Resources to meet many of the information needs of State agencies and other groups involved in Statewide water-quality planning and management.

There are currently 64 member stations within this network. Each station has been assigned a U.S. Geological Survey downstream order number under which all data are stored in NWIS (the U.S. Geological Survey national data base). The objectives of AWQMN are (1) to obtain information on the quality and quantity of water moving within the State; (2) provide for a historical data base of water-quality information that can be used by State planning and management agencies to make informed decisions about cultural impacts on the State's surface waters; and (3) provide for consistent methodology in data collection, laboratory analysis, and data reporting.

Additional information about the AWQMN Program may be accessed from <http://mo.water.usgs.gov>

The Jacks Fork Water-Quality Monitoring Network is a data-collection network designed by both the U.S. Geological Survey and the National Park Service to better understand the extent and sources of microbiological contamination within the Jacks Fork. This contamination has resulted in the inclusion of an 8-mile reach of the Jacks Fork on Missouri's list of impaired waters as required by Section 303(d) of the Federal Clean Water Act. These data will provide the National Park Service and the State of Missouri with the information needed to craft a solution of abatement, regulation, prevention, and mitigation for the Jacks Fork.

The Metropolitan St. Louis Sewer District Network (MSD) is a data-collection network designed by both the U.S. Geological Survey and the Metropolitan St. Louis Sewer District to develop a baseline of stream stage, discharge, and water-quality data for several sub-basins within the MSD jurisdictional area. These data will be used by MSD engineers to develop stormwater management strategies that will address concerns resulting from the U.S. Environmental Protection Agency's issuance of the Phase II stormwater regulations. There are currently 41 member stations within this network.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) is a network of monitoring sites that provide continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead Federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from this network of 250 precipitation-chemistry monitoring sites. The USGS supports 74 of these 250 sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as data from the individual sites, may be accessed from <http://bqs.usgs.gov/acidrain/>

The USGS National Water-Quality Assessment (NAWQA) Program is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; to provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and to provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 42 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents is measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for water-resources managers to use in making decisions and a foundation for aggregation and comparison of

findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and Federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key Federal, State, and local water-resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities for collaboration among the agencies. Additional information about the NAWQA Program may be accessed from <http://water.usgs.gov/nawqa/>

The USGS National Streamflow Information Program (NSIP) is a long-term program with goals to provide framework streamflow data across the Nation. Included in the program are creation of a permanent Federally funded streamflow network, research on the nature of streamflow, regional assessments of streamflow data and databases, and upgrades in the streamflow information delivery systems. Additional information about NSIP may be accessed from <http://water.usgs.gov/nsip/>

Radiochemical Programs is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

## EXPLANATION OF THE RECORDS

The surface- and ground-water records published in this report are for the water year that began October 1, 2004, and ended September 30, 2005. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, and water-quality data for the surface water. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

### Station Identification Numbers

Each data station, whether stream site or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The system used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water sites will differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Missouri, for surface-water stations where only miscellaneous measurements are made.

### Downstream Order and Station Number

Since October 1, 1950, hydrologic-station records in USGS reports have been listed in order of downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary entering between two main-stream stations is listed between those stations. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is located with respect to the stream to which it is immediately tributary is indicated by an indentation in that list of stations in the front of this report. Each indentation represents one rank. This downstream order and system of indentation indicates which stations are on tributaries between any two stations and the rank of the tributary on which each station is located.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These station numbers are in the same downstream order used in this report. In assigning a station number, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list composed of both types of stations. Gaps are consecutive. The complete 8-digit (or 10-digit) number for each station such as 09004100, which appears just to the left of the station name, includes a 2-digit part number "09" plus the 6-digit (or 8-digit) downstream order number "004100." In areas of high station density, an additional two digits may be added to the station identification number to yield a 10-digit number. The stations are numbered in downstream order as described above between stations of consecutive 8-digit numbers.

#### Numbering System for Wells and Miscellaneous Sites

The USGS well and miscellaneous site-numbering system is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, and the next 7 digits denote degrees, minutes, and seconds of longitude; the last 2 digits are a sequential number for wells within a 1-second grid. In the event that the latitude-longitude coordinates for a well and miscellaneous site are the same, a sequential number such as "01," "02," and so forth, would be assigned as one would for wells (see fig. 4). The 8-digit, downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

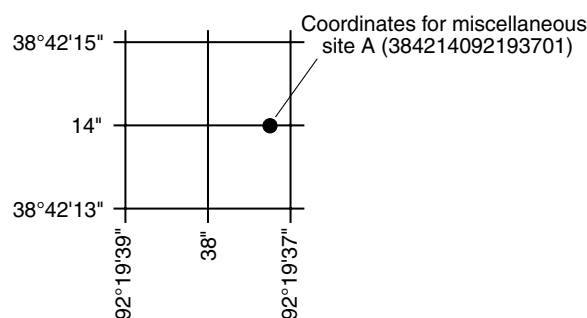


Figure 4. System for numbering miscellaneous sites (latitude and longitude).

#### EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS

##### Data Collection and Computation

The base data collected at gaging stations (fig. 6) consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and volume of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from a water-stage recorder that is either downloaded electronically in the field to a laptop computer or similar device or is transmitted using telemetry such as GOES satellite, land-line or cellular-phone modems, or by radio transmission. Measurements of discharge are made with a current

meter or acoustic doppler current profiler, using the general methods adopted by the USGS. These methods are described in standard textbooks, USGS Water-Supply Paper 2175, and the Techniques of Water-Resources Investigations of the United States Geological Survey (TWRIs), Book 3, Chapters A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

For stream-gaging stations, discharge-rating tables for any stage are prepared from stage-discharge curves. If extensions to the rating curves are necessary to express discharge greater than measured, the extensions are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, or computation of flow over dams and weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharges are computed from the daily values. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features of the stream channel, the daily mean discharge is computed by the shifting-control method in which correction factors that are based on individual discharge measurements and notes by engineers and observers are used when applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the controlling section, the daily mean discharge is computed by the shifting-control method.

The stage-discharge relation at some stream-gaging stations is affected by backwater from reservoirs, tributary streams, or other sources. Such an occurrence necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage at some distance from the base gage.

An index velocity is measured using ultrasonic or acoustic instruments at some stream-gaging stations, and this index velocity is used to calculate an average velocity for the flow in the stream. This average velocity along with a stage-area relation is then used to calculate average discharge.

At some stations, the stage-discharge relation is affected by changing stage. At these stations, the rate of change in stage is used as a factor in computing discharge.

At some stream-gaging stations in the northern United States, the stage-discharge relation is affected by ice in the winter; therefore, computation of the discharge in the usual manner is impossible. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter-discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge from other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the volume or contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly changes are computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the

period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some stream-gaging stations, periods of time occur when no gage-height record is obtained or the recorded gage height is faulty and cannot be used to compute daily discharge or contents. Such a situation can happen when the recorder stops or otherwise fails to operate properly, the intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records from other stations in the same or nearby basins. Likewise, lake or reservoir volumes may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

#### Data Presentation

The records published for each continuous-record surface-water discharge station (stream-gaging station) consist of five parts: (1) the station manuscript or description; (2) the data table of daily mean values of discharge for the current water year with summary data; (3) a tabular statistical summary of monthly mean flow data for a designated period, by water year; (4) a summary statistics table that includes statistical data of annual, daily, and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration; and (5) a hydrograph of discharge.

#### Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments follow that clarify information presented under the various headings of the station description.

**LOCATION.**—Location information is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

**DRAINAGE AREA.**—Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

**PERIOD OF RECORD.**—This term indicates the time period for which records have been published for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not and whose location was such that its flow reasonably can be considered equivalent to flow at the present station.

**REVISED RECORDS.**—If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

**GAGE.**—The type of gage in current use, the datum of the current gage referred to a standard datum, and a condensed history of the types,

locations, and datums of previous gages are given under this heading.

**REMARKS.**—All periods of estimated daily discharge either will be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See section titled Identifying Estimated Daily Discharge.) Information is presented relative to the accuracy of the records, to special methods of computation, and to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, the outlet works and spillway, and the purpose and use of the reservoir.

**COOPERATION.**—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

**EXTREMES OUTSIDE PERIOD OF RECORD.**—Information here documents major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the USGS.

**REVISIONS.**—Records are revised if errors in published records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based national data system, NWISWeb (<http://water.usgs.gov/nwis/nwis>). Users are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent data updates. Updates to NWISWeb are made on an annual basis.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because no current or, possibly, future station manuscript would be published for these stations to document the revision in a REVISED RECORDS entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the USGS Water Science Center (address given on the back of the title page of this report) to determine if the published records were revised after the station was discontinued. If, however, the data for a discontinued station were obtained by computer retrieval, the data would be current. Any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the REMARKS and in the inclusion of a stage-capacity table when daily volumes are given.

#### Data table of daily mean values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed TOTAL gives the sum of the daily figures for each month; the line headed MEAN gives the arithmetic average flow in cubic feet per second for the month; and the lines headed MAX and MIN give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month is expressed in inches (line headed IN) Values for runoff in inches may be omitted if extensive regulation or diversion is in effect or if the drainage area includes large noncontributing areas. At some stations, monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir volumes are given. These values are identified by a symbol and a corresponding footnote.

## Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR PERIOD OF RECORD, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the "PERIOD OF RECORD" paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

## Summary statistics

A table titled SUMMARY STATISTICS follows the statistics of monthly mean data tabulation. This table consists of four columns with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, WATER YEARS \_\_-\_\_, will consist of all of the station records within the specified water years, including complete months of record for partial water years, and may coincide with the period of record for the station. The water years for which the statistics are computed are consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below), except for the ANNUAL 7-DAY MINIMUM statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When the dates of occurrence do not fall within the selected water years listed in the heading, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration-curve statistics and runoff data also are given. Runoff data may be omitted if extensive regulation or diversion of flow is in effect in the drainage basin.

The following summary statistics data are provided with each continuous record of discharge. Comments that follow clarify information presented under the various line headings of the SUMMARY STATISTICS table.

ANNUAL MEAN.—The arithmetic mean for the individual daily mean discharges for the year noted or for the designated period.

HIGHEST ANNUAL MEAN.—The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.—The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.—The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.—The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.—The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. This value should not be confused with the 7-day 10-year low-flow statistic.

MAXIMUM PEAK FLOW.—The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

MAXIMUM PEAK STAGE.—The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.—The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.—Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Inches (INCHES) indicate the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.—The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.—The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.—The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations

are presented in two tables. The first table lists annual maximum stage and discharge at crest-stage stations, and the second table lists discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are often made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for a special reason are called measurements at miscellaneous sites.

#### Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified. This identification is shown either by flagging individual daily values with the letter "e" and noting in a table footnote, "e-Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description

#### Accuracy of Field Data and Computed Results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The degree of accuracy of the records is stated in the REMARKS in the station description. "Excellent" indicates that about 95 percent of the daily discharges are within 5 percent of the true value; "good" within 10 percent; and "fair," within 15 percent. "Poor" indicates that daily discharges have less than "fair" accuracy. Different accuracies may be attributed to different parts of a given record.

Values of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft<sup>3</sup>/s; to the nearest tenths between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to three significant figures above 1,000 ft<sup>3</sup>/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge values listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, values of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

#### Other Data Records Available

Information of a more detailed nature than that published for most of the stream-gaging stations such as discharge measurements, gage-height records, and rating tables is available from the USGS Water Science Center. Also, most stream-gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the USGS Water Science Center (see address that is shown on the back of the title page of this report

## EXPLANATION OF SURFACE-WATER-QUALITY RECORDS

### Collection and Examination of Data

Surface-water samples for analysis usually are collected at or near stream-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, water temperature, sediment discharge, and so forth); extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, sampling date, or other pertinent data are given in the table containing the chemical analyses of the ground water.

### Water Analysis

Most of the methods used for collecting and analyzing water samples are described in the TWRIs which may be accessed from <http://water.usgs.gov/pubs/twri/>.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled at several verticals to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily mean, maximum, and minimum values for each constituent measured and are based on 15-minute or 1-hour intervals of recorded data beginning at 0000 hours and ending at 2400 hours for the day of record.

### Surface-Water-Quality Records

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because discharge data are useful in the interpretation of surface-water quality. Records of surface-water quality in this report involve a variety of types of data and measurement frequencies.

### Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A *continuous-record station* is a site where data are collected on a regularly scheduled basis. Frequency may be one or more times daily, weekly, monthly, or quarterly. A *partial-record station* is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually



less than quarterly. A *miscellaneous sampling site* is a location other than a continuous- or partial-record station, where samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between *continuous records* as used in this report and *continuous recordings* that refer to a continuous graph or a series of discrete values recorded at short intervals. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less

frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figure 7.

Accuracy of the Records

One of four accuracy classifications is applied for measured physical properties at continuous-record stations on a scale ranging from poor to excellent. The accuracy rating is based on data values recorded before any shifts or corrections are made. Additional consideration also is given to the amount of publishable record and to the amount of data that have been corrected or shifted.

**Table 5.--Rating the accuracy of continuous water-quality record.**

[≤, less than or equal to; ±, plus or minus value shown; °C, degree Celsius; >, greater than; %, percent; mg/L, milligram per liter; pH unit, standard pH unit]

Measured field parameter	Ratings of accuracy (Based on combined fouling and calibration drift corrections applied to the record)			
	Excellent	Good	Fair	Poor
Water temperature	≤ ± 0.2 °C	> ± 0.2 – 0.5 °C	> ± 0.5 – 0.8 °C	> ± 0.8 °C
Specific conductance	≤ ± 3%	> ± 3 – 10%	> ± 10 – 15%	> ± 15%
Dissolved oxygen	≤ ± 0.3 mg/L or ≤ ± 5%, whichever is greater	> ± 0.3 – 0.5 mg/L or > ± 5 – 10%, whichever is greater	> ± 0.5 – 0.8 mg/L or > ± 10 – 15%, whichever is greater	> ± 0.8 mg/L or > ± 15%, whichever is greater
pH	≤ ± 0.2 units	> ± 0.2 – 0.5 units	> ± 0.5 – 0.8 units	> ± 0.8 units
Turbidity	≤ ± 0.5 turbidity units or ≤ ± 5%, whichever is greater	> ± 0.5 – 1.0 turbidity units or > ± 5 – 10%, whichever is greater	> ± 1.0 – 1.5 turbidity units or > ± 10 – 15%, which- ever is greater	> ± 1.5 turbidity units or > ± 15%, whichever is greater

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

Onsite Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the naturally occurring quality of the water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, must be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the naturally occurring water, carefully prescribed procedures must be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D1 and D2; and Book 9, Chapters A1-A9. Most of the methods used for collecting and analyzing water samples are described in the TWRIs, which may be accessed from <http://water.usgs.gov/pubs/twri/>. Also, detailed information on collecting, treating, and shipping samples can be obtained from the USGS Water Science Center (see address that is shown on the back of title page in this report).

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, mean, maximum, and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the USGS Missouri Water Science Center.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross section.

During periods of rapidly changing flow or rapidly changing concentration, samples may be collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration are computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge,

sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observation, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

#### Laboratory Measurements

Samples for biochemical oxygen demand (BOD) and indicator bacteria are analyzed locally. All other samples are analyzed in the USGS laboratory in Lakewood, Colorado, unless otherwise noted. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the USGS laboratories are given in the TWRIs, Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. These methods are consistent with ASTM standards and generally follow ISO standards.

#### Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

**LOCATION.**—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

**DRAINAGE AREA.**—See Data Presentation information in the EXPLANATION OF STAGE- AND WATER-DISCHARGE RECORDS section of this report (same comments apply).

**PERIOD OF RECORD.**—This indicates the time periods for which published water-quality records for the station are available. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

**INSTRUMENTATION.**—Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping

sampler, or other sampling device is in operation at a station.

**REMARKS.**—Remarks provide added information pertinent to the collection, analysis, or computation of the records.

**COOPERATION.**—Records provided by a cooperating organization or obtained for the USGS by a cooperating organization are identified here.

**EXTREMES.**—Maximums and minimums are given only for parameters measured daily or more frequently. For parameters measured weekly or less frequently, true maximums or minimums may not have been obtained. Extremes, when given, are provided for both the period of record and for the current water year.

**REVISIONS.**—Records are revised if errors in published water-quality records are discovered. Appropriate updates are made in the USGS distributed data system, NWIS, and subsequently to its Web-based national data system, NWISWeb (<http://waterdata.usgs.gov/nwis>). Users of USGS water-quality data are encouraged to obtain all required data from NWIS or NWISWeb to ensure that they have the most recent updates. Updates to the NWISWeb are made on an annual basis.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

#### Remark Codes

The following codes may appear with the water-quality data in this report:

<u>PRINTED OUTPUT</u>	<u>REMARK CODE</u>
>	Greater than
<	Less than
e	Estimated discharge
E	Estimated value
M	Presence verified, not quantified
S	Most probable value
U	Analyzed for, not detected

#### VALUE QUALIFIER CODE

a	Value was extrapolated at high end
b	Value was extrapolated at low end
d	Diluted sample: method hi range exceeded
f	Sample field preparation problem
i	Result may be affected by interference
k	Counts outside acceptable range
n	Below the LRL and above the LT-MDL
@	Holding time exceeded
+	Improper preservation

#### NULL VALUE QUALIFIER CODE

b	Sample broken in shipment
c	Sample lost in lab
e	Required equipment not functional/available
r	Sample ruined in preparation
u	Unable to determine-matrix interference

#### Water-Quality-Control Data

The USGS National Water Quality Laboratory (NWQL) collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDLs) and laboratory reporting levels (LRLs). These values are

re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. Falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is not present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a nondetection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as less than LRL for samples in which the analyte either was not detected or did not pass identification. Analytes detected at concentrations between the LT-MDL and the LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E." These data should be used with the understanding that their uncertainty is greater than that of data reported without the E remark code.

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this USGS Missouri Water Science Center are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

#### Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated in the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. Many types of blank samples are possible; each is designed to segregate a different part of the overall data-collection process. The types of blank samples collected by the Missouri Water Science Center are:

**Field blank**—A blank solution that is subjected to all aspects of sample collection, field processing, preservation, transportation, and laboratory handling as an environmental sample.

**Trip blank**—A blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

**Equipment blank**—A blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

**Sampler blank**—A blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

**Filter blank**—A blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

**Splitter blank**—A blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

**Preservation blank**—A blank solution that is treated with the same preservatives used for an environmental sample.

#### Reference Samples

Reference material is a solution or material prepared by a laboratory. The reference material composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

#### Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. Many types of replicate samples are possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in Missouri are:

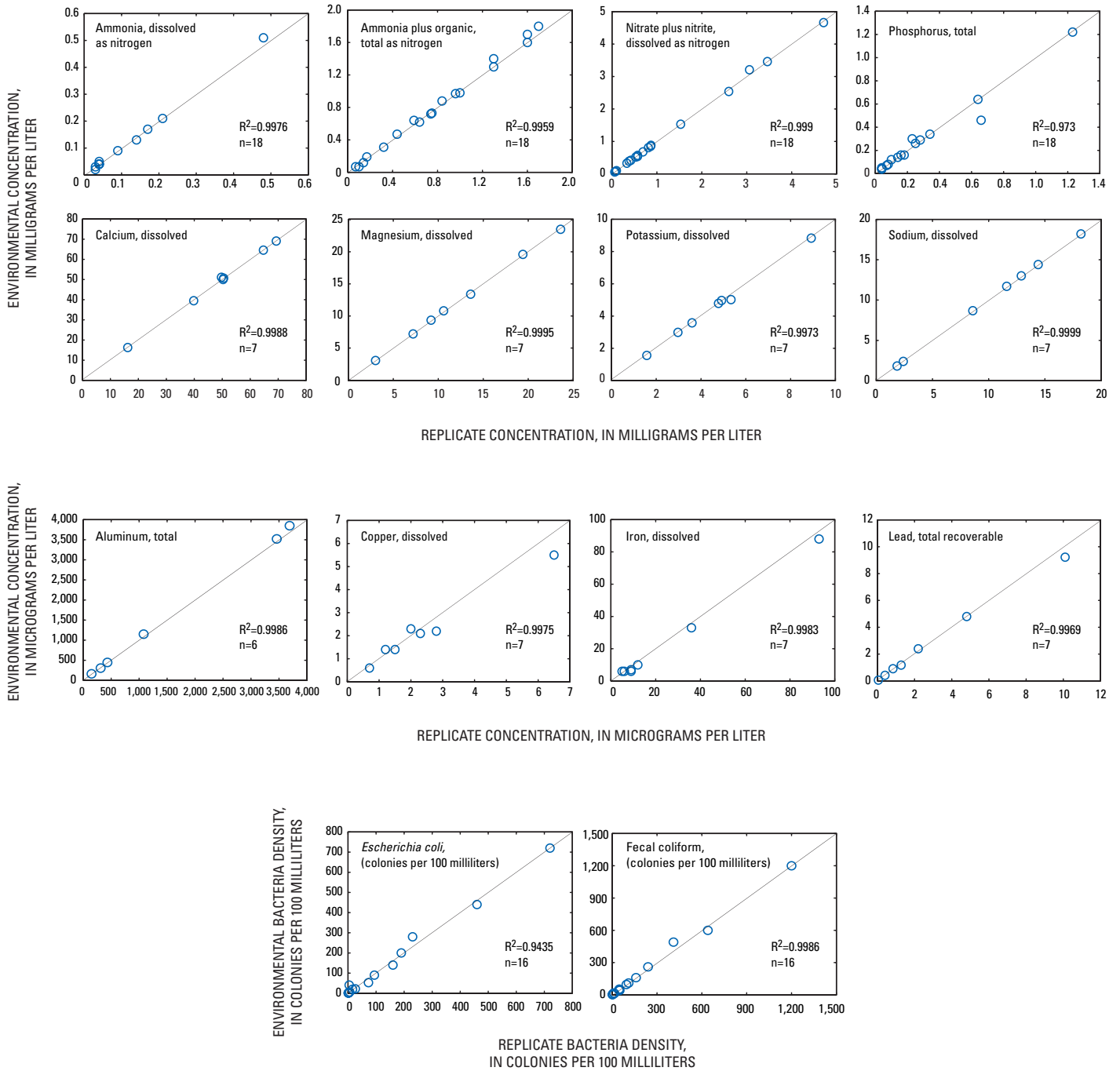
**Concurrent samples**—A type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating the collection of samples into two or more compositing containers.

**Sequential samples**—A type of replicate sample in which the samples are collected one after the other, typically over a short time.

**Split sample**—A type of replicate sample in which a sample is split into subsamples, each subsample contemporaneous in time and space.

#### Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.



Replicate data are collected to ensure the environmental data are accurate by detecting variability in analyses. The data graphed above are replicate data that were collected during the 2005 water year for the Ambient Water-Quality Network. The value of "n" above is the number of sample sets used in each analysis. The line shown has a slope of one. The smaller the difference in concentrations of the environmental data with its replicate data, the closer the data plot to the line. This causes the resultant coefficient of determination ( $R^2$ ) to be close to a value of one, proving the data are normally distributed with low variance.

Figure 5. Statistical interpretation of Ambient Water-Quality Network replicate data.

## EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Generally, only ground-water-level data from selected wells with continuous recorders from a basic network of observation wells are published in this report. This basic network contains observation wells located so that the most significant data are obtained from the fewest wells in the most important aquifers.

### Site Identification Numbers

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is produced for local needs.

### Data Collection and Computation

Measurements are made in many types of wells, under varying conditions of access and at different temperatures; hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Most methods for collecting and analyzing water samples are described in the TWRIs referred to in the Onsite Measurements and Sample Collection and the Laboratory Measurements sections in this report. In addition, TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in TWRIs Book 1, Chapter D2; Book 3, Chapters A1, A3, and A4; and Book 9, Chapters A1 through A9. The TWRI publications may be accessed from <http://water.usgs.gov/pubs/twri/>. The values in this report represent water-quality conditions at the time of sampling, as much as possible, and that are consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. Trained personnel collected all samples. The wells sampled were pumped long enough to ensure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum above sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (EOM).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth of water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

### Data Presentation

Water-level data are presented in alphabetical order by county. The primary identification number for a given well is the 15-digit site identification number that appears in the upper left corner of the table.

The secondary identification number is the local or county well number. Well locations are shown and each well is identified by its local well or county well number on a map in this report (fig.16).

Each well record consists of three parts: the well description, the data table of water levels observed during the water year, and, for most wells, a hydrograph following the data table. Well descriptions are presented in the headings preceding the tabular data.

The following comments clarify information presented in these various headings.

**LOCATION.**—This paragraph follows the well-identification number and reports the hydrologic-unit number and a geographic point of reference. Latitudes and longitudes used in this report are reported as North American Datum of 1927 unless otherwise specified.

**AQUIFER.**—This entry designates by name and geologic age the aquifer that the well taps.

**WELL CHARACTERISTICS.**—This entry describes the well in terms of depth, casing diameter and depth or screened interval, method of construction, use, and changes since construction.

**INSTRUMENTATION.**—This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on continuous, monthly, or some other frequency of measurement.

**DATUM.**—This entry describes both the measuring point and the land-surface elevation at the well. The altitude of the land-surface datum is described in feet above the altitude datum; it is reported with a precision depending on the method of determination. The measuring point is described physically (such as top of casing, top of instrument shelf, and so forth), and in relation to land surface (such as 1.3 ft above land-surface datum). The elevation of the land-surface datum is described in feet above National Geodetic Vertical Datum of 1929 (NGVD 29); it is reported with a precision depending on the method of determination.

**REMARKS.**—This entry describes factors that may affect the water level in a well or the measurement of the water level, when various methods of measurement were begun, and the network (climatic, terrane, local, or areal effects) or the special project to which the well belongs.

**PERIOD OF RECORD.**—This entry indicates the time period for which records are published for the well, the month and year at the start of publication of water-level records by the USGS, and the words “to current year” if the records are to be continued into the following year. Time periods for which water-level records are available, but are not published by the USGS, may be noted.

**EXTREMES FOR PERIOD OF RECORD.**—This entry contains the highest and lowest instantaneously recorded or measured water levels of the period of published record, with respect to land-surface datum or sea level, and the dates of occurrence.

### Water-Level Tables

A table of water levels follows the well description for each well. Water-level measurements in this report are given in feet with reference to either sea level or land-surface datum (lsd). Missing records are indicated by dashes in place of the water-level value.

For wells not equipped with recorders, water-level measurements were obtained periodically by steel or electric tape. Tables of periodic water-level measurements in these wells show the date of measurement and the measured water-level value.

#### Hydrographs

Hydrographs are a graphic display of water-level fluctuations over a period of time. In this report, current water year and, when appropriate, period-of-record hydrographs are shown. Hydrographs that display periodic water-level measurements show points that may be connected with a dashed line from one measurement to the next. Hydrographs that display recorder data show a solid line representing the mean water level recorded for each day. Missing data are indicated by a blank space or break in a hydrograph. Missing data may occur as a result of recorder malfunctions, battery failures, or mechanical problems related to the response of the recorder's float mechanism to water-level fluctuations in a well.

#### ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed from <http://water.usgs.gov>.

Water-quality data and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on various media. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each USGS Water Science Center (See address that is shown on the back of the title page of this report.)

#### DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, may be accessed from [http://water.usgs.gov/ADR\\_Defs\\_2005.pdf](http://water.usgs.gov/ADR_Defs_2005.pdf). Terms such as algae, water level, and precipitation are used in their common everyday meanings, definitions of which are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting English units to International System (SI) Units. Other glossaries that also define water-related terms are accessible from <http://water.usgs.gov/glossaries.html>.

#### TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The USGS publishes a series of manuals, the Techniques of Water-Resources Investigations, describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, section A of book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

Reports in the Techniques of Water-Resources Investigations series are online at <http://water.usgs.gov/pubs/twri/>. Printed copies are for sale by the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office), telephone 1-888-ASK-USGS. Please telephone 1-888-ASK-USGS for current prices, and refer to the title, book number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations." Products can then be ordered by telephone, or online at <http://www.usgs.gov/sales.html>, or by FAX to (303)236-469 of an order form available online at <http://mac.usgs.gov/isb/pubs/forms/>. Prepayment by major credit card or by a check or money order payable to the "U.S. Geological Survey" is required.



Figure 6. Location of surface-water stations.

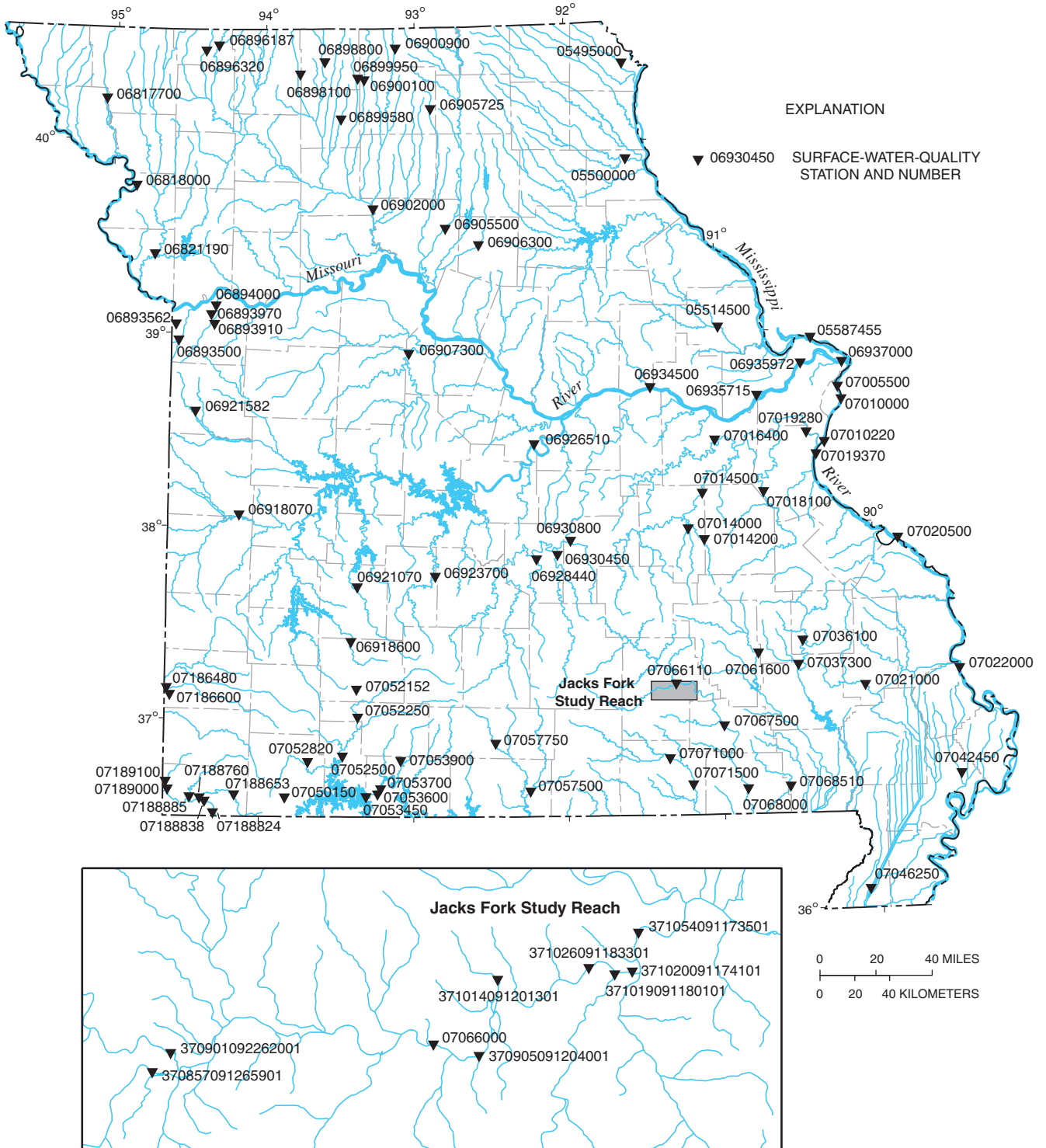


Figure 7. Location of surface-water-quality stations.



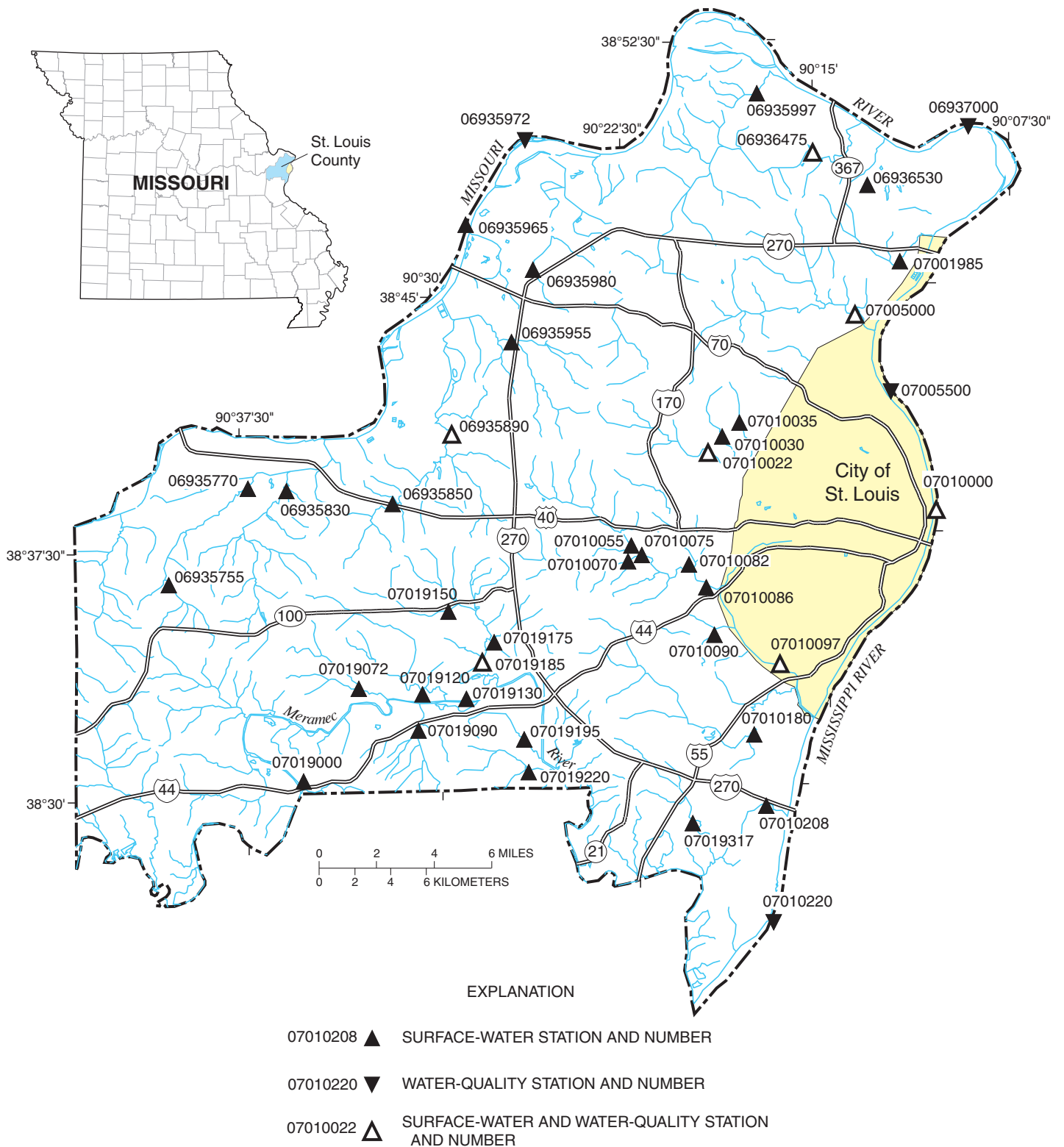


Figure 8. Location of stations in St. Louis County.

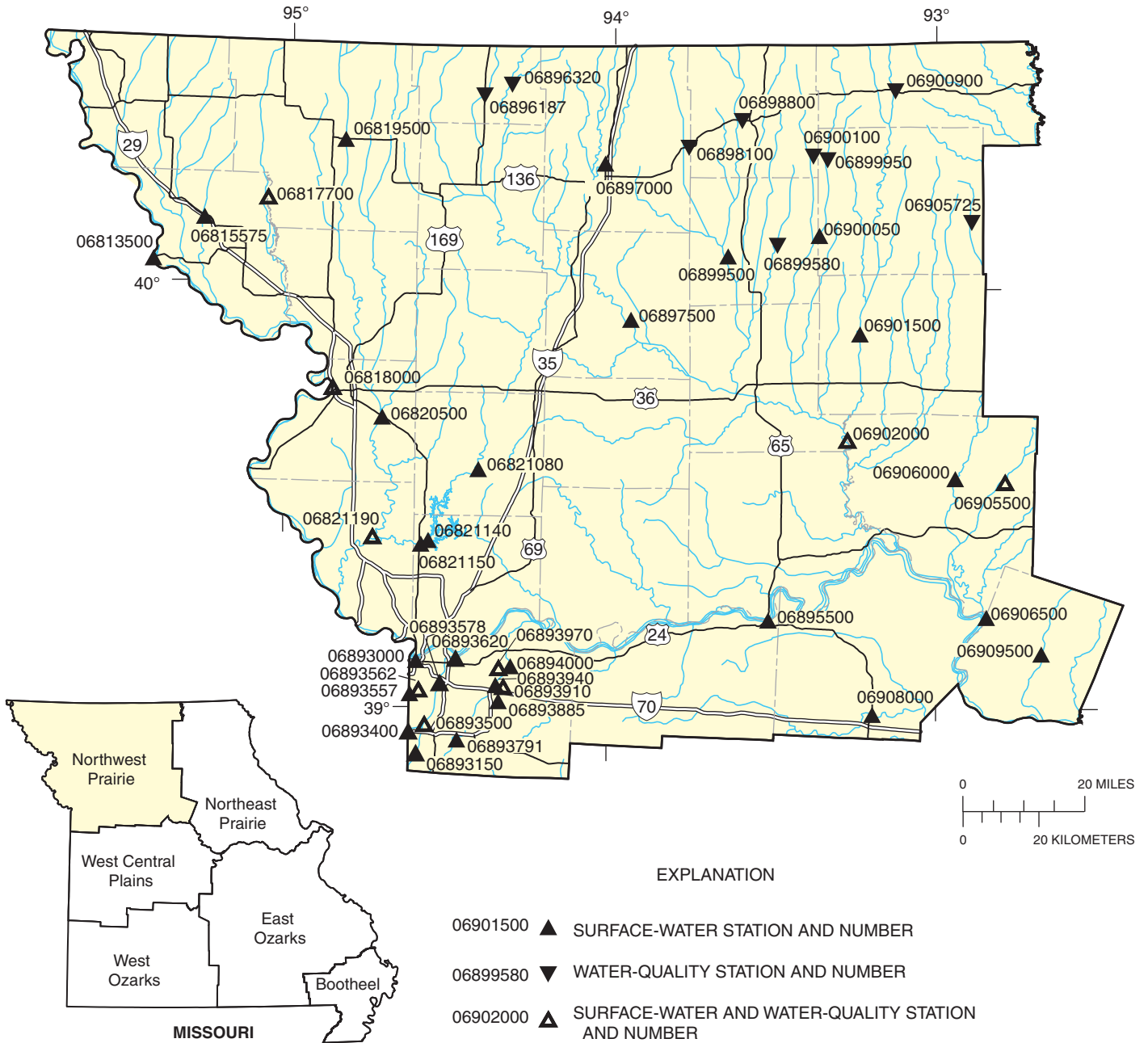


Figure 9. Location of stations in the Northwest Prairie.



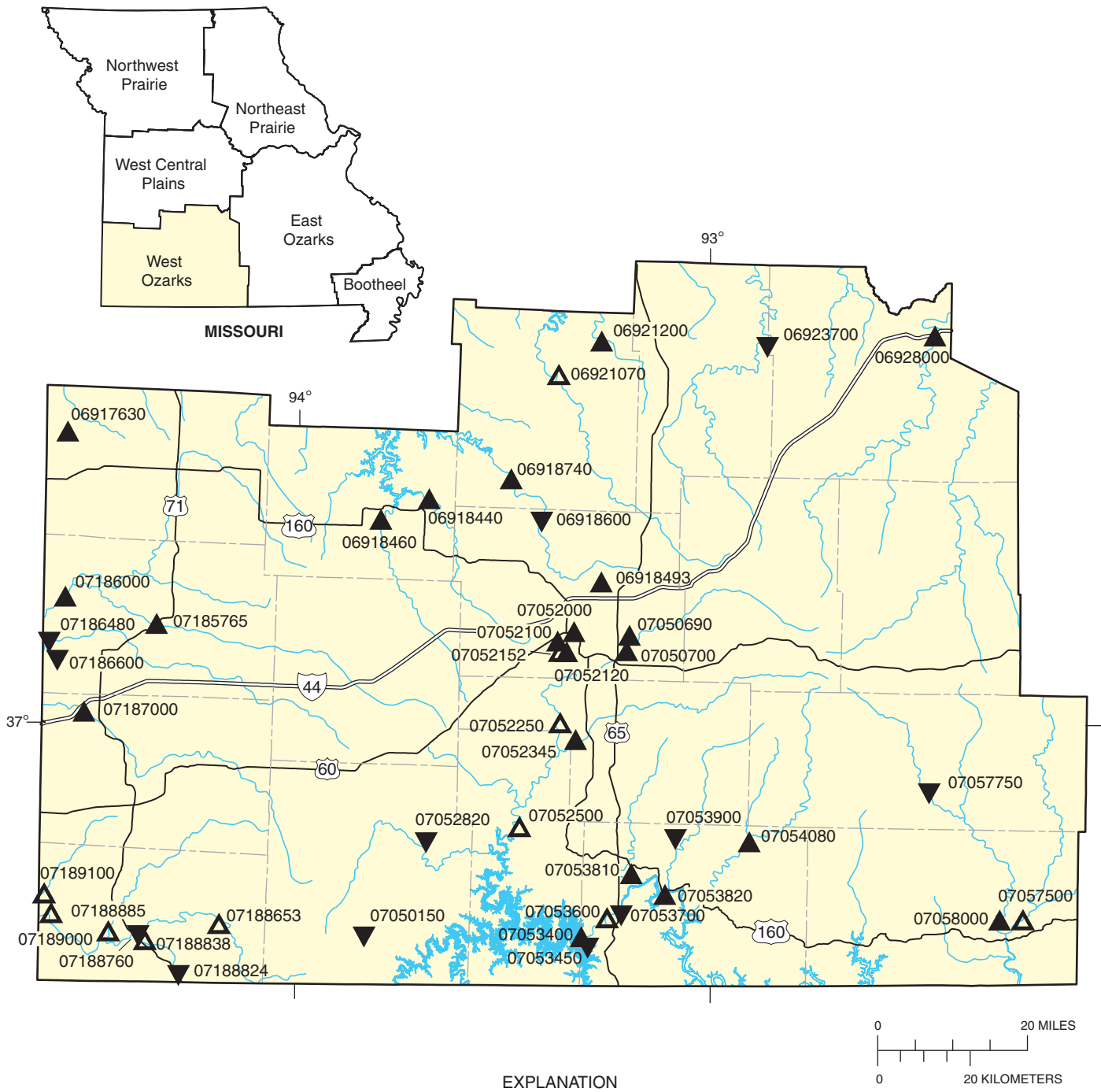
Figure 10. Location of stations in the Northeast Prairie.



EXPLANATION

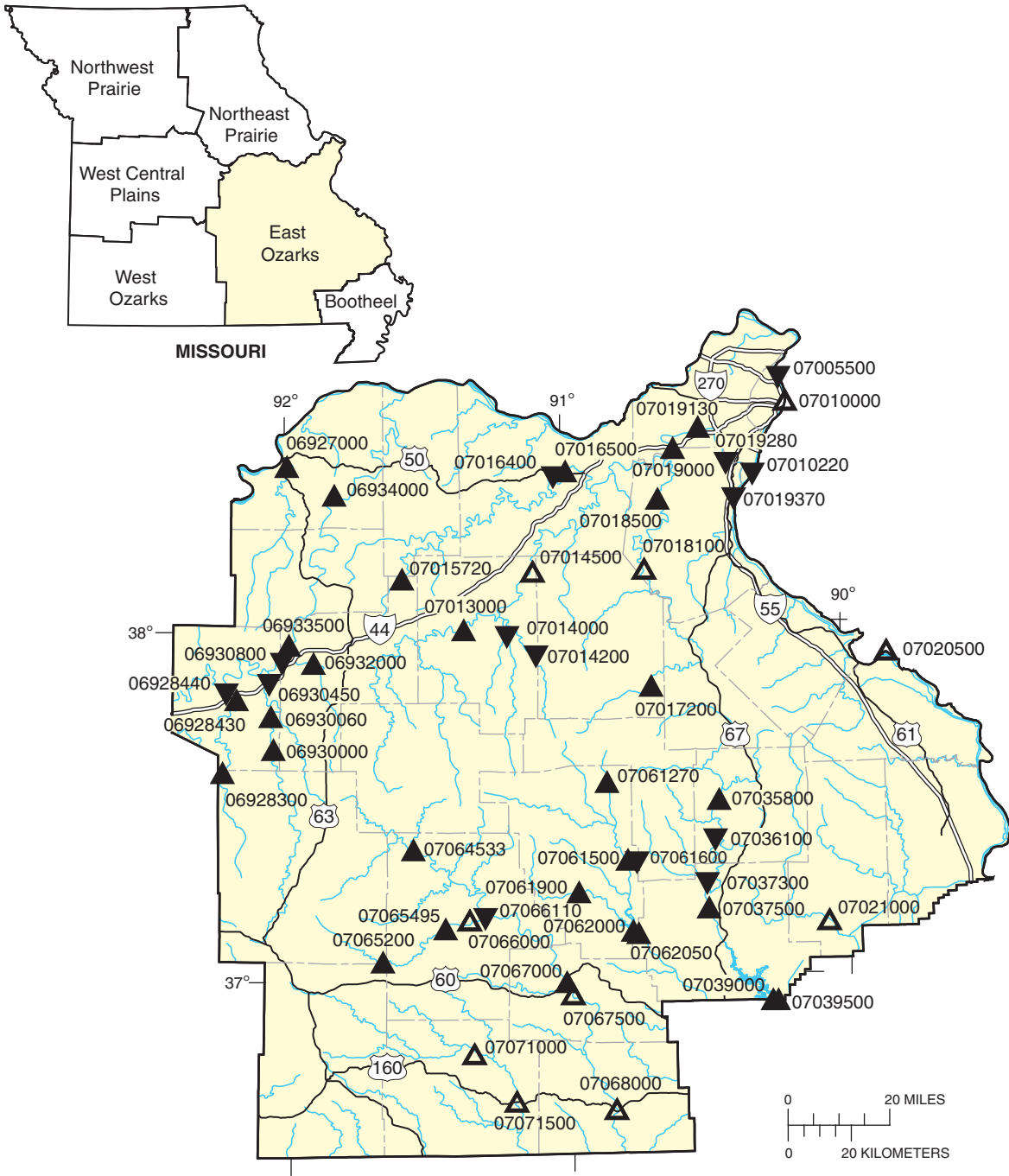
- 06921760 ▲ SURFACE-WATER STATION AND NUMBER
- 06921582 ▼ WATER-QUALITY STATION AND NUMBER
- 06918070 ▲△ SURFACE-WATER AND WATER-QUALITY STATION AND NUMBER

Figure 11. Location of stations in the West Central Plains.



- EXPLANATION
- 07186690 ▲ SURFACE-WATER STATION AND NUMBER
  - 07052800 ▼ WATER-QUALITY STATION AND NUMBER
  - 07052500 ▲ SURFACE-WATER AND WATER-QUALITY STATION AND NUMBER

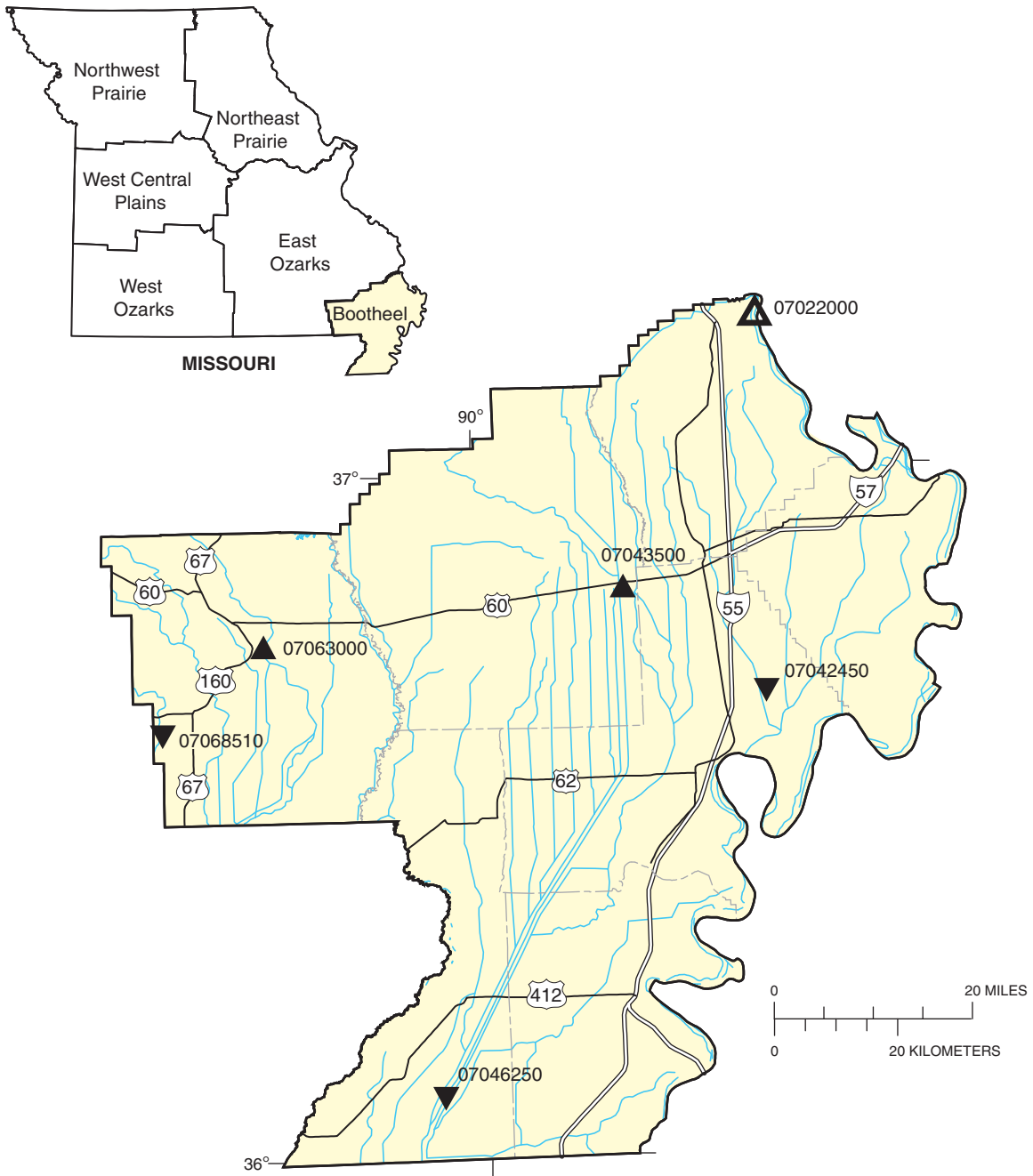
Figure 12. Location of stations in the West Ozarks.



EXPLANATION

- 07065200 ▲ SURFACE-WATER STATION AND NUMBER
- 07066110 ▼ WATER-QUALITY STATION AND NUMBER
- 07067500 △ SURFACE-WATER AND WATER-QUALITY STATION AND NUMBER

Figure 13. Location of stations in the East Ozarks.



EXPLANATION

- 07043500 ▲ SURFACE-WATER STATION AND NUMBER
- 07046250 ▼ WATER-QUALITY STATION AND NUMBER
- 07020500 ▲ SURFACE-WATER AND WATER-QUALITY STATION AND NUMBER

Figure 14. Location of stations in the Bootheel.

## MISSISSIPPI RIVER BASIN ABOVE MISSOURI RIVER

## 05495000 FOX RIVER AT WAYLAND, MO

LOCATION.--Lat 40°23'33", long 91°35'52", in NW ¼ sec.31, T.65 N., R.6 W., Clark County, Hydrologic Unit 07110001, on left bank 30 ft downstream from bridge on U.S. Highway 136, 0.8 mi west of Wayland, 5.0 mi downstream from Brush Creek, and at mile 15.2.

DRAINAGE AREA.--400 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1922 to current year.

REVISED RECORDS.--WSP 785: 1934. Revised daily mean discharges for the period Aug. 9, 1977, to Sept. 30, 1977, and the annual maximum peak for the 1977 water year published in WDR-MO-79-1.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 501.52 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1929, nonrecording gage at bridge 2.8 mi upstream at different datum; Oct. 1, 1929, to June 11, 1936, nonrecording gage at bridge 90 ft upstream; June 1936 to August 1988 at site 300 ft upstream, at present datum.

REMARKS.--Water-discharge records fair except for estimated daily discharges and discharges below 20 ft<sup>3</sup>/s, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	755	162	102	e213	131	66	105	44	19	12	5.8
2	25	1,700	134	193	e190	117	58	93	37	19	9.8	4.2
3	24	816	109	594	e186	106	55	85	34	19	8.4	3.1
4	23	765	95	1,040	e183	102	55	80	43	19	7.6	3.2
5	25	825	98	805	e181	100	55	77	774	26	7.4	3.8
6	23	408	762	390	e234	95	56	73	548	28	7.2	3.2
7	21	246	1,260	e219	330	92	63	71	222	27	6.4	2.8
8	59	172	1,230	e166	611	88	73	70	116	22	4.6	2.5
9	162	135	484	e132	367	82	88	69	392	17	3.9	2.1
10	67	115	281	e113	e207	79	80	72	714	15	3.6	1.9
11	44	101	205	177	e163	76	77	69	574	14	3.3	1.6
12	34	88	164	398	e189	73	905	136	741	15	3.5	1.6
13	33	77	131	1,700	1,930	69	3,290	641	577	13	7.7	4.2
14	66	71	88	934	4,600	63	1,280	288	595	12	14	22
15	68	68	e86	618	1,730	60	516	310	249	11	24	18
16	50	65	e78	e417	732	57	299	176	139	12	18	15
17	40	64	e73	e337	416	58	211	116	91	10	14	12
18	33	64	e70	e260	278	59	164	92	72	9.4	13	6.3
19	29	64	e70	e213	207	58	135	93	57	9.7	12	4.9
20	27	64	e78	e180	192	58	115	79	43	9.3	19	6.9
21	27	61	77	e155	231	55	124	66	35	8.2	27	7.8
22	73	56	74	e139	222	55	1,060	60	33	9.5	24	5.4
23	784	53	e64	e127	192	78	884	55	30	8.6	22	4.0
24	346	56	e52	e117	165	107	898	49	26	8.9	14	6.2
25	150	52	44	e110	150	129	385	44	23	7.0	11	5.2
26	140	50	42	169	138	153	237	41	21	9.3	11	3.6
27	296	140	41	1,270	127	135	183	39	20	13	11	4.3
28	442	184	42	e1,070	133	115	155	38	19	15	8.4	19
29	308	123	47	e506	---	97	132	42	18	19	8.7	27
30	209	140	54	e352	---	86	117	47	20	16	7.6	18
31	231	---	72	e265	---	76	---	48	---	15	6.8	---
MEAN	125	253	202	428	518	87.4	394	107	210	14.7	11.3	7.52
MAX	784	1,700	1,260	1,700	4,600	153	3,290	641	774	28	27	27
MIN	21	50	41	102	127	55	55	38	18	7.0	3.3	1.6
IN.	0.36	0.70	0.58	1.23	1.35	0.25	1.10	0.31	0.59	0.04	0.03	0.02

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2005, BY WATER YEAR (WY)

MEAN	161	170	138	165	334	430	459	390	388	241	123	167
MAX	1,313	1,375	1,330	1,133	1,433	2,264	2,750	2,795	2,223	3,387	1,509	1,999
(WY)	(1987)	(1929)	(1983)	(1969)	(1982)	(1979)	(1973)	(1996)	(1947)	(1993)	(1970)	(1970)
MIN	0.00	0.01	0.02	0.19	0.42	8.56	2.35	1.39	0.06	0.21	0.02	0.17
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1956)	(1956)	(1956)	(1956)	(1936)	(1936)	(1937)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

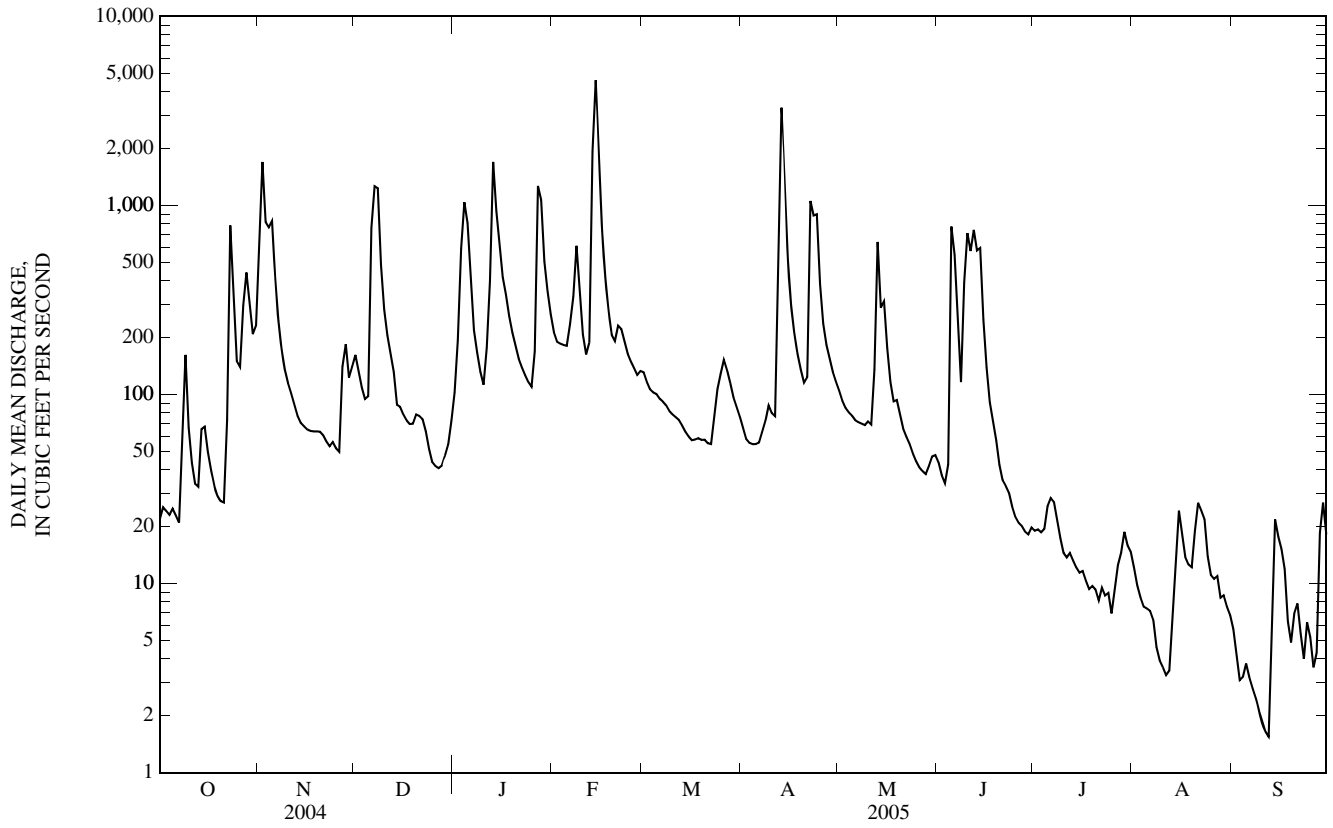
## FOR 2005 WATER YEAR

## WATER YEARS 1922 - 2005

ANNUAL MEAN	274	194	264
HIGHEST ANNUAL MEAN			927
LOWEST ANNUAL MEAN			17.6
HIGHEST DAILY MEAN	9,670	Aug 28	4,600
LOWEST DAILY MEAN	13	Aug 1	1.6
ANNUAL SEVEN-DAY MINIMUM	15	Jul 27	2.2
MAXIMUM PEAK FLOW	---		5,290
MAXIMUM PEAK STAGE	---		13.62
INSTANTANEOUS LOW FLOW	---		1.5
ANNUAL RUNOFF (INCHES)	9.32		6.57
10 PERCENT EXCEEDS	548		529
50 PERCENT EXCEEDS	70		71
90 PERCENT EXCEEDS	25		8.0
			2.4

e Estimated





## MISSISSIPPI RIVER BASIN ABOVE MISSOURI RIVER

05495000 FOX RIVER AT WAYLAND, MO—Continued  
(Ambient Water-Quality Monitoring Network)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1967 to September 1972, November 1999 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, mg/L as CaCO <sub>3</sub> (00900)	Calcium, water, mg/L (00915)	Magnesium, water, mg/L (00925)	Potassium, water, mg/L (00935)	
NOV 01...	1540	Environmental	794	11.9	115	7.4	296	12.5	130	38.3	8.19	8.43	
JAN 04...	1345	Environmental	1,010	14.4	101	7.1	148	.7	--	--	--	--	
MAR 08...	1140	Environmental	8.7	12.9	103	8.0	528	4.9	--	--	--	--	
MAY 02...	1320	Environmental	92	10.3	94	8.1	546	10.7	260	73.7	17.3	4.54	
JUL 26...	1425	Environmental	9.2	6.2	82	8.2	512	28.3	--	--	--	--	
SEP 07...	0820	Environmental	2.7	5.5	64	7.8	519	22.2	--	--	--	--	
SEP 07...	0821	Replicate	--	5.6	65	7.9	519	22.2	--	--	--	--	
Date	Sodium, water, mg/L (00930)	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, titr., mg/L (00450)	Carbonate, wat unfltrd, titr., mg/L (00447)	Chloride, water, mg/L (00940)	Fluoride, water, mg/L (00950)	Sulfate, water, 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, mg/L as N (00608)	Nitrite + nitrate, water, mg/L as N (00631)
NOV 01...	6.97	97	97	118	<1	11.0	.2	24.6	187	354d	1.8	<.04	.53
JAN 04...	--	--	--	--	--	--	--	--	--	1,020d	2.8	.20	1.68
MAR 08...	--	--	--	--	--	--	--	--	--	13	.35	<.04	.52
MAY 02...	15.4	173	175	213	<1	11.8	.2	72.9	--o	16	.47	<.04	.52
JUL 26...	--	--	--	--	--	--	--	--	--	25	.77	<.04	<.06
SEP 07...	--	--	--	--	--	--	--	--	--	37	.73	<.04	.10
SEP 07...	--	--	--	--	--	--	--	--	--	42	.75	<.04	.10
Date	Nitrite, water, mg/L as N (00613)	Orthophosphate, water, mg/L (00671)	Phosphorus, water, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC, col/100 mL (31625)	Aluminum, water, unfltrd, $\mu$ g/L (01106)	Aluminum, water, unfltrd recoverable, $\mu$ g/L (01105)	Arsenic, water, mg/L (01000)	Cadmium, water, mg/L (01025)	Cadmium, water, unfltrd, mg/L (01027)	Copper, water, mg/L (01040)	Iron, water, mg/L (01046)
NOV 01...	E.006n	.12	.15	.59	3,900	3,200k	5	3,500d	1.4	E.03n	.19	2.3	43
JAN 04...	.013	.04	.10	.98	3,100	3,600	--	--	--	--	--	--	--
MAR 08...	E.005n	<.02	<.04	.04	3k	43	--	--	--	--	--	--	--
MAY 02...	<.008	<.02	E.03n	.06	41	82k	2	184	.8	<.04	E.02n	1.5	7
JUL 26...	<.008	<.02	E.03n	.08	640	900k	--	--	--	--	--	--	--
SEP 07...	<.008	<.18d	E.02n	.08	140	160	--	--	--	--	--	--	--
SEP 07...	<.008	<.18d	E.02n	.08	160	160	--	--	--	--	--	--	--

## 05495000 FOX RIVER AT WAYLAND, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 01...	<.08	6.63	22.4	.02	.5	1.1	21
JAN 04...	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--
MAY 02...	<.08	.30	68.7	<.01	.9	.6	2
JUL 26...	--	--	--	--	--	--	--
SEP 07...	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

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

## Null value qualifier codes used in this table:

o -- Insufficient amount of water

## MISSISSIPPI RIVER BASIN ABOVE MISSOURI RIVER

05496000 WYACONDA RIVER ABOVE CANTON, MO

LOCATION.--Lat 40°08'32", long 91°33'57", in SW ¼ SW ¼ NE ¼ sec.28, T.62 N., R.6 W., Lewis County, Hydrologic Unit 07110001, on left bank on downstream side of bridge on State Highway 16, 1.9 mi upstream from Sugar Creek, 2.5 mi west of Canton, and at mile 16.7.

DRAINAGE AREA.--393 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1932 to September 1972, October 1979 to current year.

REVISED RECORDS.--WDR MO-92-1: (M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 517.41 ft above National Geodetic Vertical Datum of 1929. Prior to May 1, 1939, nonrecording gage 500 ft downstream at datum 2.00 ft lower; Sept. 25, 1975, to Sept. 17, 1979, nonrecording gage at present site and at datum 2.00 ft lower.

REMARKS.--Records fair except for estimated daily discharges and discharges below 10 ft<sup>3</sup>/s, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	1,570	362	121	e135	142	91	102	38	21	8.3	5.8
2	15	2,780	277	240	e126	129	81	89	33	20	7.3	4.8
3	17	1,300	214	812	e124	117	78	85	31	20	5.9	3.9
4	17	1,410	166	2,000	e122	116	75	75	33	20	5.4	3.5
5	14	1,410	175	1,460	e134	113	70	68	769	20	6.5	4.0
6	13	602	1,290	829	169	107	69	63	912	20	6.5	4.0
7	13	342	1,680	388	245	104	70	60	212	19	6.8	3.8
8	100	233	1,740	e226	516	99	73	58	105	18	6.3	3.5
9	269	171	731	e176	e339	94	80	55	791	16	5.2	2.0
10	116	132	404	e152	e199	89	77	61	877	14	4.1	3.0
11	57	115	287	e223	e154	87	73	69	866	14	3.3	4.6
12	60	94	222	e620	e178	86	546	240	822	14	3.5	5.1
13	120	79	170	3,070	1,650	84	3,220	1,290	692	14	5.9	5.4
14	186	68	113	1,400	4,030	79	2,160	866	717	13	15	4.7
15	114	65	e82	453	3,280	74	669	419	330	12	28	19
16	69	60	e74	e273	1,070	72	347	216	154	11	20	19
17	47	58	e70	e401	518	71	237	133	93	10	12	12
18	36	56	e67	e273	329	71	186	98	70	11	9.8	9.9
19	32	56	e65	e223	250	70	153	88	58	11	10	7.8
20	28	55	e74	e192	224	70	130	90	48	11	12	7.7
21	27	54	75	e166	243	68	120	68	39	10	16	8.3
22	43	51	e70	e152	239	69	1,350	58	34	9.7	36	7.3
23	1,970	46	e59	e144	202	203	1,660	53	31	8.8	19	6.2
24	822	45	e49	e137	177	294	729	47	28	9.4	11	5.8
25	260	46	e42	e135	164	428	369	42	27	9.2	9.1	5.3
26	357	52	e39	e145	153	316	248	39	24	9.9	8.9	5.6
27	994	645	e39	225	142	220	189	37	24	15	8.0	5.8
28	777	755	e39	377	142	167	152	34	24	12	7.4	5.6
29	1,110	266	e45	244	---	137	128	32	21	11	6.6	6.0
30	442	251	e54	185	---	119	115	38	21	10	6.2	8.5
31	323	---	e73	e151	---	105	---	47	---	9.4	6.2	---
MEAN	273	429	285	503	545	129	452	152	264	13.7	10.2	6.60
MAX	1,970	2,780	1,740	3,070	4,030	428	3,220	1,290	912	21	36	19
MIN	13	45	39	121	122	68	69	32	21	8.8	3.3	2.0
IN.	0.80	1.22	0.84	1.48	1.44	0.38	1.28	0.45	0.75	0.04	0.03	0.02

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

MEAN	137	164	157	162	358	401	429	462	366	276	138	152
MAX	1,677	1,463	1,399	946	1,529	1,346	1,809	3,196	2,594	2,792	2,242	2,510
(WY)	(1987)	(1986)	(1983)	(1946)	(2001)	(1985)	(1983)	(1996)	(1947)	(1993)	(1970)	(1986)
MIN	0.00	0.00	0.47	0.10	2.05	7.53	3.38	1.69	0.66	0.02	0.00	0.02
(WY)	(1954)	(1954)	(1954)	(1954)	(1989)	(1957)	(1956)	(1934)	(1956)	(1934)	(1934)	(1953)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

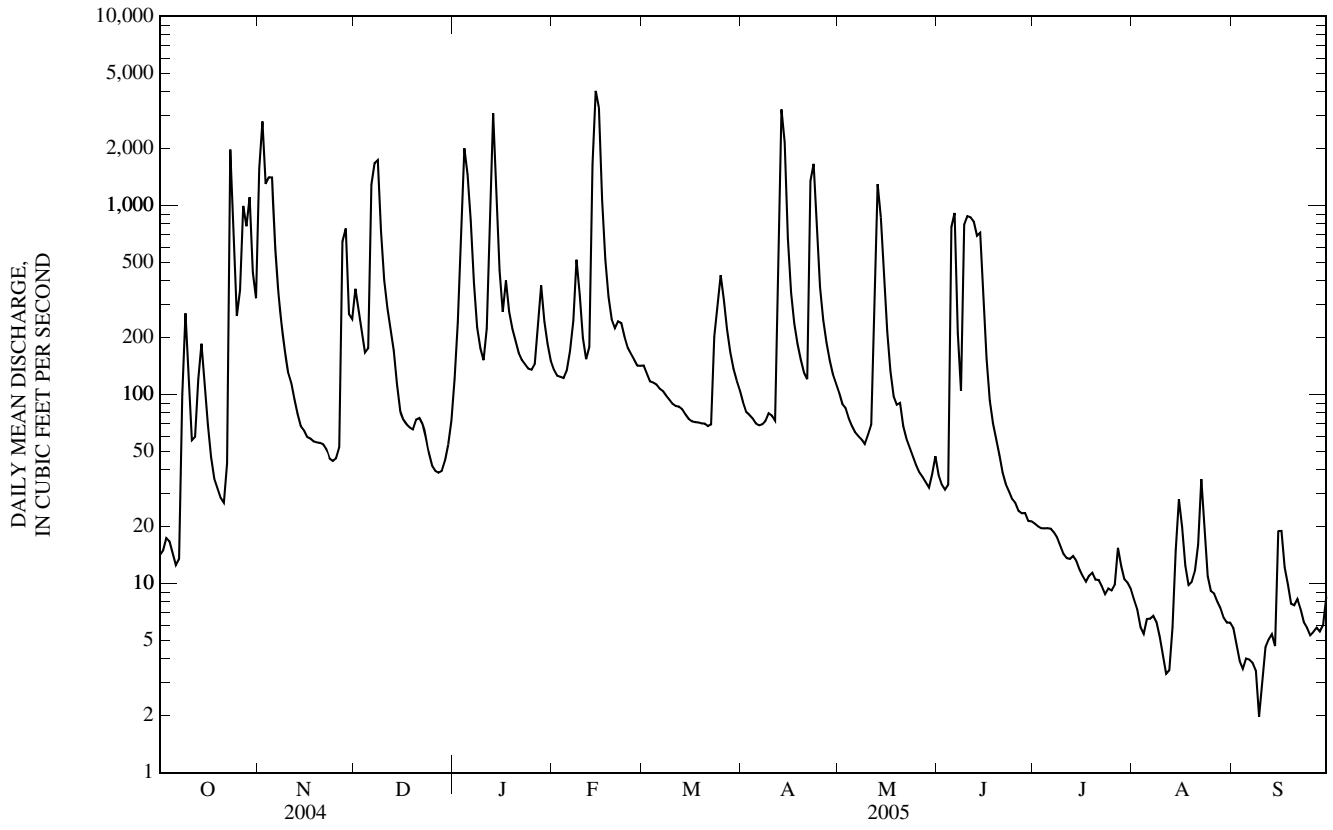
FOR 2005 WATER YEAR

FOR PERIOD OF RECORD

ANNUAL MEAN	287	252	266
HIGHEST ANNUAL MEAN			861
LOWEST ANNUAL MEAN			14.2
HIGHEST DAILY MEAN	7,500	Aug 30	4,030
LOWEST DAILY MEAN	10	Aug 2	2.0
ANNUAL SEVEN-DAY MINIMUM	13	Jul 27	3.4
MAXIMUM PEAK FLOW	---		4,270
MAXIMUM PEAK STAGE	---		17.87
INSTANTANEOUS LOW FLOW	---		1.6
ANNUAL RUNOFF (INCHES)	9.93	8.72	9.20
10 PERCENT EXCEEDS	678	741	552
50 PERCENT EXCEEDS	70	74	32
90 PERCENT EXCEEDS	21	7.3	2.3

e Estimated

05496000 WYACONDA RIVER ABOVE CANTON, MO—Continued



## 05497000 NORTH FABIUS RIVER AT MONTICELLO, MO

LOCATION.--Lat 40°06'29", long 91°42'52", in SW ¼ SE ¼ sec.6, T.61 N., R.7 W., Lewis County, Hydrologic Unit 07110002, on right bank upstream from bridge on State Highway 16, 1.0 mi south of Monticello, and 19.0 mi upstream from Middle Fabius River.

DRAINAGE AREA.--452 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1922 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 925: 1937-39(M). WSP 1308: 1922(M), 1924-26(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 540.73 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 22, 1930, nonrecording gage at site 400 ft downstream at datum 0.03 ft lower; Nov. 22, 1930, to Nov. 28, 1967, nonrecording gage at present site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	1,240	236	e128	e182	194	107	176	65	36	11	13
2	34	2,240	204	232	e170	172	97	158	60	34	11	12
3	35	842	178	600	e163	160	90	134	58	33	9.9	13
4	34	931	156	1,420	e159	156	86	112	72	32	9.4	12
5	30	904	158	1,040	e157	152	83	102	878	32	11	11
6	29	418	922	574	e205	143	83	97	879	30	9.4	11
7	30	276	1,510	294	315	137	108	91	422	28	8.8	11
8	64	197	1,410	e195	600	130	105	89	246	27	10	12
9	349	157	533	e152	342	125	124	86	2,490	24	8.9	11
10	152	136	320	e134	225	116	106	84	1,320	23	7.3	10
11	81	124	254	e208	180	111	94	87	1,660	22	6.7	10
12	148	114	208	480	199	110	1,600	696	1,590	25	6.2	10
13	376	103	173	2,750	2,110	105	5,930	1,310	1,770	26	10	10
14	244	98	e125	1,610	4,690	98	3,180	1,180	1,190	24	19	23
15	120	96	e99	e502	2,000	92	1,010	801	476	23	30	46
16	82	94	e87	e274	955	88	591	347	277	21	22	48
17	62	93	e79	e206	555	86	421	229	195	20	17	35
18	53	92	e76	e176	393	86	335	177	143	19	17	21
19	53	95	e75	e162	313	85	294	173	115	19	19	18
20	50	96	e84	e146	286	84	252	204	90	17	31	17
21	47	95	e83	e135	301	80	225	135	75	16	42	18
22	51	92	e78	e160	299	83	1,660	115	68	16	50	15
23	1,280	88	e67	e223	256	169	1,670	103	68	17	30	14
24	408	90	e55	e162	228	250	1,090	92	57	16	24	13
25	179	94	e47	e138	215	319	544	85	50	13	24	13
26	145	93	e43	e152	200	266	375	78	45	14	23	14
27	864	410	e43	700	186	219	299	75	42	25	18	14
28	785	406	e44	431	192	175	251	71	39	17	17	14
29	783	205	e52	e280	---	148	221	68	36	17	17	16
30	362	201	e60	e236	---	133	201	72	35	14	18	18
31	296	---	e80	e199	---	123	---	71	---	12	15	---
MEAN	234	337	243	455	574	142	708	235	484	22.3	17.8	16.8
MAX	1,280	2,240	1,510	2,750	4,690	319	5,930	1,310	2,490	36	50	48
MIN	29	88	43	128	157	80	83	68	35	12	6.2	10
IN.	0.60	0.83	0.62	1.16	1.32	0.36	1.75	0.60	1.19	0.06	0.05	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2005, BY WATER YEAR (WY)

MEAN	179	191	170	193	355	447	519	467	415	289	139	175
MAX	1,496	1,347	1,521	1,679	1,346	2,336	3,171	2,941	3,148	3,320	2,149	1,966
(WY)	(1987)	(1929)	(1983)	(1974)	(1937)	(1979)	(1973)	(1996)	(1947)	(1993)	(1970)	(1970)
MIN	0.01	1.06	0.73	0.14	2.43	7.91	7.15	1.71	0.07	0.00	0.00	0.51
(WY)	(1957)	(1957)	(1957)	(1940)	(1989)	(1956)	(1956)	(1934)	(1934)	(1934)	(1934)	(1953)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

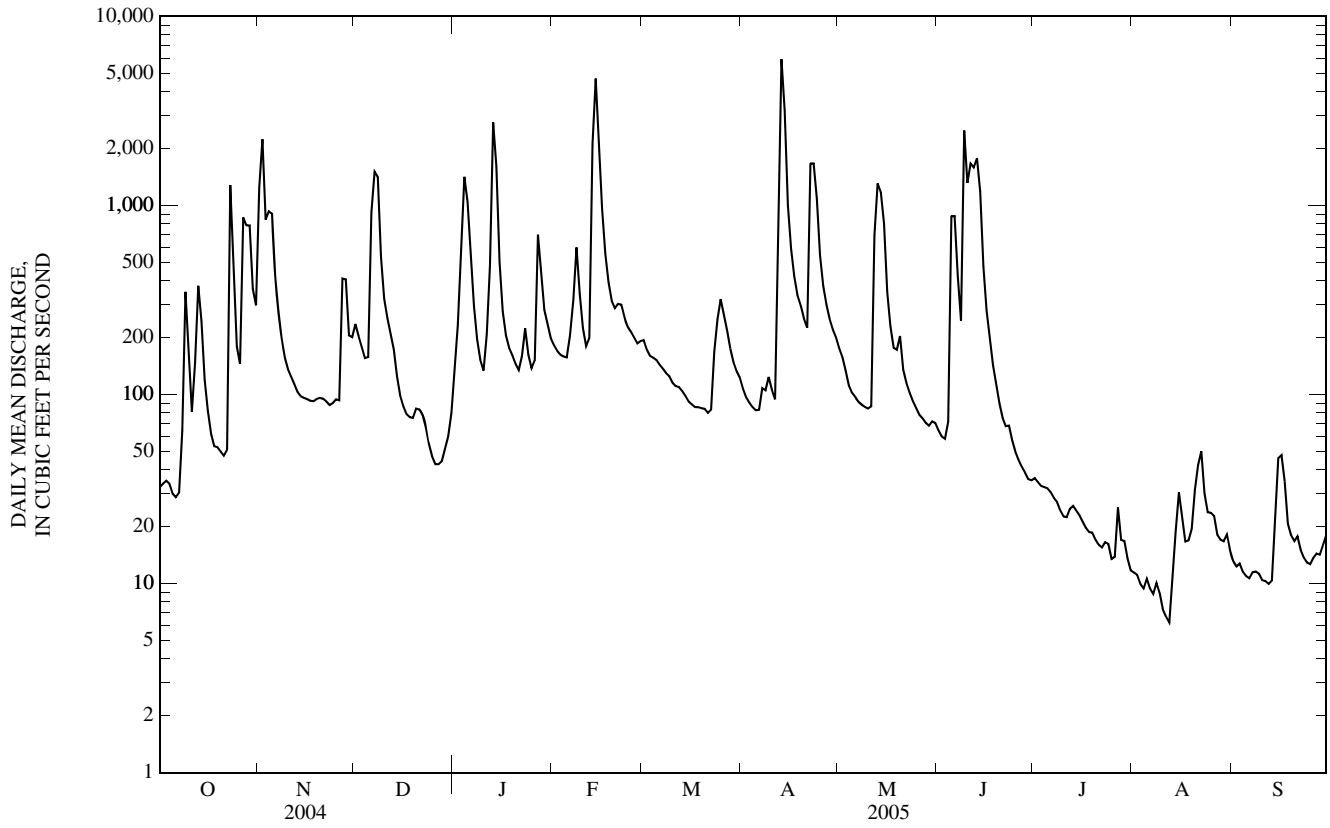
FOR 2005 WATER YEAR

WATER YEARS 1922 - 2005

ANNUAL MEAN	282	286	295
HIGHEST ANNUAL MEAN			923
LOWEST ANNUAL MEAN			18.0
HIGHEST DAILY MEAN	9,050	Aug 29	17,900
LOWEST DAILY MEAN	23	Aug 1	0.00
ANNUAL SEVEN-DAY MINIMUM	26	Jul 26	0.00
MAXIMUM PEAK FLOW	---		20,700
MAXIMUM PEAK STAGE	---		33.03
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	8.50	6.1	8.86
10 PERCENT EXCEEDS	449	791	568
50 PERCENT EXCEEDS	87	102	46
90 PERCENT EXCEEDS	35	15	4.4

e Estimated

05497000 NORTH FABIVS RIVER AT MONTICELLO, MO—Continued



## 05498000 MIDDLE FABIUS RIVER NEAR MONTICELLO, MO

LOCATION.--Lat 40°05'37", long 91°44'08", in SE ¼ sec.12, T.61 N., R.8 W., Lewis County, Hydrologic Unit 07110002, on left on downstream side of bridge pier on State Highway 16, 2.5 mi southwest of Monticello, 8.0 mi downstream from Radish Branch, and 17 mi upstream from mouth.

DRAINAGE AREA.--393 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1945 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 540.46 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 4, 1967, nonrecording gage at present site and datum.

REMARKS.--Records fair 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 June 17, 1945, reached a stage of 23.3 ft, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	1,410	293	77	e107	148	96	123	29	20	6.7	7.3
2	14	2,440	254	174	e104	144	83	108	29	18	7.2	9.4
3	14	1,230	212	730	e101	120	73	96	26	18	6.7	7.9
4	15	1,060	172	1,770	e100	113	67	87	53	18	6.0	6.2
5	16	1,050	192	1,380	115	109	65	81	501	17	7.1	4.9
6	16	510	1,000	776	125	102	65	75	621	16	5.7	4.2
7	15	287	1,390	359	189	100	68	71	194	15	5.0	3.8
8	35	204	1,220	e213	432	93	68	68	97	14	4.6	3.5
9	403	155	621	e159	384	86	88	67	819	14	5.1	3.0
10	182	128	330	e147	e197	78	97	64	1,500	13	4.9	2.8
11	83	113	242	e275	e141	72	81	76	773	12	4.5	2.7
12	195	100	193	718	e156	69	913	236	2,140	12	4.1	2.7
13	952	87	154	2,360	1,750	67	3,810	1,300	854	11	6.0	2.4
14	404	78	125	1,710	3,900	64	4,840	1,130	594	11	13	2.8
15	157	72	92	503	3,190	59	5,780	506	275	10	12	117
16	97	69	e80	235	837	56	739	235	167	9.8	8.6	7.1
17	70	67	e71	182	497	54	348	150	109	9.4	7.5	6.3
18	56	67	e67	e154	337	54	248	113	78	9.0	11	2.5
19	61	67	e64	e138	259	54	199	95	61	8.7	15	1.5
20	62	65	e65	e126	237	53	170	146	49	8.6	12	1.0
21	50	64	e66	e120	247	51	175	113	41	7.9	13	7.9
22	71	61	e60	e133	267	57	894	79	36	7.3	18	6.0
23	1,610	57	e52	249	222	134	2,360	65	34	7.1	17	5.4
24	390	58	39	148	184	281	1,280	56	29	6.8	34	5.2
25	172	60	33	127	165	494	471	49	25	6.3	27	7.0
26	197	71	33	116	158	439	292	43	39	8.2	17	7.2
27	1,060	658	32	145	147	296	224	39	23	20	13	5.8
28	890	536	36	247	148	208	185	35	21	17	10	5.3
29	875	294	41	145	---	162	159	33	20	10	8.9	5.1
30	486	225	49	118	---	134	139	32	19	7.6	7.7	5.1
31	262	---	63	111	---	113	---	30	---	7.0	6.9	---
MEAN	288	378	237	447	525	131	803	174	309	11.9	10.5	14.2
MAX	1,610	2,440	1,390	2,360	3,900	494	5,780	1,300	2,140	20	34	117
MIN	14	57	32	77	100	51	65	30	19	6.3	4.1	2.4
IN.	0.84	1.07	0.69	1.31	1.39	0.38	2.28	0.51	0.88	0.03	0.03	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 2005, BY WATER YEAR (WY)

MEAN	157	173	162	200	333	439	495	486	309	292	123	147
MAX	1,368	1,481	1,418	1,179	1,359	1,521	2,719	2,776	2,582	3,038	1,758	1,815
(WY)	(1987)	(1986)	(1983)	(1969)	(1969)	(1979)	(1973)	(1996)	(1947)	(1993)	(1970)	(1970)
MIN	0.00	0.00	0.11	0.31	1.23	6.32	3.83	1.48	1.04	0.78	0.56	0.09
(WY)	(1954)	(1954)	(1957)	(1957)	(1957)	(1957)	(1956)	(1989)	(1956)	(1988)	(1988)	(1953)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

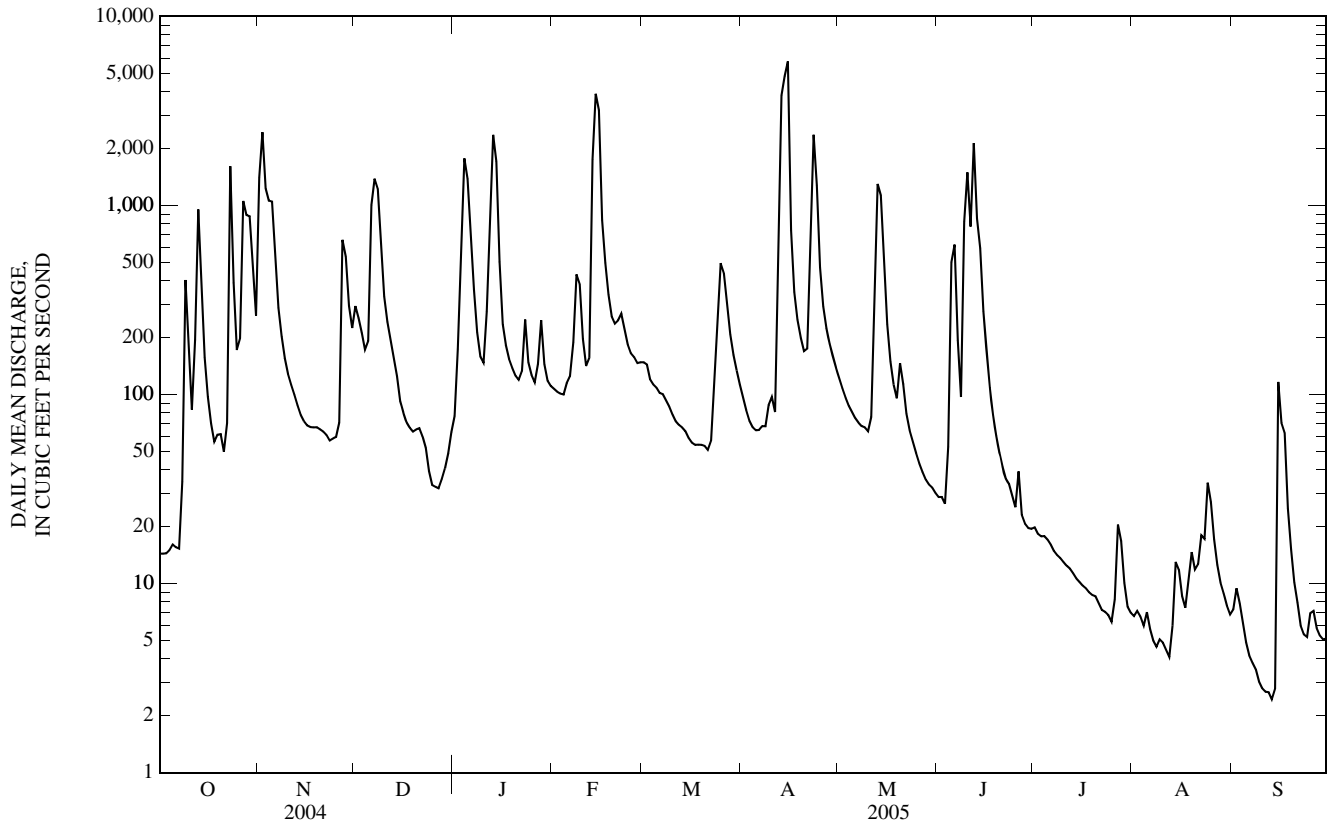
WATER YEARS 1946 - 2005

ANNUAL MEAN	262	274	276
HIGHEST ANNUAL MEAN			837
LOWEST ANNUAL MEAN			18.7
HIGHEST DAILY MEAN	4,200	Aug 28	16,500
LOWEST DAILY MEAN	12	Aug 1	0.00
ANNUAL SEVEN-DAY MINIMUM	13	Jul 27	0.00
MAXIMUM PEAK FLOW	---		17,700
MAXIMUM PEAK STAGE	---		27.14
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	9.08	9.47	9.54
10 PERCENT EXCEEDS	571	753	570
50 PERCENT EXCEEDS	72	78	39
90 PERCENT EXCEEDS	22	7.2	2.8

e Estimated



05498000 MIDDLE FABIUS RIVER NEAR MONTICELLO, MO—Continued



## 05500000 SOUTH FABIUS RIVER NEAR TAYLOR, MO

LOCATION.--Lat 39°53'48", long 91°34'49", in SW 1/4 NW 1/4 sec.21, T.59 N., R.6 W., Marion County, Hydrologic Unit 07110003, on right bank at downstream side of county highway bridge, 4.5 mi southwest of Taylor, 5.0 mi downstream from Grassy Creek, and 5.3 mi upstream from confluence with North Fabius River.

DRAINAGE AREA.--620 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year. Prior to December 1934 monthly discharge only published in WSP 1308.

REVISED RECORDS.--WSP 825: 1936.

GAGE.--Water-stage recorder. Datum of gage is 482.91 ft above National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers). Prior to May 14, 1936, nonrecording gage at bridge 4.0 mi downstream at datum 21.94 ft lower; May 14, 1936, to Dec. 2, 1940, nonrecording gage at present site and datum.

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 1928 reached a stage of 18.49 ft, from floodmarks, at present site and datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	4,280	665	113	145	207	184	131	31	17	6.5	4.8
2	22	4,910	703	129	145	201	155	116	30	15	5.5	4.0
3	20	3,120	584	1,090	144	190	136	105	28	14	4.2	3.4
4	19	2,350	459	3,670	150	172	122	95	29	14	3.9	3.0
5	18	2,400	403	5,400	166	157	112	86	838	14	8.6	2.6
6	17	1,270	1,790	3,230	173	148	108	79	1,220	14	9.9	2.3
7	19	684	3,990	1,280	222	142	106	74	676	13	9.5	2.0
8	317	441	2,880	834	295	134	103	73	347	12	8.2	1.9
9	318	331	1,580	634	441	127	98	70	212	11	5.7	2.2
10	295	268	835	789	374	123	97	66	1,460	10	4.3	1.7
11	250	226	557	957	249	114	96	64	831	10	3.3	1.5
12	1,090	194	414	1,340	252	107	684	82	1,260	10	2.7	1.7
13	1,450	170	325	6,110	2,270	101	2,330	399	924	11	3.9	2.4
14	1,460	152	260	4,770	5,920	95	3,310	1,220	1,320	11	5.4	3.8
15	658	137	206	1,540	5,450	91	3,370	991	788	9.0	5.1	7.6
16	330	127	197	e787	2,380	89	1,530	461	356	7.6	4.7	8.5
17	216	121	e167	e399	1,080	86	628	264	213	6.5	4.1	6.3
18	350	117	e154	e267	728	82	415	187	136	6.5	4.6	4.8
19	639	115	e144	e226	521	80	281	154	95	7.2	8.2	4.1
20	291	111	e130	e198	432	79	230	123	72	6.1	15	4.0
21	244	106	e124	e179	400	76	198	97	56	5.1	14	3.7
22	207	101	e118	e171	375	86	191	144	47	4.6	27	4.8
23	1,020	97	e114	e187	346	174	513	115	40	5.0	19	11
24	2,180	111	e102	e173	302	267	1,140	81	33	4.0	12	11
25	746	137	e85	e154	262	535	751	65	29	3.0	10	9.7
26	591	259	81	e140	234	946	385	55	26	3.9	8.5	8.7
27	3,360	2,380	83	e135	215	738	256	49	23	9.1	7.3	8.1
28	3,030	3,420	74	e135	210	482	201	43	21	6.7	6.2	6.9
29	1,420	1,450	78	e168	---	346	173	39	19	5.5	5.4	6.2
30	874	779	83	177	---	271	149	37	17	7.5	6.6	5.6
31	613	---	93	154	---	221	---	34	---	7.0	6.2	---
MEAN	712	1,012	564	1,146	853	215	602	181	373	9.04	7.92	4.94
MAX	3,360	4,910	3,990	6,110	5,920	946	3,370	1,220	1,460	17	27	11
MIN	17	97	74	113	144	76	96	34	17	3.0	2.7	1.5
IN.	1.32	1.82	1.05	2.13	1.43	0.40	1.08	0.34	0.67	0.02	0.01	0.01

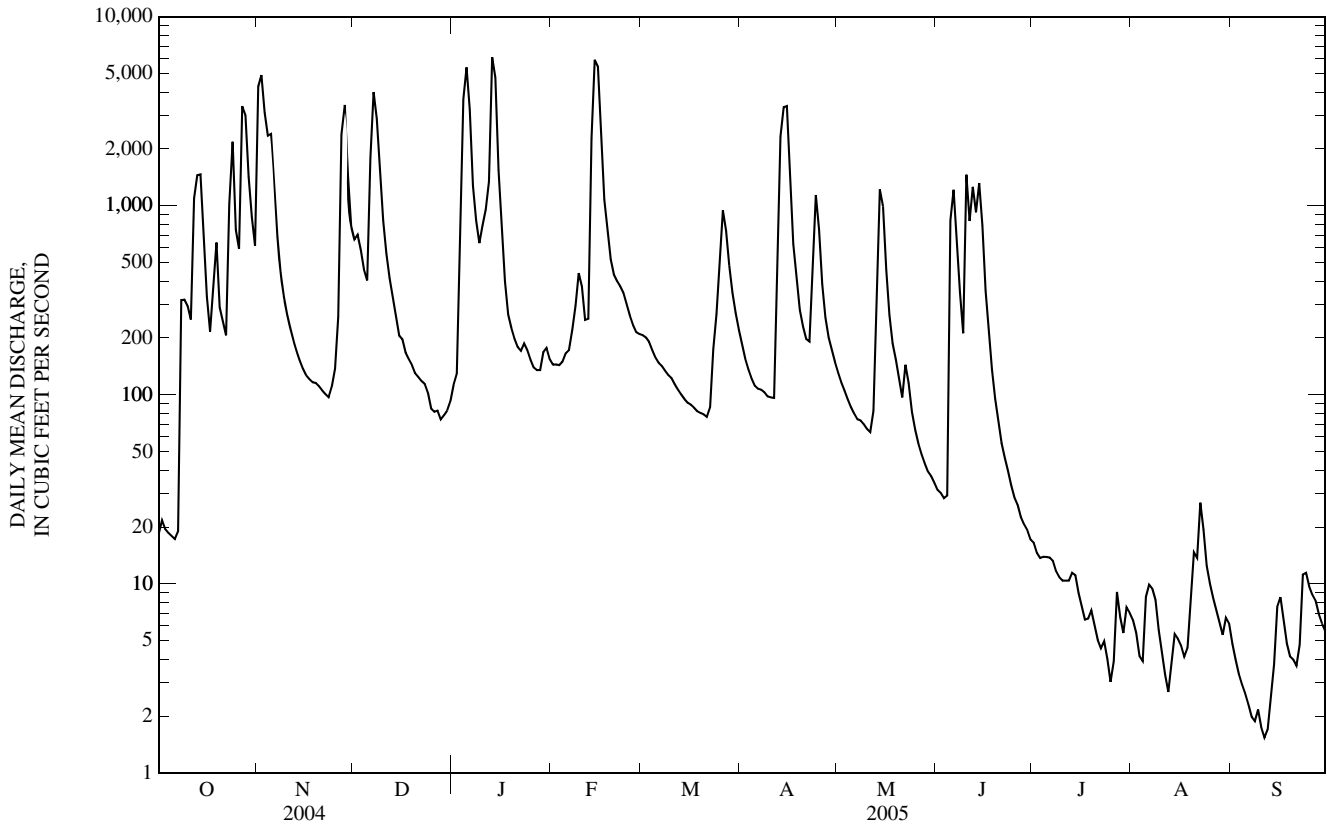
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2005, BY WATER YEAR (WY)

MEAN	261	298	264	305	531	683	755	767	491	371	177	190
MAX	2,690	3,103	2,137	2,000	2,340	2,659	3,989	4,078	3,891	3,647	2,335	2,841
(WY)	(1987)	(1986)	(1983)	(1965)	(1982)	(1973)	(1973)	(1995)	(1947)	(1993)	(1970)	(1970)
MIN	0.00	0.00	1.52	2.12	4.78	15.0	13.4	7.56	5.68	0.71	0.00	0.39
(WY)	(1957)	(1957)	(1964)	(1954)	(1989)	(1956)	(1989)	(1989)	(1977)	(1988)	(1936)	(1953)

05500000 SOUTH FABIUS RIVER NEAR TAYLOR, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1935 - 2005	
ANNUAL MEAN	492		470		417	
HIGHEST ANNUAL MEAN					1,147	1993
LOWEST ANNUAL MEAN					27.4	1989
HIGHEST DAILY MEAN	10,100	Aug 28	6,110	Jan 13	18,800	Jun 8, 1947
LOWEST DAILY MEAN	15	Aug 1,16,17	1.5	Sep 11	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	18	Jul 28	1.9	Sep 6	0.00	Several Years
MAXIMUM PEAK FLOW	---		6,860	Jan 13	19,700	Jun 8, 1947
MAXIMUM PEAK STAGE	---		10.29	Jan 13	19.50	Jun 8, 1947
INSTANTANEOUS LOW FLOW	---		1.4	Sep 11	0.00	Several Years
ANNUAL RUNOFF (INCHES)	10.81		10.29		9.15	
10 PERCENT EXCEEDS	1,240		1,270		966	
50 PERCENT EXCEEDS	147		131		60	
90 PERCENT EXCEEDS	39		5.4		4.4	

e Estimated



05500000 SOUTH FABIUS RIVER NEAR TAYLOR, MO—Continued  
(Ambient Water-Quality Monitoring Network)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1972 to August 1973, October 1979 to October 1989, November 1992 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 13...	1000	Environmental	1,480	8.3	81	6.9	204	12.9	--	--	--	--
NOV 02...	0905	Environmental	4,930	10.3	98	7.1	176	12.4	72	21.8	4.27	8.12
DEC 15...	1240	Environmental	206	17.8	126	7.5	381	1.0	--	--	--	--
JAN 05...	0900	Environmental	5,850	16.2	119	7.0	182	2.1	66	19.6	4.19	5.46
FEB 01...	1315	Environmental	144	16.2	119	7.8	482	2.5	--	--	--	--
MAR 08...	1320	Environmental	133	13.0	111	7.8	458	7.8	--	--	--	--
APR 04...	1420	Environmental	120	16.3	175	8.8	408	17.3	--	--	--	--
MAY 02...	1510	Environmental	114	9.7	95	7.9	409	13.7	180	54.1	11.5	4.13
JUN 07...	0930	Environmental	725	6.2	78	7.4	317	23.4	--	--	--	--
JUL 26...	1210	Environmental	2.5	6.8	93	8.2	461	30.7	210	59.3	15.7	5.54
AUG 02...	0955	Environmental	5.8	6.6	85	8.1	406	27.4	--	--	--	--
SEP 07...	1100	Environmental	2.1	8.1	102	8.4	350	26.8	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, 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 13...	--	--	--	--	--	--	--	--	--	328d	1.9	<.04	1.15
NOV 02...	3.60	56	56	68	<1	7.06	.1	9.9	124	340d	1.9	<.04	.56
DEC 15...	--	--	--	--	--	--	--	--	--	19	.87	.21	.76
JAN 05...	4.54	47	45	55	<1	9.88	.1	14.3	120	760d	2.3	.15	1.51
FEB 01...	--	--	--	--	--	--	--	--	--	<10	.34	.07	.89
MAR 08...	--	--	--	--	--	--	--	--	--	<10	.44	<.04	.25
APR 04...	--	--	--	--	--	--	--	--	--	<10	.78	<.04	<.06
MAY 02...	11.8	137	139	170	<1	11.1	.2	38.8	256	20	.73	<.04	1.01
JUN 07...	--	--	--	--	--	--	--	--	--	252d	2.3	.26	7.53d
JUL 26...	16.1	160	159	194	<1	14.3	.2	47.0	290	<10	.73	E.03n	E.03n
AUG 02...	--	--	--	--	--	--	--	--	--	43	.78	<.04	<.06
SEP 07...	--	--	--	--	--	--	--	--	--	<10	.54	<.04	E.04n

05500000 SOUTH FABIUS RIVER NEAR TAYLOR, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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)	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)	Iron, water, fltrd, µg/L (01046)
OCT 13...	.015	.05	.13	.52	5,600k	6,000k	--	--	--	--	--	--	--
NOV 02...	E.006n	.13	.17	.58	2,700	3,400k	7	3,750d	1.4	<.04	.14	2.2	108
DEC 15...	.013	.04	.06	.13	120	190	--	--	--	--	--	--	--
JAN 05...	.011	.06	.12	.74	3,500	3,700	9	6,650d	.8	<.04	.23	2.0	90
FEB 01...	.009	<.02	<.04	E.03n	3k	16k	--	--	--	--	--	--	--
MAR 08...	<.008	<.02	<.04	E.03n	3k	1k	--	--	--	--	--	--	--
APR 04...	.008	<.02	<.04	E.04n	4k	6k	--	--	--	--	--	--	--
MAY 02...	.010	<.02	E.03n	.09	21	130	2	439	.9	<.04	E.02n	1.5	15
JUN 07...	.187	.03	.07	.33	2,000	1,500k	--	--	--	--	--	--	--
JUL 26...	<.008	<.02	.05	.09	4k	12k	4	260	3.5	<.04	E.04n	1.5	9
AUG 02...	<.008	.02	E.04n	.09	87	100	--	--	--	--	--	--	--
SEP 07...	<.008	<.09d	E.03n	.05	7k	3k	--	--	--	--	--	--	--

Date	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 13...	--	--	--	--	--	--	--
NOV 02...	E.07n	7.45	22.2	.02	E.3n	.9	19
DEC 15...	--	--	--	--	--	--	--
JAN 05...	.11	12.5	59.3	.03	E.3n	3.9	34
FEB 01...	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--
APR 04...	--	--	--	--	--	--	--
MAY 02...	<.08	.65	121	<.01	.5	<.6	3
JUN 07...	--	--	--	--	--	--	--
JUL 26...	<.08	.49	121	E.01n	.7	E.6n	E2n
AUG 02...	--	--	--	--	--	--	--
SEP 07...	--	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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

## MISSISSIPPI RIVER BASIN ABOVE MISSOURI RIVER

## 05501000 NORTH RIVER AT PALMYRA, MO

LOCATION.--Lat 39°49'05", long 91°31'04", in SE ¼ SW ¼ sec.13, T.58 N., R.6 W., Marion County, Hydrologic Unit 07110004, on right bank 100 ft upstream from City Waterworks Dam, 1,000 ft upstream from upstream bridge on dual U.S. Highways 24 and 61, 0.5 mi north of Palmyra, and 7.0 mi upstream from mouth.

DRAINAGE AREA.--373 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 464.81 ft above National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers). Prior to Oct. 1, 1945, nonrecording gage at bridge 1,000 ft downstream; Oct. 1, 1945, to June 22, 1951, nonrecording gage at present site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage prior to 1934, about 28.0 ft, from floodmarks, date unknown, at site 1,000 ft downstream, at present datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	7,820	407	e71	91	117	74	55	13	7.4	2.5	5.3
2	23	2,560	400	e66	90	110	65	51	14	5.5	2.4	3.5
3	21	1,120	301	e700	88	104	60	48	14	4.2	2.4	2.7
4	19	1,280	233	e2,020	86	99	54	46	16	4.5	2.9	2.1
5	18	999	240	5,680	86	91	54	42	470	4.6	3.5	2.2
6	16	526	1,790	1,600	93	87	57	40	399	4.0	13	2.5
7	17	332	4,480	625	148	84	56	37	204	3.8	6.3	2.4
8	254	244	1,300	426	185	83	53	37	109	3.4	3.6	2.4
9	160	195	615	317	161	80	48	38	138	3.8	2.5	3.2
10	75	163	388	597	136	72	45	38	414	3.4	3.3	3.6
11	46	141	280	801	113	69	45	38	294	3.8	4.1	3.8
12	416	122	225	1,250	132	67	869	36	241	4.9	3.8	3.8
13	601	106	184	8,280	3,930	64	713	74	160	4.7	6.9	6.1
14	214	94	149	1,590	4,090	61	372	199	117	4.2	6.8	41
15	142	86	127	e601	1,470	59	210	99	90	3.7	5.5	13
16	94	79	122	e315	548	56	140	75	60	3.6	10	12
17	68	77	113	e223	339	54	115	51	44	3.5	6.9	6.8
18	95	74	108	e189	255	56	98	37	35	3.1	4.4	3.9
19	445	73	96	e167	209	55	89	31	26	2.3	9.6	3.1
20	180	71	90	e149	197	53	126	28	21	2.2	15	4.5
21	127	67	e78	e134	191	49	233	25	18	2.1	11	3.9
22	95	63	e72	e122	171	54	133	23	16	1.6	8.5	2.9
23	184	59	e66	112	153	93	114	21	16	1.4	6.3	2.9
24	441	79	68	128	143	107	93	21	13	1.4	6.1	2.8
25	208	232	62	113	135	102	80	20	9.8	1.3	11	2.8
26	175	770	61	111	124	145	77	18	9.3	1.3	11	5.1
27	2,120	4,550	59	106	120	150	71	16	8.5	2.2	8.7	4.3
28	794	1,840	61	97	122	119	65	15	7.6	2.4	64	e3.0
29	370	752	63	99	---	99	62	15	6.9	2.0	119	2.4
30	211	402	66	97	---	87	59	15	6.5	1.6	15	2.0
31	159	---	74	95	---	83	---	14	---	2.2	7.4	---
MEAN	252	833	399	867	486	84.2	144	42.0	99.7	3.23	12.4	5.33
MAX	2,120	7,820	4,480	8,280	4,090	150	869	199	470	7.4	119	41
MIN	16	59	59	66	86	49	45	14	6.5	1.3	2.4	2.0
IN.	0.78	2.49	1.23	2.68	1.36	0.26	0.43	0.13	0.30	0.01	0.04	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 2005, BY WATER YEAR (WY)

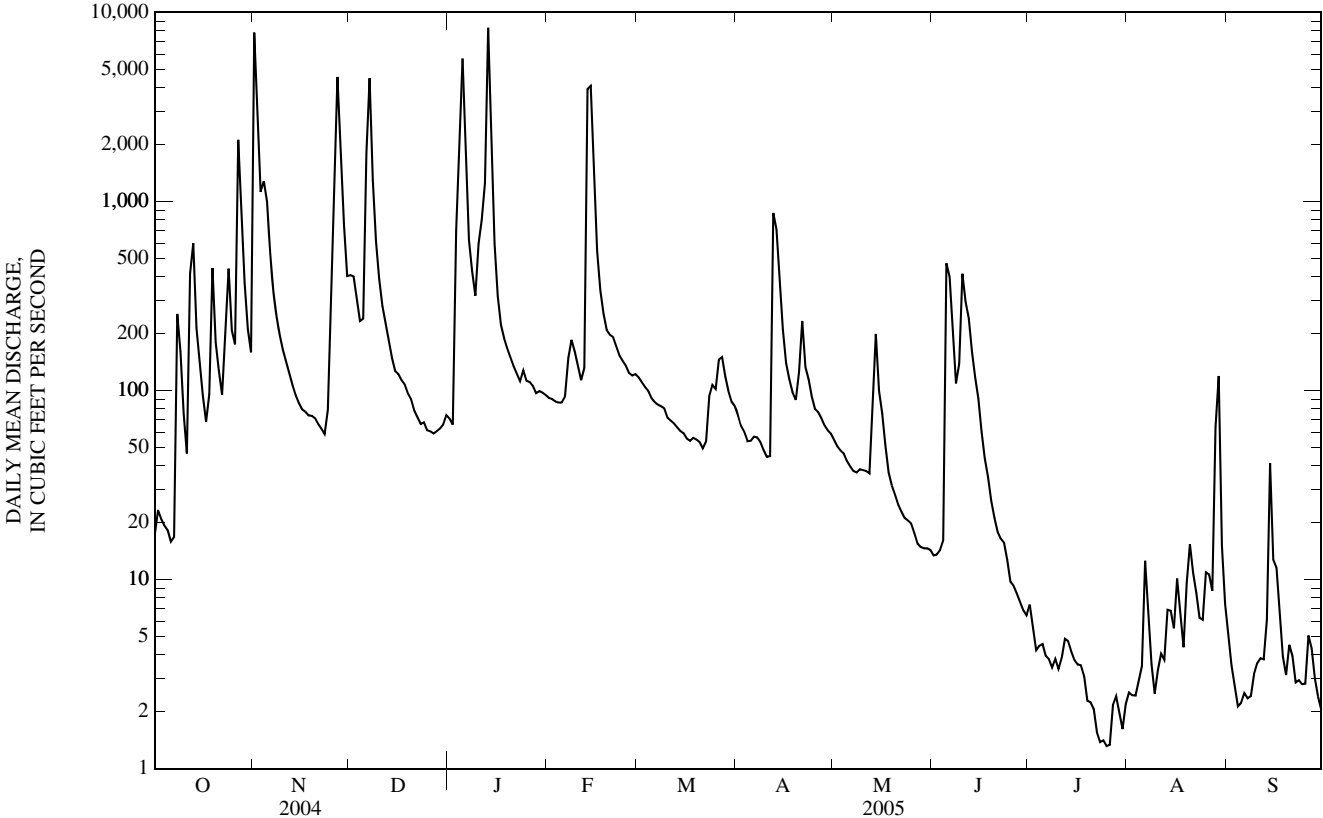
MEAN	146	182	172	189	318	427	472	488	304	232	116	119
MAX	1,742	2,639	1,832	991	1,720	2,783	2,691	2,322	2,296	2,100	1,357	1,351
(WY)	(1987)	(1986)	(1983)	(1969)	(1982)	(1973)	(1973)	(2002)	(1947)	(1993)	(1970)	(1970)
MIN	0.00	0.00	0.23	0.66	0.92	6.54	24.8	15.5	4.77	0.52	0.00	0.17
(WY)	(1957)	(1957)	(1957)	(1954)	(1954)	(1956)	(2000)	(1989)	(1936)	(1936)	(1936)	(1940)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1935 - 2005
ANNUAL MEAN	311	267	260
HIGHEST ANNUAL MEAN			748
LOWEST ANNUAL MEAN			22.1
HIGHEST DAILY MEAN	16,700	8,280	32,600
LOWEST DAILY MEAN	2.2	1.3	0.00
ANNUAL SEVEN-DAY MINIMUM	4.0	1.6	0.00
MAXIMUM PEAK FLOW	---	12,700	57,400
MAXIMUM PEAK STAGE	---	20.97	29.70
INSTANTANEOUS LOW FLOW	---	1.3	0.00
ANNUAL RUNOFF (INCHES)	11.36	9.73	9.48
10 PERCENT EXCEEDS	504	443	454
50 PERCENT EXCEEDS	66	69	39
90 PERCENT EXCEEDS	17	3.4	3.4

e Estimated

05501000 NORTH RIVER AT PALMYRA, MO—Continued



## MISSISSIPPI RIVER BASIN ABOVE MISSOURI RIVER

## 05502000 BEAR CREEK AT HANNIBAL, MO

LOCATION.--Lat 39°40'43", long 91°24'39", in SE ¼ NW ¼ sec.1, T.56 N., R.5 W., Ralls County, Hydrologic Unit 07110004, at bridge on Industrial Drive, on right downstream bank, and 4.65 mi upstream from mouth.

DRAINAGE AREA.--31.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1938 to September 1942, October 1947 to current year in reports of the U.S. Geological Survey. Monthly discharge only for some periods published in WSP 1308. October 1936 to November 1938 (gage-height and discharge measurements only) in reports of the Missouri Department of Natural Resources.

REVISED RECORDS.--WSP 1115: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 508.91 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 26, 1948, nonrecording gage; Mar. 26, 1948, to Sept. 30, 1953, water-stage recorder at datum 2.00 ft higher; Oct. 1, 1953, to Oct. 30, 1961, at present datum; Oct. 31, 1961, to Sept. 5, 1972, water-stage recorder 400 ft downstream at present datum; Sept. 6, 1972, to July 2, 1986, water-stage recorder 525 ft upstream at present datum.

REMARKS.--Records fair except for estimated daily discharges and discharges below 15 ft<sup>3</sup>/s, which are poor. Flow partially regulated by Bear Creek flood control reservoir, 1.0 mi upstream, since Aug. 7, 1961. U.S.G.S. satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,500 ft<sup>3</sup>/s, Aug. 3, 1957; gage height, 14.05 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	164	115	12	8.3	9.5	4.5	4.0	1.9	0.51	0.00	1.5
2	3.4	99	214	15	9.2	8.0	4.4	3.9	1.6	0.49	0.00	0.74
3	2.8	99	205	91	8.6	8.8	4.4	4.1	1.6	0.39	0.00	0.37
4	2.4	144	25	85	10	10	4.3	4.1	2.0	0.65	0.00	0.17
5	2.2	238	36	86	9.9	8.7	4.1	4.1	2.7	0.66	0.00	0.16
6	2.1	274	96	28	12	8.2	4.4	3.9	2.1	0.75	0.00	0.07
7	3.3	107	103	93	41	8.7	4.5	3.9	1.7	0.59	0.00	0.06
8	12	12	32	224	26	7.5	4.1	3.9	2.3	0.41	0.00	0.07
9	5.3	24	229	209	16	7.0	4.0	3.9	2.2	0.28	0.00	0.13
10	3.3	13	e150	210	11	6.9	3.7	3.8	3.0	0.25	0.35	0.11
11	2.5	11	e40	199	11	6.8	4.2	3.6	3.0	0.31	0.02	0.09
12	28	10	27	208	20	6.6	30	3.7	2.1	0.37	0.78	0.03
13	31	9.3	19	203	133	6.1	12	3.7	2.6	0.53	3.3	0.69
14	61	8.6	16	283	179	5.8	64	3.6	2.3	0.44	4.1	0.62
15	11	8.4	14	269	263	5.6	7.9	3.0	2.0	0.41	2.4	0.97
16	6.2	8.7	14	256	240	5.6	6.1	2.8	1.5	0.48	1.4	0.98
17	4.8	8.4	14	234	186	5.6	5.6	2.7	1.2	0.43	1.0	0.89
18	7.0	8.9	13	98	22	5.4	5.3	2.9	1.1	0.07	0.77	0.67
19	13	10	12	21	17	5.3	4.8	2.9	0.92	0.02	1.5	0.89
20	6.8	9.1	12	22	22	5.1	6.1	2.7	0.93	0.05	1.4	1.5
21	5.5	7.7	11	18	18	5.1	8.1	2.5	0.72	0.17	0.95	0.64
22	4.8	7.4	10	13	14	11	7.1	2.4	0.60	0.21	0.82	0.32
23	5.9	7.4	9.7	13	12	17	6.0	2.2	0.60	0.06	0.62	0.55
24	5.7	33	8.8	9.7	11	8.6	4.9	2.0	0.51	0.01	0.28	0.64
25	4.4	49	9.3	11	11	9.8	4.7	1.9	0.48	0.00	0.74	0.80
26	26	62	9.1	11	9.3	7.8	5.2	1.7	0.54	0.65	1.3	1.3
27	61	89	8.2	8.9	9.1	6.8	4.6	1.7	0.94	0.12	1.4	0.96
28	82	64	8.9	7.9	12	6.2	4.4	1.8	0.79	0.00	1.5	1.00
29	10	61	9.4	8.8	---	5.8	4.4	1.8	0.67	0.07	7.0	0.82
30	7.1	62	10	8.6	---	5.3	4.4	1.9	0.55	0.01	7.9	0.70
31	6.0	---	11	8.9	---	4.9	---	1.9	---	0.00	5.6	---
MEAN	13.9	57.0	48.1	95.6	47.9	7.40	8.07	3.00	1.50	0.30	1.46	0.61
MAX	82	274	229	283	263	17	64	4.1	3.0	0.75	7.9	1.5
MIN	2.1	7.4	8.2	7.9	8.3	4.9	3.7	1.7	0.48	0.00	0.00	0.03
IN.	0.52	2.05	1.79	3.56	1.61	0.28	0.29	0.11	0.05	0.01	0.05	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2005<sup>a</sup>, BY WATER YEAR (WY)

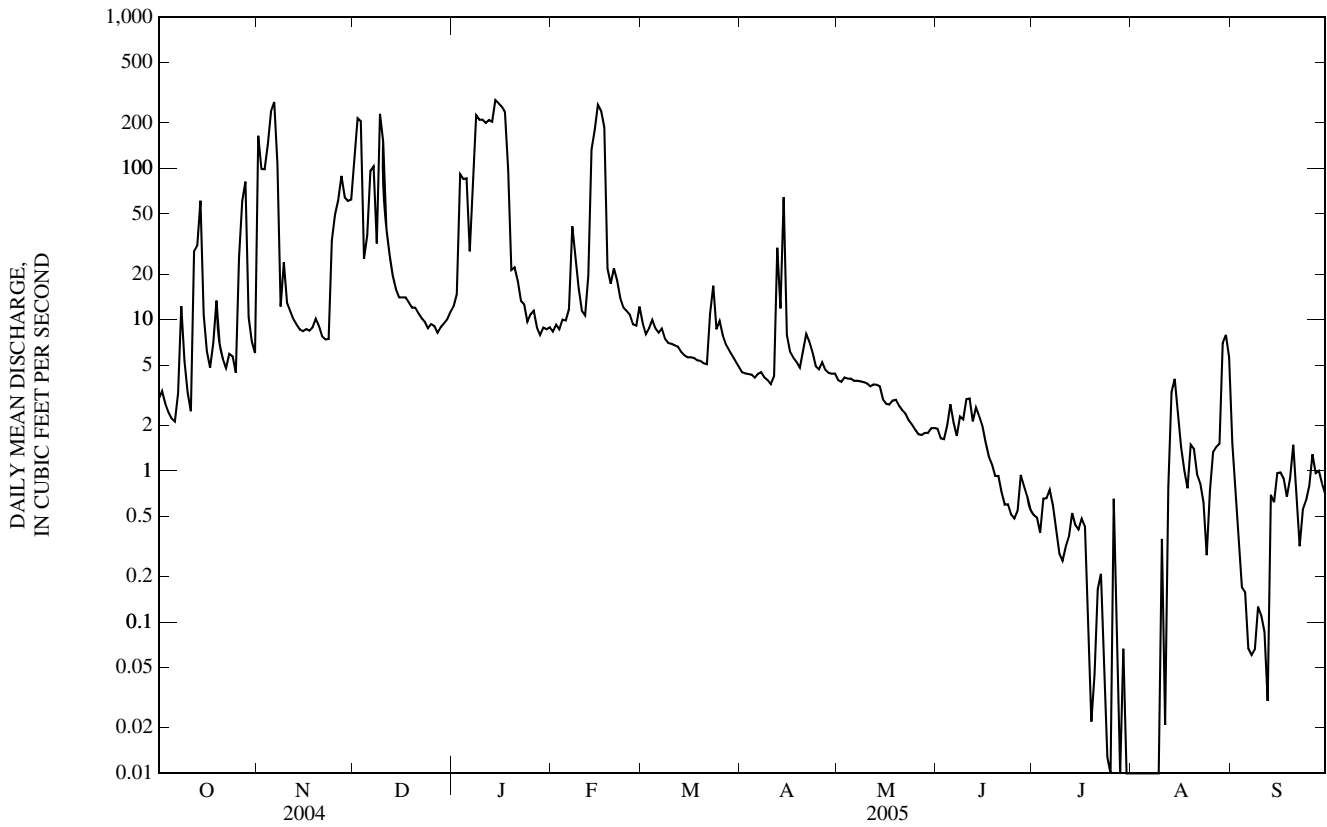
MEAN	13.3	19.9	18.9	17.0	31.7	36.1	36.6	38.3	20.8	17.8	14.4	14.7
MAX	116	225	155	95.6	136	125	193	183	76.5	193	141	190
(WY)	(1970)	(1986)	(1983)	(2005)	(1997)	(1973)	(1973)	(2002)	(1982)	(1981)	(1993)	(1970)
MIN	0.02	0.15	0.11	0.27	0.85	2.86	2.94	2.25	0.58	0.03	0.15	0.01
(WY)	(1964)	(1964)	(1964)	(1977)	(1964)	(1981)	(2000)	(2000)	(1963)	(1977)	(1962)	(1988)



05502000 BEAR CREEK AT HANNIBAL, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1962 - 2005 <sup>a</sup>	
ANNUAL MEAN	22.8		23.6		23.2	
HIGHEST ANNUAL MEAN					57.9	1993
LOWEST ANNUAL MEAN					5.33	1989
HIGHEST DAILY MEAN	451	Aug 31	283	Jan 14	1,470	Sep 25, 1970
LOWEST DAILY MEAN	0.00	Aug 18	0.00	Several Days	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	0.06	Aug 13	0.00	Jul 31	0.00	Several Years
MAXIMUM PEAK FLOW	---		432	Nov 1	3,120	Sep 23, 1970
MAXIMUM PEAK STAGE	---		5.25	Nov 1	9.96	Aug 27, 2004
INSTANTANEOUS LOW FLOW	---		0.00	Several Days	0.00	Several Years
ANNUAL RUNOFF (INCHES)	10.03		10.34		10.19	
10 PERCENT EXCEEDS	48		71		51	
50 PERCENT EXCEEDS	6.1		5.1		4.5	
90 PERCENT EXCEEDS	1.3		0.32		0.58	

e Estimated  
<sup>a</sup> Post-regulation period.



## 05502300 NORTH FORK SALT RIVER AT HAGERS GROVE, MO

LOCATION.--Lat 39°49'48", long 92°13'50", in NE ¼ SW ¼ sec.15, T.58 N., R.12 W., Shelby County, Hydrologic Unit 07110005, at bridge on State Highway 151, 200 ft downstream from old channel carrying Bear Creek, 0.25 mi west of Hagers Grove, 2.5 mi upstream from Ten Mile Creek, and at mile 143.8.

DRAINAGE AREA.--365 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1974 to current year. Prior to October 1983 published as "Salt River at Hagers Grove, Mo.". September 1939 to August 1974, gage-height and miscellaneous measurements published by the U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 702.30 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges and discharges below 10 ft<sup>3</sup>/s, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1947 reached a stage of 19.7 ft, discharge 26,900 ft<sup>3</sup>/s, according to information furnished by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	2,770	345	95	55	86	67	69	30	16	8.3	2.5
2	12	2,140	307	240	e48	71	58	60	27	19	7.5	2.0
3	12	686	251	1,590	e44	58	52	53	26	19	5.4	2.1
4	20	1,920	206	2,220	e42	54	50	50	153	15	8.8	1.4
5	17	931	265	1,790	e42	51	47	48	661	13	8.7	1.3
6	12	348	1,390	516	69	47	46	43	229	11	6.8	1.3
7	14	216	1,420	336	235	46	46	41	110	9.7	13	1.3
8	263	152	1,140	262	480	45	48	39	1,550	9.0	19	1.7
9	770	117	436	211	204	40	58	43	2,130	8.6	11	1.5
10	178	97	284	346	113	37	52	43	766	7.8	7.8	1.4
11	83	83	212	422	115	36	59	41	1,920	6.8	7.2	1.3
12	163	70	172	1,150	180	36	4,730	348	1,160	6.5	5.8	1.4
13	1,110	60	148	3,460	3,780	33	4,860	700	978	6.0	9.9	1.5
14	320	54	e93	579	3,980	30	1,220	812	705	5.5	15	1.5
15	141	50	e75	e313	980	27	410	263	237	5.1	37	15
16	84	48	e81	e220	421	26	259	145	135	5.1	34	14
17	59	47	e70	e171	254	27	185	105	93	5.2	12	39
18	88	46	e65	e139	181	27	145	85	68	5.1	8.1	44
19	81	47	e56	e124	140	27	114	81	51	4.2	4.8	15
20	46	48	e52	e114	142	26	93	181	41	4.2	7.2	8.2
21	35	48	e51	e106	182	24	101	105	35	4.4	22	3.9
22	92	42	e48	e98	157	29	815	137	31	3.8	37	2.4
23	703	39	e41	e91	114	98	953	198	27	3.1	12	2.8
24	179	54	e34	e82	92	334	505	119	24	2.5	6.9	2.5
25	89	69	e30	e80	95	659	208	73	21	1.7	6.4	2.7
26	732	90	e30	e71	85	415	142	56	19	9.4	4.2	3.2
27	2,200	1,380	e31	e65	71	237	117	46	17	28	3.2	5.2
28	576	888	e33	e61	84	166	99	43	15	18	3.7	21
29	360	359	e38	e58	---	118	83	38	14	13	3.2	13
30	296	292	e42	58	---	98	76	35	15	11	2.6	4.9
31	249	---	e61	54	---	81	---	32	---	9.2	2.8	---
MEAN	290	440	242	488	442	99.6	523	133	376	9.22	11.0	7.30
MAX	2,200	2,770	1,420	3,460	3,980	659	4,860	812	2,130	28	37	44
MIN	10	39	30	54	42	24	46	32	14	1.7	2.6	1.3
IN.	0.92	1.34	0.77	1.54	1.26	0.31	1.60	0.42	1.15	0.03	0.03	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

MEAN	170	267	202	132	335	391	442	603	271	342	94.4	100
MAX	1,201	1,426	1,319	576	1,599	1,177	2,036	2,631	1,074	3,033	441	937
(WY)	(1987)	(1986)	(1983)	(1999)	(1982)	(1979)	(1983)	(1995)	(1984)	(1993)	(1982)	(1993)
MIN	2.02	4.40	2.20	1.13	5.18	22.5	8.20	10.4	3.55	4.01	3.90	3.41
(WY)	(1989)	(1976)	(1977)	(1977)	(1989)	(1989)	(1989)	(1980)	(1988)	(1988)	(1984)	(1988)

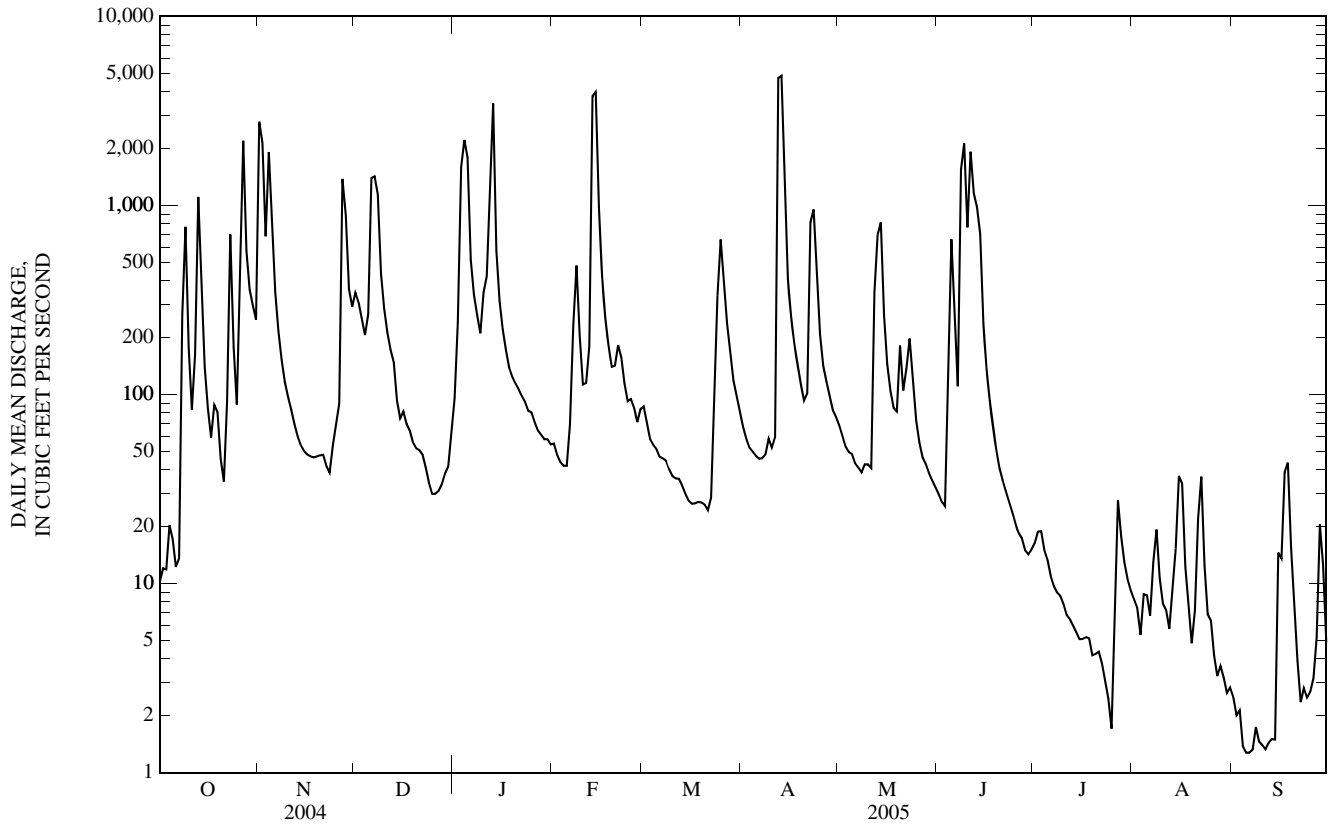
SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1974 - 2005
ANNUAL MEAN	210	253	279
HIGHEST ANNUAL MEAN			767
LOWEST ANNUAL MEAN			30.1
HIGHEST DAILY MEAN	4,220	Aug 28	4,860
LOWEST DAILY MEAN	6.9	Aug 1	1.3
ANNUAL SEVEN-DAY MINIMUM	8.2	Jul 26	1.4
MAXIMUM PEAK FLOW	---		6,720
MAXIMUM PEAK STAGE	---		14.39
INSTANTANEOUS LOW FLOW	---		0.99
ANNUAL RUNOFF (INCHES)	7.82		9.40
10 PERCENT EXCEEDS	443		692
50 PERCENT EXCEEDS	60		54
90 PERCENT EXCEEDS	15		5.1

e Estimated

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

05502300 NORTH FORK SALT RIVER AT HAGERS GROVE, MO—Continued



## 05502500 NORTH FORK SALT RIVER NEAR SHELBYNA, MO

LOCATION.--Lat 39°44'29", long 92°02'28", in SW ¼ NE ¼ sec.17, T.57 N., R.10 W., Shelby County, Hydrologic Unit 07110005, on right bank near downstream end of bridge on State Highway 15, 3.0 mi north of Shelbina, 15.0 mi upstream from Black Creek, and at mile 122.3.

DRAINAGE AREA.--481 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1930 to February 1934, March 1934 to September 1972. March 1988 to current year. Prior to March 1988 published as "Salt River near Shelbina, Mo.". Fragmentary record prior to October 1933. Monthly discharge only for period October 1933 to February 1934 published in WSP 1308.

GAGE.--Water-stage recorder and crest-stage gage with concrete control since Mar. 25, 1988. Datum of gage is 664.58 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 1, 1934, nonrecording gage at site 100 ft downstream at present datum; Mar. 1, 1934, to Nov. 2, 1962, water-stage recorder at site 175 ft downstream at present datum; Nov. 3, 1962, to Sept. 30, 1972, water-stage recorder at site 100 ft upstream at present datum; Oct. 1, 1972, to Sept. 30, 1979, gage-height records collected by U.S. Army Corps of Engineers, St. Louis District, at site 100 ft downstream; Oct. 1, 1979, to Sept. 1981, gage-height data collected by the U.S. Geological Survey at site 100 ft downstream.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Water is pumped from river at the gage by the city of Shelbina. U. S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1928 reached a stage of 23.54 ft, from floodmarks, discharge 18,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	2,870	393	100	63	121	86	72	36	27	8.2	4.4
2	28	4,730	386	173	62	105	72	62	35	26	7.6	4.0
3	29	1,560	302	1,230	e56	90	65	56	34	29	7.0	4.0
4	30	2,490	238	3,730	e54	86	61	53	233	28	8.3	3.8
5	36	1,640	238	3,580	e53	81	59	52	995	25	13	4.1
6	32	611	1,480	1,650	74	76	59	53	450	23	6.4	3.7
7	39	355	1,920	696	150	73	58	50	160	21	5.9	3.4
8	231	236	1,600	425	580	67	58	51	479	18	8.4	4.3
9	818	166	694	302	320	62	65	54	3,860	17	10	4.3
10	302	134	410	523	172	56	68	55	1,200	16	6.0	4.4
11	100	117	288	688	122	53	69	56	2,120	13	4.4	2.6
12	93	100	214	1,290	200	52	2,500	144	1,670	13	4.3	2.3
13	1,000	85	166	4,630	2,560	49	5,690	551	985	13	5.6	3.1
14	568	76	109	2,750	6,050	46	4,230	1,080	981	12	10	4.7
15	187	70	e92	e470	3,830	42	639	373	345	11	11	6.1
16	98	68	e107	e275	798	41	324	172	176	11	24	15
17	66	67	e93	e198	442	39	216	115	118	11	16	19
18	118	68	e82	e163	276	39	164	89	90	11	8.2	35
19	142	68	e65	e145	202	39	132	83	74	8.9	8.9	24
20	73	67	e59	e134	191	39	111	120	62	9.1	9.7	11
21	51	63	e60	e127	227	38	109	116	54	8.2	11	6.9
22	43	60	e50	e113	230	41	478	94	49	8.7	22	5.4
23	846	57	e46	e103	173	75	1,040	166	42	9.2	25	5.4
24	430	77	37	e93	140	270	740	174	38	6.9	11	5.7
25	163	106	33	e91	126	697	275	86	35	6.4	8.8	5.8
26	381	208	35	e85	115	613	167	61	34	8.1	7.9	6.7
27	3,560	1,910	35	e73	105	344	130	49	31	20	6.4	7.6
28	1,240	1,860	40	e73	113	225	108	43	28	18	7.6	13
29	521	601	48	e71	---	164	92	41	26	11	8.1	19
30	353	350	58	68	---	130	81	39	26	8.9	5.2	19
31	298	---	85	63	---	107	---	36	---	10	4.2	---
MEAN	384	696	305	778	624	128	598	137	482	14.8	9.68	8.59
MAX	3,560	4,730	1,920	4,630	6,050	697	5,690	1,080	3,860	29	25	35
MIN	22	57	33	63	53	38	58	36	26	6.4	4.2	2.3
IN.	0.92	1.61	0.73	1.86	1.35	0.31	1.39	0.33	1.12	0.04	0.02	0.02

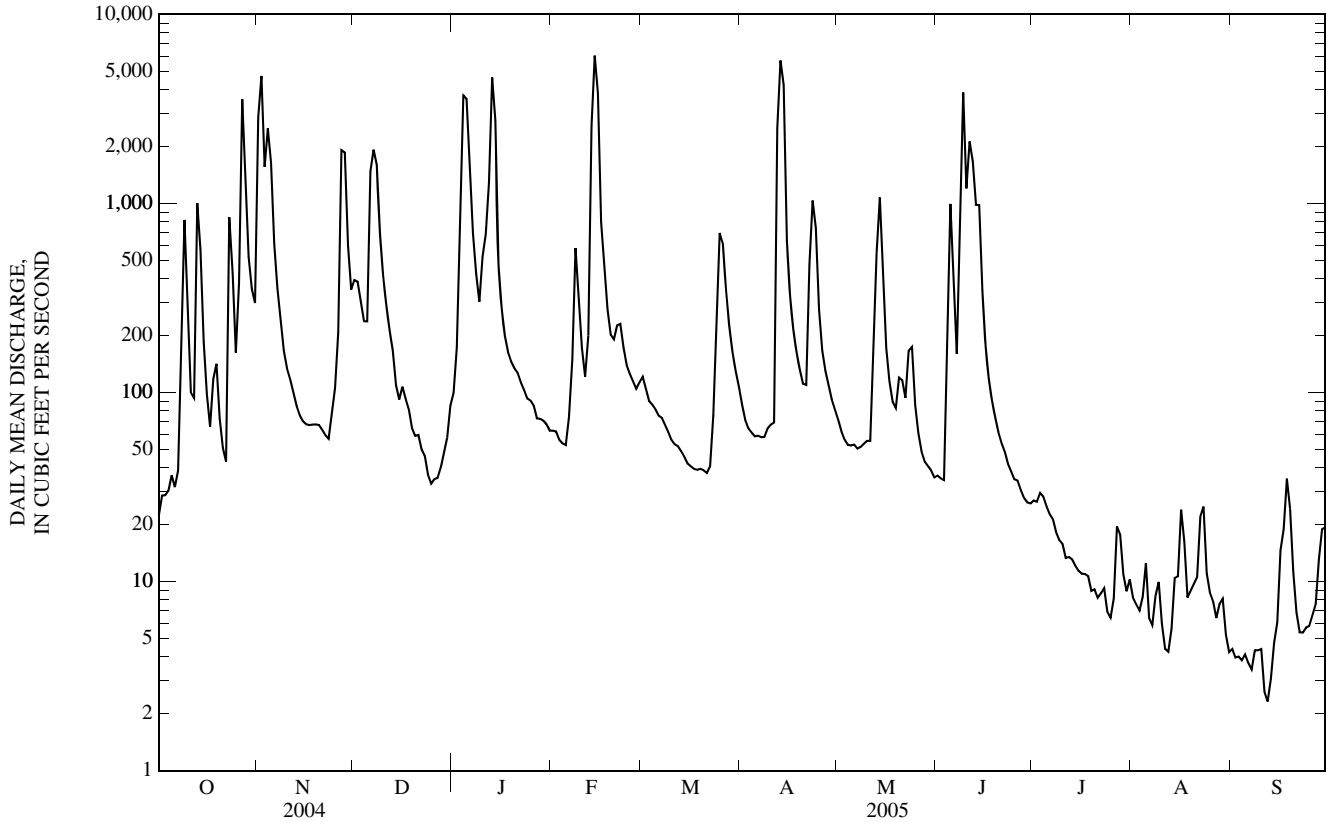
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	143	179	158	218	377	440	528	550	427	321	128	152
MAX	1,208	1,327	835	1,319	1,475	1,417	1,944	3,559	4,171	4,119	1,214	1,831
(WY)	(1999)	(1993)	(1972)	(1965)	(1997)	(1948)	(1944)	(2002)	(1947)	(1993)	(1970)	(1970)
MIN	0.00	0.00	0.00	0.01	1.80	6.41	7.24	12.2	2.93	0.00	0.00	0.00
(WY)	(1953)	(1954)	(1954)	(1954)	(1934)	(1956)	(1989)	(2000)	(1988)	(1934)	(1936)	(1953)

e Estimated

05502500 NORTH FORK SALT RIVER NEAR SHELBYNA, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	321		344		304	
HIGHEST ANNUAL MEAN					1,037	1993
LOWEST ANNUAL MEAN					36.2	1989
HIGHEST DAILY MEAN	5,980	Aug 29	6,050	Feb 14	20,500	May 14, 2002
LOWEST DAILY MEAN	14	Aug 17	2.3	Sep 12	0.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	19	Feb 4	3.5	Sep 7	0.00	Many Years
MAXIMUM PEAK FLOW	---		6,650	Feb 14	24,600	May 13, 2002
MAXIMUM PEAK STAGE	---		16.69	Feb 14	27.40	Jun 7, 1947
INSTANTANEOUS LOW FLOW	---		1.8	Sep 12	0.00	Many Years
ANNUAL RUNOFF (INCHES)	9.09		9.70		8.58	
10 PERCENT EXCEEDS	754		829		660	
50 PERCENT EXCEEDS	73		69		33	
90 PERCENT EXCEEDS	24		7.8		2.2	



## 05503800 CROOKED CREEK NEAR PARIS, MO

LOCATION.--Lat 39°35'05", long 91°59'37", NE ¼ NW ¼ SW ¼ sec.2, T.55 N., R.10 W., Monroe County, Hydrologic Unit 07110005, on right bank downstream from county road bridge, 7.0 mi north of Paris, 1.4 mi north of State Route 15, and at mile 8.9.

DRAINAGE AREA.--80.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1979 to current year. March 1966 to October 1979 published in report of the U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 650.00 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 8, 1967, wire-weight gage and Nov. 9, 1967, to Sept. 30, 1979, recording gage at datum 50 ft lower.

REMARKS.--Records fair 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 April 21, 1973 reached a stage of 15.53 ft; discharge, 12,100 ft<sup>3</sup>/s, according to information furnished by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	793	49	8.7	14	17	15	3.5	1.5	0.84	0.00	0.00
2	1.5	739	55	9.9	13	16	13	3.0	1.4	0.78	0.00	0.00
3	1.3	91	48	452	13	16	13	2.9	1.4	0.69	0.00	0.00
4	1.3	288	35	622	13	15	12	2.8	46	0.80	0.00	0.00
5	1.3	96	40	1,090	13	14	12	2.7	460	0.82	0.00	0.00
6	1.1	35	278	479	14	14	12	2.6	129	0.86	0.00	0.00
7	2.7	22	572	85	20	14	12	2.6	23	0.89	0.00	0.00
8	213	15	239	52	26	14	12	3.2	11	0.85	0.00	0.00
9	80	12	67	40	26	13	11	3.2	236	0.72	0.00	0.00
10	21	9.4	45	91	20	13	11	2.8	69	0.66	0.00	0.00
11	11	8.1	34	162	18	12	12	2.5	192	0.55	0.00	0.00
12	8.3	7.2	29	360	19	12	159	3.0	50	0.49	0.00	0.00
13	19	7.0	23	1,450	722	12	75	26	91	0.43	0.00	0.00
14	21	6.9	17	331	894	11	23	30	92	0.36	0.03	0.00
15	15	6.5	13	52	129	11	13	13	20	0.31	0.02	0.00
16	9.4	6.3	12	35	58	11	9.4	6.1	8.7	0.25	0.00	0.00
17	7.1	6.1	11	25	39	11	7.4	3.9	5.4	0.20	0.00	0.00
18	11	6.5	11	21	31	11	6.2	2.9	3.9	0.18	0.00	0.00
19	34	7.0	e9.5	20	26	11	5.4	2.4	3.1	0.15	0.00	0.00
20	17	6.4	8.4	21	26	11	7.9	2.2	2.5	0.10	0.00	e0.00
21	10	6.0	8.5	21	28	11	43	2.0	2.1	0.06	0.00	e0.00
22	7.9	5.9	7.2	19	25	16	19	3.1	1.9	0.04	0.00	0.00
23	7.1	5.9	5.8	15	22	39	13	18	1.7	0.01	0.00	0.00
24	48	34	4.8	14	20	34	7.5	9.1	1.6	0.00	0.00	0.00
25	19	70	4.6	15	19	34	5.9	4.3	1.5	0.00	0.00	0.00
26	116	154	5.2	15	18	39	5.6	2.8	1.4	0.00	0.01	0.00
27	477	787	5.2	14	17	33	4.8	2.2	1.5	0.01	0.01	0.00
28	105	501	5.4	14	18	26	4.0	1.9	1.3	0.00	0.00	0.00
29	32	76	6.3	13	---	21	3.9	1.7	1.1	0.00	0.00	0.00
30	19	48	6.9	14	---	19	3.9	1.6	0.98	0.00	0.00	0.00
31	13	---	8.3	14	---	16	---	1.6	---	0.00	0.00	---
MEAN	42.9	129	53.7	180	82.2	17.6	18.4	5.47	48.7	0.36	0.00	0.00
MAX	477	793	572	1,450	894	39	159	30	460	0.89	0.03	0.00
MIN	1.1	5.9	4.6	8.7	13	11	3.9	1.6	0.98	0.00	0.00	0.00
IN.	0.62	1.79	0.77	2.59	1.07	0.25	0.26	0.08	0.68	0.01	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2005, BY WATER YEAR (WY)

MEAN	24.3	58.5	51.3	36.7	76.7	75.0	82.4	136	67.9	67.7	29.3	34.3
MAX	321	550	247	180	359	244	319	669	250	554	228	510
(WY)	(1987)	(1986)	(1983)	(2005)	(1985)	(1998)	(1983)	(1995)	(1998)	(1993)	(2004)	(1993)
MIN	0.00	0.00	0.00	0.00	0.00	0.07	0.16	1.53	0.03	0.00	0.00	0.00
(WY)	(1980)	(1981)	(1989)	(1989)	(1989)	(1989)	(1989)	(1988)	(1988)	(1988)	(1988)	(1983)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

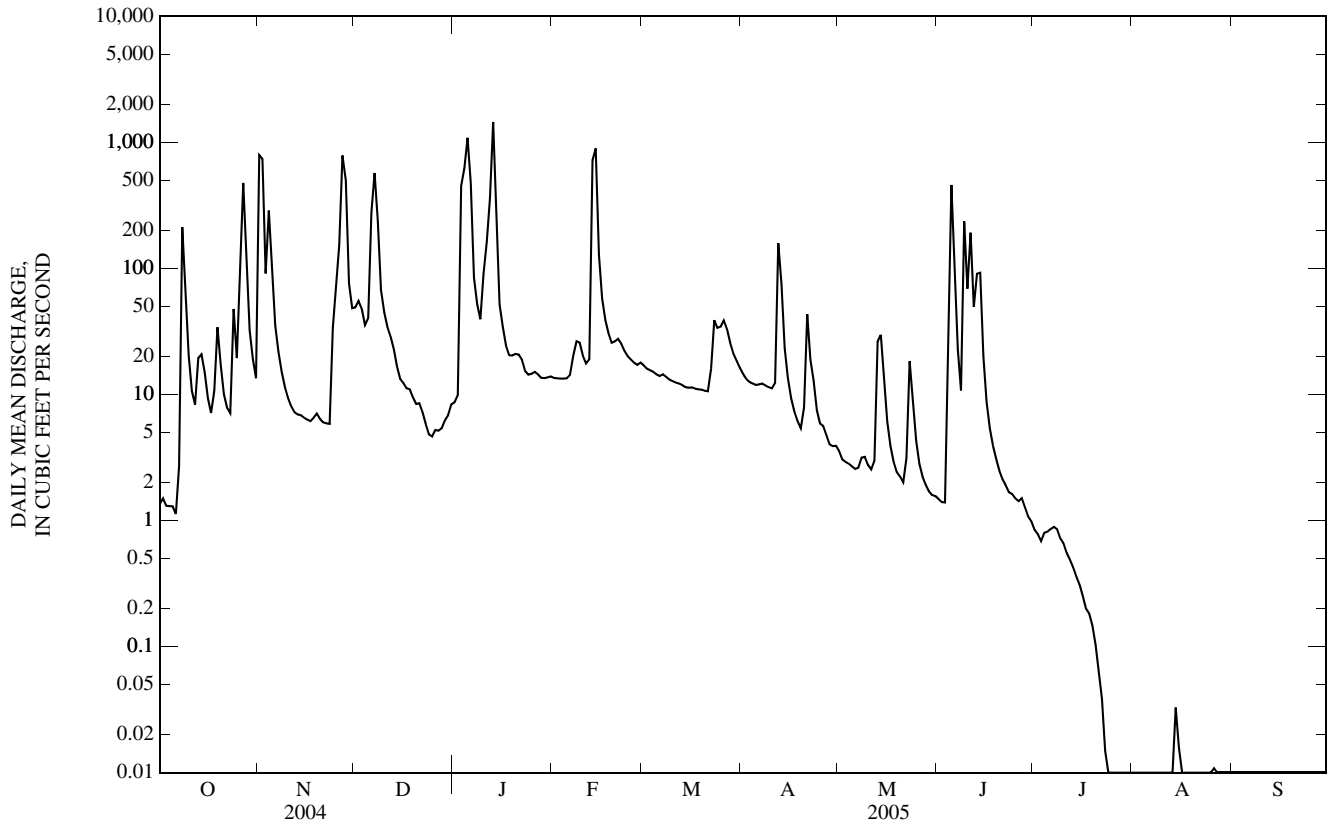
FOR 2005 WATER YEAR

WATER YEARS 1980 - 2005

ANNUAL MEAN	52.5	47.9	61.6
HIGHEST ANNUAL MEAN			179
LOWEST ANNUAL MEAN			7.38
HIGHEST DAILY MEAN	2,800	Aug 28	1,450
LOWEST DAILY MEAN	0.49	Jul 28	0.00
ANNUAL SEVEN-DAY MINIMUM	0.67	Jul 27	0.00
MAXIMUM PEAK FLOW	---		1,820
MAXIMUM PEAK STAGE	---		7.77
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	8.93		8.12
10 PERCENT EXCEEDS	83		78
50 PERCENT EXCEEDS	6.9		8.7
90 PERCENT EXCEEDS	1.4		0.00

e Estimated

05503800 CROOKED CREEK NEAR PARIS, MO—Continued



## SALT RIVER BASIN

## 05504800 SOUTH FORK SALT RIVER ABOVE SANTA FE, MO

LOCATION.--Lat 39°19'34", long 91°50'02", in SE ¼ SE ¼ sec.31, T.53 N., R.8 W., Audrain County, Hydrologic Unit 07110006, on left bank near downstream side of bridge on county road ZZ, 3.6 mi southwest of Santa Fe, 1.0 mi upstream from Littleby Creek, and at mile 104.2 above mouth of Salt River.

DRAINAGE AREA.--233 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1940 to Oct. 22, 2002, May 14, 2003 to current year. Published as "near Santa Fe" (05504900) October 1968 to September 1975 and as "at Santa Fe" (05505000) February 1940 to September 1968 and October 1975 to September 1986.

GAGE.--Water-stage recorder. Datum of gage is 644.87 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 5, 1940, nonrecording gage; Feb. 5, 1940, to Sept. 30, 1968, and Oct. 1, 1975 to Sept. 30, 1986, water-stage recorder 8.0 mi downstream at datum 613.05; Oct. 1, 1968, to Sept. 30, 1975, water-stage recorder, 1.0 mi downstream at datum 5.78 ft lower.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.2	4,000	278	36	41	46	31	28	11	4.4	1.4	7.8
2	7.6	3,580	252	38	40	43	27	25	8.4	3.6	1.0	5.4
3	7.3	605	181	1,380	37	39	24	22	8.2	3.5	0.81	3.9
4	7.8	1,130	128	3,210	36	37	23	20	7.5	3.7	0.49	2.7
5	5.8	460	104	5,210	35	35	22	19	7.9	3.4	0.65	1.9
6	5.2	204	257	4,470	36	33	22	18	6.6	3.1	0.41	1.5
7	5.6	131	2,340	677	52	34	23	17	7.4	2.6	0.17	1.3
8	8.4	92	1,910	339	102	35	23	16	7.0	3.5	3.4	1.1
9	22	70	369	260	143	35	22	16	33	3.9	1.7	1.2
10	16	57	223	390	107	32	21	16	111	3.5	1.0	1.2
11	12	51	154	424	80	29	23	15	281	2.1	0.56	1.4
12	11	48	120	756	81	27	80	17	176	1.1	0.37	1.6
13	50	43	95	5,690	1,940	25	199	19	168	1.6	7.1	1.6
14	62	37	75	3,710	2,910	24	98	15	427	1.2	52	1.7
15	49	37	60	382	589	23	59	17	146	1.4	86	2.5
16	27	34	53	239	272	22	42	18	58	1.5	58	3.0
17	18	31	51	225	167	22	33	14	32	2.0	32	6.7
18	1,100	36	49	181	124	21	28	12	21	1.2	17	4.4
19	976	571	46	112	99	21	26	11	15	0.69	12	2.6
20	212	353	43	102	87	20	25	9.9	12	0.42	9.1	1.9
21	107	151	38	101	84	20	26	9.5	9.6	0.34	6.0	1.7
22	70	98	35	91	76	47	705	30	8.5	0.30	4.4	1.5
23	52	81	39	82	65	255	346	67	7.3	0.33	3.4	1.6
24	42	1,780	27	61	58	187	125	35	6.5	0.30	2.7	3.2
25	34	2,560	23	52	53	106	72	24	6.0	0.18	4.3	3.9
26	80	1,210	21	53	49	80	56	17	5.5	0.21	7.0	4.2
27	278	2,390	22	53	47	65	47	13	4.9	0.29	203	3.1
28	153	1,780	22	47	47	54	40	11	4.4	0.24	121	3.6
29	82	383	25	42	---	47	35	9.0	3.7	0.48	40	5.3
30	227	251	29	41	---	41	33	8.2	3.9	0.73	19	3.2
31	206	---	34	42	---	36	---	9.6	---	1.2	12	---
MEAN	127	742	229	919	266	49.7	77.9	18.7	53.5	1.71	22.8	2.89
MAX	1,100	4,000	2,340	5,690	2,910	255	705	67	427	4.4	203	7.8
MIN	5.2	31	21	36	35	20	21	8.2	3.7	0.18	0.17	1.1
IN.	0.63	3.55	1.13	4.55	1.19	0.25	0.37	0.09	0.26	0.01	0.11	0.01

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

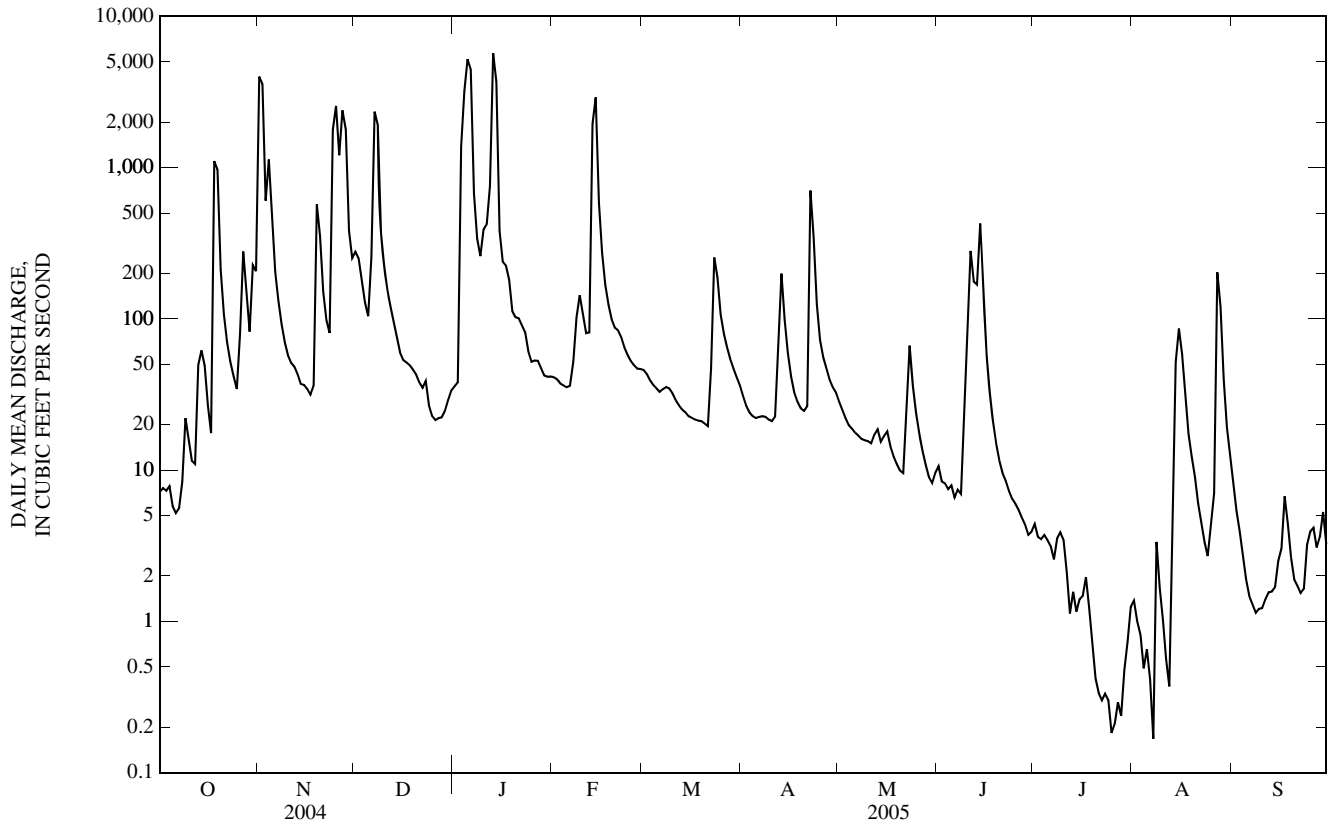
MEAN	121	136	131	152	226	299	326	305	237	193	61.2	125
MAX	1,646	1,378	1,447	919	1,031	1,715	1,734	2,238	1,307	2,415	544	1,830
(WY)	(1942)	(1986)	(1983)	(2005)	(1985)	(1973)	(1944)	(1943)	(1942)	(1969)	(1982)	(1993)
MIN	0.01	0.36	0.58	1.18	1.91	2.74	3.42	5.92	3.28	1.31	0.46	0.22
(WY)	(1954)	(1954)	(1964)	(1963)	(1954)	(1954)	(2000)	(1980)	(1988)	(1944)	(1964)	(1960)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	228	209	193
HIGHEST ANNUAL MEAN			509
LOWEST ANNUAL MEAN			10.7
HIGHEST DAILY MEAN	6,290	Aug 26	24,000
LOWEST DAILY MEAN	0.14	Jul 24	0.00
ANNUAL SEVEN-DAY MINIMUM	1.4	Jul 20	0.00
MAXIMUM PEAK FLOW	---		6,150
MAXIMUM PEAK STAGE	---		17.62
INSTANTANEOUS LOW FLOW	---		0.07
ANNUAL RUNOFF (INCHES)	13.33		12.16
10 PERCENT EXCEEDS	493		304
50 PERCENT EXCEEDS	39		31
90 PERCENT EXCEEDS	5.8		1.6



05504800 SOUTH FORK SALT RIVER ABOVE SANTA FE, MO—Continued



## 05506100 LONG BRANCH NEAR SANTA FE, MO

LOCATION.--Lat 39°21'21", long 91°50'03", in NE ¼ SE ¼ SE ¼ sec. 19, T.53 N., R.8 W., Monroe County, Hydrologic Unit 07110006, on left bank on west side of concrete ford on County Road 614, 2 mi southwest of Santa Fe.

DRAINAGE AREA.--180 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1994 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 625.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair except for discharges below 10 ft<sup>3</sup>/s, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.68	4,630	96	17	23	28	22	12	0.60	0.60	0.00	5.9
2	0.81	3,760	93	18	24	26	21	9.5	0.46	0.37	0.00	3.4
3	0.55	1,590	81	1,380	22	24	19	8.2	0.38	0.27	0.00	2.1
4	0.55	973	66	2,160	21	22	18	6.8	0.38	0.24	0.00	1.3
5	0.41	392	55	4,740	21	21	17	5.9	0.43	0.20	0.00	0.83
6	0.37	144	323	2,610	22	20	18	5.4	14	0.25	0.00	0.58
7	0.47	67	2,540	836	35	22	18	5.1	9.7	0.22	0.00	0.46
8	7.5	44	1,430	153	61	22	18	4.6	8.4	0.16	0.00	0.35
9	94	33	619	93	70	21	18	4.3	191	0.13	0.00	0.49
10	36	26	124	213	61	20	17	3.9	297	0.07	0.00	0.47
11	15	22	76	284	47	19	20	3.0	200	0.03	0.00	0.27
12	16	18	58	923	44	17	96	4.1	96	0.01	0.00	0.14
13	19	16	47	5,630	2,170	16	147	4.1	137	0.00	0.05	0.15
14	50	14	38	2,260	2,290	15	100	57	286	0.00	12	0.20
15	32	13	33	380	981	14	60	65	128	0.00	89	0.39
16	15	12	28	100	176	13	41	39	52	0.00	53	0.40
17	9.6	11	26	104	95	13	33	19	28	0.00	26	0.29
18	250	18	24	100	69	12	27	9.2	16	0.00	15	0.27
19	562	67	22	49	54	12	23	5.1	10	0.00	9.1	0.18
20	171	30	20	49	50	11	23	3.3	7.2	0.00	5.7	0.13
21	59	28	19	50	46	11	21	2.3	5.4	0.00	3.5	0.06
22	30	21	17	46	42	31	681	59	4.3	0.00	2.4	0.03
23	18	18	14	44	38	93	362	49	3.4	0.00	1.8	0.06
24	12	1,050	15	36	35	84	128	18	2.4	0.00	1.2	0.06
25	8.7	1,240	13	32	33	69	64	7.5	1.8	0.00	1.5	0.03
26	13	1,370	12	33	30	54	43	5.6	1.2	0.00	2.6	0.02
27	315	3,030	12	31	28	44	29	4.5	0.83	0.00	49	0.01
28	196	1,590	12	26	30	37	23	2.5	0.69	0.00	89	0.00
29	87	616	13	26	---	32	19	1.5	0.61	0.00	48	0.00
30	138	128	14	25	---	28	16	1.2	0.72	0.00	22	0.00
31	112	---	16	24	---	25	---	0.82	---	0.00	11	---
MEAN	73.2	699	192	725	236	28.3	71.4	13.8	50.1	0.08	14.3	0.62
MAX	562	4,630	2,540	5,630	2,290	93	681	65	297	0.60	89	5.9
MIN	0.37	11	12	17	21	11	16	0.82	0.38	0.00	0.00	0.00
IN.	0.47	4.33	1.23	4.64	1.37	0.18	0.44	0.09	0.31	0.00	0.09	0.00

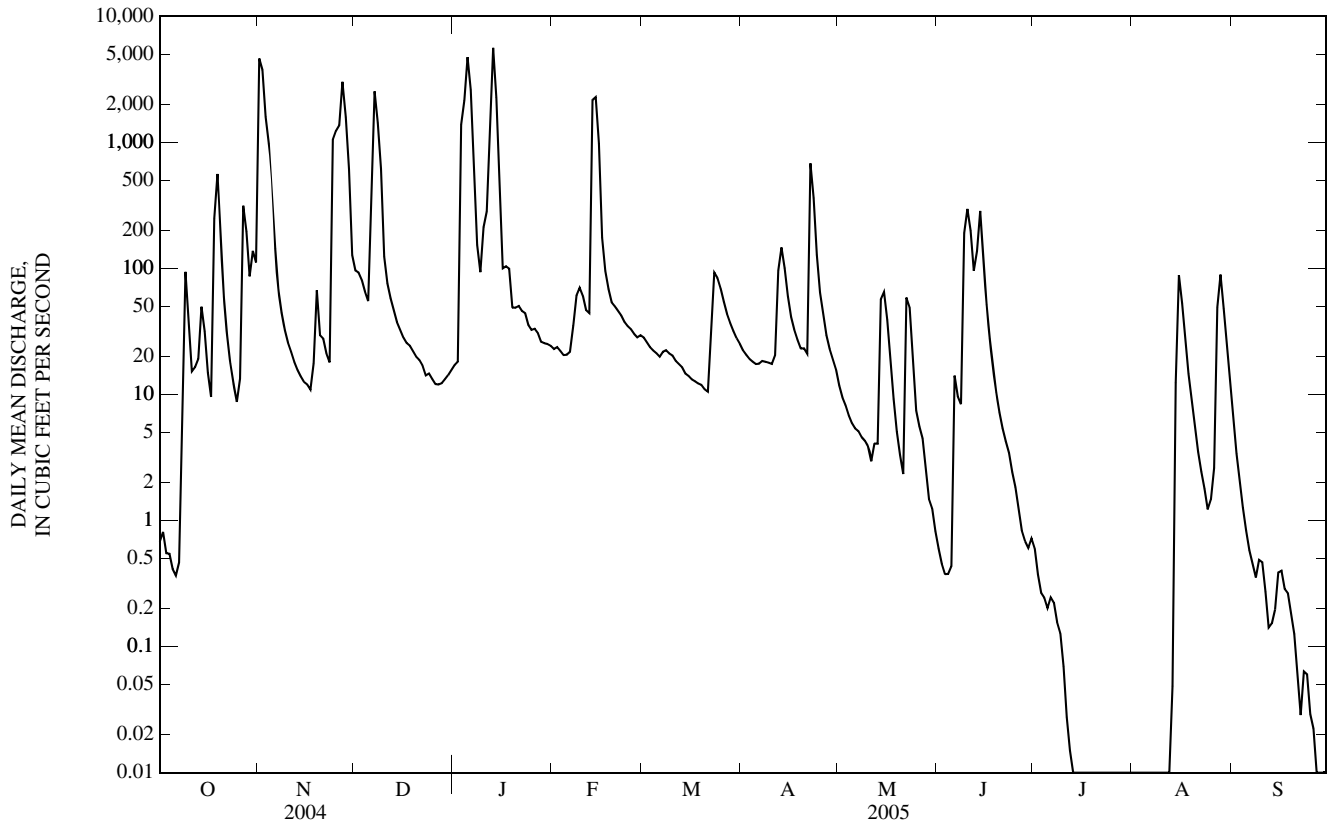
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2005, BY WATER YEAR (WY)

MEAN	39.4	107	54.2	206	269	142	196	311	170	116	95.2	33.8
MAX	266	699	272	725	1,053	487	636	1,062	514	943	507	255
(WY)	(1999)	(2005)	(2004)	(2005)	(1997)	(1998)	(1999)	(1995)	(1998)	(1998)	(2004)	(2003)
MIN	0.01	0.00	0.61	0.11	17.6	13.1	1.25	13.8	18.5	0.08	0.04	0.00
(WY)	(2000)	(2000)	(2000)	(2000)	(1996)	(2000)	(2000)	(2005)	(2004)	(2005)	(1999)	(1999)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1995 - 2005
ANNUAL MEAN	178	175	138
HIGHEST ANNUAL MEAN			237
LOWEST ANNUAL MEAN			35.8
HIGHEST DAILY MEAN	4,630	Nov 1	5,630
LOWEST DAILY MEAN	0.29	Jul 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.46	Jul 26	0.00
MAXIMUM PEAK FLOW	---		7,440
MAXIMUM PEAK STAGE	---		14.50
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	13.45		13.16
10 PERCENT EXCEEDS	259		205
50 PERCENT EXCEEDS	20		18
90 PERCENT EXCEEDS	1.3		0.02

05506100 LONG BRANCH NEAR SANTA FE, MO—Continued



## 05506350 MIDDLE FORK SALT RIVER NEAR HOLLIDAY, MO

LOCATION.--Lat 39°31'27", long 92°07'40", in NE ¼ SW ¼ NW ¼ sec. 27, T. 55 N., R. 11 W., Monroe County, Hydrologic Unit 07110006, on right bank, downstream side of Highway A bridge, approximately 2.1 mi north of Holliday.

DRAINAGE AREA.--313 mi<sup>2</sup>.

PERIOD OF RECORD.--Dec. 17, 1998 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 651.00 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	2,140	208	53	57	67	58	43	19	10	7.3	e3.7
2	17	2,640	198	59	56	64	49	38	16	9.6	5.9	e3.1
3	16	2,330	193	1,110	55	61	43	34	14	9.4	5.1	e2.7
4	17	1,680	161	2,320	55	57	40	30	252	9.6	4.5	e2.3
5	16	1,160	162	3,980	56	52	38	28	1,300	9.4	4.0	e2.0
6	17	513	887	3,520	59	48	37	26	630	9.3	3.4	e1.8
7	18	214	1,850	1,330	82	47	37	24	187	8.9	3.1	e1.7
8	194	137	1,250	356	120	45	36	26	842	9.2	2.6	e1.7
9	218	101	544	242	188	42	34	26	3,570	9.3	3.2	e1.9
10	94	81	255	459	134	40	33	25	4,670	8.1	3.7	e1.9
11	53	71	176	706	96	37	68	21	3,140	7.7	3.1	e1.8
12	40	63	137	978	92	36	1,360	25	1,240	7.2	3.5	e1.8
13	29	55	111	3,740	1,980	34	1,240	328	756	6.8	8.5	e1.9
14	27	49	90	2,600	3,240	32	700	197	1,150	6.6	8.2	e2.0
15	71	45	74	1,020	2,550	30	256	129	483	6.1	5.5	e4.0
16	63	42	67	232	1,370	29	133	78	160	5.4	5.5	e5.5
17	37	41	e60	172	274	27	94	48	90	5.0	5.4	e9.2
18	41	40	e56	e133	183	27	75	33	68	5.0	7.7	e10
19	144	41	e50	e118	144	27	63	25	52	5.1	6.8	e9.7
20	70	40	e44	e104	132	26	55	21	40	5.3	5.8	e8.1
21	43	39	e41	e95	131	25	231	18	32	5.3	5.2	e5.8
22	41	37	e37	e90	127	38	600	2,360	24	5.3	7.8	e4.3
23	82	36	e35	e86	114	219	278	2,080	21	5.3	17	e3.4
24	450	99	e31	80	98	222	174	338	18	5.3	10	e3.2
25	231	247	28	71	86	174	104	128	16	5.0	9.5	e3.7
26	202	440	28	69	76	254	86	69	16	5.3	8.1	e4.5
27	1,480	2,120	29	66	70	220	76	48	15	7.3	6.9	e4.5
28	1,380	2,080	31	60	70	148	62	36	14	5.6	5.0	13
29	593	1,090	36	60	---	110	54	29	12	5.3	4.1	14
30	203	302	41	59	---	86	48	24	11	13	3.9	13
31	146	---	49	58	---	70	---	22	---	9.9	3.7	---
MEAN	195	599	224	775	418	77.2	205	205	629	7.28	5.94	4.87
MAX	1,480	2,640	1,850	3,980	3,240	254	1,360	2,360	4,670	13	17	14
MIN	16	36	28	53	55	25	33	18	11	5.0	2.6	1.7
IN.	0.72	2.14	0.83	2.86	1.39	0.28	0.73	0.76	2.24	0.03	0.02	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

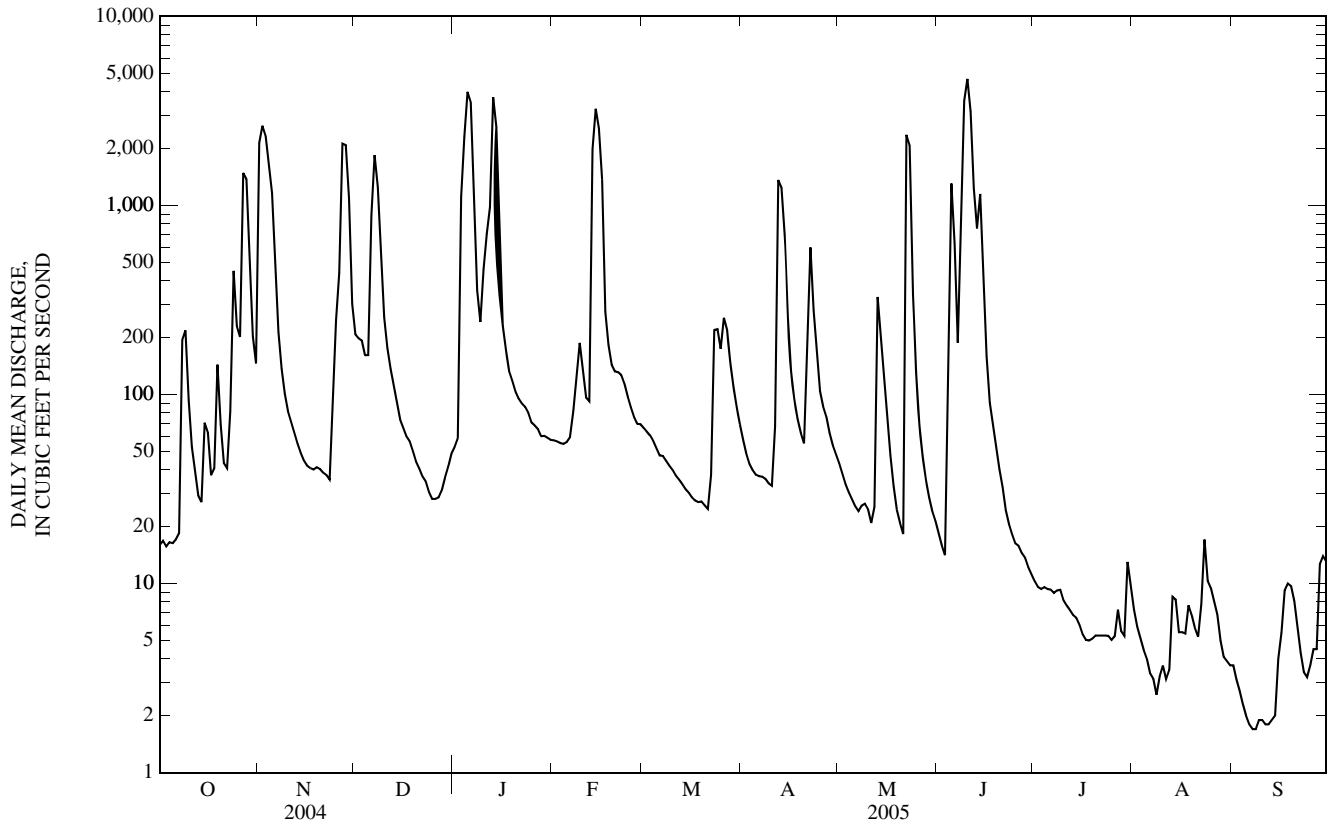
MEAN	55.3	150	136	285	334	263	278	551	349	79.3	162	65.3
MAX	195	599	561	775	1,136	693	771	2,021	978	237	981	243
(WY)	(2005)	(2005)	(2004)	(2005)	(2001)	(2004)	(1999)	(2002)	(2001)	(1999)	(2004)	(2003)
MIN	5.57	1.12	4.47	2.12	29.7	34.4	3.89	21.9	72.3	7.28	2.64	2.82
(WY)	(2003)	(2000)	(2003)	(2000)	(2000)	(2003)	(2000)	(2000)	(1999)	(2005)	(1999)	(2002)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1999 - 2005
ANNUAL MEAN	316	277	212
HIGHEST ANNUAL MEAN			297
LOWEST ANNUAL MEAN			44.5
HIGHEST DAILY MEAN	6,290	Aug 29	4,670
LOWEST DAILY MEAN	7.4	Feb 1	e1.7
ANNUAL SEVEN-DAY MINIMUM	8.5	Jan 31	1.8
MAXIMUM PEAK FLOW	---		4,910
MAXIMUM PEAK STAGE	---		18.47
INSTANTANEOUS LOW FLOW	---		--- <sup>a</sup>
ANNUAL RUNOFF (INCHES)	13.77		12.01
10 PERCENT EXCEEDS	810		860
50 PERCENT EXCEEDS	62		45
90 PERCENT EXCEEDS	14		5.0
			2.8

e Estimated

<sup>a</sup> Minimum not determined, may have occurred during period of estimated record, Sept. 1-27.

05506350 MIDDLE FORK SALT RIVER NEAR HOLLIDAY, MO—Continued



## 05506800 ELK FORK SALT RIVER NEAR MADISON, MO

LOCATION.--Lat 39°26'05", long 92°10'04", in SE ¼ NE ¼ SW ¼ sec.29, T.54 N., R.11 W., Monroe County, Hydrologic Unit 07110006, on downstream side and 25 ft to the left of bridge on State Highway AA, 500 ft downstream from Allen Creek, 3.5 mi southeast of Madison, and at mile 29.8.

DRAINAGE AREA.--200 mi<sup>2</sup>.

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

REVISED RECORDS.--WRD MO 1973: 1970(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 690.16 ft above National Geodetic Vertical Datum of 1929 (Missouri State Highway and Transportation Commission bench mark).

REMARKS.--Records fair except for estimated daily discharges and discharges below 10 ft<sup>3</sup>/s, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 9, 1967, reached a stage of 31.25 ft, from floodmark, discharge 33,300 ft<sup>3</sup>/s, by contracted-opening method. Flood in 1871 reached nearly the same stage, from information by local resident.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	3,310	138	30	35	41	31	22	9.3	6.3	3.8	6.7
2	12	3,160	137	34	36	38	28	20	8.7	5.9	3.4	5.6
3	13	389	117	1,770	34	35	26	18	7.9	5.9	3.7	4.9
4	13	1,480	88	2,890	34	34	25	17	8.7	6.3	4.1	4.5
5	11	385	98	4,390	34	33	25	16	89	6.7	4.8	4.1
6	12	167	760	2,350	37	31	25	15	64	8.1	4.7	3.9
7	15	107	2,250	317	60	33	25	15	29	7.0	4.2	3.6
8	130	74	1,250	200	101	34	25	16	730	5.8	3.9	3.4
9	125	57	261	165	84	32	24	17	2,050	5.5	4.1	4.0
10	45	48	163	509	61	30	24	17	175	5.2	4.1	3.9
11	19	42	115	493	50	30	63	16	251	5.3	4.2	3.6
12	13	37	89	773	50	29	1,240	17	114	5.2	4.3	3.7
13	16	32	71	4,510	2,570	29	294	342	934	5.0	13	3.4
14	20	28	55	1,170	3,560	29	114	311	394	5.0	57	3.7
15	20	28	45	e212	479	27	66	83	100	4.9	68	5.7
16	12	26	42	e124	206	25	47	40	48	4.8	23	5.7
17	8.9	24	40	e93	126	23	38	28	31	4.9	15	5.6
18	58	24	39	e74	91	23	33	21	23	4.8	13	5.7
19	306	27	35	e65	74	23	29	17	19	5.0	11	5.1
20	102	28	30	e58	74	22	27	15	16	4.9	11	5.7
21	46	26	29	e52	74	21	27	13	14	4.5	14	6.1
22	26	25	26	e50	66	52	278	139	12	4.4	15	6.1
23	18	26	23	e48	56	288	168	48	11	4.3	10	5.5
24	41	253	19	e48	50	153	80	26	9.5	4.3	7.5	5.7
25	25	714	19	42	47	105	46	18	8.7	4.2	7.8	6.7
26	29	872	20	42	43	89	39	14	8.2	4.9	10	7.7
27	590	2,690	20	39	41	65	36	11	7.7	5.3	94	6.6
28	221	1,590	21	35	43	54	32	10	6.9	5.5	46	5.6
29	105	274	23	35	---	47	27	9.3	6.8	6.0	19	5.1
30	61	164	26	35	---	41	25	9.5	6.8	4.6	12	4.8
31	52	---	29	36	---	35	---	9.2	---	4.1	8.3	---
MEAN	70.2	537	196	667	293	50.0	98.9	44.2	173	5.31	16.3	5.08
MAX	590	3,310	2,250	4,510	3,560	288	1,240	342	2,050	8.1	94	7.7
MIN	8.9	24	19	30	34	21	24	9.2	6.8	4.1	3.4	3.4
IN.	0.40	3.00	1.13	3.85	1.53	0.29	0.55	0.25	0.97	0.03	0.09	0.03

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2005, BY WATER YEAR (WY)

MEAN	94.4	135	134	135	206	257	312	269	194	147	61.3	111
MAX	1,077	1,248	750	667	935	1,154	1,651	1,554	1,005	1,409	577	1,381
(WY)	(1987)	(1986)	(1983)	(2005)	(1985)	(1973)	(1973)	(1995)	(1969)	(1981)	(2004)	(1993)
MIN	0.25	1.24	0.94	0.95	2.07	3.02	4.76	10.0	1.61	1.06	0.82	0.63
(WY)	(1981)	(1981)	(1989)	(1977)	(1989)	(1981)	(2000)	(1992)	(1988)	(1988)	(1980)	(1988)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

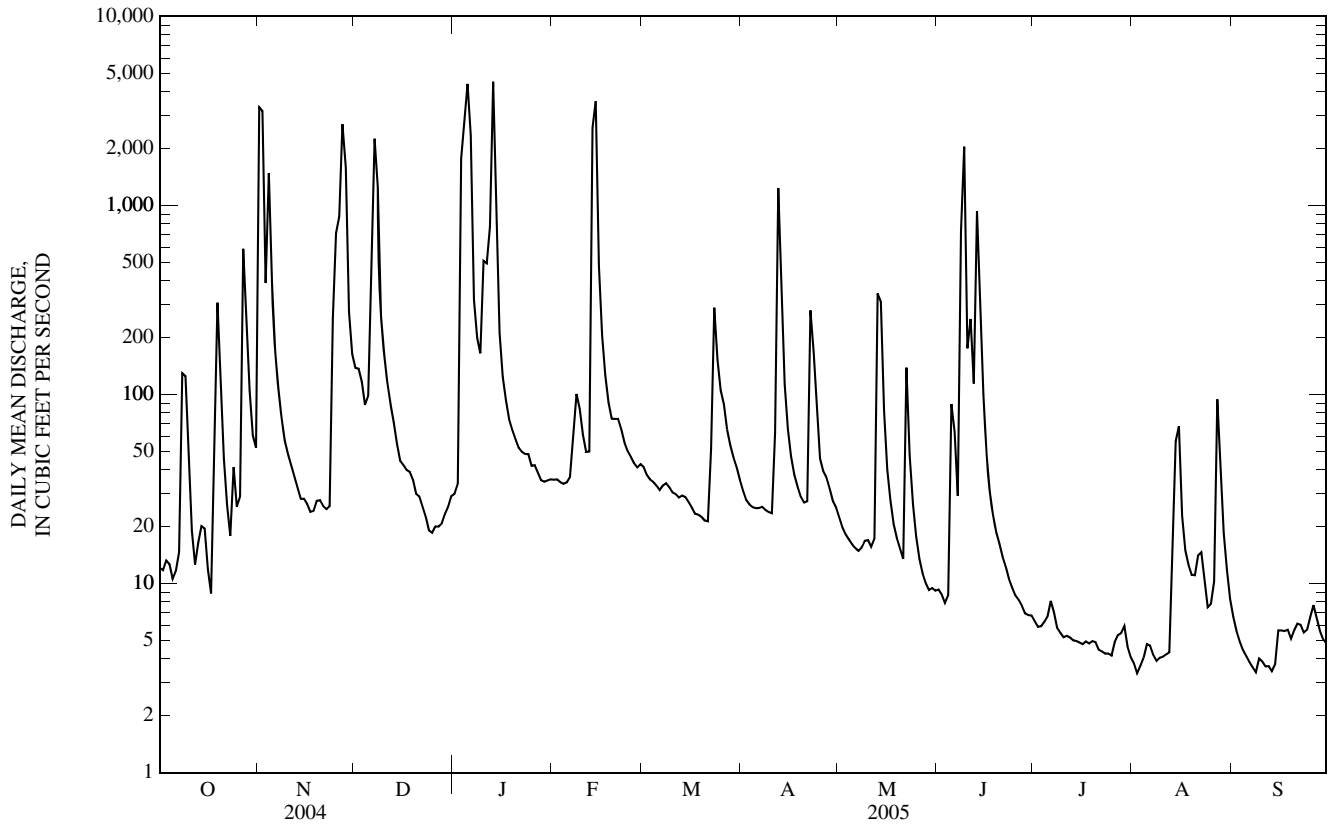
## FOR 2005 WATER YEAR

## WATER YEARS 1969 - 2005

ANNUAL MEAN	203	179	171
HIGHEST ANNUAL MEAN			380
LOWEST ANNUAL MEAN			23.6
HIGHEST DAILY MEAN	6,200	Aug 29	24,100
LOWEST DAILY MEAN	5.2	Jul 29	0.00
ANNUAL SEVEN-DAY MINIMUM	5.7	Jul 28	0.00
MAXIMUM PEAK FLOW	---		42,300
MAXIMUM PEAK STAGE	---		33.40
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	13.84	12.12	11.61
10 PERCENT EXCEEDS	363	282	267
50 PERCENT EXCEEDS	32	28	15
90 PERCENT EXCEEDS	10	4.9	1.4

e Estimated

05506800 ELK FORK SALT RIVER NEAR MADISON, MO—Continued



## SALT RIVER BASIN

## 05507600 LICK CREEK AT PERRY, MO

LOCATION.--Lat 39°25'53", long 91°40'34", near center of NW ¼ SW ¼ sec.27, T.54 N., R.7 W., Ralls County, Hydrologic Unit 07110007, on right bank and downstream side of State Highway 154 bridge. 0.1 mi west of Perry, and at mile 11.9.

DRAINAGE AREA.--104 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1979 to current year. Prior to October 1979 gages were maintained and operated by the U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 625.00 ft above National Geodetic Vertical Datum of 1929. Prior to November 1967, nonrecording gage at same site and datum.

REMARKS.--Records fair 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 Oct. 12, 1969, reached a stage of 26.24 ft, as determined by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	3,780	167	9.4	13	14	7.0	3.8	0.79	0.10	0.00	0.01
2	2.0	1,040	99	11	13	12	6.1	3.4	0.70	0.08	0.00	0.01
3	1.9	251	56	1,590	13	12	5.6	3.1	0.84	0.07	0.00	0.00
4	1.8	428	37	1,520	13	12	5.4	2.9	1.6	0.09	0.00	0.00
5	1.7	107	32	4,490	13	11	5.1	2.7	1.9	0.07	0.00	0.00
6	1.5	47	333	866	14	10	5.3	2.6	1.3	0.06	0.00	0.00
7	1.9	30	2,430	123	31	14	5.6	2.6	1.0	0.05	0.00	0.00
8	3.4	19	529	63	66	13	5.3	2.4	0.85	0.04	0.00	0.00
9	3.2	14	108	47	55	11	5.0	2.4	0.92	0.04	0.00	0.00
10	2.5	12	61	141	36	10	4.7	2.2	0.82	0.03	0.00	0.00
11	2.2	10	42	172	30	7.7	7.3	2.1	21	0.02	0.00	0.00
12	3.2	8.8	33	723	65	7.3	139	2.4	21	0.02	0.00	0.00
13	15	7.7	25	4,370	2,260	6.7	55	3.2	32	0.02	0.05	0.00
14	8.5	7.0	18	331	1,060	6.1	25	3.2	58	0.02	0.02	0.00
15	5.4	6.6	14	e67	143	5.6	14	2.2	29	0.01	0.02	0.01
16	3.9	6.5	13	e34	64	5.5	11	1.9	11	0.01	0.01	0.01
17	3.1	6.3	12	e25	41	5.2	8.8	1.7	5.3	0.01	0.01	0.00
18	174	6.8	11	e21	30	5.0	7.4	1.5	2.8	0.01	0.01	0.00
19	166	54	10	e18	25	5.0	6.1	1.4	1.8	0.00	0.00	0.01
20	44	55	8.7	e17	24	4.7	6.0	0.96	1.3	0.00	0.01	0.00
21	22	28	8.3	e16	23	4.8	6.2	1.2	0.98	0.00	0.00	0.00
22	12	18	7.6	e16	20	23	67	1.3	0.72	0.00	0.00	0.00
23	7.1	13	6.5	e15	18	76	37	1.2	0.61	0.00	0.00	0.00
24	5.0	1,250	5.6	e15	16	38	16	1.1	0.50	0.00	0.00	0.00
25	4.5	786	5.3	e14	15	26	11	1.1	0.38	0.00	0.01	0.00
26	74	869	5.6	e14	14	20	9.3	1.5	0.31	0.00	0.03	0.00
27	274	1,490	5.5	e14	13	16	6.9	1.2	0.26	0.00	0.02	0.00
28	52	434	5.6	13	15	13	5.4	1.0	0.20	0.00	0.01	0.00
29	27	96	6.7	13	---	12	5.0	0.90	0.14	0.00	0.01	0.00
30	63	73	7.1	13	---	10	4.5	0.94	0.13	0.00	0.01	0.00
31	23	---	8.2	14	---	8.1	---	0.92	---	0.00	0.01	---
MEAN	32.6	365	133	477	148	13.7	16.8	1.97	6.61	0.02	0.01	0.00
MAX	274	3,780	2,430	4,490	2,260	76	139	3.8	58	0.10	0.05	0.01
MIN	1.5	6.3	5.3	9.4	13	4.7	4.5	0.90	0.13	0.00	0.00	0.00
IN.	0.36	3.92	1.47	5.29	1.48	0.15	0.18	0.02	0.07	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2005, BY WATER YEAR (WY)

MEAN	13.8	85.2	69.7	67.5	112	83.5	106	131	69.3	73.1	31.6	42.2
MAX	95.9	652	442	477	441	340	541	532	300	482	174	748
(WY)	(1987)	(1986)	(1983)	(2005)	(1997)	(1984)	(1994)	(2002)	(1998)	(1981)	(2004)	(1993)
MIN	0.00	0.00	0.05	0.00	1.67	0.41	2.15	1.27	0.03	0.02	0.00	0.00
(WY)	(1989)	(2000)	(1980)	(1980)	(1981)	(1981)	(2000)	(1988)	(1988)	(2005)	(1994)	(1999)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

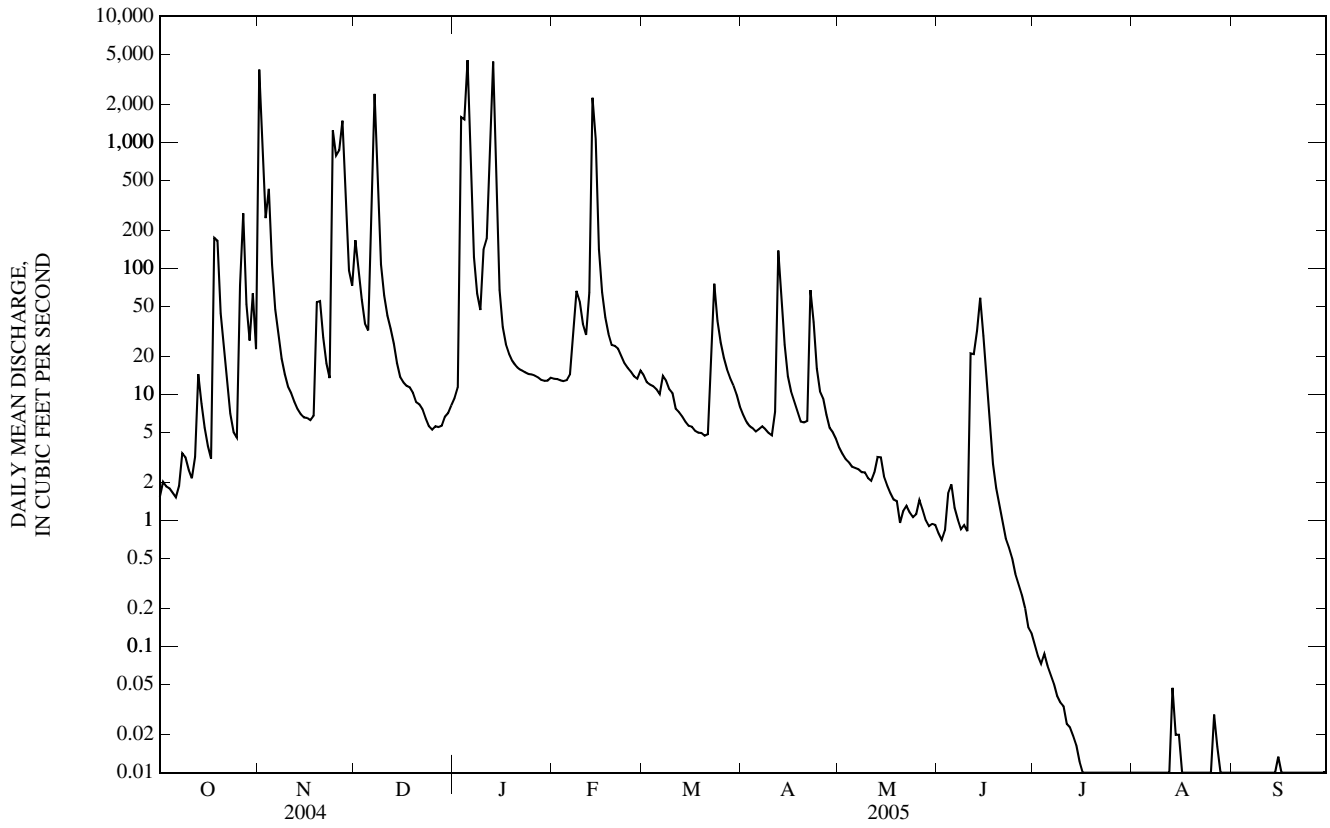
WATER YEARS 1980 - 2005

ANNUAL MEAN	97.1	99.2	73.5
HIGHEST ANNUAL MEAN			188
LOWEST ANNUAL MEAN			15.1
HIGHEST DAILY MEAN	3,780	Nov 1	4,490
LOWEST DAILY MEAN	0.12	Aug 19	0.00
ANNUAL SEVEN-DAY MINIMUM	0.17	Jul 23	0.00
MAXIMUM PEAK FLOW	---		6,290
MAXIMUM PEAK STAGE	---		17.68
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	12.71		12.95
10 PERCENT EXCEEDS	118		73
50 PERCENT EXCEEDS	8.4		5.6
90 PERCENT EXCEEDS	0.39		0.00

e Estimated



05507600 LICK CREEK AT PERRY, MO—Continued



## SALT RIVER BASIN

05507700 MARK TWAIN LAKE NEAR CENTER, MO

LOCATION.--Lat 39°31'29", long 91°38'39", sec.26, T.55 N., R.7 W., Ralls County, Hydrologic Unit 07110007, inside dam structure at mile 63.0 on Salt River.

DRAINAGE AREA.--2,318 mi<sup>2</sup>.

PERIOD OF RECORD.--1984 to current year. 1984 to Sept. 30, 1991, available in files at the U.S. Army Corps of Engineers.

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

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

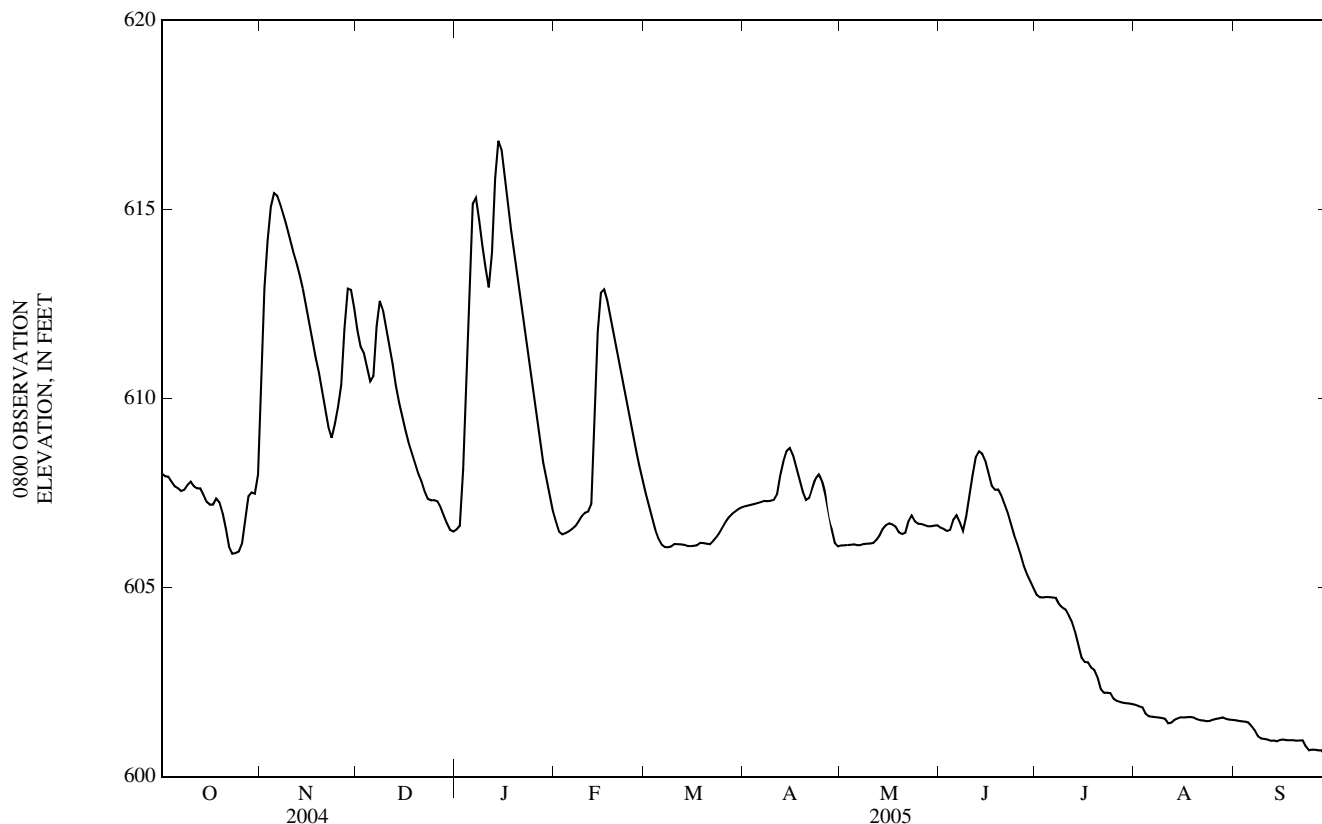
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,380,000 ac-ft, Sept. 27, 1993, elevation, 636.77 ft; minimum, 386,000 ac-ft, Oct. 10, 1984, elevation, 596.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 785,000 ac-ft, Jan. 14, 15, elevation, 617.03 ft, Jan. 15; minimum, 447,000 ac-ft, Sept. 29, 30, elevation, 600.42 ft, Sept. 29.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	608.13	608.24	612.21	606.49	606.91	607.72	607.13	606.10	606.65	604.92	601.91	601.50
2	607.96	611.69	611.60	606.56	606.67	607.38	607.16	606.12	606.55	604.75	601.89	601.49
3	607.94	613.54	611.26	606.67	606.38	607.06	607.18	606.12	606.55	604.74	601.84	601.47
4	607.93	614.51	611.18	608.86	606.42	606.75	607.20	606.13	606.47	604.74	601.83	601.46
5	607.74	615.35	610.66	611.31	606.45	606.42	607.22	606.13	606.55	604.76	601.58	601.45
6	607.65	615.47	610.35	614.29	606.50	606.23	607.24	606.15	606.92	604.74	601.60	601.43
7	607.62	615.31	610.72	615.57	606.57	606.09	607.27	606.11	606.91	604.74	601.58	601.30
8	607.52	615.03	612.50	615.17	606.65	606.06	607.30	606.13	606.64	604.72	601.57	601.19
9	607.62	614.75	612.62	614.49	606.80	606.07	607.28	606.16	606.43	604.48	601.56	601.01
10	607.76	614.43	612.19	613.82	606.93	606.10	607.30	606.16	607.11	604.47	601.55	601.01
11	607.82	614.09	611.71	613.27	607.00	606.18	607.33	606.17	607.55	604.40	601.52	600.99
12	607.61	613.78	611.25	612.77	607.01	606.13	607.54	606.19	608.19	604.20	601.36	600.98
13	607.63	613.51	610.75	614.39	607.31	606.15	608.19	606.30	608.58	604.04	601.46	600.93
14	607.62	613.15	610.15	616.54	610.40	606.12	608.42	606.42	608.61	603.72	601.52	600.97
15	607.37	612.78	609.78	616.95	612.44	606.09	608.71	606.62	608.51	603.36	601.55	600.92
16	607.22	612.32	609.43	616.40	612.98	606.10	608.68	606.67	608.27	603.04	601.58	601.00
17	607.18	611.88	609.04	615.70	612.84	606.11	608.41	606.71	607.91	603.03	601.56	600.97
18	607.20	611.36	608.73	614.94	612.46	606.12	608.09	606.65	607.58	603.02	601.58	600.96
19	607.43	610.95	608.47	614.19	612.06	606.21	607.77	606.59	607.59	602.82	601.58	600.97
20	607.17	610.57	608.20	613.60	611.66	606.16	607.42	606.40	607.60	602.82	601.56	600.96
21	606.87	610.07	607.94	612.94	611.25	606.16	607.27	606.42	607.35	602.53	601.50	600.95
22	606.40	609.58	607.76	612.34	610.83	606.14	607.43	606.46	607.13	602.21	601.49	600.96
23	605.92	609.08	607.45	611.63	610.38	606.27	607.74	606.90	606.90	602.22	601.48	600.96
24	605.89	608.90	607.30	611.05	609.93	606.36	607.95	606.91	606.58	602.22	601.46	600.72
25	605.92	609.53	607.31	610.49	609.46	606.50	608.01	606.67	606.29	602.20	601.48	600.69
26	605.97	609.90	607.31	609.88	608.96	606.65	607.72	606.70	606.07	601.99	601.52	600.73
27	606.26	610.59	607.27	609.26	608.46	606.80	607.34	606.67	605.78	602.01	601.53	600.70
28	607.08	612.46	607.05	608.68	608.10	606.90	606.87	606.64	605.48	601.96	601.55	600.69
29	607.58	613.13	606.83	608.13	---	606.98	606.39	606.61	605.28	601.95	601.57	600.70
30	607.48	612.74	606.63	607.74	---	607.03	606.07	606.63	605.11	601.94	601.51	600.44
31	607.48	---	606.47	607.30	---	607.10	---	606.64	---	601.93	601.51	---
MEAN	607.26	612.29	609.42	611.98	608.92	606.46	607.52	606.43	606.97	603.38	601.57	601.02
MAX	608.13	615.47	612.62	616.95	612.98	607.72	608.71	606.91	608.61	604.92	601.91	601.50
MIN	605.89	608.24	606.47	606.49	606.38	606.06	606.07	606.10	605.11	601.93	601.36	600.44

## 05507700 MARK TWAIN LAKE NEAR CENTER, MO—Continued

RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	586,000	588,000	671,000	554,000	562,000	577,000	566,000	547,000	557,000	525,000	472,000	465,000
2	582,000	659,000	658,000	555,000	557,000	571,000	567,000	547,000	555,000	522,000	472,000	465,000
3	582,000	703,000	650,000	557,000	552,000	565,000	567,000	547,000	555,000	522,000	471,000	465,000
4	582,000	726,000	649,000	600,000	552,000	559,000	568,000	547,000	553,000	522,000	471,000	464,000
5	578,000	745,000	637,000	651,000	553,000	552,000	568,000	547,000	555,000	522,000	466,000	464,000
6	576,000	748,000	631,000	720,000	554,000	549,000	568,000	548,000	562,000	522,000	467,000	464,000
7	575,000	744,000	639,000	751,000	555,000	547,000	569,000	547,000	562,000	522,000	466,000	462,000
8	573,000	738,000	678,000	741,000	557,000	546,000	569,000	547,000	557,000	521,000	466,000	460,000
9	575,000	731,000	681,000	725,000	560,000	546,000	569,000	548,000	553,000	517,000	466,000	457,000
10	578,000	724,000	671,000	709,000	563,000	547,000	569,000	548,000	566,000	517,000	466,000	457,000
11	579,000	716,000	660,000	696,000	564,000	548,000	570,000	548,000	574,000	515,000	465,000	456,000
12	575,000	708,000	650,000	685,000	564,000	547,000	574,000	548,000	587,000	512,000	463,000	456,000
13	576,000	702,000	639,000	723,000	570,000	548,000	587,000	550,000	594,000	509,000	464,000	455,000
14	575,000	694,000	627,000	773,000	632,000	547,000	591,000	552,000	595,000	503,000	465,000	456,000
15	571,000	685,000	619,000	783,000	677,000	547,000	597,000	556,000	593,000	497,000	466,000	455,000
16	568,000	674,000	612,000	770,000	690,000	547,000	597,000	557,000	588,000	492,000	466,000	457,000
17	567,000	664,000	604,000	754,000	686,000	547,000	591,000	558,000	581,000	491,000	466,000	456,000
18	568,000	652,000	598,000	736,000	677,000	547,000	585,000	557,000	575,000	491,000	466,000	456,000
19	572,000	643,000	592,000	718,000	668,000	549,000	578,000	556,000	575,000	488,000	466,000	456,000
20	567,000	636,000	587,000	704,000	659,000	548,000	572,000	552,000	575,000	488,000	466,000	456,000
21	561,000	625,000	582,000	689,000	650,000	548,000	569,000	552,000	570,000	483,000	465,000	456,000
22	552,000	615,000	578,000	674,000	641,000	547,000	572,000	553,000	566,000	477,000	465,000	456,000
23	543,000	605,000	572,000	658,000	632,000	550,000	578,000	562,000	562,000	477,000	465,000	456,000
24	543,000	601,000	569,000	646,000	622,000	551,000	582,000	562,000	556,000	477,000	464,000	452,000
25	543,000	614,000	570,000	634,000	612,000	554,000	583,000	557,000	550,000	477,000	465,000	451,000
26	544,000	622,000	570,000	621,000	603,000	557,000	577,000	558,000	546,000	474,000	465,000	452,000
27	550,000	636,000	569,000	608,000	592,000	560,000	570,000	557,000	541,000	474,000	466,000	451,000
28	565,000	677,000	565,000	597,000	585,000	562,000	561,000	557,000	535,000	473,000	466,000	451,000
29	575,000	693,000	561,000	586,000	---	564,000	552,000	556,000	532,000	473,000	466,000	451,000
30	573,000	684,000	557,000	578,000	---	565,000	546,000	557,000	528,000	473,000	465,000	447,000
31	573,000	---	553,000	569,000	---	566,000	---	557,000	---	473,000	465,000	---
MEAN	569,000	675,000	613,000	670,000	603,000	553,000	574,000	553,000	563,000	498,000	466,000	457,000
MAX	586,000	748,000	681,000	783,000	690,000	577,000	597,000	562,000	595,000	525,000	472,000	465,000
MIN	543,000	588,000	553,000	554,000	552,000	546,000	546,000	547,000	528,000	473,000	463,000	447,000

## 05507800 SALT RIVER NEAR CENTER, MO

LOCATION.--Lat 39°34'27", long 91°34'18", NW ¼ SE ¼ SE ¼ sec.4, T.55 N., R.6 W., Ralls County, Hydrologic Unit 07110007, on left bank at left downstream end of bridge on Highway A, 0.5 mi downstream from Clarence Cannon Dam, 5.0 mi northwest of Center, and at mile 53.1.

DRAINAGE AREA.--2,350 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 1979 to current year. Prior to October 1979, gage height records only by the U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 500.00 ft above National Geodetic Vertical Datum of 1929. Prior to October 1979 nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. U.S. Army Corps of Engineers satellite telemeter at station. Flow regulated by Clarence Cannon Dam, 0.5 mi upstream.

EXTREME OUTSIDE PERIOD OF RECORD.--Maximum gage height, 33.00 ft, Apr. 22, 1973, by U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,340	340	8,090	57	3,200	4,060	66	55	374	1,530	67	73
2	665	65	7,280	56	3,130	3,210	66	55	70	144	66	73
3	57	62	2,580	259	322	3,440	66	55	748	69	67	72
4	1,340	60	4,950	4,820	68	3,360	63	55	75	69	1,340	71
5	1,180	2,820	6,300	7,370	67	2,100	62	55	629	67	588	70
6	162	4,310	5,720	3,490	67	2,180	63	57	1,890	67	69	72
7	1,440	3,660	4,710	5,420	67	1,060	65	59	2,820	66	69	1,100
8	1,220	4,240	7,950	9,300	64	59	62	59	3,750	1,430	69	1,210
9	108	3,890	7,760	9,430	62	58	62	57	3,920	169	68	728
10	58	4,110	7,850	9,610	62	56	60	57	3,760	547	67	87
11	1,290	4,220	6,150	9,600	60	56	60	57	1,260	1,490	320	86
12	1,740	3,610	6,080	9,810	63	57	78	56	871	2,080	80	88
13	778	3,810	6,180	11,000	549	103	3,770	56	2,700	2,580	77	90
14	2,410	3,840	4,620	8,800	241	248	4,030	56	3,560	2,740	76	58
15	3,220	5,370	4,130	8,940	3,870	432	1,860	56	3,930	2,940	75	73
16	715	5,160	4,190	8,990	5,270	58	2,930	54	3,750	545	74	70
17	432	5,130	3,520	9,030	5,280	56	3,280	504	4,190	67	73	68
18	821	5,310	3,470	9,060	5,280	55	4,100	797	983	1,030	71	142
19	3,080	5,130	2,440	8,040	5,280	56	2,820	1,510	66	129	73	46
20	4,590	5,260	2,630	8,040	5,270	57	2,160	274	2,000	2,240	75	40
21	4,580	5,630	2,380	7,590	5,260	57	1,120	62	2,400	2,340	74	36
22	5,810	5,030	2,700	6,960	5,200	61	56	62	1,930	193	75	33
23	1,460	2,900	2,420	6,870	5,270	319	56	1,930	2,450	69	74	1,040
24	1,030	3,790	60	6,980	5,290	65	55	2,690	3,000	68	74	128
25	1,420	3,150	55	5,740	5,310	65	3,440	1,110	2,270	1,130	73	69
26	52	3,750	55	6,590	5,360	65	3,230	186	2,570	361	72	70
27	16	4,740	1,840	6,070	5,360	65	4,660	61	2,630	68	71	67
28	16	4,320	2,600	6,740	4,320	63	4,700	63	2,260	70	71	64
29	2,490	5,380	2,500	4,270	---	62	4,240	64	1,350	69	72	921
30	1,170	8,340	1,580	4,500	---	60	615	63	1,580	68	75	554
31	60	---	365	4,160	---	63	---	62	---	68	74	---
MEAN	1,476	3,914	3,973	6,697	2,844	700	1,596	333	2,126	790	138	243
MAX	5,810	8,340	8,090	11,000	5,360	4,060	4,700	2,690	4,190	2,940	1,340	1,210
MIN	16	60	55	56	60	55	55	54	66	66	66	33
IN.	0.72	1.86	1.95	3.29	1.26	0.34	0.76	0.16	1.01	0.39	0.07	0.12

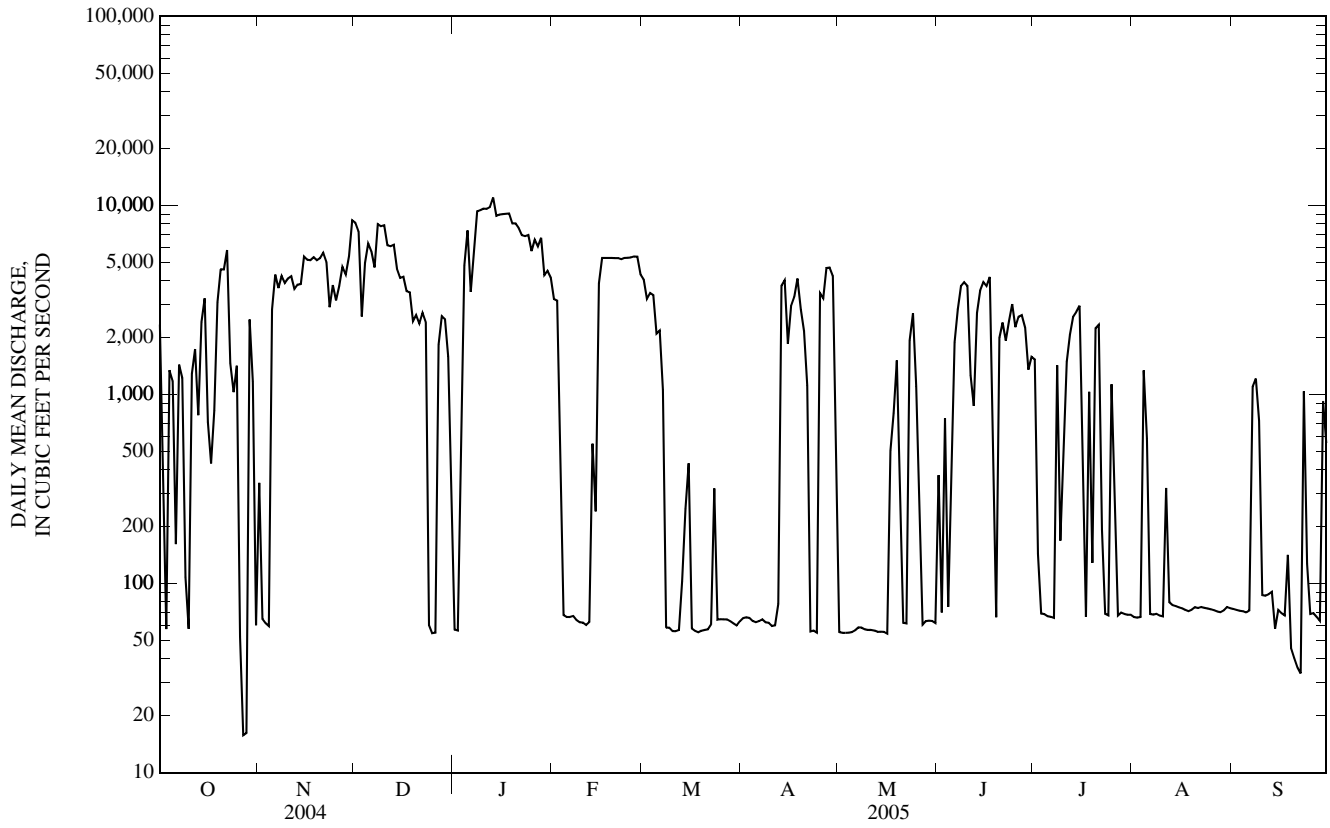
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2005, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
MEAN	1,039	1,377	1,783	1,216	1,696	2,568	2,165	2,487	2,537	2,744	1,407	1,111														
MAX	9,085	6,038	10,360	6,697	8,098	10,530	10,310	7,784	10,560	10,810	7,895	7,902														
(WY)	(1994)	(1987)	(1983)	(2005)	(1982)	(1985)	(1983)	(2002)	(1995)	(1981)	(1993)	(1993)														
MIN	4.62	14.8	31.4	30.5	81.6	87.0	56.9	67.5	126	75.2	13.9	25.3														
(WY)	(1980)	(1981)	(1980)	(1980)	(1989)	(1989)	(2003)	(1989)	(1988)	(1983)	(1980)	(1983)														

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1980 - 2005
ANNUAL MEAN	2,028	2,064	1,846
HIGHEST ANNUAL MEAN			3,462
LOWEST ANNUAL MEAN			283
HIGHEST DAILY MEAN	9,320	Mar 31	11,000
LOWEST DAILY MEAN	16	Oct 27,28	16
ANNUAL SEVEN-DAY MINIMUM	52	Mar 22	56
MAXIMUM PEAK FLOW	---		12,600
MAXIMUM PEAK STAGE	---		14.99
INSTANTANEOUS LOW FLOW	---		15
ANNUAL RUNOFF (INCHES)	11.75		11.93
10 PERCENT EXCEEDS	5,170		5,400
50 PERCENT EXCEEDS	1,340		778
90 PERCENT EXCEEDS	55		57

05507800 SALT RIVER NEAR CENTER, MO—Continued



## 05508000 SALT RIVER NEAR NEW LONDON, MO

LOCATION.--Lat 39°36'44", long 91°24'26", in NE ¼ NW ¼ sec.36, T.56 N., R.5 W., Ralls County, Hydrologic Unit 07110007, on left bank near downstream end of bridge on north bound side of dual U.S. Highway 61, 9.9 mi downstream from Clarence Cannon Dam, 2.0 mi north of New London, 8.0 mi upstream from Spencer Creek, and at mile 35.5.

DRAINAGE AREA.--2,480 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--February 1922 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 477.03 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 7, 1931, nonrecording gage 400 ft upstream at datum 0.03 ft higher; Apr. 7, 1931 to Jan. 17, 1935, nonrecording gage at site 180 ft upstream at datum 0.04 ft lower; Jan. 17, 1935 to April 1985, water-stage recorder 400 ft upstream same datum.

REMARKS.--No estimated daily discharges. Records good. U.S. Army Corps of Engineers satellite telemeter at station. Flow mostly regulated by Clarence Cannon Dam, 9.9 mi upstream, since September 1979. Five percent of the drainage area, 130 mi<sup>2</sup>, is natural drainage not regulated.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107,000 ft<sup>3</sup>/s, Apr. 22, 1973; gage height, 31.8 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 14, 1858, reached a stage of 27.6 ft, present site and datum, based on comparison of June 1928 flood crest at stone marker, 1.0 mi downstream of gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2,250	2,010	8,350	145	3,210	4,160	80	134	77	1,740	74	77
2	1,540	565	8,250	128	3,040	3,040	78	95	371	1,080	72	75
3	151	236	3,780	1,090	1,600	3,350	77	89	123	108	71	75
4	89	343	3,180	3,640	155	3,360	78	86	734	92	80	74
5	1,640	1,110	6,570	10,900	125	2,690	77	83	104	87	1,700	74
6	870	4,120	6,040	4,900	118	2,080	79	81	1,220	82	116	72
7	378	3,820	6,540	4,430	142	1,730	80	82	2,380	79	79	187
8	1,780	4,220	7,840	9,620	144	303	77	83	3,350	138	75	963
9	491	3,700	8,040	9,790	132	105	76	81	3,920	1,390	73	1,530
10	90	4,180	8,140	10,100	115	97	76	78	3,450	105	73	185
11	147	4,260	6,410	10,100	108	92	78	77	3,060	818	69	78
12	2,280	3,610	6,170	10,500	116	90	347	82	169	1,890	301	71
13	752	3,570	6,220	15,200	1,900	86	2,000	79	1,630	1,940	111	76
14	1,720	3,780	5,180	10,000	1,490	238	4,950	75	3,340	2,630	95	83
15	3,010	5,040	4,360	9,390	2,590	433	1,600	70	3,870	2,930	84	57
16	1,750	5,170	4,200	9,390	5,230	177	2,850	70	3,620	2,040	81	73
17	168	4,960	3,240	9,420	5,210	87	3,280	69	4,270	122	78	67
18	734	5,640	3,670	9,430	5,210	84	3,660	529	2,550	103	77	66
19	1,880	4,960	2,400	8,640	5,200	81	2,620	978	163	1,050	78	142
20	4,320	5,010	2,640	8,190	5,200	79	2,960	1,470	655	551	77	52
21	3,980	5,440	2,640	7,880	5,180	79	2,090	130	2,180	2,320	79	36
22	5,820	4,970	2,270	7,400	5,100	90	165	89	1,770	1,710	78	32
23	2,670	3,330	2,910	7,250	5,190	220	108	583	2,210	110	76	39
24	947	3,870	623	6,710	5,190	249	96	2,260	3,020	86	76	982
25	1,550	3,230	112	5,810	5,220	113	1,770	2,290	2,330	97	83	98
26	726	3,770	102	6,800	5,260	103	3,110	624	2,360	1,290	81	80
27	159	6,140	910	5,990	5,290	100	4,660	103	2,430	128	77	75
28	81	4,790	2,720	6,680	4,220	95	4,430	83	2,440	79	75	72
29	561	4,650	2,320	5,040	---	94	4,490	83	1,590	79	74	66
30	2,960	8,520	1,420	4,430	---	90	2,020	82	1,370	78	74	1,290
31	143	---	1,340	3,990	---	85	---	80	---	75	77	---
MEAN	1,472	3,967	4,148	7,193	2,917	764	1,602	348	2,025	807	139	228
MAX	5,820	8,520	8,350	15,200	5,290	4,160	4,950	2,290	4,270	2,930	1,700	1,530
MIN	81	236	102	128	108	79	76	69	77	75	69	32
IN.	0.68	1.79	1.93	3.34	1.23	0.36	0.72	0.16	0.91	0.38	0.06	0.10

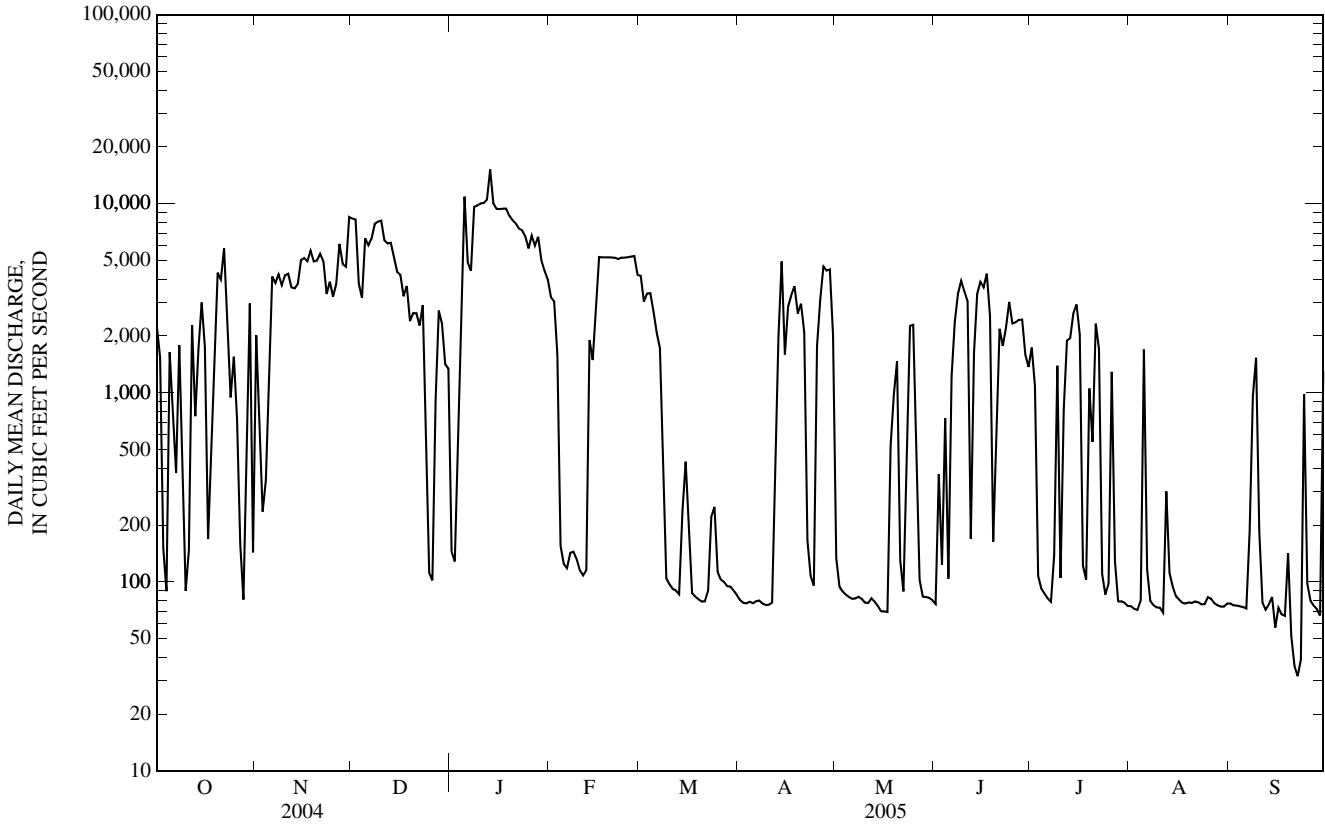
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2005<sup>a</sup>, BY WATER YEAR (WY)

MEAN	1,067	1,488	1,901	1,316	1,833	2,744	2,317	2,665	2,616	2,842	1,487	1,161
MAX	9,165	6,406	11,100	7,193	8,787	10,810	10,660	9,003	10,950	11,900	7,961	8,300
(WY)	(1994)	(1986)	(1983)	(2005)	(1982)	(1985)	(1983)	(2002)	(1995)	(1981)	(1993)	(1993)
MIN	16.9	18.4	48.6	37.1	84.9	90.2	80.8	93.4	128	88.4	42.8	28.5
(WY)	(1980)	(1981)	(1980)	(1981)	(1989)	(1989)	(2003)	(1989)	(1988)	(1983)	(1983)	(1983)

05508000 SALT RIVER NEAR NEW LONDON, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1980 - 2005 <sup>a</sup>	
ANNUAL MEAN	2,107		2,130		1,955	
HIGHEST ANNUAL MEAN					3,577	1993
LOWEST ANNUAL MEAN					307	1989
HIGHEST DAILY MEAN	10,000	Mar 31	15,200	Jan 13	62,100	Jul 30, 1981
LOWEST DAILY MEAN	38	Jun 14	32	Sep 22	9.5	Nov 21, 1980
ANNUAL SEVEN-DAY MINIMUM	58	Jun 2	62	Sep 17	9.6	Nov 20, 1980
MAXIMUM PEAK FLOW	---		17,700	Jan 13	74,200	Jul 29, 1981
MAXIMUM PEAK STAGE	---		16.23	Jan 13	31.09	Jul 29, 1981
INSTANTANEOUS LOW FLOW	---		26	Sep 23	9.5	Nov 21, 1980
ANNUAL RUNOFF (INCHES)	11.57		11.66		10.71	
10 PERCENT EXCEEDS	5,210		5,710		5,580	
50 PERCENT EXCEEDS	1,430		947		506	
90 PERCENT EXCEEDS	84		76		60	

<sup>a</sup> Post-regulation period.



## 05508805 SPENCER CREEK BELOW PLUM CREEK NEAR FRANKFORD, MO

LOCATION.--Lat 39°31'14", long 91°20'34", in NW ¼ NW ¼ NW ¼ sec.27, T.55 N., R.4 W., Ralls County, Hydrologic Unit 07110007, on left bank 25 ft downstream from bridge on dual U.S. Highway 61, 0.75 mi downstream from Plum Creek, 2.5 mi northwest of Frankford, and at mile 4.5.

DRAINAGE AREA.--206 mi<sup>2</sup>.

PERIOD OF RECORD.--Oct. 1, 1979 to current year. Mar. 27, 1930 to September 1978, fragmentary record.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 485.00 ft above National Geodetic Vertical Datum of 1929. Mar. 24, 1930, to Sept. 30, 1936, nonrecording gage at site 0.75 mi upstream at datum 3.63 ft higher; Oct. 7, 1961, to July 15, 1974, fragmentary record, at present site, datum unknown; July 26, 1974, to Apr. 15, 1975, from nonrecording gage present site and datum.

REMARKS.--Records fair except for estimated daily discharges and discharges below 1 ft<sup>3</sup>/s, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	4,610	436	37	55	57	31	25	4.1	0.96	0.45	1.0
2	6.8	1,500	277	39	54	50	29	22	3.5	0.81	0.45	0.93
3	6.6	304	181	2,250	51	50	28	21	3.3	0.69	0.45	0.78
4	6.2	688	126	1,790	48	48	27	20	3.3	0.74	0.45	0.62
5	5.8	266	106	6,440	48	45	26	19	3.4	0.77	0.49	0.52
6	5.6	136	580	1,510	49	42	26	17	3.1	0.68	0.54	0.49
7	5.8	91	3,040	477	82	51	27	16	2.9	0.58	0.58	0.44
8	8.4	67	903	317	208	48	26	15	2.9	0.55	0.57	0.39
9	8.2	54	311	245	173	43	25	15	2.9	0.52	0.60	0.37
10	7.1	46	207	401	107	40	24	13	2.8	0.45	0.60	0.28
11	6.3	40	158	409	83	39	24	12	2.9	0.40	0.65	0.21
12	7.1	34	135	946	155	37	314	13	9.0	0.56	0.85	0.21
13	6.9	31	108	6,500	3,140	35	239	14	17	0.58	1.3	0.50
14	7.4	30	84	917	1,930	34	108	12	16	0.59	1.2	0.88
15	7.5	28	69	363	505	32	67	10	34	0.46	1.4	0.60
16	6.7	27	65	e224	275	32	52	8.8	22	0.39	1.5	0.35
17	6.1	27	63	e154	185	30	44	8.4	13	0.37	1.4	0.22
18	7.7	27	60	e115	137	28	39	7.8	8.4	0.37	1.1	0.34
19	45	67	52	e94	111	27	34	7.3	5.4	0.42	1.4	0.45
20	41	96	48	e85	107	26	32	6.3	3.5	0.46	1.4	0.31
21	22	54	43	e81	95	25	32	6.0	2.9	0.51	1.5	0.21
22	14	40	39	e78	81	e40	38	6.1	2.4	0.56	1.4	0.15
23	12	34	33	e76	71	e150	69	6.2	2.2	0.54	1.3	0.16
24	9.5	1,050	32	72	65	e100	55	5.4	1.8	0.47	1.2	0.39
25	7.8	1,020	30	67	61	e70	42	4.8	1.5	0.52	1.3	0.42
26	9.6	1,220	29	70	56	e60	37	4.1	1.3	0.64	1.5	0.43
27	293	2,520	28	62	53	53	31	3.6	1.2	0.62	1.4	0.34
28	102	864	28	56	61	47	27	3.3	1.1	0.48	1.3	0.30
29	44	298	30	56	---	44	26	3.3	1.1	0.46	1.3	0.31
30	42	246	32	55	---	40	28	4.6	1.0	0.46	1.3	0.22
31	48	---	35	57	---	35	---	4.9	---	0.45	1.1	---
MEAN	26.2	517	238	776	287	47.0	53.6	10.8	6.00	0.55	1.03	0.43
MAX	293	4,610	3,040	6,500	3,140	150	314	25	34	0.96	1.5	1.0
MIN	5.5	27	28	37	48	25	24	3.3	1.0	0.37	0.45	0.15
IN.	0.15	2.80	1.33	4.34	1.45	0.26	0.29	0.06	0.03	0.00	0.01	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2005, BY WATER YEAR (WY)

MEAN	40.8	178	161	139	213	193	235	284	130	146	67.9	80.2
MAX	376	1,310	985	776	766	738	919	1,028	451	1,788	326	1,402
(WY)	(1987)	(1986)	(1983)	(2005)	(1985)	(1984)	(1994)	(2002)	(1982)	(1981)	(2004)	(1993)
MIN	0.22	0.48	1.67	2.58	3.40	9.23	14.3	10.8	2.23	0.55	0.96	0.32
(WY)	(1989)	(1990)	(1990)	(1980)	(1980)	(1981)	(2000)	(2005)	(1988)	(2005)	(1994)	(1988)

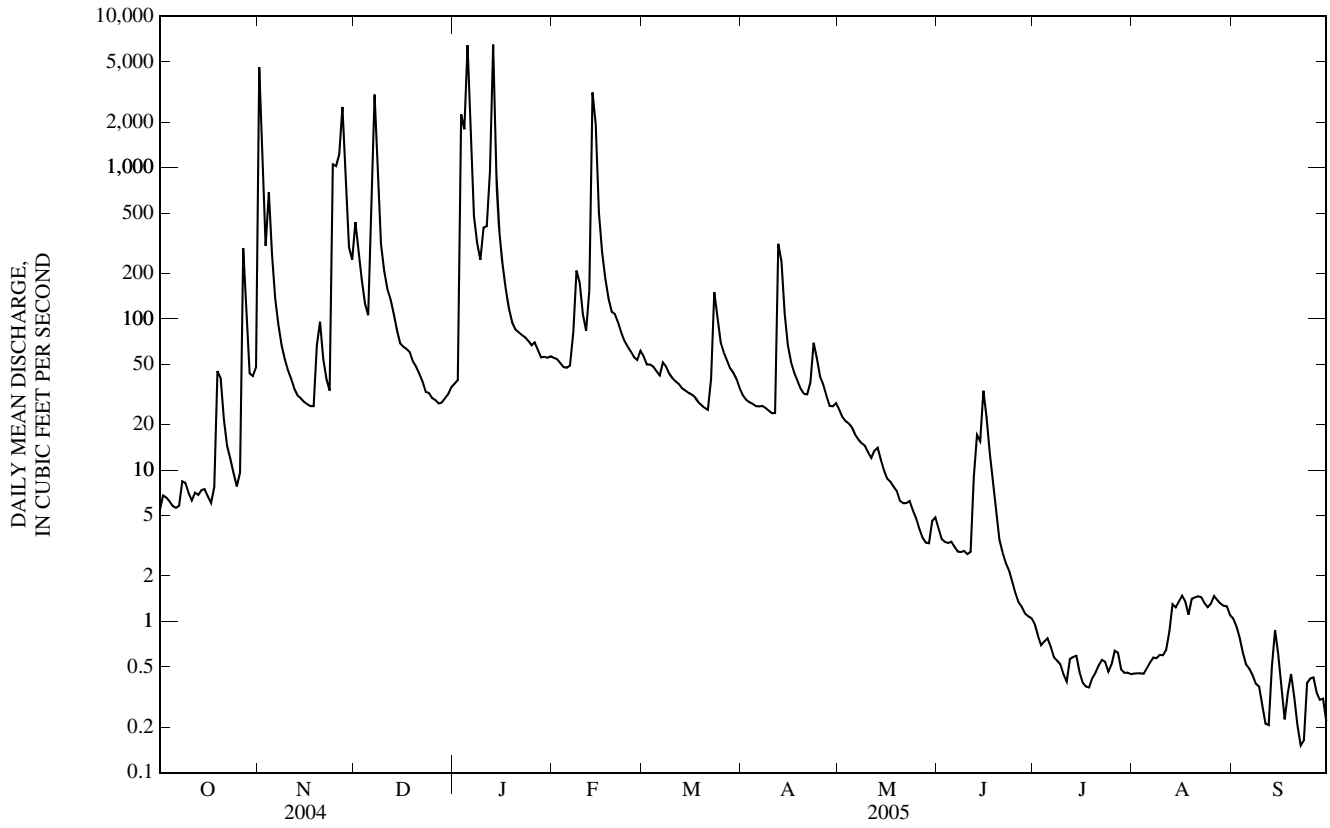
## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1980 - 2005
ANNUAL MEAN	162	163	155
HIGHEST ANNUAL MEAN			355
LOWEST ANNUAL MEAN			33.1
HIGHEST DAILY MEAN	4,900	Aug 27	15,600
LOWEST DAILY MEAN	0.40	Aug 19	0.08
ANNUAL SEVEN-DAY MINIMUM	0.65	Aug 16	0.10
MAXIMUM PEAK FLOW	---	10,800	20,300
MAXIMUM PEAK STAGE	---	14.86	18.54
INSTANTANEOUS LOW FLOW	---	0.06	0.00
ANNUAL RUNOFF (INCHES)	10.68	10.73	10.24
10 PERCENT EXCEEDS	277	245	222
50 PERCENT EXCEEDS	34	26	23
90 PERCENT EXCEEDS	4.7	0.47	1.1

e Estimated



05508805 SPENCER CREEK BELOW PLUM CREEK NEAR FRANKFORD, MO—Continued



## 05514500 CUIVRE RIVER NEAR TROY, MO

LOCATION.--Lat 39°00'32", long 90°58'39", in SE ¼ sec.14, T.49 N., R.1 W., Lincoln County, Hydrologic Unit 07110008, on downstream side of right end of downstream bridge on dual U.S. Highway 61, 1.2 mi downstream from confluence of North Fork and West Fork Cuivre Rivers, and 2.0 mi north of Troy.

DRAINAGE AREA.--903 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1922 to July 1972, May 1979 to current year.

REVISED RECORDS.--WSP 855: 1933(m), 1935(m), 1937(m). WSP 895: 1939. WSP 1005: 1942(m). WSP 1308: 1922-25(m).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 450.27 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1930, nonrecording gage at site 3 mi downstream at datum 4.31 ft lower; Oct. 1, 1930, to July 1939, nonrecording gage at present site and datum.

REMARKS.--Water-discharge 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.--The highest flood since 1888 was the flood of December 1895 which reached a gage height of 27.90 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

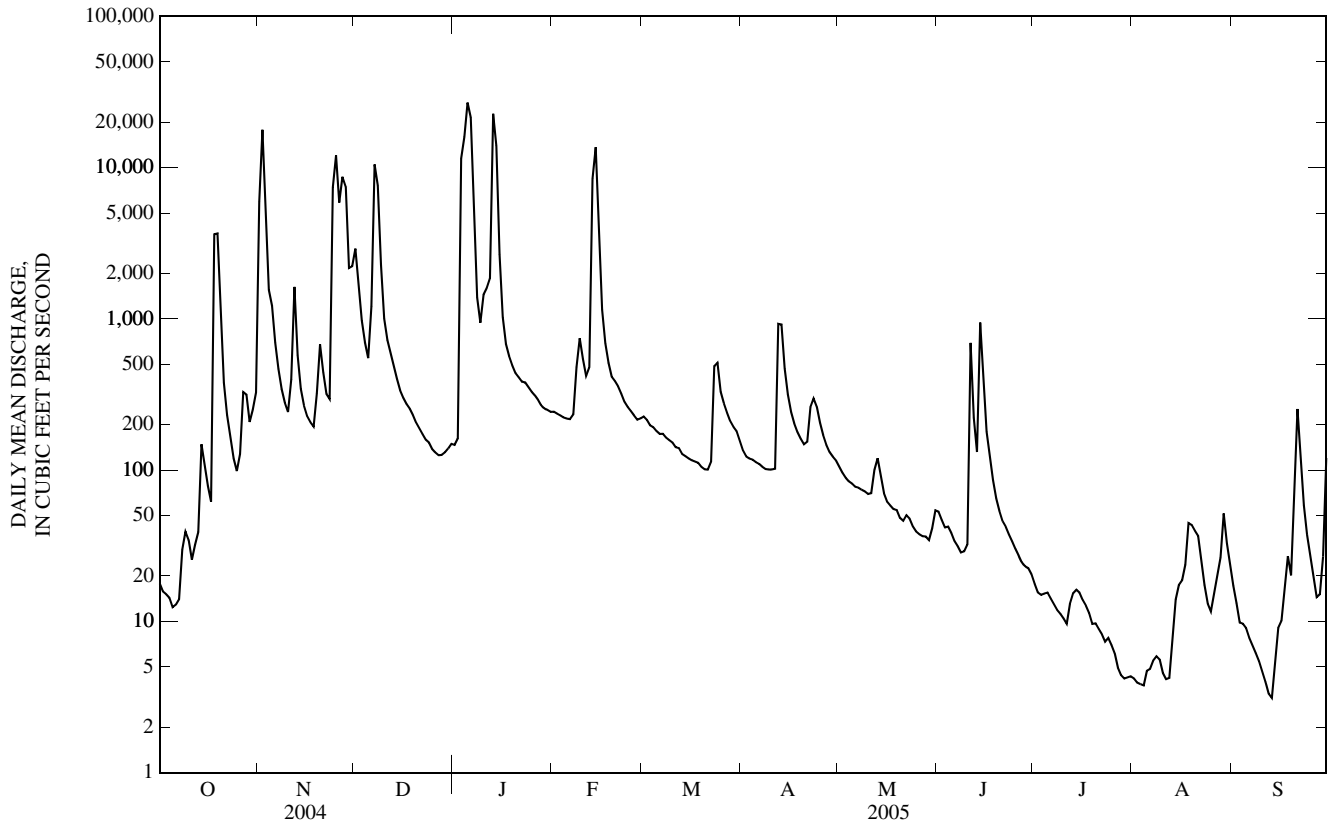
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	5,930	2,910	147	243	226	135	106	53	18	4.2	17
2	16	17,800	1,650	161	236	215	123	96	47	16	3.9	13
3	15	4,170	975	11,500	230	198	119	89	42	15	3.8	9.8
4	14	1,560	698	15,900	223	192	117	84	42	15	3.8	9.6
5	12	1,220	550	26,900	219	181	113	82	38	15	4.7	9.0
6	13	693	1,210	21,400	217	173	110	78	34	14	4.9	7.8
7	14	467	10,500	4,680	234	174	105	77	31	13	5.5	6.9
8	30	344	7,590	1,380	481	164	102	74	29	12	5.9	6.2
9	39	279	2,270	943	744	158	101	72	29	11	5.6	5.5
10	35	242	1,000	1,440	544	152	101	70	32	10	4.6	4.7
11	26	397	725	1,600	419	142	102	71	693	9.6	4.1	4.0
12	32	1,630	595	1,850	478	140	926	101	222	13	4.2	3.3
13	39	576	492	22,700	8,440	128	919	120	132	15	7.8	3.1
14	148	344	401	13,900	13,700	124	470	92	946	16	14	5.3
15	109	266	337	2,670	3,610	120	316	70	377	15	17	9.1
16	79	227	300	1,030	1,150	116	243	62	180	14	19	10
17	62	207	274	681	691	114	204	58	124	13	24	17
18	3,630	194	255	e567	513	112	179	55	86	11	45	27
19	3,670	322	231	e492	415	105	161	54	65	9.6	43	20
20	952	678	206	e438	388	101	148	48	54	9.7	40	90
21	378	444	188	e410	358	101	154	46	46	8.9	37	254
22	231	319	173	e385	320	114	261	50	42	8.2	25	115
23	165	295	159	e380	283	488	298	48	38	7.4	17	58
24	119	7,420	152	355	262	512	262	42	34	7.8	13	37
25	99	12,000	138	331	246	330	206	39	30	7.0	12	27
26	128	5,870	131	313	229	277	170	38	27	6.2	15	20
27	329	8,700	125	292	215	240	147	37	25	4.9	20	14
28	316	7,460	126	269	220	211	131	36	23	4.4	26	15
29	208	2,170	131	256	---	193	123	35	22	4.2	52	27
30	252	2,230	139	250	---	181	116	41	20	4.3	33	120
31	326	---	149	243	---	156	---	54	---	4.3	24	---
MEAN	371	2,815	1,122	4,318	1,261	188	222	65.3	119	10.7	17.4	32.2
MAX	3,670	17,800	10,500	26,900	13,700	512	926	120	946	18	52	254
MIN	12	194	125	147	215	101	101	35	20	4.2	3.8	3.1
IN.	0.47	3.48	1.43	5.51	1.45	0.24	0.27	0.08	0.15	0.01	0.02	0.04

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

MEAN	388	532	511	587	863	995	1,184	1,101	705	537	288	437
MAX	6,704	4,503	5,924	4,318	4,250	3,596	6,126	6,311	4,735	4,366	1,994	9,098
(WY)	(1942)	(1986)	(1983)	(2005)	(1962)	(1922)	(1994)	(1929)	(1970)	(1981)	(1923)	(1993)
MIN	0.10	1.30	1.11	1.63	1.80	2.51	25.8	17.1	11.0	0.44	0.23	0.24
(WY)	(1965)	(1954)	(1964)	(1954)	(1954)	(1954)	(1954)	(1934)	(1936)	(1934)	(1936)	(1964)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	858		876		676	
HIGHEST ANNUAL MEAN					2,186	
LOWEST ANNUAL MEAN					27.3	
HIGHEST DAILY MEAN	17,800	Mar 5	26,900	Jan 5	76,400	Oct 5, 1941
LOWEST DAILY MEAN	12	Oct 5	3.1	Sep 13	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	15	Oct 1	4.1	Jul 29	0.00	At Times
MAXIMUM PEAK FLOW	---		35,200	Jan 5	120,000	Oct 5, 1941
MAXIMUM PEAK STAGE	---		26.76	Jan 5	33.40	Oct 5, 1941
INSTANTANEOUS LOW FLOW	---		2.2	Sep 13	0.00	Several Years
ANNUAL RUNOFF (INCHES)	12.93		13.18		10.17	
10 PERCENT EXCEEDS	2,100		1,170		1,240	
50 PERCENT EXCEEDS	217		123		93	
90 PERCENT EXCEEDS	28		9.6		6.0	



## MISSISSIPPI RIVER BASIN ABOVE MISSOURI RIVER

05514500 CUIVRE RIVER NEAR TROY, MO—Continued  
(Ambient Water-Quality Monitoring Network)

## WATER-QUALITY RECORDS

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

REMARKS.--National Stream-Quality Accounting Network station October 1986 through September 1994. Ambient Water-Quality Monitoring Network station October 1994 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous dis-charge, cfs (00061)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc-tance, wat unfltrd 25 degC (00095)	Temper-ature, water, deg C (00010)	Hard-ness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnes-ium, water, fltrd, mg/L (00925)	Potas-sium, water, fltrd, mg/L (00935)	
NOV 02...	1245	Environmental	18,900	7.5	72	6.7	139	13.5	53	16.3	3.05	8.83	
NOV 02...	1246	Replicate	--	7.5	72	6.7	139	13.5	53	16.2	3.03	8.92	
JAN 05...	1400	Environmental	30,800	12.2	95	6.7	120	4.1	--	--	--	--	
MAR 09...	1340	Environmental	160	14.6	127	8.1	384	8.5	--	--	--	--	
MAY 03...	0900	Environmental	96	9.3	90	7.7	440	13.3	200	64.5	10.5	4.42	
JUL 26...	0935	Environmental	7.4	6.3	87	7.8	473	31.2	--	--	--	--	
SEP 07...	1400	Environmental	7.9	9.7	127	8.0	401	28.0	--	--	--	--	
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)	Bicar-bonate, wat unfltrd, titr., field, mg/L (00450)	Carbon-ate, 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, sus-pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NOV 02...	2.40	50	52	63	<1	5.66	.2	4.2	100	190d	1.7	<.04	.57
NOV 02...	2.40	--	--	--	--	5.69	.2	4.2	97	292d	1.6	<.04	.57
JAN 05...	--	--	--	--	--	--	--	--	--	483d	1.7	.10	.89
MAR 09...	--	--	--	--	--	--	--	--	--	<10	.42	<.04	.39
MAY 03...	15.1	161	162	197	<1	17.6	.2	27.5	257	24	.69	<.04	.38
JUL 26...	--	--	--	--	--	--	--	--	--	13	.63	<.04	<.06
SEP 07...	--	--	--	--	--	--	--	--	--	<10	.48	<.04	<.06
Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, 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, col/100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 02...	E.007n	.23	.27	.64	3,900	5,600	6	3,850d	1.3	E.03n	.13	2.1	88
NOV 02...	E.007n	.23	.27	.64	1,800	4,900	7	3,690d	1.3	E.03n	.13	2.3	93
JAN 05...	E.007n	.20	.25	.64	6,000	5,900	--	--	--	--	--	--	--
MAR 09...	<.008	<.02	<.04	E.03n	2k	2k	--	--	--	--	--	--	--
MAY 03...	.014	<.02	<.04	.06	25k	68	2	249	.6	<.04	E.02n	.9	38
JUL 26...	<.008	<.02	E.03n	.07	22k	40	--	--	--	--	--	--	--
SEP 07...	<.008	<.09d	<.04	.05	10k	16k	--	--	--	--	--	--	--

05514500 CUIVRE RIVER NEAR TROY, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 02...	.12	9.22	29.0	.02	E.3n	1.7	20
02...	.19	10.1	29.3	.01	E.2n	1.8	18
JAN 05...	--	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--
MAY 03...	E.06n	.60	227	<.01	.4	1.3	E2n
JUL 26...	--	--	--	--	--	--	--
SEP 07...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## 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

## MISSISSIPPI RIVER BASIN ABOVE MISSOURI RIVER

05514840 DARDENNE CREEK AT O'FALLON, MO

LOCATION.--Lat 38°44'25", long 90°41'42", in NE ¼ NE ¼ SE ¼ sec.16, T.46 N., R.3 E., St. Charles County, Hydrologic Unit 07110009, attached to downstream side of State Highway K bridge, 4.2 mi south of Interstate 70.

DRAINAGE AREA.--61.0 mi<sup>2</sup>.

PERIOD OF RECORD.--Nov. 18, 1999 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	366	255	15	23	24	19	23	4.0	1.3	0.17	2.3
2	3.1	176	121	16	21	19	18	20	3.6	1.2	0.17	2.0
3	3.4	87	83	1,330	21	17	16	17	3.3	1.2	0.21	1.1
4	3.8	104	63	882	20	18	15	15	3.5	1.2	0.25	1.2
5	3.0	61	55	3,870	18	17	14	14	4.8	1.2	0.64	1.1
6	3.0	45	121	655	20	16	14	15	3.4	1.0	1.9	1.2
7	11	32	1,810	261	64	23	14	15	3.9	0.97	1.6	1.0
8	20	24	280	181	234	18	13	14	4.6	1.3	0.99	0.19
9	7.8	20	153	121	115	14	12	14	5.8	1.1	0.60	0.25
10	3.8	18	102	87	80	15	12	12	5.7	1.1	1.9	0.08
11	18	e18	76	73	57	15	23	11	14	7.8	1.2	0.15
12	85	e250	59	98	58	12	407	11	17	35	9.5	1.9
13	38	112	49	1,460	657	11	228	9.8	35	7.1	92	1.8
14	30	67	36	267	344	11	113	13	188	2.8	57	10
15	34	51	31	138	152	10	75	11	27	4.1	57	154
16	15	e40	29	96	98	9.6	57	8.8	12	2.3	106	36
17	7.9	32	26	71	73	9.6	46	8.0	8.0	0.66	22	11
18	515	e28	24	58	58	9.9	37	7.4	5.9	6.0	21	6.9
19	101	e80	21	53	49	11	32	7.0	4.6	2.8	11	22
20	53	53	18	56	47	9.4	30	12	3.5	0.87	6.4	86
21	34	35	18	53	41	9.1	29	7.0	2.9	0.42	4.5	13
22	22	55	16	46	34	129	126	13	2.7	0.25	3.5	7.2
23	18	54	15	35	30	150	85	12	2.6	0.20	2.6	4.6
24	12	781	13	31	31	76	63	8.5	2.4	0.32	3.8	3.3
25	11	426	13	30	28	77	48	7.9	2.7	0.46	20	22
26	52	409	13	30	25	69	50	6.0	3.6	1.2	25	11
27	182	368	12	26	24	49	39	5.4	6.0	1.9	9.7	6.0
28	64	191	13	23	26	41	36	4.9	3.7	0.77	4.9	52
29	41	165	15	26	---	32	33	4.2	2.2	0.37	2.5	29
30	33	288	15	25	---	29	29	6.0	1.8	0.27	1.5	12
31	18	---	16	25	---	24	---	4.6	---	0.17	1.9	---
MEAN	46.6	148	115	327	87.4	31.4	57.8	10.9	12.9	2.82	15.2	16.7
MAX	515	781	1,810	3,870	657	150	407	23	188	35	106	154
MIN	3.0	18	12	15	18	9.1	12	4.2	1.8	0.17	0.17	0.08
IN.	0.88	2.71	2.18	6.18	1.49	0.59	1.06	0.21	0.24	0.05	0.29	0.31

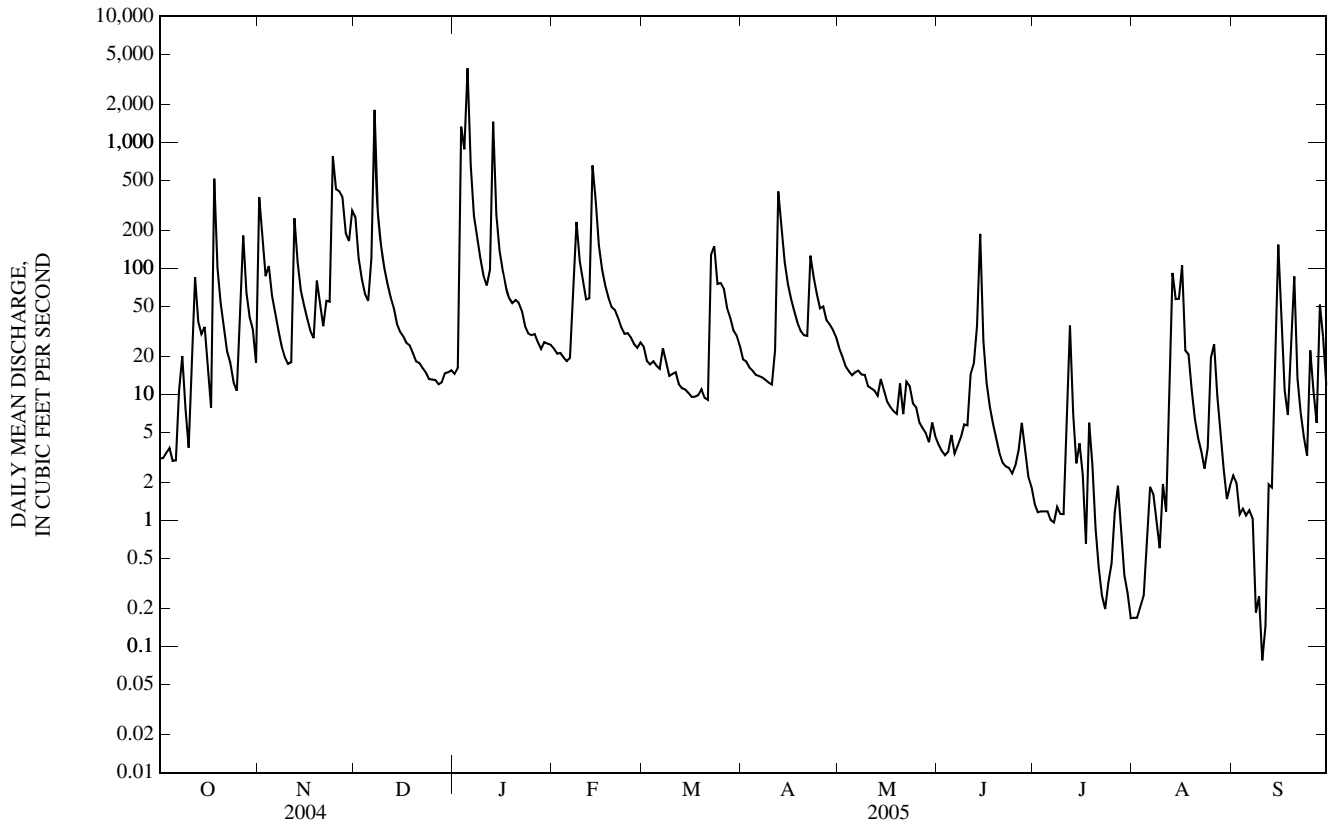
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	25.8	71.4	52.0	94.3	64.4	76.4	60.3	121	106	15.8	21.2	10.6
MAX	46.6	148	115	327	101	166	138	271	220	31.7	77.1	18.6
(WY)	(2005)	(2005)	(2005)	(2005)	(2001)	(2004)	(2002)	(2002)	(2000)	(2004)	(2004)	(2003)
MIN	6.93	8.38	4.14	3.84	34.9	22.9	20.1	10.5	12.9	2.82	3.64	3.37
(WY)	(2001)	(2003)	(2001)	(2000)	(2003)	(2000)	(2000)	(2001)	(2005)	(2005)	(2003)	(2001)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2000 - 2005
ANNUAL MEAN	89.6	72.7	61.6
HIGHEST ANNUAL MEAN			82.2
LOWEST ANNUAL MEAN			27.2
HIGHEST DAILY MEAN	1,910	Jan 4	4,140
LOWEST DAILY MEAN	1.9	Aug 19	0.08
ANNUAL SEVEN-DAY MINIMUM	2.5	Aug 13	0.23
MAXIMUM PEAK FLOW	---	4,320	Jan 5
MAXIMUM PEAK STAGE	---	16.83	Jan 5
INSTANTANEOUS LOW FLOW	---	0.00	Sep 9-11
ANNUAL RUNOFF (INCHES)	20.00	16.18	13.71
10 PERCENT EXCEEDS	208	123	111
50 PERCENT EXCEEDS	27	18	15
90 PERCENT EXCEEDS	4.0	1.2	2.7

e Estimated



## MISSISSIPPI RIVER BASIN ABOVE MISSOURI RIVER

05514860 DARDENNE CREEK AT OLD TOWN ST. PETERS, MO

LOCATION.--Lat 38°48'12", long 90°38'06", in SE ¼ SW ¼ SW ¼ sec.24, T.47 N., R.3 E., St. Charles County, Hydrologic Unit 07110009, on left bank 0.6 mi upstream from State Highway C.

DRAINAGE AREA.--102 mi<sup>2</sup>.

PERIOD OF RECORD.--Nov. 18, 1999 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	1,080	308	36	73	40	29	35	9.3	10	4.5	7.6
2	7.8	283	121	34	70	37	29	32	7.6	9.5	3.8	7.3
3	7.4	95	93	2,390	72	35	28	30	7.0	9.1	3.4	6.8
4	9.2	108	77	1,250	69	35	28	29	6.8	9.1	6.7	6.2
5	9.8	66	71	4,780	67	35	27	28	7.6	9.1	7.2	5.8
6	7.7	53	111	3,390	67	33	26	28	8.3	7.8	6.0	5.7
7	7.3	44	3,230	317	127	41	25	28	7.0	7.1	6.5	5.5
8	41	37	548	179	293	37	25	28	15	7.2	5.8	5.2
9	23	33	135	146	147	33	25	28	14	7.0	4.6	4.6
10	13	31	98	130	122	32	24	27	12	6.5	4.3	3.5
11	11	891	83	123	106	33	43	25	30	9.4	13	3.4
12	83	700	68	126	100	32	493	24	24	79	11	3.3
13	59	106	59	3,010	1,130	30	320	24	54	24	104	4.8
14	38	71	51	467	572	29	93	34	453	17	96	23
15	68	56	47	159	124	30	67	26	35	37	40	284
16	27	49	46	133	88	29	54	23	20	27	231	33
17	19	46	44	123	72	28	46	20	14	12	24	14
18	957	53	42	123	62	28	43	20	11	17	25	11
19	88	91	40	103	56	28	39	18	10	25	18	13
20	44	64	37	108	54	29	40	34	8.9	13	12	181
21	30	48	36	105	50	28	42	20	8.2	11	13	19
22	22	70	33	95	47	180	107	26	7.4	9.8	12	13
23	23	63	42	84	44	148	75	20	6.7	7.7	9.1	11
24	18	1,340	31	79	46	67	58	18	6.0	7.5	9.2	9.6
25	15	886	30	79	44	66	46	15	13	6.8	50	40
26	68	444	29	79	41	62	53	14	21	6.0	36	29
27	139	419	28	76	39	47	43	14	8.5	8.3	23	13
28	62	183	29	72	43	42	42	11	12	5.9	14	166
29	44	164	31	81	---	38	41	10	7.6	5.0	12	60
30	39	327	32	80	---	35	39	13	9.5	5.1	11	15
31	28	---	32	78	---	33	---	11	---	5.1	8.3	---
MEAN	65.0	263	183	582	137	45.2	68.3	23.0	28.5	13.6	26.6	33.5
MAX	957	1,340	3,230	4,780	1,130	180	493	35	453	79	231	284
MIN	6.9	31	28	34	39	28	24	10	6.0	5.0	3.4	3.3
IN.	0.73	2.88	2.06	6.58	1.40	0.51	0.75	0.26	0.31	0.15	0.30	0.37

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

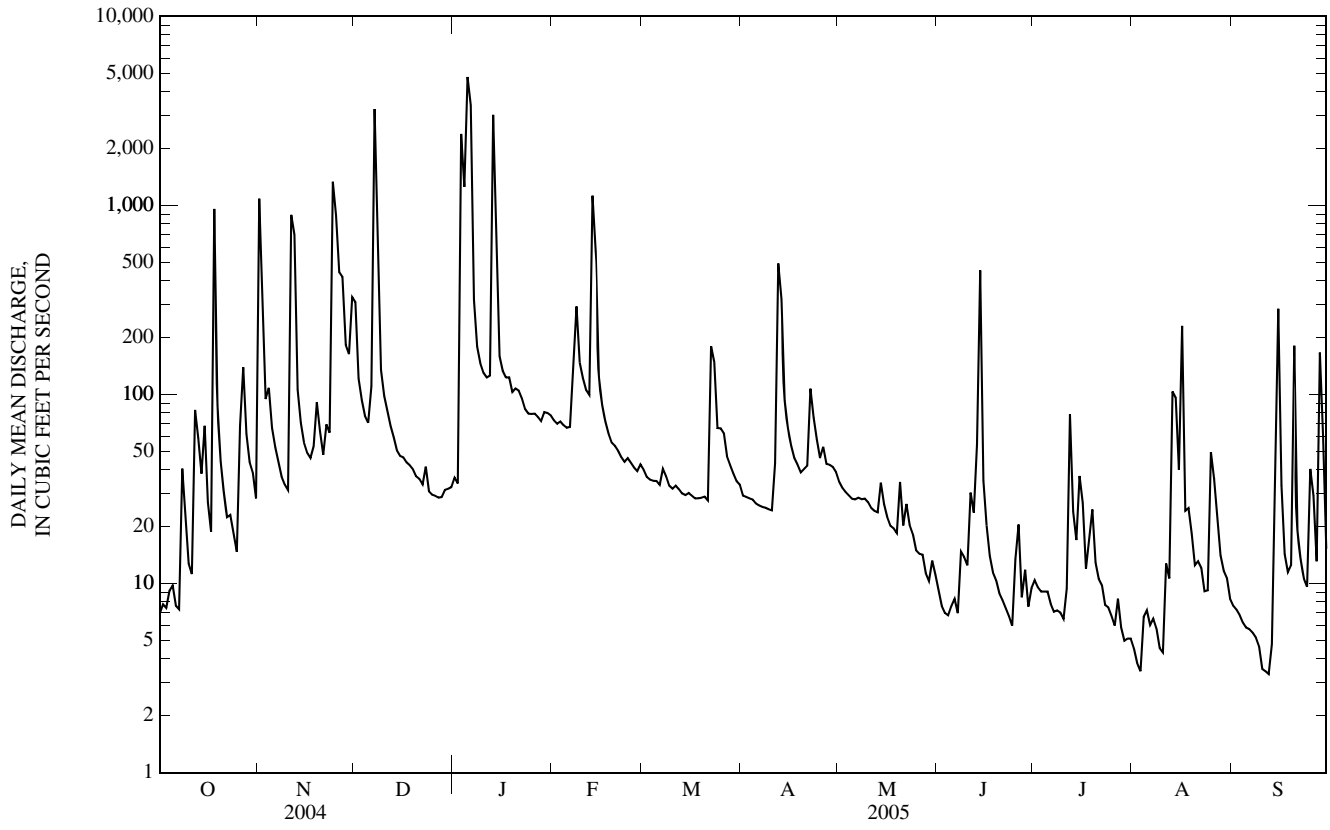
MEAN	64.6	137	94.8	175	120	122	103	224	216	37.6	46.0	33.6
MAX	116	266	183	582	193	259	237	522	429	60.7	160	67.7
(WY)	(2003)	(2004)	(2005)	(2005)	(2001)	(2004)	(2002)	(2002)	(2003)	(2004)	(2004)	(2002)
MIN	27.0	32.6	7.16	6.85	63.7	33.2	31.1	23.0	28.5	13.6	10.3	5.76
(WY)	(2001)	(2001)	(2001)	(2000)	(2004)	(2000)	(2000)	(2005)	(2005)	(2005)	(2003)	(2001)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2000 - 2005	
ANNUAL MEAN	147		122		117	
HIGHEST ANNUAL MEAN					152	
LOWEST ANNUAL MEAN					59.2	
HIGHEST DAILY MEAN	3,230	Dec 7	4,780	Jan 5	4,780	Jan 5, 2005
LOWEST DAILY MEAN	6.5	Jul 1	3.3	Sep 12	0.45	Oct 3, 2001
ANNUAL SEVEN-DAY MINIMUM	7.6	Jun 25	4.3	Sep 7	0.68	Sep 28, 2001
MAXIMUM PEAK FLOW	---		5,500	Jan 5	6,370	Jun 24, 2000
MAXIMUM PEAK STAGE	---		20.75	Jan 5	22.14	Jun 24, 2000
INSTANTANEOUS LOW FLOW	---		3.2	Sep 12	0.30	Oct 3, 2001
ANNUAL RUNOFF (INCHES)	19.67		16.30		15.65	
10 PERCENT EXCEEDS	298		147		179	
50 PERCENT EXCEEDS	41		33		28	
90 PERCENT EXCEEDS	9.8		7.2		5.9	



05514860 DARDENNE CREEK AT OLD TOWN ST. PETERS, MO—Continued



## MISSISSIPPI RIVER MAIN STEM

05587450 MISSISSIPPI RIVER AT GRAFTON, IL

LOCATION.--Lat 38°58'05", long 90°25'44", in NE ¼ sec.15, T.6 N., R.12 W., Jersey County, Hydrologic Unit 07110009, on left bank 0.2 mi downstream from the mouth of Illinois River, 15.3 mi above Lock and Dam 26, 23.0 mi above mouth of Missouri River, and at mile 218.6 upstream of the mouth of Ohio River.

DRAINAGE AREA.--171,300 mi<sup>2</sup>, approximately.

## PERIOD OF RECORD.--

DISCHARGE: Intermittently from 1880 to 1928, computed daily 1928 to 1932 by the National Weather Service and/or the U.S. Army Corps of Engineers. Discharge previously published as "Mississippi River at Alton, IL" (05587500) April 1933 to September 1986.

GAGE HEIGHT: August 1879 through September 1892, 1929 to September 1986, October 1986 to current year. Stages also available from reports of the National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is 403.79 ft above National Geodetic Vertical Datum of 1929. Auxiliary water-stage recorder 15.3 mi downstream.

REMARKS.--No estimated daily discharges. Records poor. Natural flow of river affected by many navigation dams in upper Mississippi River Basin. Flood water from Missouri River overtops or breaches the levees at extremely high stages. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1844 reached an elevation of 435.89 ft, present datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

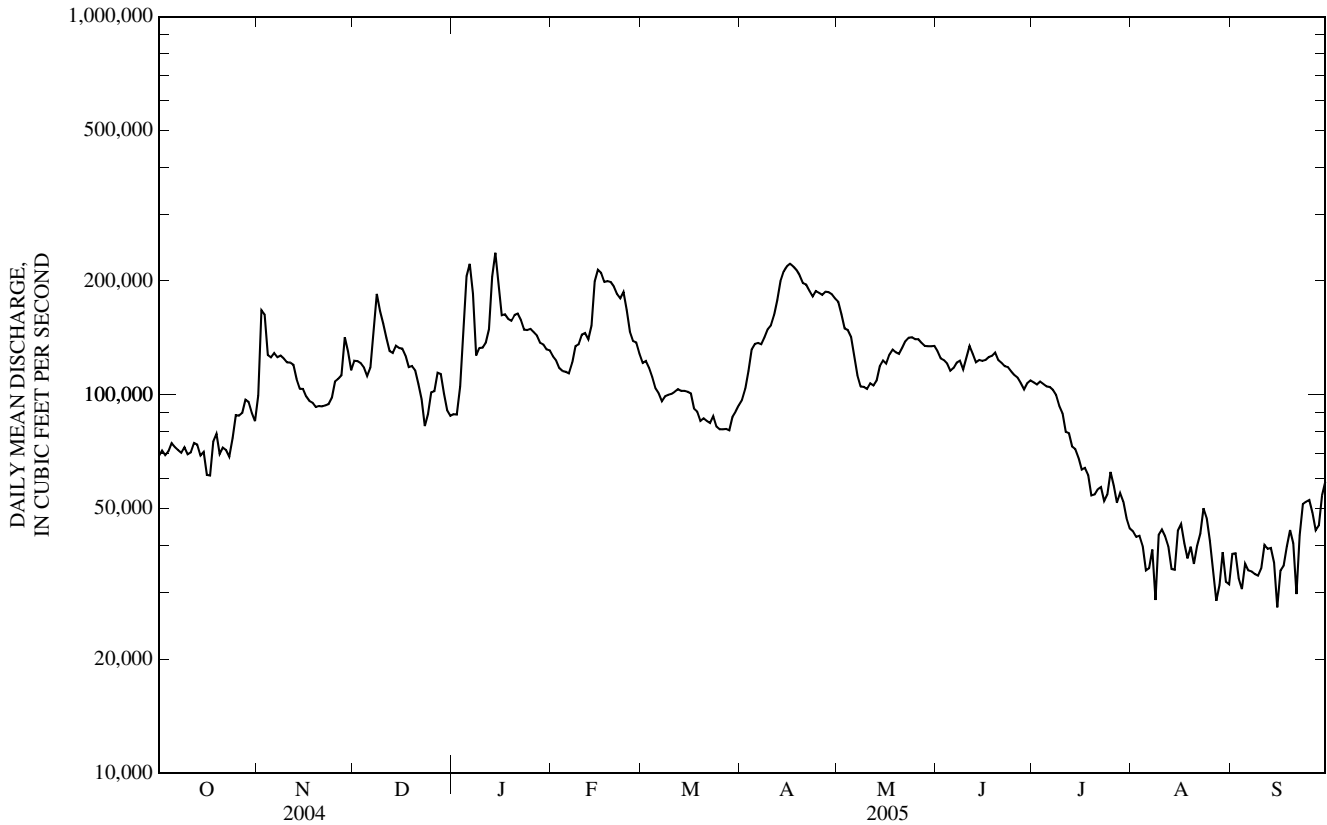
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68,900	99,600	123,000	88,800	126,000	122,000	97,000	176,000	131,000	108,000	43,500	38,000
2	71,200	167,000	123,000	88,700	123,000	123,000	104,000	163,000	125,000	107,000	42,100	38,100
3	69,200	163,000	121,000	105,000	118,000	118,000	116,000	150,000	124,000	108,000	42,400	32,700
4	70,900	127,000	118,000	150,000	116,000	111,000	132,000	148,000	121,000	107,000	39,800	30,700
5	74,500	126,000	112,000	206,000	115,000	104,000	136,000	142,000	116,000	105,000	34,300	35,800
6	72,800	129,000	118,000	222,000	114,000	101,000	137,000	127,000	118,000	105,000	34,800	34,300
7	71,500	126,000	147,000	185,000	122,000	96,300	136,000	113,000	122,000	103,000	39,000	34,100
8	70,300	127,000	185,000	127,000	135,000	99,100	142,000	105,000	123,000	99,900	28,700	33,600
9	72,700	125,000	167,000	133,000	136,000	100,000	149,000	105,000	117,000	93,500	42,700	33,300
10	69,700	122,000	154,000	133,000	144,000	101,000	152,000	104,000	126,000	89,400	44,100	34,800
11	70,500	122,000	141,000	137,000	146,000	102,000	162,000	107,000	135,000	79,800	42,300	40,100
12	74,600	120,000	131,000	149,000	140,000	103,000	178,000	106,000	128,000	79,200	39,800	39,200
13	73,800	110,000	129,000	205,000	152,000	102,000	200,000	109,000	122,000	73,000	34,700	39,400
14	69,100	104,000	135,000	238,000	200,000	102,000	212,000	119,000	124,000	71,900	34,500	36,000
15	70,600	104,000	133,000	198,000	214,000	102,000	219,000	123,000	123,000	68,200	43,700	27,400
16	61,400	99,100	133,000	162,000	210,000	101,000	222,000	121,000	124,000	63,500	45,500	34,300
17	61,200	96,300	127,000	163,000	199,000	91,900	219,000	128,000	126,000	64,100	40,500	35,400
18	75,200	95,300	118,000	159,000	200,000	90,300	214,000	132,000	127,000	61,500	37,000	39,800
19	78,800	92,800	119,000	157,000	199,000	85,300	207,000	130,000	129,000	54,200	39,700	43,900
20	69,700	93,400	116,000	163,000	193,000	86,600	197,000	128,000	124,000	54,500	35,700	40,500
21	72,500	93,200	107,000	164,000	185,000	85,300	196,000	133,000	122,000	56,300	39,900	29,700
22	71,500	93,800	97,400	158,000	180,000	84,200	188,000	139,000	119,000	57,000	43,000	42,600
23	68,600	94,500	82,700	149,000	187,000	87,900	182,000	142,000	118,000	52,300	50,100	51,400
24	76,900	98,100	89,000	148,000	168,000	82,500	188,000	142,000	115,000	54,500	47,200	52,200
25	88,300	108,000	101,000	149,000	147,000	81,100	186,000	140,000	113,000	62,500	41,000	52,700
26	88,100	110,000	102,000	146,000	139,000	81,100	184,000	140,000	111,000	57,600	34,200	48,800
27	89,600	113,000	114,000	144,000	138,000	81,200	187,000	137,000	107,000	51,800	28,500	43,800
28	97,100	142,000	114,000	137,000	128,000	80,600	187,000	135,000	103,000	55,100	31,400	45,200
29	95,800	130,000	101,000	136,000	---	87,500	185,000	134,000	107,000	52,200	38,400	54,300
30	89,700	116,000	90,900	132,000	---	90,300	180,000	134,000	109,000	47,200	32,000	58,900
31	85,300	---	88,000	131,000	---	93,900	---	135,000	---	44,300	31,600	---
MEAN	75,480	114,900	120,500	153,700	156,200	96,040	173,100	130,500	120,300	73,760	38,780	40,030
MAX	97,100	167,000	185,000	238,000	214,000	123,000	222,000	176,000	135,000	108,000	50,100	58,900
MIN	61,200	92,800	82,700	88,700	114,000	80,600	97,000	104,000	103,000	44,300	28,500	27,400
IN.	0.51	0.75	0.81	1.03	0.95	0.65	1.13	0.88	0.78	0.50	0.26	0.26

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2005, BY WATER YEAR (WY)

MEAN	84,260	90,150	85,630	78,540	95,560	137,900	178,500	199,100	179,300	145,100	98,460	77,610
MAX	334,900	171,300	169,900	161,000	158,000	217,400	342,100	333,300	287,200	469,300	416,900	309,900
(WY)	(1987)	(1987)	(1993)	(1993)	(1999)	(1997)	(1993)	(1993)	(2004)	(1993)	(1993)	(1993)
MIN	28,050	33,270	31,810	34,800	39,860	56,560	72,770	69,140	36,310	30,420	37,230	30,600
(WY)	(1989)	(1990)	(1990)	(1990)	(2003)	(2003)	(2000)	(1988)	(1988)	(1988)	(1988)	(2003)

05587450 MISSISSIPPI RIVER AT GRAFTON, IL—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1987 - 2005	
ANNUAL MEAN	121,300		107,300		120,900	
HIGHEST ANNUAL MEAN					250,700	1993
LOWEST ANNUAL MEAN					53,860	1989
HIGHEST DAILY MEAN	306,000	Jun 5	238,000	Jan 14	596,000	Aug 3, 1993
LOWEST DAILY MEAN	32,500	Jan 10	27,400	Sep 15	16,200	Oct 7, 2003
ANNUAL SEVEN-DAY MINIMUM	37,000	Feb 5	33,400	Aug 26	23,600	Dec 12, 1988
MAXIMUM PEAK FLOW	---		239,000	Jan 14	598,000	Aug 1, 1993
MAXIMUM PEAK STAGE	---		421.62	Jan 14	441.96	Aug 1, 1993
INSTANTANEOUS LOW FLOW	---		20,200	Sep 15	16,200	Oct 7, 2003
ANNUAL RUNOFF (INCHES)	9.64		8.51		9.59	
10 PERCENT EXCEEDS	250,000		177,000		242,000	
50 PERCENT EXCEEDS	102,000		108,000		95,000	
90 PERCENT EXCEEDS	45,100		40,000		42,500	



## MISSISSIPPI RIVER MAIN STEM

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL  
(Ambient Water-Quality Monitoring Network)  
(Metropolitan St. Louis Sewer District Network)

LOCATION.--Lat 38°57'04", long 90°22'16", in sec.24, T.6 N., R.11 W., Jersey County, Hydrologic Unit 07110009, 11.3 mi above Lock and Dam 26, 19.0 mi above mouth of Missouri River, and at mile 214.6 upstream from the mouth of the Ohio River.

DRAINAGE AREA.--171,300 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--March 1989 to current year. National Stream-Quality Accounting Network station September 1989 to October 1992. National Stream-Quality Accounting Network station November 1992 to September 2003. Ambient Water-Quality Monitoring Network November 1992 to current year. St. Louis Metropolitan Sewer District April 2005 to current year.

REMARKS.--Sediment records poor.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT: October 1989 to current year.

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 1,910 mg/L, May 23, 1990; minimum daily mean, 1 mg/L, Sept. 10, 1991.

SUSPENDED-SEDIMENT LOAD: Maximum daily, 1,090,000 tons, May 23, 1990; minimum daily, 186 tons, Sept. 10, 1991.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 740 mg/L, Nov. 3; minimum daily mean, 50 mg/L, Sept. 28.

SUSPENDED-SEDIMENT LOAD: Maximum daily, 433,000 tons, Jan. 14; minimum daily, 4,550 tons, Sept. 21.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unf 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)
OCT 25...	1230	Environmental	88,300	.153	.111	11.2	113	8.0	467	15.3	200	47.7
NOV 08...	1300	Environmental	127,000	.169	.127	11.1	102	7.8	499	11.8	220	55.0
DEC 06...	1335	Environmental	118,000	.144	.107	11.3	92	8.0	551	5.8	240	57.7
JAN 10...	1330	Environmental	133,000	.142	.107	8.1	58	7.7	491	1.5	220	54.6
JAN 10...	1445	Blank	--	--	--	--	--	--	--	--	--	<.02
FEB 08...	1315	Environmental	135,000	.132	.098	14.0	105	7.4	635	3.1	270	65.5
MAR 07...	1335	Environmental	96,300	.152	.115	15.4	126	8.2	590	5.7	250	61.5
APR 12...	0945	Environmental	178,000	.147	.110	8.8	90	7.8	473	15.2	200	48.8
APR 21...	1515	Environmental	196,000	--	--	8.3	89	7.9	427	17.9	180	44.7
MAY 09...	1240	Environmental	105,000	.184	.135	10.9	115	8.2	437	17.1	210	50.0
MAY 09...	1241	Replicate	212,000	--	--	--	--	--	--	--	210	50.3
JUN 10...	1155	Environmental	126,000	--	--	7.8	96	7.7	517	25.4	240	55.5
JUN 20...	1400	Environmental	124,000	.154	.111	7.8	98	8.0	533	26.5	260	60.7
JUL 11...	1215	Environmental	79,800	.203	.147	6.4	82	7.7	494	27.2	230	56.2
JUL 20...	1230	Environmental	54,500	--	--	9.6	132	8.4	510	31.3	260	63.6
AUG 08...	1250	Environmental	28,700	.210	.152	9.9	132	8.5	485	29.9	230	51.7
SEP 12...	1240	Environmental	39,200	.168	.120	9.1	118	8.4	491	28.1	208	44.7

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unf incrm. titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unf incrm. titr., field, mg/L (00450)	Carbonate, wat unf incrm. titr., field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	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)
Date	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Phaeophytin a, phytoplankton, ug/L (62360)
OCT 25...	.72	E.04n	1.72	.023	.17	.09	.11	.17	1.4	<.1	1.4	6.0	28.6
NOV 08...	1.1	E.03n	3.08	.028	.45	.15	.18	.41	4.5	<.1	4.4	5.1	8.2
DEC 06...	.82	.05	3.99	.019	.35	.11	.12	.26	3.1	<.1	3.1	4.8	7.0
JAN 10...	1.0	.10	4.06	.019	.42	.13	.16	.39	3.8	<.1	3.7	4.9	6.9
JAN 10...	<.10	<.04	<.06	<.008	--	<.02	<.04	<.04	--	--	--	--	--
FEB 08...	.73	.10	3.83	.022	.30	.09	.10	.16	1.6	<.1	1.6	4.9	2.2
MAR 07...	1.1	<.04	4.38	.023	.25	.08	.16	.23	1.7	<.1	1.7	62.9d	3.9
APR 12...	1.4	.06	2.68	.047	.53	.08	.10	.31	3.7	<.1	3.7	5.4	16.1
APR 21...	1.2	E.04n	2.65	.033	--	.06	--	.27	--	--	--	--	--
MAY 09...	.98	<.04	3.46	.014	.32	.03	.06	.16	2.3	<.1	2.3	7.0	19.5
MAY 09...	1.0	<.04	3.46	.010	--	.04	.07	.16	--	--	--	--	--
JUN 10...	1.1	E.04n	4.45	.030	--	.06	--	.24	--	--	--	--	--
JUN 20...	.92	<.04	4.94	.071	.30	.09	.11	.21	1.8	<.1	1.7	7.1	10.4
JUL 11...	.79	<.04	5.09d	.046	.23	.14	.17	.21	1.5	<.1	1.5	6.6	7.2
JUL 20...	1.0	.06	3.78	.042	--	.04	--	.18	--	--	--	--	--
AUG 08...	.89	<.04	.69	.035	.44	.12	.15	.21	2.9	<.1	2.9	6.8	E17.9
SEP 12...	1.1	<.04	.15	E.007n	.48	.14	.18	.24	3.0	<.1	2.9	11.1	18.8

## 05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC col/ 100 mL (31625)	Chloro- phyll a phyto- plank- ton, fluoro, µg/L (70953)	Alum- inum, water, fltrd, µg/L (01106)	Alum- inum, water, unfltrd recover- able, µg/L (01105)	Cadmium water, fltrd, µg/L (01025)	Cadmium water, unfltrd µg/L (01027)	Copper, water, fltrd, µg/L (01040)	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)
OCT 25...	17k	12k	22.6	--	--	--	--	--	--	--	--	--	--
NOV 08...	120	100	4.0	--	--	--	--	--	--	--	--	--	--
DEC 06...	65	68k	11.8	2	1,040d	E.04n	.11	2.1	6	.08	2.71	11.3	E.01n
JAN 10...	130	220	13.3	--	--	--	--	--	--	--	--	--	--
JAN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 08...	20	40	11.0	--	--	--	--	--	--	--	--	--	--
MAR 07...	4k	9k	6.3	2	412	E.03n	.05	1.7	23	<.08	.99	11.5	<.01
APR 12...	27k	12k	16.8	--	--	--	--	--	--	--	--	--	--
APR 21...	20k	10k	--	2	--	.05	--	1.9	8	E.05n	--	1.3	E.01n
MAY 09...	1k	3k	26.1	6	446	E.02n	.05	2.3	10	.26	1.18	2.3	<.01
MAY 09...	1k	3k	--	5	433	E.03n	.07	2.0	12	.23	1.28	1.8	<.01
JUN 10...	6k	10k	--	3	--	.04	--	2.3	E3n	.12	--	.7	E.01n
JUN 20...	110	240	17.8	--	--	--	--	--	--	--	--	--	--
JUL 11...	18k	24	12.4	2	392	E.02n	.04	2.0	<6	.26	.93	1.1	<.01
JUL 20...	25k	25	--	2	--	<.04	--	2.2	E3n	<.08	--	.7	<.01
AUG 08...	5k	3k	E38.5	--	--	--	--	--	--	--	--	--	--
SEP 12...	8k	3k	54.4	--	--	--	--	--	--	--	--	--	--

Date	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover- able, µg/L (01092)	2,6-Di- ethyl- aniline water fltrd 0.7µ GF µg/L (82660)	CIAT, water, fltrd, µg/L (04040)	Aceto- chlor, water, fltrd, µg/L (49260)	Ala- chlor, water, fltrd, µg/L (46342)	alpha- HCH, water, fltrd, µg/L (34253)	Atra- zine, water, fltrd, µg/L (39632)	Azin- phos- methyl, water, fltrd 0.7µ GF µg/L (82686)	Ben- flur- alin, water, fltrd 0.7µ GF µg/L (82673)	Butyl- ate, water, fltrd, µg/L (04028)	Car- baryl, water, fltrd 0.7µGF µg/L (82680)
OCT 25...	--	--	<.006	E.022	.032	.009	<.005	.161	<.050	<.010	<.002	<.041
NOV 08...	--	--	<.006	E.023	.017	<.004	<.005	.121	<.050	<.010	<.002	<.041
DEC 06...	2.2	12	E.003n	E.024	.074	<.004	<.005	.157	<.050	<.010	<.002	<.041
JAN 10...	--	--	.016	E.024	.036	<.004	<.005	.096	<.050	<.010	<.002	<.041
JAN 10...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 08...	--	--	E.004n	E.017	.081	<.004	<.005	.136	<.050	<.010	<.002	<.041
MAR 07...	2.1	7	<.006	E.034m	.035	<.005	<.005	.064	<.050m	<.010	<.004	<.041m
APR 12...	--	--	<.006	E.015m	.154	.015	<.005	.144	<.050m	<.010	<.004	<.041m
APR 21...	1.1	--	--	--	--	--	--	--	--	--	--	--
MAY 09...	2.5	4	E.002t	E.018m	.067	E.003n	<.005	.239	<.050m	<.010	<.004	<.041m
MAY 09...	1.2	6	--	--	--	--	--	--	--	--	--	--
JUN 10...	1.0	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	--	--	<.006	E.100m	.184	<.010	<.005	.818	<.050m	<.010	<.004	<.041m
JUL 11...	1.4	5	<.006	E.098m	.064	<.005	<.005	.789	<.050m	<.010	<.004	<.041m
JUL 20...	2.0	--	--	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	<.006	E.031m	<.015	<.005	<.005	.337	<.050m	<.010	<.004	<.041m
SEP 12...	--	--	<.006	E.028m	.048	<.005	<.005	.236	<.050m	<.010	<.004	<.041m

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Carbo- furan, water, fltrd 0.7µ GF (82674)	Chloro- pyrifos water, fltrd, µg/L (38933)	cis- Per- methrin water fltrd 0.7µ GF (82687)	Cyana- zine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µ GF (82682)	Diazi- non, water, fltrd, µg/L (39572)	Diel- drin, water, fltrd, µg/L (39381)	Disul- foton, water, fltrd 0.7µ GF (82677)	EPTC, water, fltrd 0.7µ GF (82668)	Ethal- flur- alin, water, fltrd 0.7µ GF (82663)	Etho- prop, water, fltrd 0.7µ GF (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)
OCT 25...	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004
NOV 08...	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004
DEC 06...	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004
JAN 10...	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004
JAN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 08...	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004
MAR 07...	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004
APR 12...	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004
APR 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 09...	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004
MAY 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	<.020m	<.010	<.006	<.018	<.003	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004
JUL 11...	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004
JUL 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 08...	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004
SEP 12...	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035
Date	Linuron water fltrd 0.7µ GF (82666)	Mala- thion, water, fltrd, µg/L (39532)	Methyl para- thion, water, fltrd 0.7µ GF (82667)	Metola- chlor, water, fltrd, µg/L (39415)	Metri- buzin, water, fltrd, µg/L (82630)	Moli- nate, water, fltrd 0.7µ GF (82671)	Naprop- amide, water, fltrd 0.7µ GF (82684)	p,p'- DDE, water, fltrd, µg/L (34653)	Para- thion, water, fltrd, µg/L (39542)	Peb- ulate, water, fltrd 0.7µ GF (82669)	Pendi- meth- alin, water, fltrd 0.7µ GF (82683)	Phorate water fltrd 0.7µ GF (82664)	Prome- ton, water, fltrd, µg/L (04037)
OCT 25...	<.035	<.027	<.006	.033	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01
NOV 08...	<.035	<.027	<.006	.040	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01
DEC 06...	<.035	<.027	<.006	.046	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01
JAN 10...	<.035	<.027	<.006	.045	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01
JAN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 08...	<.035	<.027	<.006	.059	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01
MAR 07...	<.035	<.027	<.015	.168	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01
APR 12...	<.035	<.027	<.015	.198	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01
APR 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAY 09...	<.035	<.027	<.015	.082	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01
MAY 09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 20...	<.035	<.027	<.015	.204	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.01n
JUL 11...	<.035	<.027	<.015	.150	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.01n
JUL 20...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 08...	<.035	<.027	<.015	.028	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.01n
SEP 12...	<.027	<.015	.016	<.006	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Propy- zamide, water, fltrd 0.7µ GF µg/L (82676)	Propa- chlor, water, fltrd, µg/L (04024)	Pro- panil, water, fltrd 0.7µ GF µg/L (82679)	Propar- gite, water, fltrd 0.7µ GF µg/L (82685)	Sima- zine, water, fltrd, µg/L (04035)	Tebu- thiuron water fltrd 0.7µ GF µg/L (82670)	Terba- cil, water, fltrd 0.7µ GF µg/L (82665)	Terbu- fos, water, fltrd 0.7µ GF µg/L (82675)	Thio- bencarb water fltrd 0.7µ GF µg/L (82681)	Tri- allate, water, fltrd 0.7µ GF µg/L (82678)	Tri- flur- alin, water, fltrd 0.7µ GF µg/L (82661)
OCT											
25...	<.004	<.010	<.011	<.02	.021	<.02	<.034	<.02	<.005	<.002	<.009
NOV											
08...	<.004	<.010	<.011	<.02	<.010	<.02	<.034	<.02	<.005	<.002	<.009
DEC											
06...	<.004	<.010	<.011	<.02	.056	<.02	<.034	<.02	<.005	<.002	<.009
JAN											
10...	<.004	<.010	<.011	<.02	.118	<.02	<.034	<.02	<.005	<.002	<.009
10...	--	--	--	--	--	--	--	--	--	--	--
FEB											
08...	<.004	<.010	<.011	<.02	.045	<.02	<.034	<.02	<.005	<.002	<.009
MAR											
07...	<.004	<.025	<.011	<.02	.054	<.02	<.034m	<.02	<.010	<.006	<.009
APR											
12...	<.004	<.025	<.011	<.02	.013	<.02	<.034m	<.02	<.010	<.006	<.009
21...	--	--	--	--	--	--	--	--	--	--	--
MAY											
09...	<.004	<.025	<.011	<.02	.011	<.02	<.034m	<.02	<.010	<.006	<.009
09...	--	--	--	--	--	--	--	--	--	--	--
JUN											
10...	--	--	--	--	--	--	--	--	--	--	--
20...	<.004	<.025	<.011	<.02	.036	<.02	<.034m	<.02	<.010	<.006	<.009
JUL											
11...	<.004	<.025	<.011	<.02	.018	<.02	<.034m	<.02	<.010	<.006	<.009
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
08...	<.004	<.025	<.011	<.02	<.009	<.02	<.034m	<.02	<.010	<.006	<.009
SEP											
12...	<.025	<.011	<.02	<.007	<.02	<.034mc	<.02	<.010	<.006	<.009	<.025

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

Value qualifier codes used in this table:

- d -- Diluted sample: method hi range exceeded
- k -- Counts outside acceptable range
- m -- Value is highly variable by this method
- n -- Below the LRL and above the LT-MDL
- t -- Below the long-term MDL



## 05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)			
		OCTOBER			NOVEMBER			DECEMBER				
1	68,900	92	17,100	99,600	394	118,000	123,000	353	117,000			
2	71,200	115	22,100	167,000	677	306,000	123,000	273	90,500			
3	69,200	130	24,300	163,000	740	325,000	121,000	281	91,900			
4	70,900	159	30,600	127,000	724	250,000	118,000	315	100,000			
5	74,500	189	38,000	126,000	520	177,000	112,000	298	90,200			
6	72,800	183	35,900	129,000	384	134,000	118,000	245	78,300			
7	71,500	139	26,900	126,000	308	105,000	147,000	310	124,000			
8	70,300	123	23,400	127,000	270	92,500	185,000	390	194,000			
9	72,700	102	20,000	125,000	286	96,500	167,000	510	229,000			
10	69,700	121	22,700	122,000	351	115,000	154,000	498	208,000			
11	70,500	114	21,600	122,000	326	107,000	141,000	423	162,000			
12	74,600	94	18,900	120,000	252	81,900	131,000	403	142,000			
13	73,800	98	19,600	110,000	224	66,600	129,000	368	128,000			
14	69,100	98	18,300	104,000	234	65,500	135,000	317	115,000			
15	70,600	102	19,500	104,000	178	49,700	133,000	263	94,500			
16	61,400	119	19,700	99,100	139	37,100	133,000	212	75,900			
17	61,200	124	20,500	96,300	111	28,900	127,000	189	64,800			
18	75,200	127	25,800	95,300	107	27,600	118,000	185	59,300			
19	78,800	131	27,800	92,800	129	32,400	119,000	304	97,700			
20	69,700	138	25,900	93,400	108	27,100	116,000	315	98,800			
21	72,500	118	23,000	93,200	96	24,300	107,000	272	78,500			
22	71,500	117	22,500	93,800	100	25,500	97,400	263	69,000			
23	68,600	121	22,300	94,500	92	23,600	82,700	228	50,800			
24	76,900	122	25,500	98,100	112	29,900	89,000	197	47,500			
25	88,300	117	28,000	108,000	182	53,300	101,000	172	47,100			
26	88,100	153	36,500	110,000	186	55,200	102,000	146	40,400			
27	89,600	146	35,300	113,000	214	65,800	114,000	121	37,400			
28	97,100	168	44,000	142,000	438	168,000	114,000	107	32,700			
29	95,800	166	42,900	130,000	475	167,000	101,000	103	28,000			
30	89,700	155	37,500	116,000	434	136,000	90,900	85	21,000			
31	85,300	157	35,900	---	---	---	88,000	106	25,300			
<b>TOTAL</b>	<b>2,340,000</b>	<b>---</b>	<b>832,000</b>	<b>3,447,100</b>	<b>---</b>	<b>2,991,400</b>	<b>3,737,000</b>	<b>---</b>	<b>2,838,600</b>			
		JANUARY			FEBRUARY		MARCH					
1	88,800	160	38,400	126,000	167	57,200	122,000	117	38,400			
2	88,700	150	35,900	123,000	202	67,100	123,000	99	32,800			
3	105,000	159	46,100	118,000	134	42,700	118,000	91	28,800			
4	150,000	387	159,000	116,000	135	42,100	111,000	90	27,100			
5	206,000	574	323,000	115,000	174	54,200	104,000	95	26,800			
6	222,000	645	387,000	114,000	180	55,600	101,000	98	26,600			
7	185,000	557	278,000	122,000	159	52,300	96,300	99	25,600			
8	127,000	497	172,000	135,000	142	51,500	99,100	93	25,000			
9	133,000	300	107,000	136,000	206	75,700	100,000	131	35,500			
10	133,000	214	77,100	144,000	203	79,200	101,000	128	34,700			
11	137,000	267	99,200	146,000	152	59,800	102,000	115	31,500			
12	149,000	321	129,000	140,000	163	61,700	103,000	112	31,200			
13	205,000	501	285,000	152,000	167	69,400	102,000	113	31,200			
14	238,000	676	433,000	200,000	430	235,000	102,000	115	31,700			
15	198,000	669	357,000	214,000	541	313,000	102,000	116	32,000			
16	162,000	679	298,000	210,000	661	375,000	101,000	118	32,100			
17	163,000	643	283,000	199,000	514	276,000	91,900	120	29,800			
18	159,000	671	288,000	200,000	290	156,000	90,300	122	29,700			
19	157,000	658	279,000	199,000	268	144,000	85,300	124	28,500			
20	163,000	589	258,000	193,000	263	137,000	86,600	125	29,200			
21	164,000	559	247,000	185,000	217	108,000	85,300	113	26,100			
22	158,000	529	225,000	180,000	184	89,200	84,200	101	23,100			
23	149,000	339	137,000	187,000	182	91,800	87,900	101	24,000			
24	148,000	282	113,000	168,000	161	72,800	82,500	98	21,900			
25	149,000	278	112,000	147,000	162	64,200	81,100	93	20,300			
26	146,000	276	109,000	139,000	140	52,300	81,100	105	23,100			
27	144,000	250	97,000	138,000	129	47,800	81,200	107	23,400			
28	137,000	194	71,700	128,000	118	41,100	80,600	119	25,900			
29	136,000	296	109,000	---	---	---	87,500	112	26,500			
30	132,000	194	69,100	---	---	---	90,300	168	40,600			
31	131,000	244	86,200	---	---	---	93,900	195	49,500			
<b>TOTAL</b>	<b>4,763,500</b>	<b>---</b>	<b>5,708,700</b>	<b>4,374,000</b>	<b>---</b>	<b>2,971,700</b>	<b>2,977,100</b>	<b>---</b>	<b>912,600</b>			

## MISSISSIPPI RIVER MAIN STEM

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)
		APRIL			MAY			JUNE	
1	97,000	182	47,600	176,000	259	123,000	131,000	169	59,700
2	104,000	180	50,400	163,000	258	114,000	125,000	177	59,500
3	116,000	197	61,500	150,000	237	96,000	124,000	164	54,800
4	132,000	235	83,700	148,000	208	83,100	121,000	155	50,700
5	136,000	244	89,800	142,000	180	69,100	116,000	152	47,500
6	137,000	214	79,200	127,000	165	56,600	118,000	158	50,300
7	136,000	218	80,100	113,000	174	53,100	122,000	175	57,600
8	142,000	208	79,600	105,000	151	43,000	123,000	160	53,300
9	149,000	204	82,100	105,000	126	35,700	117,000	133	42,200
10	152,000	199	82,000	104,000	124	34,800	126,000	154	52,400
11	162,000	201	88,100	107,000	165	47,700	135,000	179	65,200
12	178,000	234	113,000	106,000	176	50,400	128,000	186	64,400
13	200,000	370	200,000	109,000	171	50,500	122,000	195	64,400
14	212,000	486	278,000	119,000	185	59,800	124,000	206	68,800
15	219,000	543	321,000	123,000	208	69,200	123,000	200	66,300
16	222,000	542	325,000	121,000	209	68,100	124,000	184	61,400
17	219,000	518	306,000	128,000	193	66,700	126,000	168	57,100
18	214,000	368	212,000	132,000	168	59,700	127,000	183	62,600
19	207,000	335	187,000	130,000	208	72,700	129,000	178	62,100
20	197,000	294	157,000	128,000	202	70,000	124,000	131	43,900
21	196,000	246	130,000	133,000	190	68,300	122,000	126	41,400
22	188,000	252	128,000	139,000	187	69,900	119,000	139	44,600
23	182,000	263	130,000	142,000	254	97,100	118,000	132	42,200
24	188,000	266	135,000	142,000	285	109,000	115,000	123	38,500
25	186,000	326	164,000	140,000	244	92,500	113,000	126	38,300
26	184,000	293	146,000	140,000	219	83,000	111,000	114	34,200
27	187,000	310	157,000	137,000	209	77,600	107,000	113	32,800
28	187,000	318	160,000	135,000	200	72,600	103,000	89	24,800
29	185,000	285	142,000	134,000	191	69,200	107,000	92	26,700
30	180,000	262	128,000	134,000	197	71,400	109,000	104	30,800
31	---	---	---	135,000	195	70,800	---	---	---
TOTAL	5,194,000	---	4,343,100	4,047,000	---	2,204,600	3,609,000	---	1,498,500
		JULY		AUGUST		SEPTEMBER			
1	108,000	111	32,200	43,500	78	9,140	38,000	80	8,310
2	107,000	115	33,000	42,100	78	8,930	38,100	77	7,920
3	108,000	119	34,700	42,400	73	8,310	32,700	69	6,100
4	107,000	116	33,300	39,800	95	10,500	30,700	71	5,910
5	105,000	106	30,100	34,300	102	9,370	35,800	71	6,810
6	105,000	93	26,300	34,800	99	9,370	34,300	68	6,320
7	103,000	91	25,200	39,000	90	9,430	34,100	67	6,140
8	99,900	93	25,200	28,700	83	6,400	33,600	65	5,860
9	93,500	94	23,700	42,700	95	11,100	33,300	75	6,760
10	89,400	88	21,200	44,100	105	12,400	34,800	68	6,420
11	79,800	87	18,900	42,300	96	11,000	40,100	65	7,090
12	79,200	89	19,100	39,800	85	9,150	39,200	62	6,540
13	73,000	89	17,500	34,700	77	7,200	39,400	65	7,020
14	71,900	84	16,400	34,500	75	7,060	36,000	70	6,800
15	68,200	79	14,600	43,700	81	9,630	27,400	66	5,020
16	63,500	70	12,000	45,500	83	10,200	34,300	62	5,770
17	64,100	66	11,500	40,500	81	8,820	35,400	57	5,470
18	61,500	72	12,000	37,000	78	7,810	39,800	66	7,170
19	54,200	68	10,100	39,700	71	7,530	43,900	72	8,570
20	54,500	63	9,350	35,700	71	6,830	40,500	65	7,110
21	56,300	72	11,000	39,900	83	9,000	29,700	56	4,550
22	57,000	65	9,970	43,000	107	12,500	42,600	65	7,610
23	52,300	70	9,870	50,100	98	13,200	51,400	63	8,770
24	54,500	77	11,300	47,200	103	13,000	52,200	57	8,020
25	62,500	84	14,200	41,000	103	11,400	52,700	73	10,400
26	57,600	104	16,100	34,200	85	7,800	48,800	66	8,700
27	51,800	92	12,800	28,500	86	6,720	43,800	62	7,360
28	55,100	86	12,900	31,400	72	6,170	45,200	50	6,130
29	52,200	78	10,900	38,400	71	7,310	54,300	55	8,050
30	47,200	79	10,100	32,000	82	7,060	58,900	57	8,780
31	44,300	78	9,250	31,600	75	6,410	---	---	---
TOTAL	2,286,500	---	554,740	1,202,100	---	280,750	1,201,000	---	211,480

## 06813500 MISSOURI RIVER AT RULO, NE

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

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

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36,000	19,700	20,200	22,100	22,900	20,600	32,800	35,300	44,100	45,700	31,000	31,400
2	35,300	19,700	19,900	22,700	23,200	20,200	33,100	35,200	46,600	44,000	31,100	30,800
3	34,600	20,500	19,800	23,100	23,400	20,000	34,000	35,100	43,500	41,900	31,500	30,800
4	34,600	20,400	19,200	21,900	23,800	20,000	33,200	34,900	45,300	40,400	31,100	30,400
5	34,100	20,400	19,000	19,600	24,200	20,200	32,000	34,000	46,500	39,500	30,800	30,500
6	33,500	19,800	20,100	18,400	24,600	19,900	32,300	34,300	45,800	38,600	30,800	30,000
7	32,900	19,200	21,000	17,700	27,100	19,200	33,800	33,800	54,100	37,800	31,300	30,100
8	32,200	19,200	21,500	17,800	29,600	19,100	32,700	32,900	54,000	36,700	30,900	30,300
9	32,100	18,900	21,200	17,800	25,300	18,900	32,100	33,400	55,500	35,500	30,400	30,700
10	31,400	19,000	20,900	18,100	21,700	18,800	32,300	34,100	59,500	35,000	30,300	30,700
11	29,400	19,200	21,000	18,500	19,900	18,700	32,800	35,200	66,900	34,500	30,500	30,300
12	27,600	19,900	21,600	18,800	19,100	18,900	35,100	41,400	68,300	33,900	32,800	30,500
13	25,800	19,600	21,900	19,100	20,800	18,800	37,500	77,000	60,800	33,700	34,100	30,400
14	23,600	19,200	21,800	19,800	30,200	18,400	37,600	78,600	54,800	33,600	36,300	31,100
15	22,800	19,000	21,600	20,100	42,800	18,100	36,900	71,400	52,300	33,000	31,200	32,100
16	22,500	19,200	21,100	19,800	39,900	17,900	34,900	58,600	49,800	32,300	30,000	32,000
17	22,100	19,000	19,800	19,400	33,800	17,700	34,700	54,200	49,000	32,100	30,400	32,000
18	21,800	18,800	19,800	19,700	28,800	17,800	34,100	53,900	48,700	33,300	30,700	31,900
19	21,400	18,400	20,600	20,000	26,900	17,200	33,500	49,700	48,000	33,900	30,600	31,900
20	20,800	18,900	20,600	20,800	25,700	16,900	35,600	46,600	47,700	33,000	30,300	32,900
21	20,500	20,000	20,300	21,400	24,300	16,900	41,400	46,700	46,600	32,400	30,100	32,900
22	20,400	19,900	19,400	21,800	23,600	17,900	43,900	44,300	45,700	32,200	30,400	32,500
23	20,400	20,600	19,200	23,200	23,300	21,000	45,900	42,300	45,200	32,600	29,900	31,900
24	20,100	20,700	18,500	22,800	23,000	25,200	42,400	43,400	51,900	32,000	30,000	31,700
25	20,000	20,100	18,400	21,100	22,400	28,900	39,900	42,100	51,300	31,200	30,100	31,300
26	20,200	19,900	17,600	18,300	21,700	32,800	38,700	40,200	47,700	34,100	29,700	31,100
27	20,100	20,000	18,000	17,900	21,000	33,700	38,400	41,200	47,600	40,000	31,000	31,700
28	19,900	19,900	18,900	22,300	20,700	33,000	37,500	41,700	51,200	36,900	31,100	34,000
29	20,200	20,100	20,500	24,900	---	33,100	36,500	42,100	49,600	33,500	31,300	33,900
30	19,900	20,300	20,800	24,400	---	32,500	35,800	41,600	46,600	32,900	31,600	33,500
31	19,600	---	20,300	22,900	---	32,500	---	40,600	---	32,000	31,700	---
MEAN	25,670	19,650	20,150	20,520	25,490	22,090	36,050	44,380	50,820	35,430	31,060	31,510
MAX	36,000	20,700	21,900	24,900	42,800	33,700	45,900	78,600	68,300	45,700	36,300	34,000
MIN	19,600	18,400	17,600	17,700	19,100	16,900	32,000	32,900	43,500	31,200	29,700	30,000
IN.	0.07	0.05	0.06	0.06	0.06	0.06	0.10	0.12	0.14	0.10	0.09	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2005<sup>a</sup>, BY WATER YEAR (WY)

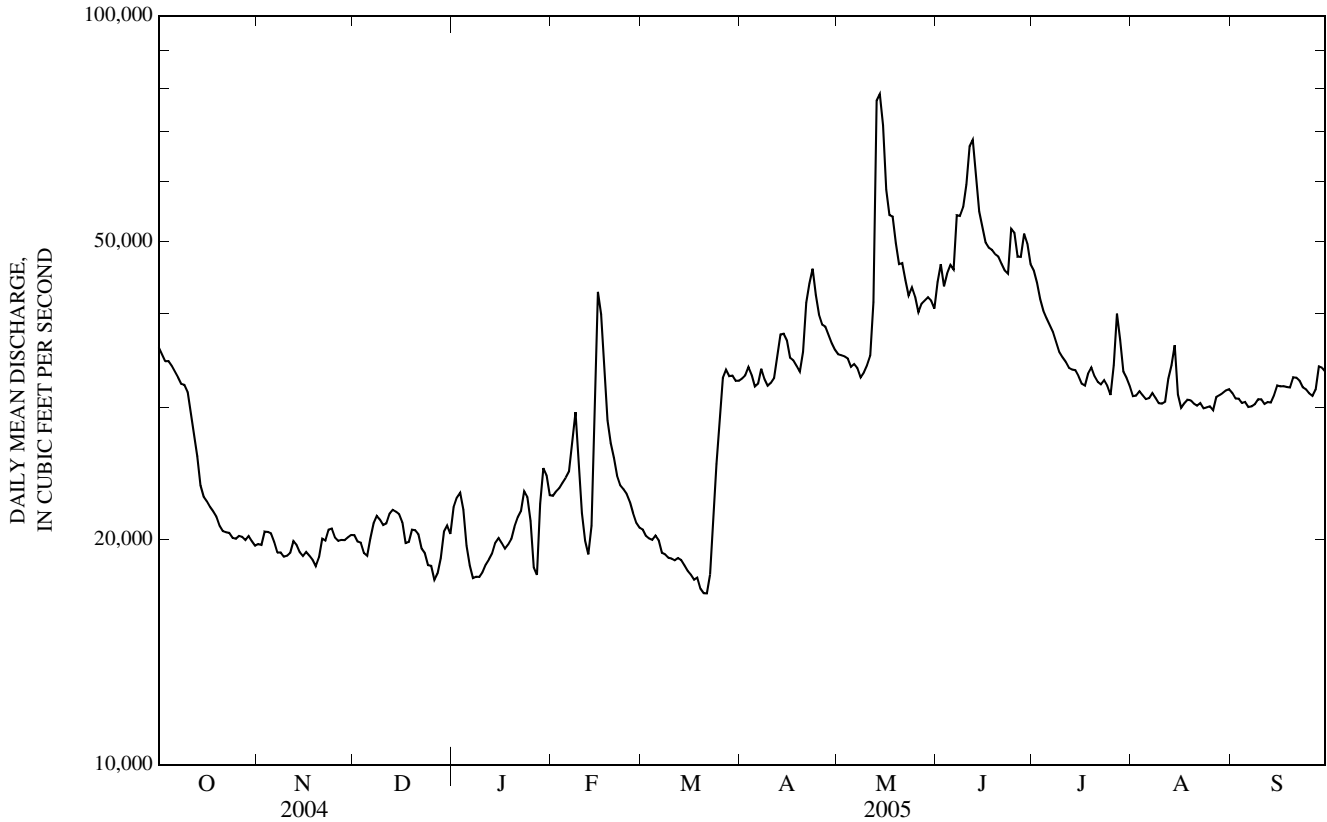
MEAN	44,040	40,370	26,950	22,710	28,290	40,370	50,410	51,600	56,230	50,120	44,140	44,360
MAX	80,050	83,880	57,380	42,280	53,140	79,590	106,100	97,280	130,600	164,800	78,730	76,410
(WY)	(1998)	(1998)	(1998)	(1973)	(1997)	(1979)	(1997)	(1997)	(1984)	(1993)	(1996)	(1997)
MIN	25,580	17,000	9,953	10,800	13,220	15,380	21,820	33,790	33,710	29,650	29,320	31,510
(WY)	(1962)	(1962)	(1956)	(1957)	(1957)	(1957)	(1957)	(1956)	(1956)	(2002)	(2003)	(2005)

MISSOURI RIVER MAIN STEM

06813500 MISSOURI RIVER AT RULO, NE—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1953 - 2005 <sup>a</sup>	
ANNUAL MEAN	32,240		30,230		41,670	
HIGHEST ANNUAL MEAN					71,880	1997
LOWEST ANNUAL MEAN					26,340	1957
HIGHEST DAILY MEAN	98,000	May 25	78,600	May 14	289,000	Jul 24, 1993
LOWEST DAILY MEAN	16,100	Jan 9	16,900	Mar 20,21	4,420	Jan 13, 1957
ANNUAL SEVEN-DAY MINIMUM	17,400	Jan 6	17,500	Mar 16	5,560	Nov 30, 1955
MAXIMUM PEAK FLOW	---		85,900	May 13	307,000	Jul 24, 1993
MAXIMUM PEAK STAGE	---		17.19	May 13	25.37	Jul 24, 1993
ANNUAL RUNOFF (INCHES)	1.06		0.99		1.36	
10 PERCENT EXCEEDS	47,800		45,700		66,000	
50 PERCENT EXCEEDS	31,500		30,500		38,300	
90 PERCENT EXCEEDS	19,500		19,100		19,100	

<sup>a</sup> Post regulation period.



## 06815575 SQUAW CREEK NEAR MOUND CITY, MO

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

DRAINAGE AREA.--62.7 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	5.1	5.1	4.3	15	e11	8.3	28	e205	39	32	12
2	4.3	e5.2	5.6	4.4	14	e11	8.1	27	e60	36	31	e11
3	4.6	e5.2	5.5	5.2	10	11	8.5	26	e40	35	31	e11
4	4.4	e8.5	5.3	6.0	5.5	10	8.7	25	e450	34	27	e10
5	4.1	e5.7	5.6	18	3.9	10	8.7	25	e125	32	25	e10
6	4.3	e5.7	6.6	12	11	10	18	27	e80	30	25	e9.5
7	4.4	e5.3	5.7	7.7	10	10	24	24	e60	28	24	9.2
8	4.8	e5.2	5.2	8.4	e8.0	9.7	14	22	e45	26	22	10
9	4.3	5.3	5.2	10	e6.5	9.9	12	22	e95	24	21	9.0
10	4.0	5.5	5.2	13	e6.0	9.3	11	21	e150	23	21	7.4
11	3.9	5.2	4.9	11	e5.8	9.0	28	21	402	21	19	6.7
12	4.2	5.1	4.8	11	e7.0	9.6	104	397	189	20	e70	6.8
13	4.1	5.2	e4.7	7.8	160	9.3	42	387	149	19	e650	6.4
14	4.0	5.3	e4.5	e4.0	44	9.1	32	120	e100	19	e135	6.4
15	4.0	5.5	e4.7	e2.8	27	9.1	27	81	e85	18	e50	6.4
16	4.0	5.7	e4.8	e2.5	20	9.8	24	64	79	17	e22	7.4
17	4.1	5.8	e5.0	e2.5	17	9.2	23	52	72	16	21	6.7
18	4.0	e6.0	5.1	e3.0	15	9.0	21	47	65	60	21	6.5
19	4.1	e7.0	e4.8	e4.0	15	8.7	21	43	60	22	18	6.5
20	4.2	e6.2	e4.8	e6.0	16	8.7	43	39	57	18	22	5.9
21	4.0	e5.7	e4.6	e8.5	14	8.7	225	36	54	17	18	5.4
22	4.5	e5.4	e4.3	e5.8	13	10	77	34	52	17	18	4.8
23	4.4	5.3	e3.8	e3.8	12	10	52	32	49	15	17	4.5
24	3.9	5.1	e3.3	e4.3	12	9.6	45	31	46	14	18	5.4
25	3.7	5.1	e3.5	e16	12	9.8	42	29	43	13	19	4.9
26	5.0	5.3	e4.3	e50	11	9.2	40	28	42	665	23	4.5
27	5.1	5.5	e5.8	27	11	9.0	36	26	39	79	19	4.4
28	4.6	5.1	e8.4	24	11	9.0	34	26	49	46	17	4.4
29	4.8	e5.0	e10	20	---	9.0	33	25	40	40	17	4.6
30	4.3	e5.0	9.2	23	---	9.1	30	24	38	38	16	4.6
31	4.1	---	5.4	18	---	8.9	---	36	---	35	14	---
MEAN	4.28	5.54	5.35	11.1	18.3	9.54	36.7	58.9	101	48.9	47.8	7.08
MAX	5.1	8.5	10	50	160	11	225	397	450	665	650	12
MIN	3.7	5.0	3.3	2.5	3.9	8.7	8.1	21	38	13	14	4.4
IN.	0.08	0.10	0.10	0.20	0.30	0.18	0.65	1.08	1.79	0.90	0.88	0.13

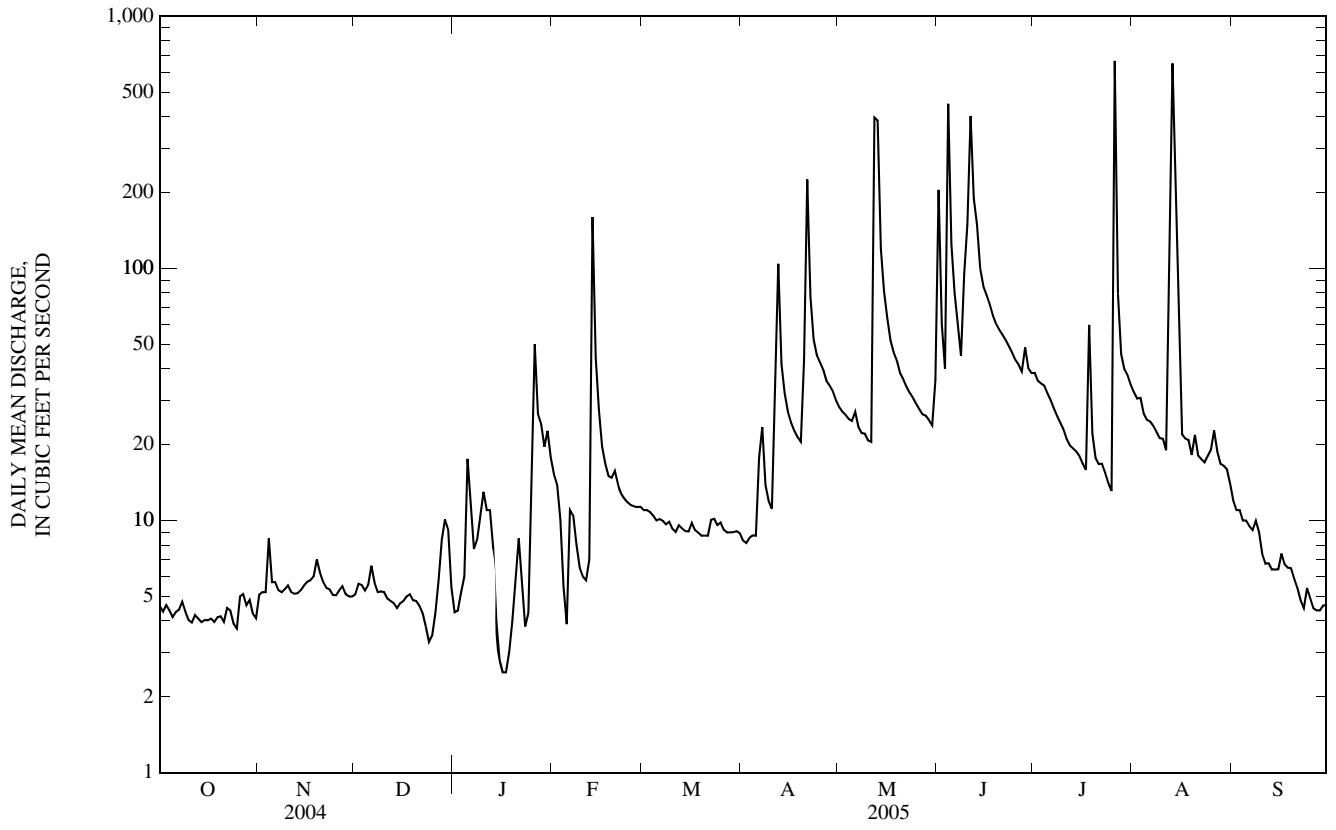
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	6.26	6.87	5.85	7.25	25.2	20.2	19.9	37.3	58.9	33.1	16.8	7.92
MAX	20.0	15.1	12.0	11.1	81.4	62.0	37.7	58.9	119	60.7	47.8	23.1
(WY)	(2002)	(2002)	(2002)	(2005)	(2001)	(2001)	(2001)	(2005)	(2001)	(2004)	(2005)	(2001)
MIN	0.93	3.87	2.68	0.67	5.17	4.00	4.22	6.44	13.6	6.72	1.53	1.33
(WY)	(2004)	(2003)	(2001)	(2004)	(2004)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2003)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2001 - 2005
ANNUAL MEAN	17.6	29.5	20.4
HIGHEST ANNUAL MEAN			36.0
LOWEST ANNUAL MEAN			6.43
HIGHEST DAILY MEAN		665	781
LOWEST DAILY MEAN	0.00	Jan 16,17	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 29	0.00
MAXIMUM PEAK FLOW	---	2,000	2,630
MAXIMUM PEAK STAGE	---	18.26	20.06
INSTANTANEOUS LOW FLOW	---	--- <sup>a</sup>	0.00
ANNUAL RUNOFF (INCHES)	3.82	6.39	4.42
10 PERCENT EXCEEDS	30	52	40
50 PERCENT EXCEEDS	6.7	11	8.6
90 PERCENT EXCEEDS	0.77	4.4	2.0

e Estimated

<sup>a</sup> Minimum not determined, may have occurred during period of ice effected record, Jan. 14-26.



06817700 NODAWAY RIVER NEAR GRAHAM, MO

LOCATION.--Lat 40°12'09", long 95°04'10", in NE 1/4 NE 1/4 sec.9, T.62 N., R.37 W., Holt County, Hydrologic Unit 10240010, at right downstream end of bridge on Highway A, 0.15 mi east of Maitland, and 1.5 mi west of Graham.

DRAINAGE AREA.--1,380 mi<sup>2</sup>, approximately.

WATER-DISCHARGE RECORDS

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	93	108	110	e165	360	204	485	e1,010	e440	232	74
2	108	110	103	98	e170	333	195	448	975	e375	207	70
3	105	108	102	124	e170	318	183	422	1,040	e335	192	69
4	101	130	106	e95	e185	338	175	397	1,450	e310	178	67
5	101	154	109	e75	e195	334	169	381	1,300	e285	169	63
6	96	126	122	e70	e275	306	200	365	844	e270	163	60
7	91	110	138	e85	e410	303	413	354	751	e245	165	56
8	94	102	135	e90	e360	293	488	335	659	e225	145	56
9	e97	96	141	e95	e135	275	349	322	640	e210	134	53
10	e96	92	137	e105	e180	269	284	302	1,110	e190	123	51
11	e91	91	127	e100	e240	254	492	290	2,040	e180	118	51
12	e96	97	121	e100	e310	247	1,710	2,720	1,770	e175	129	48
13	e89	100	109	e90	e2,500	247	1,330	e16,900	1,440	173	1,170	48
14	84	101	e80	e80	e4,260	237	838	e10,000	1,110	166	2,220	48
15	85	105	e75	e70	2,870	228	639	e4,390	893	161	448	46
16	85	106	e77	e67	1,490	221	542	e2,370	744	157	244	46
17	83	105	e77	e75	1,020	220	498	e1,680	653	148	179	49
18	83	106	e83	e95	883	222	486	e1,380	588	634	157	48
19	84	122	e72	e100	793	221	460	e1,290	532	896	141	47
20	84	138	e68	e110	732	211	704	e1,140	492	325	132	47
21	86	130	e68	e95	689	205	1,610	e1,020	e435	268	130	46
22	95	125	e65	e90	643	206	1,150	e892	e425	300	116	44
23	101	127	e60	e85	552	210	1,300	e845	e410	197	104	45
24	94	114	e50	e90	475	218	1,040	e795	e395	195	99	44
25	89	107	e55	e110	444	223	843	e751	e380	160	92	45
26	92	108	72	e115	427	243	738	e715	e365	2,080	93	46
27	119	112	77	e125	411	257	712	e678	e350	2,910	94	44
28	109	113	78	e135	400	246	650	e668	e860	888	96	44
29	106	112	80	e140	---	221	585	e647	e450	410	103	46
30	103	113	92	e150	---	209	524	e649	e590	311	92	49
31	96	---	122	e150	---	213	---	e604	---	264	83	---
MEAN	95.3	112	93.8	101	764	254	650	1,750	823	448	250	51.7
MAX	119	154	141	150	4,260	360	1,710	16,900	2,040	2,910	2,220	74
MIN	83	91	50	67	135	205	169	290	350	148	83	44
IN.	0.08	0.09	0.08	0.08	0.58	0.21	0.53	1.46	0.67	0.37	0.21	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2005, BY WATER YEAR (WY)

MEAN	351	423	437	306	706	999	1,342	1,968	1,632	1,394	515	582
MAX	2,313	1,735	2,026	1,199	1,839	3,155	3,614	4,606	4,936	12,460	2,758	3,364
(WY)	(1987)	(1993)	(1993)	(1983)	(1983)	(1998)	(1984)	(1995)	(1984)	(1993)	(1987)	(1993)
MIN	32.2	53.8	42.9	37.8	82.2	127	58.8	48.6	68.5	75.1	46.2	34.7
(WY)	(2004)	(2003)	(2003)	(2003)	(1989)	(2003)	(1989)	(1989)	(1988)	(1988)	(1988)	(2003)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

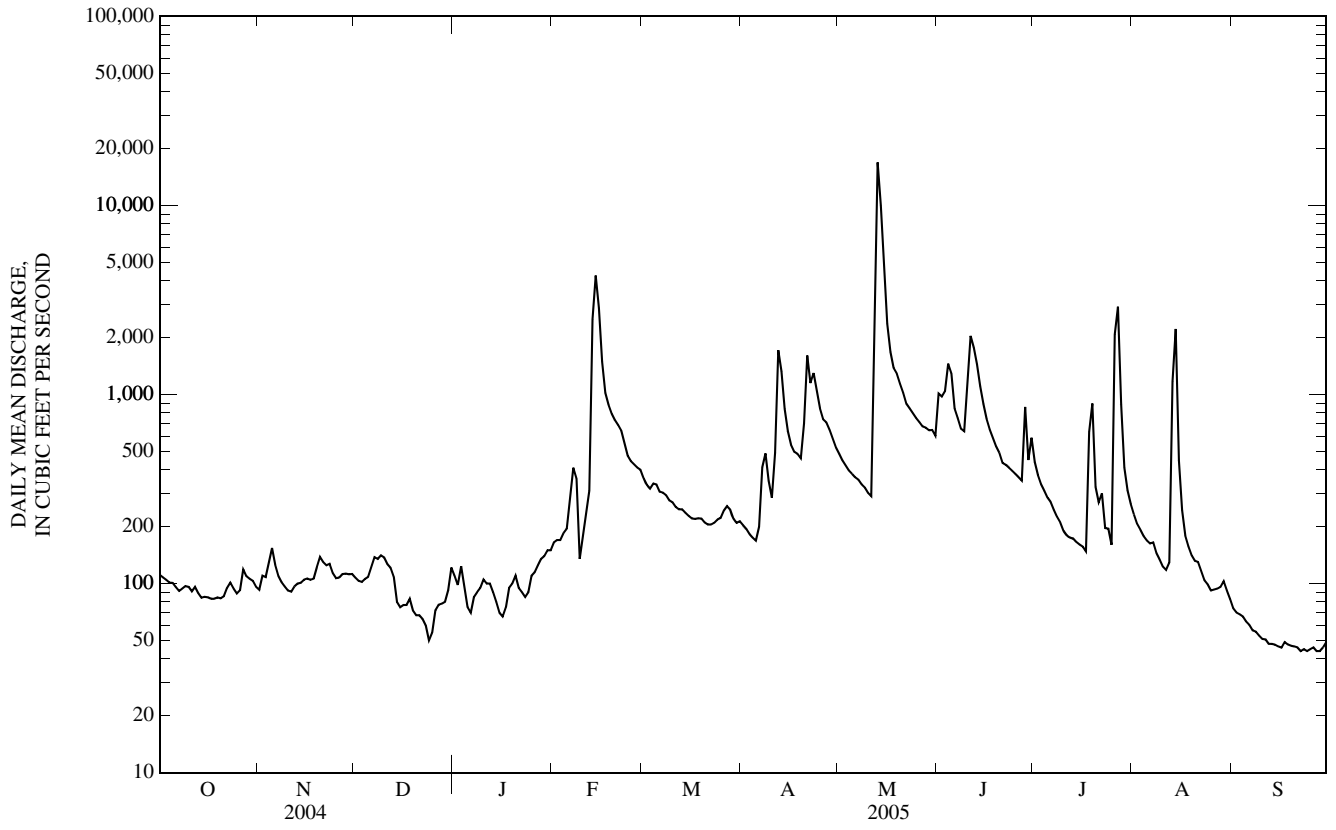
WATER YEARS 1983 - 2005

ANNUAL MEAN	760	447	871
HIGHEST ANNUAL MEAN			2,870
LOWEST ANNUAL MEAN			186
HIGHEST DAILY MEAN	20,800	May 30	16,900
LOWEST DAILY MEAN	40	Jan 30	44
ANNUAL SEVEN-DAY MINIMUM	43	Jan 28	45
MAXIMUM PEAK FLOW	---		22,400
MAXIMUM PEAK STAGE	---		16.79
INSTANTANEOUS LOW FLOW	---		40
ANNUAL RUNOFF (INCHES)	7.50		4.40
10 PERCENT EXCEEDS	1,640		894
50 PERCENT EXCEEDS	350		169
90 PERCENT EXCEEDS	55		70

e Estimated

MISSOURI RIVER BASIN

06817700 NODAWAY RIVER NEAR GRAHAM, MO—Continued





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

WATER-QUALITY RECORDS

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

REMARKS.--This site replaced Nodaway River near Oregon (06817800).

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 02...	1225	Environmental	118	11.2	101	8.5	420	10.5	210	59.9	15.7	4.28
JAN 10...	1330	Environmental	131	12.6	87	7.1	494	.5	--	--	--	--
MAR 25...	1230	Environmental	216	12.9	106	8.2	409	6.0	--	--	--	--
MAY 05...	1215	Environmental	375	9.7	97	8.4	446	16.0	210	59.8	15.7	2.41
MAY 05...	1216	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16
JUL 20...	1320	Environmental	273	6.6	90	8.0	288	29.5	--	--	--	--
SEP 29...	1230	Environmental	42	10.5	102	8.4	451	14.0	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd fixed end pt, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd incrm. field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd incrm. field, mg/L (00450)	Carbonate, wat unfltrd incrm. 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 02...	11.1	178	178	204	7	11.3	.3	31.8	266	17	.60	<.04	.14
JAN 10...	--	--	--	--	--	--	--	--	--	<10	.45	.14	2.61
MAR 25...	--	--	--	--	--	--	--	--	--	16	.42	<.04	2.10
MAY 05...	10.9	156	158	185	4	11.5	.3	28.8	269	75	.60	<.04	5.63d
MAY 05...	<.20	--	--	--	--	<.20	<.1	.7	<10	<10	<.10	<.04	<.06
JUL 20...	--	--	--	--	--	--	--	--	--	141	1.5	<.04	1.35
SEP 29...	--	--	--	--	--	--	--	--	--	10	.39	<.04	<.06

Date	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	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)	Iron, water, fltrd, $\mu$ g/L (01046)
NOV 02...	E.004n	.04d	.06	.13	110f	80	2	246	2.0	E.02n	.06	9.5	7
JAN 10...	.017	.06	.07	.10	76k	96	--	--	--	--	--	--	--
MAR 25...	.009	.05	.04	.11	20k	10k	--	--	--	--	--	--	--
MAY 05...	.009	.12	.12	.23	40k	126k	2	974	2.2	<.04	.05	1.1	<6
MAY 05...	<.008	<.02	<.04	<.04	--	--	<2	<2	<.2	<.04	<.04	<.4	<6
JUL 20...	.034	.14	.17	.51	670k	1,900k	--	--	--	--	--	--	--
SEP 29...	<.008	.05	.06	.10	74	97	--	--	--	--	--	--	--

## MISSOURI RIVER BASIN

06817700 NODAWAY RIVER NEAR GRAHAM, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 02...	.41	.50	44.5	<.01	.7	8.0	2
JAN 10...	--	--	--	--	--	--	--
MAR 25...	--	--	--	--	--	--	--
MAY 05...	<.08	1.59	15.0	<.01	1.9	E.3n	7
05...	<.08	.07	<.6	<.01	<.4	<.6	<2
JUL 20...	--	--	--	--	--	--	--
SEP 29...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

d -- Diluted sample: method hi range exceeded  
f -- Sample field preparation problem  
k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO

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

DRAINAGE AREA.--420,100 mi<sup>2</sup>. The 3,959 mi<sup>2</sup> in Great Divide basin are not included.

## WATER-DISCHARGE RECORDS

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

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37,700	20,300	20,400	20,800	21,300	21,100	32,300	36,100	43,900	47,900	32,100	31,900
2	36,800	20,100	20,200	22,300	21,400	20,800	32,400	35,500	49,300	46,100	31,500	31,400
3	36,000	20,300	19,900	22,900	21,800	20,500	32,900	35,500	44,700	44,000	31,500	31,100
4	35,700	21,100	19,800	22,700	22,100	20,400	33,700	35,400	48,000	41,900	31,700	30,900
5	35,900	21,000	19,300	21,100	22,600	20,400	31,100	35,000	56,500	40,900	31,300	30,600
6	35,000	20,800	19,500	19,000	23,200	20,500	31,300	34,500	48,600	39,800	30,900	30,600
7	34,700	20,300	20,500	18,200	24,300	20,000	34,900	35,100	52,000	39,000	31,100	30,200
8	33,900	19,900	21,200	17,400	27,700	19,400	35,000	33,900	55,700	38,000	31,200	30,300
9	33,400	19,800	21,600	17,500	27,000	19,300	32,500	33,700	55,700	36,600	30,500	30,600
10	33,300	19,600	21,300	17,600	22,900	19,200	32,500	34,400	57,700	35,700	30,300	30,900
11	32,000	19,700	21,000	17,800	20,400	19,000	34,000	35,500	67,000	35,200	30,400	30,700
12	30,200	19,900	21,100	18,300	19,500	18,800	36,400	39,000	75,900	34,800	32,100	30,500
13	28,300	20,200	21,600	18,500	21,700	18,900	40,600	69,500	80,000	69,500	34,200	33,600
14	26,300	19,800	21,700	19,000	28,900	18,700	40,200	87,300	61,700	34,100	44,000	30,700
15	24,500	19,500	21,400	e19,600	40,600	18,500	39,500	74,600	58,600	33,700	36,900	31,700
16	23,900	19,400	21,400	e19,800	44,700	18,100	37,500	63,600	55,000	33,000	33,200	32,100
17	23,400	19,500	20,600	19,000	38,500	18,000	36,200	56,800	53,000	32,300	32,200	31,900
18	22,900	19,400	19,700	18,700	32,200	17,900	35,600	55,400	52,100	33,600	32,700	31,800
19	22,600	19,300	19,900	18,900	28,900	17,900	34,400	52,800	51,200	35,000	39,700	31,800
20	22,000	19,000	20,300	19,600	27,500	17,500	34,200	48,600	50,200	34,100	33,700	32,200
21	21,500	19,900	20,400	20,400	26,200	17,400	41,700	48,200	49,000	33,000	32,200	33,000
22	21,200	20,500	19,900	21,100	25,100	17,700	46,500	47,400	47,700	32,500	31,800	32,900
23	21,200	20,600	19,500	21,700	24,500	19,100	49,500	43,900	46,800	32,500	31,400	32,600
24	21,000	21,200	19,100	e22,600	24,100	22,300	46,400	43,800	48,800	32,600	30,900	32,100
25	20,800	20,900	18,700	21,300	23,500	26,500	42,700	44,400	55,400	31,700	31,000	32,000
26	21,000	20,500	18,500	19,400	22,800	30,200	40,400	41,500	49,700	32,200	31,300	31,700
27	20,900	20,400	18,200	17,200	22,000	33,400	39,800	41,200	48,600	44,400	30,900	31,600
28	20,700	20,200	18,600	17,800	21,500	32,600	38,900	42,300	50,800	40,800	31,800	33,000
29	20,500	20,300	19,400	21,300	---	32,300	37,700	42,100	53,300	36,200	31,700	34,700
30	20,600	20,400	20,800	23,000	---	32,100	36,600	42,400	49,400	33,800	31,900	34,000
31	20,300	---	20,800	22,400	---	31,800	---	41,300	---	33,300	31,900	---
MEAN	27,040	20,130	20,200	19,900	25,960	21,950	37,250	45,850	53,530	36,550	32,500	31,670
MAX	37,700	21,200	21,700	23,000	44,700	33,400	49,500	87,300	75,900	47,900	44,000	34,700
MIN	20,300	19,000	18,200	17,200	19,500	17,400	31,100	33,700	43,900	31,700	30,300	30,200
IN.	0.07	0.05	0.06	0.05	0.06	0.06	0.10	0.13	0.14	0.10	0.09	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2005<sup>a</sup>, BY WATER YEAR (WY)

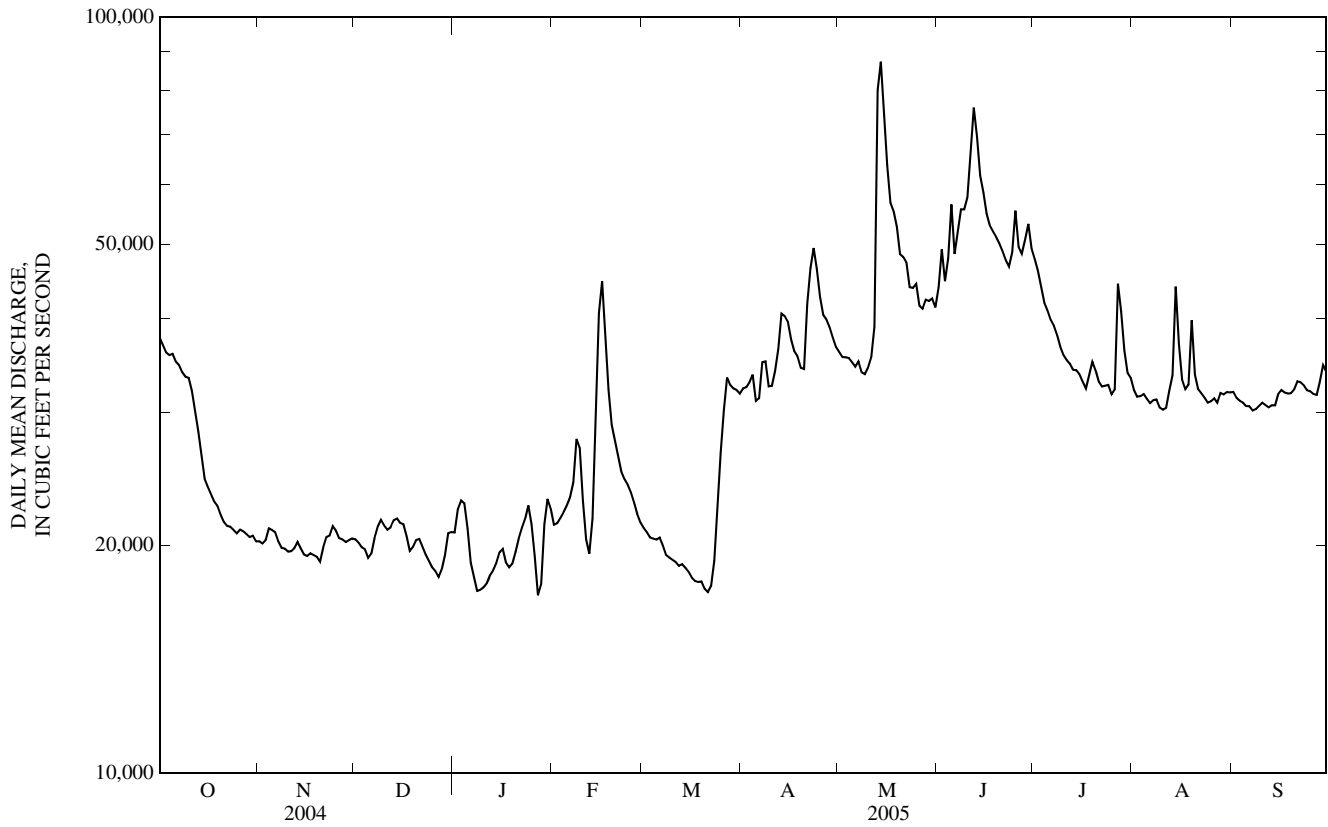
MEAN	47,320	44,310	30,320	25,300	31,700	44,800	55,610	57,850	61,360	55,780	47,600	48,150
MAX	87,650	85,040	61,820	45,740	60,570	96,800	113,600	106,600	144,700	195,400	83,050	79,160
(WY)	(1987)	(1998)	(1987)	(1973)	(1983)	(1979)	(1984)	(1997)	(1984)	(1993)	(1996)	(1997)
MIN	27,040	18,510	11,560	12,210	15,790	19,490	32,920	36,390	35,620	31,450	30,900	31,670
(WY)	(2005)	(1991)	(1964)	(1959)	(1964)	(1964)	(1990)	(1958)	(1958)	(2002)	(2003)	(2005)

MISSOURI RIVER MAIN STEM

06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1958 - 2005 <sup>a</sup>	
ANNUAL MEAN	33,160		31,030		45,880	
HIGHEST ANNUAL MEAN					76,050	1997
LOWEST ANNUAL MEAN					30,960	1963
HIGHEST DAILY MEAN	104,000	May 31	87,300	May 14	328,000	Jul 26, 1993
LOWEST DAILY MEAN	16,300	Jan 10	17,200	Jan 27	4,000	Jan 17, 1963
ANNUAL SEVEN-DAY MINIMUM	17,500	Jan 7	17,800	Mar 16	5,030	Dec 15, 1963
MAXIMUM PEAK FLOW	---		96,700	May 13	335,000	Jul 26, 1993
MAXIMUM PEAK STAGE	---		18.02	May 13	32.07	Jul 26, 1993
INSTANTANEOUS LOW FLOW	---		16,700	Jan 27,28	4,000	Jan 17, 1963
ANNUAL RUNOFF (INCHES)	1.07		1.00		1.48	
10 PERCENT EXCEEDS	49,600		47,900		71,900	
50 PERCENT EXCEEDS	31,900		31,100		41,200	
90 PERCENT EXCEEDS	19,900		19,300		21,300	

e Estimated  
<sup>a</sup> Post-regulation period.



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

## WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1984 to December 1984, July 1985 to September 1985, April 1986 to September 1986.

DISSOLVED OXYGEN: May 1984 to November 1984, July 1985 to September 1985, April 1986 to September 1986.

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

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 29...	1110	Environmental	20,200	8.8	91	8.4	733	17.5	--	--	--	--
NOV 05...	1110	Environmental	21,000	10.5	97	8.5	772	11.5	290	74.8	25.8	6.12
DEC 21...	1115	Environmental	20,800	13.4	100	8.5	733	1.7	--	--	--	--
JAN 13...	1115	Environmental	18,600	13.9	96	8.4	809	.5	300	75.5	26.5	5.70
FEB 11...	1250	Environmental	20,300	13.6	100	8.4	662	1.5	--	--	--	--
FEB 11...	1251	Replicate	--	--	--	--	--	--	--	--	--	--
MAR 23...	1030	Environmental	19,200	12.0	104	8.6	699	7.5	--	--	--	--
APR 20...	1045	Environmental	34,100	8.2	88	8.3	721	18.5	--	--	--	--
MAY 04...	1125	Environmental	36,200	10.6	101	8.5	723	13.0	300	75.4	26.5	5.88
JUN 23...	1055	Environmental	45,800	6.6	87	8.2	729	27.5	--	--	--	--
JUL 19...	0920	Environmental	35,700	5.6	76	8.1	739	29.0	260	65.7	24.0	6.13
AUG 10...	1115	Environmental	30,200	6.8	92	8.4	719	29.0	--	--	--	--
SEP 28...	1255	Environmental	--	8.4	96	8.4	759	21.5	--	--	--	--

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfixed end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfixed titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfixed titr., field, mg/L (00450)	Carbonate, wat unfixed 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)
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 coliform, M-FC 0.7µ MF col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
OCT 29...	--	--	--	--	--	--	--	--	--	71	.55	E.02n	1.65
NOV 05...	58.1	206	206	242	5	34.6	.5	136	503	85	.71	<.04	1.64
DEC 21...	--	--	--	--	--	--	--	--	--	50	.57	.09	1.78
JAN 13...	68.0	193	195	236	1	29.7	.6	163	513	32	.48	.15	1.61
FEB 11...	--	--	--	--	--	--	--	--	--	107	.62	.09	1.53
FEB 11...	--	--	--	--	--	--	--	--	--	86	.64	.09	1.53
MAR 23...	--	--	--	--	--	--	--	--	--	81	.76	<.04	1.71
APR 20...	--	--	--	--	--	--	--	--	--	200	1.2	E.03n	2.56
MAY 04...	45.8	196	194	231	3	20.7	.5	137	462	150	.93	<.04	2.62
JUN 23...	--	--	--	--	--	--	--	--	--	246d	1.3	<.04	2.70
JUL 19...	55.0	180	182	202	<1	20.4	.5	158	458	257d	1.2	<.04	1.40
AUG 10...	--	--	--	--	--	--	--	--	--	113	.90	<.04	.40
SEP 28...	--	--	--	--	--	--	--	--	--	104	.64	E.03n	E.05n
OCT 29...	.010	.06	.06	.17	420f	580	--	--	--	--	--	--	--
NOV 05...	E.006n	.07d	.08	.22	370k	410	E1n	1,300d	3.2	.28	.11	1.7	<6
DEC 21...	E.004n	.07	.09	.18	180	430k	--	--	--	--	--	--	--
JAN 13...	.008	.05	.07	.12	74	230	2	142	2.4	E.03n	.05	2.3	<6
FEB 11...	.009	.09	.09	.46	--r	750k	--	--	--	--	--	--	--
FEB 11...	.010	.08	.09	.66	--	--	--	--	--	--	--	--	--
MAR 23...	E.004n	.08	.08	.25	<10b	27k	--	--	--	--	--	--	--
APR 20...	.011	.09	.09	.38	1,100k	1,200	--	--	--	--	--	--	--
MAY 04...	E.004n	.08	.09	.30	70k	230	2	2,120	3.4	E.03n	.17	1.7	<6
JUN 23...	.010	.12	.12	.66	100	120	--	--	--	--	--	--	--
JUL 19...	.008	.07	.09	.45	560	280	8	3,020d	4.3	E.03n	.23	2.6	<6
AUG 10...	E.005n	.06	.08	.39	10k	14k	--	--	--	--	--	--	--
SEP 28...	.020	<.02	.04	.23	15k	26k	--	--	--	--	--	--	--

## 06818000 MISSOURI RIVER AT ST. JOSEPH, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 29...	--	--	--	--	--	--	--
NOV 05...	<.08	2.28	1.5	<.01	2.5	1.3	10
DEC 21...	--	--	--	--	--	--	--
JAN 13...	<.08	.33	7.6	<.01	3.1	2.4	3
FEB 11...	--	--	--	--	--	--	--
FEB 11...	--	--	--	--	--	--	--
MAR 23...	--	--	--	--	--	--	--
APR 20...	--	--	--	--	--	--	--
MAY 04...	<.08	3.44	E.6n	<.01	3.2	.7	17
JUN 23...	--	--	--	--	--	--	--
JUL 19...	<.08	5.04	<.6	E.01n	2.9	1.7	21
AUG 10...	--	--	--	--	--	--	--
SEP 28...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

b -- Value extrapolated at low end  
d -- Diluted sample: method hi range exceeded  
f -- Sample field preparation problem  
k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL

## Null value qualifier codes used in this table:

r -- Sample ruined in preparation

## 06819500 ONE HUNDRED AND TWO RIVER AT MARYVILLE, MO

LOCATION.--Lat 40°20'44", long 94°49'56", in SW ¼ SW ¼ sec.15, T.64 N., R.35 W., Nodaway County, Hydrologic Unit 10240013, on right bank 150 ft upstream from bridge on U.S. Highway 136, 0.3 mi downstream from Thill Branch, 1 mi east of Maryville, and at mile 64.0.

DRAINAGE AREA.--515 mi<sup>2</sup>.

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

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

REMARKS.--Records good except for estimated daily discharges and discharges above 5,000 ft<sup>3</sup>/s which are poor. Some regulation at low flow by City Waterworks. U.S.G.S. satellite telemeter at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	28	42	59	109	133	89	143	166	83	41	25
2	20	34	42	53	90	130	75	131	160	73	34	22
3	19	106	42	50	79	137	71	126	166	62	30	20
4	18	84	43	28	122	129	73	121	245	58	26	19
5	17	93	45	14	191	124	73	116	238	55	23	17
6	17	70	54	25	229	116	89	110	172	53	21	17
7	18	54	75	37	623	122	1,280	105	134	49	20	16
8	18	47	75	33	226	131	518	101	118	45	19	16
9	18	40	60	32	133	113	272	96	397	43	18	16
10	18	32	58	31	165	109	210	89	400	40	17	15
11	15	33	56	31	148	105	3,670	166	431	38	16	14
12	18	35	52	32	169	104	2,470	2,670	311	36	32	14
13	16	36	41	31	6,290	101	986	8,400	1,860	33	3,250	15
14	14	33	30	27	2,630	94	603	1,760	488	31	903	16
15	15	31	33	23	1,230	90	451	923	220	28	168	15
16	15	34	44	19	721	91	370	583	168	27	91	14
17	15	36	37	17	521	93	329	439	145	25	63	13
18	14	39	48	16	420	93	293	347	130	96	50	13
19	14	48	33	16	358	89	269	296	115	119	41	13
20	15	120	31	20	342	85	291	251	105	66	39	13
21	15	98	34	22	341	80	657	214	97	369	34	12
22	18	74	29	45	287	82	499	203	91	219	30	12
23	18	65	23	25	253	90	473	219	86	78	27	11
24	19	60	18	29	233	94	295	174	80	54	27	12
25	17	55	17	33	214	98	248	157	75	41	26	12
26	23	52	19	255	194	122	241	147	71	3,280	27	11
27	28	53	20	338	177	109	215	142	67	1,610	168	11
28	27	54	24	109	164	100	183	134	105	235	82	12
29	27	53	29	101	---	97	171	129	90	106	43	14
30	22	48	48	86	---	99	157	e140	85	68	37	13
31	18	---	58	117	---	95	---	e138	---	51	30	---
MEAN	18.3	54.8	40.6	56.6	595	105	521	605	234	231	175	14.8
MAX	28	120	75	338	6,290	137	3,670	8,400	1,860	3,280	3,250	25
MIN	14	28	17	14	79	80	71	89	67	25	16	11
IN.	0.04	0.12	0.09	0.13	1.20	0.24	1.13	1.36	0.51	0.52	0.39	0.03

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

MEAN	140	112	78.2	96.9	231	405	330	436	472	219	136	158
MAX	1,897	945	818	1,186	1,240	1,874	1,655	2,242	3,187	1,452	992	1,312
(WY)	(1974)	(1942)	(1983)	(1960)	(1973)	(1979)	(1984)	(1982)	(1947)	(1986)	(1982)	(1977)
MIN	0.05	0.59	1.12	0.11	2.09	3.42	0.74	0.11	5.18	0.50	0.18	0.03
(WY)	(1989)	(1989)	(1989)	(1977)	(1989)	(1954)	(1956)	(1989)	(1988)	(1989)	(1988)	(1988)

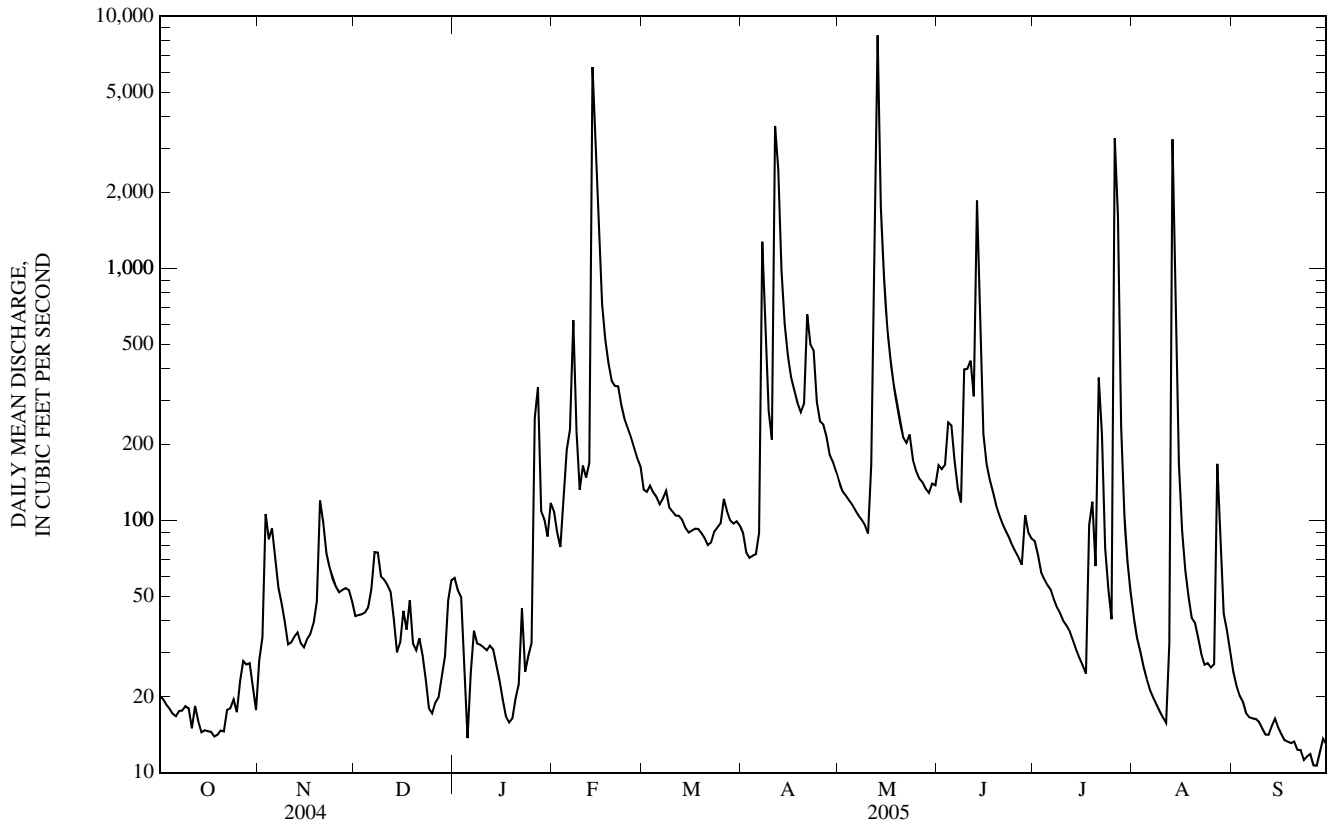
SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	397	218	233
HIGHEST ANNUAL MEAN			658
LOWEST ANNUAL MEAN			18.6
HIGHEST DAILY MEAN	12,900	May 30	25,500
LOWEST DAILY MEAN	4.5	Jan 6	0.00
ANNUAL SEVEN-DAY MINIMUM	5.2	Jan 4	0.00
MAXIMUM PEAK FLOW	---	11,500	28,000
MAXIMUM PEAK STAGE	---	19.28	22.00
INSTANTANEOUS LOW FLOW	---	10	0.00
ANNUAL RUNOFF (INCHES)	10.49	5.75	6.16
10 PERCENT EXCEEDS	1,050	344	460
50 PERCENT EXCEEDS	75	67	30
90 PERCENT EXCEEDS	8.5	16	2.7

e Estimated



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



## 06820500 PLATTE RIVER NEAR AGENCY, MO

LOCATION.--Lat 39°41'17", long 94°42'09", in NE ¼ NW ¼ sec.10, T.56 N., R.34 W., Buchanan County, Hydrologic Unit 10240012, on left bank 10 ft downstream from bridge of U.S. Highway 169, 1.5 mi downstream from Third Fork, 3.5 mi northeast of Agency, and at mile 66.8.

DRAINAGE AREA.--1,760 mi<sup>2</sup>.

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

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

REMARKS.--Records fair except for Nov. 29 to Dec. 8 and estimated daily discharges, which are poor. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	427	180	e109	330	543	298	602	652	444	231	197
2	185	498	183	e111	309	509	271	549	731	339	179	139
3	177	250	182	e129	317	488	252	503	848	357	147	109
4	170	371	173	e133	314	485	234	464	3,290	300	122	88
5	158	420	174	e111	324	479	222	440	9,380	241	129	74
6	146	378	216	e107	593	446	266	413	3,750	209	96	65
7	151	330	208	e120	940	436	331	393	1,380	187	83	60
8	160	266	189	e116	596	403	1,410	366	1,010	170	75	59
9	148	234	204	e115	546	402	1,550	355	797	153	68	58
10	142	215	218	e117	413	412	922	332	1,520	137	63	52
11	136	196	198	e113	422	379	3,240	617	2,030	125	59	48
12	173	181	185	e119	582	354	9,960	2,060	3,150	116	56	44
13	182	169	173	e139	7,760	339	6,030	13,300	5,240	109	114	41
14	152	165	e136	e121	13,700	339	2,710	18,200	4,660	101	4,220	41
15	146	164	e137	e115	7,480	318	1,750	11,800	2,670	94	2,880	524
16	138	166	e136	e93	3,040	305	1,310	3,890	1,470	86	907	334
17	133	162	e127	e81	1,920	294	1,080	2,300	1,050	80	504	106
18	129	156	e125	e81	1,430	291	934	1,750	838	109	350	81
19	129	161	e96	e81	1,190	289	841	1,470	704	99	959	73
20	128	158	e111	e115	1,080	276	1,350	1,190	610	163	1,310	72
21	128	123	e105	e448	1,000	270	3,630	1,040	536	212	271	60
22	129	176	e94	e258	965	296	6,960	900	478	186	186	57
23	129	239	e117	e158	886	321	2,420	796	432	614	152	57
24	128	217	e83	e142	787	313	1,900	810	391	298	129	59
25	124	200	e71	e112	722	313	1,290	710	354	179	121	51
26	494	190	e74	e180	669	311	1,010	627	322	135	1,010	47
27	369	182	e76	e251	634	297	873	568	296	3,090	393	43
28	222	172	e82	e399	605	327	806	527	381	2,930	216	42
29	198	167	e86	e558	---	313	733	502	342	951	441	43
30	178	168	e102	425	---	291	660	464	387	496	264	41
31	166	---	e108	366	---	285	---	440	---	319	382	---
MEAN	172	230	140	178	1,770	359	1,841	2,206	1,657	420	520	92.2
MAX	494	498	218	558	13,700	543	9,960	18,200	9,380	3,090	4,220	524
MIN	124	123	71	81	309	270	222	332	296	80	56	41
IN.	0.11	0.15	0.09	0.12	1.05	0.24	1.17	1.45	1.05	0.28	0.34	0.06

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

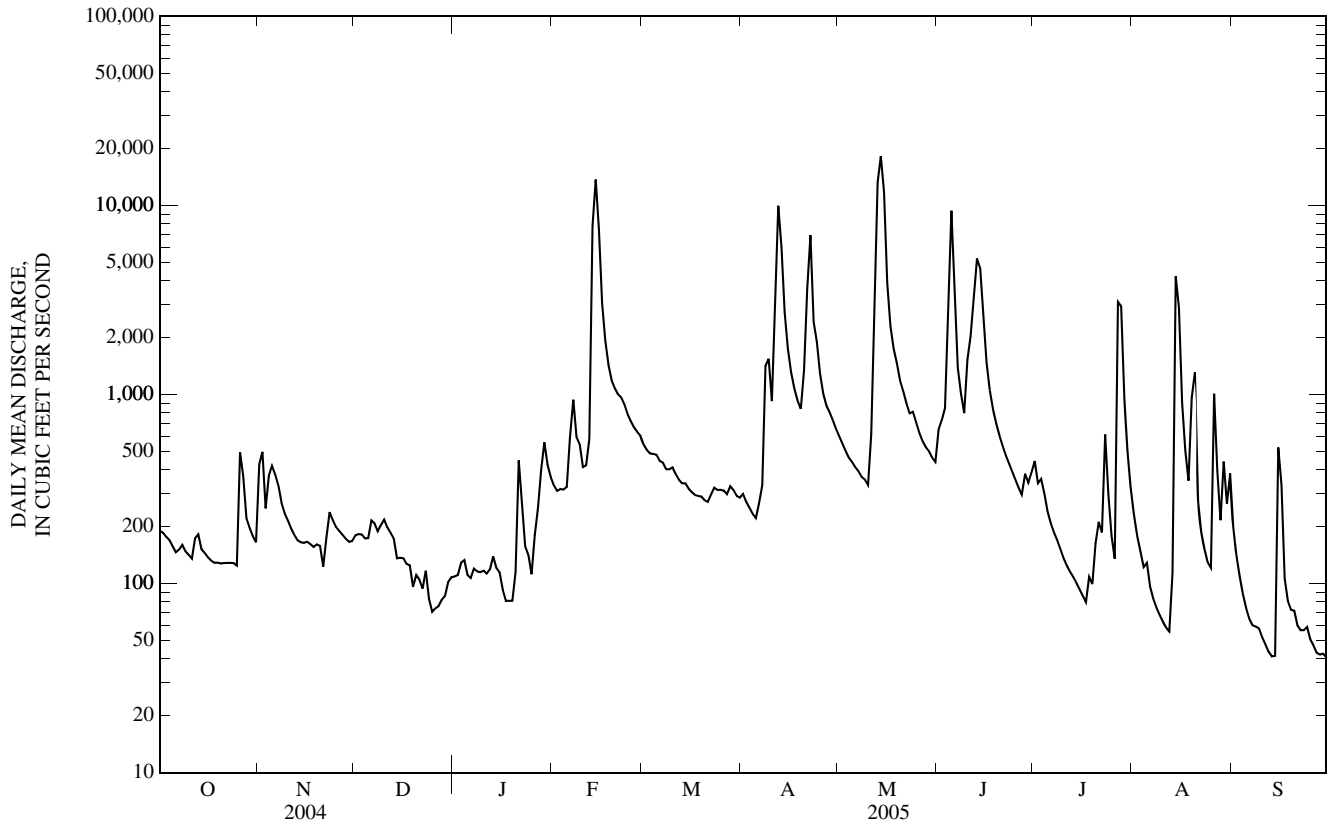
MEAN	623	540	364	365	838	1,329	1,480	1,675	1,994	1,174	451	855
MAX	8,584	4,620	3,248	3,714	4,912	6,345	6,835	10,020	13,640	21,280	2,935	7,853
(WY)	(1974)	(1962)	(1983)	(1974)	(1973)	(1979)	(1973)	(1995)	(1947)	(1993)	(1987)	(1926)
MIN	0.02	6.14	5.59	2.72	14.0	12.7	9.89	26.9	41.7	10.2	2.62	6.76
(WY)	(1957)	(1956)	(1939)	(1940)	(1940)	(1938)	(1956)	(1956)	(1988)	(1936)	(1934)	(1955)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	1,015	789	974
HIGHEST ANNUAL MEAN			4,108
LOWEST ANNUAL MEAN			67.4
HIGHEST DAILY MEAN	18,800	18,200	57,500
LOWEST DAILY MEAN	35	41	0.00
ANNUAL SEVEN-DAY MINIMUM	37	47	0.00
MAXIMUM PEAK FLOW	---	19,000	60,800
MAXIMUM PEAK STAGE	---	25.71	36.07
INSTANTANEOUS LOW FLOW	---	38	0.00
ANNUAL RUNOFF (INCHES)	7.85	6.09	7.52
10 PERCENT EXCEEDS	2,160	1,470	2,090
50 PERCENT EXCEEDS	266	271	196
90 PERCENT EXCEEDS	56	83	24

e Estimated

06820500 PLATTE RIVER NEAR AGENCY, MO—Continued



## 06821080 LITTLE PLATTE RIVER NEAR PLATTSBURG, MO

LOCATION.--Lat 39°34'04", long 94°24'25", in SE 1/4 NW 1/4 sec.20, T.55 N., R.31 W., Clinton County, Hydrologic Unit 10240012, on U.S. Highway 116 bridge, 0.4 mi east of the junction with U.S. Highway 33, and 2.5 mi east of Plattsburg.

DRAINAGE AREA.--65.4 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.2	264	4.5	9.6	e45	e10	7.9	5.5	2.8	3.7	0.00	4.8
2	e3.0	261	4.3	10	e30	e9.0	7.7	5.1	4.2	4.0	0.00	3.6
3	e2.8	20	4.4	61	e23	e8.0	8.9	4.8	12	3.5	0.00	2.9
4	e2.6	126	5.4	e65	e18	e7.5	7.6	4.6	538	3.5	0.00	2.0
5	e2.4	35	6.6	e17	e14	e7.3	7.5	4.5	1,400	2.8	0.00	1.5
6	e2.2	9.3	38	e12	e400	e7.0	8.2	4.3	82	2.3	0.00	1.4
7	4.5	5.0	29	9.0	e150	e6.5	8.2	4.3	30	2.0	0.00	1.4
8	2.3	3.3	16	7.7	e280	e6.3	7.5	5.0	20	1.6	0.00	1.4
9	e2.4	2.7	12	7.2	e125	e6.1	8.8	5.9	19	1.3	0.00	1.1
10	e2.1	2.2	10	9.4	e50	e6.0	7.4	5.2	16	1.1	0.00	0.89
11	1.8	2.9	9.2	9.5	e20	e5.8	38	54	13	0.95	0.00	0.81
12	12	2.0	9.0	56	e100	e5.5	101	175	15	0.77	0.00	0.74
13	87	1.9	e8.7	141	e600	e5.3	35	1,700	129	0.57	1.3	0.78
14	6.4	2.3	e7.8	e19	e275	e5.1	15	147	24	0.48	9.4	0.89
15	e5.0	2.6	e7.0	e11	e115	e4.9	9.7	31	11	0.44	3.6	480
16	e4.0	2.4	e6.5	8.8	e45	e4.7	7.7	14	7.0	0.30	2.3	376
17	e3.5	2.5	e5.5	6.7	e41	e4.5	6.7	9.4	5.4	0.17	1.4	28
18	e3.0	2.7	e5.0	e6.5	e36	e4.3	6.2	6.9	4.5	0.27	1.2	11
19	2.7	2.8	e4.5	e6.5	e38	e4.1	5.9	6.1	3.7	0.27	256	7.2
20	2.4	2.5	e4.0	e7.0	e32	e3.9	160	4.7	3.2	0.20	144	6.5
21	2.4	2.2	e3.5	e6.5	e26	e3.8	128	3.6	2.9	0.14	28	5.2
22	2.7	2.0	e3.5	e6.0	e23	e5.1	36	3.0	2.7	0.15	8.2	4.3
23	3.3	2.1	e3.5	e5.5	e20	e4.7	18	2.4	2.7	0.13	4.4	19
24	3.5	3.5	3.6	e5.5	e18	e4.5	12	2.0	2.6	0.08	2.5	16
25	3.1	3.8	3.7	e6.0	e16	e4.3	9.2	1.7	2.5	0.05	2.1	8.6
26	67	5.4	4.4	e6.0	e14	e11	8.4	2.0	2.4	0.05	816	12
27	70	7.2	4.9	e6.0	e13	e8.5	7.2	1.7	2.3	0.06	87	11
28	24	5.6	5.8	e10	e11	e6.0	6.5	1.5	3.0	0.03	33	6.1
29	45	4.1	7.0	e75	---	e5.0	8.3	1.6	2.8	0.01	47	4.0
30	151	4.6	8.5	e65	---	e8.9	6.3	1.8	3.5	0.00	21	2.8
31	18	---	10	e55	---	8.8	---	1.7	---	0.00	8.0	---
MEAN	17.6	26.5	8.25	23.4	92.1	6.21	23.5	71.6	78.9	1.00	47.6	34.1
MAX	151	264	38	141	600	11	160	1,700	1,400	4.0	816	480
MIN	1.8	1.9	3.5	5.5	11	3.8	5.9	1.5	2.3	0.00	0.00	0.74
IN.	0.31	0.45	0.15	0.41	1.47	0.11	0.40	1.26	1.35	0.02	0.84	0.58

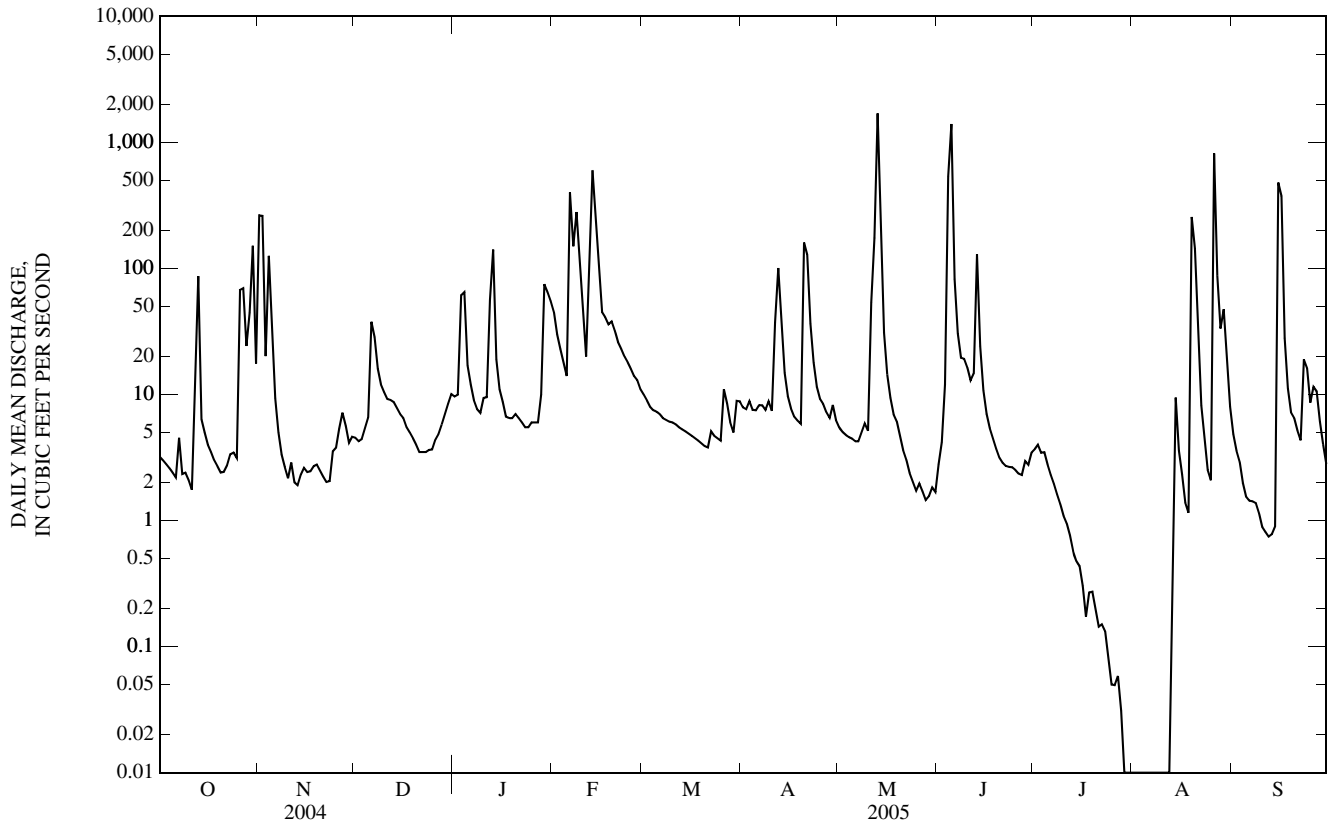
## STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	7.40	6.80	4.24	5.31	20.8	14.1	12.8	62.1	74.6	5.90	16.8	35.2
MAX	18.1	26.5	8.25	23.4	92.1	46.4	30.2	117	141	18.6	47.6	95.5
(WY)	(2002)	(2005)	(2005)	(2005)	(2005)	(2004)	(2002)	(2002)	(2004)	(2004)	(2005)	(2004)
MIN	0.00	0.11	0.03	0.02	0.13	0.42	0.64	5.72	3.37	0.00	0.02	0.00
(WY)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)	(2004)	(2003)	(2002)	(2003)	(2003)	(2002)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	40.2	35.4	22.1
HIGHEST ANNUAL MEAN			36.3
LOWEST ANNUAL MEAN			2.29
HIGHEST DAILY MEAN	2,090	Sep 18	2,180
LOWEST DAILY MEAN	0.00	Many Days	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	At Times	0.00
MAXIMUM PEAK FLOW	---	3,220	3,700
MAXIMUM PEAK STAGE	---	16.06	17.07
INSTANTANEOUS LOW FLOW	---	0.00	0.00
ANNUAL RUNOFF (INCHES)	8.36	7.35	4.58
10 PERCENT EXCEEDS	46	58	19
50 PERCENT EXCEEDS	3.5	5.6	1.7
90 PERCENT EXCEEDS	0.00	0.89	0.00

06821080 LITTLE PLATTE RIVER NEAR PLATTSBURG, MO—Continued



## 06821140 SMITHVILLE RESERVOIR NEAR SMITHVILLE, MO

LOCATION.--Lat 39°23'50", long 94°33'25", SW 1/4 sec.13, T.53 N., R.33 W., Clay County, Hydrologic Unit 10240012, in control tower at outlet works on the Little Platte River, 1.0 mi northeast of Smithville, and 5.0 mi north of Kansas City.

DRAINAGE AREA.--213 mi<sup>2</sup>.

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 164,000 ac-ft, June 14, elevation, 867.16 ft; minimum, 127,000 ac-ft, March 17 and 18, elevation, 862.02 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	865.46	865.96	865.30	864.15	862.40	862.52	862.44	863.24	865.08	864.85	864.02	865.14
2	865.45	866.11	865.29	864.01	862.73	862.10	862.48	863.04	864.98	864.79	864.06	865.10
3	865.41	866.19	865.27	863.94	862.70	862.19	862.45	862.92	865.11	864.70	864.00	865.04
4	865.41	866.28	865.19	864.01	862.69	862.36	862.47	862.92	865.52	864.66	863.97	865.02
5	865.39	866.28	865.15	863.73	862.66	862.33	862.45	863.00	866.51	864.60	863.95	864.97
6	865.37	866.18	865.32	863.85	862.70	862.23	862.49	862.91	866.83	864.56	863.93	864.93
7	865.40	866.10	865.28	863.70	863.15	862.26	862.51	862.91	866.88	864.52	863.93	864.75
8	865.49	866.00	865.29	863.58	863.25	862.24	862.49	862.99	866.87	864.48	863.90	864.74
9	865.47	865.93	865.17	863.47	863.15	862.24	862.46	862.94	866.92	864.45	863.88	864.73
10	865.52	865.90	865.14	863.31	862.92	862.28	862.54	862.94	866.85	864.43	863.86	864.87
11	865.44	865.89	865.21	863.25	862.89	862.06	862.73	863.00	866.77	864.41	863.85	864.70
12	865.52	865.78	865.05	863.16	863.18	862.23	862.85	863.27	866.67	864.40	863.91	864.81
13	865.59	865.62	865.16	863.21	863.81	862.05	862.95	864.18	867.03	864.38	863.93	864.65
14	865.63	865.47	865.02	863.16	864.72	862.24	862.94	864.86	867.09	864.36	864.10	864.82
15	865.54	865.41	865.11	862.98	864.86	862.05	862.99	865.02	866.88	864.34	864.07	864.77
16	865.60	865.28	864.97	862.74	864.87	862.27	862.96	865.02	866.63	864.32	864.06	865.00
17	865.61	865.40	864.95	862.59	864.90	862.24	862.98	864.96	866.38	864.29	864.03	864.99
18	865.53	865.39	864.93	862.42	864.72	862.14	862.98	865.03	866.16	864.31	864.00	865.01
19	865.56	865.38	864.88	862.44	864.49	862.30	862.97	865.10	865.85	864.35	864.30	864.94
20	865.56	865.31	864.86	862.16	864.14	862.26	863.03	864.98	865.69	864.26	864.40	865.03
21	865.58	865.27	864.83	862.33	863.95	862.25	863.10	865.07	865.63	864.30	864.56	865.01
22	865.58	865.36	864.64	862.33	863.71	862.32	863.29	865.05	865.41	864.30	864.46	865.07
23	865.60	865.37	864.74	862.44	863.41	862.32	863.26	864.97	865.27	864.22	864.57	865.24
24	865.52	865.36	864.73	862.51	863.29	862.39	863.27	864.91	865.20	864.19	864.54	865.30
25	865.58	865.36	864.56	862.44	862.95	862.34	863.27	865.05	865.12	864.25	864.46	865.14
26	865.64	865.41	864.66	862.58	862.61	862.30	863.31	864.94	865.02	864.22	864.66	865.34
27	865.82	865.45	864.66	862.56	862.73	862.39	863.33	865.03	864.89	864.24	864.96	865.33
28	865.90	865.46	864.67	862.58	862.49	862.38	863.34	865.03	864.84	864.10	864.96	865.29
29	865.84	865.45	864.48	862.37	---	862.37	863.29	865.02	864.76	864.18	865.19	865.28
30	865.96	865.40	864.44	862.54	---	862.44	863.30	865.02	864.81	864.09	865.19	865.28
31	866.01	---	864.37	862.50	---	862.46	---	865.01	---	864.13	865.19	---
MAX	866.01	866.28	865.32	864.15	864.90	862.52	863.34	865.10	867.09	864.85	865.19	865.34
MIN	865.37	865.27	864.37	862.16	862.40	862.05	862.44	862.91	864.76	864.09	863.85	864.65
(-)	155,000	150,000	143,000	130,000	130,000	130,000	135,000	148,000	146,000	141,000	149,000	150,000
(=)	+4,000	-5,000	-7,000	-13,000	0	0	+5,000	+13,000	-2,000	-5,000	+8,000	+1,000

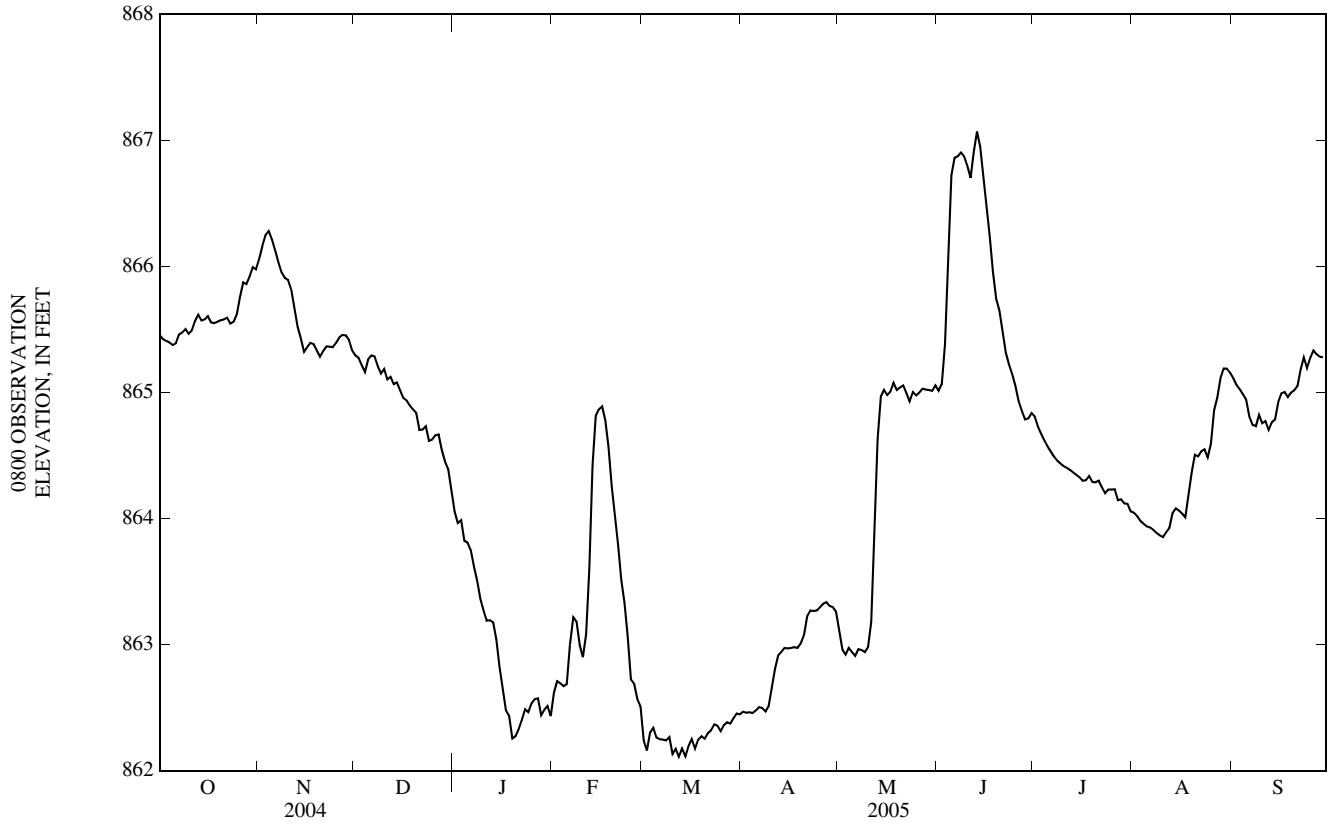
CAL YR 2004.... +15,000

WTR YR 2005.... -1,000

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

(=) Change in contents, in acre-feet.

06821140 SMITHVILLE RESERVOIR NEAR SMITHVILLE, MO—Continued



## 06821150 LITTLE PLATTE RIVER AT SMITHVILLE, MO

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

DRAINAGE AREA.--234 mi<sup>2</sup>.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	42	137	486	e26	410	15	26	20	291	7.4	152
2	12	113	131	484	e48	201	15	27	12	297	7.3	153
3	14	139	130	559	80	79	15	25	40	288	7.3	154
4	13	282	128	530	81	78	15	24	670	291	7.2	154
5	13	301	129	623	81	77	15	24	1,690	141	7.7	154
6	13	293	143	510	189	77	19	25	72	129	7.4	154
7	36	288	131	499	253	51	18	23	47	128	7.5	79
8	41	286	129	493	297	16	16	25	36	92	7.6	9.8
9	14	285	128	494	283	15	16	27	64	17	8.3	8.1
10	9.5	285	127	509	277	15	16	24	352	15	7.9	7.5
11	9.4	285	126	500	278	15	101	73	689	12	9.0	8.1
12	20	285	125	556	311	15	40	116	772	12	14	8.5
13	22	285	125	558	945	15	25	1,660	293	13	108	8.9
14	14	285	e129	499	121	15	20	77	507	14	50	8.1
15	15	290	128	493	57	15	18	41	1,120	13	15	11
16	14	229	126	491	43	14	17	31	1,110	12	11	14
17	13	132	126	490	428	15	16	25	1,100	12	10	10
18	15	127	125	488	1,010	14	15	22	1,090	15	9.2	9.0
19	16	99	126	490	1,010	14	15	20	807	12	47	9.0
20	13	24	125	268	1,010	14	15	17	523	10	184	9.3
21	11	23	125	e40	1,000	15	73	15	521	11	23	9.1
22	12	24	123	e23	993	18	53	13	520	9.9	15	12
23	14	23	123	e23	989	21	21	11	518	9.2	12	236
24	17	30	124	e23	983	19	20	11	375	9.1	11	30
25	20	49	125	e23	729	21	21	11	272	8.6	41	18
26	60	49	124	e23	509	19	20	10	271	8.6	155	14
27	31	41	123	e23	508	17	17	8.9	270	8.7	33	11
28	27	34	304	e23	508	17	16	8.8	270	8.4	24	11
29	26	81	492	e35	---	16	17	8.4	270	7.9	52	9.7
30	24	129	489	e29	---	16	19	7.9	886	7.7	66	10
31	22	---	487	e27	---	15	---	8.2	---	7.7	151	---
MEAN	19.1	161	168	333	466	43.8	24.0	78.9	506	61.6	36.0	49.4
MAX	60	301	492	623	1,010	410	101	1,660	1,690	297	184	236
MIN	9.4	23	123	23	26	14	15	7.9	12	7.7	7.2	7.5
IN.	0.09	0.77	0.83	1.64	2.07	0.22	0.11	0.39	2.41	0.30	0.18	0.24

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2005<sup>a</sup>, BY WATER YEAR (WY)

MEAN	162	167	95.6	93.4	97.3	155	177	244	263	239	160	135
MAX	960	1,358	466	563	466	825	640	850	809	879	1,206	1,006
(WY)	(1986)	(1999)	(1993)	(1993)	(2005)	(2001)	(1978)	(1993)	(1995)	(2001)	(1993)	(1977)
MIN	1.01	2.06	0.05	0.07	7.14	4.73	9.85	11.1	11.6	8.76	7.65	5.84
(WY)	(1977)	(1977)	(1977)	(1977)	(2003)	(1981)	(1981)	(2000)	(2003)	(2002)	(1980)	(2002)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

WATER YEARS 1977 - 2005<sup>a</sup>

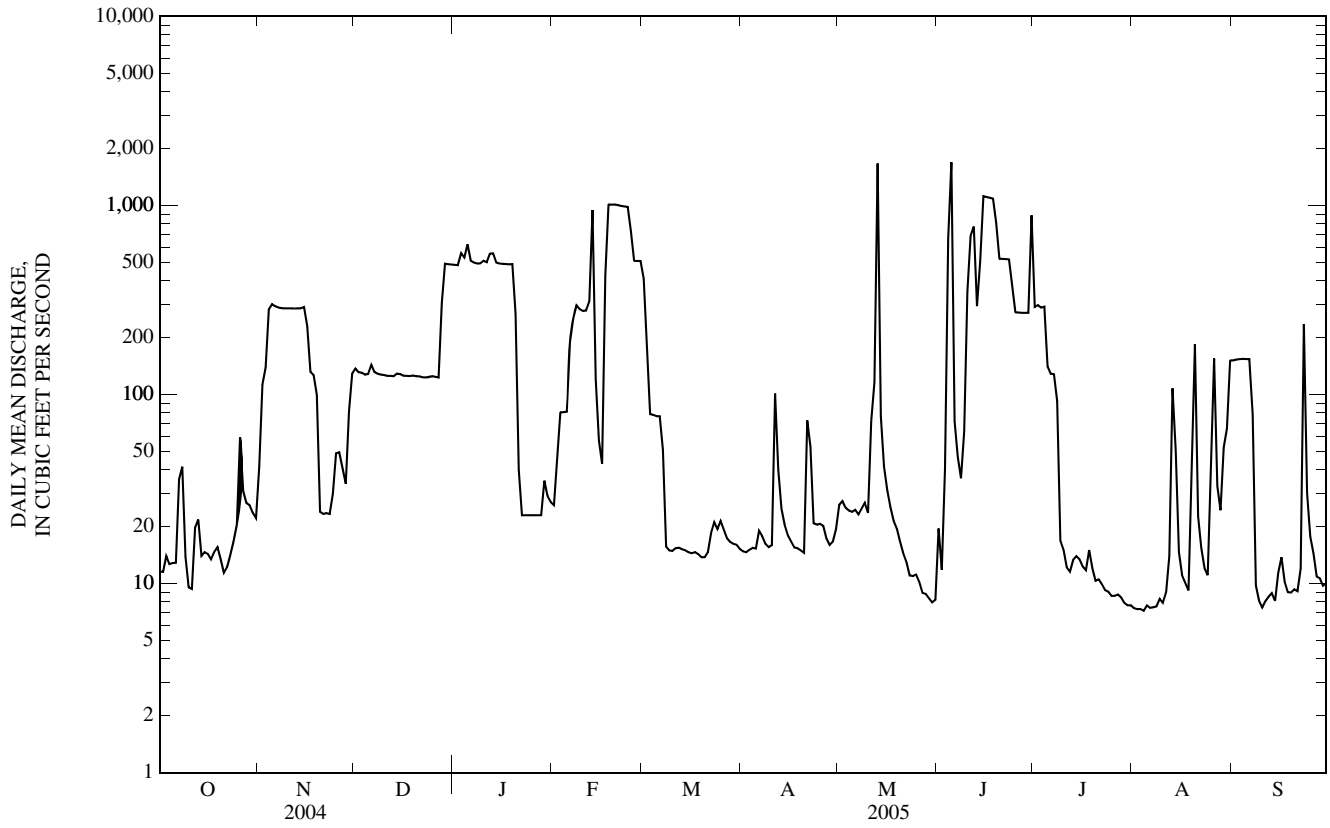
ANNUAL MEAN	128	160	166
HIGHEST ANNUAL MEAN			476
LOWEST ANNUAL MEAN			9.93
HIGHEST DAILY MEAN	1,890	May 19	7,810
LOWEST DAILY MEAN	2.7	Apr 29	0.05
ANNUAL SEVEN-DAY MINIMUM	4.2	Apr 11	0.05
MAXIMUM PEAK FLOW	---	4,950	21,000
MAXIMUM PEAK STAGE	---	28.17	36.44
INSTANTANEOUS LOW FLOW	---	6.9	0.00
ANNUAL RUNOFF (INCHES)	7.45	9.26	9.64
10 PERCENT EXCEEDS	406	499	511
50 PERCENT EXCEEDS	20	29	19
90 PERCENT EXCEEDS	6.6	9.4	7.9

e Estimated

<sup>a</sup> Post-regulation period.



06821150 LITTLE PLATTE RIVER AT SMITHVILLE, MO—Continued



## 06821190 PLATTE RIVER AT SHARPS STATION, MO

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

DRAINAGE AREA.--2,380 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

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

REMARKS.--Water-discharge records fair. Some regulation from Smithville Lake (station 06821140), 17.0 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	236	627	401	804	661	1,220	363	735	1,180	1,680	342	515
2	212	2,610	396	795	563	908	359	672	1,080	853	254	371
3	207	1,280	384	937	535	703	332	619	1,400	697	203	308
4	193	965	375	1,190	540	668	317	583	4,470	714	173	273
5	182	1,250	372	1,330	545	655	300	549	10,700	571	165	254
6	170	1,100	499	872	697	638	312	525	10,600	423	166	237
7	187	939	572	750	2,430	621	346	502	4,750	381	146	215
8	369	837	488	826	2,500	539	396	483	1,860	355	125	107
9	256	769	440	793	1,920	492	1,640	477	1,390	259	109	96
10	204	670	438	824	1,240	497	1,430	447	1,190	227	103	90
11	174	631	453	830	941	500	1,440	511	2,690	209	97	81
12	188	596	431	913	1,090	468	6,890	1,650	3,160	189	102	77
13	312	563	402	1,340	5,280	430	8,960	8,580	6,320	183	362	73
14	340	548	372	1,010	10,100	421	5,350	11,100	5,290	173	560	71
15	244	532	306	921	10,900	417	2,650	11,700	5,420	164	4,440	80
16	195	522	330	1,010	8,660	398	1,810	12,100	3,580	151	2,240	2,490
17	175	381	356	1,120	3,610	390	1,390	6,840	2,590	140	804	778
18	162	371	355	916	3,020	376	1,140	2,580	2,210	152	485	229
19	159	370	344	755	2,600	364	995	2,180	1,920	175	1,050	144
20	159	303	281	696	2,430	357	900	1,650	1,360	166	2,740	112
21	160	274	311	529	2,320	352	1,950	1,320	1,230	181	1,670	102
22	168	275	292	821	2,200	359	5,990	1,130	1,150	260	449	87
23	167	305	288	549	2,130	420	5,040	965	1,070	233	278	688
24	157	392	e270	393	2,040	444	2,500	878	950	566	223	288
25	155	400	e265	371	1,830	456	1,900	902	721	345	274	137
26	316	414	263	323	1,400	446	1,380	765	677	238	567	103
27	e1,300	387	268	385	1,340	416	1,120	684	644	190	1,640	112
28	805	332	333	437	1,310	397	961	631	633	3,490	679	100
29	500	298	699	556	---	419	895	591	713	2,270	392	88
30	392	387	756	804	---	410	823	569	1,290	864	599	84
31	331	---	798	730	---	383	---	534	---	484	450	---
MEAN	283	644	404	791	2,673	502	1,996	2,369	2,741	548	706	280
MAX	1,300	2,610	798	1,340	10,900	1,220	8,960	12,100	10,700	3,490	4,440	2,490
MIN	155	274	263	323	535	352	300	447	633	140	97	71
IN.	0.14	0.30	0.20	0.38	1.17	0.24	0.94	1.15	1.29	0.27	0.34	0.13

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2005, BY WATER YEAR (WY)

	1,085	919	956	565	1,340	1,958	2,435	3,291	2,986	2,684	976	1,225
MEAN	1,085	919	956	565	1,340	1,958	2,435	3,291	2,986	2,684	976	1,225
MAX	6,847	4,932	5,005	2,153	3,980	8,745	6,946	12,710	10,790	21,600	3,535	7,206
(WY)	(1986)	(1999)	(1993)	(1983)	(1982)	(1979)	(1993)	(1995)	(1984)	(1993)	(1987)	(1993)
MIN	25.1	54.3	41.2	31.5	37.6	110	93.0	157	75.2	52.5	38.1	37.7
(WY)	(1989)	(2003)	(2003)	(2003)	(1989)	(1989)	(1989)	(1989)	(1988)	(1988)	(2003)	(2002)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

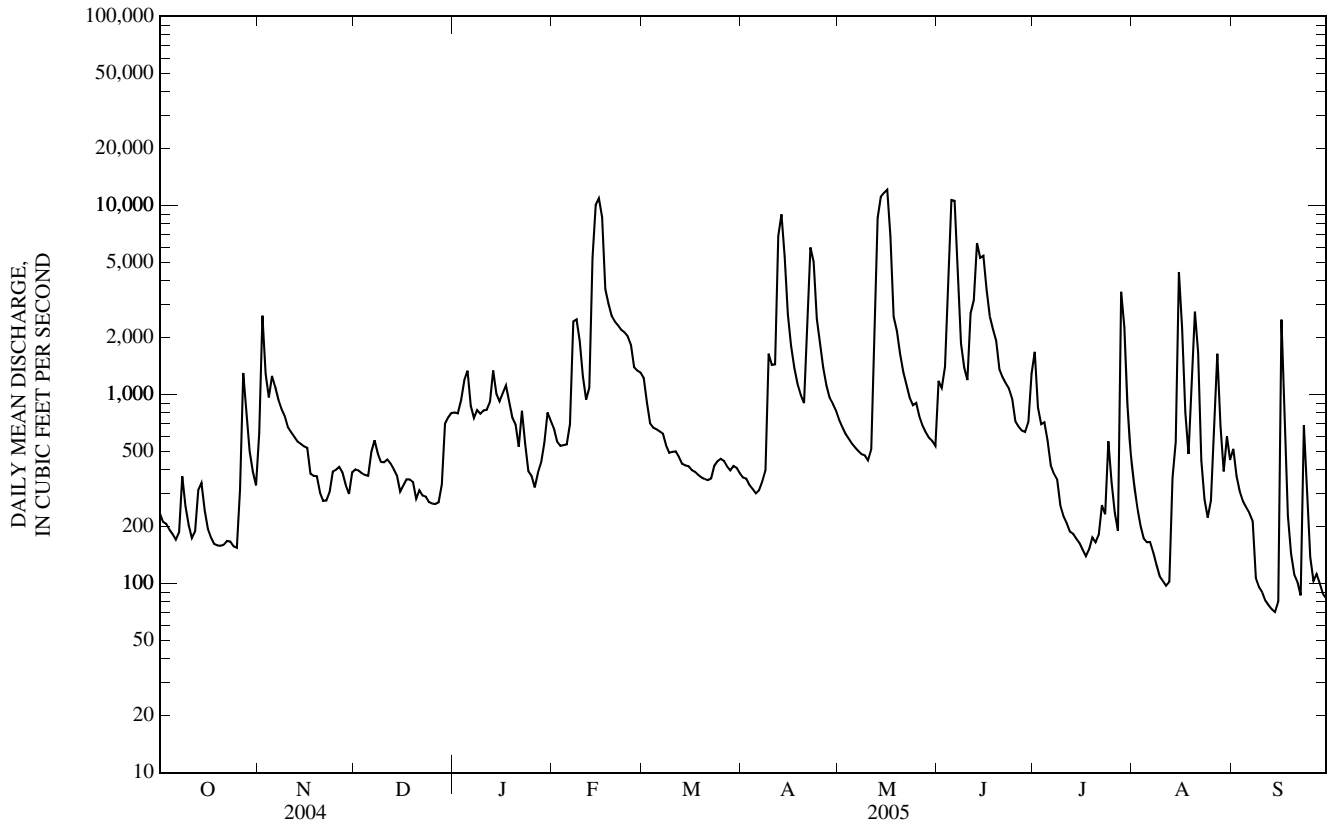
## FOR 2005 WATER YEAR

## WATER YEARS 1979 - 2005

ANNUAL MEAN	1,405		1,146		1,699
HIGHEST ANNUAL MEAN					5,697
LOWEST ANNUAL MEAN					196
HIGHEST DAILY MEAN	14,000	Jul 19	12,100	May 16	37,300
LOWEST DAILY MEAN	41	Jan 15	71	Sep 14	12
ANNUAL SEVEN-DAY MINIMUM	43	Jan 10	81	Sep 9	14
MAXIMUM PEAK FLOW	---		12,300	May 16	37,800
MAXIMUM PEAK STAGE	---		28.30	May 16	36.43
INSTANTANEOUS LOW FLOW	---		68	Sep 14,15	12
ANNUAL RUNOFF (INCHES)	8.04		6.54		9.70
10 PERCENT EXCEEDS	4,420		2,490		4,130
50 PERCENT EXCEEDS	442		529		563
90 PERCENT EXCEEDS	74		166		63

e Estimated

06821190 PLATTE RIVER AT SHARPS STATION, MO—Continued





## 06821190 PLATTE RIVER AT SHARPS STATION, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover- able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover- able, µg/L (71900)	Selen- ium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover- able, µg/L (01092)
NOV 04...	.24	5.14	47.1	.01	.6	10.7	19
JAN 12...	--	--	--	--	--	--	--
MAR 24...	--	--	--	--	--	--	--
MAY 03...	<.08	2.53	89.6	<.01	1.4	1.6	14
JUL 20...	--	--	--	--	--	--	--
SEP 27...	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

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

## 06892350 KANSAS RIVER AT DESOTO, KS

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

DRAINAGE AREA.--59,756 mi<sup>2</sup>, of which a large area is noncontributing.

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

REVISED RECORDS.--WSP 806: Drainage area.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,330	1,450	1,610	2,730	3,230	5,700	2,190	3,260	9,700	12,700	1,810	4,410
2	1,290	2,380	1,390	2,430	3,290	4,610	1,900	3,200	8,030	12,000	2,070	3,660
3	1,260	2,250	1,600	e2,110	3,010	3,550	1,870	3,130	9,550	8,450	2,480	3,190
4	1,260	1,910	1,560	e1,840	3,030	3,350	1,840	3,070	27,100	10,600	2,390	2,760
5	1,260	1,650	1,630	e1,740	2,980	3,170	1,790	2,810	43,500	11,700	2,350	2,370
6	1,230	1,380	2,930	e1,860	3,270	3,070	1,800	2,110	58,900	7,190	2,280	2,000
7	1,510	1,280	2,670	e1,860	7,210	3,040	1,980	1,600	34,100	6,000	2,170	1,920
8	2,430	1,210	2,250	e1,900	9,150	2,800	2,180	1,720	20,800	4,870	2,160	2,120
9	2,540	1,200	2,070	e2,090	6,500	2,600	2,410	1,600	20,900	4,140	2,510	2,180
10	2,470	1,150	1,810	e2,360	5,080	2,530	3,790	1,320	18,200	3,890	2,770	2,220
11	2,330	1,260	1,810	e2,540	5,400	2,220	5,460	1,390	41,600	3,720	2,850	1,970
12	2,080	1,340	1,780	e2,630	6,790	2,370	5,650	2,310	60,300	3,060	2,780	1,950
13	1,760	1,440	1,670	e2,500	14,600	2,490	5,340	11,900	53,800	2,800	3,100	2,100
14	1,540	1,260	1,580	e2,110	20,200	2,440	5,330	24,800	32,800	2,780	5,580	2,500
15	1,280	1,200	1,510	e1,930	12,900	2,330	5,030	13,900	21,200	2,680	3,080	3,580
16	1,280	1,190	1,290	e2,090	8,900	2,150	4,630	7,950	18,900	2,420	2,060	3,210
17	1,090	987	1,630	e2,340	8,480	2,120	4,300	7,570	20,500	2,490	1,420	3,220
18	1,290	1,170	1,640	e2,500	8,030	1,840	4,060	6,120	23,000	2,490	1,490	3,260
19	1,280	1,210	1,460	e2,700	7,720	1,610	3,920	8,720	21,600	2,340	2,380	4,900
20	1,160	1,300	1,530	e2,900	7,720	1,950	3,830	8,500	20,600	2,050	10,600	3,980
21	1,160	1,360	1,700	3,130	7,570	1,790	3,740	7,600	19,200	2,820	11,200	3,230
22	1,160	1,280	e1,680	e2,880	7,290	1,750	3,610	7,110	16,900	2,690	5,670	2,770
23	1,150	1,240	e1,580	e2,700	7,520	1,730	4,000	6,830	14,700	2,120	4,620	13,400
24	1,140	1,590	e2,020	e2,770	7,650	1,850	3,620	6,390	13,800	1,800	3,210	32,500
25	1,120	1,960	e3,040	2,930	7,190	2,010	3,440	6,310	10,000	1,670	5,180	11,500
26	1,340	2,350	e3,270	3,510	7,230	2,010	3,290	6,210	8,480	1,580	7,570	5,710
27	1,630	2,110	e3,250	3,270	7,210	2,530	3,310	6,130	7,370	1,960	9,340	3,410
28	1,880	1,920	3,160	2,990	7,130	3,110	3,300	6,030	6,410	1,440	15,000	2,520
29	3,270	1,780	3,400	3,130	---	2,770	3,230	6,000	6,480	1,380	11,800	2,570
30	2,710	1,740	3,610	3,070	---	2,480	3,220	5,950	6,670	1,600	7,640	2,710
31	1,670	---	3,060	3,100	---	2,340	---	6,050	---	1,520	5,740	---
MEAN	1,610	1,518	2,103	2,537	7,367	2,591	3,469	6,051	22,500	4,160	4,687	4,594
MAX	3,270	2,380	3,610	3,510	20,200	5,700	5,650	24,800	60,300	12,700	15,000	32,500
MIN	1,090	987	1,290	1,740	2,980	1,610	1,790	1,320	6,410	1,380	1,420	1,920
AC-FT	98,980	90,340	129,300	156,000	409,200	159,300	206,400	372,100	1,339,000	255,800	288,200	273,400

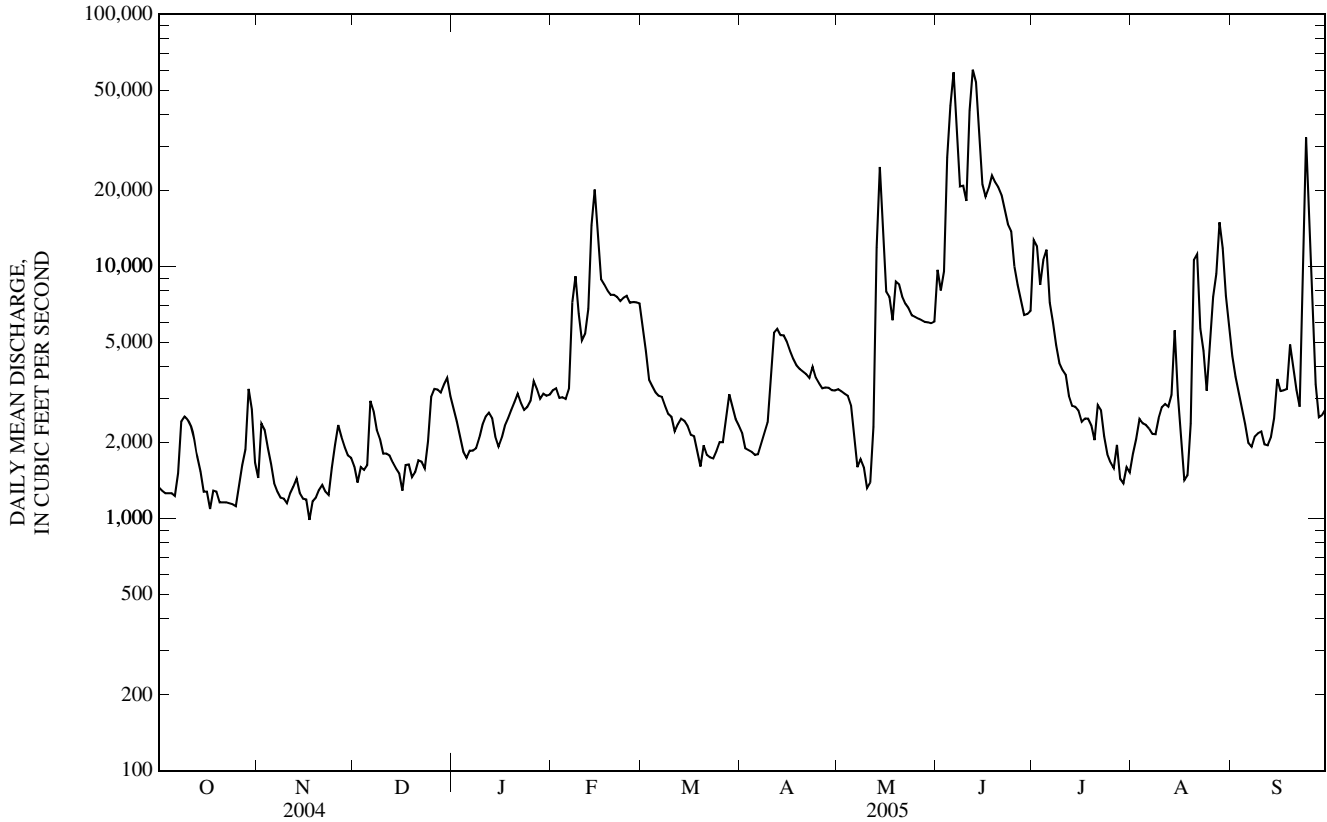
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 2005, BY WATER YEAR (WY)

MEAN	5,605	4,528	3,562	2,865	4,485	7,042	9,414	10,900	14,900	11,500	6,860	6,476
MAX	51,630	42,320	21,940	15,990	20,800	36,560	43,570	43,270	78,870	133,200	66,680	44,660
(WY)	(1974)	(1974)	(1974)	(1973)	(1949)	(1973)	(1973)	(1993)	(1951)	(1951)	(1993)	(1951)
MIN	365	504	465	364	635	632	845	953	1,188	1,106	455	525
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1967)	(1956)	(1989)	(1989)	(1936)	(1934)	(1956)

06892350 KANSAS RIVER AT DESOTO, KS—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1918 - 2005	
ANNUAL MEAN	4,406		5,218		7,351	
HIGHEST ANNUAL MEAN					30,570	1993
LOWEST ANNUAL MEAN					1,326	1956
HIGHEST DAILY MEAN	29,000	Mar 6	60,300	Jun 12	486,000	Jul 14, 1951
LOWEST DAILY MEAN	889	Sep 29	987	Nov 17	160	Oct 11, 1956
ANNUAL SEVEN-DAY MINIMUM	1,140	Jan 22	1,170	Oct 19	195	Oct 9, 1956
MAXIMUM PEAK FLOW	---		70,700	Jun 6	510,000	Jul 13, 1951
MAXIMUM PEAK STAGE	---		19.66	Jun 6	37.30	Jul 13, 1951
INSTANTANEOUS LOW FLOW	---		661	Nov 17	160	Oct 11, 1956
ANNUAL RUNOFF (AC-FT)	3,199,000		3,778,000		5,325,000	
10 PERCENT EXCEEDS	11,000		10,800		17,500	
50 PERCENT EXCEEDS	2,640		2,760		3,310	
90 PERCENT EXCEEDS	1,230		1,370		1,100	

e Estimated



## 06893000 MISSOURI RIVER AT KANSAS CITY, MO

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

DRAINAGE AREA.--484,100 mi<sup>2</sup>. The 3,959 mi<sup>2</sup> in Great Divide basin are not included.

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

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41,800	24,200	23,500	25,400	27,500	30,700	34,900	40,600	55,600	66,700	36,200	39,700
2	40,500	25,400	23,300	25,100	26,700	28,800	34,900	39,800	59,400	65,300	35,100	38,500
3	39,500	27,100	23,000	27,900	26,300	27,400	34,900	39,300	60,300	59,400	34,800	37,200
4	38,500	25,500	22,800	31,000	26,300	26,600	35,300	39,200	86,400	57,300	35,000	36,100
5	38,100	25,500	22,900	34,800	26,600	26,300	35,900	39,100	104,000	59,100	35,300	35,200
6	38,000	25,000	23,700	30,500	27,700	26,000	35,000	38,400	121,000	53,500	34,800	34,400
7	38,000	24,500	24,400	25,100	31,700	26,100	35,200	37,400	94,900	49,700	34,100	34,000
8	38,400	23,800	24,500	23,600	37,200	25,700	38,100	37,800	83,100	47,700	34,300	33,700
9	37,800	23,100	24,700	23,200	37,600	24,700	38,300	37,100	81,400	45,300	34,400	33,800
10	36,900	23,000	24,800	23,500	34,900	24,300	37,100	36,600	80,300	43,300	34,200	34,100
11	36,700	22,800	24,400	24,200	30,500	24,000	39,800	37,600	91,100	42,000	34,100	34,200
12	35,500	22,700	24,000	24,300	29,200	23,700	44,200	41,200	131,000	41,100	35,300	33,700
13	33,400	22,800	24,000	25,800	37,600	23,700	50,000	67,400	134,000	39,800	40,600	33,700
14	30,300	23,100	24,100	24,800	49,800	23,800	51,300	113,000	113,000	38,900	44,900	34,300
15	29,300	22,800	24,200	24,000	51,800	23,600	47,400	102,000	91,200	38,700	51,800	36,400
16	27,300	22,400	23,900	23,500	e56,800	23,300	45,300	86,900	83,500	38,000	45,300	39,300
17	26,500	22,200	23,600	23,600	e52,200	22,800	43,100	76,500	78,200	36,900	37,600	39,200
18	26,000	22,000	23,400	23,800	e46,200	22,500	41,900	67,000	77,800	36,700	36,300	37,600
19	25,800	22,200	22,600	23,700	e42,800	22,100	41,300	65,300	76,700	38,000	39,100	37,800
20	25,500	22,100	22,400	24,000	e40,000	22,100	40,400	63,600	74,200	39,000	61,200	38,700
21	24,900	21,900	22,800	25,000	e37,300	22,000	40,900	58,900	72,500	37,800	54,000	37,500
22	24,500	22,200	23,000	25,800	e36,200	22,000	51,600	58,000	69,500	37,700	44,100	37,600
23	24,000	22,900	22,800	26,200	35,300	22,200	57,400	56,000	66,900	36,700	40,600	44,100
24	23,900	23,700	22,100	26,100	34,500	23,100	56,200	52,900	64,600	36,000	38,200	66,700
25	23,700	24,400	21,700	26,600	33,900	25,500	51,200	52,900	65,700	35,900	40,300	53,400
26	23,900	24,900	21,200	26,500	33,000	29,200	47,500	52,800	66,700	35,100	45,500	42,600
27	25,100	25,100	21,300	24,900	32,400	33,000	45,000	49,700	60,800	36,400	46,700	38,900
28	25,900	24,200	22,100	23,000	31,800	36,500	44,400	49,600	59,300	48,600	49,000	36,700
29	25,200	23,700	23,400	22,800	---	36,400	43,300	50,600	61,500	47,500	48,700	37,000
30	26,000	23,400	24,500	25,400	---	35,500	41,900	50,600	65,900	40,100	44,000	38,800
31	24,800	---	25,500	27,600	---	35,100	---	50,800	---	37,100	41,600	---
MEAN	30,830	23,620	23,370	25,540	36,210	26,410	42,790	54,470	81,020	44,040	40,870	38,500
MAX	41,800	27,100	25,500	34,800	56,800	36,500	57,400	113,000	134,000	66,700	61,200	66,700
MIN	23,700	21,900	21,200	22,800	26,300	22,000	34,900	36,600	55,600	35,100	34,100	33,700
IN.	0.07	0.05	0.06	0.06	0.08	0.06	0.10	0.13	0.19	0.10	0.10	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2005<sup>a</sup>, BY WATER YEAR (WY)

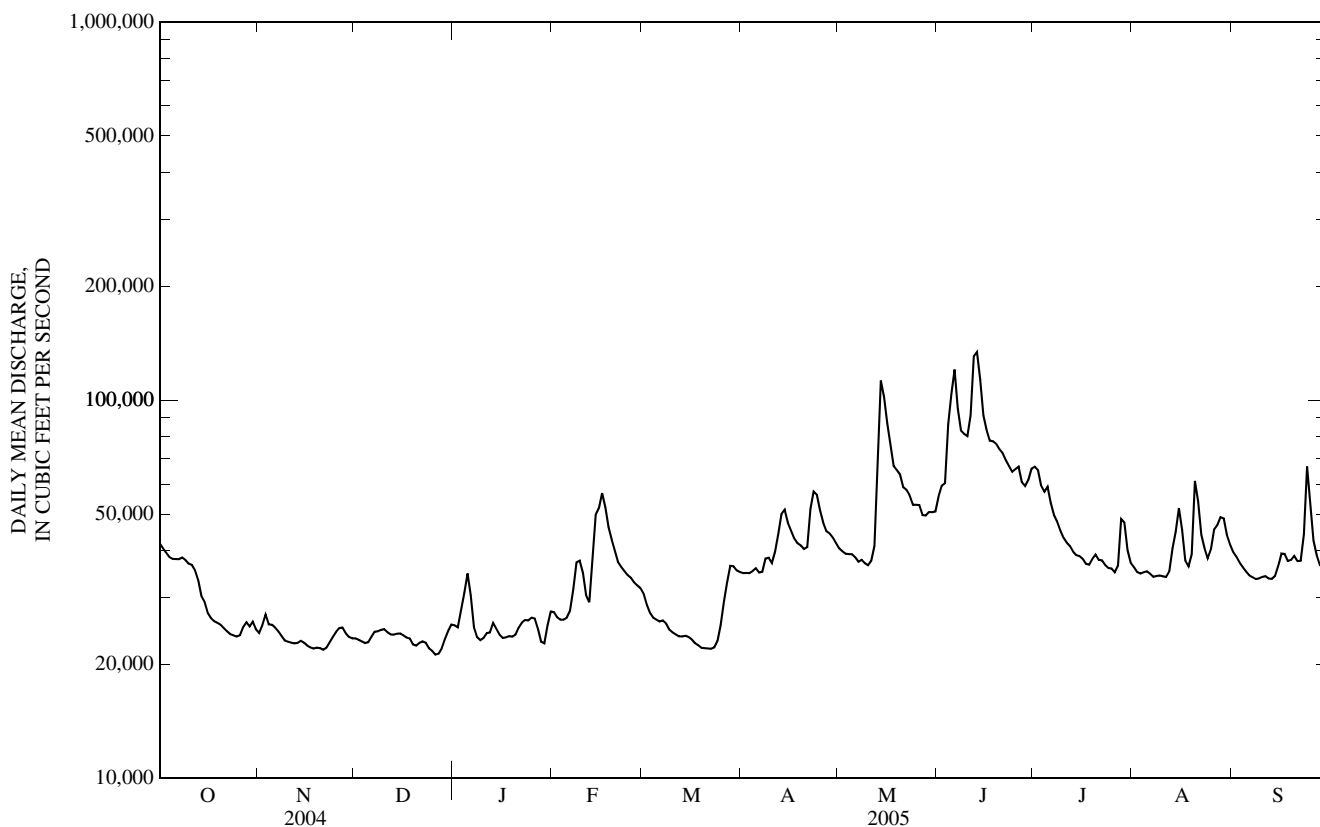
MEAN	55,230	51,370	35,940	29,090	37,980	54,800	68,730	71,630	77,600	69,100	55,650	56,500
MAX	135,200	103,200	75,370	60,980	77,690	133,700	148,900	145,800	173,800	288,300	144,300	115,600
(WY)	(1974)	(1999)	(1987)	(1973)	(1973)	(1979)	(1984)	(1995)	(1984)	(1993)	(1993)	(1993)
MIN	30,830	20,560	12,970	13,800	16,610	20,190	36,370	37,230	40,410	33,690	32,980	34,510
(WY)	(2005)	(1991)	(1964)	(1963)	(1964)	(1964)	(1990)	(1989)	(1989)	(2002)	(2003)	(1991)



06893000 MISSOURI RIVER AT KANSAS CITY, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1958 - 2005 <sup>a</sup>	
ANNUAL MEAN	40,110		38,910		55,340	
HIGHEST ANNUAL MEAN					102,100	1993
LOWEST ANNUAL MEAN					35,190	2003
HIGHEST DAILY MEAN	110,000	May 31	134,000	Jun 13	529,000	Jul 27, 1993
LOWEST DAILY MEAN	18,100	Jan 11	21,200	Dec 26	4,730	Dec 18, 1963
ANNUAL SEVEN-DAY MINIMUM	19,200	Jan 8	22,000	Dec 22	5,480	Dec 17, 1963
MAXIMUM PEAK FLOW	---		140,000	Jun 12,13	541,000	Jul 27, 1993
MAXIMUM PEAK STAGE	---		24.00	Jun 13	48.87	Jul 27, 1993
INSTANTANEOUS LOW FLOW	---		21,100	Dec 26,27	4,240	Dec 18, 1963
ANNUAL RUNOFF (INCHES)	1.13		1.09		1.55	
10 PERCENT EXCEEDS	70,100		61,300		92,100	
50 PERCENT EXCEEDS	35,700		35,300		47,400	
90 PERCENT EXCEEDS	22,200		23,100		24,100	

e Estimated  
<sup>a</sup> Post-regulation period.



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

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

DRAINAGE AREA.--93.1 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	216	110	23	48	49	22	15	47	19	4.2	51
2	13	139	93	21	57	44	21	14	37	19	4.3	47
3	8.6	146	77	627	47	43	21	12	188	23	4.2	41
4	10	515	69	629	44	43	21	10	5,030	71	4.5	34
5	7.8	169	170	1,460	41	38	21	11	411	46	4.4	29
6	8.4	108	399	320	202	38	27	12	184	25	4.4	25
7	118	79	203	171	510	67	22	12	122	17	4.3	22
8	248	63	140	127	193	46	22	12	123	14	11	21
9	71	56	106	148	133	39	20	11	301	10	7.7	20
10	44	64	86	264	104	36	20	13	152	6.1	6.2	19
11	40	294	70	194	108	33	88	12	446	5.6	5.3	17
12	102	116	63	315	170	30	137	13	399	7.1	13	18
13	107	74	55	369	1,430	26	68	585	972	7.0	e400	17
14	63	60	49	e150	426	24	44	195	321	6.1	e141	19
15	46	55	44	e102	219	23	34	83	166	5.3	e54	e140
16	37	52	43	e87	149	23	30	53	112	4.9	28	e67
17	29	49	42	69	116	22	27	47	83	4.7	20	42
18	26	48	38	60	99	24	24	39	63	5.3	25	44
19	23	49	36	56	92	22	25	28	50	14	e292	45
20	20	44	33	57	110	22	23	21	41	11	e726	33
21	20	37	30	57	92	22	20	20	34	11	e121	27
22	22	35	e28	51	76	47	18	18	27	9.1	e63	22
23	23	35	e26	e40	67	62	17	16	23	5.9	52	245
24	18	247	e24	38	62	51	16	13	21	5.5	49	155
25	16	257	e22	37	57	47	15	11	19	4.9	1,390	79
26	76	443	e20	36	53	41	17	9.7	16	8.8	1,050	55
27	111	684	e20	32	52	34	15	9.2	16	11	304	42
28	61	251	22	30	54	31	13	11	17	7.3	149	40
29	50	160	23	33	---	30	15	9.0	14	4.6	107	33
30	48	130	26	33	---	27	16	10	11	4.9	76	28
31	41	---	25	40	---	25	---	9.1	---	4.4	59	---
MEAN	49.0	156	70.7	183	172	35.8	29.3	43.0	315	12.9	167	49.2
MAX	248	684	399	1,460	1,430	67	137	585	5,030	71	1,390	245
MIN	7.8	35	20	21	41	22	13	9.0	11	4.4	4.2	17

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
MEAN	21.3	56.2	49.2	71.6	77.0	130	36.7	122	126	35.6	101	40.7
MAX	49.0	156	70.7	183	172	344	43.7	281	315	117	167	56.2
(WY)	(2005)	(2005)	(2004)	(2005)	(2005)	(2004)	(2004)	(2004)	(2005)	(2004)	(2005)	(2004)
MIN	7.40	5.51	6.29	5.11	13.4	9.79	29.3	42.0	45.2	5.90	5.27	4.84
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2005)	(2003)	(2003)	(2002)	(2002)	(2002)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

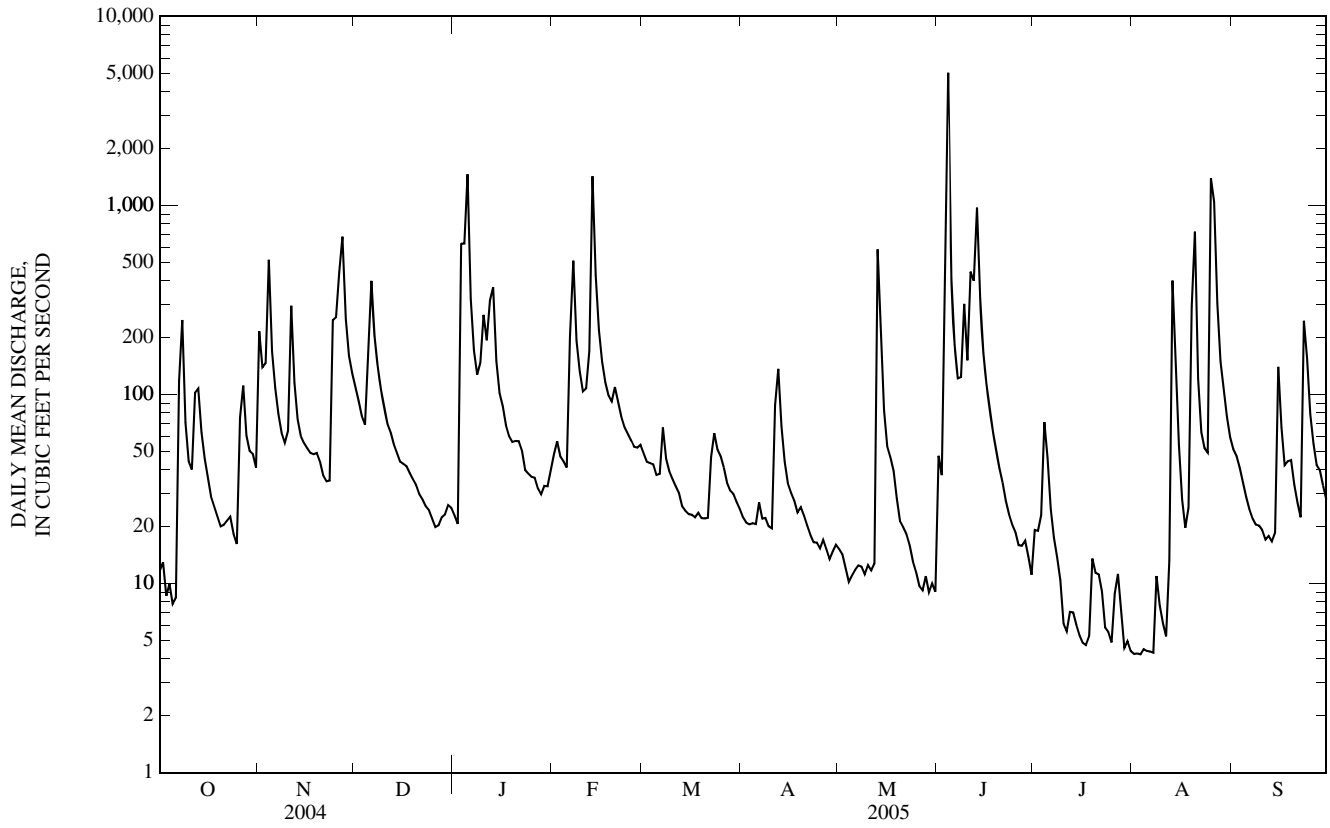
## FOR 2005 WATER YEAR

## WATER YEARS 2002 - 2005

ANNUAL MEAN	118	106	78.7
HIGHEST ANNUAL MEAN			106
LOWEST ANNUAL MEAN			27.7
HIGHEST DAILY MEAN	5,800	May 19	5,800
LOWEST DAILY MEAN	4.0	Aug 19	0.70
ANNUAL SEVEN-DAY MINIMUM	5.0	Aug 13	0.90
MAXIMUM PEAK FLOW	---		8,940
MAXIMUM PEAK STAGE	---		36.77
INSTANTANEOUS LOW FLOW	---		2.6
10 PERCENT EXCEEDS	172		208
50 PERCENT EXCEEDS	41		38
90 PERCENT EXCEEDS	11		10

e Estimated

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



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

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

DRAINAGE AREA.--65.0 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	231	67	29	52	36	27	25	565	70	20	100
2	26	61	57	36	37	33	27	25	66	32	21	56
3	26	276	50	774	35	45	26	25	597	273	19	38
4	25	250	46	683	33	40	26	25	4,860	403	19	33
5	24	72	354	548	32	32	25	22	271	67	19	31
6	23	51	186	e134	317	35	100	22	112	44	19	29
7	562	43	118	92	304	190	34	24	81	34	69	32
8	166	39	75	74	111	42	27	70	168	30	57	29
9	52	36	65	149	103	38	26	45	370	27	39	26
10	39	161	54	161	88	36	26	29	117	26	24	25
11	89	128	48	112	87	35	345	26	599	21	21	24
12	133	48	46	243	225	33	126	31	497	17	361	22
13	77	39	42	153	874	31	53	1,140	614	17	1,140	25
14	43	36	39	e80	208	31	38	121	169	16	326	29
15	36	34	37	65	124	31	34	60	98	19	74	387
16	32	34	37	56	91	29	33	42	71	21	49	78
17	29	34	37	50	74	30	31	36	57	21	40	42
18	27	46	35	43	66	30	30	33	44	38	45	124
19	27	45	34	43	81	30	30	30	39	107	427	81
20	28	32	32	44	100	28	29	29	32	43	1,420	56
21	29	25	33	42	62	37	29	27	32	28	102	35
22	29	31	e32	37	50	150	28	21	29	25	70	32
23	29	41	e30	e33	44	80	26	18	29	23	63	869
24	27	400	e29	33	44	65	25	19	34	21	74	115
25	26	200	28	33	42	47	33	19	28	21	1,110	62
26	173	286	29	32	39	37	56	17	26	242	1,320	55
27	59	426	30	30	40	34	29	17	27	101	178	38
28	52	114	30	31	52	32	28	20	76	33	96	42
29	37	78	29	46	---	29	28	18	35	26	67	40
30	31	83	30	41	---	30	28	19	87	23	49	34
31	32	---	29	58	---	29	---	21	---	21	44	---
MEAN	65.2	113	57.7	129	122	45.3	46.8	67.0	328	61.0	238	86.3
MAX	562	426	354	774	874	190	345	1,140	4,860	403	1,420	869
MIN	23	25	28	29	32	28	25	17	26	16	19	22

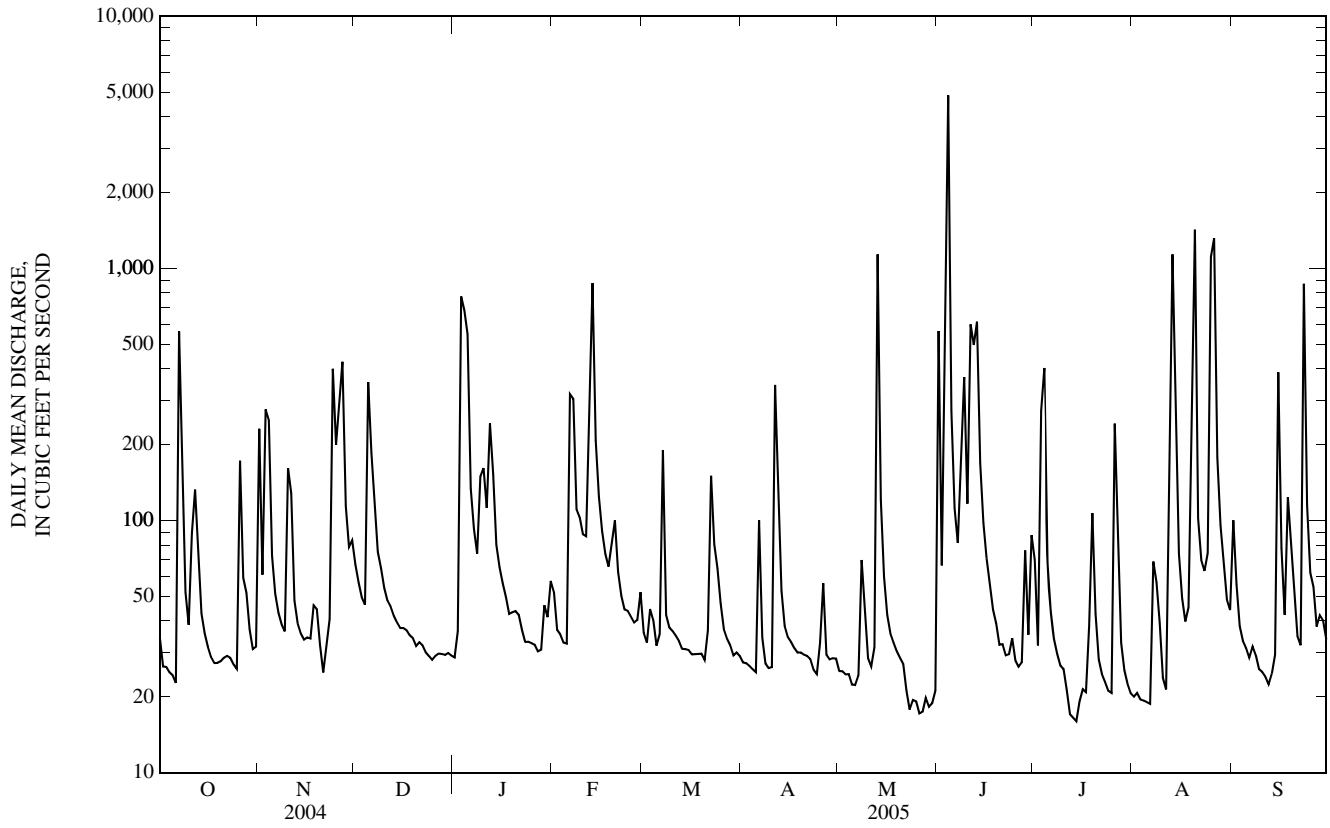
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	52.9	58.3	57.2	63.7	72.4	105	71.9	122	157	78.8	175	64.3
MAX	65.2	113	93.6	129	122	233	115	217	328	180	245	86.3
(WY)	(2005)	(2005)	(2004)	(2005)	(2005)	(2004)	(2003)	(2002)	(2005)	(2004)	(2003)	(2005)
MIN	33.0	28.6	20.4	20.8	39.5	36.2	46.8	67.0	62.7	27.0	48.0	33.0
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2005)	(2005)	(2002)	(2003)	(2002)	(2002)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2002 - 2005
ANNUAL MEAN	107	113	95.2
HIGHEST ANNUAL MEAN			113
LOWEST ANNUAL MEAN			71.7
HIGHEST DAILY MEAN	4,250	Mar 4	4,860
LOWEST DAILY MEAN	22	Jul 14,15,21, Sep 29	16
ANNUAL SEVEN-DAY MINIMUM	25	Aug 12	18
MAXIMUM PEAK FLOW	---		14,900
MAXIMUM PEAK STAGE	---		93.11
INSTANTANEOUS LOW FLOW	---		14
10 PERCENT EXCEEDS	177		235
50 PERCENT EXCEEDS	39		38
90 PERCENT EXCEEDS	27		24

e Estimated

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



## 06893500 BLUE RIVER AT KANSAS CITY, MO

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

DRAINAGE AREA.--188 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 926: Drainage area.

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

REMARKS.--Water-discharge records good except for discharges above 800 ft<sup>3</sup>/s, which are fair. Low flow regulated by commercial plants above station. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	538	241	58	107	102	59	42	e775	119	21	169
2	49	280	193	65	96	90	57	40	e120	65	21	115
3	45	432	154	1,710	84	105	55	37	928	295	20	79
4	42	988	133	1,450	76	106	54	36	9,970	688	18	66
5	41	347	516	2,740	73	82	54	34	1,400	152	17	57
6	40	203	807	646	574	87	166	33	449	81	17	51
7	750	140	457	368	1,130	363	70	34	311	60	56	50
8	591	107	304	274	415	111	60	76	349	49	48	48
9	156	93	229	370	310	91	55	60	949	41	40	43
10	87	213	175	580	248	85	54	40	388	37	23	41
11	122	556	138	423	241	78	562	37	1,270	29	18	38
12	296	217	120	654	455	74	408	40	1,090	25	424	35
13	245	127	105	747	2,980	69	164	2,200	2,130	25	1,660	37
14	119	101	93	335	925	66	98	492	720	23	669	44
15	87	90	84	226	506	64	80	232	391	22	148	580
16	70	84	82	177	364	62	71	149	275	24	78	187
17	61	80	81	149	288	60	65	108	207	23	59	85
18	56	89	76	118	246	61	61	88	153	38	68	203
19	53	96	74	112	251	60	59	77	118	125	936	147
20	50	75	68	111	299	59	53	62	95	60	2,800	100
21	50	61	68	110	231	61	53	58	85	36	321	60
22	48	64	65	96	179	254	51	49	75	33	158	52
23	47	68	57	78	156	202	46	43	67	29	133	1,550
24	44	780	56	75	137	146	45	39	69	25	127	377
25	41	599	51	73	123	115	49	37	65	26	2,910	158
26	275	883	54	71	113	92	83	35	54	263	3,080	106
27	213	1,390	55	65	111	82	49	34	e58	150	708	73
28	115	536	57	63	132	76	44	37	e130	38	340	69
29	82	341	58	79	---	70	46	35	67	29	225	66
30	72	296	59	78	---	66	46	38	137	25	142	53
31	68	---	61	95	---	62	---	37	---	23	109	---
MEAN	131	329	154	393	388	100	93.9	141	763	85.7	497	158
MAX	750	1,390	807	2,740	2,980	363	562	2,200	9,970	688	3,080	1,550
MIN	40	61	51	58	73	59	44	33	54	22	17	35
IN.	0.81	1.95	0.94	2.41	2.15	0.61	0.56	0.86	4.53	0.53	3.05	0.94

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

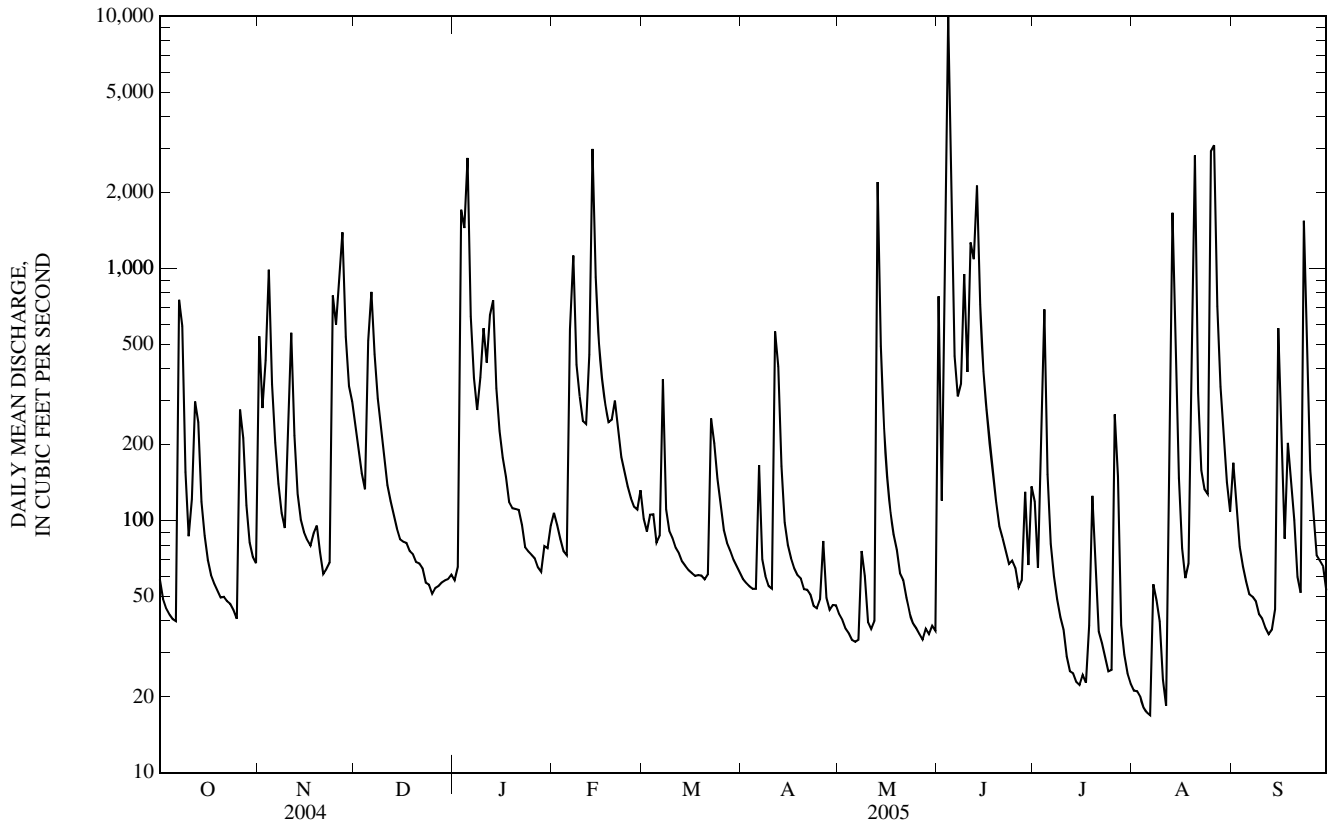
MEAN	129	112	97.5	97.9	134	193	266	267	299	168	99.3	168
MAX	790	926	726	445	740	1,407	1,279	1,457	1,285	1,616	497	1,395
(WY)	(1987)	(1999)	(1993)	(1941)	(1985)	(1973)	(1944)	(1990)	(1967)	(1951)	(2005)	(1986)
MIN	0.00	0.00	0.00	0.00	2.66	4.36	6.41	17.8	7.44	1.72	0.94	0.05
(WY)	(1940)	(1940)	(1940)	(1940)	(1940)	(1957)	(1954)	(1956)	(1953)	(1946)	(1947)	(1939)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1939 - 2005
ANNUAL MEAN	274	268	170
HIGHEST ANNUAL MEAN			437
LOWEST ANNUAL MEAN			12.8
HIGHEST DAILY MEAN	7,140	9,970	20,000
LOWEST DAILY MEAN	35	17	0.00
ANNUAL SEVEN-DAY MINIMUM	41	20	0.00
MAXIMUM PEAK FLOW	---	15,400	41,000
MAXIMUM PEAK STAGE	---	32.04	44.46
INSTANTANEOUS LOW FLOW	---	13	0.00
ANNUAL RUNOFF (INCHES)	19.84	19.34	12.27
10 PERCENT EXCEEDS	495	584	284
50 PERCENT EXCEEDS	94	84	47
90 PERCENT EXCEEDS	51	37	7.0

e Estimated

06893500 BLUE RIVER AT KANSAS CITY, MO—Continued



## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD--

SPECIFIC CONDUCTANCE: August to December 1998, June to November 1999, April to December 2000, July to December 2001, April to December 2002, April to December 2003, April to December 2004, April 2005 to present.

pH: August to December 1998, June to November 1999, April to December 2000, July to December 2001, April to December 2002, April to December 2003, April to December 2004, April 2005 to present.

WATER TEMPERATURE: August to December 1998, June to November 1999, April to December 2000, July to December 2001, April to December 2002, April to December 2003, April to December 2004, April 2005 to present.

DISSOLVED OXYGEN: August to December 1998, June to November 1999, April to December 2000, July to December 2001, April to December 2002, April to December 2003, April to December 2004, April 2005 to present.

TURBIDITY: August to December 1998, June to November 1999, April to December 2000, July to December 2001, April to December 2002, April to December 2003, April to December 2004, April 2005 to present.

INSTRUMENTATION.--Multi-parameter water-quality monitor deployed seasonally since August 1998. U.S.G.S. satellite telemeter at station.

REMARKS.--Interruptions in the record are generally due to malfunction or fouling of the sensors. The manufacturers' specified range for turbidity sensors used is 0 to 1,000 NTU. All numbers beyond this limit may be considered as >1,000 NTU. Values >1,000 NTU are maintained for continuity of the record. Specific Conductance record excellent except May 15-23, June 14-19, July 8-10, which are good; May 24, June 20-22, which are fair. pH record excellent except September 22, which is good; April 28 to May 24, which are fair. Water temperature record excellent except July 11-12, which are fair. Dissolved oxygen record excellent except May 13, September 9-11, which are good; December 7, July 4, September 12-15, which are fair; October 1-15, December 8-11, May 14-15, July 5, September 16-22, which are poor. Turbidity record excellent except November 26, June 11-15, 20-22, which are poor.

## EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,180 microsiemens, December 15, 2003; minimum, 109 microsiemens, June 28, 1999.

pH: Maximum, 8.9 standard units, July 12-13, 2000, May 18, June 24, 2005; minimum, 4.7 standard units on May 5, 2005.

WATER TEMPERATURE: Maximum, 32.9 °C, July 27, 29, 1999; minimum, 0.9 °C, December 12-13, 2003.

DISSOLVED OXYGEN: Maximum, 16.3 mg/L, June 24, 2005; minimum, 0.1 mg/L, May 10, June 22-23, August 28-31, December 9, 2003, June 10-11, 2004.

TURBIDITY: Maximum, 2,700 NTU, May 11-12, 2002; minimum, 0.0 NTU on numerous days August–November, 1998, July–November, 1999, April–September 2000, August 3, 14, 2004.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,223 microsiemens, December 5; minimum, 148 microsiemens, May 6.

pH: Maximum, 8.9 standard units, May 18, June 24; minimum, 4.7 standard units, May 5.

WATER TEMPERATURE: Maximum, 32.6 °C, July 23; minimum, 2.1 °C, December 14.

DISSOLVED OXYGEN: Maximum, 16.3 mg/L, June 24; minimum, 0.8 mg/L, July 4.

TURBIDITY: Maximum, 1,400 NTU, June 3-4; minimum, 1.0 NTU, October 5-6, 24.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.2	17.9	18.8	16.0	15.2	15.7	5.5	4.6	5.2	---	---	---
2	17.9	15.4	16.4	15.2	13.7	14.3	5.7	4.7	5.3	---	---	---
3	17.0	14.4	15.8	13.7	11.7	12.8	5.3	4.3	5.0	---	---	---
4	17.3	15.5	16.4	12.1	11.1	11.6	6.0	4.5	5.3	---	---	---
5	16.5	14.5	15.6	11.6	10.0	10.9	7.5	5.3	6.0	---	---	---
6	16.8	14.8	15.8	12.4	10.8	11.7	8.0	6.1	7.0	---	---	---
7	18.0	16.4	17.1	12.3	11.1	11.9	8.4	7.6	8.1	---	---	---
8	18.7	16.9	17.9	11.9	10.8	11.4	7.8	6.8	7.3	---	---	---
9	18.6	17.2	18.0	11.8	10.8	11.3	7.7	7.0	7.4	---	---	---
10	18.1	17.1	17.6	13.6	11.0	11.9	7.5	6.6	7.0	---	---	---
11	17.3	15.6	16.5	13.6	10.7	11.7	6.7	6.1	6.5	---	---	---
12	15.6	14.3	14.9	10.7	9.3	9.8	6.9	6.2	6.5	---	---	---
13	15.0	13.7	14.4	9.3	8.1	8.6	6.3	3.8	5.0	---	---	---
14	14.8	13.5	14.0	8.7	7.9	8.3	3.8	2.1	2.7	---	---	---
15	13.5	12.7	13.1	9.9	8.7	9.2	---	---	---	---	---	---
16	13.1	11.8	12.5	12.0	9.9	10.9	---	---	---	---	---	---
17	13.8	12.0	12.9	13.9	12.0	12.9	---	---	---	---	---	---
18	14.3	13.6	14.0	14.3	13.6	13.9	---	---	---	---	---	---
19	14.4	13.9	14.2	14.2	13.5	13.9	---	---	---	---	---	---
20	14.2	14.0	14.1	13.5	12.4	13.0	---	---	---	---	---	---
21	15.0	14.1	14.4	12.4	10.5	11.2	---	---	---	---	---	---
22	17.0	15.0	16.2	10.6	10.2	10.4	---	---	---	---	---	---
23	17.9	16.5	17.1	10.8	9.9	10.5	---	---	---	---	---	---
24	16.6	14.9	15.9	9.9	5.7	6.8	---	---	---	---	---	---
25	16.4	15.0	15.8	6.4	4.6	5.5	---	---	---	---	---	---
26	17.4	16.3	16.9	8.3	6.2	7.1	---	---	---	---	---	---
27	17.4	17.3	17.4	9.2	7.9	8.7	---	---	---	---	---	---
28	18.5	17.2	17.8	7.9	7.1	7.3	---	---	---	---	---	---
29	19.9	18.4	19.1	7.1	6.7	7.0	---	---	---	---	---	---
30	19.1	16.2	17.4	6.7	5.5	6.3	---	---	---	---	---	---
31	16.2	14.6	15.4	---	---	---	---	---	---	---	---	---
MONTH	19.9	11.8	15.9	16.0	4.6	10.6	---	---	---	---	---	---



06893500 BLUE RIVER AT KANSAS CITY, MO—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	15.7	11.8	13.6
2	---	---	---	---	---	---	---	---	---	15.5	12.1	13.8
3	---	---	---	---	---	---	---	---	---	16.5	12.3	14.4
4	---	---	---	---	---	---	---	---	---	17.5	14.0	15.6
5	---	---	---	---	---	---	---	---	---	18.0	14.6	16.3
6	---	---	---	---	---	---	---	---	---	20.5	16.3	18.2
7	---	---	---	---	---	---	---	---	---	21.6	18.7	19.9
8	---	---	---	---	---	---	---	---	---	20.9	19.8	20.3
9	---	---	---	---	---	---	---	---	---	22.5	18.4	20.4
10	---	---	---	---	---	---	---	---	---	24.8	19.9	22.3
11	---	---	---	---	---	---	---	---	---	24.9	22.4	23.5
12	---	---	---	---	---	---	---	---	---	23.5	21.1	22.3
13	---	---	---	---	---	---	---	---	---	21.4	17.6	18.4
14	---	---	---	---	---	---	---	---	---	20.1	17.3	18.5
15	---	---	---	---	---	---	---	---	---	19.2	16.5	18.1
16	---	---	---	---	---	---	---	---	---	19.6	16.5	18.1
17	---	---	---	---	---	---	---	---	---	21.7	18.3	19.8
18	---	---	---	---	---	---	---	---	---	20.7	19.8	20.3
19	---	---	---	---	---	---	---	---	---	24.2	19.4	21.5
20	---	---	---	---	---	---	---	---	---	25.9	21.7	23.7
21	---	---	---	---	---	---	---	---	---	25.5	21.9	23.8
22	---	---	---	---	---	---	---	---	---	26.7	23.1	24.7
23	---	---	---	---	---	---	---	---	---	27.1	23.0	24.9
24	---	---	---	---	---	---	---	---	---	25.5	23.4	24.2
25	---	---	---	---	---	---	---	---	---	25.6	22.0	23.6
26	---	---	---	---	---	---	---	---	---	25.2	21.9	23.4
27	---	---	---	---	---	---	---	---	---	23.4	20.4	21.8
28	---	---	---	---	---	---	15.1	13.9	14.3	23.8	19.1	21.2
29	---	---	---	---	---	---	13.9	12.1	12.8	24.2	20.9	22.5
30	---	---	---	---	---	---	14.3	10.6	12.5	23.3	21.6	22.4
31	---	---	---	---	---	---	---	---	---	24.9	21.3	22.9
MONTH	---	---	---	---	---	---	---	---	---	27.1	11.8	20.5
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.9	20.1	21.3	26.6	22.6	24.5	30.0	26.4	28.0	25.4	23.8	24.7
2	22.6	19.7	21.2	27.4	24.0	25.6	29.1	27.2	28.2	24.9	23.0	23.9
3	21.9	19.7	20.5	27.6	23.7	25.6	30.2	27.1	28.5	26.0	23.2	24.5
4	20.8	18.6	19.4	24.9	22.8	23.6	30.8	27.9	29.0	26.6	24.0	25.3
5	22.9	20.5	21.5	25.7	23.2	24.4	28.8	25.9	26.9	26.7	24.1	25.4
6	23.8	20.5	22.1	26.9	23.4	25.1	28.3	24.4	26.1	26.4	24.0	25.3
7	24.5	22.2	23.4	28.2	24.5	26.3	28.6	25.5	27.0	26.8	24.1	25.5
8	25.7	23.0	24.2	29.1	25.2	27.1	28.0	25.2	26.7	26.1	24.7	25.5
9	24.3	22.3	23.3	29.8	25.9	27.8	29.2	25.8	27.5	26.7	24.1	25.4
10	23.9	22.4	23.3	30.0	26.6	28.3	30.1	27.0	28.6	26.9	24.4	25.7
11	23.6	21.6	22.3	30.3	27.0	28.3	30.6	27.7	29.0	26.8	24.3	25.6
12	24.5	21.8	22.8	29.6	25.6	27.7	29.4	25.6	27.4	26.4	24.7	25.6
13	23.1	21.6	22.2	29.6	26.8	28.1	25.6	24.1	24.8	25.5	24.1	24.5
14	23.8	21.1	22.3	30.4	26.8	28.4	24.5	22.2	22.8	24.1	22.5	23.2
15	24.4	21.2	22.8	31.1	27.6	29.1	22.4	21.8	22.1	22.6	18.8	19.9
16	25.3	22.3	23.9	31.1	27.9	29.4	24.7	22.0	23.1	20.4	18.0	19.2
17	26.0	23.3	24.7	31.0	28.1	29.5	25.9	23.6	24.6	21.0	18.8	20.0
18	25.6	22.8	24.3	29.6	27.6	28.8	28.8	25.1	26.7	22.9	20.0	21.4
19	26.3	23.2	24.7	28.2	25.4	26.3	27.9	24.4	26.0	24.8	22.2	23.4
20	27.3	23.5	25.3	29.4	24.9	27.0	25.8	23.8	24.3	25.9	23.7	24.7
21	27.8	24.3	25.9	30.6	27.4	29.0	24.8	23.5	24.1	25.5	23.3	24.5
22	29.1	25.1	27.0	31.6	28.0	29.8	25.5	24.1	24.8	26.2	24.1	25.1
23	29.4	25.9	27.6	32.6	28.8	30.6	25.0	23.1	24.0	25.1	21.3	22.3
24	29.6	26.2	28.0	32.2	29.1	30.7	23.7	22.5	23.1	23.7	22.0	22.8
25	30.4	26.7	28.5	32.1	29.0	30.4	23.5	22.5	22.8	24.7	22.8	23.8
26	30.6	27.0	28.8	30.7	24.5	28.3	23.6	22.2	22.9	24.4	22.8	23.6
27	---	---	---	26.2	22.8	24.5	25.8	23.2	24.4	22.8	20.8	21.8
28	---	---	---	26.5	23.0	24.8	26.1	23.8	24.9	21.6	19.3	20.7
29	29.4	25.7	27.4	28.0	23.9	25.9	25.8	23.6	24.9	19.3	17.1	18.1
30	28.5	23.8	26.2	29.0	24.9	26.9	25.5	23.6	24.7	18.6	16.4	17.6
31	---	---	---	29.4	25.9	27.5	25.9	24.0	25.0	---	---	---
MONTH	---	---	---	32.6	22.6	27.4	30.8	21.8	25.6	26.9	16.4	23.3

## BLUE RIVER BASIN

06893500 BLUE RIVER AT KANSAS CITY, MO—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.9	7.7	7.8	8.0	7.7	7.8	8.1	8.1	8.1	---	---	---
2	8.1	7.8	7.9	8.1	8.0	8.0	8.1	8.0	8.1	---	---	---
3	8.1	7.9	8.0	8.0	7.9	8.0	8.1	8.1	8.1	---	---	---
4	8.1	7.9	8.0	8.0	8.0	8.0	8.1	8.1	8.1	---	---	---
5	8.1	7.9	8.0	8.1	8.0	8.1	8.1	7.9	8.0	---	---	---
6	8.1	7.8	8.0	8.1	8.1	8.1	8.0	7.9	7.9	---	---	---
7	8.0	7.8	7.9	8.2	8.1	8.1	8.0	7.9	8.0	---	---	---
8	8.0	7.9	8.0	8.2	8.0	8.1	8.1	8.0	8.0	---	---	---
9	8.0	7.9	8.0	8.1	8.0	8.1	8.1	8.0	8.0	---	---	---
10	8.0	8.0	8.0	8.1	7.8	8.1	8.1	8.0	8.1	---	---	---
11	8.0	7.9	8.0	8.1	7.9	8.0	8.1	8.0	8.1	---	---	---
12	8.0	8.0	8.0	8.0	7.9	7.9	8.2	8.1	8.1	---	---	---
13	8.1	8.0	8.0	8.0	8.0	8.0	8.2	8.1	8.2	---	---	---
14	8.1	8.1	8.1	8.1	8.0	8.0	8.2	8.1	8.1	---	---	---
15	8.1	8.1	8.1	8.0	8.0	8.0	---	---	---	---	---	---
16	8.1	8.0	8.0	8.1	8.0	8.0	---	---	---	---	---	---
17	8.1	8.0	8.0	8.1	8.0	8.0	---	---	---	---	---	---
18	8.0	8.0	8.0	8.0	7.9	8.0	---	---	---	---	---	---
19	8.0	7.9	8.0	8.1	7.9	8.0	---	---	---	---	---	---
20	8.0	7.9	7.9	8.2	8.0	8.1	---	---	---	---	---	---
21	8.0	7.9	7.9	8.2	8.0	8.1	---	---	---	---	---	---
22	7.9	7.8	7.8	8.1	8.0	8.0	---	---	---	---	---	---
23	8.0	7.8	7.8	8.1	7.9	8.0	---	---	---	---	---	---
24	8.0	7.8	7.9	8.0	7.8	8.0	---	---	---	---	---	---
25	8.0	7.8	7.9	8.0	8.0	8.0	---	---	---	---	---	---
26	7.9	7.6	7.8	8.0	8.0	8.0	---	---	---	---	---	---
27	8.0	7.8	7.9	8.0	7.9	7.9	---	---	---	---	---	---
28	8.0	7.9	7.9	8.0	7.9	8.0	---	---	---	---	---	---
29	7.9	7.9	7.9	8.0	8.0	8.0	---	---	---	---	---	---
30	8.0	7.8	7.9	8.1	8.0	8.1	---	---	---	---	---	---
31	8.0	7.9	7.9	---	---	---	---	---	---	---	---	---
MONTH	8.1	7.6	7.9	8.2	7.7	8.0	---	---	---	---	---	---
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	7.3	6.8	7.0
2	---	---	---	---	---	---	---	---	---	7.2	6.7	6.9
3	---	---	---	---	---	---	---	---	---	7.2	6.7	7.0
4	---	---	---	---	---	---	---	---	---	7.2	6.8	7.0
5	---	---	---	---	---	---	---	---	---	7.5	4.7	6.8
6	---	---	---	---	---	---	---	---	---	7.7	7.1	7.4
7	---	---	---	---	---	---	---	---	---	7.8	7.3	7.5
8	---	---	---	---	---	---	---	---	---	7.4	7.2	7.3
9	---	---	---	---	---	---	---	---	---	7.6	7.1	7.3
10	---	---	---	---	---	---	---	---	---	7.9	7.3	7.6
11	---	---	---	---	---	---	---	---	---	7.9	7.5	7.6
12	---	---	---	---	---	---	---	---	---	7.7	7.4	7.5
13	---	---	---	---	---	---	---	---	---	8.4	7.1	7.8
14	---	---	---	---	---	---	---	---	---	7.9	7.6	7.7
15	---	---	---	---	---	---	---	---	---	8.3	7.6	7.9
16	---	---	---	---	---	---	---	---	---	8.6	8.1	8.3
17	---	---	---	---	---	---	---	---	---	8.8	8.0	8.4
18	---	---	---	---	---	---	---	---	---	8.9	8.3	8.5
19	---	---	---	---	---	---	---	---	---	8.4	7.9	8.1
20	---	---	---	---	---	---	---	---	---	8.2	7.8	8.0
21	---	---	---	---	---	---	---	---	---	8.1	7.7	7.9
22	---	---	---	---	---	---	---	---	---	7.8	7.7	7.7
23	---	---	---	---	---	---	---	---	---	7.8	7.5	7.7
24	---	---	---	---	---	---	---	---	---	8.1	7.7	7.9
25	---	---	---	---	---	---	---	---	---	8.1	7.8	7.9
26	---	---	---	---	---	---	---	---	---	8.1	7.8	7.9
27	---	---	---	---	---	---	---	---	---	7.9	7.7	7.8
28	---	---	---	---	---	---	7.6	7.2	7.4	8.0	7.6	7.8
29	---	---	---	---	---	---	7.2	6.9	7.0	8.0	7.7	7.8
30	---	---	---	---	---	---	7.2	6.7	7.0	7.9	7.7	7.8
31	---	---	---	---	---	---	---	---	---	7.9	7.6	7.8
MONTH	---	---	---	---	---	---	---	---	---	8.9	4.7	7.7

06893500 BLUE RIVER AT KANSAS CITY, MO—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.9	7.4	7.6	7.8	7.6	7.7	8.2	7.8	8.0	8.4	8.0	8.2
2	7.6	7.5	7.6	7.9	7.7	7.8	8.2	7.8	8.0	8.3	8.0	8.1
3	7.6	7.4	7.5	8.0	7.6	7.8	8.2	7.8	8.0	8.3	8.1	8.2
4	7.6	7.3	7.4	7.9	7.7	7.9	8.3	7.8	8.0	8.4	8.0	8.3
5	7.6	7.3	7.5	8.0	7.8	7.9	8.1	7.8	7.9	8.4	8.2	8.3
6	7.7	7.6	7.6	8.0	7.8	7.9	8.2	7.8	8.0	8.5	8.2	8.3
7	7.7	7.6	7.7	8.1	7.8	7.9	8.2	7.8	8.0	8.6	8.2	8.4
8	7.8	7.6	7.7	8.1	7.8	8.0	8.1	7.7	7.9	8.5	8.2	8.4
9	7.8	7.6	7.7	8.1	7.8	8.0	8.1	7.6	7.8	8.6	8.2	8.3
10	7.7	7.7	7.7	8.1	7.8	7.9	8.2	7.7	7.9	8.5	8.2	8.3
11	7.8	7.6	7.7	---	---	---	8.2	7.8	8.0	8.6	8.2	8.4
12	7.7	7.6	7.7	---	---	---	8.0	7.5	7.7	8.6	8.2	8.3
13	7.7	7.6	7.7	8.3	8.0	8.1	7.9	7.7	7.7	8.3	8.1	8.2
14	7.8	7.6	7.7	8.4	8.1	8.2	7.9	7.7	7.8	8.4	8.1	8.2
15	7.9	7.7	7.8	8.3	8.0	8.2	8.0	7.9	8.0	8.4	8.2	8.4
16	7.9	7.8	7.8	8.4	8.2	8.3	8.0	7.9	8.0	8.6	8.3	8.5
17	8.0	7.8	7.9	8.2	8.0	8.1	8.1	8.0	8.0	8.6	8.3	8.4
18	8.0	7.8	7.9	8.2	7.9	8.0	8.2	8.0	8.1	8.4	8.2	8.3
19	8.2	7.9	8.0	8.1	7.7	7.9	8.1	7.7	7.9	8.3	8.0	8.2
20	8.2	7.9	8.1	8.0	7.7	7.8	7.9	7.7	7.8	8.0	7.9	8.0
21	8.5	8.0	8.2	8.0	7.7	7.8	8.0	7.9	7.9	8.1	7.8	8.0
22	8.6	8.0	8.3	8.0	7.6	7.8	8.0	7.9	8.0	8.0	7.7	7.9
23	8.8	8.2	8.5	8.0	7.7	7.8	8.0	8.0	8.0	7.9	7.8	7.8
24	8.9	8.2	8.5	8.0	7.7	7.8	8.1	8.0	8.0	8.0	7.9	7.9
25	8.5	8.1	8.3	8.0	7.8	7.9	8.0	7.7	7.8	8.0	7.9	7.9
26	8.3	7.9	8.0	7.9	7.5	7.8	7.9	7.7	7.8	8.0	7.9	7.9
27	---	---	---	7.8	7.6	7.7	8.0	7.8	7.9	8.0	7.9	8.0
28	---	---	---	7.8	7.7	7.7	8.1	7.9	8.0	8.0	7.9	8.0
29	7.8	7.5	7.7	7.9	7.6	7.7	8.1	8.0	8.0	8.1	8.0	8.1
30	7.8	7.6	7.7	7.9	7.6	7.7	8.1	8.0	8.1	8.1	7.9	8.1
31	---	---	---	8.1	7.6	7.8	8.2	8.0	8.1	---	---	---
MONTH	---	---	---	---	---	---	8.3	7.5	7.9	8.6	7.7	8.2

## BLUE RIVER BASIN

06893500 BLUE RIVER AT KANSAS CITY, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	809	772	786	675	483	558	861	750	824	---	---	---
2	799	764	778	524	495	511	869	842	852	---	---	---
3	790	766	783	537	397	499	895	867	882	---	---	---
4	814	787	804	453	375	398	891	863	877	---	---	---
5	821	800	814	536	396	463	1,223	612	892	---	---	---
6	830	802	815	598	536	569	643	411	474	---	---	---
7	813	305	631	651	598	627	589	492	557	---	---	---
8	462	303	401	682	651	667	646	589	619	---	---	---
9	490	419	456	710	681	695	683	646	671	---	---	---
10	562	490	526	761	508	710	724	681	703	---	---	---
11	712	562	621	575	423	507	745	722	733	---	---	---
12	704	520	568	471	414	439	758	745	752	---	---	---
13	540	498	515	570	471	523	776	754	763	---	---	---
14	572	540	561	628	570	601	790	772	780	---	---	---
15	623	571	596	674	628	649	---	---	---	---	---	---
16	655	623	642	713	674	689	---	---	---	---	---	---
17	695	654	674	728	707	713	---	---	---	---	---	---
18	711	689	700	777	728	740	---	---	---	---	---	---
19	732	711	720	778	724	752	---	---	---	---	---	---
20	761	732	750	760	732	746	---	---	---	---	---	---
21	778	750	766	749	716	731	---	---	---	---	---	---
22	782	762	776	770	746	757	---	---	---	---	---	---
23	807	777	798	779	760	771	---	---	---	---	---	---
24	818	802	810	840	501	623	---	---	---	---	---	---
25	829	809	820	838	696	764	---	---	---	---	---	---
26	915	537	728	784	527	625	---	---	---	---	---	---
27	599	515	556	577	437	488	---	---	---	---	---	---
28	606	573	595	566	453	511	---	---	---	---	---	---
29	619	602	611	631	566	600	---	---	---	---	---	---
30	637	605	621	752	631	695	---	---	---	---	---	---
31	659	629	644	---	---	---	---	---	---	---	---	---
MONTH	915	303	673	840	375	621	---	---	---	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	884	773	866
2	---	---	---	---	---	---	---	---	---	886	521	837
3	---	---	---	---	---	---	---	---	---	884	205	653
4	---	---	---	---	---	---	---	---	---	886	197	495
5	---	---	---	---	---	---	---	---	---	889	195	449
6	---	---	---	---	---	---	---	---	---	713	148	397
7	---	---	---	---	---	---	---	---	---	825	165	489
8	---	---	---	---	---	---	---	---	---	1,027	297	914
9	---	---	---	---	---	---	---	---	---	952	676	782
10	---	---	---	---	---	---	---	---	---	832	339	758
11	---	---	---	---	---	---	---	---	---	816	155	648
12	---	---	---	---	---	---	---	---	---	850	223	651
13	---	---	---	---	---	---	---	---	---	748	313	397
14	---	---	---	---	---	---	---	---	---	595	429	517
15	---	---	---	---	---	---	---	---	---	657	595	632
16	---	---	---	---	---	---	---	---	---	695	650	667
17	---	---	---	---	---	---	---	---	---	756	695	722
18	---	---	---	---	---	---	---	---	---	762	744	750
19	---	---	---	---	---	---	---	---	---	769	747	759
20	---	---	---	---	---	---	---	---	---	811	756	782
21	---	---	---	---	---	---	---	---	---	813	802	809
22	---	---	---	---	---	---	---	---	---	823	796	809
23	---	---	---	---	---	---	---	---	---	847	821	832
24	---	---	---	---	---	---	---	---	---	840	818	829
25	---	---	---	---	---	---	---	---	---	845	829	839
26	---	---	---	---	---	---	---	---	---	844	825	834
27	---	---	---	---	---	---	---	---	---	849	831	841
28	---	---	---	---	---	---	883	861	873	852	834	843
29	---	---	---	---	---	---	871	851	862	877	829	849
30	---	---	---	---	---	---	879	867	873	880	856	869
31	---	---	---	---	---	---	---	---	---	858	842	853
MONTH	---	---	---	---	---	---	---	---	---	1,027	148	722

06893500 BLUE RIVER AT KANSAS CITY, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	852	384	493	601	521	571	836	800	823	823	640	728
2	499	434	471	659	575	613	857	830	848	692	622	665
3	525	371	452	699	376	645	874	853	866	671	646	658
4	401	176	251	455	331	383	886	867	878	712	647	677
5	498	376	456	634	455	527	900	886	895	750	712	731
6	590	498	545	687	634	661	905	892	899	770	746	754
7	640	589	615	712	684	699	957	901	914	813	690	766
8	648	430	632	750	708	727	929	557	736	813	791	801
9	559	368	407	778	747	758	605	531	567	816	791	805
10	486	436	464	796	778	788	762	605	693	835	798	817
11	488	350	399	---	---	---	790	762	783	841	823	833
12	462	309	381	---	---	---	785	336	592	857	815	834
13	370	315	355	806	781	794	365	246	308	852	824	843
14	493	357	429	814	784	798	461	341	399	864	828	848
15	566	493	533	814	786	805	604	461	541	859	376	519
16	616	566	593	824	802	815	671	604	645	506	394	442
17	655	614	638	861	817	846	710	670	690	583	506	553
18	681	655	668	887	845	865	728	702	718	696	523	596
19	711	678	695	869	618	792	708	346	458	625	477	575
20	731	708	722	719	621	695	420	222	329	598	512	552
21	745	714	733	706	672	691	554	420	494	610	574	588
22	772	745	762	719	702	709	635	554	597	700	609	651
23	783	762	769	773	719	743	700	635	679	704	275	399
24	807	751	780	831	773	811	714	668	688	480	422	448
25	759	676	727	848	809	830	714	233	353	546	480	514
26	739	690	722	863	403	757	419	215	327	601	546	581
27	---	---	---	458	339	414	510	346	439	596	590	594
28	---	---	---	552	458	507	586	509	553	648	591	612
29	751	707	728	645	552	595	636	585	611	658	648	655
30	749	590	686	747	645	696	664	631	649	670	649	661
31	---	---	---	803	747	788	719	657	690	---	---	---
MONTH	---	---	---	---	---	---	957	215	634	864	275	657



06893500 BLUE RIVER AT KANSAS CITY, MO—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	7.0	7.8	7.1	6.1	6.6	9.6	5.8	7.4	9.7	6.6	7.5
2	8.1	7.3	7.7	7.9	5.7	6.6	8.9	5.5	7.0	9.2	6.6	7.7
3	8.0	7.0	7.5	6.3	1.3	4.9	9.5	5.4	7.2	9.5	6.7	7.9
4	8.3	6.7	7.7	1.3	0.8	1.1	9.7	4.9	7.0	9.7	6.4	7.8
5	7.5	7.0	7.3	2.2	1.3	1.7	---	---	---	10.2	6.3	7.9
6	7.6	6.6	7.2	---	---	---	---	---	---	10.2	6.2	7.9
7	7.2	6.5	6.8	---	---	---	---	---	---	11.6	6.2	8.4
8	7.4	6.0	6.8	---	---	---	---	---	---	10.8	5.9	8.0
9	7.2	5.8	6.8	---	---	---	---	---	---	11.1	6.0	8.2
10	7.1	6.8	6.9	---	---	---	---	---	---	10.7	5.8	7.9
11	7.6	6.3	7.0	---	---	---	---	---	---	10.7	5.7	7.8
12	7.3	4.8	6.6	---	---	---	---	---	---	10.3	5.6	7.6
13	7.3	5.8	6.8	9.5	5.6	7.3	---	---	---	7.4	5.5	6.3
14	7.5	6.9	7.3	9.6	5.5	7.3	---	---	---	8.6	5.3	6.7
15	7.6	6.9	7.3	9.3	5.4	7.0	---	---	---	8.3	6.5	7.7
16	7.7	6.8	7.2	9.3	5.3	7.1	---	---	---	8.4	7.8	8.1
17	8.0	6.7	7.3	9.0	5.3	6.9	---	---	---	8.8	7.6	8.0
18	9.1	6.9	7.8	8.2	5.4	6.6	---	---	---	8.0	7.0	7.5
19	10.4	6.9	8.4	8.2	5.5	6.5	---	---	---	7.8	6.4	7.1
20	11.2	6.7	8.8	8.3	5.8	6.9	---	---	---	7.4	6.2	6.7
21	12.8	7.0	9.3	8.1	5.2	6.4	---	---	---	7.9	6.1	6.8
22	12.4	6.4	9.1	7.8	5.0	6.3	---	---	---	7.6	6.0	6.6
23	14.5	6.0	9.7	8.1	4.7	6.3	---	---	---	7.7	6.0	7.2
24	16.3	5.8	9.9	8.1	4.9	6.3	---	---	---	7.2	6.5	7.0
25	12.3	5.6	8.6	7.8	5.2	6.3	---	---	---	7.0	6.2	6.6
26	9.8	4.8	7.0	7.1	5.1	6.1	---	---	---	6.9	5.9	6.4
27	---	---	---	7.6	6.6	7.2	---	---	---	7.5	6.5	7.0
28	---	---	---	7.9	6.2	6.9	---	---	---	7.3	6.8	7.0
29	7.8	4.5	5.9	8.1	6.0	6.9	---	---	---	8.4	7.2	7.8
30	6.4	4.8	5.5	8.5	4.8	6.6	---	---	---	8.7	7.5	8.0
31	---	---	---	8.7	4.9	6.6	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	11.6	5.3	7.4





06893500 BLUE RIVER AT KANSAS CITY, MO—Continued

TURBIDITY, WATER, UNFILTERED, NEPHELOMETRIC TURBIDITY UNITS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	560	14	160	31	10	16	8.0	3.0	5.2	22	5.0	8.5			
2	66	23	45	18	6.0	9.1	10	3.0	4.9	11	5.0	6.1			
3	1,400	18	230	1,200	5.0	100	8.0	3.0	4.8	6.0	4.0	4.9			
4	1,400	150	520	1,200	48	290	16	3.0	5.0	6.0	3.0	4.5			
5	280	92	160	48	14	25	6.0	4.0	4.7	7.0	3.0	3.9			
6	210	40	80	18	7.0	12	8.0	3.0	4.8	6.0	3.0	3.8			
7	76	25	39	17	6.0	9.5	120	3.0	10	7.0	3.0	4.0			
8	640	20	71	11	5.0	7.6	20	9.0	12	9.0	3.0	4.2			
9	620	72	200	11	5.0	7.0	14	4.0	7.9	---	---	---			
10	84	50	64	11	4.0	6.1	9.0	3.0	5.5	---	---	---			
11	430	55	200	---	---	---	7.0	3.0	4.8	20	3.0	4.6			
12	870	120	230	---	---	---	1,300	5.0	160	7.0	3.0	4.0			
13	370	180	240	11	5.0	6.9	1,200	180	390	9.0	3.0	4.2			
14	210	49	90	9.0	5.0	6.9	560	52	120	9.0	3.0	4.3			
15	68	24	32	21	4.0	7.5	55	16	26	340	4.0	120			
16	39	18	23	27	4.0	9.0	31	9.0	14	84	11	31			
17	20	13	17	13	4.0	6.9	17	7.0	10	11	7.0	8.4			
18	16	10	13	15	7.0	8.5	27	8.0	10	110	7.0	30			
19	17	6.0	9.9	62	6.0	15	1,300	11	360	49	8.0	16			
20	10	5.0	7.1	22	7.0	9.2	1,200	170	440	23	7.0	11			
21	10	4.0	6.7	10	5.0	6.1	170	33	79	11	5.0	7.0			
22	38	4.0	6.1	8.0	5.0	6.1	33	17	26	17	4.0	6.1			
23	10	4.0	5.2	18	5.0	7.0	20	12	16	850	6.0	210			
24	8.0	4.0	5.7	15	5.0	6.6	20	10	13	250	41	72			
25	8.0	4.0	5.5	19	6.0	12	1,200	16	390	41	15	26			
26	14	5.0	6.8	320	6.0	66	1,200	75	310	22	11	15			
27	---	---	---	240	22	65	150	31	66	14	10	11			
28	---	---	---	33	9.0	14	94	17	27	12	8.0	9.8			
29	8.0	4.0	5.9	32	6.0	9.7	27	12	16	14	5.0	6.3			
30	70	4.0	16	19	5.0	7.1	14	8.0	11	8.0	5.0	5.9			
31	---	---	---	20	4.0	6.8	11	6.0	8.1	---	---	---			
MONTH	---	---	---	---	---	---	1,300	3.0	83	---	---	---			

## 06893557 BRUSH CREEK AT WARD PARKWAY IN KANSAS CITY, MO

LOCATION.--Lat 39°01'59", long 94°36'19", in NW ¼ NW ¼ sec.31, T.49 N., R.33 W. in Jackson County, Hydrologic Unit 10300101, on the downstream side of the right wingwall on Ward Parkway at Shawnee Mission Parkway in Kansas City and 5.4 mi upstream from the Blue River.

DRAINAGE AREA.--12.2 mi<sup>2</sup>.

PERIOD OF RECORD--July 1998 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.56	17	1.8	0.92	1.6	1.1	0.53	1.1	49	2.1	1.0	7.4
2	0.56	1.1	1.3	2.3	1.2	1.1	0.47	1.1	1.2	0.74	1.1	2.0
3	0.48	23	1.1	105	0.95	12	0.58	1.1	51	27	0.98	1.3
4	0.48	8.7	1.1	86	0.92	2.5	0.70	1.2	282	16	0.51	1.0
5	0.44	1.1	33	36	0.96	1.2	0.68	1.2	33	1.4	0.27	1.0
6	0.58	0.81	4.1	4.8	37	3.7	13	1.3	3.5	0.87	0.31	1.1
7	76	0.69	3.1	3.1	16	16	0.81	1.3	2.2	0.66	0.41	1.2
8	5.0	0.95	1.4	2.4	3.7	1.4	0.57	12	46	0.62	0.81	1.1
9	1.1	0.56	1.3	11	5.3	1.2	0.40	1.3	22	0.57	0.47	0.92
10	0.72	21	1.1	5.6	3.3	1.0	0.84	0.78	6.3	0.69	0.36	0.82
11	5.0	2.7	1.1	3.7	3.3	0.96	58	0.65	53	0.66	0.31	0.70
12	4.4	0.79	1.1	16	30	0.85	14	14	66	0.58	84	0.95
13	1.6	0.66	1.3	4.7	123	0.85	3.1	130	36	0.59	315	1.2
14	0.68	0.64	1.2	2.2	15	0.84	2.1	3.1	5.8	0.84	25	2.6
15	0.57	0.64	0.96	1.9	6.4	0.65	0.99	1.4	2.5	0.71	3.0	73
16	0.55	0.61	0.92	1.6	3.5	0.86	0.81	1.2	1.8	0.46	1.8	2.6
17	0.53	0.52	0.92	1.5	3.0	0.66	e0.80	1.1	1.5	0.48	1.5	1.2
18	0.48	2.3	0.91	1.4	2.2	0.55	e0.82	0.99	1.3	1.5	6.6	31
19	0.47	1.5	0.79	1.7	5.2	0.51	0.83	0.95	1.1	6.1	87	22
20	0.52	0.55	0.73	1.8	4.3	0.55	0.94	0.71	0.95	0.86	355	2.5
21	0.71	0.32	0.82	1.6	2.0	1.3	1.0	0.62	0.90	0.91	5.6	1.2
22	0.60	0.32	0.84	1.2	1.5	13	1.8	0.56	0.79	0.71	14	1.1
23	0.53	1.3	0.57	0.94	1.4	2.5	1.3	0.51	0.75	0.60	3.7	208
24	0.63	29	0.50	1.1	1.3	3.4	1.3	0.57	0.70	0.53	7.1	8.0
25	0.61	10	0.56	1.2	1.2	3.1	7.4	0.53	0.72	0.58	63	3.0
26	13	14	0.64	1.2	1.3	0.85	2.1	0.45	0.71	58	170	11
27	1.1	25	0.64	1.2	2.0	0.67	0.71	0.81	0.77	3.5	13	1.9
28	9.7	2.6	0.72	0.88	2.5	0.61	0.78	0.98	4.6	0.85	4.0	2.3
29	0.73	1.8	0.74	3.0	---	0.60	0.80	0.49	0.72	0.92	4.2	1.5
30	0.53	3.9	0.79	1.5	---	0.53	1.0	0.94	33	0.91	2.2	1.0
31	0.93	---	0.83	4.2	---	0.67	---	15	---	0.98	1.9	---
MEAN	4.19	5.80	2.16	10.1	10.0	2.44	3.97	6.39	23.7	4.26	37.9	13.2
MAX	76	29	33	105	123	16	58	130	282	58	355	208
MIN	0.44	0.32	0.50	0.88	0.92	0.51	0.40	0.45	0.70	0.46	0.27	0.70
IN.	0.40	0.53	0.20	0.95	0.85	0.23	0.36	0.60	2.16	0.40	3.58	1.20

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	18.1	7.00	3.72	4.46	7.03	7.95	15.2	15.6	22.1	7.98	16.4	8.57
MAX	87.6	25.5	8.84	10.1	20.6	18.8	41.8	23.2	55.0	23.6	37.9	15.0
(WY)	(1999)	(1999)	(1999)	(2005)	(2001)	(2004)	(1999)	(1999)	(2001)	(2004)	(2005)	(1999)
MIN	1.64	1.67	0.48	0.41	2.50	2.44	1.15	5.17	4.82	0.85	3.46	1.80
(WY)	(2000)	(2003)	(2001)	(2000)	(2004)	(2005)	(2000)	(2003)	(2002)	(2003)	(1999)	(2002)

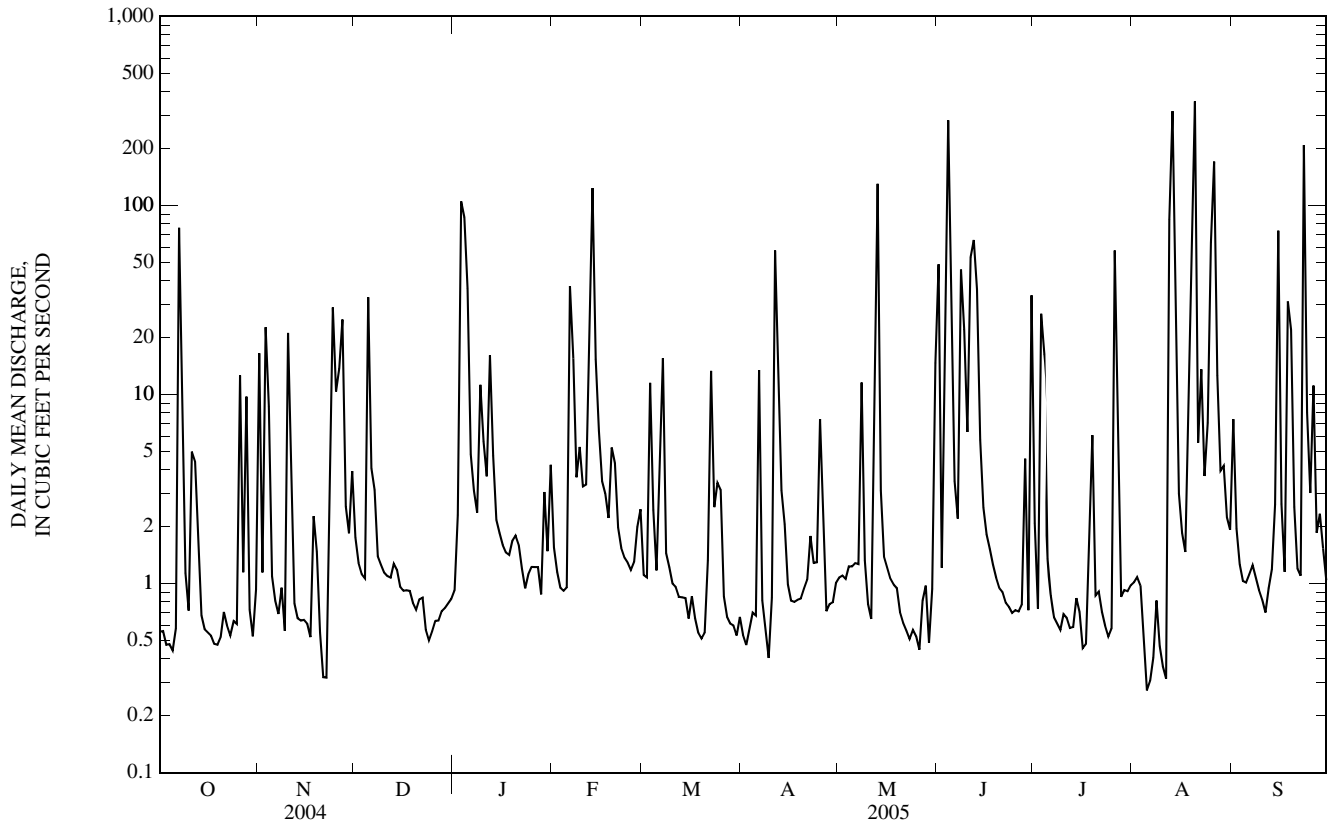
## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1998 - 2005
ANNUAL MEAN	10.9	10.3	11.3
HIGHEST ANNUAL MEAN			21.3
LOWEST ANNUAL MEAN			6.59
HIGHEST DAILY MEAN	603	355	1,520
LOWEST DAILY MEAN	0.25	0.27	0.00
ANNUAL SEVEN-DAY MINIMUM	0.33	0.42	0.00
MAXIMUM PEAK FLOW	---	4,920	Unknown
MAXIMUM PEAK STAGE	---	44.37	50.90 <sup>a</sup>
INSTANTANEOUS LOW FLOW	---	0.22	0.00
ANNUAL RUNOFF (INCHES)	12.15	11.48	12.60
10 PERCENT EXCEEDS	15	21	21
50 PERCENT EXCEEDS	0.85	1.2	1.1
90 PERCENT EXCEEDS	0.44	0.56	0.38

e Estimated

<sup>a</sup> From floodmark.

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



## 06893562 BRUSH CREEK AT ROCKHILL ROAD IN KANSAS CITY, MO

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

DRAINAGE AREA.--17.0 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.08	14	1.1	0.08	1.5	1.4	0.05	0.06	77	6.4	0.48	12
2	0.14	0.25	0.80	0.18	1.2	2.1	1.0	0.05	3.2	2.8	0.00	5.0
3	0.14	27	0.36	151	0.78	17	1.8	0.43	61	36	0.00	5.6
4	0.12	11	1.5	123	1.1	2.9	1.1	0.99	499	27	0.00	3.6
5	0.13	1.8	34	61	1.7	1.5	0.09	0.51	45	1.9	0.00	3.7
6	0.12	3.4	7.1	e7.2	56	3.9	14	1.5	5.4	0.81	0.00	1.2
7	114	2.6	1.9	e2.2	17	22	0.00	0.81	4.0	0.36	0.00	3.3
8	7.5	2.0	0.00	2.5	0.15	0.15	1.0	11	92	0.31	0.00	1.6
9	0.96	0.42	0.00	15	2.4	3.9	0.26	2.3	35	0.21	0.00	3.3
10	0.52	24	0.00	6.7	2.7	2.6	1.8	1.7	16	0.17	0.00	2.6
11	6.1	2.5	0.00	3.0	2.8	2.5	70	1.1	76	0.14	0.00	1.9
12	6.5	0.70	0.00	22	45	3.5	11	28	93	0.43	125	0.42
13	1.9	0.49	0.01	3.6	179	1.4	1.6	194	55	0.25	444	0.54
14	0.87	0.52	0.37	0.38	28	1.4	1.5	1.7	8.1	0.36	34	0.55
15	0.79	0.56	0.12	0.28	12	0.89	0.52	1.7	3.8	0.65	2.7	98
16	1.3	0.52	1.2	0.35	2.8	2.8	0.54	3.4	2.7	0.46	1.3	1.9
17	1.9	1.7	1.3	0.23	3.2	1.5	0.71	4.1	2.2	0.11	0.78	0.27
18	0.91	3.0	1.0	e0.29	2.5	1.6	0.07	1.9	2.0	2.1	10	35
19	0.28	1.4	0.31	e0.34	2.4	0.35	0.07	5.8	2.0	0.48	e129	20
20	0.20	1.3	0.99	e0.38	10	1.0	0.31	4.2	2.2	0.00	e460	1.3
21	0.76	0.45	e0.10	e0.36	0.25	0.15	1.6	2.7	2.8	0.00	e6.0	0.26
22	5.3	0.39	e0.10	e0.25	0.42	9.0	0.03	3.0	2.1	0.00	e18	0.29
23	3.9	2.0	e0.08	0.68	0.15	0.12	0.09	2.0	1.3	0.00	0.99	276
24	2.1	29	e0.13	1.5	1.7	0.47	0.21	2.1	1.6	0.00	8.6	9.0
25	2.1	9.6	e0.27	1.7	1.2	0.13	5.5	3.2	1.8	0.00	68	2.4
26	21	19	0.24	2.5	2.3	0.01	0.63	2.9	1.9	80	247	12
27	1.3	25	0.21	1.2	0.82	0.63	0.11	0.14	0.06	6.1	16	1.8
28	16	0.18	1.0	1.0	0.08	0.57	0.04	5.0	0.00	0.58	6.7	0.96
29	4.8	0.14	1.0	5.2	---	0.83	0.01	5.4	0.00	0.71	7.4	1.7
30	0.81	0.32	2.1	1.8	---	0.09	0.15	2.4	66	0.82	7.3	2.3
31	1.1	---	2.6	5.3	---	0.03	---	18	---	0.85	6.3	---
MEAN	6.57	6.17	1.93	13.6	13.5	2.79	3.86	10.1	38.7	5.48	51.6	16.9
MAX	114	29	34	151	179	22	70	194	499	80	460	276
MIN	0.08	0.14	0.00	0.08	0.08	0.01	0.00	0.05	0.00	0.00	0.00	0.26
IN.	0.45	0.41	0.13	0.92	0.83	0.19	0.25	0.68	2.54	0.37	3.50	1.11

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	28.3	9.95	4.77	6.02	8.10	10.7	21.8	20.5	32.0	11.4	22.9	13.5
MAX	145	41.4	10.9	13.6	18.0	28.1	69.1	37.4	73.8	38.5	51.6	39.8
(WY)	(1999)	(1999)	(1999)	(2005)	(2001)	(2004)	(1999)	(2004)	(2001)	(2004)	(2005)	(1998)
MIN	1.42	2.93	0.76	0.61	1.16	2.79	2.65	7.70	6.51	0.99	5.34	1.88
(WY)	(2004)	(2004)	(2001)	(2004)	(2004)	(2005)	(2000)	(2003)	(2002)	(2003)	(2002)	(2002)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

## FOR 2005 WATER YEAR

## WATER YEARS 1998 - 2005

ANNUAL MEAN	16.4	14.3	15.7
HIGHEST ANNUAL MEAN			32.9
LOWEST ANNUAL MEAN			9.41
HIGHEST DAILY MEAN	872	Aug 27	499
LOWEST DAILY MEAN	0.00	Jan 20,22,24	0.00
ANNUAL SEVEN-DAY MINIMUM	0.02	Jan 18	0.00
MAXIMUM PEAK FLOW	---		3,920
MAXIMUM PEAK STAGE	---		10.10 <sup>b</sup>
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	13.15	11.39	12.54
10 PERCENT EXCEEDS	22	27	24
50 PERCENT EXCEEDS	0.76	1.5	2.3
90 PERCENT EXCEEDS	0.08	0.08	0.21

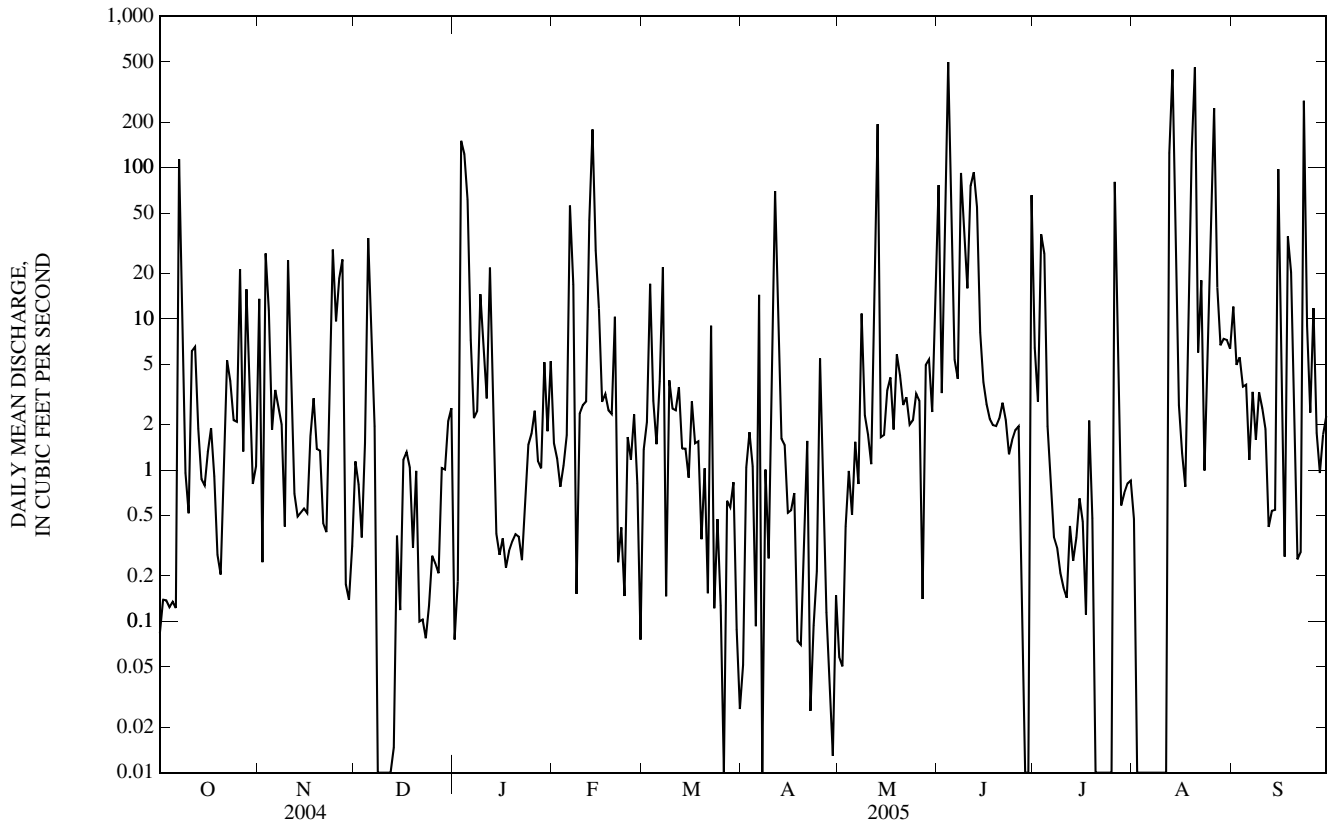
e Estimated

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

<sup>b</sup> Maximum recorded, may have been higher during estimated record, Aug. 20.

<sup>c</sup> From floodmark.

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



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

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: August to December 1998, May to November 1999, April to December 2000, June to December 2001, April to December 2002, April to December 2003, April 2004 to December 2004, April 2005 to present.

pH: July to December 1998, May to November 1999, April to December 2000, June to December 2001, April to December 2002, April to December 2003, April to December 2004, April 2005 to present.

WATER TEMPERATURE: July to December 1998, May to November 1999, April to December 2000, June to December 2001, April to December 2002, April to December 2003, April to December 2004, April 2005 to present.

WATER TEMPERATURE FROM PRESSURE TRANSDUCER: July 1998 to May 2002 (discontinued).

DISSOLVED OXYGEN: July to December 1998, May to November 1999, April to December 2000, June to December 2001, April to December 2002, April to December 2003, April to December 2004, April 2005 to present.

TURBIDITY: July to December 1998, May to November 1999, April to December 2000, June to December 2001, April to December 2002, April to December 2003, April to December 2004, April 2005 to present.

INSTRUMENTATION.--Multi-parameter water-quality monitor operated seasonally since August 1998. Pressure transducer with temperature sensor operated October 1999 to May 2002. U.S.G.S. satellite telemeter at station.

REMARKS.--Interruptions in the record are generally due to malfunction or fouling of the sensors. Detailed records of the procedures employed for specific periods of record have been included with the station analysis and are kept on file. The manufacturers' specified range for turbidity sensors used is 0 to 1,000 NTU. All values beyond this limit may be considered as >1,000 NTU. Values >1,000 NTU are maintained for continuity of the record. Specific Conductance record excellent except August 14-17, September 15, which are good; August 13, which is fair. pH record excellent except November 30 to December 6, May 24-27, June 1-7, July 5-8, 9-12, September 15-29, which are good; May 23, 28-31, June 8, July 2-4, which are fair; July 1, which is poor. Water temperature record excellent. Dissolved oxygen record excellent except November 3, 18-19, November 30 to December 6, May 17-19, June 13, July 1, 9-10, which are good; October 1, November 20-21, 23-27, May 20-22, June 14, July 11-14, September 15, which are fair; November 22, May 23, June 15-17, July 15-18, which are poor. Turbidity record excellent except November 4-10, November 30 to December 6, September 11, which are good; May 13-15, July 16-17, September 12-15, which are poor.

## EXTREMES FOR PERIOD OF RECORD.—

SPECIFIC CONDUCTANCE: Maximum, 1,730 microsiemens, December 5, 2004; minimum 84 microsiemens, August 25, 2001.

pH: Maximum 10.9 standard units, July 30, 2005; minimum 5.5 standard units, November 6, 2000.

WATER TEMPERATURE: Maximum 36.5 °C, August 31, 2000; minimum 0.5 °C, December 11, 2003.

WATER TEMPERATURE FROM PRESSURE TRANSDUCER: Maximum 31.5 °C, August 3, 2001; minimum -1.9 °C, March 14, 1999.

DISSOLVED OXYGEN: Maximum 30.0 mg/L, June 25, 2004; minimum 0.0 mg/L, on several days May–August, 1999, July 23, 2002, November 27, 2003, September 7, 2004, November 23, 2004.

TURBIDITY: Maximum 2,300 NTU, September 13, 1998; minimum 0.0 NTU on numerous days August, 1998, May–November, 1999, June–September, 2000, September–November, 2001, July–September, 2002, November 11, 2003, June 3, 5, July 10, August 3, 6-9, 31, September 1, 14-15, October 23-26, 2004, May 24-26, June 7-8, September 27-28, 2005.

## EXTREMES FOR CURRENT YEAR.—

SPECIFIC CONDUCTANCE: Maximum 1,730 microsiemens, December 5; minimum 103 microsiemens, June 4.

pH: Maximum 10.9 standard units, July 30; minimum 6.6 standard units, July 2, 28.

WATER TEMPERATURE: Maximum 32.4 °C, July 16; minimum 2.8 °C, December 1, 3.

DISSOLVED OXYGEN: Maximum 27.0 mg/L, May 4; minimum 0.0 mg/L, November 23.

TURBIDITY: Maximum 490 NTU, August 13; minimum 0.0 NTU, October 23-26, May 24-26, June 7-8, September 27-28.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	20.0	18.5	19.5	16.3	15.3	15.8	5.8	2.8	4.6	---	---	---
2	19.2	16.9	17.9	15.4	13.8	14.5	5.3	3.7	4.9	---	---	---
3	18.8	16.3	17.5	13.8	11.7	12.9	5.2	2.8	4.5	---	---	---
4	18.6	16.7	17.4	12.9	10.7	11.5	5.5	3.9	4.8	---	---	---
5	18.0	16.0	16.9	12.3	10.3	11.2	6.7	4.2	5.2	---	---	---
6	17.3	15.9	16.6	14.3	10.9	12.2	9.1	6.6	7.9	---	---	---
7	18.2	16.1	17.1	14.4	11.5	12.3	---	---	---	---	---	---
8	22.5	18.1	19.4	12.9	11.1	11.8	---	---	---	---	---	---
9	20.2	18.3	19.2	13.2	11.3	11.9	---	---	---	---	---	---
10	19.0	18.0	18.5	13.2	11.0	11.8	---	---	---	---	---	---
11	18.0	15.9	17.1	12.6	10.9	11.8	---	---	---	---	---	---
12	16.0	14.9	15.6	11.5	9.8	10.4	---	---	---	---	---	---
13	15.9	14.3	15.0	10.0	8.9	9.4	---	---	---	---	---	---
14	15.0	13.9	14.4	9.0	8.3	8.7	---	---	---	---	---	---
15	14.0	13.0	13.5	9.7	8.7	9.2	---	---	---	---	---	---
16	13.5	11.7	12.8	12.5	9.4	10.7	---	---	---	---	---	---
17	13.8	12.4	13.2	15.9	11.5	13.3	---	---	---	---	---	---
18	13.6	13.3	13.5	13.5	11.9	12.6	---	---	---	---	---	---
19	13.7	13.4	13.6	12.7	11.9	12.3	---	---	---	---	---	---
20	13.6	13.3	13.4	12.9	11.4	11.9	---	---	---	---	---	---
21	14.2	13.3	13.6	11.5	10.3	10.8	---	---	---	---	---	---
22	17.8	14.2	15.7	10.3	10.1	10.2	---	---	---	---	---	---
23	17.1	15.8	16.5	10.3	9.4	10.1	---	---	---	---	---	---
24	16.8	15.5	16.1	9.4	3.3	6.6	---	---	---	---	---	---
25	17.0	15.5	16.1	6.6	3.3	4.8	---	---	---	---	---	---
26	17.8	16.3	16.9	8.3	4.4	6.0	---	---	---	---	---	---
27	17.3	17.0	17.1	9.2	6.8	8.3	---	---	---	---	---	---
28	20.0	17.0	18.1	7.7	6.6	7.1	---	---	---	---	---	---
29	20.1	18.4	19.1	6.6	5.9	6.4	---	---	---	---	---	---
30	18.8	16.7	17.4	6.1	4.7	5.3	---	---	---	---	---	---
31	16.7	15.6	16.1	---	---	---	---	---	---	---	---	---
MONTH	22.5	11.7	16.3	16.3	3.3	10.4	---	---	---	---	---	---

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

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	14.3	12.3	13.2
2	---	---	---	---	---	---	---	---	---	14.5	12.5	13.5
3	---	---	---	---	---	---	---	---	---	16.2	12.9	14.5
4	---	---	---	---	---	---	---	---	---	18.8	13.9	16.0
5	---	---	---	---	---	---	---	---	---	19.9	15.2	17.3
6	---	---	---	---	---	---	---	---	---	22.9	16.9	19.5
7	---	---	---	---	---	---	---	---	---	22.2	18.8	20.1
8	---	---	---	---	---	---	---	---	---	20.9	19.5	20.1
9	---	---	---	---	---	---	---	---	---	22.4	18.8	20.6
10	---	---	---	---	---	---	---	---	---	26.2	21.0	23.2
11	---	---	---	---	---	---	---	---	---	24.9	22.3	23.8
12	---	---	---	---	---	---	---	---	---	24.1	20.1	22.0
13	---	---	---	---	---	---	---	---	---	20.8	17.0	17.9
14	---	---	---	---	---	---	---	---	---	20.4	17.0	18.6
15	---	---	---	---	---	---	---	---	---	21.7	17.6	19.6
16	---	---	---	---	---	---	---	---	---	21.1	18.1	19.7
17	---	---	---	---	---	---	---	---	---	21.6	18.9	20.3
18	---	---	---	---	---	---	---	---	---	21.3	19.9	20.6
19	---	---	---	---	---	---	---	---	---	24.2	19.9	22.0
20	---	---	---	---	---	---	---	---	---	27.8	22.4	24.4
21	---	---	---	---	---	---	23.4	19.8	20.9	25.0	22.0	23.6
22	---	---	---	---	---	---	20.8	17.6	19.1	27.4	23.3	25.1
23	---	---	---	---	---	---	17.7	15.7	16.8	28.2	23.6	25.6
24	---	---	---	---	---	---	18.9	14.5	16.3	25.7	23.7	24.3
25	---	---	---	---	---	---	16.5	13.9	15.0	26.1	22.8	24.2
26	---	---	---	---	---	---	14.6	13.2	14.0	25.6	22.3	23.9
27	---	---	---	---	---	---	14.8	12.6	13.8	24.0	21.0	22.4
28	---	---	---	---	---	---	14.6	13.5	13.9	25.0	20.1	22.2
29	---	---	---	---	---	---	13.5	12.2	12.8	26.3	21.3	23.3
30	---	---	---	---	---	---	13.8	11.4	12.7	23.9	21.6	22.6
31	---	---	---	---	---	---	---	---	---	24.3	21.4	22.8
MONTH	---	---	---	---	---	---	---	---	---	28.2	12.3	20.9
	JUNE			JULY			AUGUST			SEPTEMBER		
1	23.7	20.0	21.3	27.3	22.4	24.5	---	---	---	26.8	25.1	25.8
2	23.4	20.1	21.8	26.7	23.7	25.2	---	---	---	26.6	24.5	25.5
3	22.3	19.7	20.7	26.3	24.4	25.2	---	---	---	27.6	24.6	26.1
4	22.7	18.2	19.9	27.4	23.0	24.7	---	---	---	28.2	25.3	26.6
5	23.1	19.7	21.4	26.5	23.7	25.1	---	---	---	27.4	25.4	26.5
6	27.3	21.5	23.9	27.5	24.2	25.8	---	---	---	27.7	25.2	26.4
7	27.5	24.0	25.6	28.3	25.2	26.7	---	---	---	28.3	25.3	26.5
8	29.4	22.2	26.1	30.2	25.9	27.8	---	---	---	27.2	25.8	26.4
9	24.7	21.4	22.9	30.6	26.9	28.7	---	---	---	28.2	25.3	26.6
10	25.4	22.6	23.9	29.8	27.6	28.8	---	---	---	28.0	25.4	26.6
11	24.1	21.2	22.5	29.9	27.6	28.8	---	---	---	27.4	25.4	26.4
12	26.4	22.2	23.7	30.3	27.6	28.9	---	---	---	26.8	25.5	26.2
13	23.9	20.8	22.0	31.5	27.8	29.1	25.8	23.0	23.9	25.9	24.7	25.2
14	24.6	21.4	23.0	30.1	27.8	29.1	23.3	21.8	22.3	24.7	23.4	24.0
15	25.8	22.8	24.3	30.7	28.1	29.3	22.4	21.9	22.1	23.4	17.8	19.2
16	27.2	23.8	25.5	32.4	28.4	30.2	24.7	22.1	23.2	21.4	17.5	19.2
17	27.1	24.7	25.9	31.7	28.6	30.1	26.7	23.7	24.8	21.3	18.7	19.9
18	27.3	24.8	26.0	31.1	27.9	29.6	28.1	24.8	26.5	23.2	20.0	21.5
19	27.8	24.7	26.2	---	---	---	---	---	---	25.9	21.9	23.6
20	28.5	25.2	26.9	---	---	---	---	---	---	27.6	24.1	25.7
21	29.7	25.8	27.6	---	---	---	---	---	---	27.2	24.6	25.8
22	31.5	26.8	28.8	---	---	---	---	---	---	27.8	25.0	26.1
23	31.3	27.4	29.2	---	---	---	25.2	23.6	24.4	25.9	20.6	21.9
24	31.6	27.4	29.3	---	---	---	24.2	22.4	23.4	24.1	21.5	22.7
25	31.4	27.7	29.5	---	---	---	24.0	22.7	23.3	26.5	22.8	24.3
26	32.0	28.1	29.7	---	---	---	24.7	21.8	23.4	25.1	23.0	24.0
27	---	---	---	28.6	21.9	24.6	28.6	23.7	25.7	24.9	22.2	23.3
28	---	---	---	27.9	22.9	25.1	28.8	24.4	26.1	22.9	20.1	21.7
29	---	---	---	27.9	24.3	26.2	28.0	24.5	26.0	21.0	18.1	19.5
30	---	---	---	29.0	25.5	27.2	27.8	25.2	26.3	20.5	17.8	18.9
31	---	---	---	29.6	26.2	27.8	27.7	25.3	26.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	28.3	17.5	24.1

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

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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



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

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.7	7.0	7.2	8.1	6.7	7.4	---	---	---	8.9	8.5	8.6
2	7.2	6.9	7.0	8.1	6.6	7.4	---	---	---	8.8	8.1	8.4
3	7.3	6.9	7.1	9.2	7.4	8.3	---	---	---	8.7	7.9	8.3
4	7.6	7.1	7.4	9.3	8.0	8.6	---	---	---	8.7	7.8	8.2
5	7.6	7.2	7.3	10.0	7.6	8.7	---	---	---	8.2	7.8	8.1
6	7.5	7.2	7.4	9.6	7.0	8.1	---	---	---	8.1	7.6	7.9
7	7.8	7.4	7.6	8.4	7.1	7.7	---	---	---	8.3	7.7	8.0
8	8.2	7.5	7.8	8.5	7.0	7.9	---	---	---	8.4	7.8	8.0
9	7.7	7.3	7.5	8.8	7.6	8.2	---	---	---	8.5	7.8	8.1
10	7.6	7.3	7.4	8.7	8.1	8.4	---	---	---	8.6	7.9	8.4
11	7.7	7.4	7.5	8.5	7.7	8.2	---	---	---	8.5	8.0	8.3
12	7.7	7.4	7.5	8.2	7.6	7.9	---	---	---	8.5	7.9	8.2
13	7.7	7.4	7.5	8.1	7.0	7.5	---	---	---	8.3	7.9	8.1
14	7.7	7.5	7.6	8.2	7.2	7.8	---	---	---	8.4	7.8	8.0
15	7.8	7.4	7.6	8.5	7.6	8.1	---	---	---	8.1	7.6	7.8
16	7.9	7.5	7.7	8.6	7.8	8.3	---	---	---	8.1	7.6	7.7
17	8.2	7.7	7.9	8.7	8.0	8.4	---	---	---	8.2	7.4	7.7
18	8.8	7.8	8.2	8.6	7.7	8.3	8.3	7.8	8.1	7.8	7.4	7.6
19	8.7	8.1	8.4	---	---	---	---	---	---	7.7	7.3	7.5
20	8.8	7.9	8.4	---	---	---	---	---	---	7.8	7.2	7.4
21	8.8	7.8	8.2	---	---	---	---	---	---	8.0	7.2	7.5
22	9.1	7.8	8.3	---	---	---	---	---	---	8.3	7.3	7.6
23	9.0	7.6	8.3	---	---	---	7.8	7.6	7.6	7.9	7.4	7.6
24	8.8	7.7	8.3	---	---	---	7.6	7.4	7.5	7.6	7.3	7.5
25	8.8	7.8	8.3	---	---	---	7.8	7.4	7.5	7.9	7.6	7.7
26	8.5	7.7	8.2	---	---	---	7.6	7.3	7.4	8.0	7.7	7.8
27	---	---	---	---	---	---	7.8	7.4	7.6	8.2	7.8	8.0
28	---	---	---	9.2	6.6	---	---	---	7.8	8.2	7.9	8.1
29	---	---	---	10.7	6.7	8.6	8.1	7.8	8.0	8.5	7.8	8.2
30	---	---	---	10.9	7.6	9.3	8.3	7.9	8.1	8.4	8.1	8.2
31	---	---	---	9.0	7.4	8.1	8.6	8.2	8.4	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	8.9	7.2	8.0

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

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	402	383	392	519	367	414	730	693	708	---	---	---
2	412	395	404	459	433	447	733	695	712	---	---	---
3	417	401	411	489	326	427	769	717	746	---	---	---
4	425	405	416	365	293	323	793	768	780	---	---	---
5	436	410	425	297	287	292	1,730	782	987	---	---	---
6	446	433	439	304	296	300	1,120	508	606	---	---	---
7	498	139	328	309	298	304	---	---	---	---	---	---
8	175	142	157	316	308	313	---	---	---	---	---	---
9	203	173	185	329	315	321	---	---	---	---	---	---
10	225	202	213	436	252	339	---	---	---	---	---	---
11	259	225	241	470	429	463	---	---	---	---	---	---
12	280	251	261	463	448	454	---	---	---	---	---	---
13	347	280	311	451	442	447	---	---	---	---	---	---
14	373	342	356	448	440	444	---	---	---	---	---	---
15	409	373	390	443	430	438	---	---	---	---	---	---
16	414	395	407	438	380	402	---	---	---	---	---	---
17	460	396	440	405	387	395	---	---	---	---	---	---
18	462	442	456	405	389	396	---	---	---	---	---	---
19	485	462	471	393	379	387	---	---	---	---	---	---
20	494	480	486	400	393	396	---	---	---	---	---	---
21	507	493	500	408	390	402	---	---	---	---	---	---
22	538	507	523	419	407	412	---	---	---	---	---	---
23	539	528	535	443	419	426	---	---	---	---	---	---
24	549	533	540	725	332	520	---	---	---	---	---	---
25	558	544	551	788	330	464	---	---	---	---	---	---
26	571	361	535	984	740	894	---	---	---	---	---	---
27	586	557	570	1,060	733	813	---	---	---	---	---	---
28	586	465	550	943	846	914	---	---	---	---	---	---
29	544	527	530	941	862	917	---	---	---	---	---	---
30	534	491	526	870	729	777	---	---	---	---	---	---
31	534	499	528	---	---	---	---	---	---	---	---	---
MONTH	586	139	422	1,060	252	475	---	---	---	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	822	812	815
2	---	---	---	---	---	---	---	---	---	824	768	815
3	---	---	---	---	---	---	---	---	---	829	753	802
4	---	---	---	---	---	---	---	---	---	816	746	787
5	---	---	---	---	---	---	---	---	---	798	607	735
6	---	---	---	---	---	---	---	---	---	727	583	654
7	---	---	---	---	---	---	---	---	---	701	538	636
8	---	---	---	---	---	---	---	---	---	611	542	573
9	---	---	---	---	---	---	---	---	---	734	611	684
10	---	---	---	---	---	---	---	---	---	746	685	727
11	---	---	---	---	---	---	---	---	---	758	677	717
12	---	---	---	---	---	---	---	---	---	776	312	743
13	---	---	---	---	---	---	---	---	---	380	173	217
14	---	---	---	---	---	---	---	---	---	319	255	286
15	---	---	---	---	---	---	---	---	---	364	319	340
16	---	---	---	---	---	---	---	---	---	399	352	372
17	---	---	---	---	---	---	---	---	---	435	387	410
18	---	---	---	---	---	---	---	---	---	462	429	442
19	---	---	---	---	---	---	---	---	---	498	453	478
20	---	---	---	---	---	---	---	---	---	499	474	490
21	---	---	---	---	---	---	529	501	509	519	490	504
22	---	---	---	---	---	---	558	528	540	542	510	522
23	---	---	---	---	---	---	584	556	565	573	537	560
24	---	---	---	---	---	---	620	562	593	592	571	581
25	---	---	---	---	---	---	691	530	612	614	590	600
26	---	---	---	---	---	---	761	691	741	623	598	617
27	---	---	---	---	---	---	777	749	765	645	616	635
28	---	---	---	---	---	---	801	751	788	670	639	650
29	---	---	---	---	---	---	814	797	803	687	649	674
30	---	---	---	---	---	---	815	808	811	697	672	684
31	---	---	---	---	---	---	---	---	---	726	497	693
MONTH	---	---	---	---	---	---	---	---	---	829	173	595

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

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	763	187	285	252	229	240	---	---	---	816	641	772
2	243	215	228	278	241	256	---	---	---	788	719	743
3	335	182	230	368	202	275	---	---	---	765	685	731
4	532	103	330	307	186	209	---	---	---	716	695	707
5	564	452	489	254	195	217	---	---	---	722	706	713
6	646	534	590	281	230	257	---	---	---	725	715	720
7	695	575	647	298	280	288	---	---	---	722	712	717
8	734	189	653	309	283	297	---	---	---	719	707	716
9	296	156	239	315	268	294	---	---	---	720	706	714
10	376	181	330	347	308	325	---	---	---	717	628	692
11	503	181	312	370	314	350	---	---	---	706	612	665
12	403	136	337	386	367	376	---	---	---	724	690	708
13	611	190	440	407	381	395	314	121	191	732	721	726
14	667	611	650	421	400	411	488	309	428	726	703	714
15	680	662	672	426	399	419	505	432	479	710	123	274
16	716	679	694	442	394	421	507	456	481	210	177	202
17	747	714	729	444	403	425	504	462	489	245	208	222
18	759	699	741	451	414	438	496	324	431	362	163	305
19	740	625	685	---	---	---	---	---	---	317	169	286
20	672	606	634	---	---	---	---	---	---	323	289	312
21	667	629	646	---	---	---	---	---	---	338	321	330
22	684	632	670	---	---	---	---	---	---	358	337	344
23	689	595	661	---	---	---	686	617	638	361	121	256
24	698	611	663	---	---	---	623	447	513	467	361	419
25	704	616	675	---	---	---	513	193	286	533	465	499
26	712	642	688	---	---	---	505	123	311	665	492	605
27	---	---	---	182	160	169	669	505	596	709	664	687
28	---	---	---	216	170	190	748	669	714	723	709	718
29	---	---	---	241	214	225	786	744	765	735	717	725
30	---	---	---	260	240	249	806	781	791	727	716	722
31	---	---	---	284	259	272	810	801	805	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	816	121	565

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

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	10.9	6.6	8.3	6.4	3.9	5.2	9.6	6.9	7.8	---	---	---
2	15.7	5.2	8.8	6.6	4.8	5.5	8.4	6.4	7.7	---	---	---
3	14.3	7.7	10.7	9.9	4.8	6.9	9.0	7.0	8.0	---	---	---
4	14.8	6.5	10.1	9.9	6.3	8.7	9.0	7.0	8.0	---	---	---
5	13.9	8.2	10.3	7.9	4.5	6.1	11.5	7.0	8.7	---	---	---
6	12.0	8.2	10	7.3	4.3	5.8	11.0	6.7	9.4	---	---	---
7	9.7	6.1	7.8	7.5	2.8	5.6	---	---	---	---	---	---
8	7.2	3.6	6.0	8.4	5.3	6.8	---	---	---	---	---	---
9	5.5	3.0	4.2	10.4	5.7	7.2	---	---	---	---	---	---
10	4.7	2.4	3.6	9.8	6.2	7.6	---	---	---	---	---	---
11	6.2	2.7	4.2	8.9	4.0	6.2	---	---	---	---	---	---
12	6.5	5.6	6.1	5.4	2.2	3.3	---	---	---	---	---	---
13	8.8	5.8	6.8	2.8	1.9	2.4	---	---	---	---	---	---
14	8.8	5.4	6.5	2.4	1.1	1.9	---	---	---	---	---	---
15	7.4	5.3	6.3	2.5	0.2	1.1	---	---	---	---	---	---
16	10.5	6.0	6.9	3.4	0.1	2.2	---	---	---	---	---	---
17	9.2	5.3	7.0	4.6	0.4	3.1	---	---	---	---	---	---
18	7.2	5.8	6.5	3.8	0.5	2.2	---	---	---	---	---	---
19	7.8	5.3	6.0	4.5	2.5	3.4	---	---	---	---	---	---
20	6.8	5.8	6.4	5.3	2.0	3.1	---	---	---	---	---	---
21	7.0	5.6	6.4	2.7	1.2	2.0	---	---	---	---	---	---
22	8.5	5.7	6.8	2.1	0.1	0.9	---	---	---	---	---	---
23	10.0	5.9	7.4	1.4	0.0	0.3	---	---	---	---	---	---
24	9.9	5.3	7.1	10.6	1.4	8.7	---	---	---	---	---	---
25	10.7	5.2	7.2	10.8	6.9	9.5	---	---	---	---	---	---
26	8.7	3.4	6.7	10.4	7.2	9.0	---	---	---	---	---	---
27	6.2	2.8	4.5	9.9	6.3	8.6	---	---	---	---	---	---
28	6.7	1.2	4.7	---	---	---	---	---	---	---	---	---
29	7.2	3.8	5.4	---	---	---	---	---	---	---	---	---
30	8.6	3.4	4.9	7.6	6.2	7.2	---	---	---	---	---	---
31	5.8	2.8	4.3	---	---	---	---	---	---	---	---	---
MONTH	15.7	1.2	6.7	---	---	---	---	---	---	---	---	---
	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	16.4	10.5	13.4
2	---	---	---	---	---	---	---	---	---	22.8	12.6	16.0
3	---	---	---	---	---	---	---	---	---	25.7	10.9	18.2
4	---	---	---	---	---	---	---	---	---	27.0	10.8	18.6
5	---	---	---	---	---	---	---	---	---	21.9	11.1	16.0
6	---	---	---	---	---	---	---	---	---	20.4	13.8	17.6
7	---	---	---	---	---	---	---	---	---	14.9	9.4	11.5
8	---	---	---	---	---	---	---	---	---	10.6	5.4	8.1
9	---	---	---	---	---	---	---	---	---	9.7	3.0	6.2
10	---	---	---	---	---	---	---	---	---	13.4	3.0	8.2
11	---	---	---	---	---	---	---	---	---	10.4	3.0	7.3
12	---	---	---	---	---	---	---	---	---	7.6	1.5	3.7
13	---	---	---	---	---	---	---	---	---	9.1	4.6	7.4
14	---	---	---	---	---	---	---	---	---	6.1	1.8	4.3
15	---	---	---	---	---	---	---	---	---	2.6	0.4	1.4
16	---	---	---	---	---	---	---	---	---	4.3	0.4	1.8
17	---	---	---	---	---	---	---	---	---	6.1	1.5	3.7
18	---	---	---	---	---	---	---	---	---	6.2	1.9	4.3
19	---	---	---	---	---	---	---	---	---	12.0	3.3	7.6
20	---	---	---	---	---	---	---	---	---	22.2	6.9	14.2
21	---	---	---	---	---	---	15.3	8.0	10.7	18.5	9.7	14.3
22	---	---	---	---	---	---	9.8	5.0	7.1	12.7	5.7	9.8
23	---	---	---	---	---	---	12.9	5.2	8.8	7.6	2.7	5.3
24	---	---	---	---	---	---	18.7	7.0	12.3	5.6	1.2	3.7
25	---	---	---	---	---	---	17.1	6.3	10	8.1	1.6	4.4
26	---	---	---	---	---	---	10.7	6.6	8.9	9.6	3.4	5.9
27	---	---	---	---	---	---	12.9	7.4	9.9	8.0	3.2	5.4
28	---	---	---	---	---	---	12.4	6.2	8.9	11.8	3.5	7.3
29	---	---	---	---	---	---	9.4	6.9	8.1	16.2	4.4	8.7
30	---	---	---	---	---	---	13.9	6.9	10.6	13.7	4.5	7.9
31	---	---	---	---	---	---	---	---	---	13.5	4.1	8.8
MONTH	---	---	---	---	---	---	---	---	---	27.0	0.4	8.7

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

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.2	2.8	5.7	5.1	2.6	3.9	---	---	---	14.1	6.7	10.5
2	4.6	0.7	2.9	7.8	2.0	4.9	---	---	---	18.7	4.0	9.6
3	7.3	1.5	4.6	7.8	3.8	5.9	---	---	---	23.0	6.8	13.8
4	9.0	4.4	7.7	7.2	3.6	5.9	---	---	---	16.0	8.6	12.0
5	7.8	1.9	5.0	6.7	3.6	5.2	---	---	---	8.7	5.3	7.4
6	5.4	1.9	4.3	10.1	2.6	6.6	---	---	---	6.5	3.0	5.1
7	6.0	3.4	4.7	13.3	5.6	9.0	---	---	---	8.6	3.1	5.7
8	9.5	3.4	5.9	13.8	6.2	10.1	---	---	---	10.1	4.2	6.3
9	7.3	5.5	6.3	10.1	6.7	8.4	---	---	---	10.6	3.5	7.0
10	7.4	3.1	5.0	7.4	5.8	6.8	---	---	---	12.9	4.8	8.8
11	7.5	5.1	6.6	8.7	2.9	5.7	---	---	---	11.7	5.7	8.4
12	7.1	3.8	5.2	9.0	4.3	6.4	---	---	---	10.9	4.6	7.6
13	6.4	4.1	5.5	11.1	2.4	6.6	---	---	---	8.7	4.0	6.1
14	6.0	2.8	4.8	10.0	4.2	7.3	---	---	---	10.1	4.4	6.5
15	7.0	3.4	5.2	11.9	5.0	8.5	---	---	---	8.9	5.9	7.7
16	7.6	4.0	5.8	16.0	6.1	11.0	---	---	---	8.1	6.0	6.8
17	10.4	5.0	7.5	14.7	5.6	9.5	---	---	---	8.8	4.2	6.7
18	17.6	5.5	11.1	11.2	3.4	8.1	9.3	6.5	8.0	7.8	4.7	6.8
19	24.3	11.2	16.5	---	---	---	---	---	---	7.0	3.9	5.1
20	19.1	11.0	14.7	---	---	---	---	---	---	6.4	2.1	3.9
21	12.7	6.2	9.1	---	---	---	---	---	---	7.1	0.7	3.6
22	18.2	3.1	8.8	---	---	---	---	---	---	8.8	2.2	5.0
23	19.2	2.4	10.5	---	---	---	5.6	4.7	5.1	7.6	4.2	6.5
24	16.5	2.0	9.2	---	---	---	6.0	4.5	5.1	5.6	3.3	5.0
25	12.7	3.1	7.8	---	---	---	7.5	4.6	6.8	7.3	4.1	5.4
26	9.6	1.5	6.5	---	---	---	8.5	5.3	6.6	9.9	5.0	6.4
27	---	---	---	7.2	2.4	4.8	7.1	3.9	5.5	9.7	4.8	6.6
28	---	---	---	7.5	0.4	4.9	7.3	4.8	5.8	7.2	5.0	6.2
29	---	---	---	8.6	0.9	5.8	8.2	5.1	6.2	12.7	6.4	8.2
30	---	---	---	6.1	1.6	3.8	9.9	5.5	7.4	11.4	7.1	8.9
31	---	---	---	3.6	1.8	2.6	14.4	7.0	10.5	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	23.0	0.7	7.1





## 06893578 BLUE RIVER AT STADIUM DRIVE IN KANSAS CITY, MO

LOCATION.--Lat 39°03'30", long 94°30'42.: in SE ¼ NW ¼ NW ¼ sec.24, T.49 N., R.33 W., Jackson County, Hydrologic Unit 10300101, on right bank on the downstream side of Stadium Blvd. bridge.

DRAINAGE AREA.--256 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	479	294	79	198	172	70	60	707	230	40	173
2	69	394	240	83	168	133	63	51	255	101	38	229
3	47	252	209	1,620	155	130	60	46	911	91	39	135
4	43	1,210	187	1,470	136	171	57	47	14,000	969	35	110
5	41	462	274	3,370	130	124	55	43	4,020	262	32	93
6	39	257	1,070	980	408	110	179	38	665	148	31	84
7	458	198	529	487	1,430	442	113	38	380	110	25	92
8	1,120	160	384	363	614	177	73	46	356	91	109	96
9	252	139	301	353	412	138	64	123	1,270	77	80	82
10	153	132	256	735	357	130	58	56	474	65	41	76
11	126	632	220	531	325	118	667	53	1,220	66	30	69
12	327	291	200	602	414	110	607	63	1,300	48	334	62
13	334	182	182	1,030	3,270	97	293	2,380	2,390	45	2,830	81
14	189	146	174	451	1,480	92	190	837	1,170	44	1,490	107
15	126	128	147	e303	657	88	157	289	478	37	276	722
16	96	116	134	e237	436	84	140	192	316	41	156	298
17	78	104	e132	e206	326	77	127	154	247	39	117	159
18	68	104	e129	e196	279	72	116	132	197	42	178	243
19	63	133	e120	191	268	72	111	117	165	113	1,160	247
20	59	101	e111	188	318	66	106	95	138	169	4,840	221
21	57	83	101	188	267	64	95	87	120	75	543	124
22	56	74	e97	183	222	194	93	79	111	60	265	108
23	54	77	e92	153	194	281	80	69	90	50	215	2,070
24	45	661	e87	140	177	172	72	61	87	39	194	709
25	41	754	e78	138	167	169	75	58	86	35	2,950	268
26	174	948	75	140	156	125	131	54	73	143	4,120	203
27	319	1,580	78	132	149	111	86	42	63	469	1,420	152
28	182	751	80	125	171	98	72	40	94	93	440	123
29	133	406	85	138	---	91	71	41	125	63	342	128
30	104	334	85	156	---	83	70	40	213	52	216	101
31	94	---	86	145	---	78	---	39	---	45	171	---
MEAN	161	376	201	488	474	131	138	176	1,057	126	734	246
MAX	1,120	1,580	1,070	3,370	3,270	442	667	2,380	14,000	969	4,840	2,070
MIN	39	74	75	79	130	64	55	38	63	35	25	62

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	105	157	150	214	239	355	164	360	545	207	507	204
MAX	161	376	219	488	474	857	206	772	1,057	576	734	338
(WY)	(2005)	(2005)	(2004)	(2005)	(2005)	(2004)	(2003)	(2004)	(2005)	(2004)	(2005)	(2003)
MIN	60.0	42.3	31.2	31.9	79.4	77.0	138	131	259	43.4	89.9	54.5
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2005)	(2003)	(2003)	(2003)	(2002)	(2002)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

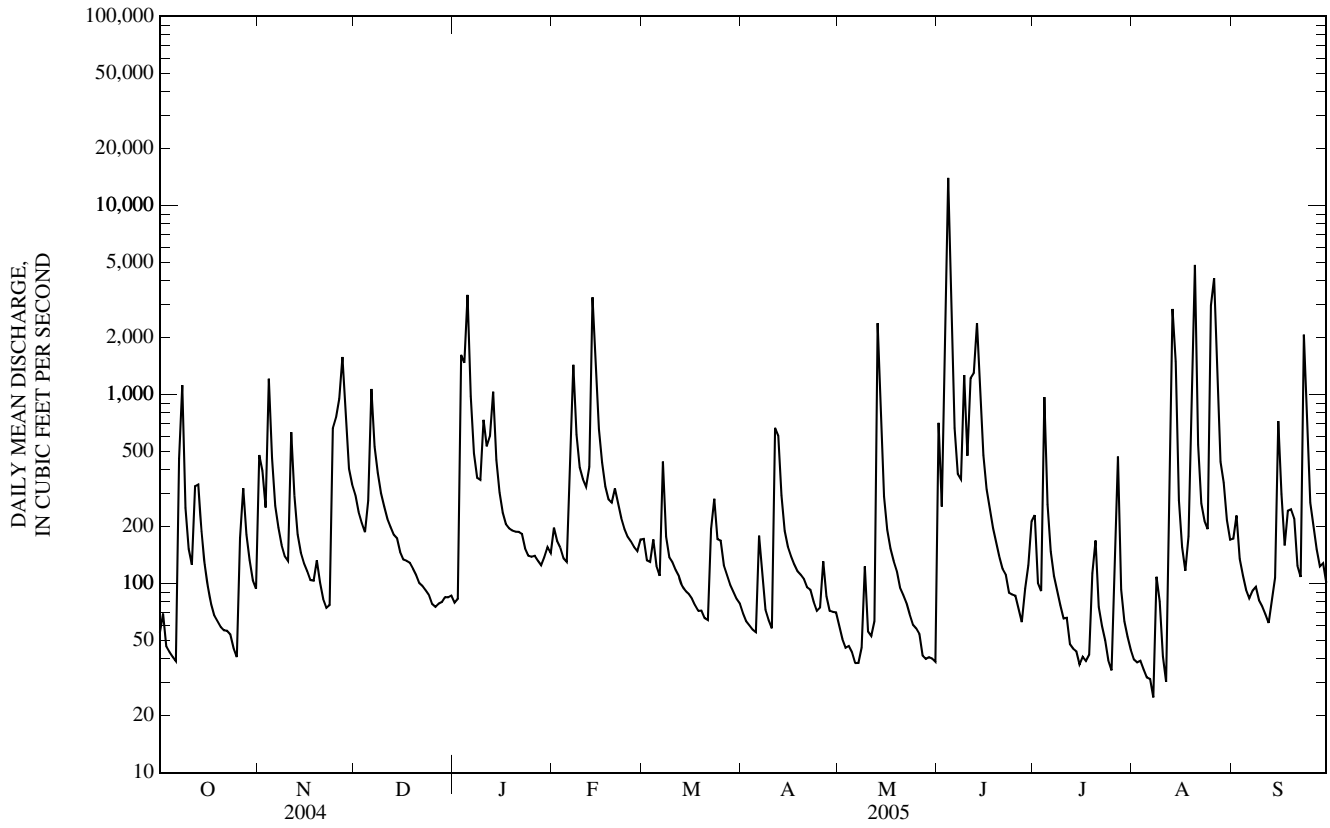
WATER YEARS 2002 - 2005

ANNUAL MEAN	376	357	287
HIGHEST ANNUAL MEAN			357
LOWEST ANNUAL MEAN			160
HIGHEST DAILY MEAN	12,000	Mar 5	14,300
LOWEST DAILY MEAN	39	Oct 6	20
ANNUAL SEVEN-DAY MINIMUM	48	Sep 30	22
MAXIMUM PEAK FLOW	---		24,200
MAXIMUM PEAK STAGE	---		27.94
INSTANTANEOUS LOW FLOW	---		15
10 PERCENT EXCEEDS	519	714	448
50 PERCENT EXCEEDS	130	133	96
90 PERCENT EXCEEDS	66	49	32

e Estimated



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



## 06893620 ROCK CREEK AT KENTUCKY ROAD IN INDEPENDENCE, MO

LOCATION.--Lat 39°06'43", long 94°28'20" in NW<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub> sec. 32, T.50 N., R.32 W., Jackson County, Hydrologic Unit 10300101, on left bank near downstream side of bridge on Kentucky Road, in Independence.

DRAINAGE AREA.--9.5 mi<sup>2</sup>.

PERIOD OF RECORD.--July 8, 2005 to current year.

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

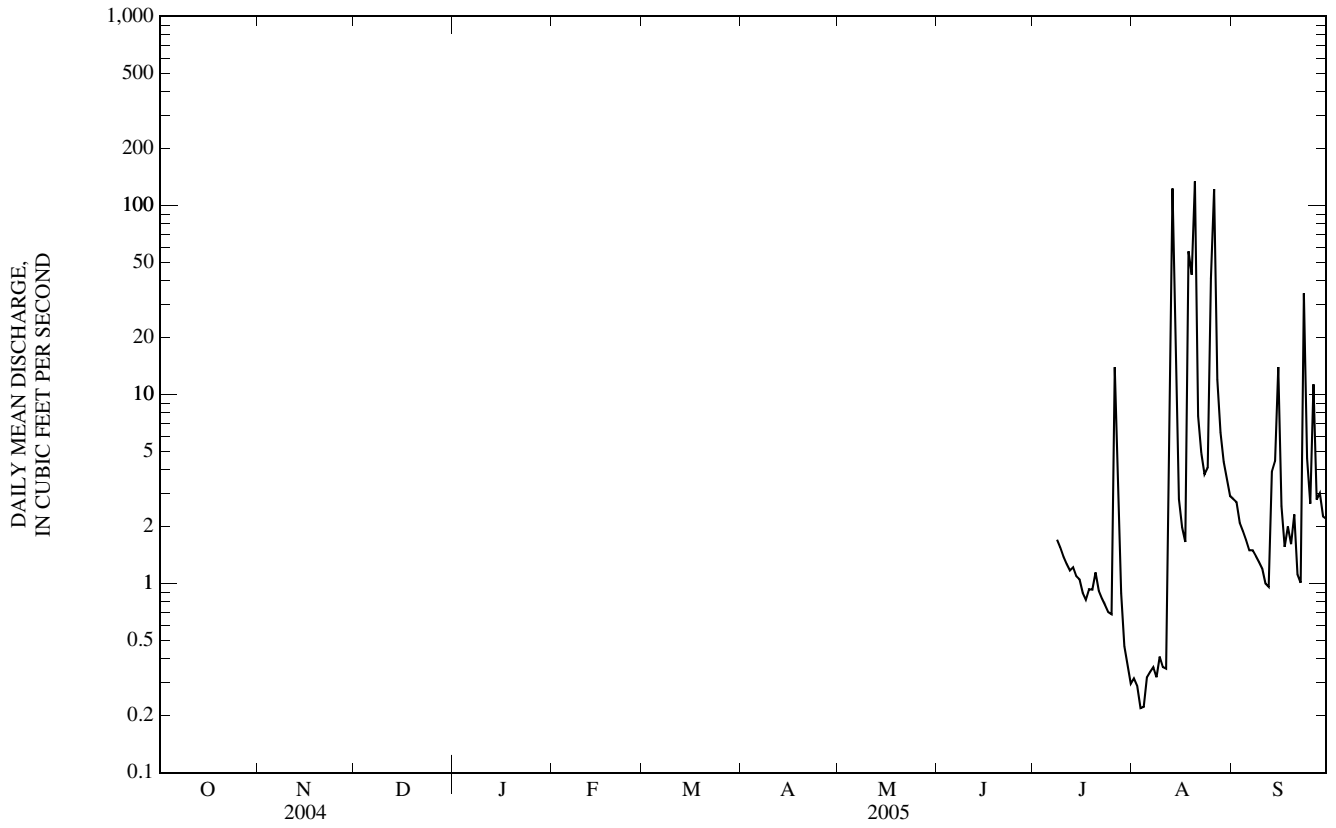
REMARKS.--Records good. U.S.G.S. satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--For the period July 8 to Sept. 30, maximum discharge unknown, gage height, 13.66 ft, Aug. 20; minimum 0.16 ft<sup>3</sup>/s, Aug. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.32	2.8
2	---	---	---	---	---	---	---	---	---	---	0.29	2.7
3	---	---	---	---	---	---	---	---	---	---	0.22	2.1
4	---	---	---	---	---	---	---	---	---	---	0.22	1.9
5	---	---	---	---	---	---	---	---	---	---	0.32	1.7
6	---	---	---	---	---	---	---	---	---	---	0.34	1.5
7	---	---	---	---	---	---	---	---	---	---	0.36	1.5
8	---	---	---	---	---	---	---	---	---	1.7	0.32	1.4
9	---	---	---	---	---	---	---	---	---	1.6	0.41	1.3
10	---	---	---	---	---	---	---	---	---	1.4	0.36	1.2
11	---	---	---	---	---	---	---	---	---	1.3	0.35	1.0
12	---	---	---	---	---	---	---	---	---	1.2	6.3	0.96
13	---	---	---	---	---	---	---	---	---	1.2	123	3.9
14	---	---	---	---	---	---	---	---	---	1.1	14	4.4
15	---	---	---	---	---	---	---	---	---	1.1	2.8	14
16	---	---	---	---	---	---	---	---	---	0.89	2.0	2.6
17	---	---	---	---	---	---	---	---	---	0.82	1.7	1.6
18	---	---	---	---	---	---	---	---	---	0.93	57	2.0
19	---	---	---	---	---	---	---	---	---	0.93	43	1.6
20	---	---	---	---	---	---	---	---	---	1.1	134	2.3
21	---	---	---	---	---	---	---	---	---	0.92	7.7	1.1
22	---	---	---	---	---	---	---	---	---	0.83	4.9	1.0
23	---	---	---	---	---	---	---	---	---	0.77	3.8	34
24	---	---	---	---	---	---	---	---	---	0.71	4.1	4.6
25	---	---	---	---	---	---	---	---	---	0.69	41	2.6
26	---	---	---	---	---	---	---	---	---	14	122	11
27	---	---	---	---	---	---	---	---	---	3.1	12	2.8
28	---	---	---	---	---	---	---	---	---	0.89	6.3	3.0
29	---	---	---	---	---	---	---	---	---	0.47	4.4	2.3
30	---	---	---	---	---	---	---	---	---	0.37	3.6	2.2
31	---	---	---	---	---	---	---	---	---	0.30	2.9	---

06893620 ROCK CREEK AT KENTUCKY ROAD IN INDEPENDENCE, MO—Continued



## 06893791 LONGVIEW RESERVOIR AT KANSAS CITY, MO

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

DRAINAGE AREA.--50.3 mi<sup>2</sup>.

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 26,700 ac-ft, June 4, elevation, 895.44 ft; minimum, 21,300 ac-ft, Aug. 12, elevation, 889.99 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	891.17	891.52	891.90	891.12	891.30	891.34	891.17	891.04	890.97	890.94	890.31	891.50
2	891.14	891.63	891.79	891.14	891.33	891.32	891.15	891.02	890.95	890.92	890.28	891.44
3	891.11	891.56	891.69	891.31	891.33	891.30	891.14	891.01	890.93	890.89	890.25	891.35
4	891.07	891.98	891.62	892.03	891.34	891.31	891.13	891.00	895.30	891.04	890.21	891.28
5	891.04	891.90	891.55	893.56	891.36	891.29	891.11	890.99	894.31	891.06	890.20	891.21
6	891.01	891.77	891.74	893.24	891.38	891.28	891.15	890.97	893.23	891.04	890.17	891.15
7	891.00	891.66	891.74	892.69	892.17	891.47	891.15	890.95	892.60	891.01	890.15	891.10
8	891.99	891.58	891.71	892.32	892.09	891.48	891.16	890.95	892.19	890.98	890.13	891.06
9	891.90	891.51	891.64	892.07	891.96	891.45	891.16	890.94	892.05	890.96	890.10	891.03
10	891.75	891.45	891.58	892.16	891.84	891.43	891.14	890.92	891.83	890.92	890.06	891.00
11	891.64	891.55	891.52	892.09	891.76	891.38	891.37	890.90	891.75	890.88	890.03	890.97
12	891.60	891.52	891.47	891.98	891.73	891.31	891.53	890.92	891.72	890.86	890.01	890.94
13	891.64	891.47	891.41	892.35	892.84	891.28	891.51	891.40	892.24	890.83	890.38	890.91
14	891.62	891.42	891.37	892.12	893.10	891.24	891.46	891.88	892.27	890.80	891.04	890.89
15	891.53	891.38	891.35	891.92	892.64	891.22	891.40	891.74	892.00	890.77	891.07	890.99
16	891.45	891.35	891.31	891.77	892.31	891.20	891.35	891.63	891.81	890.73	891.06	891.06
17	891.38	891.33	891.29	891.66	892.07	891.20	891.31	891.51	891.66	890.70	891.04	891.04
18	891.34	891.31	891.27	891.56	891.89	891.17	891.28	891.44	891.54	890.68	891.07	891.02
19	891.29	891.31	891.24	891.50	891.77	891.15	891.26	891.38	891.44	890.66	891.27	891.01
20	891.26	891.29	891.25	891.46	891.71	891.13	891.24	891.34	891.36	890.68	892.20	891.01
21	891.23	891.26	891.21	891.43	891.66	891.12	891.21	891.28	891.30	890.66	891.99	890.98
22	891.21	891.24	891.19	891.41	891.60	891.13	891.19	891.23	891.24	890.62	891.78	890.96
23	891.22	891.22	891.17	891.37	891.54	891.22	891.14	891.20	891.19	890.59	891.62	891.11
24	891.19	891.59	891.15	891.34	891.49	891.23	891.12	891.16	891.14	890.55	891.51	891.43
25	891.16	891.87	891.14	891.31	891.45	891.26	891.11	891.12	891.10	890.52	892.45	891.36
26	891.15	892.12	891.12	891.30	891.42	891.25	891.10	891.10	891.06	890.47	892.50	891.30
27	891.44	892.66	891.11	891.28	891.38	891.24	891.09	891.07	891.02	890.49	892.95	891.24
28	891.43	892.51	891.11	891.27	891.37	891.23	891.07	891.04	890.99	890.46	892.43	891.19
29	891.42	892.23	891.11	891.27	---	891.22	891.06	891.03	890.98	890.43	892.08	891.14
30	891.41	892.03	891.12	891.27	---	891.21	891.06	891.00	890.95	890.39	891.83	891.10
31	891.36	---	891.12	891.28	---	891.17	---	890.98	---	890.35	891.66	---
MAX	891.99	892.66	891.90	893.56	893.10	891.48	891.53	891.88	895.30	891.06	892.95	891.50
MIN	891.00	891.22	891.11	891.12	891.30	891.12	891.06	890.90	890.93	890.35	890.01	890.89
(-)	22,500	23,100	22,200	22,400	22,500	22,300	22,200	22,100	22,100	21,600	22,800	22,200
(=)	+200	+600	-900	+200	+100	-200	-100	-100	0	-500	+1,200	-600

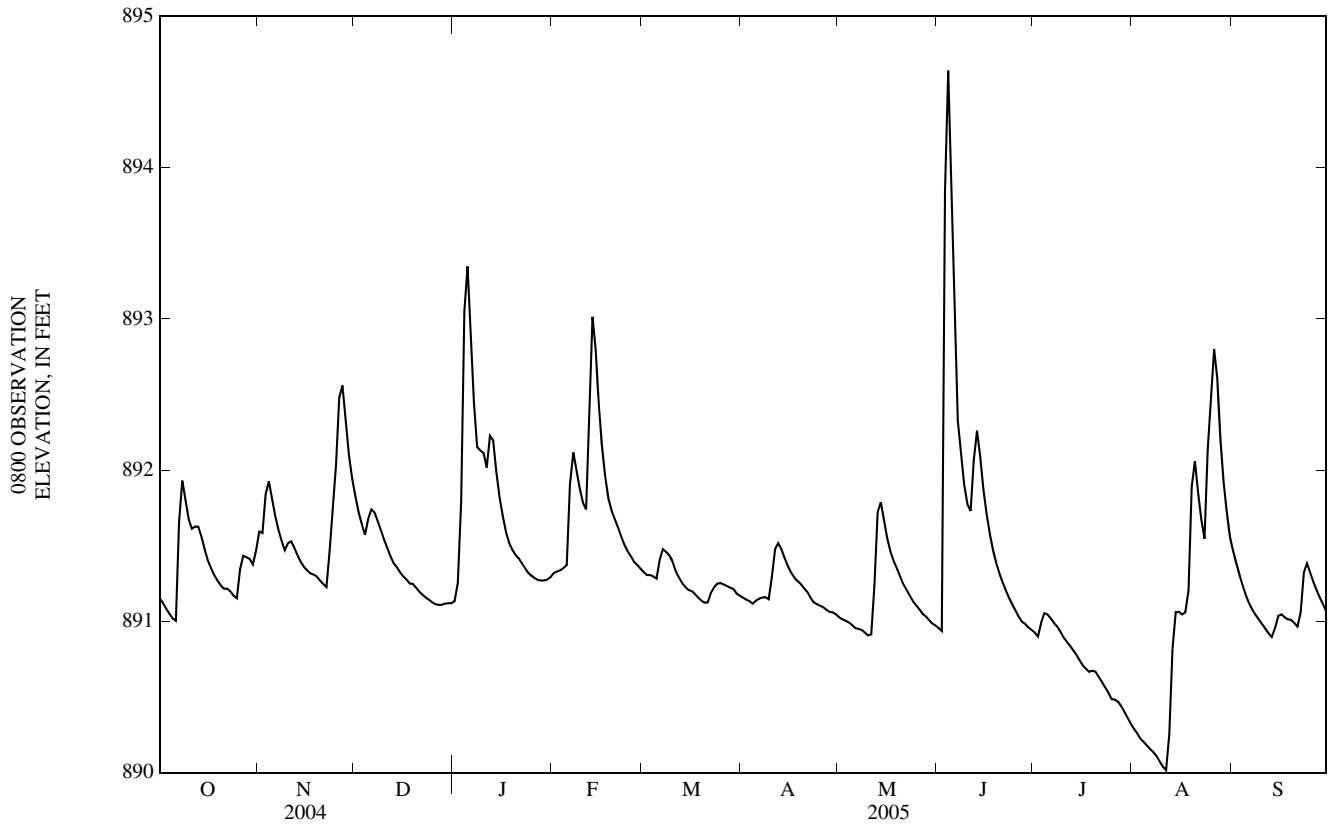
CALYR 2004.... -600

WTR YR 2005.... -100

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

(=) Change in contents, in acre-feet.

06893791 LONGVIEW RESERVOIR AT KANSAS CITY, MO—Continued



## 06893885 BLUE SPRINGS RESERVOIR NEAR BLUE SPRINGS, MO

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

DRAINAGE AREA.--32.8 mi<sup>2</sup>.

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

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 13,100 ac-ft, June 5, elevation, 805.08 ft; minimum, 10,700 ac-ft, Aug. 11 and 12, elevation, 801.73 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	802.65	802.77	803.27	802.40	802.57	802.67	802.37	802.17	802.22	802.33	801.92	802.95
2	802.60	802.81	803.18	802.39	802.57	802.65	802.36	802.15	802.20	802.31	801.90	802.87
3	802.55	802.81	803.11	802.50	802.55	802.62	802.35	802.14	802.19	802.28	801.89	802.80
4	802.51	802.95	803.04	802.64	802.54	802.62	802.34	802.13	804.22	802.32	801.87	802.73
5	802.46	803.02	802.97	803.05	802.53	802.58	802.34	802.12	804.98	802.32	801.83	802.67
6	802.42	803.03	802.96	803.85	802.54	802.56	802.36	802.12	804.44	802.30	801.82	802.59
7	802.43	803.00	802.94	803.79	802.71	802.59	802.35	802.13	803.94	802.28	801.80	802.54
8	802.98	802.96	802.92	803.53	802.77	802.60	802.35	802.11	803.59	802.26	801.80	802.51
9	803.36	802.92	802.90	803.44	802.82	802.60	802.34	802.11	803.45	802.24	801.78	802.46
10	803.35	802.87	802.87	803.34	802.83	802.60	802.34	802.10	803.24	802.21	801.77	802.44
11	803.27	802.84	802.83	803.27	802.83	802.57	802.38	802.10	803.14	802.20	801.75	802.41
12	803.19	802.79	802.80	803.22	802.82	802.46	802.38	802.31	803.04	802.17	801.73	802.37
13	803.16	802.73	802.75	803.28	803.15	802.39	802.39	802.55	803.15	802.14	802.02	802.34
14	803.09	802.71	802.71	803.26	803.66	802.35	802.37	802.73	803.17	802.13	802.41	802.39
15	803.02	802.68	802.69	803.20	803.67	802.30	802.37	802.71	803.09	802.11	802.48	802.39
16	802.96	802.65	802.65	803.13	803.53	802.28	802.36	802.69	802.99	802.09	802.52	802.37
17	802.90	802.61	802.63	803.07	803.39	802.21	802.34	802.67	802.91	802.07	802.54	802.37
18	802.84	802.60	802.60	803.01	803.26	802.18	802.34	802.64	802.83	802.06	802.59	802.36
19	802.79	802.59	802.57	802.95	803.18	802.22	802.33	802.60	802.74	802.04	802.68	802.35
20	802.75	802.56	802.56	802.90	803.11	802.27	802.33	802.55	802.68	802.05	803.70	802.34
21	802.72	802.53	802.52	802.86	803.04	802.33	802.33	802.52	802.63	802.03	804.14	802.33
22	802.67	802.52	802.51	802.82	802.98	802.39	802.32	802.49	802.58	802.01	803.87	802.31
23	802.66	802.50	802.48	802.77	802.92	802.42	802.29	802.44	802.53	802.00	803.57	802.44
24	802.61	802.65	802.46	802.74	802.88	802.41	802.25	802.41	802.48	801.97	803.34	802.54
25	802.58	802.71	802.45	802.71	802.82	802.42	802.24	802.37	802.43	801.95	803.31	802.55
26	802.58	802.79	802.44	802.68	802.78	802.42	802.25	802.33	802.39	801.93	803.41	802.60
27	802.63	803.09	802.42	802.65	802.74	802.41	802.23	802.30	802.36	802.00	803.78	802.60
28	802.66	803.44	802.41	802.62	802.72	802.41	802.21	802.29	802.32	801.98	803.67	802.58
29	802.66	803.44	802.40	802.61	---	802.43	802.19	802.27	802.31	801.97	803.45	802.54
30	802.70	803.35	802.42	802.59	---	802.41	802.19	802.25	802.28	801.96	803.24	802.51
31	802.67	---	802.40	802.58	---	802.38	---	802.24	---	801.94	803.09	---
MAX	803.36	803.44	803.27	803.85	803.67	802.67	802.39	802.73	804.98	802.33	804.14	802.95
MIN	802.42	802.50	802.40	802.39	802.53	802.15	802.19	802.10	802.19	801.93	801.73	802.31
(-)	11,400	11,900	11,200	11,300	11,400	11,200	11,000	11,100	11,100	10,800	11,700	11,300
(=)	0	+500	-700	+100	+100	-200	-200	+100	0	-300	+900	-400

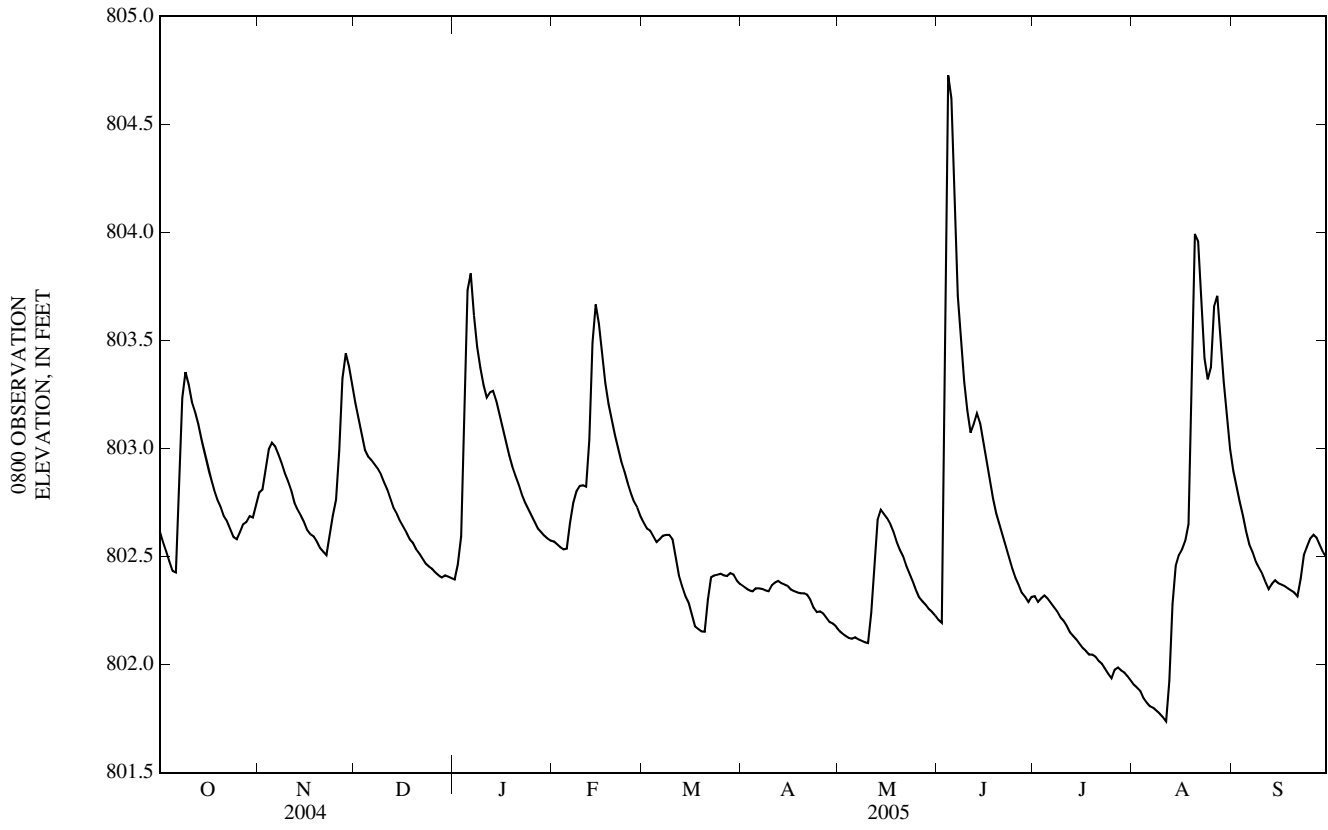
CALYR 2004.... -1,100

WTR YR 2005.... -100

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

(=) Change in contents, in acre-feet.

06893885 BLUE SPRINGS RESERVOIR NEAR BLUE SPRINGS, MO—Continued



## 06893910 LITTLE BLUE RIVER AT 39TH STREET IN INDEPENDENCE, MO

LOCATION.--Lat 39°02'50" long 94°20'13", in NW $\frac{1}{4}$  SE $\frac{1}{4}$  sec. 21, T.49 N., R.31 W., Jackson County, Hydrologic Unit 10300101, on right bank 50 ft upstream from bridge on eastbound lane of 39th Street, about 0.75 mi north of Interstate 70 and about 14.8 mi upstream from the mouth.

DRAINAGE AREA.--158 mi<sup>2</sup>

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 13, 2005 to current year.

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

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

EXTREMES FOR CURRENT YEAR.--For the period July 13 to Sept. 30, maximum discharge unknown, gage height 37.59 ft, Aug. 20; minimum, 9.7 ft<sup>3</sup>/s, Aug. 4.

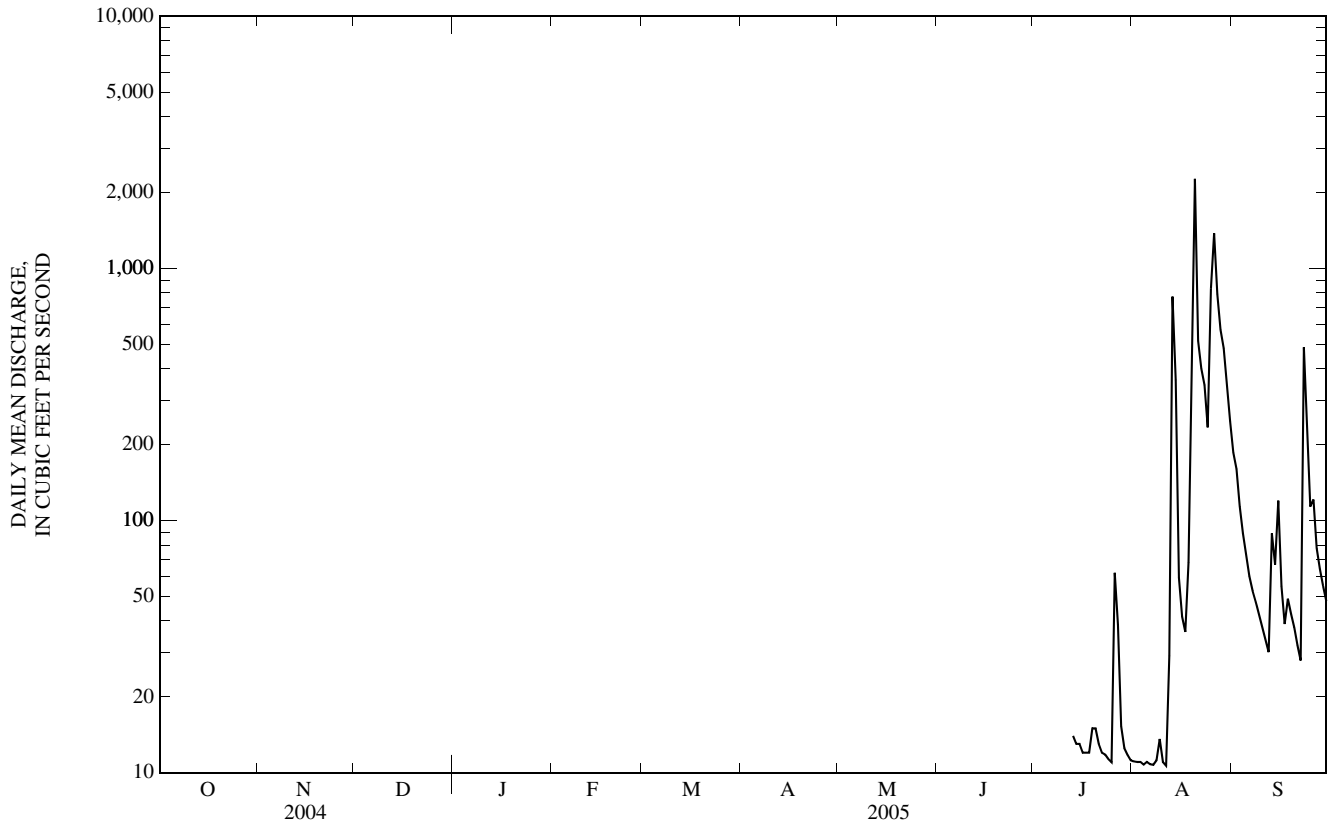
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	11	186
2	---	---	---	---	---	---	---	---	---	---	11	160
3	---	---	---	---	---	---	---	---	---	---	11	114
4	---	---	---	---	---	---	---	---	---	---	11	89
5	---	---	---	---	---	---	---	---	---	---	11	73
6	---	---	---	---	---	---	---	---	---	---	11	60
7	---	---	---	---	---	---	---	---	---	---	11	53
8	---	---	---	---	---	---	---	---	---	---	11	47
9	---	---	---	---	---	---	---	---	---	---	14	42
10	---	---	---	---	---	---	---	---	---	---	11	38
11	---	---	---	---	---	---	---	---	---	---	11	34
12	---	---	---	---	---	---	---	---	---	---	29	30
13	---	---	---	---	---	---	---	---	---	14	773	89
14	---	---	---	---	---	---	---	---	---	13	361	67
15	---	---	---	---	---	---	---	---	---	13	59	120
16	---	---	---	---	---	---	---	---	---	12	42	55
17	---	---	---	---	---	---	---	---	---	12	36	39
18	---	---	---	---	---	---	---	---	---	12	68	49
19	---	---	---	---	---	---	---	---	---	15	353	43
20	---	---	---	---	---	---	---	---	---	15	2,270	38
21	---	---	---	---	---	---	---	---	---	13	516	32
22	---	---	---	---	---	---	---	---	---	12	401	28
23	---	---	---	---	---	---	---	---	---	12	345	487
24	---	---	---	---	---	---	---	---	---	11	234	225
25	---	---	---	---	---	---	---	---	---	11	e830	114
26	---	---	---	---	---	---	---	---	---	62	1,380	121
27	---	---	---	---	---	---	---	---	---	39	791	78
28	---	---	---	---	---	---	---	---	---	15	571	64
29	---	---	---	---	---	---	---	---	---	13	482	55
30	---	---	---	---	---	---	---	---	---	12	353	48
31	---	---	---	---	---	---	---	---	---	11	248	---

e Estimated



06893910 LITTLE BLUE RIVER AT 39TH STREET IN INDEPENDENCE, MO—Continued



06893910 LITTLE BLUE RIVER AT 39TH STREET IN INDEPENDENCE, MO—Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 2005 to current year

pH: July 2005 to current year.

WATER TEMPERATURE: July 2005 to current year.

DISSOLVED OXYGEN: July 2005 to current year.

TURBIDITY: July 2005 to current year.

INSTRUMENTATION.-- Water-quality monitor operated since July 2005. U.S.G.S. satellite telemeter at station.

REMARKS.--Interruptions in the record are generally due to malfunction or fouling of the sensors. Detailed records of the procedures employed for specific periods of record have been included with the station analysis and are kept on file. The manufacturers' specified range for turbidity sensors used is 0 to 1,000 NTU. All values beyond this limit are considered erroneous and deleted. Values  $\geq 1,000$  NTU are possible, but cannot be quantified. Specific Conductance records are rated excellent, except for the following periods: August 14-15, 19 and 25, rated poor. pH records are rated excellent except for the following periods: August 19 and 25, rated poor. Water temperature records are rated excellent except for the following periods: August 19, rated good; August 25, rated poor. Dissolved oxygen records were deleted or missing for all or part of the following periods: July 22-26, August 14-16, and August 25-September 7. The remainder of the dissolved oxygen record is rated excellent or good, except for the following periods: September 18-21, August 19 rated fair; July 21-22, rated poor. Turbidity records were deleted or missing for all or part of the following periods: August 14, August 24-September 6. The remainder of the turbidity record is rated excellent or good, except for the following periods: August 13-15, 19-20, 23, rated poor.

## EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 505 microsiemens, July 31, 2005, but may have been higher during periods of missing record; minimum recorded 199 microsiemens, September 13, 2005.

pH: Maximum recorded 8.4 standard units, August 13, 2005; minimum recorded 7.2 standard units, August 26 and 27, 2005.

WATER TEMPERATURE: Maximum recorded 33.1 °C, July 23, 2005; minimum recorded 17.3 °C, September 30, 2005.

DISSOLVED OXYGEN: Maximum recorded 9.5 mg/L, September 30, 2005, but may have been higher during periods of missing record; minimum recorded 4.0 mg/L, August 12, 2005, but may have been lower during periods of missing record.

TURBIDITY: Maximum recorded 990 NTU, July 26, 2005, but may have been higher during periods of missing record; minimum recorded 7.0 NTU ( $\pm 2.0$  NTU), September 10, 2005, but may have been lower during periods of missing record. Maximum turbidity may be  $\geq 1,000$  NTU, but exceeds the range of the instrument deployed.TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	30.5	25.7	28.0	26.6	25.2	25.7
2	---	---	---	---	---	---	29.0	26.7	27.9	26.1	24.4	25.3
3	---	---	---	---	---	---	30.5	26.4	28.3	26.8	24.6	25.7
4	---	---	---	---	---	---	31.2	27.3	28.9	27.1	25.1	26.2
5	---	---	---	---	---	---	28.5	26.2	26.9	26.8	25.0	26.0
6	---	---	---	---	---	---	28.9	24.4	26.6	26.5	24.6	25.7
7	---	---	---	---	---	---	29.3	24.9	27.2	26.8	24.5	25.8
8	---	---	---	---	---	---	29.5	25.4	27.5	26.5	25.0	25.8
9	---	---	---	---	---	---	30.3	25.8	27.9	26.7	24.5	25.8
10	---	---	---	---	---	---	31.1	26.6	28.7	26.7	24.9	25.9
11	---	---	---	---	---	---	31.0	27.2	28.9	26.6	24.8	25.7
12	---	---	---	---	---	---	29.1	25.2	27.8	26.1	25.0	25.5
13	---	---	---	---	---	---	25.4	24.1	24.7	25.2	23.7	24.4
14	---	---	---	---	---	---	24.2	22.4	23.1	23.7	22.5	23.1
15	---	---	---	---	---	---	22.8	22.0	22.4	22.5	19.3	20.3
16	---	---	---	---	---	---	25.1	22.4	23.7	21.0	18.4	19.7
17	---	---	---	---	---	---	26.1	23.8	24.9	21.6	18.9	20.3
18	---	---	---	---	---	---	28.1	24.8	26.3	22.5	20.3	21.4
19	---	---	---	---	---	---	27.2	24.3	25.7	24.6	21.7	23.1
20	---	---	---	30.4	---	---	25.7	23.7	24.5	25.5	23.0	24.2
21	---	---	---	30.5	27.6	28.8	26.4	25.5	25.9	25.6	22.7	24.2
22	---	---	---	32.2	27.8	29.8	26.8	25.7	26.2	26.1	24.0	24.9
23	---	---	---	33.1	28.4	30.6	26.0	24.7	25.2	24.5	21.1	22.1
24	---	---	---	32.6	28.4	30.4	25.3	24.1	24.7	23.4	21.6	22.5
25	---	---	---	32.4	28.6	30.3	25.0	---	---	24.9	22.9	23.9
26	---	---	---	30.1	23.9	27.9	24.7	23.1	23.9	24.4	22.5	23.3
27	---	---	---	26.0	23.2	24.5	25.9	24.6	25.2	22.7	21.1	22.0
28	---	---	---	27.2	22.9	25.0	26.9	25.4	26.1	22.2	19.6	21.1
29	---	---	---	28.7	24.1	26.1	26.0	25.2	25.5	19.7	17.9	18.9
30	---	---	---	29.6	24.6	27.0	26.4	24.7	25.5	19.7	17.3	18.6
31	---	---	---	29.8	25.1	27.4	27.1	24.7	25.8	---	---	---
MONTH	---	---	---	33.1	22.9	28.0	31.2	22.0	26.1	27.1	17.3	23.6

06893910 LITTLE BLUE RIVER AT 39TH STREET IN INDEPENDENCE, MO—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	7.8	7.6	7.7	7.4	7.3	7.4
2	---	---	---	---	---	---	7.7	7.6	7.6	7.5	7.4	7.4
3	---	---	---	---	---	---	7.8	7.6	7.7	7.5	7.4	7.5
4	---	---	---	---	---	---	7.8	7.6	7.7	7.8	7.3	7.4
5	---	---	---	---	---	---	7.8	7.6	7.7	7.8	7.8	7.8
6	---	---	---	---	---	---	7.8	7.6	7.7	7.8	7.7	7.8
7	---	---	---	---	---	---	8.2	7.7	7.9	7.8	7.6	7.7
8	---	---	---	---	---	---	8.1	7.8	7.9	7.7	7.6	7.6
9	---	---	---	---	---	---	7.9	7.7	7.8	7.7	7.6	7.6
10	---	---	---	---	---	---	7.9	7.7	7.8	7.7	7.6	7.6
11	---	---	---	---	---	---	7.9	7.7	7.8	7.7	7.6	7.6
12	---	---	---	---	---	---	7.8	7.5	7.7	7.7	7.6	7.6
13	---	---	---	---	---	---	8.4	7.4	7.6	8.2	7.6	7.7
14	---	---	---	---	---	---	7.7	7.5	7.6	7.7	7.6	7.6
15	---	---	---	---	---	---	7.7	7.6	7.7	7.7	7.6	7.6
16	---	---	---	---	---	---	7.8	7.6	7.7	7.8	7.7	7.7
17	---	---	---	---	---	---	7.8	7.7	7.7	7.8	7.7	7.7
18	---	---	---	---	---	---	7.8	7.7	7.7	7.7	7.6	7.7
19	---	---	---	---	---	---	8.1	7.6	7.7	7.7	7.6	7.7
20	---	---	---	7.8	---	---	7.9	7.4	7.7	7.7	7.6	7.7
21	---	---	---	7.8	7.6	7.7	7.9	7.8	7.8	7.9	7.6	7.8
22	---	---	---	7.8	7.6	7.7	7.9	7.8	7.8	7.8	7.8	7.8
23	---	---	---	7.8	7.6	7.7	7.9	7.6	7.7	7.9	7.6	7.7
24	---	---	---	7.9	7.6	7.8	7.6	7.5	7.5	7.8	7.7	7.7
25	---	---	---	8.0	7.7	7.8	7.6	7.3	---	7.8	7.8	7.8
26	---	---	---	7.8	7.6	7.7	7.3	7.2	7.3	7.9	7.8	7.8
27	---	---	---	7.6	7.5	7.6	7.3	7.2	7.2	7.8	7.8	7.8
28	---	---	---	7.6	7.5	7.6	7.3	7.3	7.3	7.8	7.8	7.8
29	---	---	---	7.7	7.6	7.6	7.3	7.3	7.3	7.8	7.8	7.8
30	---	---	---	7.7	7.6	7.6	7.3	7.3	7.3	7.9	7.8	7.8
31	---	---	---	7.8	7.6	7.7	7.4	7.3	7.3	---	---	---
MONTH	---	---	---	8.0	7.5	7.7	8.4	7.2	7.6	8.2	7.3	7.7

## BLUE RIVER BASIN

06893910 LITTLE BLUE RIVER AT 39TH STREET IN INDEPENDENCE, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	504	467	488	434	430	433
2	---	---	---	---	---	---	468	442	459	433	416	424
3	---	---	---	---	---	---	444	430	439	430	418	423
4	---	---	---	---	---	---	441	429	434	418	378	404
5	---	---	---	---	---	---	439	423	432	392	375	380
6	---	---	---	---	---	---	432	419	425	385	362	373
7	---	---	---	---	---	---	424	403	417	376	364	369
8	---	---	---	---	---	---	422	411	419	377	366	373
9	---	---	---	---	---	---	423	416	419	383	371	375
10	---	---	---	---	---	---	420	411	415	387	370	380
11	---	---	---	---	---	---	422	412	417	404	374	388
12	---	---	---	---	---	---	423	307	405	403	375	388
13	---	---	---	---	---	---	365	220	308	406	199	376
14	---	---	---	---	---	---	---	289	---	348	227	327
15	---	---	---	---	---	---	---	---	---	397	279	347
16	---	---	---	---	---	---	421	391	405	445	382	412
17	---	---	---	---	---	---	428	403	413	462	405	435
18	---	---	---	---	---	---	459	399	427	439	392	420
19	---	---	---	---	---	---	442	242	333	426	386	404
20	---	---	---	---	---	---	387	202	322	452	384	415
21	---	---	---	427	410	419	371	361	365	419	374	402
22	---	---	---	430	422	425	373	360	366	429	400	418
23	---	---	---	436	426	432	382	344	364	444	229	331
24	---	---	---	470	436	452	403	382	391	432	334	387
25	---	---	---	493	470	484	416	---	---	430	416	424
26	---	---	---	478	234	421	419	373	395	461	371	403
27	---	---	---	392	235	350	423	396	416	401	389	393
28	---	---	---	417	353	386	421	403	408	402	392	396
29	---	---	---	440	417	430	407	387	401	403	393	398
30	---	---	---	452	427	434	426	405	418	418	398	407
31	---	---	---	505	452	491	433	414	422	---	---	---
MONTH	---	---	---	505	234	429	504	202	404	462	199	394

06893910 LITTLE BLUE RIVER AT 39TH STREET IN INDEPENDENCE, MO—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	8.1	6.1	6.8	---	---	---			
2	---	---	---	---	---	---	7.3	5.9	6.5	---	---	---			
3	---	---	---	---	---	---	7.7	5.7	6.5	---	---	---			
4	---	---	---	---	---	---	7.9	5.8	6.6	---	---	---			
5	---	---	---	---	---	---	7.3	5.8	6.4	---	---	---			
6	---	---	---	---	---	---	7.6	5.9	6.6	---	---	---			
7	---	---	---	---	---	---	9.1	6.2	7.4	7.0	---	---			
8	---	---	---	---	---	---	8.6	6.2	7.0	6.9	6.3	6.5			
9	---	---	---	---	---	---	7.0	5.6	6.2	7.2	6.3	6.6			
10	---	---	---	---	---	---	6.5	5.3	5.8	7.3	6.4	6.7			
11	---	---	---	---	---	---	6.2	4.9	5.4	7.5	6.6	6.9			
12	---	---	---	---	---	---	5.0	4.0	4.6	7.7	6.7	7.0			
13	---	---	---	---	---	---	---	---	---	7.9	6.7	7.1			
14	---	---	---	---	---	---	---	---	---	7.5	6.5	6.8			
15	---	---	---	---	---	---	---	---	---	8.5	6.7	7.9			
16	---	---	---	---	---	---	7.5	---	---	8.7	8.2	8.4			
17	---	---	---	---	---	---	7.1	6.5	6.8	9.1	8.0	8.4			
18	---	---	---	---	---	---	6.8	6.3	6.5	8.2	7.5	7.9			
19	---	---	---	---	---	---	7.1	6.3	6.7	8.0	6.9	7.4			
20	---	---	---	7.4	---	---	7.4	5.3	6.9	7.7	6.6	7.0			
21	---	---	---	7.4	5.8	6.4	7.5	7.2	7.3	7.8	6.4	7.0			
22	---	---	---	7.0	5.8	6.3	7.5	7.2	7.3	8.6	6.4	7.1			
23	---	---	---	---	---	---	7.2	7.0	7.1	7.6	6.4	7.3			
24	---	---	---	---	---	---	7.2	6.4	7.1	7.4	7.1	7.3			
25	---	---	---	---	---	---	---	6.3	---	7.7	7.0	7.2			
26	---	---	---	6.9	---	---	---	---	---	7.4	6.9	7.1			
27	---	---	---	6.8	6.1	6.5	---	---	---	8.1	7.2	7.6			
28	---	---	---	7.1	6.0	6.5	---	---	---	7.9	7.4	7.6			
29	---	---	---	7.5	6.2	6.7	---	---	---	9.2	7.8	8.4			
30	---	---	---	7.7	6.2	6.8	---	---	---	9.5	8.3	8.7			
31	---	---	---	8.1	6.2	6.9	---	---	---	---	---	---			
MONTH	---	---	---	8.1	5.8	6.6	9.1	4.0	6.6	9.5	6.3	7.4			

TURBIDITY, WATER, UNFILTERED, FIELD, NEPHELOMETRIC TURBIDITY UNITS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	30	15	20	---	---	---			
2	---	---	---	---	---	---	30	15	20	---	---	---			
3	---	---	---	---	---	---	26	15	20	---	---	---			
4	---	---	---	---	---	---	24	13	19	---	---	---			
5	---	---	---	---	---	---	25	16	20	---	---	---			
6	---	---	---	---	---	---	25	14	20	---	---	---			
7	---	---	---	---	---	---	34	21	25	18	11	15			
8	---	---	---	---	---	---	41	20	26	17	11	13			
9	---	---	---	---	---	---	32	18	25	19	9.0	13			
10	---	---	---	---	---	---	28	15	21	16	7.0	11			
11	---	---	---	---	---	---	35	15	22	17	8.0	12			
12	---	---	---	---	---	---	400	19	52	75	8.0	14			
13	---	---	---	---	---	---	940	---	---	920	8.0	84			
14	---	---	---	---	---	---	---	---	---	260	42	85			
15	---	---	---	---	---	---	---	43	---	230	37	68			
16	---	---	---	---	---	---	44	33	38	40	17	24			
17	---	---	---	---	---	---	96	31	44	18	11	14			
18	---	---	---	---	---	---	210	31	66	36	13	20			
19	---	---	---	---	---	---	820	36	280	31	14	21			
20	---	---	---	---	15	---	---	97	---	22	12	17			
21	---	---	---	30	14	20	99	56	78	27	10	16			
22	---	---	---	24	13	19	66	46	57	20	9.0	14			
23	---	---	---	28	13	19	---	52	---	690	13	230			
24	---	---	---	25	14	18	---	---	---	110	27	54			
25	---	---	---	23	13	17	---	---	---	28	16	22			
26	---	---	---	990	15	100	---	---	---	110	18	38			
27	---	---	---	190	40	61	---	---	---	23	17	20			
28	---	---	---	43	24	32	---	---	---	36	16	21			
29	---	---	---	32	21	26	---	---	---	21	14	16			
30	---	---	---	30	18	23	---	---	---	83	14	26			
31	---	---	---	26	14	20	---	---	---	---	---	---			
MONTH	---	---	---	990	13	32	940	13	47	920	7.0	36			

## 06893940 CRACKERNECK CREEK AT SELSA ROAD IN INDEPENDENCE, MO

LOCATION.--Lat 39°03'10", long 94°20'42", in SW<sup>1</sup>/<sub>4</sub> NE<sup>1</sup>/<sub>4</sub> sec. 16, T.49 N., R.31 W., Jackson County, Hydrologic Unit 10300101, on left bank on upstream side of bridge on Selsa Road in Independence.

DRAINAGE AREA.--6.6 mi<sup>2</sup>.

PERIOD OF RECORD.--July 7, 2005 to current year.

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

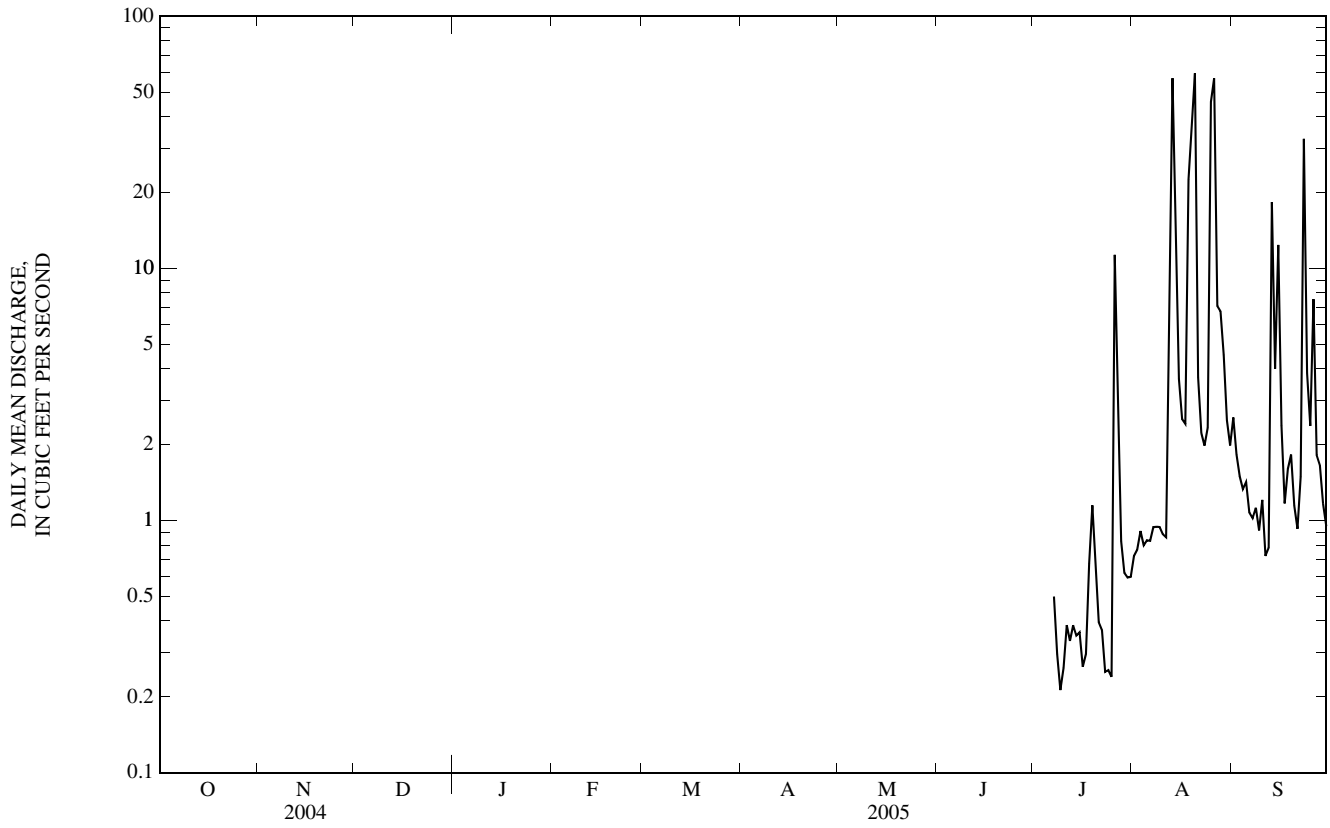
REMARKS.--Records fair except for discharges above 100 ft<sup>3</sup>/s, which are poor. U.S.G.S. satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--For the period July 7 to Sept. 30, maximum discharge unknown, gage height 9.44 ft, Aug. 20; minimum, 0.09 ft<sup>3</sup>/s, July 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.72	2.6
2	---	---	---	---	---	---	---	---	---	---	0.76	1.8
3	---	---	---	---	---	---	---	---	---	---	0.91	1.5
4	---	---	---	---	---	---	---	---	---	---	0.80	1.3
5	---	---	---	---	---	---	---	---	---	---	0.83	1.4
6	---	---	---	---	---	---	---	---	---	---	0.83	1.1
7	---	---	---	---	---	---	---	---	---	0.50	0.94	1.0
8	---	---	---	---	---	---	---	---	---	0.30	0.94	1.1
9	---	---	---	---	---	---	---	---	---	0.21	0.94	0.91
10	---	---	---	---	---	---	---	---	---	0.26	0.88	1.2
11	---	---	---	---	---	---	---	---	---	0.38	0.86	0.72
12	---	---	---	---	---	---	---	---	---	0.33	7.7	0.78
13	---	---	---	---	---	---	---	---	---	0.38	57	18
14	---	---	---	---	---	---	---	---	---	0.35	15	4.0
15	---	---	---	---	---	---	---	---	---	0.36	3.6	12
16	---	---	---	---	---	---	---	---	---	0.26	2.5	2.4
17	---	---	---	---	---	---	---	---	---	0.30	2.4	1.2
18	---	---	---	---	---	---	---	---	---	0.68	23	1.6
19	---	---	---	---	---	---	---	---	---	1.2	38	1.8
20	---	---	---	---	---	---	---	---	---	0.71	59	1.1
21	---	---	---	---	---	---	---	---	---	0.40	3.7	0.93
22	---	---	---	---	---	---	---	---	---	0.37	2.2	1.5
23	---	---	---	---	---	---	---	---	---	0.25	2.0	33
24	---	---	---	---	---	---	---	---	---	0.26	2.3	3.9
25	---	---	---	---	---	---	---	---	---	0.24	46	2.4
26	---	---	---	---	---	---	---	---	---	11	57	7.5
27	---	---	---	---	---	---	---	---	---	2.4	7.1	1.8
28	---	---	---	---	---	---	---	---	---	0.83	6.8	1.7
29	---	---	---	---	---	---	---	---	---	0.62	4.5	1.2
30	---	---	---	---	---	---	---	---	---	0.59	2.5	0.95
31	---	---	---	---	---	---	---	---	---	0.60	2.0	---

06893940 CRACKERNECK CREEK ON SELSA ROAD IN INDEPENDENCE, MO—Continued



## 06893970 SPRING BRANCH CREEK AT HOLKE ROAD IN INDEPENDENCE, MO

LOCATION.--Lat 39°05'18", long 94°20'36", in NE<sup>1</sup>/<sub>4</sub> SW<sup>1</sup>/<sub>4</sub> sec. 4, T.49 N., R.31 W., Jackson County, Hydrologic Unit 10300101, on left upstream bank just off Holke Road in Independence.

DRAINAGE AREA.--10.7 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 8, 2005 to current year.

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

REMARKS.--Water-discharge records fair except for estimated daily discharges and discharges above 350 ft<sup>3</sup>/s, which are poor. U.S.G.S. satellite telemeter at station

EXTREMES FOR CURRENT YEAR.--For the period July 8 to Sept. 30, maximum discharge unknown, gage height 23.36 ft, Aug. 20; minimum 0.00 ft<sup>3</sup>/s, Aug. 4, 5, and 7.

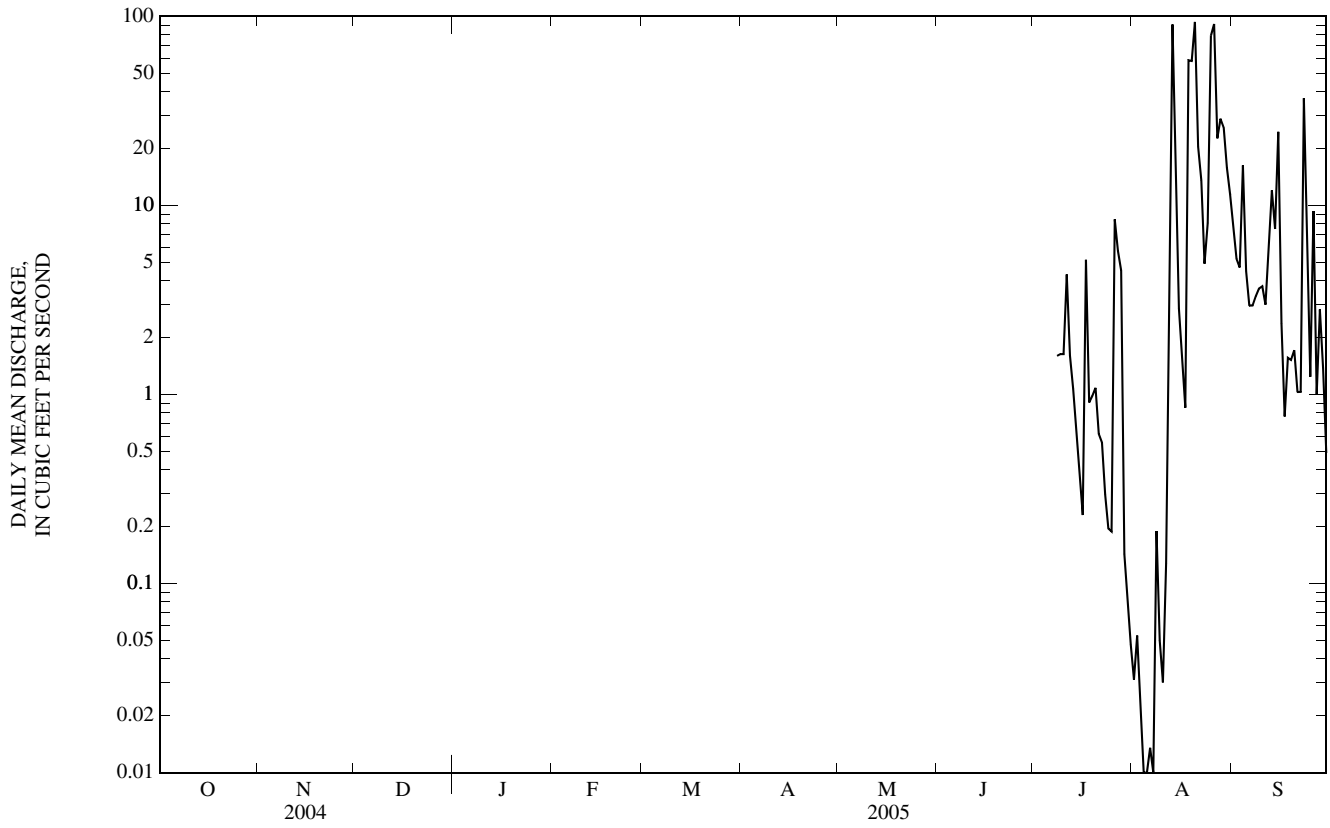
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	---	0.03	7.6
2	---	---	---	---	---	---	---	---	---	---	0.05	5.2
3	---	---	---	---	---	---	---	---	---	---	e0.02	4.7
4	---	---	---	---	---	---	---	---	---	---	e0.01	16
5	---	---	---	---	---	---	---	---	---	---	e0.01	4.5
6	---	---	---	---	---	---	---	---	---	---	0.01	3.0
7	---	---	---	---	---	---	---	---	---	---	0.01	3.0
8	---	---	---	---	---	---	---	---	---	1.6	0.19	3.3
9	---	---	---	---	---	---	---	---	---	1.6	e0.05	3.6
10	---	---	---	---	---	---	---	---	---	1.6	e0.03	3.7
11	---	---	---	---	---	---	---	---	---	4.3	0.13	3.0
12	---	---	---	---	---	---	---	---	---	1.6	8.3	5.8
13	---	---	---	---	---	---	---	---	---	1.1	91	12
14	---	---	---	---	---	---	---	---	---	0.59	27	7.5
15	---	---	---	---	---	---	---	---	---	0.35	2.8	25
16	---	---	---	---	---	---	---	---	---	0.23	1.6	2.4
17	---	---	---	---	---	---	---	---	---	5.2	0.85	0.77
18	---	---	---	---	---	---	---	---	---	0.91	59	1.6
19	---	---	---	---	---	---	---	---	---	0.98	58	1.5
20	---	---	---	---	---	---	---	---	---	1.1	93	1.7
21	---	---	---	---	---	---	---	---	---	0.62	20	1.0
22	---	---	---	---	---	---	---	---	---	0.56	14	1.0
23	---	---	---	---	---	---	---	---	---	0.30	4.9	37
24	---	---	---	---	---	---	---	---	---	0.20	8.1	8.9
25	---	---	---	---	---	---	---	---	---	0.19	79	1.2
26	---	---	---	---	---	---	---	---	---	8.4	91	9.3
27	---	---	---	---	---	---	---	---	---	5.7	23	1.00
28	---	---	---	---	---	---	---	---	---	4.5	29	2.8
29	---	---	---	---	---	---	---	---	---	0.14	26	1.4
30	---	---	---	---	---	---	---	---	---	0.09	16	0.49
31	---	---	---	---	---	---	---	---	---	0.05	11	---

e Estimated



06893970 SPRING BRANCH CREEK AT HOLKE ROAD IN INDEPENDENCE, MO—Continued



## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 2005 to current year.

pH: July 2005 to current year.

WATER TEMPERATURE: July 2005 to current year.

DISSOLVED OXYGEN: July 2005 to current year.

TURBIDITY: July 2005 to current year.

INSTRUMENTATION.--Water-quality monitor operated since July 2005. U.S.G.S. satellite telemeter at station.

REMARKS.-- Interruptions in the record are generally due to malfunction or fouling of the sensors. Detailed records of the procedures employed for specific periods of record have been included with the station analysis and are kept on file. The manufacturers' specified range for turbidity sensors used is 0 to 1,000 NTU. All values beyond this limit are considered erroneous and deleted. Values  $\geq 1,000$  NTU are possible, but cannot be quantified. Specific Conductance records are rated excellent or good, except for the following periods: August 14-17 and 27, rated fair; August 28-30, rated poor. pH records are rated either excellent or good except for the following periods: September 20, rated fair. Water temperature records are rated excellent except for the following periods: September 18-20, rated good. Dissolved oxygen records were deleted or missing for all or part of the following periods: July 18-20, August 27-30, September 18-20, and 23-26. The remainder of the dissolved oxygen records are rated excellent or good except for the following periods: September 30 rated fair; August 8-17, 26-27, 30, September 14-18, 26, rated poor. Turbidity records were deleted or missing for all or part of the following periods: August 27-30. The remainder of the turbidity record is rated excellent or good except for the following periods: August 13, 18-19, rated fair; August 26, 30, September 18-19, 23, rated poor.

## EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 952 microsiemens, September 4, 2005; minimum recorded 141 microsiemens, August 20, 2005.

pH: Maximum recorded 8.8 standard units, August 8, 2005; minimum recorded 7.3 standard units, September 23, 2005.

WATER TEMPERATURE: Maximum recorded 31.6 °C, July 25, 2005; minimum recorded 12.8 °C, September 30, 2005.

DISSOLVED OXYGEN: Maximum recorded 14.5 mg/L, September 12, 2005; minimum recorded 0.0 mg/L, August 13, 2005, but rated poor and may be the result of sediment contact with the DO probe membrane.

TURBIDITY: Maximum recorded 990 NTU, August 20, 25, 2005; minimum recorded 1.0 NTU, September 20, 21, 2005 ( $\pm 2.0$  NTU), but may have been lower during periods of missing record. Maximum turbidity may be  $\geq 1,000$  NTU, but exceeds the range of the instrument deployed.
 TEMPERATURE, WATER, DEGREES CELSIUS  
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	29.1	23.4	26.0	22.8	20.9	21.7
2	---	---	---	---	---	---	27.1	24.5	25.9	23.3	19.8	21.4
3	---	---	---	---	---	---	29.5	24.8	26.8	24.0	20.1	22.0
4	---	---	---	---	---	---	30.3	25.6	27.5	24.1	20.8	22.5
5	---	---	---	---	---	---	26.5	24.0	24.9	24.2	20.7	22.4
6	---	---	---	---	---	---	27.2	21.7	24.4	24.2	20.6	22.4
7	---	---	---	---	---	---	27.5	22.4	25.0	24.4	20.8	22.6
8	---	---	---	---	---	---	26.4	22.7	24.1	24.0	21.2	22.6
9	---	---	---	---	---	---	26.5	22.0	24.2	24.6	21.0	22.8
10	---	---	---	---	---	---	28.4	23.7	26.1	24.6	21.3	23.0
11	---	---	---	---	---	---	29.3	24.9	26.9	24.5	21.1	22.9
12	---	---	---	---	---	---	27.2	24.1	25.8	24.5	21.6	23.0
13	---	---	---	28.2	---	---	24.6	22.7	23.6	23.4	21.5	22.3
14	---	---	---	28.6	23.3	25.9	22.7	20.7	21.4	23.1	20.5	21.7
15	---	---	---	29.3	24.1	26.5	21.6	20.4	21.0	20.5	17.7	18.4
16	---	---	---	29.2	24.6	26.8	24.6	20.8	22.5	19.4	16.3	17.9
17	---	---	---	27.0	21.5	25.1	24.9	21.5	23.2	19.9	16.1	18.0
18	---	---	---	28.1	23.8	25.7	26.8	22.6	24.8	21.9	18.4	19.9
19	---	---	---	25.8	23.0	24.3	26.3	23.1	24.5	23.9	20.6	22.0
20	---	---	---	30.2	23.9	26.6	23.5	22.5	22.9	23.9	21.2	22.6
21	---	---	---	29.6	25.9	27.7	23.5	21.5	22.5	23.9	19.6	21.9
22	---	---	---	30.7	25.9	28.2	24.8	21.6	22.9	24.1	21.3	22.9
23	---	---	---	31.5	26.1	28.6	22.5	20.9	21.5	22.9	20.2	20.9
24	---	---	---	31.5	26.5	28.8	22.2	20.2	21.2	23.2	20.3	21.6
25	---	---	---	31.6	26.7	28.9	22.5	21.8	22.1	23.9	21.1	22.5
26	---	---	---	28.7	22.3	26.3	23.6	21.2	22.4	22.7	19.5	21.3
27	---	---	---	25.1	20.2	22.6	24.0	20.8	22.3	20.3	17.3	18.9
28	---	---	---	24.9	19.4	22.3	24.1	21.1	22.5	18.8	16.2	17.9
29	---	---	---	26.1	20.6	23.2	23.6	20.5	22.1	16.2	13.5	15.0
30	---	---	---	27.7	22.2	24.8	23.6	20.3	21.9	16.9	12.8	14.8
31	---	---	---	28.0	23.0	25.4	24.0	20.4	22.2	---	---	---
MONTH	---	---	---	31.6	19.4	26.0	30.3	20.2	23.7	24.6	12.8	21.0

06893970 SPRING BRANCH CREEK AT HOLKE ROAD IN INDEPENDENCE, MO—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	8.0	7.8	7.9	8.0	8.0	8.0			
2	---	---	---	---	---	---	7.9	7.7	7.8	8.1	7.9	8.0			
3	---	---	---	---	---	---	7.9	7.7	7.8	8.1	7.9	8.0			
4	---	---	---	---	---	---	8.1	7.8	7.9	8.1	7.9	8.0			
5	---	---	---	---	---	---	8.1	7.8	7.9	8.0	7.8	7.9			
6	---	---	---	---	---	---	8.1	7.8	8.0	8.0	7.8	7.9			
7	---	---	---	---	---	---	8.0	7.8	7.9	8.0	7.9	7.9			
8	---	---	---	---	---	---	8.8	7.8	8.2	8.0	7.8	7.9			
9	---	---	---	---	---	---	8.6	7.8	8.2	8.1	7.9	8.0			
10	---	---	---	---	---	---	7.8	7.7	7.7	8.1	7.8	7.9			
11	---	---	---	---	---	---	7.9	7.6	7.7	8.1	7.8	7.9			
12	---	---	---	---	---	---	8.0	7.7	7.8	8.2	7.8	7.9			
13	---	---	---	8.0	---	---	8.1	7.6	7.8	8.0	7.7	7.9			
14	---	---	---	8.0	7.8	7.9	8.0	7.8	7.9	7.7	7.5	7.5			
15	---	---	---	8.0	7.8	7.9	8.0	7.9	8.0	7.6	7.5	7.5			
16	---	---	---	8.0	7.7	7.9	8.0	8.0	8.0	7.6	7.5	7.6			
17	---	---	---	8.5	7.7	8.0	8.0	7.9	8.0	7.8	7.6	7.7			
18	---	---	---	8.0	7.7	7.8	8.0	7.6	7.8	7.8	7.6	7.7			
19	---	---	---	8.0	7.8	7.9	7.9	7.6	7.8	7.8	7.7	7.8			
20	---	---	---	8.0	7.8	7.8	7.9	7.7	7.8	8.0	7.7	7.9			
21	---	---	---	7.9	7.7	7.8	8.0	7.9	7.9	7.8	7.6	7.7			
22	---	---	---	7.9	7.7	7.8	8.1	7.9	8.0	7.8	7.6	7.7			
23	---	---	---	8.0	7.7	7.8	8.0	8.0	8.0	7.7	7.3	7.5			
24	---	---	---	8.0	7.7	7.9	8.0	7.9	8.0	7.6	7.4	7.5			
25	---	---	---	8.0	7.8	7.9	8.0	7.7	7.8	7.7	7.6	7.6			
26	---	---	---	8.0	7.8	7.9	7.9	7.6	7.7	7.9	7.7	7.8			
27	---	---	---	7.9	7.8	7.8	7.9	7.7	7.8	7.7	7.7	7.7			
28	---	---	---	8.0	7.8	7.9	7.9	7.8	7.9	7.9	7.7	7.8			
29	---	---	---	7.9	7.6	7.8	8.0	7.9	8.0	7.9	7.8	7.8			
30	---	---	---	7.9	7.7	7.8	8.0	7.9	8.0	7.8	7.7	7.8			
31	---	---	---	8.0	7.7	7.8	8.0	8.0	8.0	---	---	---			
MONTH	---	---	---	8.5	7.6	7.9	8.8	7.6	7.9	8.2	7.3	7.8			

## 06893970 SPRING BRANCH CREEK AT HOLKE ROAD IN INDEPENDENCE, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	587	581	584	838	814	822
2	---	---	---	---	---	---	604	586	593	852	828	843
3	---	---	---	---	---	---	607	599	602	843	817	829
4	---	---	---	---	---	---	601	585	597	952	614	748
5	---	---	---	---	---	---	597	585	591	689	628	658
6	---	---	---	---	---	---	594	580	586	750	689	712
7	---	---	---	---	---	---	606	585	591	781	750	762
8	---	---	---	---	---	---	601	458	542	796	777	785
9	---	---	---	---	---	---	519	463	484	811	789	799
10	---	---	---	---	---	---	548	510	524	836	811	824
11	---	---	---	---	---	---	574	538	555	834	795	817
12	---	---	---	---	---	---	673	291	575	919	792	837
13	---	---	---	---	723	---	439	201	285	945	414	869
14	---	---	---	809	740	762	445	296	366	654	357	575
15	---	---	---	829	793	811	584	445	520	647	329	454
16	---	---	---	805	781	793	663	584	627	507	384	442
17	---	---	---	792	486	641	706	663	689	607	507	556
18	---	---	---	874	618	711	707	172	328	712	607	647
19	---	---	---	891	796	851	463	171	355	732	687	717
20	---	---	---	860	813	828	658	141	435	777	687	749
21	---	---	---	817	792	804	762	658	725	762	749	755
22	---	---	---	792	762	773	807	685	746	757	738	748
23	---	---	---	773	753	764	802	697	760	742	306	426
24	---	---	---	773	735	752	803	690	791	521	379	459
25	---	---	---	755	721	740	772	147	444	616	521	570
26	---	---	---	725	283	637	625	153	424	693	525	604
27	---	---	---	402	284	357	657	493	599	556	518	529
28	---	---	---	526	402	469	731	657	696	721	556	623
29	---	---	---	534	504	517	---	680	---	760	690	717
30	---	---	---	565	532	550	813	---	---	717	656	678
31	---	---	---	583	565	574	824	814	821	---	---	---
MONTH	---	---	---	891	283	685	824	141	567	952	306	685

06893970 SPRING BRANCH CREEK AT HOLKE ROAD IN INDEPENDENCE, MO—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	9.8	4.9	7.0	9.2	7.3	8.1
2	---	---	---	---	---	---	---	---	---	9.9	3.9	6.9	10.3	7.2	8.5
3	---	---	---	---	---	---	---	---	---	10.3	4.6	7.2	10.8	7.0	8.4
4	---	---	---	---	---	---	---	---	---	11.1	4.6	7.9	8.6	7.0	7.6
5	---	---	---	---	---	---	---	---	---	10.1	4.6	7.3	9.0	6.7	7.6
6	---	---	---	---	---	---	---	---	---	12.1	4.3	7.7	9.9	6.6	7.9
7	---	---	---	---	---	---	---	---	---	11.3	4.5	7.2	11.4	6.5	8.3
8	---	---	---	---	---	---	---	---	---	9.0	4.3	6.2	11.6	6.4	8.3
9	---	---	---	---	---	---	---	---	---	6.5	1.1	4.6	12.8	6.1	8.7
10	---	---	---	---	---	---	---	---	---	6.0	1.5	3.3	13.0	5.6	8.6
11	---	---	---	---	---	---	---	---	---	7.4	1.1	3.7	14.3	5.5	8.8
12	---	---	---	---	---	---	---	---	---	6.8	2.0	4.8	14.5	5.1	8.0
13	---	---	---	10.9	---	---	---	---	---	8.0	0.0	5.4	11.3	5.3	7.1
14	---	---	---	11.7	5.3	7.6	---	---	---	8.6	7.8	8.3	8.5	2.5	5.2
15	---	---	---	12.2	4.7	7.7	---	---	---	8.4	7.8	8.1	7.8	2.7	6.5
16	---	---	---	13.0	4.1	7.7	---	---	---	8.0	3.6	5.8	9.1	2.2	6.5
17	---	---	---	9.0	3.8	6.6	---	---	---	8.4	4.5	6.4	10.3	3.3	6.6
18	---	---	---	---	5.0	---	---	---	---	7.5	6.2	6.8	10.0	---	---
19	---	---	---	---	---	---	---	---	---	7.6	6.3	6.9	---	---	---
20	---	---	---	10.6	---	---	---	---	---	7.5	7.2	7.4	10.6	---	---
21	---	---	---	10.6	3.9	6.4	---	---	---	7.7	7.2	7.4	10.7	5.4	7.5
22	---	---	---	11.1	3.1	6.6	---	---	---	7.7	7.2	7.4	10.3	4.9	6.9
23	---	---	---	11.8	3.6	6.9	---	---	---	7.6	7.3	7.5	---	5.0	---
24	---	---	---	11.2	3.4	7.1	---	---	---	7.8	7.5	7.7	---	---	---
25	---	---	---	10.8	3.9	7.3	---	---	---	7.9	7.5	7.7	---	---	---
26	---	---	---	8.6	4.3	6.9	---	---	---	8.0	2.8	6.2	8.1	---	---
27	---	---	---	8.7	6.9	8.1	---	---	---	---	6.1	---	8.8	7.4	7.9
28	---	---	---	9.6	6.8	8.1	---	---	---	---	---	---	8.7	7.5	8.1
29	---	---	---	8.3	4.4	7.2	---	---	---	---	---	---	9.9	8.5	9.1
30	---	---	---	8.6	5.1	6.4	---	---	---	8.3	---	---	10.2	8.3	9.2
31	---	---	---	8.7	4.9	6.7	---	---	---	8.8	7.3	8.0	---	---	---
MONTH	---	---	---	13.0	3.1	7.2	---	---	---	12.1	0.0	6.7	14.5	2.2	7.8

## BLUE RIVER BASIN

06893970 SPRING BRANCH CREEK AT HOLKE ROAD IN INDEPENDENCE, MO—Continued

TURBIDITY, WATER, UNFILTERED, FIELD, NEPHELOMETRIC TURBIDITY UNITS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	29	8.0	16	140	5.0	10
2	---	---	---	---	---	---	44	10	17	7.0	3.0	4.7
3	---	---	---	---	---	---	44	8.0	15	40	3.0	6.5
4	---	---	---	---	---	---	50	7.0	16	100	6.0	44
5	---	---	---	---	---	---	25	9.0	14	63	9.0	20
6	---	---	---	---	---	---	22	7.0	13	15	5.0	9.0
7	---	---	---	---	---	---	29	11	15	11	5.0	6.8
8	---	---	---	---	---	---	460	11	95	20	4.0	7.6
9	---	---	---	---	---	---	130	24	67	17	3.0	6.0
10	---	---	---	---	---	---	77	24	42	12	3.0	5.8
11	---	---	---	---	---	---	48	15	28	17	3.0	5.7
12	---	---	---	---	---	---	600	19	92	11	3.0	5.2
13	---	---	---	---	11	---	930	82	250	760	4.0	54
14	---	---	---	25	7.9	16	750	21	89	140	17	41
15	---	---	---	22	7.9	13	23	9.0	16	610	18	140
16	---	---	---	22	7.8	15	180	8.0	18	200	97	120
17	---	---	---	660	12	96	14	5.0	8.2	390	73	140
18	---	---	---	45	12	26	950	7.0	210	660	71	150
19	---	---	---	33	9.5	15	620	27	140	---	---	---
20	---	---	---	53	10	18	990	21	160	---	1.0	---
21	---	---	---	24	11	18	21	7.0	13	31	1.0	5.0
22	---	---	---	34	10	19	87	8.0	30	11	2.0	4.6
23	---	---	---	31	9.2	16	58	6.0	21	900	6.0	320
24	---	---	---	66	8.2	16	900	6.0	38	140	95	110
25	---	---	---	73	10	18	990	44	180	230	24	59
26	---	---	---	880	9.1	110	---	---	---	250	21	55
27	---	---	---	120	30	54	---	---	---	50	7.0	14
28	---	---	---	220	24	89	---	---	---	46	9.0	17
29	---	---	---	75	21	44	---	---	---	25	6.0	12
30	---	---	---	55	11	24	---	5.0	---	160	4.0	13
31	---	---	---	47	8.0	18	27	4.0	7.3	---	---	---
MONTH	---	---	---	880	7.8	35	990	4.0	62	900	1.0	49

06894000 LITTLE BLUE RIVER NEAR LAKE CITY, MO

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

DRAINAGE AREA.--184 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

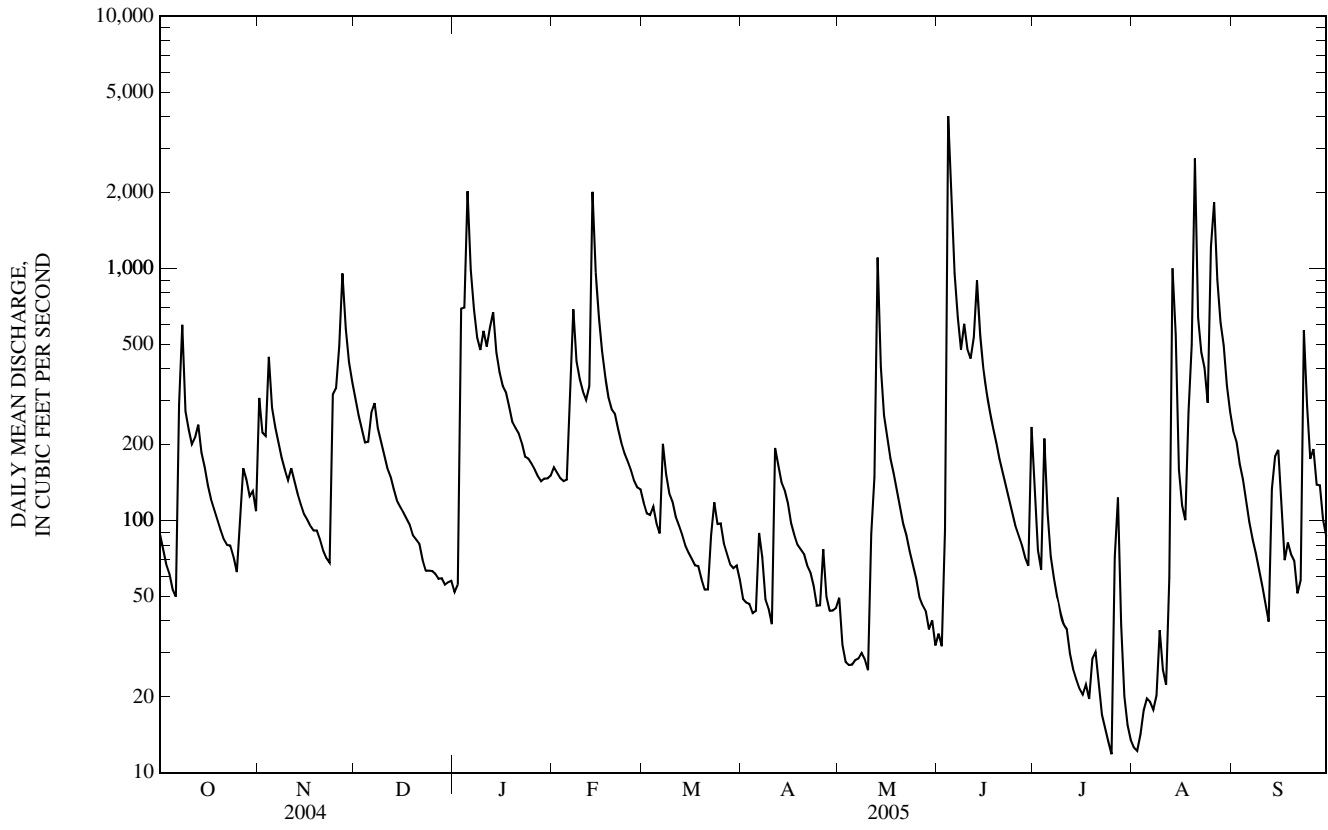
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	307	307	52	163	118	49	49	36	138	13	226
2	77	223	262	56	155	107	47	32	32	76	12	206
3	67	217	231	692	147	105	47	27	92	64	14	168
4	61	446	204	699	143	113	43	27	4,020	211	18	146
5	53	280	205	2,020	145	97	44	27	2,240	108	20	120
6	50	235	268	988	311	89	89	28	957	72	19	99
7	289	204	292	690	689	202	71	28	640	59	18	84
8	597	178	233	532	428	153	49	30	476	50	20	74
9	271	159	206	475	365	128	45	28	603	43	37	64
10	230	145	183	565	326	119	39	25	479	39	26	55
11	201	161	161	490	301	104	194	88	439	37	22	47
12	213	144	150	583	341	96	167	149	533	30	59	40
13	240	128	133	671	2,010	88	142	1,100	896	26	1,000	133
14	186	116	120	465	966	79	132	408	548	23	547	180
15	163	106	113	388	642	75	117	261	398	22	159	191
16	138	101	108	342	468	70	98	215	323	20	115	120
17	121	95	102	323	371	66	88	176	272	22	100	70
18	110	91	96	283	307	66	80	154	234	20	270	82
19	101	91	87	246	276	59	77	130	205	28	497	73
20	92	84	84	233	265	53	74	112	176	30	2,730	69
21	84	76	81	222	231	53	66	97	155	23	638	51
22	80	71	70	202	204	87	62	87	137	17	464	58
23	80	68	63	179	185	118	55	76	121	15	404	568
24	72	316	63	176	172	97	46	66	108	13	293	286
25	62	335	63	168	159	98	46	59	95	12	1,210	176
26	102	492	61	159	144	81	77	50	88	71	1,830	192
27	161	955	59	150	135	74	50	46	80	123	903	139
28	145	576	59	143	133	67	44	44	71	39	612	138
29	125	425	56	147	---	65	44	37	66	20	494	101
30	131	356	57	147	---	66	45	40	235	15	343	86
31	109	---	58	151	---	58	---	32	---	13	270	---
MEAN	145	239	137	408	364	92.0	74.2	120	492	47.7	424	135
MAX	597	955	307	2,020	2,010	202	194	1,100	4,020	211	2,730	568
MIN	50	68	56	52	133	53	39	25	32	12	12	40
IN.	0.91	1.45	0.86	2.55	2.06	0.58	0.45	0.75	2.98	0.30	2.66	0.82

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 2005, BY WATER YEAR (WY)

MEAN	130	108	88.9	90.9	133	193	242	280	272	145	102	157
MAX	983	854	495	408	576	1,153	1,069	1,534	1,216	1,103	1,455	1,018
(WY)	(1987)	(1962)	(1993)	(2005)	(1985)	(1973)	(1983)	(1995)	(1967)	(1993)	(1982)	(1961)
MIN	0.13	0.49	1.36	1.36	3.09	4.15	11.3	27.9	10.3	0.26	0.02	0.20
(WY)	(1954)	(1957)	(1956)	(1957)	(1957)	(1956)	(1954)	(1988)	(1953)	(1954)	(1953)	(1953)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1948 - 2005
ANNUAL MEAN	273	222	162
HIGHEST ANNUAL MEAN			440
LOWEST ANNUAL MEAN			11.5
HIGHEST DAILY MEAN	6,590	4,020	27,700
LOWEST DAILY MEAN	22	12	0.00
ANNUAL SEVEN-DAY MINIMUM	26	15	0.00
MAXIMUM PEAK FLOW	---	5,840	42,300
MAXIMUM PEAK STAGE	---	16.49	27.94
INSTANTANEOUS LOW FLOW	---	9.6	0.00
ANNUAL RUNOFF (INCHES)	20.21	16.37	11.98
10 PERCENT EXCEEDS	463	493	320
50 PERCENT EXCEEDS	130	115	49
90 PERCENT EXCEEDS	43	32	7.9





06894000 LITTLE BLUE RIVER NEAR LAKE CITY, MO—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 2005 to current year.  
 pH: July 2005 to current year.  
 WATER TEMPERATURE: July 2005 to current year.  
 DISSOLVED OXYGEN: July 2005 to current year.  
 TURBIDITY: July 2005 to current year.

INSTRUMENTATION.--Water-quality monitor operated since July 2005. U.S.G.S. satellite telemeter at station.

REMARKS.-- Interruptions in the record are generally due to malfunction or fouling of the sensors. Detailed records of the procedures employed for specific periods of record have been included with the station analysis and are kept on file. The manufacturers' specified range for turbidity sensors used is 0 to 1,000 NTU. All values beyond this limit are considered erroneous and deleted. Values  $\geq 1,000$  NTU are possible, but cannot be quantified. Specific Conductance records are rated excellent or good, except for the following periods: August 19-23, rated fair, August 24-September 7, rated poor. pH records are rated excellent except for the following periods: August 27-September 7, rated good. Water temperature records are rated excellent. Dissolved oxygen records were deleted or missing for all or part of the following periods: August 13-September 7. The remainder of the dissolved oxygen record is rated excellent or good, except for the following periods: August 3-6, rated fair; August 7-8, rated poor. Turbidity records were deleted or missing for all or part of the following periods: August 7. The remainder of the turbidity record is rated excellent or good, except for the following periods: July 21-22, August 3-9, 19, September 13-14, rated poor.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 478 microsiemens, July 19, 2005; minimum recorded 174 microsiemens, August 13, 2005.  
 pH: Maximum recorded 8.5 standard units, August 3 and 4, 2005; minimum recorded 7.4 standard units, September 14 and 15, 2005.  
 WATER TEMPERATURE: Maximum recorded 32.7 °C, July 23, 2005; minimum recorded 17.2 °C, September 30, 2005.  
 DISSOLVED OXYGEN: Maximum recorded 12 mg/L, July 24, 2005, but may have been higher during periods of missing record; minimum recorded 3.9 mg/L, July 26, 2005, but may have been lower during periods of missing record.  
 TURBIDITY: Maximum recorded 980 NTU, August 13, 2005; minimum recorded 8.0 NTU ( $\pm 2.0$  NTU), September 9-13, 2005, but may have been lower during periods of missing record. Maximum turbidity may be  $\geq 1,000$  NTU, but exceeds the range of the instrument deployed.

TEMPERATURE, WATER, DEGREES CELSIUS  
 WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	29.4	27.1	27.9	26.3	25.1	25.7
2	---	---	---	---	---	---	29.1	27.9	28.4	26.1	24.1	25.0
3	---	---	---	---	---	---	29.8	27.9	28.5	26.5	24.5	25.5
4	---	---	---	---	---	---	29.6	28.6	29.1	26.8	25.0	26.0
5	---	---	---	---	---	---	29.4	27.3	28.0	26.9	25.2	26.1
6	---	---	---	---	---	---	27.9	26.3	26.9	26.6	24.9	25.9
7	---	---	---	---	---	---	28.4	26.3	27.1	26.6	24.9	25.8
8	---	---	---	---	---	---	28.9	27.1	27.9	26.3	25.5	26.0
9	---	---	---	---	---	---	29.4	27.3	28.1	26.8	25.4	26.0
10	---	---	---	---	---	---	29.8	28.0	28.7	27.0	25.7	26.2
11	---	---	---	---	---	---	30.1	28.7	29.3	27.1	25.5	26.2
12	---	---	---	---	---	---	29.9	27.9	29.0	26.7	25.5	26.1
13	---	---	---	30.0	---	---	27.9	24.0	25.1	26.1	23.1	24.9
14	---	---	---	30.3	28.1	29.1	24.0	22.7	23.1	23.5	22.6	23.1
15	---	---	---	30.8	28.6	29.5	22.7	22.1	22.3	22.8	18.9	20.8
16	---	---	---	31.6	29.3	30.2	24.4	22.1	23.0	20.3	18.3	19.2
17	---	---	---	31.4	29.5	30.5	25.7	23.9	24.6	21.1	19.4	20.1
18	---	---	---	31.1	29.1	29.9	27.0	23.9	25.4	22.3	20.6	21.3
19	---	---	---	30.0	27.8	28.6	27.0	24.4	25.9	24.1	22.3	23.0
20	---	---	---	30.3	27.4	28.5	25.0	23.4	24.1	25.3	23.5	24.1
21	---	---	---	30.4	28.6	29.5	26.1	25.0	25.5	25.8	23.9	24.7
22	---	---	---	31.6	29.2	30.1	26.7	25.4	26.0	26.3	24.4	25.2
23	---	---	---	32.7	29.8	31.0	26.1	24.3	25.1	25.8	21.1	22.6
24	---	---	---	32.3	30.5	31.3	24.9	23.9	24.4	23.2	21.3	22.1
25	---	---	---	32.1	30.5	31.3	24.7	22.5	23.3	24.8	22.7	23.6
26	---	---	---	31.6	26.3	29.7	24.0	22.5	23.5	24.6	22.5	23.5
27	---	---	---	26.3	23.5	24.4	25.9	24.0	24.9	22.6	21.1	21.9
28	---	---	---	26.5	23.7	24.8	26.8	25.0	25.8	22.2	19.8	21.0
29	---	---	---	27.0	24.2	25.3	26.7	24.5	25.6	19.8	18.0	18.7
30	---	---	---	28.5	25.4	26.5	26.4	24.2	25.3	18.8	17.2	18.1
31	---	---	---	28.6	26.5	27.5	26.5	24.5	25.5	---	---	---
MONTH	---	---	---	32.7	23.5	28.8	30.1	22.1	26.0	27.1	17.2	23.6

## BLUE RIVER BASIN

06894000 LITTLE BLUE RIVER NEAR LAKE CITY, MO—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	8.2	7.7	7.9	7.9	7.8	7.8			
2	---	---	---	---	---	---	8.4	7.9	8.1	7.8	7.8	7.8			
3	---	---	---	---	---	---	8.5	8.0	8.2	7.8	7.8	7.8			
4	---	---	---	---	---	---	8.5	8.1	8.2	7.8	7.8	7.8			
5	---	---	---	---	---	---	8.3	7.9	8.1	7.8	7.8	7.8			
6	---	---	---	---	---	---	8.1	7.9	8.0	7.8	7.8	7.8			
7	---	---	---	---	---	---	8.2	7.8	8.0	7.9	7.8	7.8			
8	---	---	---	---	---	---	8.2	8.0	8.1	7.8	7.7	7.8			
9	---	---	---	---	---	---	8.1	7.8	7.9	7.8	7.8	7.8			
10	---	---	---	---	---	---	8.2	7.8	7.9	7.9	7.8	7.8			
11	---	---	---	---	---	---	8.2	7.8	8.0	7.9	7.8	7.8			
12	---	---	---	---	---	---	8.2	7.8	7.9	7.9	7.8	7.8			
13	---	---	---	---	---	---	7.9	7.5	7.7	7.9	7.6	7.8			
14	---	---	---	8.2	7.9	8.1	7.7	7.5	7.6	7.6	7.4	7.5			
15	---	---	---	8.2	7.9	8.1	7.7	7.6	7.7	7.6	7.4	7.5			
16	---	---	---	8.3	8.0	8.1	7.8	7.7	7.7	7.7	7.6	7.6			
17	---	---	---	8.2	7.9	8.1	7.8	7.7	7.7	7.8	7.6	7.7			
18	---	---	---	8.2	7.9	8.0	7.8	7.5	7.7	7.8	7.7	7.7			
19	---	---	---	8.2	7.9	8.0	7.7	7.6	7.6	7.8	7.7	7.7			
20	---	---	---	8.1	7.8	7.9	7.7	7.5	7.6	7.7	7.7	7.7			
21	---	---	---	8.0	7.8	7.9	7.7	7.6	7.6	7.8	7.7	7.8			
22	---	---	---	8.1	7.8	7.9	7.7	7.6	7.7	7.9	7.8	7.8			
23	---	---	---	8.3	7.8	8.0	7.8	7.7	7.7	7.9	7.6	7.7			
24	---	---	---	8.4	7.9	8.1	7.8	7.7	7.7	7.7	7.6	7.6			
25	---	---	---	8.2	7.9	8.1	7.8	7.5	7.6	7.8	7.7	7.7			
26	---	---	---	8.1	7.8	7.9	7.7	7.5	7.6	7.8	7.8	7.8			
27	---	---	---	7.8	7.5	7.6	7.8	7.6	7.8	7.8	7.7	7.8			
28	---	---	---	7.6	7.5	7.5	7.9	7.8	7.9	7.8	7.8	7.8			
29	---	---	---	7.7	7.5	7.6	7.9	7.8	7.8	7.9	7.8	7.8			
30	---	---	---	7.8	7.6	7.6	7.8	7.8	7.8	7.9	7.8	7.9			
31	---	---	---	7.9	7.6	7.7	7.8	7.8	7.8	---	---	---			
MONTH	---	---	---	8.4	7.5	7.9	8.5	7.5	7.8	7.9	7.4	7.8			

06894000 LITTLE BLUE RIVER NEAR LAKE CITY, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	420	404	413	375	365	368
2	---	---	---	---	---	---	433	420	429	384	375	380
3	---	---	---	---	---	---	453	432	442	399	377	387
4	---	---	---	---	---	---	475	448	463	401	386	393
5	---	---	---	---	---	---	476	468	473	401	384	390
6	---	---	---	---	---	---	473	462	468	395	383	388
7	---	---	---	---	---	---	467	452	461	398	390	393
8	---	---	---	---	---	---	456	442	447	403	398	400
9	---	---	---	---	---	---	445	436	440	411	403	407
10	---	---	---	---	---	---	440	433	437	415	411	413
11	---	---	---	---	---	---	435	416	425	424	415	419
12	---	---	---	---	---	---	431	417	424	432	421	424
13	---	---	---	---	---	---	437	174	290	437	270	418
14	---	---	---	447	444	445	289	193	244	323	256	282
15	---	---	---	447	445	446	329	289	307	378	280	333
16	---	---	---	451	447	450	345	321	332	380	308	359
17	---	---	---	454	450	452	366	345	355	436	380	415
18	---	---	---	473	452	456	367	259	314	458	419	435
19	---	---	---	478	449	465	352	258	308	451	434	443
20	---	---	---	458	450	454	311	205	256	459	436	446
21	---	---	---	464	458	460	338	311	330	462	436	448
22	---	---	---	471	463	466	341	334	337	459	452	454
23	---	---	---	474	464	471	336	319	328	458	241	352
24	---	---	---	464	449	457	346	327	340	364	281	323
25	---	---	---	452	443	447	349	253	304	414	364	393
26	---	---	---	466	440	449	337	266	306	435	414	420
27	---	---	---	455	271	333	351	313	343	435	388	400
28	---	---	---	327	263	280	346	315	341	409	406	407
29	---	---	---	383	327	356	354	291	332	423	406	416
30	---	---	---	397	383	392	363	293	345	428	423	426
31	---	---	---	404	396	399	367	349	361	---	---	---
MONTH	---	---	---	478	263	427	476	174	368	462	241	398

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	9.6	5.6	7.2	---	---	---
2	---	---	---	---	---	---	9.9	5.9	7.7	---	---	---
3	---	---	---	---	---	---	10.8	6.1	8.3	---	---	---
4	---	---	---	---	---	---	10.4	6.0	7.7	---	---	---
5	---	---	---	---	---	---	8.5	5.3	6.8	---	---	---
6	---	---	---	---	---	---	8.2	5.6	6.8	---	---	---
7	---	---	---	---	---	---	8.2	5.3	6.6	---	---	---
8	---	---	---	---	---	---	7.4	4.7	6.2	7.5	6.9	7.2
9	---	---	---	---	---	---	7.0	4.6	5.9	7.6	7.0	7.2
10	---	---	---	---	---	---	7.4	4.4	5.7	7.8	7.0	7.3
11	---	---	---	---	---	---	8.3	4.8	6.3	7.8	7.1	7.4
12	---	---	---	---	---	---	7.8	4.2	5.7	7.9	7.1	7.4
13	---	---	---	9.5	---	---	---	---	---	8.2	7.0	7.3
14	---	---	---	9.4	6.4	7.7	---	---	---	7.1	6.3	6.7
15	---	---	---	9.7	6.4	7.8	---	---	---	8.2	6.3	7.4
16	---	---	---	10.3	6.3	8.0	---	---	---	8.6	8.2	8.4
17	---	---	---	9.9	6.0	7.9	---	---	---	8.6	8.1	8.3
18	---	---	---	9.9	6.1	7.6	---	---	---	8.4	8.0	8.2
19	---	---	---	9.5	6.1	7.5	---	---	---	8.2	7.5	7.8
20	---	---	---	9.6	6.3	7.7	---	---	---	8.0	7.3	7.6
21	---	---	---	8.8	6.7	7.6	---	---	---	---	---	---
22	---	---	---	9.1	6.0	7.4	---	---	---	8.1	7.2	7.5
23	---	---	---	11.4	5.6	8.2	---	---	---	8.0	7.2	7.5
24	---	---	---	12.0	5.9	8.8	---	---	---	7.9	7.8	7.9
25	---	---	---	10.7	5.6	8.3	---	---	---	8.0	7.7	7.9
26	---	---	---	8.8	3.9	5.7	---	---	---	8.1	7.8	7.9
27	---	---	---	6.5	5.8	6.2	---	---	---	8.5	7.8	8.2
28	---	---	---	6.1	5.6	5.8	---	---	---	8.7	8.3	8.5
29	---	---	---	6.7	5.6	5.9	---	---	---	9.5	8.7	9.2
30	---	---	---	7.3	5.3	6.1	---	---	---	10.0	9.4	9.6
31	---	---	---	8.1	5.1	6.4	---	---	---	---	---	---
MONTH	---	---	---	12.0	3.9	7.3	10.8	4.2	6.7	10.0	6.3	7.8

## BLUE RIVER BASIN

06894000 LITTLE BLUE RIVER NEAR LAKE CITY, MO—Continued

TURBIDITY, WATER, UNFILTERED, FIELD, NEPHELOMETRIC TURBIDITY UNITS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	36	18	26	28	12	16
2	---	---	---	---	---	---	---	---	---	34	15	23	31	11	16
3	---	---	---	---	---	---	---	---	---	55	18	---	17	10	14
4	---	---	---	---	---	---	---	---	---	---	---	---	16	9.0	13
5	---	---	---	---	---	---	---	---	---	---	24	---	17	10	13
6	---	---	---	---	---	---	---	---	---	---	---	---	15	10	13
7	---	---	---	---	---	---	---	---	---	---	---	---	15	10	12
8	---	---	---	---	---	---	---	---	---	---	---	---	100	9.0	13
9	---	---	---	---	---	---	---	---	---	29	11	18	13	8.0	11
10	---	---	---	---	---	---	---	---	---	27	13	19	14	8.0	11
11	---	---	---	---	---	---	---	---	---	28	15	21	15	8.0	10
12	---	---	---	---	---	---	---	---	---	35	19	25	13	8.0	9.9
13	---	---	---	---	---	---	---	---	---	980	26	390	---	8.0	---
14	---	---	---	---	30	14	19	890	88	350	---	87	---	---	---
15	---	---	---	---	26	14	19	88	42	58	91	57	72	---	---
16	---	---	---	---	24	12	18	43	27	37	64	29	40	---	---
17	---	---	---	---	25	11	16	38	19	26	30	18	24	---	---
18	---	---	---	---	23	12	17	490	19	170	22	16	19	---	---
19	---	---	---	---	28	14	20	610	62	210	19	15	17	---	---
20	---	---	---	---	31	16	22	---	120	---	20	12	16	---	---
21	---	---	---	---	---	---	---	120	51	77	20	11	14	---	---
22	---	---	---	---	---	---	---	52	34	46	19	10	13	---	---
23	---	---	---	---	25	12	17	100	35	59	400	11	210	---	---
24	---	---	---	---	21	11	15	59	23	32	170	30	74	---	---
25	---	---	---	---	22	11	15	710	23	290	32	14	24	---	---
26	---	---	---	---	190	12	34	860	76	230	38	13	25	---	---
27	---	---	---	---	180	83	130	120	52	68	39	18	28	---	---
28	---	---	---	---	120	42	78	52	37	43	21	17	19	---	---
29	---	---	---	---	51	29	42	63	37	44	20	14	18	---	---
30	---	---	---	---	47	23	33	57	16	28	16	13	14	---	---
31	---	---	---	---	39	21	29	20	12	17	---	---	---	---	---
MONTH	---	---	---	---	190	11	33	980	11	96	400	8.0	28	---	---

## 06895500 MISSOURI RIVER AT WAVERLY, MO

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

DRAINAGE AREA.--485,900 mi<sup>2</sup>. The 3,959 mi<sup>2</sup> in Great Divide basin are not included.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43,600	27,200	26,200	26,400	28,300	33,200	35,700	41,900	e54,000	68,900	37,100	41,600
2	42,300	28,500	26,000	26,500	28,900	32,000	35,300	40,700	e60,000	65,700	36,300	39,900
3	41,000	28,400	25,600	26,700	28,100	30,000	35,200	39,800	58,700	62,000	35,400	38,700
4	39,900	31,000	25,100	34,300	27,500	28,600	35,200	39,400	86,600	57,300	35,000	37,400
5	39,000	31,200	24,800	44,200	27,400	27,600	35,600	39,200	140,000	56,700	35,100	36,500
6	38,600	28,800	25,100	48,300	27,800	27,000	e36,600	39,100	144,000	56,400	35,300	35,600
7	38,600	27,600	27,000	37,500	32,600	26,800	e36,500	38,200	123,000	51,100	34,900	34,900
8	44,700	26,600	27,800	29,700	39,400	27,100	e38,500	37,200	95,100	48,200	34,300	34,400
9	44,800	25,800	27,100	26,800	40,700	26,600	e39,000	37,400	88,700	46,300	34,400	34,100
10	40,500	25,000	27,000	26,000	40,200	25,600	e39,500	36,700	84,400	44,100	34,500	34,100
11	38,700	24,700	26,800	26,900	37,300	25,000	e41,500	36,400	83,400	42,400	34,300	34,200
12	38,500	24,800	26,400	27,500	33,400	24,600	e48,000	39,500	121,000	41,400	34,200	34,400
13	37,600	24,500	26,000	30,000	40,000	24,200	e55,000	49,100	157,000	40,400	36,700	34,000
14	35,600	24,300	25,600	31,500	63,800	24,100	e58,000	121,000	144,000	39,300	49,000	34,600
15	33,400	24,500	25,600	28,200	64,700	24,100	e55,000	134,000	107,000	38,600	47,600	34,900
16	31,200	24,400	25,700	26,100	62,000	24,100	47,200	106,000	91,200	38,300	50,800	37,400
17	29,300	23,900	25,500	25,400	65,500	23,700	44,600	87,500	82,200	37,800	43,900	39,400
18	28,400	23,600	25,200	25,400	56,300	23,300	42,200	74,800	78,300	36,800	38,900	39,200
19	27,700	23,400	24,900	25,700	48,500	23,000	40,900	66,700	77,900	36,800	38,500	37,900
20	27,200	23,400	24,100	25,500	43,900	22,600	40,400	e68,100	75,600	37,700	53,000	38,000
21	26,900	23,300	23,700	25,700	41,500	22,300	39,500	e62,200	72,900	38,700	68,800	38,400
22	26,400	23,100	24,000	26,800	40,000	22,500	44,900	e61,500	70,300	37,700	53,000	37,500
23	25,900	23,200	24,200	27,300	38,300	22,800	56,100	e59,900	66,800	37,400	44,000	38,200
24	25,400	24,600	24,000	27,600	37,000	23,400	58,500	e55,800	63,900	36,500	40,900	52,900
25	25,200	27,100	23,300	27,700	36,400	23,900	56,000	e53,000	62,600	35,900	40,000	67,200
26	25,100	28,200	22,800	27,900	35,700	25,800	51,000	e53,000	64,900	36,000	49,700	50,100
27	25,800	30,600	22,300	27,800	34,700	29,300	47,300	e52,500	62,700	35,800	62,500	42,300
28	27,100	33,000	22,400	26,300	34,000	33,300	45,100	e52,000	58,000	37,600	52,400	39,200
29	28,100	29,000	23,000	24,400	---	36,900	44,500	e51,000	57,700	47,300	50,400	37,200
30	27,300	26,900	24,300	23,600	---	37,200	43,300	e51,000	61,200	45,800	48,700	37,300
31	27,400	---	25,400	25,800	---	36,200	---	e52,100	---	39,500	44,100	---
MEAN	33,260	26,350	25,060	28,690	40,500	26,990	44,200	57,310	86,440	44,340	43,020	39,050
MAX	44,800	33,000	27,800	48,300	65,500	37,200	58,500	134,000	157,000	68,900	68,800	67,200
MIN	25,100	23,100	22,300	23,600	27,400	22,300	35,200	36,400	54,000	35,800	34,200	34,000
IN.	0.08	0.06	0.06	0.07	0.09	0.06	0.10	0.14	0.20	0.11	0.10	0.09

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2005, BY WATER YEAR (WY)

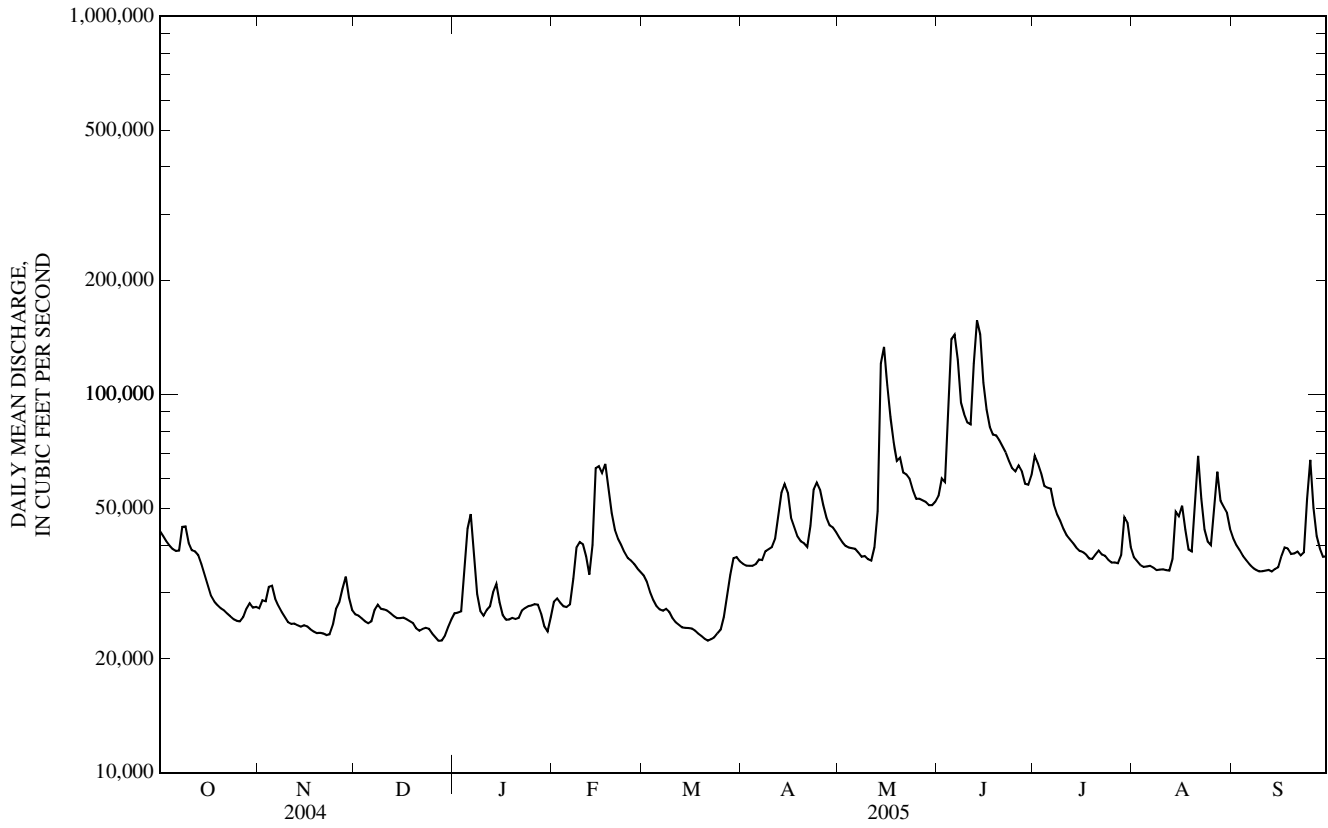
	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
	56,300	141,900	33,260	(1974)	52,260	116,200	21,620	(1999)	37,470	74,470	13,010	(1987)	30,250	65,720	14,770	(1973)
	39,470	79,780	16,830	(1973)	54,920	133,500	19,250	(1979)	39,470	79,780	16,830	(1973)	39,470	79,780	16,830	(1973)
	71,740	145,500	37,510	(1984)	75,030	168,400	39,350	(1995)	80,950	176,600	41,340	(1984)	80,950	176,600	41,340	(1984)
	80,950	176,600	41,340	(1988)	72,020	306,500	34,800	(1993)	56,510	155,700	33,030	(1993)	56,510	155,700	33,030	(1993)
	56,580	121,700	35,380	(1991)	56,580	121,700	35,380	(1991)	56,580	121,700	35,380	(1991)	56,580	121,700	35,380	(1991)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1958 - 2005 <sup>a</sup>
ANNUAL MEAN	42,250	41,190	57,060
HIGHEST ANNUAL MEAN			109,900
LOWEST ANNUAL MEAN			35,670
HIGHEST DAILY MEAN	122,000	May 26	157,000
LOWEST DAILY MEAN	19,000	Jan 12	22,300
ANNUAL SEVEN-DAY MINIMUM	20,100	Jan 10	22,800
MAXIMUM PEAK FLOW	---		163,000
MAXIMUM PEAK STAGE	---		23.55
INSTANTANEOUS LOW FLOW	---		22,000
ANNUAL RUNOFF (INCHES)	1.18		1.15
10 PERCENT EXCEEDS	72,100		63,100
50 PERCENT EXCEEDS	37,400		36,700
90 PERCENT EXCEEDS	23,100		24,500

e Estimated

<sup>a</sup> Post-regulation period.



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

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

DRAINAGE AREA.--82.4 mi<sup>2</sup>.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 09...	0950	Environmental	1.9	11.1	92	8.1	595	7.5	270	81.1	16.4	6.01
JAN 20...	1055	Environmental	1.7	13.0	90	7.9	632	.5	--	--	--	--
MAR 02...	0910	Environmental	80	16.3	117	8.3	558	.5	--	--	--	--
MAR 02...	0910	Blank	--	--	--	--	--	--	--	--	--	--
MAY 24...	1300	Environmental	12	7.9	98	7.9	461	24.0	210	60.4	14.1	5.57
JUL 07...	0920	Environmental	2.6	7.8	95	8.1	529	23.0	--	--	--	--
SEP 15...	1045	Environmental	.71	8.0	85	7.8	529	17.5	--	--	--	--

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 09...	24.2	211	212	259	<1	26.5	.3	57.9	366	<10	.42	E.03n	.24
JAN 20...	--	--	--	--	--	--	--	--	--	<10	.36	.07	.30
MAR 02...	--	--	--	--	--	--	--	--	--	32	.66	.23	1.08
MAR 02...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	<.06
MAY 24...	14.5	172	172	210	<1	14.9	.3	38.7	287	62	1.3	E.03n	1.16
JUL 07...	--	--	--	--	--	--	--	--	--	17	.39	<.04	<.06
SEP 15...	--	--	--	--	--	--	--	--	--	26	.37	<.04	<.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, col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 09...	E.007n	.02	E.04n	.09	250	300	E1n	226	.9	.05	.07	1.8	15
JAN 20...	E.005n	<.02	<.04	.04	6k	4k	--	--	--	--	--	--	--
MAR 02...	.012	E.01n	E.02n	.08	28k	32k	--	--	--	--	--	--	--
MAR 02...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
MAY 24...	.030	.08	.09	.18	770	870	10	676	1.8	E.03n	.06	1.9	<6
JUL 07...	<.008	.02	<.04	.07	420	560	--	--	--	--	--	--	--
SEP 15...	<.008	.05	.06	.12	140k	200	--	--	--	--	--	--	--

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 09...	<.08	.45	1,410	<.01	.6	1.3	3
JAN 20...	--	--	--	--	--	--	--
MAR 02...	--	--	--	--	--	--	--
MAY 24...	<.08	1.13	124	<.01	1.1	1.1	4
JUL 07...	--	--	--	--	--	--	--
SEP 15...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL



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

LOCATION.--Lat 40°28'53", long 94°19'06", in SE 1/4 NE 1/4 NW 1/4 sec.32, T.66 N., R.30 W., Worth County, Hydrologic Unit 10280101, in Allendale on Highway 46, approximately 1.6 mi west of the junction of Highway NN and State Highway 46.

DRAINAGE AREA.--211 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 09...	1335	Environmental	5.4	11.5	99	8.2	520	9.0	260	76.5	15.8	5.50
NOV 09...	1400	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16
JAN 20...	1525	Environmental	1.2	12.6	87	8.0	622	.5	--	--	--	--
MAR 02...	1245	Environmental	30	13.9	108	8.3	508	3.0	--	--	--	--
MAY 24...	1010	Environmental	52	8.0	92	7.9	398	20.0	190	53.7	12.5	5.01
JUL 07...	1225	Environmental	6.2	9.0	120	8.3	490	28.0	--	--	--	--
SEP 15...	1445	Environmental	1.2	9.1	96	7.7	438	18.5	--	--	--	--

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 09...	12.6	229	230	281	<1	8.63	.2	33.0	322	<10	.43	<.04	.09
NOV 09...	<.20	--	--	--	--	<.20	<.1	<.2	<10	<10	E.07n	<.04	<.06
JAN 20...	--	--	--	--	--	--	--	--	--	<10	.42	<.04	.26
MAR 02...	--	--	--	--	--	--	--	--	--	20	.48	.12	1.17
MAY 24...	9.59	159	163	199	<1	8.27	.3	27.0	247	93d	.89	<.04	1.76
JUL 07...	--	--	--	--	--	--	--	--	--	<10	.47	<.04	<.06
SEP 15...	--	--	--	--	--	--	--	--	--	12	.58	E.03n	E.06n

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 col/100 mL (31625)	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)	Iron, water, fltrd, μg/L (01046)
NOV 09...	<.008	.03	.04	.07	110k	64	E1n	147	1.3	E.02n	E.02n	1.9	9
NOV 09...	<.008	<.02	<.04	<.04	--	--	<2	<2	<.2	<.04	<.04	<.4	<6
JAN 20...	E.004n	<.02	<.04	<.04	13k	12k	--	--	--	--	--	--	--
MAR 02...	.008	<.02	<.04	.05	4k	4k	--	--	--	--	--	--	--
MAY 24...	.025	.05	.08	.21	900	1,200	4	1,220	1.9	<.04	.05	1.8	E5n
JUL 07...	<.008	E.01n	<.04	.06	67	140	--	--	--	--	--	--	--
SEP 15...	<.008	.05	.05	.10	670	680	--	--	--	--	--	--	--

06896320 EAST FORK GRAND RIVER AT ALLENDALE, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 09...	.10	.23	140	<.01	E.3n	8.2	E1n
09...	<.08	<.06	<.6	<.01	<.4	1.1	<2
JAN 20...	--	--	--	--	--	--	--
MAR 02...	--	--	--	--	--	--	--
MAY 24...	<.08	1.94	10.0	E.01n	1.0	E.6n	6
JUL 07...	--	--	--	--	--	--	--
SEP 15...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## 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

## 06897000 EAST FORK BIG CREEK NEAR BETHANY, MO

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

DRAINAGE AREA.--95 mi<sup>2</sup>, approximately.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

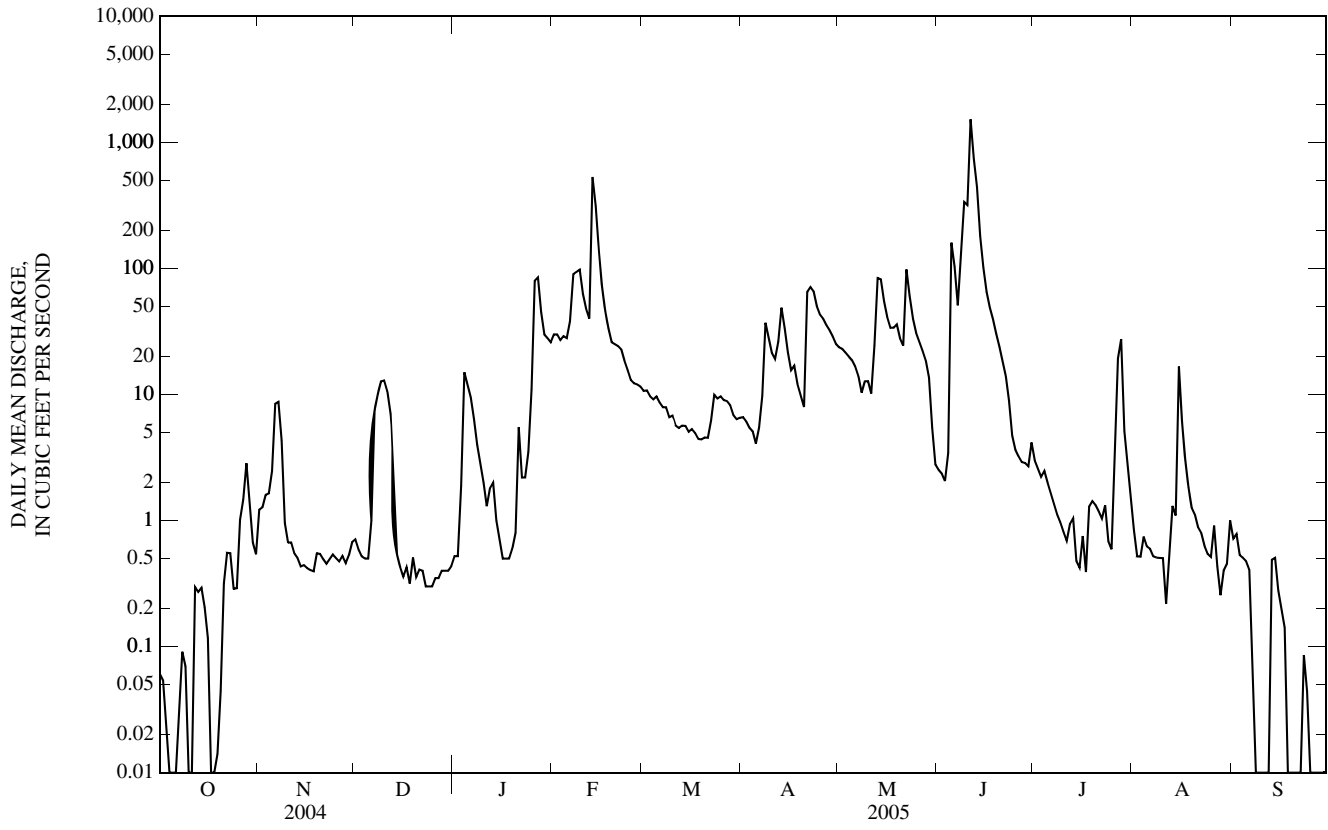
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.06	1.2	0.71	0.52	e30	11	6.6	24	2.5	3.0	0.83	0.72
2	0.05	1.3	0.59	0.52	e30	11	6.1	23	2.4	2.6	0.52	0.78
3	0.02	1.6	0.52	e1.9	e27	9.7	5.5	21	2.1	2.2	0.52	0.53
4	0.00	1.6	e0.50	e15	e29	9.1	5.1	20	3.4	2.5	0.74	0.51
5	0.00	2.5	e0.50	12	e28	9.6	4.1	19	160	2.0	0.62	0.48
6	0.00	8.4	e1.0	e9.5	e38	8.6	5.5	17	103	1.7	0.60	0.41
7	0.04	8.7	7.5	e6.4	e90	7.9	9.8	14	51	1.4	0.52	0.10
8	0.09	4.3	10	e4.0	e94	7.9	37	10	124	1.1	0.51	0.00
9	0.07	0.96	13	e2.8	e98	6.6	29	13	337	0.97	0.51	0.00
10	0.01	0.67	13	e2.0	e63	6.8	21	13	318	0.81	0.50	0.00
11	0.00	0.67	11	e1.3	e48	5.7	19	10	1,520	0.69	0.22	0.00
12	0.30	0.55	7.0	e1.8	e40	5.4	26	24	744	0.94	0.56	0.00
13	0.27	0.50	1.6	e2.0	e530	5.7	49	84	442	1.0	1.3	0.49
14	0.29	0.43	0.54	e1.0	313	5.6	34	82	180	0.48	1.1	0.51
15	0.20	0.44	0.43	e0.70	136	5.0	22	55	101	0.42	17	0.28
16	0.12	0.42	0.36	e0.50	71	5.3	16	41	65	0.75	6.0	0.20
17	0.00	0.40	0.43	e0.50	45	4.9	17	34	49	0.39	3.0	0.14
18	0.00	0.39	0.32	e0.50	33	4.4	12	34	40	1.3	1.8	0.00
19	0.01	0.55	0.51	e0.60	26	4.4	9.8	36	30	1.4	1.3	0.00
20	0.04	0.54	0.36	e0.80	25	4.6	8.0	28	24	1.3	1.1	0.00
21	0.32	0.49	0.41	e5.5	24	4.5	65	24	18	1.2	0.88	0.00
22	0.56	0.46	e0.40	e2.2	23	6.2	71	98	14	1.0	0.79	0.00
23	0.55	0.50	e0.30	e2.2	19	10	66	60	8.9	1.3	0.63	0.09
24	0.29	0.54	e0.30	e3.5	16	9.3	50	40	4.7	0.69	0.54	0.04
25	0.29	0.50	e0.30	e11	13	9.7	43	31	3.6	0.59	0.51	0.00
26	1.0	0.47	e0.35	e80	12	9.0	40	26	3.2	3.8	0.91	0.00
27	1.5	0.53	e0.35	e85	12	8.9	36	22	2.9	19	0.43	0.00
28	2.8	0.46	e0.40	e45	12	8.2	32	19	2.9	27	0.26	0.00
29	1.4	0.53	e0.40	e30	---	6.8	29	14	2.7	5.1	0.40	0.00
30	0.67	0.67	e0.40	e28	---	6.4	25	5.4	4.2	2.8	0.45	0.00
31	0.54	---	0.44	e26	---	6.5	---	2.8	---	1.6	1.0	---
MEAN	0.37	1.38	2.38	12.3	68.8	7.25	26.6	30.5	145	2.94	1.49	0.18
MAX	2.8	8.7	13	85	530	11	71	98	1,520	27	17	0.78
MIN	0.00	0.39	0.30	0.50	12	4.4	4.1	2.8	2.1	0.39	0.22	0.00
IN.	0.00	0.02	0.03	0.15	0.75	0.09	0.31	0.37	1.71	0.04	0.02	0.00

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

MEAN	25.2	26.1	14.7	23.3	63.7	82.4	77.9	79.8	111	31.1	16.9	30.8
MAX	140	313	78.1	240	349	341	305	332	932	284	109	425
(WY)	(1960)	(1962)	(1945)	(1946)	(1937)	(1960)	(1944)	(1945)	(1947)	(1969)	(2004)	(1961)
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
(WY)	(1938)	(1938)	(1938)	(1939)	(1938)	(1956)	(1956)	(1956)	(1956)	(1936)	(1936)	(1937)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	52.2	24.4	48.8
HIGHEST ANNUAL MEAN			111
LOWEST ANNUAL MEAN			2.27
HIGHEST DAILY MEAN	4,040	May 30	6,200
LOWEST DAILY MEAN	0.00	Several Days	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 20	0.00
MAXIMUM PEAK FLOW	---	1,850	8,120
MAXIMUM PEAK STAGE	---	9.05	17.65
INSTANTANEOUS LOW FLOW	---	0.00	0.00
ANNUAL RUNOFF (INCHES)	7.48	3.49	6.98
10 PERCENT EXCEEDS	102	44	87
50 PERCENT EXCEEDS	1.0	2.5	3.9
90 PERCENT EXCEEDS	0.08	0.18	0.00

e Estimated



## 06897500 GRAND RIVER NEAR GALLATIN, MO

LOCATION.--Lat 39°55'37", long 93°56'33", in SW ¼ NW ¼ sec.16, T.59 N., R.27 W., Daviess County, Hydrologic Unit 10280101, on left bank 100 ft upstream from bridge on State Highway 6, 50 ft downstream from Chicago, Rock Island and Pacific Railroad Company Bridge, 1.0 mi northeast of Gallatin, 6.0 mi upstream from Honey Creek, and at mile 90.0.

DRAINAGE AREA.--2,250 mi<sup>2</sup>.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127	212	117	131	e379	464	229	547	230	221	138	392
2	118	1,030	118	143	e420	407	231	496	229	232	117	239
3	113	714	115	146	e414	408	221	452	241	211	105	180
4	108	430	115	233	e382	398	214	422	261	192	96	144
5	100	385	116	243	e357	379	202	397	1,710	178	88	122
6	94	411	142	114	511	e359	193	374	5,030	164	83	107
7	96	325	190	170	2,320	345	190	359	2,440	154	76	96
8	101	271	193	185	2,180	333	643	343	1,210	150	73	89
9	97	231	171	177	1,180	301	1,420	332	832	137	71	84
10	100	200	153	168	763	284	797	315	3,180	129	70	79
11	89	178	145	168	607	274	766	352	3,080	121	68	74
12	103	160	138	190	680	264	8,140	2,220	4,640	115	68	69
13	162	146	123	443	13,100	253	4,610	7,020	7,430	111	90	68
14	213	136	96	504	16,600	244	2,390	10,300	3,830	106	88	70
15	150	132	82	e325	6,820	230	1,460	4,260	2,550	103	1,180	76
16	115	130	101	e268	3,440	221	1,030	2,090	1,650	100	565	81
17	98	130	93	e215	2,150	216	807	1,370	1,030	95	298	136
18	88	129	96	e193	1,540	213	678	997	730	97	206	133
19	81	131	88	e172	1,190	207	592	782	565	101	157	101
20	77	e131	72	e193	1,010	202	533	665	459	114	170	87
21	77	e136	75	e257	935	196	5,270	605	386	117	231	77
22	76	e136	e69	e445	861	205	15,800	525	336	111	135	70
23	75	133	e67	e280	760	235	4,250	449	301	124	107	e63
24	73	127	e65	e266	670	297	2,780	646	275	123	94	e57
25	74	122	e68	e283	598	307	1,670	498	255	99	90	e51
26	81	120	e71	e330	542	299	1,190	392	239	94	375	e47
27	113	119	e72	e512	522	287	941	332	224	98	1,680	e44
28	184	115	71	e742	498	267	785	298	213	615	424	42
29	157	113	e76	e519	---	257	679	277	206	346	457	40
30	183	116	e80	e400	---	246	604	256	208	258	579	40
31	189	---	105	e349	---	237	---	241	---	178	807	---
MEAN	113	228	106	283	2,194	285	1,977	1,246	1,466	161	283	98.6
MAX	213	1,030	193	742	16,600	464	15,800	10,300	7,430	615	1,680	392
MIN	73	113	65	114	357	196	190	241	206	94	68	40
MED	100	136	96	243	761	267	791	452	512	123	117	78
IN.	0.06	0.11	0.05	0.14	1.02	0.15	0.98	0.64	0.73	0.08	0.15	0.05

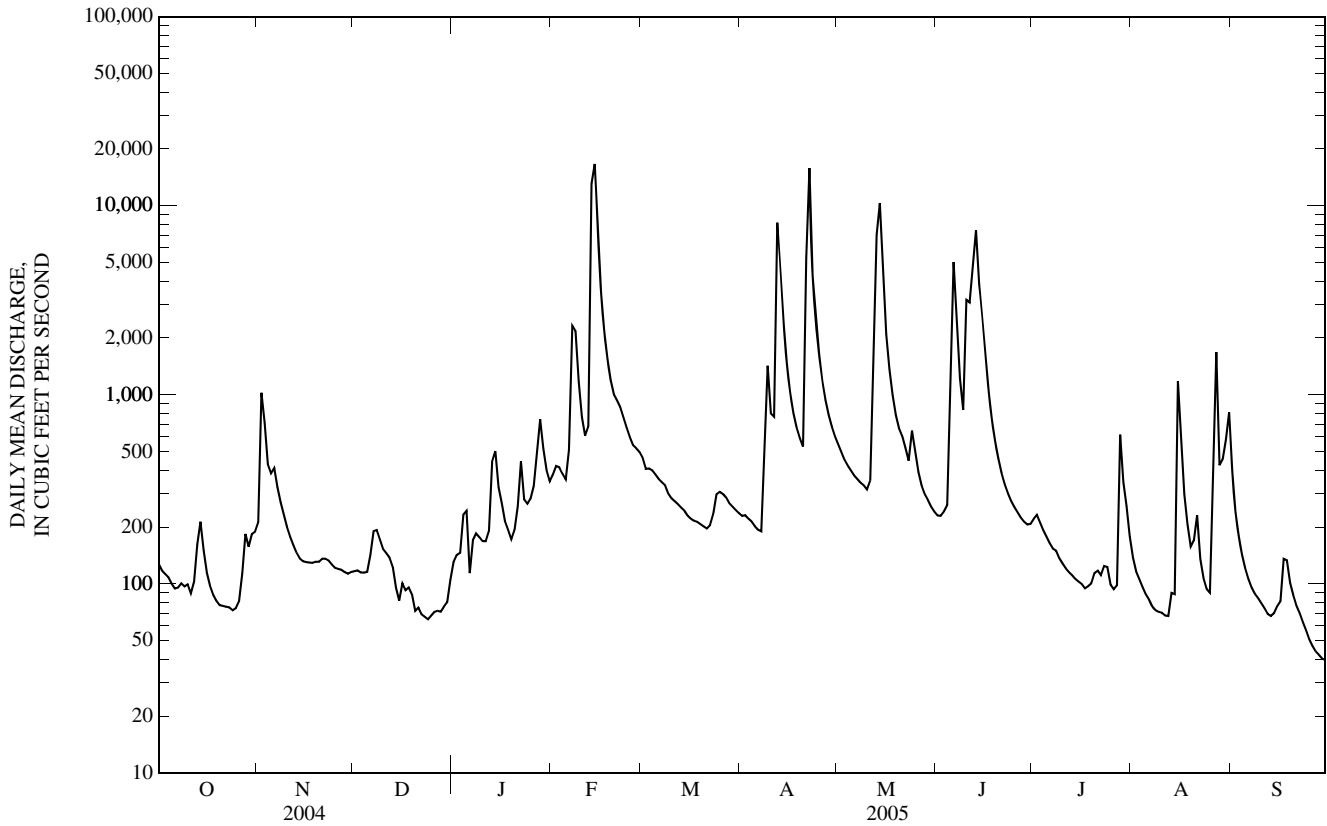
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2005, BY WATER YEAR (WY)

MEAN	793	829	509	469	994	1,692	1,954	2,029	2,349	1,574	525	1,017
MAX	8,965	8,613	5,463	4,212	6,196	8,760	7,906	14,820	22,670	33,930	4,136	11,610
(WY)	(1974)	(1929)	(1983)	(1932)	(1962)	(1979)	(1927)	(1995)	(1947)	(1993)	(1987)	(1926)
MIN	3.09	8.18	6.15	3.94	5.61	18.7	12.0	15.4	51.9	13.3	7.05	10.2
(WY)	(1957)	(1939)	(1939)	(1940)	(1939)	(1938)	(1956)	(1956)	(1988)	(1936)	(1936)	(1955)

06897500 GRAND RIVER NEAR GALLATIN, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1921 - 2005	
ANNUAL MEAN	1,263		689		1,226	
HIGHEST ANNUAL MEAN					5,740	1993
LOWEST ANNUAL MEAN					74.9	2003
HIGHEST DAILY MEAN	33,900	May 31	16,600	Feb 14	85,500	Jul 24, 1993
LOWEST DAILY MEAN	8.2	Feb 4,5	40	Sep 29,30	2.0	Aug 30, 1980
ANNUAL SEVEN-DAY MINIMUM	8.7	Feb 3	46	Sep 24	2.6	Oct 23, 1956
MAXIMUM PEAK FLOW	---		24,200	Apr 22	89,800	Jul 7, 1993
MAXIMUM PEAK STAGE	---		25.67	Apr 22	41.50	Jul 7, 1993
INSTANTANEOUS LOW FLOW	---		39	Sep 29,30	2.0	Aug 30, 1980
ANNUAL RUNOFF (INCHES)	7.64		4.15		7.41	
10 PERCENT EXCEEDS	2,800		1,200		2,500	
50 PERCENT EXCEEDS	191		213		211	
90 PERCENT EXCEEDS	18		77		26	

e Estimated



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

LOCATION.--Lat 40°20'11", long 93°46'02", in NW ¼ NE ¼ NE ¼ sec.24, T.64 N., R.26 W., Harrison County, Hydrologic Unit 10280102, on Highway 136 approximately 15 mi east of junction I-35 and Highway 136, 1.5 mi northeast of Mt. Moriah.

DRAINAGE AREA.--891 mi<sup>2</sup>, including Panther Creek.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 08...	1405	Environmental	70	11.9	108	8.3	516	11.0	260	76.5	15.6	4.53
JAN 21...	1005	Environmental	31	12.4	85	7.7	542	.5	--	--	--	--
MAR 03...	0950	Environmental	144	14.9	112	8.4	499	2.3	--	--	--	--
MAY 25...	1010	Environmental	342	8.4	98	8.1	431	21.0	210	59.0	14.1	4.36
JUL 08...	0730	Blank	--	--	--	--	--	--	--	--	--	--
JUL 08...	0910	Environmental	96	7.9	97	8.1	400	24.0	--	--	--	--
SEP 16...	1005	Environmental	23	10.1	98	7.9	471	15.0	--	--	--	--

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 08...	13.6	212	213	260	<1	10.6	.2	40.0	307	132	.63	<.04	<.06
JAN 21...	--	--	--	--	--	--	--	--	--	<10	.34	.13	.61
MAR 03...	--	--	--	--	--	--	--	--	--	42	.47	.09	1.98
MAY 25...	9.96	172	173	211	<1	9.01	.3	30.1	266	292d	.98	<.04	2.84
JUL 08...	--	--	--	--	--	--	--	--	--	<10	<.10	.05	<.06
JUL 08...	--	--	--	--	--	--	--	--	--	67	1.0	<.04	<.06
SEP 16...	--	--	--	--	--	--	--	--	--	<10	.27	E.03n	E.04n

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, col/100 mL (31625)	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)	Iron, water, fltrd, μg/L (01046)
NOV 08...	<.008	E.01n	E.03n	.24	15k	30k	2	2,060d	.7	E.04n	.13	2.7	6
JAN 21...	.013	<.02	<.04	E.03n	<3b	20k	--	--	--	--	--	--	--
MAR 03...	.011	E.01n	<.04	.09	<2b	8k	--	--	--	--	--	--	--
MAY 25...	E.007n	.07	.08	.39	400k	100k	5	2,760d	1.8	E.02n	.18	1.6	<6
JUL 08...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
JUL 08...	<.008	<.02	<.04	.19	62k	90	--	--	--	--	--	--	--
SEP 16...	<.008	<.02	<.04	.05	100k	150	--	--	--	--	--	--	--

## 06898100 THOMPSON RIVER NEAR MOUNT MORIAH, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 08...	E.05n	4.26	212	<.01	.4	3.2	11
JAN 21...	--	--	--	--	--	--	--
MAR 03...	--	--	--	--	--	--	--
MAY 25...	<.08	5.39	10.9	E.01n	1.5	E.6n	15
JUL 08...	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--
SEP 16...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

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



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

LOCATION.--Lat 40°24'03", long 93°36'10", in SW 1/4 NW 1/4 SE 1/4 sec.28, T.65 N., R.24 W., Mercer County, Hydrologic Unit 10280102, approximately 1 mi west of Princeton on US Highway 136.

DRAINAGE AREA.--452 mi<sup>2</sup>.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 10...	0930	Environmental	20	11.6	98	8.1	529	8.0	260	77.1	15.3	4.69
JAN 19...	1345	Environmental	11	12.0	83	7.7	631	.5	--	--	--	--
MAR 01...	1415	Environmental	80	12.4	101	8.4	495	5.0	--	--	--	--
MAY 23...	1250	Environmental	128	7.8	95	7.8	358	23.0	170	51.1	10.8	4.97
MAY 23...	1251	Replicate	--	--	--	--	--	--	170	49.7	10.6	4.92
JUL 06...	1230	Environmental	23	7.6	104	8.0	485	30.0	--	--	--	--
SEP 14...	1245	Environmental	6.0	11.6	136	8.2	467	23.5	--	--	--	--

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 10...	13.3	214	212	259	<1	10.5	.2	46.2	320	<10	.31	<.04	E.04n
JAN 19...	--	--	--	--	--	--	--	--	--	<10	.38	.13	.21
MAR 01...	--	--	--	--	--	--	--	--	--	51	.55	.16	.58
MAY 23...	8.68	147	149	182	<1	8.42	.2	26.2	229	266d	1.3	E.03n	.88
MAY 23...	8.58	--	--	--	--	8.42	.2	26.2	231	288d	1.3	E.03n	.87
JUL 06...	--	--	--	--	--	--	--	--	--	<10	.32	<.04	<.06
SEP 14...	--	--	--	--	--	--	--	--	--	10	.46	<.04	<.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, col/100 mL (31625)	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)	Iron, water, fltrd, $\mu$ g/L (01046)
NOV 10...	<.008	<.02	<.04	E.03n	46k	26k	E2n	61	.6	E.04n	.04	3.2	30
JAN 19...	E.006n	<.02	<.04	<.04	6k	1k	--	--	--	--	--	--	--
MAR 01...	.008	<.02	<.04	.07	<2b	2k	--	--	--	--	--	--	--
MAY 23...	.028	.04	.06	.34	7,000	11,000	7	3,520d	1.3	E.02n	.14	2.2	6
MAY 23...	.027	.04	.05	.34	--	--	6	3,460d	1.3	E.02n	.13	2.8	9
JUL 06...	<.008	<.02	<.04	E.04n	200k	33k	--	--	--	--	--	--	--
SEP 14...	<.008	<.02	<.04	.05	100k	180	--	--	--	--	--	--	--

## 06898800 WELDON RIVER AT PRINCETON, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 10...	.12	.12	1,060	<.01	E.4n	5.7	E2n
JAN 19...	--	--	--	--	--	--	--
MAR 01...	--	--	--	--	--	--	--
MAY 23...	<.08	4.80	17.7	.01	.8	1.0	15
23...	<.08	4.80	17.5	.01	.8	4.1	16
JUL 06...	--	--	--	--	--	--	--
SEP 14...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

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

## 06899500 THOMPSON RIVER AT TRENTON, MO

LOCATION.--Lat 40°04'09", long 93°38'17" in SW ¼ NE ¼ sec.19, T.61 N., R.24 W., Grundy County, Hydrologic Unit 10280102, at downstream side of bridge pier in Trenton, 2.6 mi downstream from Weldon River, and at mile 25.2.

DRAINAGE AREA.--1,720 mi<sup>2</sup>.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	745	152	131	460	310	231	482	259	307	104	61
2	159	731	151	134	454	297	221	425	244	350	95	58
3	154	360	152	156	419	281	213	389	249	375	91	53
4	150	291	155	299	430	265	201	361	473	292	85	50
5	146	247	167	174	536	262	200	342	2,730	233	80	50
6	145	225	554	121	785	256	199	320	4,460	188	78	44
7	148	233	380	189	2,340	257	208	299	1,520	169	75	44
8	161	216	270	161	1,080	258	2,020	286	3,780	153	78	44
9	147	200	233	152	647	245	1,360	279	5,640	144	73	40
10	138	187	207	150	479	234	803	266	4,230	137	70	38
11	133	178	178	150	452	231	619	262	4,510	133	67	37
12	146	170	159	186	459	228	931	301	4,390	129	66	35
13	170	168	144	602	7,260	222	3,370	1,950	6,600	118	86	33
14	140	164	128	339	5,950	213	1,870	3,630	2,930	113	120	35
15	127	163	118	e270	3,430	211	1,050	4,670	2,910	108	139	45
16	119	160	125	e215	2,220	207	754	3,090	1,500	104	123	45
17	114	158	124	e180	1,280	200	604	1,450	1,050	102	103	43
18	113	161	130	e130	839	195	514	2,120	827	108	90	40
19	112	162	91	e140	629	193	456	2,160	689	116	85	40
20	111	165	e88	e160	560	188	412	1,240	596	113	98	40
21	113	163	e87	e290	538	180	3,400	874	529	109	82	38
22	116	160	e85	338	495	184	3,740	4,670	475	116	71	34
23	119	160	e84	e225	448	236	4,290	1,670	430	115	65	32
24	117	156	e84	e175	410	267	2,350	815	389	108	61	35
25	114	153	e85	e250	380	264	1,350	567	359	104	65	37
26	132	154	e88	e430	359	263	1,010	454	336	123	66	31
27	217	157	e92	e710	346	251	810	381	314	e164	e66	28
28	182	153	e100	e600	335	246	747	331	305	e208	e65	33
29	193	150	112	e460	---	241	664	296	296	186	e65	33
30	559	154	126	e425	---	236	555	278	307	152	e72	38
31	254	---	139	e430	---	228	---	263	---	134	e65	---
MEAN	158	221	154	270	1,215	237	1,172	1,126	1,778	162	82.2	40.5
MAX	559	745	554	710	7,260	310	4,290	4,670	6,600	375	139	61
MIN	111	150	84	121	335	180	199	262	244	102	61	28
IN.	0.11	0.14	0.10	0.18	0.74	0.16	0.76	0.76	1.15	0.11	0.06	0.03

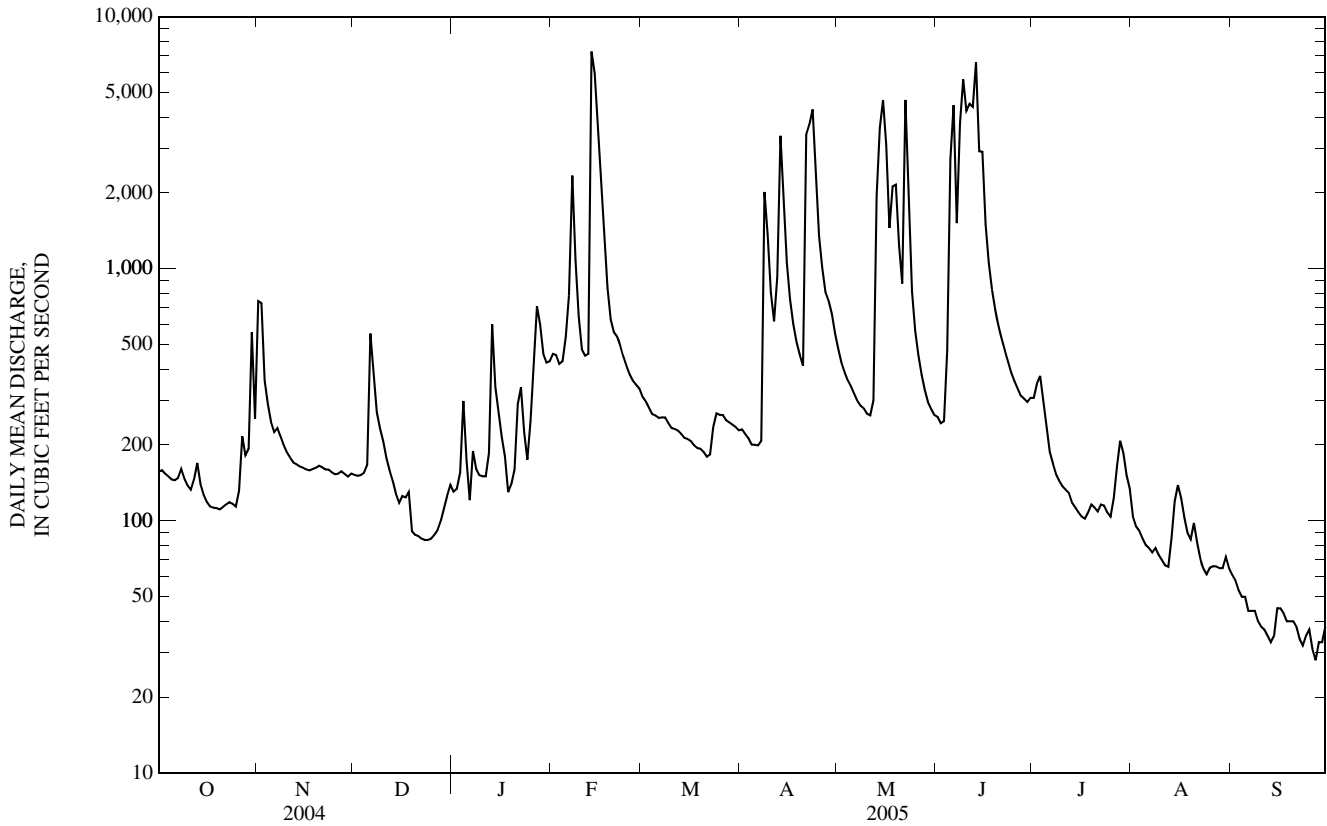
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	562	630	456	443	910	1,558	1,689	1,778	1,804	1,046	534	662
MAX	4,678	6,280	4,209	3,682	4,378	5,765	5,580	8,757	16,460	18,860	3,990	8,443
(WY)	(1974)	(1962)	(1983)	(1946)	(1962)	(1979)	(1973)	(1995)	(1947)	(1993)	(1959)	(1992)
MIN	11.1	9.53	6.48	4.74	13.0	17.6	10.7	10.2	13.9	6.00	9.32	12.9
(WY)	(1957)	(1956)	(1956)	(1956)	(1956)	(1938)	(1956)	(1956)	(1956)	(1934)	(1936)	(1955)

06899500 THOMPSON RIVER AT TRENTON, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	1,033		543		1,005	
HIGHEST ANNUAL MEAN					3,576	1993
LOWEST ANNUAL MEAN					117	1934
HIGHEST DAILY MEAN	27,000	Aug 28	7,260	Feb 13	73,800	Jun 6, 1947
LOWEST DAILY MEAN	18	Feb 6-8	28	Sep 27	1.0	Jun 17, 1956
ANNUAL SEVEN-DAY MINIMUM	19	Feb 4	33	Sep 23	1.7	Aug 4, 1934
MAXIMUM PEAK FLOW	---		10,300	Apr 21	95,000	Jun 6, 1947
MAXIMUM PEAK STAGE	---		20.62	Apr 21	29.20	May 30, 2004
INSTANTANEOUS LOW FLOW	---		27	Sep 26,27	1.0	Jun 17, 1956
ANNUAL RUNOFF (INCHES)	8.18		4.29		7.94	
10 PERCENT EXCEEDS	2,200		1,260		2,300	
50 PERCENT EXCEEDS	232		199		210	
90 PERCENT EXCEEDS	45		66		29	

e Estimated



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

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

DRAINAGE AREA.--34.0 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd, std units (00400)	Specific conductance, wat unfltrd, μS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, 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 26...	1405	Environmental	1.0	6.5	64	7.9	378	15.0	--	--	--	--
NOV 16...	1150	Environmental	3.7	10.5	92	8.1	401	10.0	170	46.9	11.8	3.58
DEC 14...	1405	Environmental	6.2	15.8	110	8.0	370	.5	--	--	--	--
JAN 25...	1244	Environmental	.08	12.6	90	7.6	327	.5	140	39.5	9.34	5.02
JAN 25...	1251	Replicate	--	--	--	--	--	--	140	39.8	9.20	5.34
FEB 10...	1355	Environmental	21	14.3	100	7.9	303	.5	--	--	--	--
MAR 17...	1310	Environmental	2.9	12.2	109	8.3	408	10.5	--	--	--	--
APR 05...	1520	Environmental	3.6	8.2	96	8.2	419	13.5	--	--	--	--
MAY 12...	0950	Environmental	2.0	6.8	73	7.6	397	17.0	160	45.1	11.6	4.01
JUN 30...	1255	Environmental	.86	6.9	85	8.1	438	23.5	--	--	--	--
JUL 13...	0805	Environmental	.03	6.3	73	8.0	489	21.0	200	56.4	13.9	4.34
AUG 19...	1040	Environmental	.02	5.8	73	8.0	426	25.5	--	--	--	--
SEP 21...	1210	Environmental	.05	8.2	96	8.2	474	23.0	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, 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 26...	--	--	--	--	--	--	--	--	--	<10	.71	<.04	<.06
NOV 16...	14.6	80	81	99	<1	7.38	.1	39.6	250	<10	.38	<.04	.09
DEC 14...	--	--	--	--	--	--	--	--	--	18	.45	E.04n	.20
JAN 25...	11.7	109	107	131	<1	8.21	.1	34.7	205	18	.88	.21	.33
JAN 25...	11.6	--	--	--	--	8.16	.1	34.7	206	21	.84	.21	.33
FEB 10...	--	--	--	--	--	--	--	--	--	138	.92	.07	.47
MAR 17...	--	--	--	--	--	--	--	--	--	<10	.34	<.04	<.06
APR 05...	--	--	--	--	--	--	--	--	--	<10	.41	<.04	<.06
MAY 12...	17.2	133	132	161	<1	7.33	.2	36.1	241	52	.76	<.04	<.06
JUN 30...	--	--	--	--	--	--	--	--	--	24	.67	<.04	.06
JUL 13...	29.1	204	206	251	<1	8.09	.3	38.9	302	<10	.52	E.03n	<.06
AUG 19...	--	--	--	--	--	--	--	--	--	33	.68	E.03n	<.06
SEP 21...	--	--	--	--	--	--	--	--	--	53	.69	<.04	<.06

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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 coliform, M-FC 0.7µ MF col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
OCT 26...	<.008	.15	.18	.28	3,500	3,700	--	--	--	--	--	--	--
NOV 16...	<.008	E.01n	<.04	.06	550	530	2	158	1.0	<.04	<.04	4.0	13
DEC 14...	<.008	<.02	<.04	.08	190k	140k	--	--	--	--	--	--	--
JAN 25...	.011	.02	.04	.14	--r	96	2	305	.7	E.02n	E.03n	5.5	33
JAN 25...	.011	.02	E.04n	.14	--	--	2	312	.7	E.02n	E.03n	6.5	36
FEB 10...	E.005n	E.01n	E.03n	.16	100k	100k	--	--	--	--	--	--	--
MAR 17...	<.008	<.02	<.04	E.04n	13k	31k	--	--	--	--	--	--	--
APR 05...	<.008	E.01n	<.04	.04	62k	96	--	--	--	--	--	--	--
MAY 12...	<.008	.02	.04	.14	2,100	2,000	2	951	1.4	<.04	.05	1.8	6
JUN 30...	E.005n	.04	.06	.12	4,600k	1,100	--	--	--	--	--	--	--
JUL 13...	<.008	.02	E.04n	.06	400	570	3	170	1.6	.05	E.04n	6.1	E4n
AUG 19...	<.008	.02	E.04n	.09	1,400	530	--	--	--	--	--	--	--
SEP 21...	<.008	.02	E.04n	.12	200	300	--	--	--	--	--	--	--

Date	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 26...	--	--	--	--	--	--	--
NOV 16...	.12	.21	282	<.01	E.4n	3.6	E1n
DEC 14...	--	--	--	--	--	--	--
JAN 25...	.20	.42	212	<.01	E.4n	4.8	2
JAN 25...	.26	.41	214	<.01	E.3n	6.4	2
FEB 10...	--	--	--	--	--	--	--
MAR 17...	--	--	--	--	--	--	--
APR 05...	--	--	--	--	--	--	--
MAY 12...	<.08	1.13	128	<.01	.5	.8	6
JUN 30...	--	--	--	--	--	--	--
JUL 13...	.11	.22	203	<.01	.4	5.0	E2n
AUG 19...	--	--	--	--	--	--	--
SEP 21...	--	--	--	--	--	--	--

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

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

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

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

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

DRAINAGE AREA.--192 mi<sup>2</sup>.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 27...	1330	Environmental	50	8.3	84	8.0	374	14.5	--	--	--	--
NOV 18...	1045	Environmental	16	9.8	93	7.9	489	12.5	210	62.6	13.9	4.51
DEC 16...	1445	Environmental	26	13.2	99	8.0	492	2.3	--	--	--	--
JAN 27...	1320	Environmental	169	13.6	98	7.8	236	1.0	95	27.6	6.25	8.17
FEB 09...	1020	Environmental	105	13.5	97	7.8	314	.5	--	--	--	--
MAR 16...	1345	Environmental	28	11.9	108	8.2	443	11.0	--	--	--	--
APR 08...	1105	Environmental	77	10.3	94	7.9	471	11.0	--	--	--	--
MAY 11...	1230	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16
MAY 11...	1315	Environmental	24	7.9	95	7.5	486	22.5	220	63.1	14.3	4.18
JUN 29...	1310	Environmental	77	6.2	81	7.7	222	27.0	--	--	--	--
JUL 12...	1155	Environmental	5.7	8.9	174	7.8	490	26.0	220	65.0	13.4	4.29
AUG 17...	1255	Environmental	6.2	8.0	99	7.9	437	26.0	--	--	--	--
SEP 20...	1000	Environmental	3.6	8.9	95	7.8	396	18.5	--	--	--	--

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 27...	--	--	--	--	--	--	--	--	--	131	1.0	E.02n	.45
NOV 18...	14.4	178	178	217	<1	11.2	.2	53.5	296	<10	.33	<.04	<.06
DEC 16...	--	--	--	--	--	--	--	--	--	<10	.50	.13	.33
JAN 27...	5.52	74	71	87	<1	7.16	.2	20.1	145	280d	1.8	.51	.48
FEB 09...	--	--	--	--	--	--	--	--	--	165	1.1	.20	1.07
MAR 16...	--	--	--	--	--	--	--	--	--	<10	.38	<.04	<.06
APR 08...	--	--	--	--	--	--	--	--	--	79	.62	<.04	<.06
MAY 11...	E.18n	--	--	--	--	<.20	<.1	<.2	<10	<10	<.10	<.04	<.06
MAY 11...	14.8	182	184	225	<1	9.28	.2	53.1	304	15	.46	<.04	<.06
JUN 29...	--	--	--	--	--	--	--	--	--	620d	3.9	<.04	1.70
JUL 12...	15.9	183	182	222	<1	10.5	.3	59.5	306	<10	.37	<.040	<.04
AUG 17...	--	--	--	--	--	--	--	--	--	<10	.50	<.04	.22
SEP 20...	--	--	--	--	--	--	--	--	--	14	.34	<.04	E.04n

## 06899950 MEDICINE CREEK AT HARRIS, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite water, ftrd, mg/L as N (00613)	Ortho- phos- phate, water, ftrd, mg/L as P (00671)	Phos- phorus, water, ftrd, mg/L (00666)	Phos- phorus, water, unftrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7 $\mu$ MF col/ 100 mL (31625)	Alum- inum, water, ftrd, $\mu$ g/L (01106)	Alum- inum, water, unftrd recover- able, $\mu$ g/L (01105)	Arsenic water, ftrd, $\mu$ g/L (01000)	Cadmium water, ftrd, $\mu$ g/L (01025)	Cadmium water, unftrd $\mu$ g/L (01027)	Copper, water, ftrd, $\mu$ g/L (01040)	Iron, water, ftrd, $\mu$ g/L (01046)
OCT 27...	.015	.05	.07	.31	4,900	7,400	--	--	--	--	--	--	--
NOV 18...	<.008	<.02	<.04	.04	240k	110k	2	115	.7	.04	.06	1.3	15
DEC 16...	<.008	<.02	<.04	.05	80	54k	--	--	--	--	--	--	--
JAN 27...	.020	.13	.17	.53	750k	1,300	3	2,880d	1.0	E.03n	.21	2.5	91
FEB 09...	.011	.03	.05	.25	200k	260	--	--	--	--	--	--	--
MAR 16...	<.008	<.02	<.04	.06	3k	4k	--	--	--	--	--	--	--
APR 08...	<.008	.02	E.03n	.21	--r	870	--	--	--	--	--	--	--
MAY 11...	<.008	<.02	<.04	<.04	--	--	<2	E1n	<.2	<.04	<.04	E.2n	<6
MAY 11...	<.008	E.01n	E.03n	.08	110k	130k	4	193	1.0	E.02n	.06	1.4	17
JUN 29...	.098	.03	.09	1.27	14,000	12,000k	--	--	--	--	--	--	--
JUL 12...	--p	--p	<.04	.05	49k	86k	2	55	.9	.04	.06	1.5	26
AUG 17...	.011	<.02	<.04	.06	97k	200	--	--	--	--	--	--	--
SEP 20...	<.008	<.02	<.04	.05	340	450	--	--	--	--	--	--	--



## 06899950 MEDICINE CREEK AT HARRIS, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 27...	--	--	--	--	--	--	--
NOV 18...	E.06n	.16	1,070	<.01	E.4n	3.0	E2n
DEC 16...	--	--	--	--	--	--	--
JAN 27...	.21	4.94	378	<.01	E.3n	1.9	17
FEB 09...	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--	--
APR 08...	--	--	--	--	--	--	--
MAY 11...	<.08	E.05n	<.6	<.01	<.4	E.3n	<2
MAY 11...	<.08	.32	180	<.01	.5	E.5n	2
JUN 29...	--	--	--	--	--	--	--
JUL 12...	<.08	.07	901	<.01	.5	.9	E1n
AUG 17...	--	--	--	--	--	--	--
SEP 20...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

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

## Null value qualifier codes used in this table:

p -- Sample discarded: improper preservation  
r -- Sample ruined in preparation

## 06900050 MEDICINE CREEK AT LAREDO, MO

LOCATION.--Lat 40°01'36", long 93°26'10", in SW ¼ NW ¼ SE ¼ sec.12, T.60 N., R.23 W., Grundy County, Hydrologic Unit 10280103, on downstream side of Highway E bridge, approximately 0.5 mi east of Laredo.

DRAINAGE AREA.--355 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	681	44	67	171	103	69	85	38	75	11	4.2
2	26	431	44	61	189	90	67	74	36	83	9.8	4.2
3	29	227	44	91	202	88	62	67	33	48	9.6	4.5
4	25	273	44	211	222	86	59	61	624	40	9.1	4.1
5	23	167	86	132	278	80	56	57	723	35	8.3	3.4
6	20	108	871	55	348	75	56	54	385	29	7.3	3.3
7	36	84	482	102	1,160	72	58	52	177	27	7.0	3.4
8	143	64	255	115	557	66	80	50	810	25	6.8	3.9
9	104	53	177	89	307	63	105	50	975	22	6.6	3.8
10	42	50	137	85	211	58	83	48	471	20	6.4	3.8
11	27	45	109	89	192	56	82	49	1,860	19	5.9	3.6
12	88	41	93	505	211	55	700	98	660	18	6.4	3.6
13	246	38	77	734	3,110	51	1,060	786	1,740	17	23	3.9
14	73	37	e58	321	2,640	47	368	675	466	16	48	4.6
15	41	37	e46	e189	816	45	220	314	235	15	47	6.3
16	29	37	e39	e133	426	44	157	158	153	14	29	8.5
17	24	38	38	e98	283	45	125	109	113	14	20	6.9
18	22	39	e40	e86	214	44	105	190	89	15	16	6.0
19	21	41	e37	107	175	42	90	285	72	16	16	5.5
20	19	45	e34	136	184	41	79	153	58	15	48	5.3
21	18	40	e32	340	218	41	1,870	96	49	14	14	6.1
22	19	39	31	242	190	52	1,460	2,000	45	13	6.9	6.3
23	19	38	30	122	154	92	1,170	420	43	13	5.5	5.6
24	18	38	26	114	134	118	390	170	39	13	5.8	6.2
25	17	36	25	138	123	121	237	103	39	12	5.4	5.5
26	27	36	27	821	115	114	181	77	36	13	7.5	5.2
27	77	42	28	452	107	101	148	61	33	19	6.7	5.8
28	73	40	32	251	111	90	124	52	30	19	9.5	6.8
29	63	39	36	180	---	81	107	45	112	21	13	8.6
30	658	42	49	141	---	75	98	42	100	14	5.4	8.4
31	216	---	69	152	---	72	---	40	---	11	4.6	---
MEAN	73.1	97.5	101	205	466	71.2	316	210	341	23.4	13.7	5.24
MAX	658	681	871	821	3,110	121	1,870	2,000	1,860	83	48	8.6
MIN	17	36	25	55	107	41	56	40	30	11	4.6	3.3
IN.	0.24	0.31	0.33	0.67	1.37	0.23	0.99	0.68	1.07	0.08	0.04	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

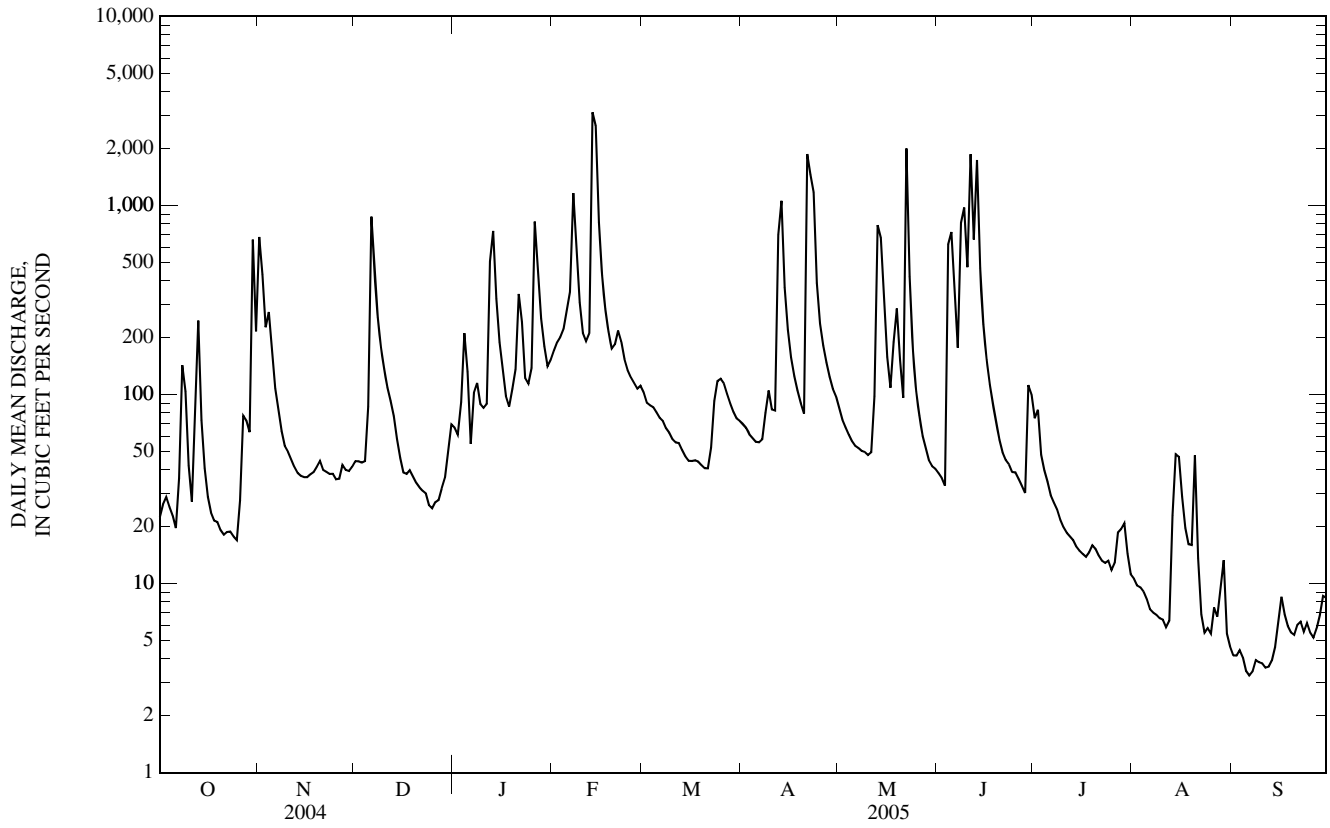
	2001	2002	2003	2004	2005
MEAN	31.1	32.5	45.1	80.1	322
MAX	73.1	97.5	101	205	971
(WY)	(2005)	(2005)	(2005)	(2005)	(2001)
MIN	5.04	5.84	5.35	5.16	8.38
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2001 - 2005
ANNUAL MEAN	319	157	160
HIGHEST ANNUAL MEAN			306
LOWEST ANNUAL MEAN			29.0
HIGHEST DAILY MEAN	18,500	Aug 28	18,500
LOWEST DAILY MEAN	9.0	Feb 8,9	3.3
ANNUAL SEVEN-DAY MINIMUM	10	Feb 5	3.6
MAXIMUM PEAK FLOW	---	4,660	Feb 13
MAXIMUM PEAK STAGE	---	9.82	Feb 13
INSTANTANEOUS LOW FLOW	---	3.1	Sep 5-7
ANNUAL RUNOFF (INCHES)	12.23	6.02	6.13
10 PERCENT EXCEEDS	420	356	224
50 PERCENT EXCEEDS	44	53	24
90 PERCENT EXCEEDS	20	6.8	5.1

e Estimated

06900050 MEDICINE CREEK AT LAREDO, MO—Continued



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

LOCATION.--Lat 40°19'02", long 93°22'52", in SW ¼ SE ¼ NW ¼ sec.28, T.64 N., R.22 W., Mercer County, Hydrologic Unit 10280103, on the left bank on upstream side of bridge on State Highway E, approximately 1.7 mi west of Harris.

DRAINAGE AREA.--66.5 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, 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 27...	0925	Environmental	16	8.2	82	7.9	360	14.0	--	--	--	--
NOV 18...	1240	Environmental	5.2	10.2	97	8.1	492	13.0	220	63.7	13.9	4.80
DEC 17...	0930	Environmental	4.6	13.7	97	8.1	473	.5	--	--	--	--
JAN 27...	1000	Environmental	24	14.2	100	8.0	262	.5	100	30.9	6.63	10.5
FEB 10...	0955	Environmental	7.0	12.8	90	8.0	366	.5	--	--	--	--
MAR 16...	1000	Environmental	7.6	13.4	104	8.2	447	4.5	--	--	--	--
APR 08...	1355	Environmental	15	9.7	100	8.1	469	17.7	--	--	--	--
MAY 12...	1140	Environmental	8.6	8.9	92	7.5	474	15.5	210	61.8	13.8	4.32
JUN 30...	0920	Environmental	6.0	6.7	81	7.8	450	22.5	--	--	--	--
JUL 12...	1515	Environmental	1.4	7.7	111	8.0	499	32.5	230	67.3	13.9	5.10
AUG 17...	1505	Environmental	.42	6.6	84	7.9	473	27.5	--	--	--	--
SEP 20...	1345	Environmental	.64	11.9	153	8.1	434	28.0	--	--	--	--

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)
OCT 27...	--	--	--	--	--	--	--	--	--	146d	1.0	E.02n	.24
NOV 18...	14.4	185	185	226	<1	10.3	.2	51.5	306	<10	.30	<.04	<.06
DEC 17...	--	--	--	--	--	--	--	--	--	<10	.46	.18	.39
JAN 27...	6.52	80	80	98	<1	10.1	.1	20.4	168	51	1.8	.53	.86
FEB 10...	--	--	--	--	--	--	--	--	--	48	.87	.16	.95
MAR 16...	--	--	--	--	--	--	--	--	--	<10	.34	<.04	<.06
APR 08...	--	--	--	--	--	--	--	--	--	18	.53	<.04	<.06
MAY 12...	14.2	151	152	185	<1	9.29	.2	44.6	278	38	.61	E.04n	E.05n
JUN 30...	--	--	--	--	--	--	--	--	--	20	.68	<.04	E.05n
JUL 12...	17.1	182	181	221	<1	7.92	.3	59.4	319	<10	.48	E.02n	E.05n
AUG 17...	--	--	--	--	--	--	--	--	--	<10	.45	.04	.19
SEP 20...	--	--	--	--	--	--	--	--	--	<10	.31	<.04	<.06

## 06900100 LITTLE MEDICINE CREEK NEAR HARRIS, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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)	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)	Iron, water, fltrd, µg/L (01046)
OCT 27...	.013	.04	.05	.29	5,700	6,600	--	--	--	--	--	--	--
NOV 18...	<.008	<.02	<.04	E.04n	380k	340k	E1n	98	.7	E.02n	E.03n	1.1	17
DEC 17...	E.004n	<.02	<.04	E.03n	140	120	--	--	--	--	--	--	--
JAN 27...	.028	.17	.20	.37	670k	1,300	3	847	1.0	<.04	.06	3.4	64
FEB 10...	.010	E.01n	E.02n	.11	18k	22k	--	--	--	--	--	--	--
MAR 16...	<.008	<.02	<.04	.04	15k	39	--	--	--	--	--	--	--
APR 08...	<.008	E.01n	<.04	.07	250k	290	--	--	--	--	--	--	--
MAY 12...	<.008	E.01n	E.03n	.10	1,400	1,400	2	383	.9	<.04	.04	1.4	9
JUN 30...	E.004n	<.02	E.03n	.10	1,100	5,200k	--	--	--	--	--	--	--
JUL 12...	E.006n	<.02	<.04	.06	160	150	2	74	1.0	E.03n	.04	1.6	34
AUG 17...	.016	E.01n	E.02n	.06	350	420	--	--	--	--	--	--	--
SEP 20...	<.008	<.02	E.03n	.05	71	170	--	--	--	--	--	--	--

Date	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 27...	--	--	--	--	--	--	--
NOV 18...	<.08	.13	664	<.01	.4	.6	E1n
DEC 17...	--	--	--	--	--	--	--
JAN 27...	E.07n	1.25	157	<.01	E.3n	2.2	5
FEB 10...	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--	--
APR 08...	--	--	--	--	--	--	--
MAY 12...	<.08	.67	122	<.01	.5	.7	3
JUN 30...	--	--	--	--	--	--	--
JUL 12...	<.08	.12	402	<.01	E.2n	.8	<2
AUG 17...	--	--	--	--	--	--	--
SEP 20...	--	--	--	--	--	--	--

Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

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

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

LOCATION.--Lat 40°28'23", long 93°07'37", in SW ¼ SW ¼ SW ¼ sec.35, T.66 N., R.20 W., Putnam County, Hydrologic Unit 10280103, on left bank on upstream side of bridge on Highway HH approximately 3.2 mi west of State Highway 5, 9.4 mi south of Unionville.

DRAINAGE AREA.--77.5 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd, std units (00400)	Specific conductance, wat unfltrd, 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, 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 28...	1340	Environmental	24	8.6	86	8.0	345	15.0	--	--	--	--
NOV 17...	1305	Environmental	14	9.9	96	8.2	512	14.5	230	68.8	15.0	4.77
NOV 17...	1306	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16
DEC 16...	1120	Environmental	14	12.8	91	8.2	481	.5	--	--	--	--
JAN 26...	1030	Environmental	e25	12.5	90	7.4	170	.5	64	18.6	4.15	8.84
FEB 09...	1520	Environmental	59	14.4	105	8.2	375	1.0	--	--	--	--
MAR 15...	1405	Environmental	13	12.6	108	7.5	489	8.5	--	--	--	--
APR 06...	1345	Environmental	14	9.6	95	8.0	505	15.0	--	--	--	--
MAY 10...	1305	Environmental	11	11.1	133	8.1	503	22.0	240	68.7	15.4	4.26
JUN 28...	1410	Environmental	68	6.7	85	7.6	308	25.0	--	--	--	--
JUL 13...	1320	Environmental	1.1	10.7	142	8.2	491	28.0	220	65.9	13.8	5.17
AUG 18...	1515	Environmental	.79	6.8	91	8.1	438	30.5	--	--	--	--
SEP 19...	1430	Environmental	.23	7.1	84	8.0	409	23.5	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, 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 28...	--	--	--	--	--	--	--	--	--	52	1.1	<.04	.31
NOV 17...	14.4	184	185	226	<1	10.3	.2	53.6	320	<10	.38	E.03n	.11
NOV 17...	<.20	--	--	--	--	<.20	<.1	<.2	<10	<10	<.10	<.04	<.06
DEC 16...	--	--	--	--	--	--	--	--	--	<10	.49	.08	.36
JAN 26...	3.50	51	43	E52	<1	6.27	.1	12.0	113	412d	3.5	.66	.56
FEB 09...	--	--	--	--	--	--	--	--	--	176	1.3	.18	1.06
MAR 15...	--	--	--	--	--	--	--	--	--	<10	.37	<.04	<.06
APR 06...	--	--	--	--	--	--	--	--	--	<10	.38	<.04	<.06
MAY 10...	15.1	200	201	242	<1	9.08	.2	52.8	324	11	.44	<.04	<.06
JUN 28...	--	--	--	--	--	--	--	--	--	1,200d	3.7	E.03n	.82
JUL 13...	16.8	201	204	249	<1	10.1	.3	36.0	294	<10	.49	E.02n	E.05n
AUG 18...	--	--	--	--	--	--	--	--	--	<10	.62	.07	.32
SEP 19...	--	--	--	--	--	--	--	--	--	10	.45	E.03n	E.04n

## 06900900 LOCUST CREEK NEAR UNIONVILLE, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7µ MF col/ 100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
OCT 28...	E.006n	.05	.07	.23	3,800	4,000	--	--	--	--	--	--	--
NOV 17...	E.004n	E.01n	<.04	.04	620	660	2	55	.8	<.04	E.03n	1.4	17
17...	<.008	<.02	<.04	<.04	--	--	<2	<2	<.2	<.04	<.04	<.4	<6
DEC 16...	<.008	<.02	<.04	.04	75k	92k	--	--	--	--	--	--	--
JAN 26...	.027	.15	.25	.77	--r	--r	6	3,900d	1.0	E.03n	.26	3.3	144
FEB 09...	.011	E.01n	E.03n	.24	100k	75k	--	--	--	--	--	--	--
MAR 15...	<.008	<.02	<.04	.04	36	32	--	--	--	--	--	--	--
APR 06...	<.008	<.02	<.04	.05	230	240	--	--	--	--	--	--	--
MAY 10...	<.008	<.02	E.03n	.06	82	140	5	91	.8	<.04	E.03n	1.6	47
JUN 28...	.038	.03	.06	1.16	44,000k	41,000k	--	--	--	--	--	--	--
JUL 13...	E.006n	<.02	<.04	.05	220	330	3	103	1.2	E.03n	.04	1.2	18
AUG 18...	.017	.02	E.03n	.07	590	520	--	--	--	--	--	--	--
SEP 19...	E.004n	E.01n	E.02n	.06	230	360	--	--	--	--	--	--	--

## 06900900 LOCUST CREEK NEAR UNIONVILLE, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 28...	--	--	--	--	--	--	--
NOV 17...	.10	.11	347	<.01	E.4n	1.2	E1n
17...	<.08	E.04n	<.6	<.01	<.4	<.6	<2
DEC 16...	--	--	--	--	--	--	--
JAN 26...	.51	6.87	301	E.01n	E.2n	15.2	23
FEB 09...	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--
APR 06...	--	--	--	--	--	--	--
MAY 10...	E.04n	.17	187	<.01	.5	E.5n	3
JUN 28...	--	--	--	--	--	--	--
JUL 13...	<.08	.14	468	<.01	.5	.7	<2
AUG 18...	--	--	--	--	--	--	--
SEP 19...	--	--	--	--	--	--	--

## Remark codes used in this table:

- < -- Less than.
- E -- Estimated.
- e -- Estimated discharge 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

## Null value qualifier codes used in this table:

- r -- Sample ruined in preparation



## 06901500 LOCUST CREEK NEAR LINNEUS, MO

LOCATION.--Lat 39°53'45", long 93°14'11", in NW ¼ NE ¼ sec.34, T.59 N., R.21 W., Linn County, Hydrologic Unit 10280103, on right bank on upstream side of county road, 1 mi upstream from Boyer bridge, 1.5 mi upstream from Strawberry and Couch Creeks, 3 mi northwest of Linneus, and 5 mi downstream from West Locust Creek.

DRAINAGE AREA.--550 sq mi<sup>2</sup>.

REVISED RECORDS.--WSP 896: 1939.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	1,320	100	67	154	171	e115	125	98	e111	12	11
2	35	1,260	101	68	179	147	e105	110	96	e131	11	10
3	33	654	99	343	189	135	e95	102	92	e78	11	9.9
4	34	811	99	360	186	141	e90	99	883	e58	10	9.8
5	34	568	114	323	218	134	e80	94	1,490	e45	10	9.6
6	33	332	1,050	227	275	133	e75	88	734	e38	11	9.3
7	39	238	1,140	e380	998	134	e70	85	321	e33	9.8	9.1
8	228	188	582	e275	820	132	e150	83	2,770	e28	9.2	8.8
9	120	156	342	e205	380	131	e140	80	4,100	e25	9.0	8.6
10	103	140	252	e145	e220	128	e125	74	664	e23	8.9	8.6
11	59	130	198	97	e205	121	e120	179	1,030	e21	8.4	8.8
12	82	120	167	1,040	272	115	e1,500	960	649	e20	8.4	8.4
13	392	111	145	3,070	4,160	111	e1,100	4,410	804	e19	14	9.0
14	155	106	e122	639	4,130	109	e780	1,400	831	e18	23	12
15	97	102	e101	e180	1,320	108	e560	666	406	e17	22	13
16	75	100	e89	e110	641	107	e405	333	245	e16	24	14
17	61	99	e85	e85	410	116	e290	234	189	e16	19	13
18	50	99	e92	e80	304	114	e210	196	154	e17	16	11
19	46	100	e78	e85	256	113	e150	187	136	e22	15	9.9
20	43	e103	e60	e95	252	109	e110	191	123	e19	17	9.7
21	41	96	51	e130	296	103	848	153	115	e17	38	9.3
22	40	91	48	e175	264	113	1,890	1,760	108	e16	33	9.1
23	39	88	45	e125	218	159	2,000	543	103	e16	20	11
24	37	90	44	e110	193	175	746	245	116	e19	17	9.9
25	36	87	43	e145	180	201	365	165	106	e18	15	9.6
26	51	85	44	e200	184	200	273	136	101	e16	15	9.3
27	136	116	44	e900	172	176	220	122	e95	e14	13	10
28	162	107	46	e220	173	156	183	115	e90	13	15	9.3
29	105	95	51	211	---	144	160	112	e195	12	31	9.6
30	745	95	59	170	---	e133	138	107	e162	12	15	9.3
31	650	---	60	147	---	e120	---	100	---	13	12	---
MEAN	122	256	179	336	616	135	436	428	567	29.7	15.9	10.0
MAX	745	1,320	1,140	3,070	4,160	201	2,000	4,410	4,100	131	38	14
MIN	33	85	43	67	154	103	70	74	90	12	8.4	8.4
IN.	0.26	0.52	0.38	0.70	1.17	0.28	0.89	0.90	1.15	0.06	0.03	0.02

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

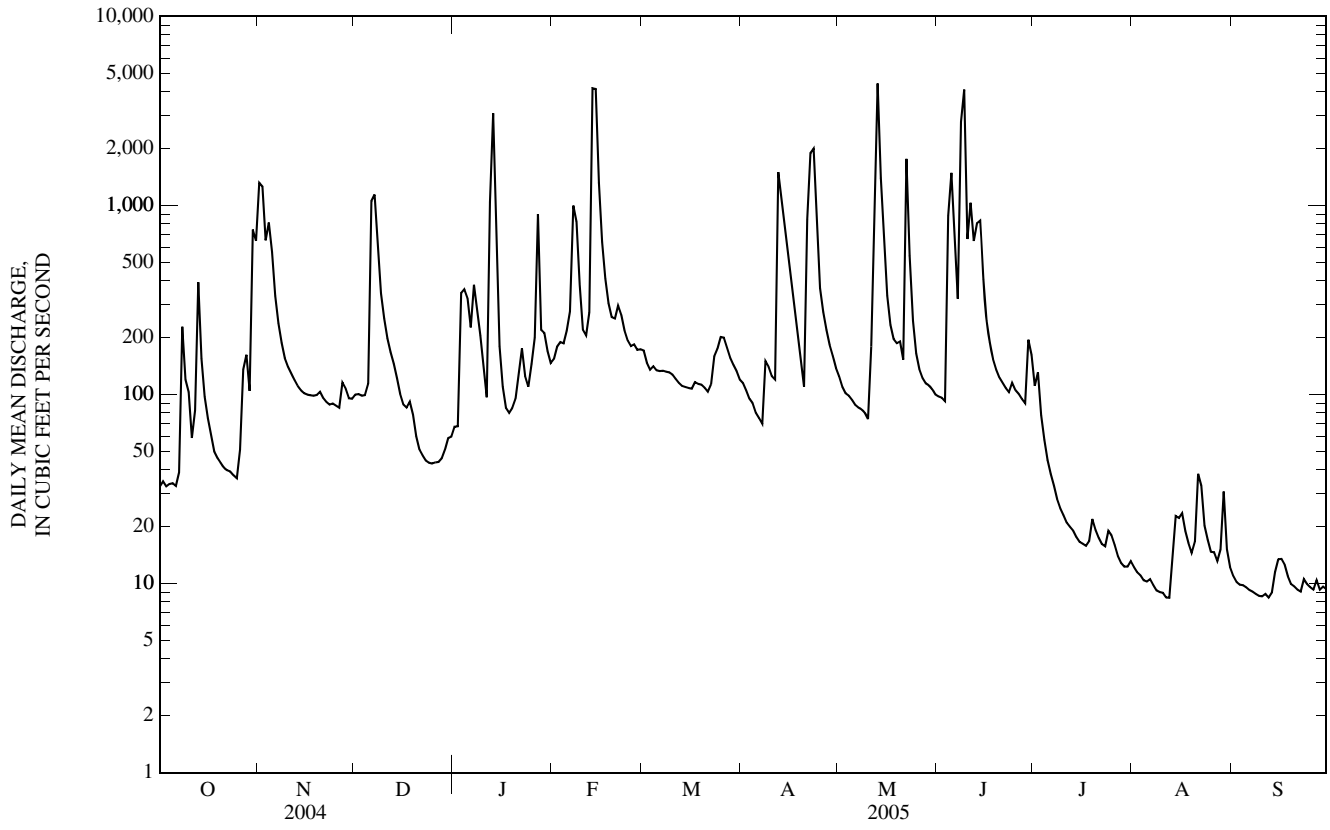
MEAN	155	192	138	184	322	475	567	493	691	263	172	154
MAX	1,174	2,272	803	1,027	1,557	1,898	2,103	2,647	5,820	2,903	2,457	2,079
(WY)	(1930)	(1932)	(1943)	(1946)	(2001)	(1961)	(1944)	(1935)	(1947)	(1958)	(2004)	(1970)
MIN	0.92	2.38	2.70	1.29	3.61	6.47	5.92	23.2	4.72	0.40	0.67	1.97
(WY)	(1957)	(1957)	(1938)	(1940)	(1957)	(1957)	(1956)	(1938)	(1934)	(1934)	(1936)	(1955)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	492	257	313
HIGHEST ANNUAL MEAN			796
LOWEST ANNUAL MEAN			21.4
HIGHEST DAILY MEAN	23,800	Aug 29	4,410
LOWEST DAILY MEAN	5.0	Feb 8,9,14-16	8.4
ANNUAL SEVEN-DAY MINIMUM	5.6	Feb 8	8.8
MAXIMUM PEAK FLOW	---		8,700
MAXIMUM PEAK STAGE	---		21.30
INSTANTANEOUS LOW FLOW	---		7.9
ANNUAL RUNOFF (INCHES)	12.18		6.35
10 PERCENT EXCEEDS	834		652
50 PERCENT EXCEEDS	92		107
90 PERCENT EXCEEDS	14		11

e Estimated

06901500 LOCUST CREEK NEAR LINNEUS, MO—Continued



## 06902000 GRAND RIVER NEAR SUMNER, MO

LOCATION.--Lat 39°38'24", long 93°16'25", in NE ¼ sec.29, T.56 N., R.21 W., Livingston County, Hydrologic Unit 10280103, near right bank on downstream side of pier of bridge on State Highway 139, 240 ft downstream from Chicago, Burlington and Quincy Railroad Bridge, 2.0 mi southwest of Sumner, 2.5 mi downstream from Locust Creek, and at mile 41.0.

DRAINAGE AREA.--6,880 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	628	4,570	809	729	1,730	1,990	1,200	1,830	964	996	515	1,010
2	626	10,700	802	742	1,800	1,860	1,130	1,640	927	973	439	710
3	618	6,740	804	973	1,820	1,710	1,090	1,480	884	960	391	527
4	593	5,400	791	3,600	1,780	1,650	1,010	1,340	2,430	996	357	430
5	571	5,080	765	4,500	1,750	1,610	957	1,260	10,400	877	333	370
6	556	3,140	1,950	e3,000	1,940	1,580	910	1,190	13,000	774	319	329
7	564	2,170	5,570	e1,600	6,860	1,490	878	1,120	10,000	694	305	302
8	3,210	1,680	4,200	1,390	11,500	1,450	861	1,060	6,590	638	295	282
9	3,380	1,380	2,550	1,360	6,120	1,380	2,130	1,020	20,100	599	287	267
10	1,540	1,190	1,770	1,280	3,540	1,320	3,050	974	13,300	564	279	257
11	992	1,070	1,410	1,320	2,520	1,250	2,180	934	17,000	529	272	244
12	986	963	1,170	1,560	2,480	1,190	3,000	2,030	13,400	503	266	232
13	2,240	871	1,040	9,040	18,600	1,140	11,200	8,870	16,100	482	290	225
14	2,550	795	e867	7,650	52,700	1,120	9,180	23,200	16,000	457	361	226
15	1,530	755	e745	3,020	48,500	1,130	5,600	18,600	8,360	434	454	224
16	1,060	727	712	1,870	23,200	1,080	3,720	10,200	6,220	421	850	278
17	829	722	755	e1,700	8,530	1,050	2,750	6,050	4,270	405	1,030	357
18	709	712	721	1,600	6,070	1,030	2,210	3,900	3,170	398	685	390
19	630	704	e674	1,450	4,930	999	1,870	4,290	2,490	390	653	349
20	586	689	634	1,320	4,210	948	1,820	4,290	2,090	396	1,890	299
21	562	670	633	1,540	3,860	909	2,530	2,910	1,810	402	1,820	260
22	548	651	e607	2,720	3,710	954	19,600	3,510	1,600	415	941	238
23	541	631	e583	2,350	3,310	1,680	18,700	9,640	1,460	411	607	248
24	531	644	e572	1,650	e2,800	2,390	10,700	4,050	1,320	395	447	488
25	510	665	e556	1,420	e2,580	2,320	6,640	2,500	1,210	399	383	477
26	510	678	e546	1,410	e2,380	2,300	4,280	1,930	1,120	383	442	351
27	1,310	1,030	e540	2,650	e2,230	2,040	3,200	1,570	1,040	364	3,890	274
28	1,720	1,790	543	2,920	2,100	1,710	2,640	1,340	965	368	5,150	233
29	1,570	1,160	548	2,430	---	1,490	2,300	1,200	918	622	2,190	216
30	2,360	881	582	2,130	---	1,360	2,070	1,100	933	765	1,380	210
31	4,590	---	648	1,830	---	1,270	---	1,020	---	613	877	---
MEAN	1,263	1,962	1,132	2,347	8,341	1,465	4,314	4,066	6,002	568	916	343
MAX	4,590	10,700	5,570	9,040	52,700	2,390	19,600	23,200	20,100	996	5,150	1,010
MIN	510	631	540	729	1,730	909	861	934	884	364	266	210
IN.	0.21	0.32	0.19	0.39	1.26	0.25	0.70	0.68	0.97	0.10	0.15	0.06

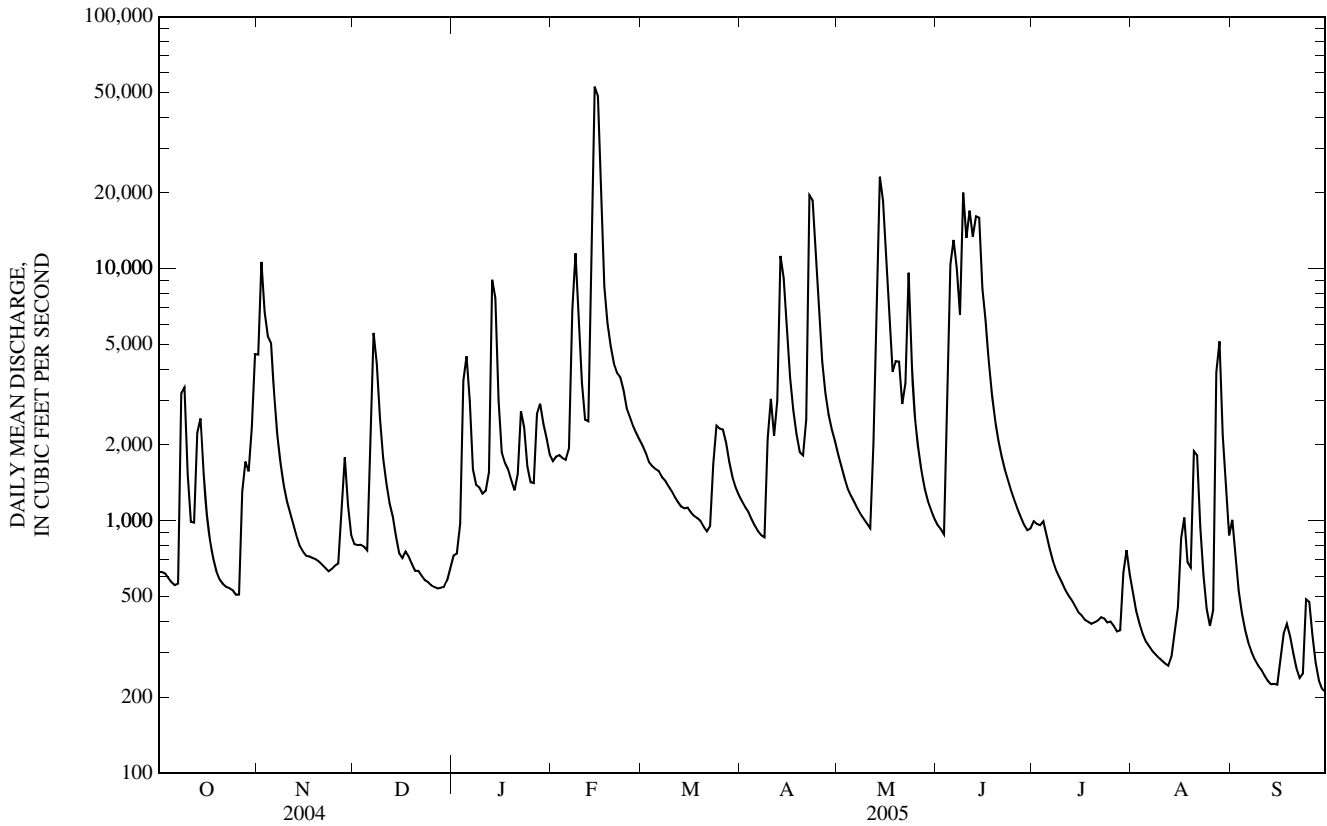
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 2005, BY WATER YEAR (WY)

MEAN	2,618	2,835	1,987	1,895	3,786	6,015	6,922	6,601	7,557	4,535	1,901	2,986
MAX	20,630	29,030	15,440	14,750	19,250	34,220	26,680	43,450	67,270	87,900	19,820	28,090
(WY)	(1974)	(1932)	(1983)	(1932)	(1962)	(1979)	(1973)	(1995)	(1947)	(1993)	(2004)	(1926)
MIN	37.1	40.3	53.0	32.1	57.0	79.5	67.3	130	176	52.8	41.0	62.5
(WY)	(1957)	(1957)	(1956)	(1940)	(1939)	(1957)	(1956)	(1956)	(1988)	(1934)	(1936)	(1955)

06902000 GRAND RIVER NEAR SUMNER, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1925 - 2005	
ANNUAL MEAN	7,320		2,676		4,129	
HIGHEST ANNUAL MEAN					17,390	1993
LOWEST ANNUAL MEAN					367	1934
HIGHEST DAILY MEAN	136,000	Aug 30	52,700	Feb 14	166,000	Jun 8, 1947
LOWEST DAILY MEAN	125	Feb 15,16	210	Sep 30	10	Aug 12, 1934
ANNUAL SEVEN-DAY MINIMUM	131	Feb 11	239	Sep 9	12	Aug 7, 1934
MAXIMUM PEAK FLOW	---		57,200	Feb 15	180,000	Jun 8, 1947
MAXIMUM PEAK STAGE	---		33.99	Feb 15	42.52	Jul 10, 1993
INSTANTANEOUS LOW FLOW	---		202	Sep 30	10	Aug 12, 1934
ANNUAL RUNOFF (INCHES)	14.49		5.28		8.15	
10 PERCENT EXCEEDS	17,000		6,060		10,100	
50 PERCENT EXCEEDS	1,240		1,140		965	
90 PERCENT EXCEEDS	275		378		130	

e Estimated



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

## WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1974 to September 1981.

WATER TEMPERATURE: January 1974 to September 1981.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 12...	1345	Environmental	900	8.3	84	7.2	373	14.6	--	--	--	--
NOV 09...	0850	Environmental	1,410	10.2	91	7.4	376	9.8	190	60.6	9.94	5.43
DEC 01...	0850	Environmental	813	13.6	102	7.3	448	2.6	--	--	--	--
JAN 24...	1500	Environmental	1,530	14.2	102	7.1	355	.5	160	51.4	8.84	5.33
FEB 14...	1420	Environmental	55,000	10.0	84	7.4	200	6.8	--	--	--	--
MAR 08...	0830	Environmental	1,460	11.8	100	7.9	490	7.2	--	--	--	--
APR 04...	1545	Environmental	992	11.8	126	8.1	498	16.8	--	--	--	--
MAY 03...	0905	Environmental	1,530	9.9	93	8.0	468	11.5	240	71.9	13.9	4.36
JUN 22...	1130	Environmental	1,600	6.6	86	8.0	380	27.8	--	--	--	--
JUL 12...	0900	Environmental	513	5.8	75	7.8	482	26.8	220	64.6	13.4	4.79
JUL 12...	0901	Replicate	--	5.8	75	7.9	482	26.8	220	64.7	13.6	4.78
AUG 22...	1315	Environmental	909	6.4	81	7.5	283	26.7	--	--	--	--
SEP 07...	0830	Environmental	301	6.0	74	7.7	387	25.2	--	--	--	--

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 12...	--	--	--	--	--	--	--	--	--	132	.91	<.04	.36
NOV 09...	10.6	159	163	198	<1	9.58	.2	31.5	267	56	.60	<.04	.33
DEC 01...	--	--	--	--	--	--	--	--	--	22	.55	<.04	.30
JAN 24...	10.9	127	125	155	<1	12.7	.2	30.7	230	90	1.2	.20	.58
FEB 14...	--	--	--	--	--	--	--	--	--	2,160d	4.9d	.15	1.43
MAR 08...	--	--	--	--	--	--	--	--	--	43	.54	<.04	.66
APR 04...	--	--	--	--	--	--	--	--	--	55	.55	<.04	<.06
MAY 03...	11.5	179	177	218	<1	10.1	.3	41.2	296	117	.73	<.04	.96
JUN 22...	--	--	--	--	--	--	--	--	--	203d	1.2	<.04	.58
JUL 12...	14.4	194	193	236	<1	10.5	.3	34.5	290	135	1.4	<.04	<.06
JUL 12...	14.4	--	--	--	--	10.5	.3	34.5	286	119	1.3	<.04	<.06
AUG 22...	--	--	--	--	--	--	--	--	--	252d	1.5	<.04	.41
SEP 07...	--	--	--	--	--	--	--	--	--	55	.75	<.04	<.06

## 06902000 GRAND RIVER NEAR SUMNER, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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 coliform, M-FC, col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
OCT 12...	E.004n	E.01n	.04	.26	5,700	7,600k	--	--	--	--	--	--	--
NOV 09...	E.006n	.03	.05	.17	130	120k	Mn	534	1.3	E.03n	.06	1.5	12
DEC 01...	E.004n	<.02	E.02n	.11	860	440	--	--	--	--	--	--	--
JAN 24...	.016	.02	.05	.22	450	530	2	1,020d	1.0	E.04n	.10	2.6	35
FEB 14...	.011	E.01n	.06	1.83	1,500	1,600k	--	--	--	--	--	--	--
MAR 08...	.010	E.01n	<.04	.12	38k	150	--	--	--	--	--	--	--
APR 04...	<.008	<.02	E.03n	.11	2k	7k	--	--	--	--	--	--	--
MAY 03...	<.008	<.02	.05	.21	110	240	Mn	1,380	1.3	E.03n	.08	1.4	E4n
JUN 22...	E.006n	.05	.08	.34	190	240	--	--	--	--	--	--	--
JUL 12...	<.008	E.02n	E.04n	.26	20k	17k	E2n	1,150	1.8	E.03n	.11	1.4	7
JUL 12...	<.008	E.02n	E.04n	.25	16k	11k	2	1,080	1.7	E.03n	.10	1.5	9
AUG 22...	.010	.02	.07	.41	490	560	--	--	--	--	--	--	--
SEP 07...	<.008	.04	.05	.18	46	68	--	--	--	--	--	--	--

Date	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 12...	--	--	--	--	--	--	--
NOV 09...	<.08	1.43	78.9	<.01	.7	E.6n	4
DEC 01...	--	--	--	--	--	--	--
JAN 24...	<.08	9.71	114	<.01	.7	2.7	10
FEB 14...	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--
APR 04...	--	--	--	--	--	--	--
MAY 03...	<.08	2.22	50.3	E.01n	1.0	.7	8
JUN 22...	--	--	--	--	--	--	--
JUL 12...	<.08	2.40	155	E.01n	.7	.6	6
JUL 12...	<.08	2.20	152	.01	.6	E.5n	6
AUG 22...	--	--	--	--	--	--	--
SEP 07...	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than.

E -- Estimated.

M-- Presence verified but 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

06904050 CHARITON RIVER AT LIVONIA, MO

LOCATION.--Lat 40°29'02", long 92°41'09", in NW ¼ SE ¼ NW ¼ sec.34, T.66 N., R.16 W., Schuyler County, Hydrologic Unit 10280201, on left bank 10 ft downstream from bridge on U.S. Highway 136, 1.0 mi upstream from Shoal Creek, 0.5 mi east of Livonia, and at mile 90.9.

DRAINAGE AREA.--864 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	146	335	69	126	e198	787	84	825	54	276	42	37
2	138	513	63	119	e250	775	83	812	51	464	41	36
3	142	295	61	143	e275	668	76	802	50	452	41	36
4	132	233	62	211	e270	417	74	656	62	441	41	35
5	129	238	75	191	e305	305	71	460	149	436	39	35
6	127	167	705	97	428	291	71	448	351	433	38	34
7	127	135	725	211	684	287	79	387	266	364	38	35
8	90	104	420	262	671	283	97	269	531	148	37	35
9	78	83	251	196	712	270	115	260	584	120	37	36
10	75	75	350	159	624	265	254	255	440	114	37	36
11	64	71	797	154	592	260	576	313	1,540	110	37	35
12	69	66	792	434	608	256	3,860	344	1,690	108	39	35
13	77	62	772	e781	1,850	250	3,140	752	2,200	79	52	36
14	84	59	753	e460	2,510	245	2,440	629	1,230	56	58	39
15	72	58	755	e330	1,650	243	1,070	397	677	54	60	45
16	67	56	752	e310	890	228	638	313	717	53	47	46
17	185	55	751	e280	971	119	513	279	936	51	41	40
18	106	55	657	e275	870	87	441	267	917	51	40	39
19	63	58	444	e270	821	86	400	248	900	50	40	32
20	61	63	441	e268	815	83	370	122	883	50	62	33
21	58	60	373	e265	827	78	455	81	879	49	44	36
22	59	55	e148	e254	818	78	776	73	877	47	39	36
23	61	54	e140	e200	720	88	1,900	68	874	46	37	36
24	64	52	e132	e200	824	93	1,490	63	871	44	37	34
25	61	52	e130	e210	814	102	769	60	787	43	38	33
26	60	52	137	e340	802	109	788	57	480	46	40	36
27	131	54	136	e500	798	102	914	57	450	54	37	36
28	98	55	135	e470	802	92	886	59	379	70	37	42
29	76	63	139	e260	---	86	863	128	213	51	38	39
30	361	65	134	e210	---	85	844	86	518	48	37	41
31	344	---	130	e195	---	87	---	59	---	46	37	---
MEAN	110	111	369	270	800	232	805	311	685	144	41.5	36.8
MAX	361	513	797	781	2,510	787	3,860	825	2,200	464	62	46
MIN	58	52	61	97	198	78	71	57	50	43	37	32
IN.	0.15	0.14	0.49	0.36	0.96	0.31	1.04	0.41	0.89	0.19	0.06	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005			
MEAN	385	417	551	323	524	812	808	873	853	943	582	452																							
MAX	1,764	1,714	2,005	1,797	1,956	2,046	1,898	2,239	1,839	3,923	2,045	2,029																							
(WY)	(1994)	(1994)	(1983)	(1993)	(1983)	(1993)	(1983)	(1995)	(1980)	(1993)	(1993)	(1993)																							
MIN	27.2	26.2	19.9	13.6	23.0	47.6	31.1	33.1	33.6	23.6	32.3	29.0																							
(WY)	(1977)	(1990)	(1977)	(1977)	(1989)	(2000)	(1989)	(2000)	(1988)	(1988)	(1988)	(2002)																							

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

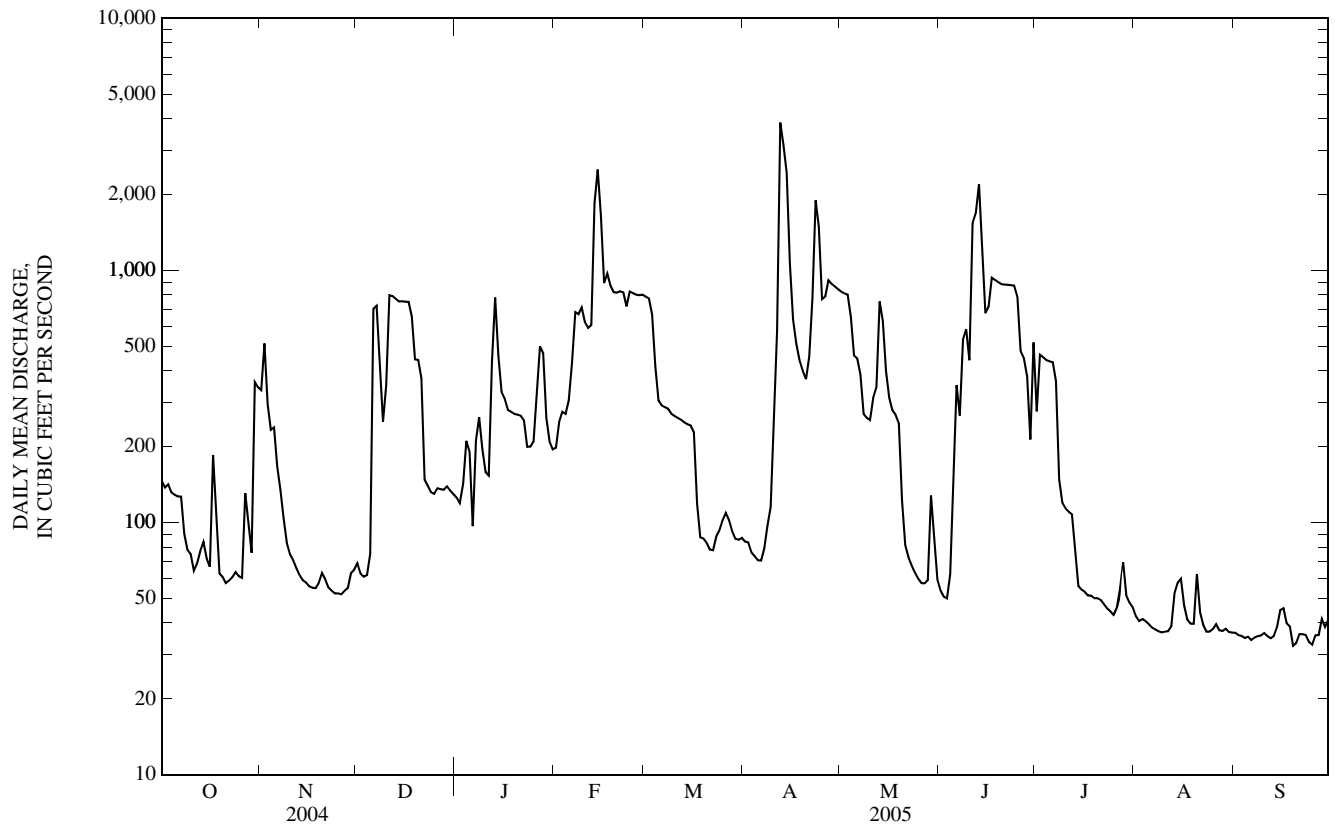
FOR 2005 WATER YEAR

WATER YEARS 1974 - 2005

ANNUAL MEAN	468	321	627
HIGHEST ANNUAL MEAN			1,838
LOWEST ANNUAL MEAN			69.2
HIGHEST DAILY MEAN	4,360	Aug 28	3,860
LOWEST DAILY MEAN	47	May 11,12,17	32
ANNUAL SEVEN-DAY MINIMUM	51	May 7	34
MAXIMUM PEAK FLOW	---		4,390
MAXIMUM PEAK STAGE	---		19.44
INSTANTANEOUS LOW FLOW	---		30
ANNUAL RUNOFF (INCHES)	7.37	5.05	9.86
10 PERCENT EXCEEDS	1,110	806	1,520
50 PERCENT EXCEEDS	233	132	269
90 PERCENT EXCEEDS	60	39	32

e Estimated

06904050 CHARITON RIVER AT LIVONIA, MO—Continued





## 06904500 CHARITON RIVER AT NOVINGER, MO

LOCATION.--Lat 40°14'04", long 92°41'11", on south line of SE ¼ NE ¼ sec.28, T.63 N., R.16 W., Adair County, Hydrologic Unit 10280202, on downstream side of center pier of bridge on State Highway 6, 0.6 mi east of Novinger, 1.0 mi downstream from Rye Creek, 2.0 mi upstream from Spring Creek, and at mile 73.1.

DRAINAGE AREA.--1,370 mi<sup>2</sup>.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	253	1,950	158	224	332	1,010	178	1,110	75	381	55	43
2	210	1,810	155	210	429	970	166	1,060	67	414	50	43
3	211	894	143	296	426	926	155	1,020	68	473	48	42
4	201	904	144	558	465	655	142	943	151	461	49	41
5	191	704	156	515	562	486	135	653	446	454	50	40
6	184	487	2,060	241	661	436	133	592	773	435	45	39
7	188	369	2,030	314	1,770	426	205	550	557	424	43	38
8	262	303	1,150	436	1,270	413	209	405	795	270	42	40
9	171	254	686	383	967	388	193	368	1,490	175	40	41
10	170	229	525	341	784	373	236	346	1,380	157	40	39
11	134	212	1,050	347	714	363	e3,620	499	4,230	147	40	39
12	316	199	1,110	1,560	773	354	e10,500	1,110	3,140	140	41	38
13	350	186	1,060	4,000	3,590	343	e7,920	3,920	6,880	130	66	39
14	220	177	978	1,100	e4,100	331	5,440	1,940	2,890	94	90	45
15	184	172	976	e900	3,730	323	2,760	951	1,470	79	80	52
16	157	168	982	e550	1,960	322	1,540	620	1,060	75	72	63
17	182	164	965	e410	1,690	256	1,160	491	1,210	71	55	53
18	248	161	941	e390	1,420	169	953	432	1,160	67	49	48
19	155	165	629	e350	1,270	156	810	415	1,080	66	49	48
20	147	170	563	e350	1,230	156	748	303	1,030	64	194	45
21	143	168	548	e375	1,250	141	906	185	995	63	117	40
22	142	159	e210	e340	1,180	161	3,520	260	966	61	64	42
23	160	154	e200	e260	1,040	349	5,380	161	941	58	53	42
24	147	153	e198	e250	1,080	410	3,490	124	918	55	49	41
25	146	142	e190	e280	1,070	437	1,690	106	890	52	49	39
26	148	121	194	e680	1,030	357	1,300	95	590	55	50	54
27	274	130	186	e820	1,020	295	1,410	86	481	68	50	48
28	315	132	191	e600	1,050	248	1,310	82	464	73	48	50
29	239	133	197	428	---	217	1,240	92	326	80	48	57
30	858	152	219	320	---	198	1,170	173	484	61	47	49
31	982	---	232	297	---	194	---	92	---	57	44	---
MEAN	248	371	614	585	1,317	383	1,954	619	1,234	170	58.6	44.6
MAX	982	1,950	2,060	4,000	4,100	1,010	10,500	3,920	6,880	473	194	63
MIN	134	121	143	210	332	141	133	82	67	52	40	38
IN.	0.21	0.30	0.52	0.49	1.00	0.32	1.59	0.52	1.00	0.14	0.05	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2005<sup>a</sup>, BY WATER YEAR (WY)

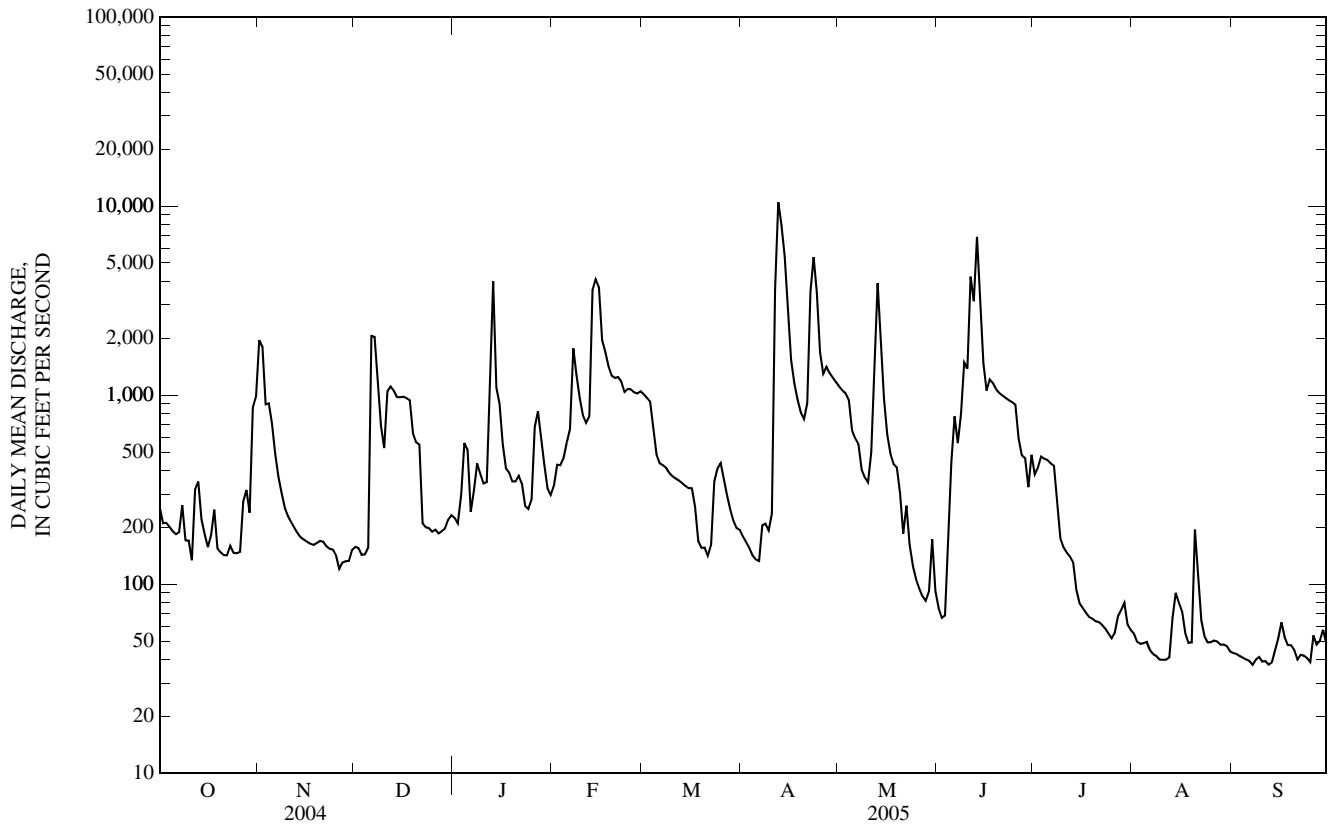
MEAN	704	671	823	539	945	1,501	1,546	1,772	1,343	1,400	767	698
MAX	3,352	2,403	3,318	2,686	2,652	4,105	5,302	5,447	4,482	9,877	2,770	3,232
(WY)	(1974)	(1993)	(1983)	(1993)	(2001)	(1993)	(1973)	(1995)	(2001)	(1993)	(1993)	(1993)
MIN	25.6	30.2	20.0	13.6	28.0	73.8	35.8	43.0	46.1	32.2	28.1	31.8
(WY)	(1972)	(1990)	(1977)	(1977)	(1989)	(2000)	(1989)	(2000)	(1988)	(1970)	(1971)	(2002)

CHARITON RIVER BASIN

06904500 CHARITON RIVER AT NOVINGER, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1970 - 2005 <sup>a</sup>	
ANNUAL MEAN	948		624		1,060	
HIGHEST ANNUAL MEAN					3,299	1993
LOWEST ANNUAL MEAN					107	2000
HIGHEST DAILY MEAN	18,400	Aug 28	10,500	Apr 12	22,900	May 12, 2002
LOWEST DAILY MEAN	66	May 11,12	38	Sep 7,12	11	Aug 1, 1970
ANNUAL SEVEN-DAY MINIMUM	80	May 7	39	Sep 6	12	Jul 26, 1970
MAXIMUM PEAK FLOW	---		Unknown	Apr 12	24,200	May 12, 2002
MAXIMUM PEAK STAGE	---		Unknown	Apr 12	25.71	Jul 24, 1993
INSTANTANEOUS LOW FLOW	---		37	Sep 7,12,13,25	11	1970,1995,2000,2003
ANNUAL RUNOFF (INCHES)	9.42		6.19		10.51	
10 PERCENT EXCEEDS	1,900		1,270		2,270	
50 PERCENT EXCEEDS	426		256		454	
90 PERCENT EXCEEDS	105		49		40	

e Estimated  
<sup>a</sup> Post-regulation period.



06905500 CHARITON RIVER NEAR PRAIRIE HILL, MO

LOCATION.--Lat 39°32'24", long 92°47'27", in NW ¼ SW ¼ sec.26, T.55 N., R.17 W., Chariton County, Hydrologic Unit 10280202, on right bank on downstream side of road at bridge on State Highway 129, 3.2 mi northwest of Prairie Hill, 13.5 mi upstream from Puzzle Creek, and at mile 19.6.

DRAINAGE AREA.--1,870 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	236	3,350	457	397	466	1,150	291	1,210	245	405	101	67
2	262	4,470	446	419	466	1,100	271	1,160	193	579	93	66
3	224	2,450	409	1,320	558	1,070	249	1,120	177	418	82	67
4	215	2,910	373	2,920	660	1,030	235	1,100	835	553	64	66
5	232	1,920	405	3,570	710	784	220	1,040	776	550	56	65
6	241	1,180	932	1,680	762	603	215	786	610	539	60	63
7	254	836	3,020	748	1,090	535	210	695	943	530	61	61
8	1,140	661	2,950	585	2,220	509	233	651	6,810	522	57	60
9	1,310	557	1,540	667	1,560	493	298	583	7,690	470	53	60
10	487	479	981	872	1,240	472	271	473	2,920	282	51	60
11	320	432	737	873	1,070	449	451	423	9,390	221	48	60
12	288	390	1,060	1,170	1,060	435	14,400	689	4,960	198	48	60
13	779	356	1,150	5,590	5,200	423	14,800	2,330	5,470	188	61	60
14	798	333	1,070	3,740	9,880	412	7,980	5,180	6,080	180	80	60
15	472	320	1,000	1,120	6,160	397	5,020	2,200	2,720	168	97	68
16	355	307	1,010	e605	3,770	388	2,610	1,240	1,540	147	107	86
17	289	304	1,000	e500	2,050	384	1,630	839	1,100	127	105	115
18	278	299	996	e470	1,780	358	1,250	682	1,190	115	99	92
19	348	312	968	e464	1,500	279	1,040	628	1,150	110	95	83
20	311	304	660	e469	1,390	234	955	597	1,060	104	107	75
21	242	297	539	e502	1,400	223	901	519	1,010	102	103	68
22	235	296	e480	e469	1,390	233	1,820	1,020	980	103	227	70
23	305	286	e380	e415	1,300	285	4,410	1,360	956	99	142	76
24	277	345	e320	e404	1,160	474	5,350	629	930	96	104	75
25	249	405	e310	e518	1,170	811	3,050	389	910	99	91	73
26	414	526	e340	699	1,170	803	1,710	304	892	105	81	71
27	977	1,750	e355	853	1,140	627	1,340	260	712	109	76	68
28	662	1,250	e365	1,390	1,140	493	1,420	234	545	106	73	73
29	585	600	338	867	---	e416	1,310	215	519	102	76	74
30	493	449	292	675	---	354	1,240	204	474	104	75	66
31	788	---	368	522	---	319	---	235	---	108	70	---
MEAN	454	946	815	1,145	1,909	534	2,506	935	2,126	243	85.3	70.3
MAX	1,310	4,470	3,020	5,590	9,880	1,150	14,800	5,180	9,390	579	227	115
MIN	215	286	292	397	466	223	210	204	177	96	48	60
IN.	0.28	0.56	0.50	0.71	1.06	0.33	1.50	0.58	1.27	0.15	0.05	0.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2005, BY WATER YEAR (WY)

	714	798	740	714	1,124	1,861	2,038	2,075	2,012	1,396	727	705
MEAN	714	798	740	714	1,124	1,861	2,038	2,075	2,012	1,396	727	705
MAX	5,695	6,574	5,449	4,516	4,102	5,724	8,981	9,560	14,830	15,980	4,856	5,203
(WY)	(1974)	(1962)	(1983)	(1946)	(1937)	(1973)	(1973)	(1995)	(1947)	(1993)	(1932)	(1993)
MIN	9.59	9.77	13.0	12.9	18.1	37.3	45.9	69.8	25.8	13.4	7.97	13.6
(WY)	(1957)	(1957)	(1957)	(1957)	(1957)	(1957)	(1956)	(2000)	(1934)	(1934)	(1936)	(1953)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

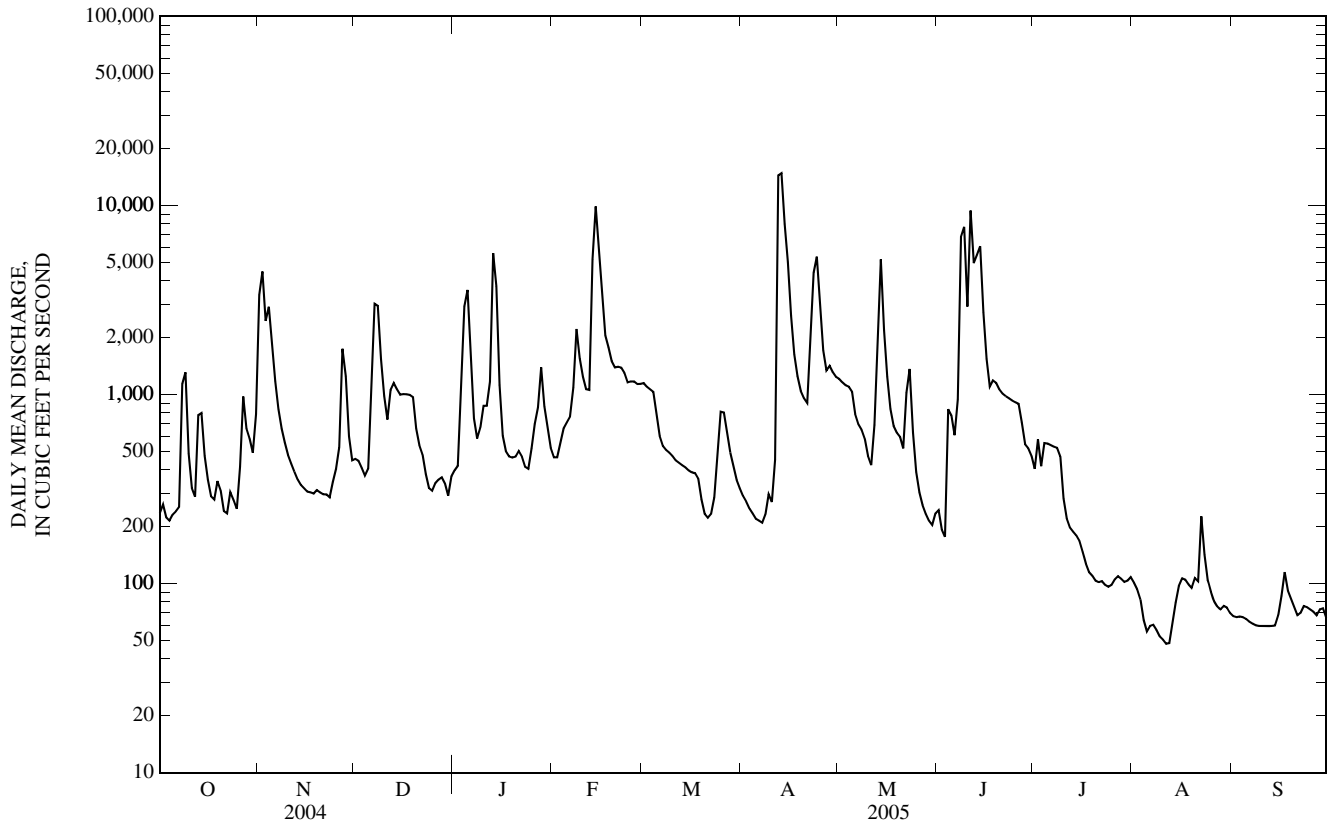
FOR 2005 WATER YEAR

WATER YEARS 1929 - 2005

ANNUAL MEAN	1,153	968	1,240
HIGHEST ANNUAL MEAN			4,320
LOWEST ANNUAL MEAN			159
HIGHEST DAILY MEAN	21,700	Aug 29	35,600
LOWEST DAILY MEAN	59	Aug 23	4.6
ANNUAL SEVEN-DAY MINIMUM	94	Jan 6	4.8
MAXIMUM PEAK FLOW	---	---	37,100
MAXIMUM PEAK STAGE	---	---	23.01
INSTANTANEOUS LOW FLOW	---	---	4.6
ANNUAL RUNOFF (INCHES)	8.40	7.03	9.01
10 PERCENT EXCEEDS	2,350	1,860	3,040
50 PERCENT EXCEEDS	624	470	356
90 PERCENT EXCEEDS	124	75	40

CHARITON RIVER BASIN

06905500 CHARITON RIVER NEAR PRAIRIE HILL, MO—Continued



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

WATER-QUALITY RECORDS

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

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 08...	1340	Environmental	646	9.8	91	7.6	411	11.2	200	60.5	12.1	5.52	
JAN 25...	0845	Environmental	e518	13.3	94	7.3	405	.1	--	--	--	--	
MAR 07...	1405	Environmental	535	11.6	106	7.8	405	10.1	--	--	--	--	
MAY 03...	1130	Blank	--	--	--	--	--	--	--	<.02	E.005n	<.16	
MAY 03...	1200	Environmental	1,110	10.5	99	8.2	339	12.2	160	48.3	10.4	5.11	
JUL 11...	1330	Environmental	219	8.0	108	8.1	350	29.4	--	--	--	--	
SEP 06...	1330	Environmental	63	8.5	115	8.1	425	30.2	--	--	--	--	
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 08...	9.71	139	140	170	<1	8.47	.2	55.7	268	60	.63	<.04	.30
JAN 25...	--	--	--	--	--	--	--	--	--	28	.98	.15	.40
MAR 07...	--	--	--	--	--	--	--	--	--	50	.51	<.04	.36
MAY 03...	<.20	--	--	--	--	<.20	<.1	<.2	<10	<10	<.10	E.03n	<.06
MAY 03...	8.62	118	118	144	<1	8.04	.2	39.7	212	146	.91	<.04	.37
JUL 11...	--	--	--	--	--	--	--	--	--	121	.85	<.04	<.06
SEP 06...	--	--	--	--	--	--	--	--	--	35	.68	<.04	<.06
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, col/100 mL (31633)	Fecal coliform, M-FC col/100 mL (31625)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Aluminum, water, unfltrd recover-able, $\mu$ 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)	Iron, water, fltrd, $\mu$ g/L (01046)
NOV 08...	E.004n	.03	.06	.19	66	310	E1n	652	1.1	<.04	.06	1.9	9
JAN 25...	E.006n	<.02	E.03n	.11	90	120k	--	--	--	--	--	--	--
MAR 07...	.010	<.02	<.04	.07	8k	7k	--	--	--	--	--	--	--
MAY 03...	<.008	<.02	<.04	<.04	--	--	<.2	E1n	<.2	<.04	<.04	<.4	<.6
MAY 03...	<.008	<.02	E.02n	.26	100	140	E1n	1,750	.9	<.04	.10	1.6	E4n
JUL 11...	<.008	E.01n	.04	.21	150	210	--	--	--	--	--	--	--
SEP 06...	<.008	E.02n	E.02n	.11	38k	32k	--	--	--	--	--	--	--

06905500 CHARITON RIVER NEAR PRAIRIE HILL, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 08...	<.08	1.31	26.2	<.01	.8	.8	6
JAN 25...	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--
MAY 03...	<.08	<.06	<.6	<.01	<.4	E.4n	<2
JUL 11...	<.08	3.33	6.6	E.01n	.6	E.5n	12
SEP 06...	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

e -- Estimated discharge value.

## Value qualifier codes used in this table:

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

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

LOCATION.--Lat 40°09'38", long 92°53'25", in NE ¼ NW ¼ SW ¼ sec.23, T.62 N., R.18 W., Sullivan County, Hydrologic Unit 10280202, approximately 2 mi east of Mystic on the left bank on upstream side of bridge on County Highway H.

DRAINAGE AREA.--24.0 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 28...	0910	Environmental	2.0	4.9	48	7.7	406	14.0	--	--	--	--
NOV 17...	0955	Environmental	1.8	10.1	91	8.0	448	11.0	180	52.9	12.2	5.51
DEC 17...	1330	Environmental	2.4	14.1	97	8.0	414	1.0	--	--	--	--
JAN 26...	1455	Environmental	18	15.0	106	8.0	333	.5	130	37.7	8.31	6.19
FEB 08...	1300	Environmental	22	13.5	96	7.9	273	.5	--	--	--	--
MAR 17...	0850	Environmental	2.9	11.8	93	8.1	466	5.5	--	--	--	--
MAR 17...	0851	Blank	--	--	--	--	--	--	--	--	--	--
APR 07...	1100	Environmental	2.9	8.4	80	7.9	442	13.0	--	--	--	--
MAY 11...	0920	Environmental	11	5.6	64	7.4	472	20.0	200	56.4	13.6	4.90
JUN 29...	0835	Environmental	1.7	5.5	70	7.7	418	25.0	--	--	--	--
JUL 14...	0905	Environmental	.02	4.3	52	7.6	452	23.0	180	53.8	12.0	6.71
AUG 18...	1050	Environmental	.08	8.2	96	8.0	420	24.0	--	--	--	--
SEP 21...	0830	Environmental	.05	4.6	48	7.8	315	17.5	--	--	--	--

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, 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 28...	--	--	--	--	--	--	--	--	--	<10	.91	<.04	<.06
NOV 17...	18.5	171	171	209	<1	16.8	.1	46.3	280	<10	.57	<.04	.10
DEC 17...	--	--	--	--	--	--	--	--	--	<10	.52	E.04n	.19
JAN 26...	13.5	96	97	118	<1	15.3	.1	31.5	198	46	1.4	.37	.40
FEB 08...	--	--	--	--	--	--	--	--	--	65	1.7	.18	.90
MAR 17...	--	--	--	--	--	--	--	--	--	<10	1.0	<.04	<.06
MAR 17...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	<.06
APR 07...	--	--	--	--	--	--	--	--	--	<10	.59	<.04	<.06
MAY 11...	19.3	168	169	206	<1	13.5	.2	46.3	280	10	.67	<.04	<.06
JUN 29...	--	--	--	--	--	--	--	--	--	21	.85	<.04	<.06
JUL 14...	20.9	164	165	201	<1	18.6	.3	34.3	270	<10	.68	.07	<.06
AUG 18...	--	--	--	--	--	--	--	--	--	22	1.8	<.04	E.04n
SEP 21...	--	--	--	--	--	--	--	--	--	37	1.5	<.04	<.06

## 06905725 MUSSEL FORK NEAR MYSTIC, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7µ MF col/ 100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
OCT 28...	<.008	.04	.06	.14	480	140k	--	--	--	--	--	--	--
NOV 17...	E.004n	<.02	<.04	.06	60k	73k	2	213	.9	<.04	E.03n	2.0	20
DEC 17...	<.008	<.02	<.04	.05	7k	31k	--	--	--	--	--	--	--
JAN 26...	.019	.02	.06	.22	200k	630	2	641	.7	<.04	.05	4.5	29
FEB 08...	.009	.02	.05	.18	490k	230k	--	--	--	--	--	--	--
MAR 17...	<.008	<.02	<.04	.13	8k	10k	--	--	--	--	--	--	--
MAR 17...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
APR 07...	<.008	<.02	<.04	.06	810	1,000	--	--	--	--	--	--	--
MAY 11...	<.008	<.02	E.03n	.07	120k	92k	2	99	1.2	<.04	E.04n	1.5	39
JUN 29...	E.004n	<.02	<.04	.08	260	290	--	--	--	--	--	--	--
JUL 14...	<.008	<.02	<.04	.04	120	100	E1n	160	1.2	E.03n	.05	1.6	7
AUG 18...	.009	<.02	<.04	.12	1,900k	2,500k	--	--	--	--	--	--	--
SEP 21...	E.004n	<.02	<.04	.23	920	1,100	--	--	--	--	--	--	--

Date	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 28...	--	--	--	--	--	--	--
NOV 17...	<.08	.30	387	<.01	.5	1.8	E1n
DEC 17...	--	--	--	--	--	--	--
JAN 26...	.13	.87	319	<.01	<.4	3.1	4
FEB 08...	--	--	--	--	--	--	--
MAR 17...	--	--	--	--	--	--	--
MAR 17...	--	--	--	--	--	--	--
APR 07...	--	--	--	--	--	--	--
MAY 11...	<.08	.26	245	<.01	.6	E.6n	E1n
JUN 29...	--	--	--	--	--	--	--
JUL 14...	<.08	.39	320	<.01	.6	.7	E1n
AUG 18...	--	--	--	--	--	--	--
SEP 21...	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

Value qualifier codes used in this table:

k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL



06906000 MUSSEL FORK NEAR MUSSELFORK, MO

LOCATION.--Lat 39°31'25", long 92°56'59", in SW ¼ SW ¼ SE ¼ sec.32, T.55 N., R.18 W., Chariton County, Hydrologic Unit 10280202, on downstream side of pier of bridge on State Highway 5, 4.5 mi southwest of Musselfork, and 1.5 mi upstream from Long Branch.

DRAINAGE AREA.--267 mi<sup>2</sup>.

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

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

REMARKS.--Records 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	748	141	67	55	105	77	67	28	18	2.5	3.8
2	12	1,410	132	84	55	98	69	61	25	17	2.0	2.9
3	13	588	116	467	52	91	64	56	25	16	1.7	2.4
4	12	782	104	1,360	51	84	60	52	73	17	1.4	2.4
5	11	653	105	1,610	56	79	56	49	111	19	1.2	2.4
6	11	297	337	765	62	78	54	46	113	17	1.1	2.1
7	14	181	567	e308	145	76	52	45	72	15	0.98	1.9
8	99	135	630	e215	376	72	50	44	454	14	0.89	1.7
9	736	107	358	e173	238	68	51	43	1,810	13	0.78	1.5
10	150	90	211	237	145	64	54	42	2,360	11	0.88	1.4
11	68	80	161	274	e109	61	71	44	2,590	10	0.98	1.2
12	46	72	132	350	140	58	944	57	2,240	9.2	0.88	1.1
13	61	65	114	1,190	1,640	58	2,020	229	1,210	8.5	1.6	0.99
14	155	59	96	868	2,600	56	1,940	937	610	7.8	4.9	0.95
15	100	55	e70	e272	2,360	54	365	373	249	7.3	6.3	0.99
16	58	53	e60	e194	542	53	214	160	148	7.1	6.1	1.1
17	41	51	e70	e176	260	51	160	99	103	7.0	5.1	1.2
18	33	51	e72	e153	191	49	129	73	80	6.0	4.1	1.3
19	27	53	e62	e136	157	48	107	63	64	5.2	7.2	1.3
20	25	53	e63	112	147	47	102	54	54	4.9	22	12
21	29	50	e61	101	155	46	178	53	46	4.3	26	9.8
22	26	47	e62	89	157	56	154	167	41	3.8	18	6.3
23	25	46	e45	e70	138	158	268	645	40	3.5	9.5	5.6
24	28	69	e44	e72	119	205	318	155	35	3.5	6.7	5.0
25	24	97	41	71	107	321	188	85	31	3.3	8.0	4.0
26	25	128	39	67	111	275	130	58	27	4.2	19	3.3
27	194	767	41	63	108	196	108	46	23	7.6	15	3.5
28	185	713	42	57	105	145	91	38	21	6.6	11	3.7
29	94	252	47	62	---	118	80	35	20	6.3	9.2	2.8
30	82	160	52	59	---	101	73	32	19	4.9	6.7	2.4
31	86	---	62	56	---	88	---	32	---	3.4	5.0	---
MEAN	80.0	264	133	315	371	98.7	274	127	424	9.08	6.67	3.03
MAX	736	1,410	630	1,610	2,600	321	2,020	937	2,590	19	26	12
MIN	11	46	39	56	51	46	50	32	19	3.3	0.78	0.95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2005, BY WATER YEAR (WY)

MEAN	156	158	171	141	234	303	433	323	303	225	82.4	147
MAX	1,246	976	1,335	729	1,453	1,370	2,585	1,538	1,225	3,029	573	1,295
(WY)	(1986)	(1986)	(1983)	(1965)	(1982)	(1973)	(1973)	(1973)	(1981)	(1981)	(2004)	(1973)
MIN	0.04	1.05	0.61	0.44	0.89	5.84	18.0	9.77	2.37	0.94	0.54	0.59
(WY)	(1964)	(1977)	(1964)	(1964)	(1964)	(2003)	(1989)	(1980)	(1988)	(2003)	(2003)	(1976)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

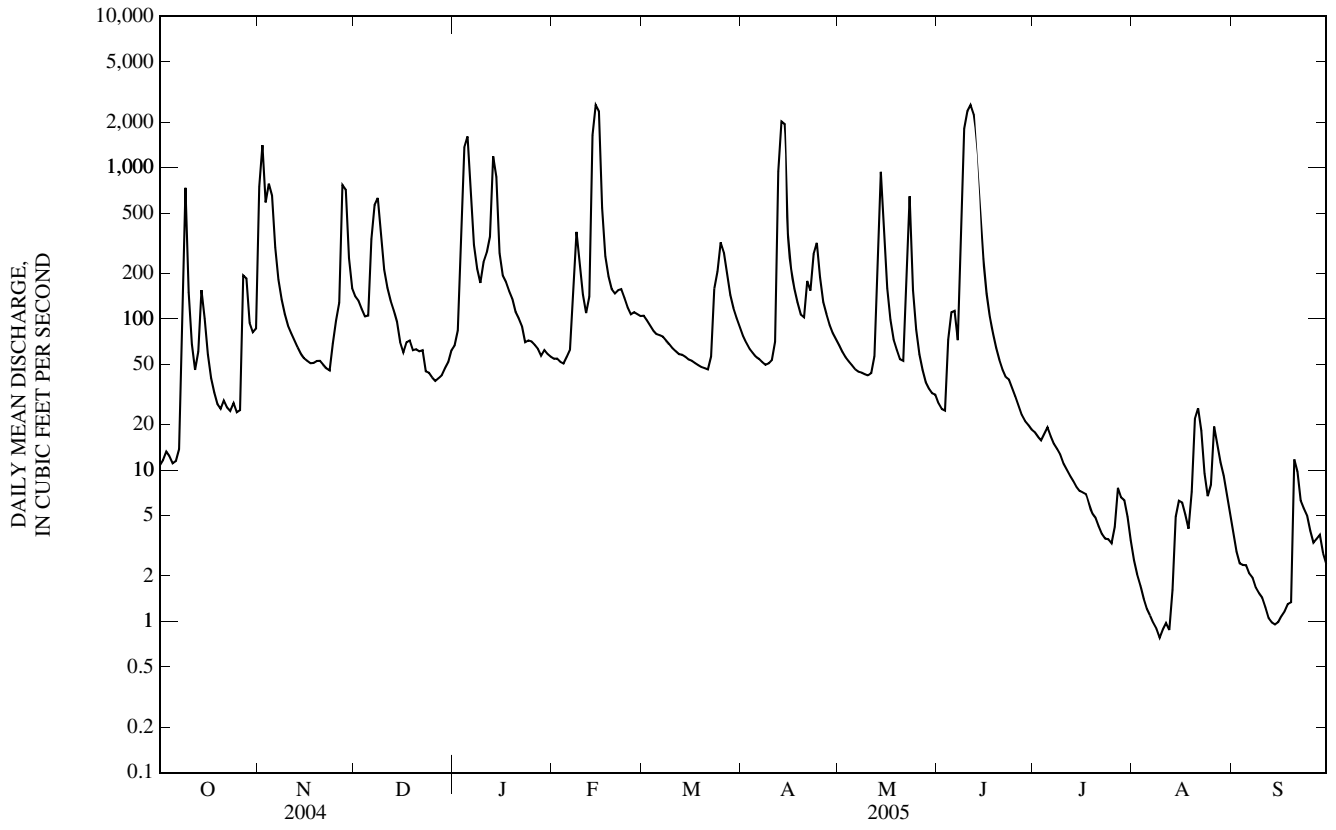
FOR 2005 WATER YEAR

WATER YEARS 1949 - 2005

ANNUAL MEAN	179	173	230
HIGHEST ANNUAL MEAN			719
LOWEST ANNUAL MEAN			22.9
HIGHEST DAILY MEAN	3,490	Aug 30	18,300
LOWEST DAILY MEAN	10	Jul 30-Aug 2	0.00
ANNUAL SEVEN-DAY MINIMUM	10	Jul 28	0.00
MAXIMUM PEAK FLOW	---		23,100
MAXIMUM PEAK STAGE	---		22.11
INSTANTANEOUS LOW FLOW	---		0.00
10 PERCENT EXCEEDS	416		500
50 PERCENT EXCEEDS	51		29
90 PERCENT EXCEEDS	13		2.5

e Estimated

06906000 MUSSEL FORK NEAR MUSSELFORK, MO—Continued



06906150 LONG BRANCH CREEK AT ATLANTA, MO

LOCATION.--Lat 39°53'50", long 92°29'36", in SE ¼ NW ¼ NW ¼ sec.20, T.59N., R.14W., Macon County, Hydrologic Unit 10280203, at right upstream end of bridge on Marion Street, 0.65 mi east of Highway RA, and 0.3 mi west of Atlanta.

DRAINAGE AREA.--23.0 mi<sup>2</sup>.

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

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

REMARKS.--Records 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.20	298	9.9	4.2	2.2	5.7	4.6	1.5	0.82	0.33	0.00	0.10
2	0.22	165	6.9	16	2.2	4.9	4.3	1.3	0.78	0.28	0.00	0.08
3	0.24	34	4.1	200	e2.2	6.7	4.2	1.2	0.75	0.35	0.00	0.06
4	0.24	206	2.9	218	2.3	7.1	4.2	1.2	17	0.33	0.00	0.06
5	0.21	38	4.1	116	2.4	5.9	4.0	1.1	21	0.22	0.00	0.04
6	0.17	7.9	84	e33	3.0	4.6	4.0	1.1	4.4	0.15	0.00	0.02
7	0.25	3.5	93	21	19	4.7	4.0	1.1	5.0	0.10	0.00	0.01
8	63	2.2	54	7.3	24	5.1	3.8	1.1	132	0.08	0.00	0.01
9	49	1.8	16	6.7	e6.5	3.7	3.7	1.1	153	0.06	0.00	0.01
10	2.7	1.6	9.6	14	e5.5	3.3	3.5	1.1	30	0.05	0.00	0.00
11	1.1	1.2	7.1	18	e4.5	3.2	18	1.3	177	0.05	0.00	0.00
12	28	0.84	6.0	96	e5.0	3.2	546	3.1	56	0.04	0.00	0.00
13	183	0.74	5.0	308	378	3.0	346	5.9	29	0.03	0.00	0.01
14	13	0.70	e4.2	e36	289	2.9	27	7.4	14	0.03	0.02	0.02
15	2.4	0.66	3.5	e18	37	2.8	7.1	3.5	2.0	0.02	0.03	0.04
16	1.3	0.65	3.4	e8.9	16	2.8	4.4	2.0	1.1	0.01	0.02	0.04
17	0.93	0.66	3.4	3.9	9.9	2.7	3.4	2.1	0.75	0.00	0.02	0.04
18	0.67	0.72	3.3	3.4	7.8	2.8	2.6	2.1	0.55	0.00	0.02	0.34
19	0.51	0.75	e3.1	e3.4	6.7	2.8	2.2	1.4	0.44	0.00	0.02	0.24
20	0.63	0.74	2.8	e3.4	7.8	2.8	2.0	1.2	0.37	0.00	0.04	0.15
21	0.76	0.68	2.6	e3.2	9.4	2.8	1.8	1.2	0.30	0.00	0.03	0.10
22	0.81	0.63	2.4	3.0	8.7	3.6	42	32	0.27	0.00	0.02	0.07
23	6.1	0.63	2.2	2.2	7.0	8.8	49	9.0	0.25	0.00	0.04	0.08
24	4.2	0.75	2.3	2.1	6.2	23	12	3.0	0.21	0.00	0.04	0.07
25	1.4	0.81	2.5	2.2	5.7	36	4.0	1.7	0.18	0.00	0.05	0.06
26	40	1.2	2.3	2.4	5.3	18	2.8	1.3	0.14	0.00	0.09	0.07
27	197	103	2.1	e2.4	5.1	11	2.3	1.1	0.12	0.00	0.08	0.06
28	18	53	2.2	e2.2	6.0	8.3	2.0	0.94	0.10	0.00	0.09	0.05
29	6.1	7.1	2.3	2.0	---	8.6	1.8	0.83	0.74	0.00	0.11	0.05
30	10	4.9	2.6	2.0	---	7.8	1.7	0.80	0.44	0.00	0.07	0.04
31	14	---	3.3	2.1	---	6.5	---	0.78	---	0.00	0.12	---
MEAN	20.8	31.3	11.4	37.5	31.6	6.94	37.3	3.05	21.6	0.07	0.03	0.06
MAX	197	298	93	308	378	36	546	32	177	0.35	0.12	0.34
MIN	0.17	0.63	2.1	2.0	2.2	2.7	1.7	0.78	0.10	0.00	0.00	0.00
IN.	1.05	1.52	0.57	1.88	1.43	0.35	1.81	0.15	1.05	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2005, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
MEAN	12.0	11.5	10.6	17.3	27.8	21.9	34.9	50.9	20.6	8.77	9.54	3.14
MAX	87.7	68.9	54.8	61.7	84.1	81.8	86.7	191	71.0	60.9	56.8	20.2
(WY)	(1999)	(1999)	(2004)	(1999)	(1997)	(1998)	(1999)	(2002)	(1998)	(1998)	(2004)	(2003)
MIN	0.01	0.02	0.01	0.02	1.26	0.98	0.63	0.54	0.97	0.07	0.02	0.02
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)	(2000)	(2002)	(2005)	(2003)	(2002)

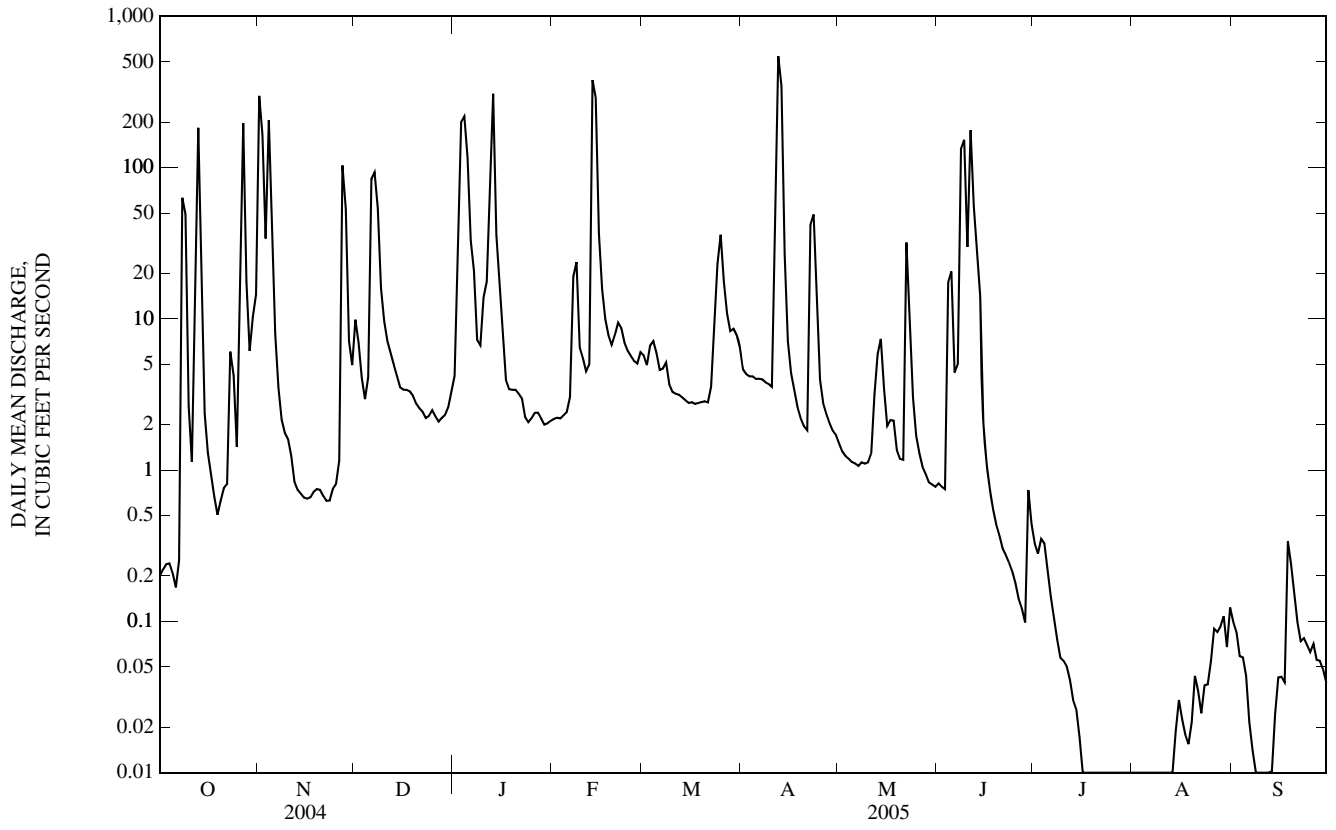
SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1995 - 2005
ANNUAL MEAN	16.6	16.6	18.9
HIGHEST ANNUAL MEAN			37.0
LOWEST ANNUAL MEAN			1.88
HIGHEST DAILY MEAN	570	546	2,060
LOWEST DAILY MEAN	0.06	0.00	0.00
ANNUAL SEVEN-DAY MINIMUM	0.11	0.00	0.00
MAXIMUM PEAK FLOW	---	641	3,360
MAXIMUM PEAK STAGE	---	10.76	16.44
INSTANTANEOUS LOW FLOW	---	0.00	0.00
ANNUAL RUNOFF (INCHES)	9.83	9.81	11.18
10 PERCENT EXCEEDS	33	29	22
50 PERCENT EXCEEDS	1.8	2.2	0.79
90 PERCENT EXCEEDS	0.31	0.02	0.02

e Estimated

CHARITON RIVER BASIN

06906150 LONG BRANCH CREEK AT ATLANTA, MO—Continued



## 06906190 LONG BRANCH RESERVOIR NEAR MACON, MO

LOCATION.--Lat 39°45'01", long 92°30'25", in NW ¼ sec.10, T.57 N., R.14 W., Macon County, Hydrologic Unit 10280203, in Administration Building at left end of dam on East Fork Little Chariton River, 2.0 mi west of junction of U.S. Highways 63 and 36 in Macon, and 2.0 mi below confluence with Long Branch.

DRAINAGE AREA.--109 mi<sup>2</sup>.

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 41,300 ac-ft, June 14, elevation, 793.74 ft; minimum, 28,800 ac-ft, Sept. 30, elevation, 788.64 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	791.17	791.81	791.15	790.25	791.48	792.14	791.02	791.97	791.14	792.23	789.98	789.23
2	791.16	792.50	791.07	790.31	791.58	792.06	790.99	791.90	791.09	792.18	789.93	789.20
3	791.12	792.63	790.96	790.36	791.59	791.99	790.94	791.82	791.04	792.10	789.86	789.18
4	791.10	792.83	790.85	791.12	791.56	791.93	790.91	791.77	791.10	792.12	789.81	789.15
5	791.02	793.09	790.75	791.65	791.51	791.87	790.85	791.71	791.25	792.15	789.81	789.13
6	790.99	793.06	790.74	791.94	791.46	791.81	790.85	791.67	791.25	791.77	789.75	789.10
7	790.97	793.00	790.90	791.96	791.49	791.78	790.84	791.61	791.21	791.34	789.70	789.07
8	791.04	792.89	791.05	791.94	791.55	791.71	790.79	791.55	791.82	791.29	789.47	789.05
9	791.30	792.78	791.04	791.91	791.59	791.64	790.75	791.55	792.69	791.22	789.32	789.03
10	791.39	792.67	790.97	791.91	791.57	791.57	790.71	791.51	792.92	791.17	789.22	789.00
11	791.39	792.64	790.86	791.93	791.53	791.52	790.71	791.47	793.14	791.11	789.19	788.97
12	791.37	792.51	790.75	791.97	791.49	791.47	791.31	791.52	793.63	791.06	789.15	788.94
13	791.47	792.41	790.65	792.48	791.67	791.42	792.70	791.53	793.72	791.00	789.14	788.91
14	791.69	792.31	790.48	792.88	792.83	791.37	793.08	791.54	793.71	790.95	789.21	788.92
15	791.69	792.23	790.40	792.83	793.22	791.30	793.02	791.55	793.60	790.79	789.28	788.90
16	791.63	792.14	790.37	792.73	793.18	791.26	792.93	791.51	793.46	790.74	789.30	788.91
17	791.29	792.08	790.39	792.64	793.10	791.19	792.83	791.45	793.33	790.68	789.31	788.87
18	791.25	792.02	790.39	792.53	793.00	791.15	792.72	791.40	793.21	790.62	789.27	788.84
19	791.27	791.97	790.40	792.39	792.88	791.13	792.62	791.37	793.08	790.58	789.31	788.86
20	791.25	791.84	790.35	792.26	792.79	791.08	792.53	791.34	792.98	790.51	789.39	788.85
21	791.23	791.71	790.36	792.19	792.73	791.02	792.46	791.29	792.89	790.46	789.36	788.82
22	791.21	791.58	790.36	792.13	792.65	791.01	792.37	791.45	792.81	790.41	789.35	788.79
23	791.26	791.43	790.35	792.05	792.55	791.05	792.45	791.51	792.72	790.35	789.32	788.82
24	791.25	791.35	790.31	791.99	792.47	791.00	792.44	791.50	792.64	790.29	789.29	788.81
25	791.23	791.21	790.30	791.95	792.39	791.04	792.37	791.45	792.58	790.23	789.30	788.80
26	791.19	791.07	790.28	791.90	792.34	791.12	792.32	791.42	792.52	790.17	789.30	788.78
27	791.44	791.12	790.27	791.85	792.24	791.13	792.25	791.37	792.45	790.24	789.29	788.75
28	791.67	791.32	790.25	791.79	792.22	791.12	792.17	791.32	792.40	790.17	789.29	788.72
29	791.67	791.31	790.25	791.75	---	791.09	792.09	791.26	792.32	790.11	789.29	788.72
30	791.65	791.23	790.24	791.49	---	791.03	792.05	791.24	792.24	790.06	789.28	788.67
31	791.64	---	790.24	791.37	---	791.05	---	791.19	---	790.02	789.26	---
MAX	791.69	793.09	791.15	792.88	793.22	792.14	793.08	791.97	793.72	792.23	789.98	789.23
MIN	790.97	791.07	790.24	790.25	791.46	791.00	790.71	791.19	791.04	790.02	789.14	788.67
(-)	35,800	34,800	32,400	35,100	37,200	34,300	36,800	34,700	37,300	31,900	30,200	28,900
(=)	+1,100	-1,000	-2,400	+2,700	+2,100	-2,900	+2,500	-2,100	+2,600	-5,400	-1,700	-1,300

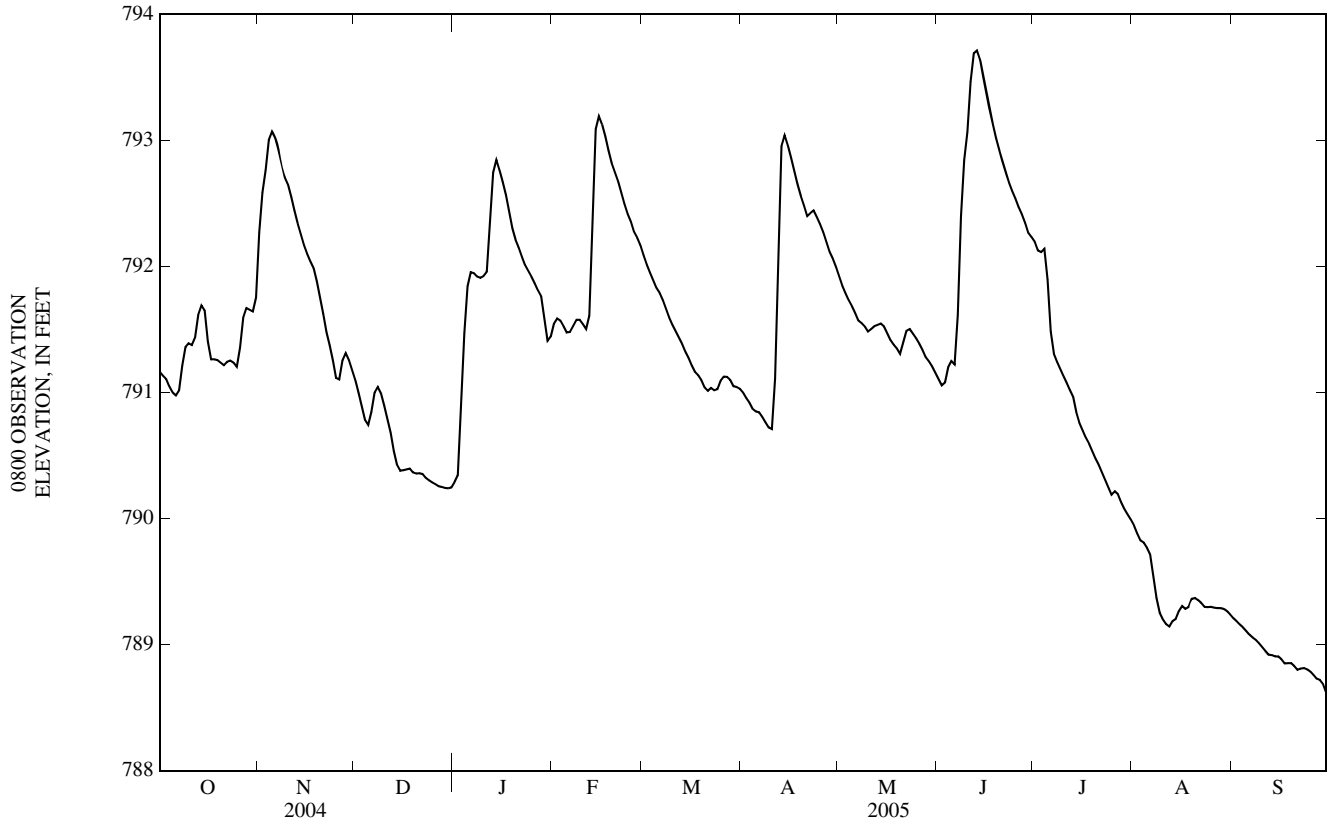
CAL YR 2004.... -2,500

WTR YR 2005.... -5,800

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

(=) Change in contents, in acre-feet.

06906190 LONG BRANCH RESERVOIR NEAR MACON, MO—Continued



06906200 EAST FORK LITTLE CHARITON RIVER NEAR MACON, MO

LOCATION.--Lat 39°45'05", long 92°31'08", in NW 1/4 NW 1/4 NW 1/4 sec.18, T.57 N., R.14 W., Macon County, Hydrologic Unit 10280203, on right bank 250 ft downstream from Long Branch Lake and 3.0 mi west of Macon.

DRAINAGE AREA.--112 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	107	176	11	65	124	49	104	49	73	44	8.3
2	52	158	175	11	63	113	49	92	49	71	44	8.4
3	51	160	175	28	62	103	48	83	48	68	44	8.6
4	51	172	175	53	60	94	48	78	48	67	44	8.5
5	51	180	176	69	59	84	48	73	48	65	44	8.3
6	51	174	176	81	58	75	48	69	48	64	44	8.3
7	51	166	177	83	59	73	48	67	57	57	44	8.4
8	51	155	176	81	61	68	48	65	100	53	44	8.4
9	51	145	176	78	61	65	48	64	170	51	44	8.4
10	51	135	176	79	60	63	49	62	192	50	24	8.2
11	51	128	175	81	59	60	50	61	226	49	8.1	8.1
12	50	117	173	100	58	58	82	61	262	49	8.3	8.3
13	53	106	173	171	103	56	213	61	275	48	8.4	8.4
14	56	97	121	200	215	54	241	62	267	48	e8.4	8.3
15	54	103	47	195	244	52	234	60	255	47	e8.4	8.3
16	52	97	24	186	237	51	225	58	239	47	e8.4	8.2
17	50	68	7.4	177	227	50	214	56	220	47	8.5	8.4
18	50	60	11	170	216	49	202	55	205	46	8.5	8.5
19	20	124	11	160	206	48	190	54	189	45	8.6	8.5
20	2.6	181	11	144	198	47	181	53	175	45	8.5	8.6
21	2.5	174	11	134	190	48	172	52	160	45	8.4	8.3
22	30	179	11	126	182	47	167	64	147	45	8.4	8.6
23	48	184	11	113	173	47	169	56	131	44	8.4	8.7
24	47	182	11	102	165	47	168	56	115	44	8.5	8.7
25	46	178	11	93	156	49	161	54	101	44	8.3	8.7
26	48	175	11	85	148	50	155	53	90	43	8.4	8.4
27	55	182	11	79	139	51	146	52	82	43	8.3	8.6
28	63	181	11	75	134	50	136	51	78	43	8.4	8.6
29	63	180	11	72	---	50	127	50	77	44	8.6	8.6
30	63	178	11	69	---	50	117	49	76	43	8.3	8.6
31	62	---	11	67	---	50	---	49	---	43	8.3	---
MEAN	47.7	148	84.9	102	131	62.1	128	62.1	139	50.7	19.2	8.44
MAX	63	184	177	200	244	124	241	104	275	73	44	8.7
MIN	2.5	60	7.4	11	58	47	48	49	48	43	8.1	8.1
IN.	0.49	1.47	0.87	1.05	1.21	0.64	1.27	0.64	1.39	0.52	0.20	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2005<sup>a</sup>, BY WATER YEAR (WY)

	MEAN	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	53.0	63.5	72.8	46.9	58.1	106	123	178	126	112	64.7	50.2
MAX	406	354	304	223	200	502	475	680	369	743	401	341
(WY)	(1987)	(1986)	(1993)	(1993)	(1999)	(1985)	(1983)	(1995)	(1995)	(1993)	(1981)	(1981)
MIN	0.16	0.27	0.00	0.00	0.00	7.30	7.27	7.21	5.45	5.52	2.48	7.06
(WY)	(1979)	(1979)	(1979)	(1979)	(1979)	(1989)	(1989)	(1988)	(1988)	(1989)	(1980)	(1984)

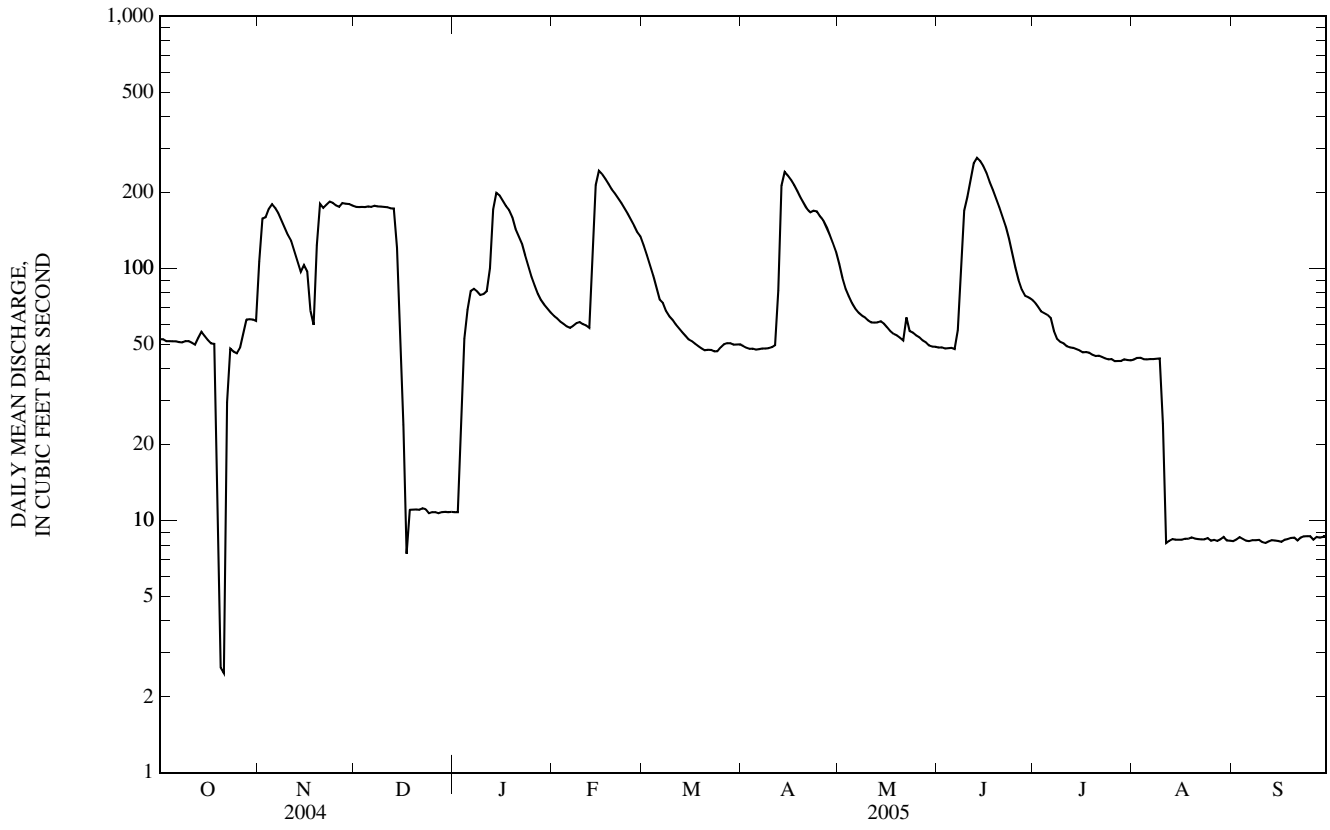
SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1979 - 2005 <sup>a</sup>
ANNUAL MEAN	75.6	81.2	88.1
HIGHEST ANNUAL MEAN			242
LOWEST ANNUAL MEAN			7.13
HIGHEST DAILY MEAN	306	Aug 29	275
LOWEST DAILY MEAN	2.5	Oct 21	2.5
ANNUAL SEVEN-DAY MINIMUM	10	Jan 14	8.3
MAXIMUM PEAK FLOW	---		302
MAXIMUM PEAK STAGE	---		9.91
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	9.18		9.85
10 PERCENT EXCEEDS	173		180
50 PERCENT EXCEEDS	55		56
90 PERCENT EXCEEDS	13		8.5

<sup>e</sup> Estimated

<sup>a</sup> Post-regulation period.

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





06906300 EAST FORK LITTLE CHARITON RIVER NEAR HUNTSVILLE, MO

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

DRAINAGE AREA.--220 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	2,880	292	51	103	123	74	131	68	83	48	9.6
2	70	676	270	59	101	114	70	121	67	77	48	9.3
3	64	466	254	824	98	112	66	113	66	73	49	9.3
4	61	770	245	906	96	112	64	108	317	73	48	9.1
5	60	390	301	2,790	96	104	63	104	309	70	51	9.1
6	61	309	596	639	100	97	65	101	143	65	48	9.1
7	68	264	764	324	140	96	68	100	100	62	48	9.3
8	168	234	446	239	126	92	64	95	831	59	48	10
9	85	212	333	225	117	87	61	98	1,220	56	47	9.8
10	69	194	289	327	108	83	60	94	472	54	47	9.6
11	65	186	264	316	104	81	125	93	700	53	35	9.6
12	71	171	249	851	109	77	692	107	366	52	10	9.6
13	85	154	233	2,140	2,040	73	323	156	1,940	51	12	9.6
14	72	143	221	450	1,520	69	288	125	507	51	20	10
15	72	136	120	345	480	68	257	100	336	51	15	12
16	68	153	90	e315	330	67	236	93	274	51	14	11
17	63	128	65	e285	267	67	219	91	238	50	12	11
18	156	122	e50	e260	237	64	203	88	211	49	10	10
19	103	120	e49	240	214	62	189	87	188	50	12	10
20	56	210	e48	202	212	60	253	83	172	49	23	11
21	30	209	e47	178	199	60	283	81	159	50	17	11
22	26	201	e46	e165	181	79	558	611	144	50	11	10
23	203	215	e43	e160	167	147	305	209	135	49	11	13
24	107	323	e42	e150	156	101	226	117	123	49	10	15
25	80	306	43	e145	146	117	196	94	113	49	12	12
26	520	417	44	131	137	116	194	85	105	51	13	11
27	650	1,510	43	118	132	99	176	80	101	62	13	11
28	241	592	45	113	134	88	159	75	94	50	11	11
29	178	361	49	112	---	81	152	73	88	50	9.5	11
30	162	308	51	109	---	76	142	72	85	49	10	11
31	129	---	58	107	---	72	---	70	---	48	9.6	---
MEAN	126	412	184	428	280	88.5	194	118	322	56.0	24.9	10.5
MAX	650	2,880	764	2,790	2,040	147	692	611	1,940	83	51	15
MIN	26	120	42	51	96	60	60	70	66	48	9.5	9.1
IN.	0.66	2.09	0.96	2.24	1.33	0.46	0.99	0.62	1.64	0.29	0.13	0.05

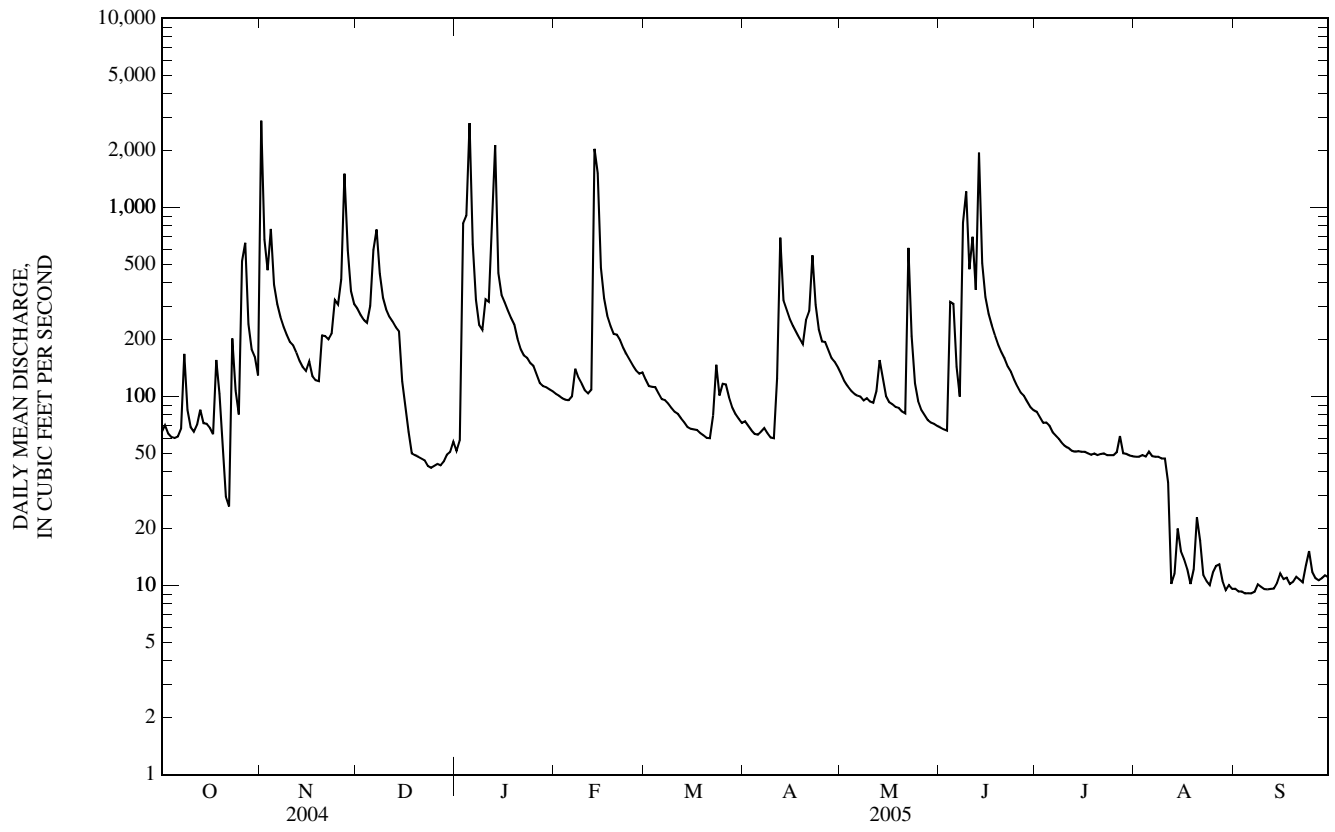
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2005, BY WATER YEAR (WY)

MEAN	98.2	133	139	105	167	221	236	337	224	208	115	104
MAX	1,019	756	666	428	732	945	935	1,403	562	1,569	514	774
(WY)	(1987)	(1986)	(1983)	(2005)	(1985)	(1985)	(1983)	(2002)	(1995)	(1993)	(1993)	(1993)
MIN	6.44	2.66	4.95	6.48	7.59	10.6	10.2	12.1	2.56	5.34	3.64	2.70
(WY)	(1981)	(1981)	(1989)	(1989)	(1989)	(1989)	(1989)	(1988)	(1988)	(1989)	(1980)	(1988)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1979 - 2005
ANNUAL MEAN	205	186	174
HIGHEST ANNUAL MEAN			468
LOWEST ANNUAL MEAN			17.3
HIGHEST DAILY MEAN	5,730	Aug 28	2,880
LOWEST DAILY MEAN	26	Oct 22	9.1
ANNUAL SEVEN-DAY MINIMUM	35	Jan 13	9.3
MAXIMUM PEAK FLOW	---		4,120
MAXIMUM PEAK STAGE	---		13.55
INSTANTANEOUS LOW FLOW	---		8.6
ANNUAL RUNOFF (INCHES)	12.70		11.47
10 PERCENT EXCEEDS	337		334
50 PERCENT EXCEEDS	85		96
90 PERCENT EXCEEDS	52		12
			9.2

e Estimated  
a Post regulation period.

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



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

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instan- taneous dis- charge, cfs (00061)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfl µS/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)
NOV 08...	1140	Environmental	151	9.7	89	7.4	442	11.0	200	52.1	16.2	4.80
JAN 25...	1020	Environmental	90	16.4	116	7.3	572	.1	--	--	--	--
JAN 25...	1021	Replicate	--	16.4	116	7.3	572	.1	--	--	--	--
MAR 07...	1245	Environmental	37	11.5	103	7.4	607	8.9	--	--	--	--
MAY 03...	1340	Environmental	36	11.5	110	8.1	517	12.2	240	60.9	21.4	4.56
JUL 11...	1200	Environmental	7.0	6.8	86	7.9	392	26.2	--	--	--	--
SEP 06...	1200	Environmental	9.1	7.3	89	7.5	764	24.6	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfl fixed end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfl incrm. titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicar- bonate, wat unfl incrm. titr., field, mg/L (00450)	Carbon- ate, wat unfl incrm. titr., field, mg/L (00447)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NOV 08...	13.1	83	83	102	<1	6.00	.2	122	299	51	.59	<.04	.27
JAN 25...	--	--	--	--	--	--	--	--	--	29	.64	.05	.42
JAN 25...	--	--	--	--	--	--	--	--	--	28	.59	E.04n	.42
MAR 07...	--	--	--	--	--	--	--	--	--	32	.61	<.04	.39
MAY 03...	16.9	84	85	102	<1	7.54	.2	159	353	18	.57	<.04	.30
JUL 11...	--	--	--	--	--	--	--	--	--	25	.56	<.04	E.05n
SEP 06...	--	--	--	--	--	--	--	--	--	12	.51	E.02n	<.06

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC MF col/ 100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 08...	E.005n	<.02	E.02n	.10	170	210	18	578	1.0	<.04	.06	1.5	E5n
JAN 25...	.025	<.02	<.04	.07	6k	8k	--	--	--	--	--	--	--
JAN 25...	.025	<.02	<.04	.07	6k	4k	--	--	--	--	--	--	--
MAR 07...	E.004n	<.02	<.04	.06	20k	66	--	--	--	--	--	--	--
MAY 03...	.008	<.02	<.04	.04	50	74k	34	384	.6	E.02n	.04	2.3	11
JUL 11...	<.008	<.02	E.02n	.07	13k	48k	--	--	--	--	--	--	--
SEP 06...	<.008	E.02n	E.02n	E.04n	32k	58	--	--	--	--	--	--	--

## CHARITON RIVER BASIN

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 08...	<.08	1.24	164	<.01	.7	1.1	7
JAN 25...	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	--	--	--
MAR 07...	--	--	--	--	--	--	--
MAY 03...	<.08	.53	240	E.01n	.5	2.1	5
JUL 11...	--	--	--	--	--	--	--
SEP 06...	--	--	--	--	--	--	--

Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

Value qualifier codes used in this table:

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

## 06906500 MISSOURI RIVER AT GLASGOW, MO

LOCATION.--Lat 39°13'20", long 92°51'00", in NE ¼ NE ¼ NE ¼ sec.3, T.51 N., R.17 W., Howard County, Hydrologic Unit 10300102, at bridge on State Highway 240 in Glasgow, 75 ft downstream from Chicago and Alton Railway bridge, 1 mi downstream from Little Chariton River, and at mile 226.8.

DRAINAGE AREA.--497,900 mi<sup>2</sup>. The 3,959 mi<sup>2</sup> in Great Divide basin are not included.

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

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

REMARKS.--Records good except for estimated daily discharges and discharges above 100,000 ft<sup>3</sup>/s, which are fair. Some regulation from many upstream reservoirs. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46,200	41,500	31,700	28,000	30,100	38,400	38,400	47,800	51,400	66,000	40,100	45,900
2	44,000	50,400	30,400	29,100	32,700	37,200	37,500	46,000	52,800	71,300	37,600	43,500
3	42,700	53,400	29,800	31,600	33,700	35,800	37,000	44,600	60,100	67,600	36,600	41,300
4	41,500	47,500	29,200	42,400	33,200	33,900	36,900	43,700	68,500	63,100	35,700	39,800
5	40,500	47,800	28,600	59,900	32,400	32,200	37,000	43,100	129,000	59,300	35,300	38,200
6	39,700	43,100	30,600	68,900	32,200	30,800	37,400	42,700	153,000	59,100	35,300	e36,900
7	39,700	37,100	35,500	59,300	33,700	30,100	37,800	42,100	151,000	57,200	35,400	e36,000
8	42,200	33,600	43,500	44,100	47,200	29,600	37,200	41,200	127,000	52,000	35,000	35,200
9	56,800	31,500	40,000	36,100	53,200	29,600	37,300	40,200	122,000	49,400	34,500	34,500
10	54,900	29,900	35,100	33,700	47,400	29,100	41,200	39,900	124,000	47,200	34,600	34,100
11	44,900	28,600	32,700	33,400	43,500	28,000	42,800	39,600	124,000	44,800	34,600	34,100
12	41,500	28,000	31,700	34,600	40,300	27,300	53,200	45,100	134,000	43,100	34,500	34,300
13	41,700	27,800	31,100	45,300	49,100	26,900	69,200	51,800	174,000	42,000	35,000	34,400
14	42,300	27,400	30,100	54,800	94,200	26,500	72,100	95,300	191,000	41,000	38,600	34,200
15	39,800	27,100	29,200	46,100	118,000	26,300	69,500	149,000	157,000	39,800	49,400	34,600
16	36,200	27,100	28,800	35,900	113,000	26,300	61,600	136,000	122,000	39,100	49,300	35,200
17	33,400	27,100	28,800	31,300	102,000	26,100	54,700	111,000	105,000	38,700	51,400	37,600
18	31,500	26,700	28,700	29,800	84,200	25,800	50,900	93,200	93,000	38,000	44,800	39,800
19	30,700	26,400	28,200	30,200	66,300	25,400	47,900	79,500	88,200	37,100	40,800	39,600
20	29,500	26,100	27,700	30,800	56,400	24,900	46,100	74,400	85,600	37,000	42,900	38,300
21	28,700	26,100	26,800	30,800	51,000	24,400	45,600	72,100	81,700	38,100	65,400	38,400
22	28,200	26,000	26,200	31,000	48,400	24,400	49,600	65,800	78,300	39,000	69,700	38,600
23	28,300	25,800	25,800	31,400	46,500	25,500	76,400	68,400	74,400	38,100	53,400	37,900
24	27,700	26,600	25,800	31,900	44,300	27,400	81,600	70,000	70,700	37,600	45,300	39,900
25	27,000	28,700	26,000	32,200	42,600	28,300	73,200	60,500	67,700	36,800	42,600	58,300
26	26,800	31,200	25,700	32,500	41,600	29,100	64,900	56,300	67,000	36,200	45,700	65,000
27	29,600	38,600	25,100	32,500	40,500	30,300	57,900	55,700	68,900	36,400	60,500	49,000
28	31,400	45,400	24,600	34,000	39,400	32,700	53,300	53,600	64,200	36,100	72,800	42,700
29	31,300	42,900	24,700	33,300	---	36,200	50,800	50,800	60,600	38,500	61,800	39,700
30	31,600	35,300	25,300	30,200	---	39,500	49,600	51,100	61,200	47,800	55,600	37,600
31	31,500	---	26,700	28,800	---	39,800	---	51,500	---	46,100	51,100	---
MEAN	36,830	33,820	29,490	37,220	53,470	29,930	51,620	63,290	100,200	45,920	45,330	39,820
MAX	56,800	53,400	43,500	68,900	118,000	39,800	81,600	149,000	191,000	71,300	72,800	65,000
MIN	26,800	25,800	24,600	28,000	30,100	24,400	36,900	39,600	51,400	36,100	34,500	34,100
IN.	0.09	0.08	0.07	0.09	0.11	0.07	0.12	0.15	0.22	0.11	0.10	0.09

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

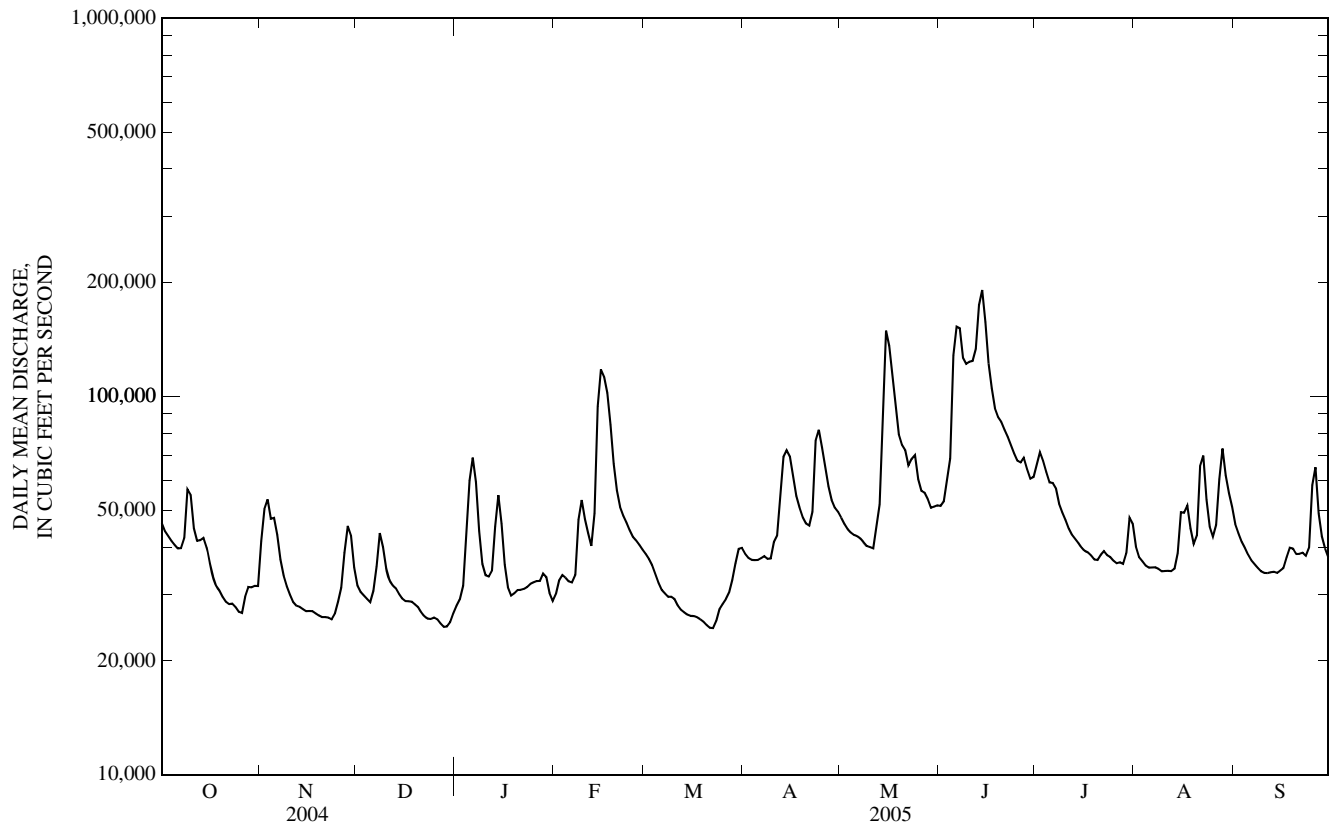
MEAN	40,760	39,200	28,120	27,910	38,780	48,860	55,330	78,620	91,290	55,100	45,250	45,090
MAX	47,720	44,860	33,050	37,220	58,990	96,960	93,040	106,000	155,200	72,690	61,150	55,750
(WY)	(2002)	(2001)	(2002)	(2005)	(2001)	(2001)	(2001)	(2001)	(2001)	(2001)	(2004)	(2001)
MIN	35,030	33,820	24,460	21,660	23,540	26,810	38,960	58,080	50,710	37,180	32,520	36,670
(WY)	(2004)	(2005)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2002)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2001 - 2005
ANNUAL MEAN	49,810	47,100	49,520
HIGHEST ANNUAL MEAN			69,160
LOWEST ANNUAL MEAN			37,010
HIGHEST DAILY MEAN	153,000	191,000	261,000
LOWEST DAILY MEAN	20,900	24,400	18,400
ANNUAL SEVEN-DAY MINIMUM	21,700	25,200	19,900
MAXIMUM PEAK FLOW	---	196,000	272,000
MAXIMUM PEAK STAGE	---	27.43	31.66
INSTANTANEOUS LOW FLOW	---	24,200	18,300
ANNUAL RUNOFF (INCHES)	1.36	1.28	1.35
10 PERCENT EXCEEDS	86,800	72,100	85,700
50 PERCENT EXCEEDS	40,800	39,600	40,600
90 PERCENT EXCEEDS	24,600	27,400	24,700

e Estimated

MISSOURI RIVER MAIN STEM

06906500 MISSOURI RIVER AT GLASGOW, MO—Continued



## 06906800 LAMINE RIVER NEAR OTTERVILLE, MO

LOCATION.--Lat 38°42'08", long 92°58'44", in NE ¼ NE ¼ NW ¼ sec.2, T.45 N., R.19 W., Cooper County, Hydrologic Unit 10300103, on left bank at the left downstream end of Highway A, 7.2 mi downstream from confluence of Flat Creek and Richland Creek, 2.2 mi upstream from Otter Creek, and 1.1 mi east of Otterville.

DRAINAGE AREA.--543 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	12,400	677	110	148	160	65	85	17	9.5	1.9	113
2	25	9,510	568	108	143	143	60	74	17	9.2	1.7	87
3	27	1,040	464	4,910	143	132	55	65	16	8.8	2.2	67
4	23	3,640	393	5,610	140	126	53	58	17	9.5	2.7	53
5	21	961	340	18,200	134	120	52	54	20	9.0	2.0	44
6	19	543	493	11,400	137	113	54	50	20	8.7	1.4	37
7	20	389	4,110	1,340	215	347	1,570	48	21	8.3	1.4	32
8	244	289	2,160	783	533	429	848	46	20	8.0	1.4	28
9	420	220	777	609	489	280	446	48	18	7.9	3.6	26
10	202	176	545	1,030	461	206	321	47	45	7.4	2.3	22
11	77	2,190	424	866	369	168	282	44	134	7.0	2.1	20
12	232	2,490	358	1,420	333	145	552	40	211	6.8	2.0	18
13	650	723	306	17,000	9,530	128	431	51	1,550	6.6	11	17
14	361	432	250	2,860	6,240	113	311	61	1,220	6.5	54	36
15	140	316	210	695	1,280	102	229	67	328	6.0	181	e167
16	60	255	191	455	691	97	183	62	147	5.7	252	e323
17	34	212	184	367	494	92	155	53	80	5.7	313	156
18	24	181	175	309	407	88	139	47	52	5.7	877	101
19	20	164	162	281	354	84	121	41	37	5.4	274	247
20	17	147	147	278	333	78	130	36	29	5.0	112	553
21	15	127	139	287	318	74	169	32	24	4.8	58	238
22	14	111	134	269	277	77	222	31	21	4.7	49	135
23	13	112	115	216	242	94	163	28	18	4.6	403	91
24	12	9,380	115	178	224	111	111	26	16	4.1	311	68
25	13	5,910	99	169	214	111	91	24	15	3.8	3,930	56
26	13	3,890	94	170	189	107	98	23	13	3.4	8,990	47
27	19	10,500	93	162	172	101	110	21	12	3.2	8,090	42
28	804	5,620	94	149	167	93	94	21	11	3.3	822	39
29	278	1,180	101	147	---	86	96	20	10	3.2	400	36
30	149	810	108	148	---	79	97	19	9.7	2.5	242	31
31	365	---	111	148	---	71	---	18	---	2.0	158	---
MEAN	140	2,464	456	2,280	871	134	244	43.2	138	6.01	824	97.7
MAX	804	12,400	4,110	18,200	9,530	429	1,570	85	1,550	9.5	8,990	553
MIN	12	111	93	108	134	71	52	18	9.7	2.0	1.4	17

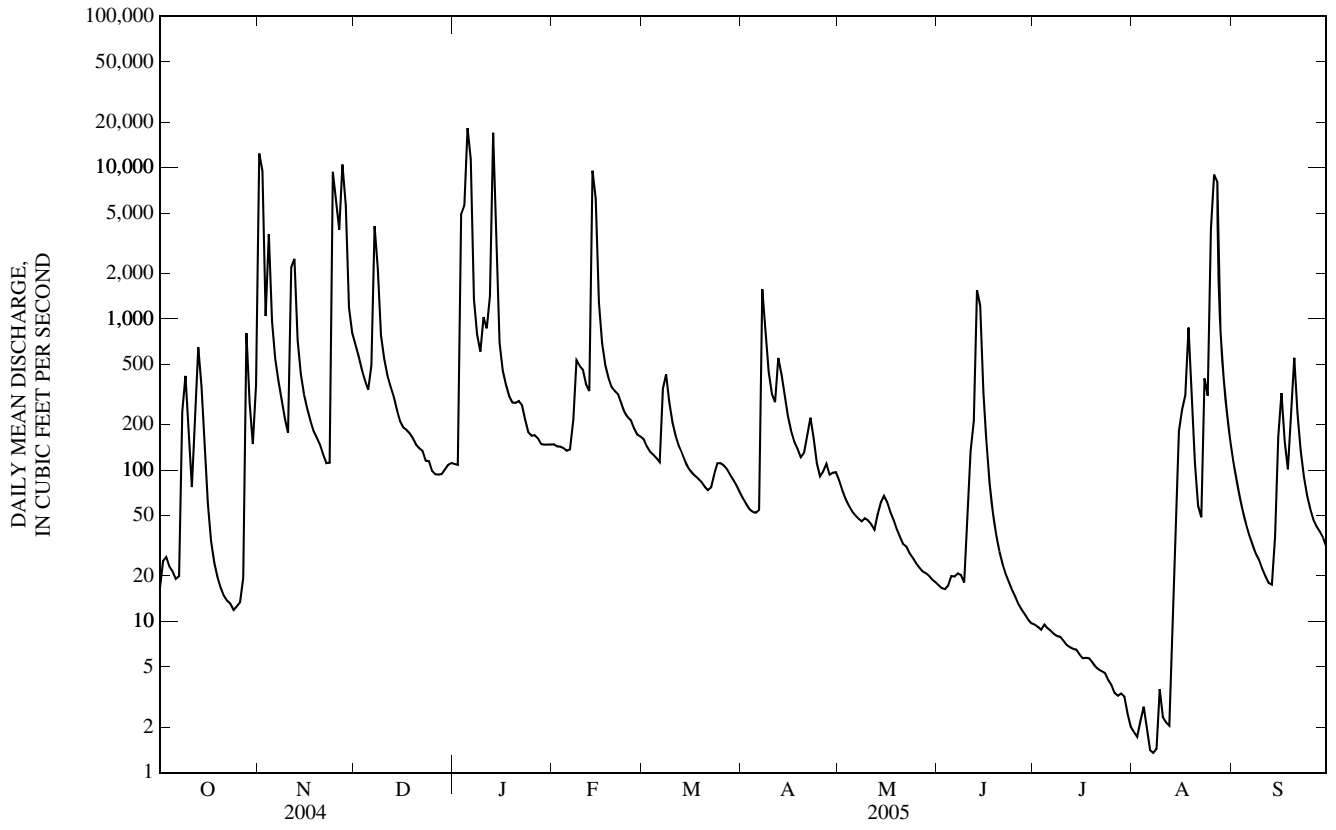
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2005, BY WATER YEAR (WY)

MEAN	173	582	349	434	596	558	810	1,199	581	587	204	263
MAX	2,130	3,347	1,564	2,280	2,422	2,174	3,809	4,718	3,176	4,077	850	3,689
(WY)	(1999)	(1993)	(1993)	(2005)	(1997)	(1998)	(1994)	(1990)	(1998)	(1993)	(1995)	(1993)
MIN	6.40	7.19	11.1	14.4	21.3	46.4	22.2	38.8	10.5	5.34	1.97	4.03
(WY)	(2003)	(2003)	(1990)	(2003)	(2003)	(1996)	(2000)	(1992)	(1988)	(2003)	(2003)	(1999)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1987 - 2005	
ANNUAL MEAN	608		639		527	
HIGHEST ANNUAL MEAN					1,464	
LOWEST ANNUAL MEAN					115	
HIGHEST DAILY MEAN	18,800	Mar 5	18,200	Jan 5	47,000	May 18, 1995
LOWEST DAILY MEAN	9.2	Aug 19	1.4	Aug 6-8	1.1	Aug 18,19, 2003
ANNUAL SEVEN-DAY MINIMUM	11	Aug 16	1.8	Aug 2	1.3	Aug 13, 2003
MAXIMUM PEAK FLOW	---		21,300	Jan 5	84,900	May 18, 1995
MAXIMUM PEAK STAGE	---		20.91	Jan 5	29.43	May 18, 1995
INSTANTANEOUS LOW FLOW	---		1.4	Aug 6-9	1.1	Aug 18,19, 2003
ANNUAL RUNOFF (INCHES)	15.24		15.97		13.19	
10 PERCENT EXCEEDS	806		832		749	
50 PERCENT EXCEEDS	155		111		72	
90 PERCENT EXCEEDS	21		8.2		8.7	

e Estimated

06906800 LAMINE RIVER NEAR OTTERVILLE, MO—Continued





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

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

DRAINAGE AREA.--949 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 30...	1215	Environmental	1,260	12.1	101	7.2	260	6.9	110	28.8	10.3	4.61
JAN 24...	1245	Environmental	401	14.1	102	7.2	391	1.1	--	--	--	--
FEB 15...	1220	Blank	--	--	--	--	--	--	--	--	--	--
FEB 15...	1225	Environmental	5,370	10.2	89	7.5	179	8.3	--	--	--	--
MAR 08...	1200	Environmental	1,130	11.9	104	8.1	478	8.8	--	--	--	--
APR 04...	1220	Environmental	112	9.8	101	8.2	460	15.3	--	--	--	--
MAY 02...	1410	Environmental	164	10.7	109	8.2	451	14.5	230	58.4	19.3	3.90
JUN 22...	0835	Environmental	78	6.2	79	7.8	305	26.9	--	--	--	--
JUL 12...	1300	Environmental	32	4.4	57	7.6	404	27.6	160	40.8	14.8	6.30
SEP 07...	1200	Environmental	51	7.8	97	7.6	313	25.5	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, 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 30...	4.66	103	102	125	<1	6.68	E.1n	12.4	151	123	.97	.08	.94
JAN 24...	--	--	--	--	--	--	--	--	--	27	.43	<.04	1.76
FEB 15...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	<.06
FEB 15...	--	--	--	--	--	--	--	--	--	182d	1.5	.09	1.06
MAR 08...	--	--	--	--	--	--	--	--	--	135	.90	<.04	1.57
APR 04...	--	--	--	--	--	--	--	--	--	26	.61	<.04	.43
MAY 02...	12.4	185	185	225	<1	15.4	.2	25.8	268	29	.65	<.04	.44
JUN 22...	--	--	--	--	--	--	--	--	--	56	1.3	<.04	2.93
JUL 12...	16.5	153	152	185	<1	17.9	.2	18.4	227	36	1.0	.04	<.06
SEP 07...	--	--	--	--	--	--	--	--	--	15	.75	<.04	.29

## 06907300 LAMINE RIVER NEAR PILOT GROVE, MO

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7µ MF col/ 100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 30...	E.004n	.12	.14	.32	1,400	1,900	3	1,750d	.9	<.04	.05	1.7	36
JAN 24...	.011	.02	.05	.16	7k	33k	--	--	--	--	--	--	--
FEB 15...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
MAR 15...	.010	.09	.18	.42	920	1,100	--	--	--	--	--	--	--
MAR 08...	.011	.22	.27	.46	580	580	--	--	--	--	--	--	--
APR 04...	.008	E.01n	.05	.12	5k	13k	--	--	--	--	--	--	--
MAY 02...	E.005n	.04	.08	.17	220	210	2	299	1.0	<.04	E.02n	1.0	21
JUN 22...	.070	.06	.10	.25	230	190	--	--	--	--	--	--	--
JUL 12...	<.008	E.01n	.05	.16	24k	21k	3	486	2.5	<.04	E.04n	1.5	11
SEP 07...	.010	.05	.06	.14	42k	68	--	--	--	--	--	--	--

Date	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 30...	<.08	3.04	95.3	.01	.5	1.2	9
JAN 24...	--	--	--	--	--	--	--
FEB 15...	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--
MAR 08...	--	--	--	--	--	--	--
APR 04...	--	--	--	--	--	--	--
MAY 02...	E.07n	.66	109	E.01n	E.3n	1.2	2
JUN 22...	--	--	--	--	--	--	--
JUL 12...	<.08	1.38	503	E.01n	.4	.9	3
SEP 07...	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

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

## 06908000 BLACKWATER RIVER NEAR BLUE LICK, MO

LOCATION.--Lat 38°59'32", long 93°11'48", in SW ¼ SW ¼ SW ¼ sec.26, T.49 N., R.21 W., Saline County, Hydrologic Unit 10300104, on left bank at upstream side of bridge on northbound lane of U.S. Highway 65, 1.2 mi downstream from Finney Creek, 1.8 mi southeast of Blue Lick, and at mile 30.3.

DRAINAGE AREA.--1,120 mi<sup>2</sup>.

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

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

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

REMARKS.--Records good except for estimated daily discharges, which are poor. U.S. Army Corps of Engineers satellite telemeter at station. Published as "Blackwater River at Blue Lick" for periods of record from 1922 to 2000.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	5,880	4,850	196	270	341	170	111	31	18	2.4	313
2	56	6,660	1,280	191	279	289	157	98	29	30	2.1	217
3	54	4,720	852	2,900	280	259	144	87	27	37	1.8	156
4	55	5,560	648	7,110	261	248	132	79	201	38	1.4	127
5	55	4,640	580	10,700	254	248	128	74	3,810	33	1.2	109
6	48	2,240	1,680	12,800	281	234	127	70	4,030	30	1.2	95
7	94	815	3,760	15,300	1,420	241	150	68	851	35	0.98	85
8	1,510	512	4,540	15,900	2,170	1,130	165	66	555	30	0.70	77
9	1,160	370	2,940	13,600	996	670	143	66	252	23	0.62	71
10	428	305	1,210	9,740	641	399	126	65	442	21	0.55	59
11	193	524	746	3,370	528	318	135	66	820	17	0.43	47
12	812	2,200	549	2,800	661	265	170	509	342	14	1.3	41
13	713	978	457	8,030	7,640	233	150	1,120	1,560	10	210	38
14	407	422	357	7,690	9,460	207	131	2,210	1,200	8.2	799	36
15	224	301	277	7,260	10,100	182	110	783	502	7.6	296	225
16	158	252	e270	4,730	10,600	169	99	307	202	6.3	137	555
17	126	231	e235	1,210	8,290	163	100	174	125	5.1	95	328
18	107	214	e220	736	1,800	159	96	127	96	4.6	464	128
19	96	198	e200	594	819	155	91	103	76	5.1	1,860	88
20	89	192	e185	580	710	144	229	90	62	3.6	290	224
21	82	183	e165	623	716	133	500	78	54	3.0	249	117
22	77	166	e150	546	614	154	2,880	69	49	3.0	182	73
23	123	159	e140	362	507	875	1,740	64	45	3.0	318	102
24	143	3,580	e135	338	450	1,030	446	58	37	2.8	623	1,140
25	144	6,800	e125	337	417	666	233	51	32	2.5	942	362
26	197	7,160	122	321	378	483	184	49	28	2.5	8,280	120
27	1,430	9,120	127	307	342	358	168	43	29	3.3	11,100	81
28	1,970	9,950	136	267	340	294	147	40	24	3.4	10,800	318
29	916	9,980	159	249	---	254	126	39	19	3.1	11,000	330
30	1,270	9,380	182	256	---	231	120	40	17	2.8	7,170	110
31	1,130	---	197	262	---	202	---	34	---	2.6	814	---
MEAN	449	3,123	886	4,171	2,187	346	310	221	518	13.2	1,795	192
MAX	1,970	9,980	4,850	15,900	10,600	1,130	2,880	2,210	4,030	38	11,100	1,140
MIN	48	159	122	191	254	133	91	34	17	2.5	0.43	36
MED	144	896	270	736	627	248	145	70	86	6.3	210	114
IN.	0.46	3.11	0.91	4.29	2.03	0.36	0.31	0.23	0.52	0.01	1.85	0.19

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

MEAN	548	626	471	508	766	1,028	1,411	1,299	1,270	820	323	605
MAX	9,500	6,100	3,359	4,171	5,206	4,706	8,473	8,090	6,235	8,855	1,835	5,979
(WY)	(1987)	(1929)	(1983)	(2005)	(1985)	(1973)	(1973)	(1995)	(2001)	(1951)	(1998)	(1961)
MIN	0.13	0.32	1.66	1.55	5.54	9.50	29.6	9.93	18.4	1.78	1.61	0.13
(WY)	(1957)	(1957)	(1957)	(1957)	(1954)	(1956)	(1977)	(1932)	(1956)	(1933)	(1930)	(1956)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

## FOR 2005 WATER YEAR

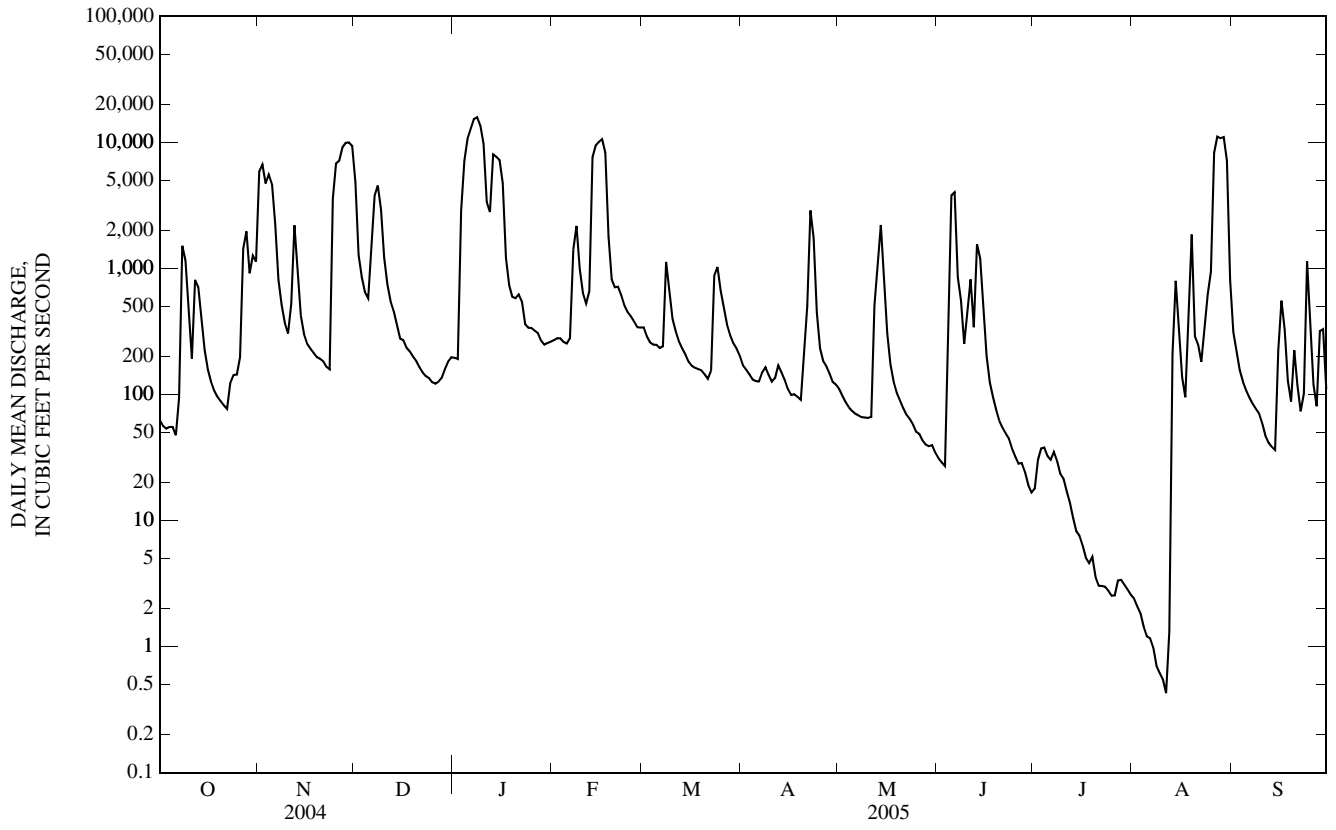
## FOR PERIOD OF RECORD

ANNUAL MEAN	1,114	1,178	808
HIGHEST ANNUAL MEAN			2,540
LOWEST ANNUAL MEAN			95.8
HIGHEST DAILY MEAN	9,980	Nov 29	15,900
LOWEST DAILY MEAN	48	Oct 6	0.43
ANNUAL SEVEN-DAY MINIMUM	57	Sep 30	0.81
MAXIMUM PEAK FLOW	---		16,200
MAXIMUM PEAK STAGE	---		32.38
INSTANTANEOUS LOW FLOW	---		0.32
ANNUAL RUNOFF (INCHES)	13.54		14.28
10 PERCENT EXCEEDS	4,170		3,780
50 PERCENT EXCEEDS	275		202
90 PERCENT EXCEEDS	109		20

e Estimated

MISSOURI RIVER BASIN

06908000 BLACKWATER RIVER NEAR BLUE LICK, MO—Continued



## 06909000 MISSOURI RIVER AT BOONVILLE, MO

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

DRAINAGE AREA.--500,700 mi<sup>2</sup>. The 3,959 mi<sup>2</sup> in Great Divide basin are not included.

PERIOD OF RECORD.--October 1925 to current year. Gage-height records collected at same site 1893-99 are in reports of the Missouri River Commission; since 1900 in reports of the National Weather Service.

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

GAGE.--Water-stage recorder. Datum of gage is 565.42 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1928, nonrecording gage on old Highway 40 bridge, at datum 3.14 ft lower; Oct. 1, 1928, to May 9, 1931, nonrecording gage at site .4 mile upstream at the old Missouri/Kansas/Texas Railroad bridge at present datum; May 10, 1931, to Apr. 12, 1934, water-stage recorder on old Highway 40 bridge at present datum; April 12, 1934 to April 8, 2003, water-stage recorder at site .4 mile upstream at the Missouri/Kansas/Texas Railroad Bridge at present datum; April 8, 2003 to present, water-stage recorder at present site and datum.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47,500	48,100	41,600	28,800	29,800	40,500	40,100	49,500	53,600	65,400	43,100	49,600
2	45,100	67,900	36,200	30,100	31,900	39,500	38,900	47,600	54,000	71,700	39,000	45,500
3	43,300	71,700	33,500	34,900	33,800	38,200	38,200	45,900	59,600	70,200	37,600	43,100
4	42,000	59,900	32,400	55,200	33,800	36,500	37,900	44,700	65,600	66,200	36,700	41,300
5	41,000	58,000	31,500	78,400	33,000	34,700	37,900	43,900	115,000	61,400	35,900	39,700
6	40,100	51,100	33,000	92,400	32,600	33,200	38,100	43,600	154,000	60,100	35,700	38,300
7	39,700	42,800	41,100	89,200	33,700	32,300	38,700	43,000	155,000	59,700	35,800	37,300
8	42,500	37,300	e53,000	66,600	43,600	32,300	40,000	42,200	133,000	54,900	35,700	36,300
9	52,600	34,400	e48,500	52,100	57,100	32,900	38,900	41,000	122,000	51,300	35,100	35,600
10	60,600	32,300	41,300	46,500	51,800	31,900	40,300	40,500	127,000	49,100	35,000	35,000
11	50,700	30,800	36,600	42,600	46,900	30,700	44,100	40,300	125,000	46,600	35,000	34,800
12	44,100	32,700	34,700	39,500	43,300	29,600	48,500	46,700	131,000	44,400	35,000	34,700
13	44,000	33,500	33,600	60,800	55,900	28,900	68,700	53,900	173,000	43,000	36,200	34,800
14	44,300	29,900	32,700	75,000	102,000	28,400	73,900	86,600	196,000	41,900	37,800	34,700
15	41,700	28,700	31,700	66,100	128,000	28,000	72,700	154,000	170,000	40,800	46,600	34,900
16	39,100	28,300	30,900	46,300	118,000	27,800	65,800	148,000	129,000	39,800	50,800	35,900
17	35,900	28,200	30,700	37,100	108,000	27,600	58,100	124,000	109,000	39,300	51,700	37,700
18	33,700	27,800	30,600	32,600	91,600	27,300	53,400	106,000	95,300	38,800	50,700	40,200
19	32,400	27,300	30,300	32,300	72,600	26,800	50,000	90,900	89,700	37,900	46,500	41,000
20	31,500	27,000	29,800	32,800	62,000	26,300	47,700	82,200	87,300	37,200	43,600	40,800
21	30,400	26,700	28,900	33,100	55,300	25,800	48,200	80,100	84,300	37,500	54,500	40,300
22	29,800	26,700	28,100	33,200	51,600	25,500	53,800	73,900	81,100	38,800	73,400	39,900
23	29,600	26,400	27,300	33,000	49,700	26,100	72,400	71,000	77,400	38,400	59,700	39,400
24	29,500	31,200	27,100	33,300	47,400	29,000	83,700	76,400	73,500	37,700	49,000	39,700
25	28,500	45,400	27,300	33,700	45,200	30,100	76,900	67,600	70,500	37,100	46,200	50,300
26	28,000	48,600	27,300	33,900	43,900	30,600	68,200	61,300	68,400	36,200	56,100	67,200
27	30,100	52,900	26,600	34,000	42,900	31,300	60,800	59,500	69,600	36,200	75,500	55,800
28	34,400	63,800	25,900	34,600	41,700	32,800	55,900	58,100	67,700	35,900	88,200	45,700
29	35,500	59,900	25,700	35,400	---	35,700	52,600	54,300	62,800	36,500	76,300	42,200
30	33,800	47,300	26,100	32,500	---	39,400	51,100	53,200	62,100	43,900	65,800	39,500
31	34,000	---	27,400	30,200	---	41,200	---	53,700	---	48,900	58,300	---
MEAN	38,560	40,890	32,630	45,360	56,680	31,640	53,180	67,210	102,000	46,670	48,600	41,040
MAX	60,600	71,700	53,000	92,400	128,000	41,200	83,700	154,000	196,000	71,700	88,200	67,200
MIN	28,000	26,400	25,700	28,800	29,800	25,500	37,900	40,300	53,600	35,900	35,000	34,700
IN.	0.09	0.09	0.08	0.10	0.12	0.07	0.12	0.15	0.23	0.11	0.11	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2005<sup>a</sup>, BY WATER YEAR (WY)

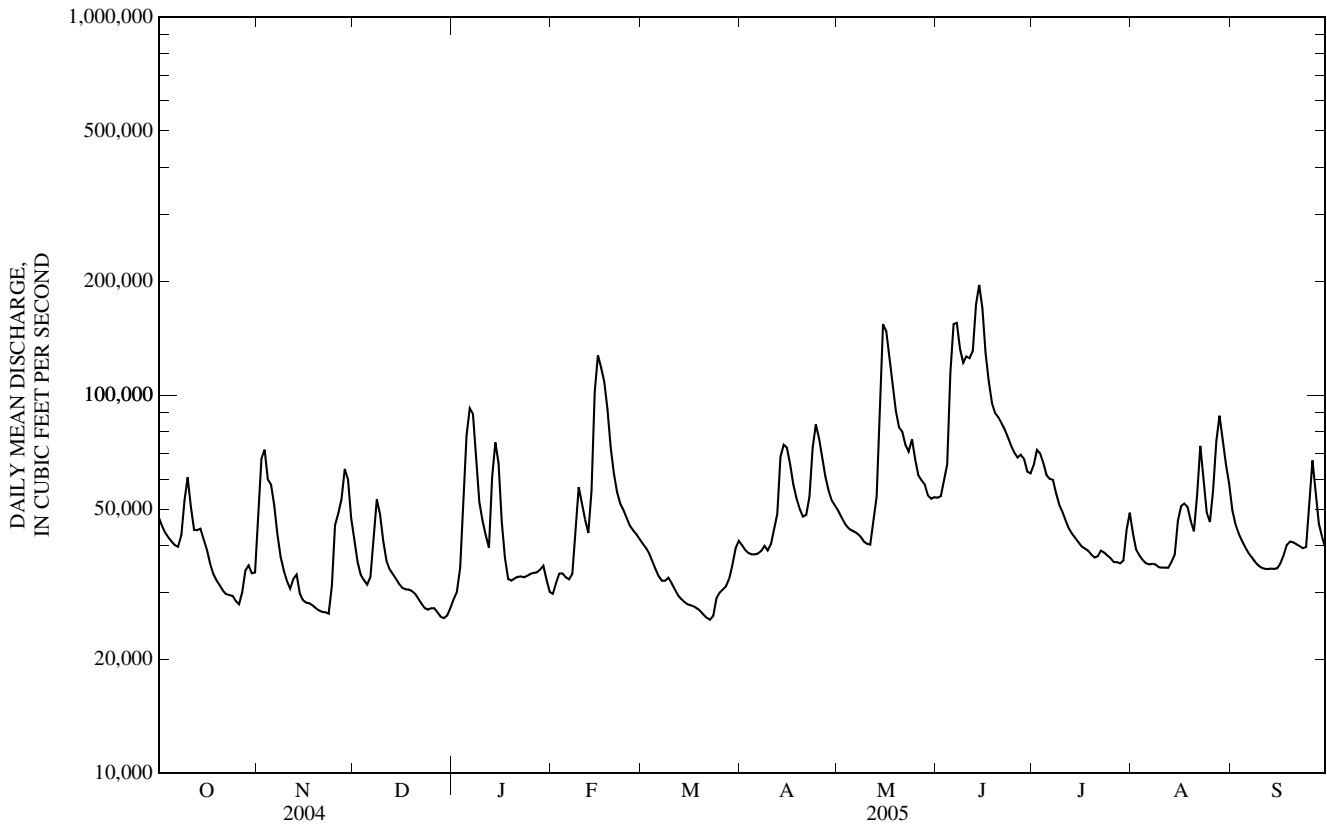
MEAN	64,100	60,530	44,340	35,750	48,800	69,180	88,100	91,920	94,420	82,780	62,990	65,050
MAX	187,800	139,100	106,200	90,150	106,300	183,900	212,700	234,700	201,100	375,200	213,600	165,900
(WY)	(1974)	(1999)	(1983)	(1973)	(1982)	(1973)	(1973)	(1995)	(1984)	(1993)	(1993)	(1993)
MIN	35,630	24,600	13,840	14,770	17,620	19,460	39,060	40,770	41,990	37,530	33,550	36,730
(WY)	(2004)	(1991)	(1964)	(1963)	(1964)	(1964)	(1989)	(1989)	(1988)	(2002)	(2003)	(1991)

MISSOURI RIVER MAIN STEM

06909000 MISSOURI RIVER AT BOONVILLE, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1958 - 2005 <sup>a</sup>	
ANNUAL MEAN	53,030		50,230		67,360	
HIGHEST ANNUAL MEAN					140,500	1993
LOWEST ANNUAL MEAN					38,560	2003
HIGHEST DAILY MEAN	154,000	Mar 6	196,000	Jun 14	721,000	Jul 30, 1993
LOWEST DAILY MEAN	22,500	Jan 14	25,500	Mar 22	5,000	Dec 21, 1963
ANNUAL SEVEN-DAY MINIMUM	23,400	Jan 11	26,500	Mar 17	5,730	Dec 19, 1963
MAXIMUM PEAK FLOW	---		199,000	Jun 14	755,000	Jul 29, 1993
MAXIMUM PEAK STAGE	---		23.61	Jun 14	37.10	Jul 29, 1993
INSTANTANEOUS LOW FLOW	---		25,300	Mar 22	5,500	Jan 22,24 1963
ANNUAL RUNOFF (INCHES)	1.44		1.36		1.83	
10 PERCENT EXCEEDS	93,800		77,800		122,000	
50 PERCENT EXCEEDS	42,600		41,300		53,800	
90 PERCENT EXCEEDS	26,300		29,600		28,800	

e Estimated  
<sup>a</sup> Post-regulation period.



## 06909500 MONITEAU CREEK NEAR FAYETTE, MO

LOCATION.--Lat 39°07'15", long 92°34'02", in SE ¼ SE ¼ sec.14, T.50 N., R.15 W., Howard County, Hydrologic Unit , on downstream side of County Road 406 bridge, 1 mi downstream from Hungry Mother Creek, 7.5 mi east of Fayette, and 15 mi upstream from mouth.

DRAINAGE AREA.--75.1 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.54	2,070	50	8.3	15	18	13	18	2.4	0.63	0.03	0.25
2	1.1	452	41	16	14	17	12	16	2.4	0.58	0.02	0.18
3	0.89	221	34	1,090	13	16	11	15	2.3	0.51	0.02	0.14
4	0.60	410	27	801	13	15	11	13	3.4	0.55	0.02	0.12
5	0.54	101	39	2,140	13	14	10	16	5.1	0.57	0.02	0.10
6	0.53	53	238	e520	15	13	10	13	3.2	0.56	0.02	0.08
7	1.1	34	833	e225	43	e15	16	11	1.8	0.48	0.02	0.06
8	6.4	26	217	e125	39	14	12	12	68	0.40	0.01	0.05
9	2.7	19	87	e88	31	13	11	12	69	0.35	0.01	0.04
10	2.9	16	56	152	26	12	9.9	9.3	17	0.31	0.01	0.03
11	1.2	14	39	129	22	11	268	250	11	0.27	0.01	0.03
12	0.85	11	30	435	21	11	758	467	7.9	0.26	0.05	0.03
13	1.5	9.2	22	1,690	1,580	9.7	148	1,110	268	0.23	8.1	0.03
14	1.5	8.8	21	e281	833	8.9	73	225	64	0.23	13	0.03
15	0.94	7.7	25	e107	240	7.8	49	87	22	0.21	1.0	0.06
16	0.89	7.2	21	e82	117	8.7	41	49	12	0.19	0.59	0.08
17	0.82	6.4	19	e69	72	8.6	34	34	7.5	0.19	0.33	0.08
18	34	6.4	16	e54	55	8.3	29	26	7.4	0.18	0.24	0.06
19	37	7.2	13	e47	46	8.1	25	19	5.3	0.17	0.20	0.04
20	13	6.7	e14	40	48	7.4	148	14	3.3	0.15	0.16	0.04
21	7.4	5.3	13	35	42	7.6	104	11	2.2	0.14	0.11	0.04
22	3.6	5.1	e12	28	33	56	266	11	1.7	0.14	0.09	0.04
23	3.5	4.9	e12	e26	27	191	105	8.3	1.4	0.11	0.06	0.07
24	2.9	244	9.6	24	25	63	51	6.3	1.2	0.10	0.05	0.07
25	2.3	181	11	21	23	51	37	5.2	0.92	0.10	3.5	0.04
26	30	266	12	20	21	38	35	4.6	0.80	0.12	65	0.07
27	160	1,350	11	17	20	30	28	4.0	0.74	0.22	39	0.06
28	43	345	11	15	21	25	26	3.6	0.68	0.13	4.1	0.06
29	32	115	11	16	---	21	23	3.5	0.63	0.09	0.98	0.05
30	19	66	9.0	16	---	18	21	3.3	0.61	0.07	0.54	0.05
31	13	---	10	16	---	15	---	3.0	---	0.04	0.36	---
MEAN	13.7	202	63.3	269	124	24.3	79.5	80.0	19.8	0.27	4.44	0.07
MAX	160	2,070	833	2,140	1,580	191	758	1,110	268	0.63	65	0.25
MIN	0.53	4.9	9.0	8.3	13	7.4	9.9	3.0	0.61	0.04	0.01	0.03
IN.	0.20	2.79	0.90	3.83	1.59	0.35	1.10	1.14	0.27	0.00	0.06	0.00

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

MEAN	19.5	29.9	25.9	40.9	52.6	65.5	62.0	48.8	49.8	46.0	14.4	15.4
MAX	108	202	155	269	143	214	172	211	245	317	124	142
(WY)	(1950)	(2005)	(2004)	(2005)	(1949)	(2004)	(1969)	(2003)	(1969)	(1969)	(2004)	(2003)
MIN	0.00	0.00	0.00	0.00	0.00	0.06	3.63	1.25	0.24	0.00	0.00	0.00
(WY)	(1953)	(1954)	(1954)	(1964)	(1964)	(1954)	(1963)	(1965)	(1963)	(1954)	(1964)	(1953)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

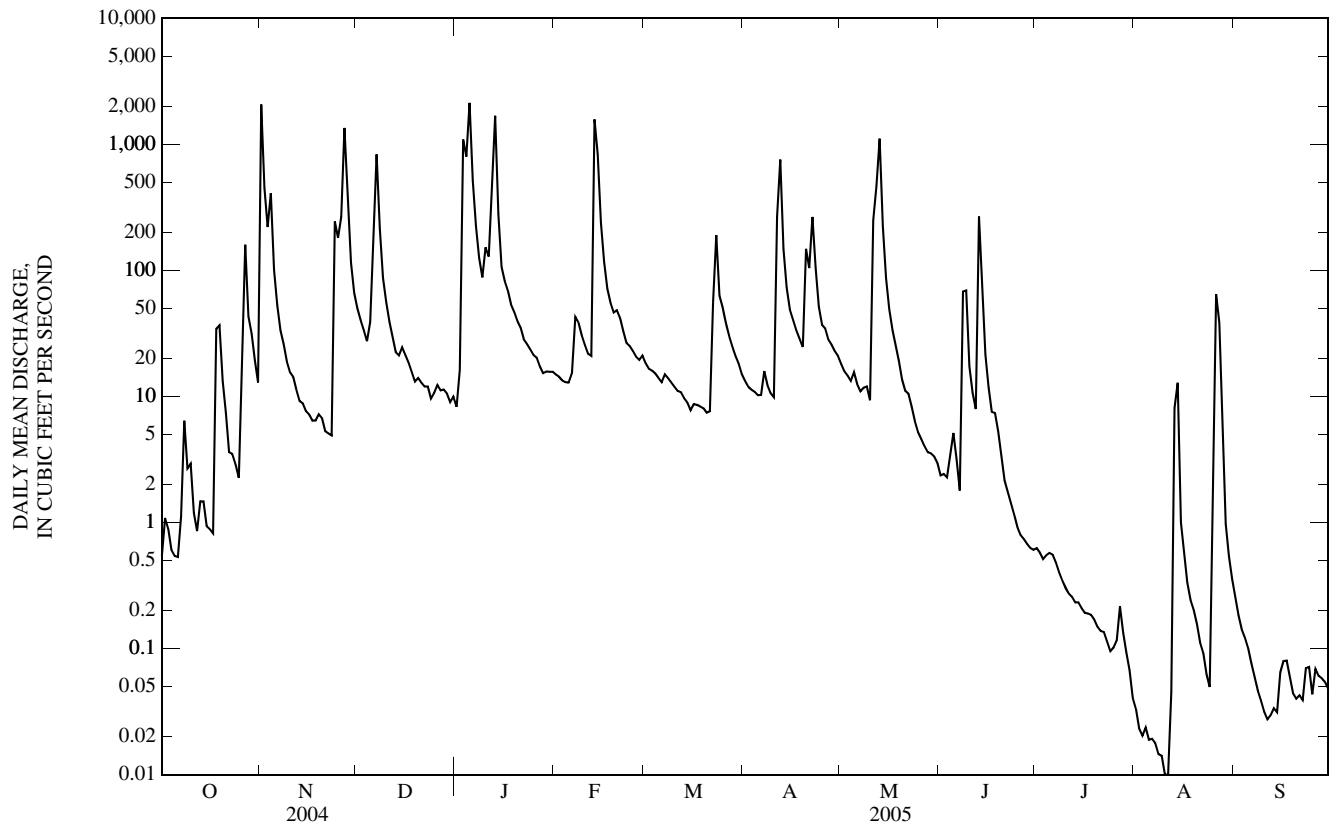
## FOR 2005 WATER YEAR

## FOR PERIOD OF RECORD

ANNUAL MEAN	68.4		72.9		39.9
HIGHEST ANNUAL MEAN					103
LOWEST ANNUAL MEAN					5.65
HIGHEST DAILY MEAN	2,070	Nov 1	2,140	Jan 5	5,430
LOWEST DAILY MEAN	0.48	Sep 30	0.01	Aug 8-11	0.00
ANNUAL SEVEN-DAY MINIMUM	0.56	Sep 25	0.01	Aug 5	0.00
MAXIMUM PEAK FLOW	---		2,740	Nov 1	11,300
MAXIMUM PEAK STAGE	---		19.88	Nov 1	21.59
INSTANTANEOUS LOW FLOW	---		0.00	Aug 7-12	0.00
ANNUAL RUNOFF (INCHES)	11.49		12.22		6.70
10 PERCENT EXCEEDS	104		137		68
50 PERCENT EXCEEDS	12		11		3.2
90 PERCENT EXCEEDS	0.88		0.07		0.00

e Estimated

06909500 MONITEAU CREEK NEAR FAYETTE, MO—Continued





## 06910450 MISSOURI RIVER AT JEFFERSON CITY, MO

LOCATION.--Lat 38°35'14", long 92°10'43", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$  sec. 6, T.44 N., R.11 W., Cole County, Hydrologic Unit 10300102, on center pier of northbound bridge of U.S. Highways 54/63 at Jefferson City and at river mile 143.9.

DRAINAGE AREA.--507,500 mi<sup>2</sup>.

PERIOD OF RECORD.--Oct. 30, 1931 to current year (gage height only). Gage height records prior to Oct. 1, 2004 available from the Missouri Water Science Center.

GAGE.--Water stage recorder. Datum of gage 519.71 ft above National Geodetic Vertical Datum of 1929.

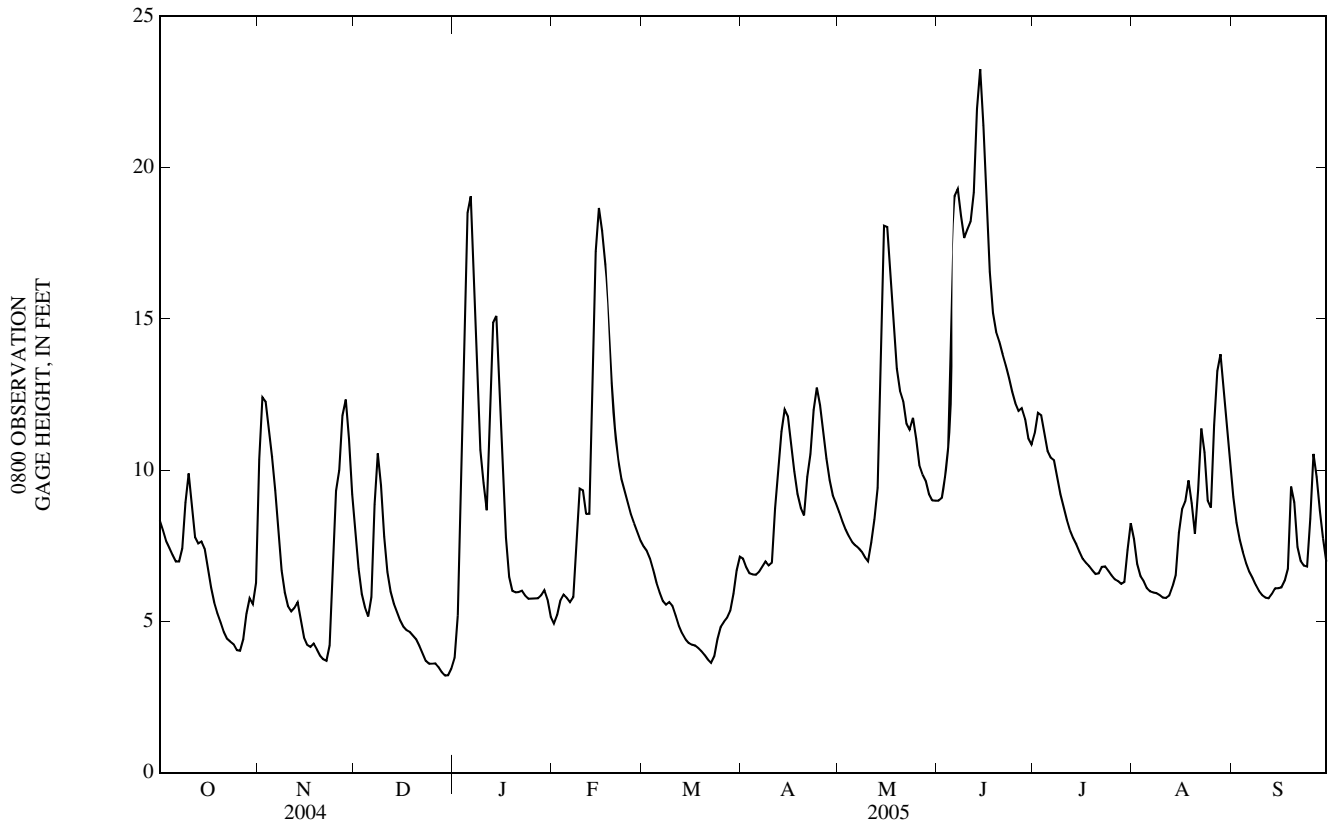
REMARKS.--U.S.G.S. satellite telemeter at station.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.33	6.70	8.57	3.54	4.97	7.58	7.23	8.85	8.99	10.85	8.44	9.98
2	8.34	12.19	7.52	3.91	4.91	7.42	7.00	8.50	8.99	11.40	7.37	8.68
3	7.84	12.52	6.35	5.85	5.36	7.28	6.69	8.21	9.13	12.14	6.67	8.05
4	7.55	12.14	5.69	9.96	5.86	6.97	6.54	7.95	10.09	11.65	6.41	7.53
5	7.36	10.85	5.35	15.82	5.90	6.57	6.56	7.75	11.09	11.02	6.29	7.17
6	7.11	10.23	5.07	19.85	5.72	6.13	6.53	7.57	18.19	10.44	6.00	6.81
7	6.92	8.88	6.17	18.65	5.60	5.87	6.70	7.49	19.50	10.40	5.99	6.56
8	7.01	7.36	10.23	15.26	5.91	5.58	6.87	7.40	19.19	10.29	5.94	6.37
9	7.62	6.34	10.71	11.77	8.44	5.54	7.04	7.26	18.02	9.54	5.93	6.11
10	9.59	5.76	8.89	10.12	9.87	5.69	6.75	7.06	17.50	9.05	5.84	5.95
11	10.04	5.37	7.26	9.30	9.07	5.42	7.03	6.95	18.18	8.65	5.76	5.82
12	8.33	5.31	6.32	8.36	8.29	5.08	9.59	7.93	18.23	8.23	5.78	5.77
13	7.51	5.52	5.82	12.95	8.69	4.74	10.07	8.60	19.65	7.91	5.89	5.76
14	7.61	5.69	5.48	15.83	14.31	4.54	11.87	9.82	23.10	7.68	6.28	5.98
15	7.66	4.73	5.24	14.73	18.69	4.35	12.07	15.98	23.33	7.48	6.66	6.15
16	7.28	4.34	4.93	11.54	18.65	4.26	11.64	19.13	20.43	7.21	8.56	6.07
17	6.54	4.17	4.78	8.87	17.53	4.22	10.58	17.49	17.66	7.00	8.79	6.15
18	5.92	4.15	4.68	7.22	16.45	4.20	9.66	15.53	16.00	6.91	9.06	6.44
19	5.47	4.33	4.64	6.10	14.19	4.08	9.00	14.15	14.79	6.79	9.96	6.89
20	5.16	3.95	4.48	5.96	12.22	3.98	8.63	12.96	14.45	6.64	8.37	10.74
21	4.87	3.83	4.38	5.96	10.96	3.84	8.44	12.45	14.14	6.53	7.66	8.04
22	4.54	3.71	4.10	5.98	10.07	3.69	10.43	12.20	13.68	6.62	10.17	7.17
23	4.37	3.69	3.87	6.03	9.55	3.60	10.58	11.21	13.36	6.89	11.98	6.91
24	4.31	4.47	3.61	5.77	9.19	3.97	12.69	11.40	12.90	6.78	9.89	6.81
25	4.21	8.36	3.60	5.74	8.78	4.64	12.74	11.89	12.44	6.62	8.55	6.81
26	3.97	9.79	3.61	5.76	8.43	4.91	11.85	10.60	12.10	6.47	8.87	9.18
27	4.06	10.10	3.61	5.76	8.15	5.02	10.98	9.94	11.89	6.36	12.80	11.21
28	4.59	12.66	3.42	5.77	7.87	5.17	10.08	9.81	12.13	6.32	13.51	9.05
29	5.58	12.17	3.27	5.91	---	5.44	9.47	9.56	11.47	6.20	13.99	8.46
30	5.86	10.46	3.18	6.10	---	6.15	9.01	9.03	10.84	6.36	12.08	7.37
31	5.42	---	3.24	5.53	---	6.96	---	8.99	---	7.86	11.19	---
MEAN	6.48	7.33	5.42	9.03	9.77	5.25	9.14	10.44	15.05	8.20	8.41	7.33
MAX	10.04	12.66	10.71	19.85	18.69	7.58	12.74	19.13	23.33	12.14	13.99	11.21
MIN	3.97	3.69	3.18	3.54	4.91	3.60	6.53	6.95	8.99	6.20	5.76	5.76

MISSOURI RIVER MAIN STEM

06910450 MISSOURI RIVER AT JEFFERSON CITY, MO—Continued



06910750 MOREAU RIVER NEAR JEFFERSON CITY, MO

LOCATION.--Lat 38°31'45", long 92°11'31", SE ¼ NW ¼ SE ¼ sec.25, T.44 N., R.11 W., Cole County, Hydrologic Unit 10300102, near right bank on downstream side of right pier of bridge on Tanner Bridge Road, 3 mi south of Jefferson City, 15.8 mi downstream from confluence of North and South Moreau Creeks, and at mile 17.

DRAINAGE AREA.--561 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	2,040	772	122	211	202	106	212	33	13	3.2	94
2	11	3,620	623	123	205	192	97	179	32	12	3.2	73
3	10	776	492	5,470	203	176	90	150	30	12	3.0	60
4	9.4	815	404	11,900	206	165	86	133	29	11	3.2	52
5	9.9	800	350	16,300	204	158	83	124	29	10	11	45
6	9.1	391	410	25,000	197	151	87	109	28	9.8	15	39
7	9.7	279	3,540	6,530	242	192	596	102	26	9.4	9.4	35
8	12	216	3,080	952	393	402	995	96	26	9.0	6.7	31
9	23	176	851	722	487	304	401	92	26	8.6	5.4	28
10	21	152	573	842	444	221	271	89	199	8.6	3.8	25
11	20	1,000	444	896	381	185	330	84	569	8.6	2.8	22
12	33	2,640	368	906	337	163	5,430	79	108	8.8	2.7	20
13	48	895	315	9,240	3,690	147	1,210	74	296	8.8	14	26
14	161	449	271	10,300	6,480	134	554	78	372	8.6	25	120
15	142	319	233	1,010	1,310	125	380	80	268	8.5	58	1,100
16	96	259	209	596	697	117	296	99	176	8.1	132	1,070
17	65	225	197	454	498	112	246	109	102	7.7	209	418
18	65	224	189	383	401	108	211	93	67	7.0	326	217
19	54	401	180	346	348	105	184	77	50	6.8	2,160	165
20	48	316	169	346	322	101	163	67	40	5.9	385	2,920
21	43	261	158	363	308	98	754	59	34	6.1	160	1,550
22	40	223	146	356	281	110	1,390	62	30	6.0	93	471
23	40	205	129	305	254	129	837	57	26	5.4	1,170	261
24	34	3,210	136	253	235	131	410	51	23	4.7	900	169
25	30	9,100	118	229	224	157	283	47	21	4.2	2,450	126
26	30	2,440	110	228	214	169	241	43	19	4.3	4,590	101
27	39	3,800	104	226	200	168	230	41	18	4.7	3,420	86
28	73	4,730	103	212	198	154	224	42	16	4.5	798	120
29	217	1,080	107	203	---	140	231	39	15	4.1	372	172
30	155	874	114	203	---	132	236	36	14	4.0	213	121
31	109	---	120	212	---	117	---	34	---	3.4	136	---
MEAN	53.8	1,397	484	3,072	685	160	555	85.1	90.7	7.54	570	325
MAX	217	9,100	3,540	25,000	6,480	402	5,430	212	569	13	4,590	2,920
MIN	9.1	152	103	122	197	98	83	34	14	3.4	2.7	20
IN.	0.11	2.78	1.00	6.31	1.27	0.33	1.10	0.17	0.18	0.02	1.17	0.65

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

MEAN	294	252	234	438	449	616	549	597	588	304	132	272
MAX	2,076	1,397	1,040	3,072	1,866	3,169	2,256	2,815	2,548	2,237	570	2,987
(WY)	(1970)	(2005)	(1969)	(2005)	(1951)	(1973)	(1973)	(1970)	(1948)	(1951)	(2005)	(1965)
MIN	0.81	1.03	4.29	5.57	7.75	11.9	9.36	29.7	13.2	4.41	1.78	1.35
(WY)	(1954)	(1954)	(1954)	(1964)	(1954)	(1954)	(1956)	(1965)	(1952)	(1959)	(1953)	(1960)

SUMMARY STATISTICS

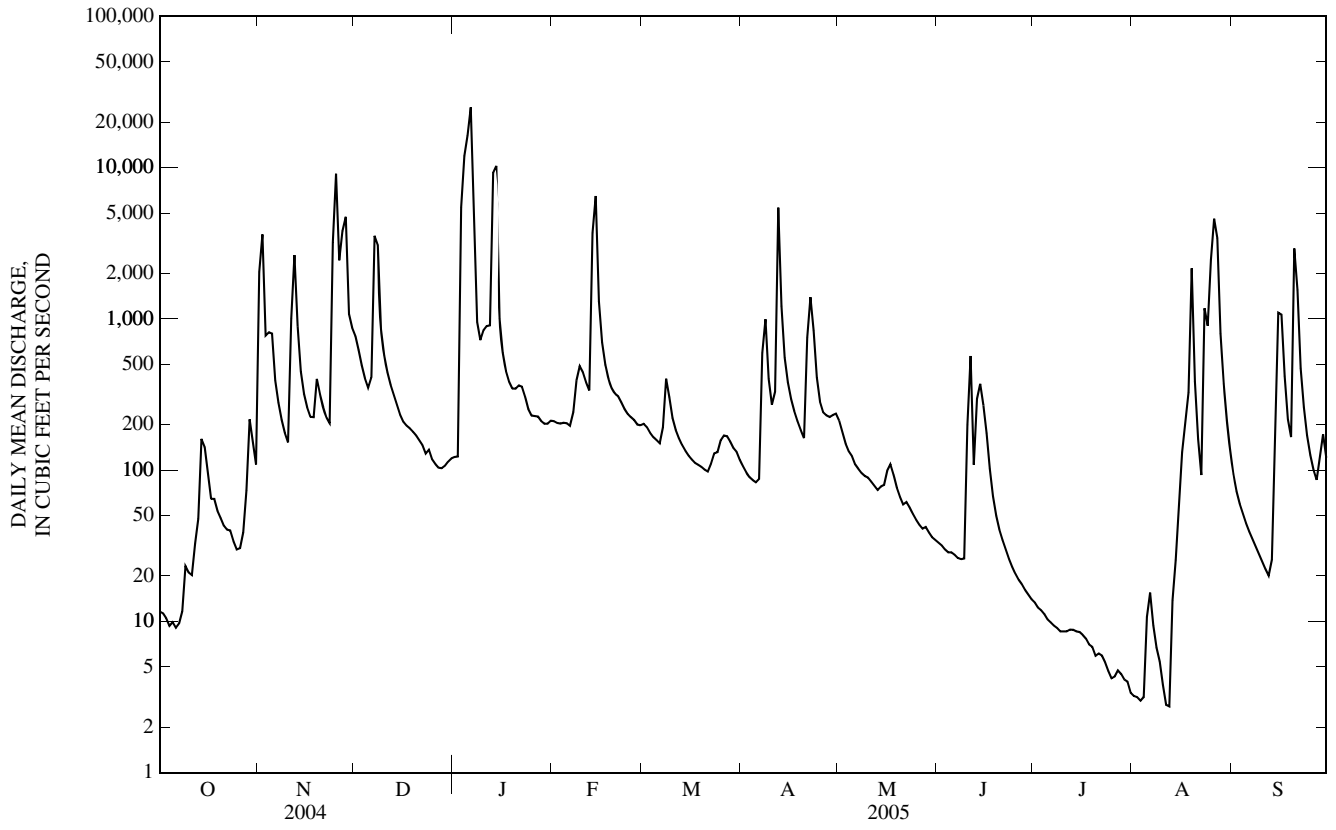
FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

FOR PERIOD OF RECORD

ANNUAL MEAN	487	624	387
HIGHEST ANNUAL MEAN			881
LOWEST ANNUAL MEAN			50.4
HIGHEST DAILY MEAN	13,700	Mar 5	25,000
LOWEST DAILY MEAN	9.1	Oct 6	2.7
ANNUAL SEVEN-DAY MINIMUM	10	Oct 1	3.4
MAXIMUM PEAK FLOW	---		27,600
MAXIMUM PEAK STAGE	---		29.93
INSTANTANEOUS LOW FLOW	---		2.3
ANNUAL RUNOFF (INCHES)	11.81		15.09
10 PERCENT EXCEEDS	873		969
50 PERCENT EXCEEDS	194		151
90 PERCENT EXCEEDS	33		9.4

06910750 MOREAU RIVER NEAR JEFFERSON CITY, MO—Continued



## 06916675 MIAMI CREEK NEAR BUTLER, MO

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

DRAINAGE AREA.--137 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.97	165	160	18	39	29	13	6.9	6.0	6.4	0.37	3.0
2	0.67	137	109	18	39	26	13	6.3	4.9	5.7	0.35	2.0
3	0.77	75	81	322	37	25	13	6.3	8.7	4.0	0.36	2.3
4	0.81	269	65	555	33	26	13	5.8	422	4.2	0.55	2.2
5	0.53	99	183	2,340	30	25	12	5.6	366	4.1	2.0	0.55
6	0.55	47	771	1,820	44	23	25	5.2	78	3.3	1.2	0.31
7	1.0	34	574	307	215	22	59	5.2	39	2.7	0.60	0.25
8	1.3	27	307	151	132	20	32	5.0	30	2.5	e0.47	0.22
9	0.71	23	167	127	75	19	21	4.5	1,170	2.3	0.35	0.21
10	0.56	24	110	240	55	17	17	4.3	382	1.7	0.44	0.18
11	0.96	427	79	232	46	16	18	4.2	290	1.2	0.54	0.17
12	1.5	160	65	343	48	16	131	4.3	363	1.2	0.43	0.16
13	1.7	61	53	1,090	978	14	72	490	704	1.2	1.4	1.7
14	1.1	39	41	181	646	13	38	563	330	1.2	11	9.2
15	1.4	32	35	114	162	13	27	120	93	0.92	41	14
16	1.1	27	33	123	97	12	22	54	56	0.92	27	12
17	1.1	24	32	75	69	12	19	35	60	0.78	10	3.1
18	0.63	24	30	49	56	13	15	27	111	0.61	4.3	10
19	0.52	24	27	41	52	12	15	21	105	0.60	2.2	4.3
20	0.70	24	28	46	58	11	13	17	34	0.73	2.0	2.6
21	0.73	24	24	51	64	11	12	13	15	0.83	1.3	1.3
22	0.92	23	26	51	52	19	11	12	13	0.67	2.2	0.81
23	2.7	29	22	62	44	66	9.4	8.2	11	0.60	5.5	0.49
24	7.4	1,190	e26	32	45	64	8.4	7.3	8.5	0.53	4.1	0.39
25	5.8	939	e17	32	43	39	7.9	6.7	6.6	0.42	205	0.46
26	9.0	318	e19	37	38	30	8.1	5.4	5.1	0.43	267	0.29
27	320	597	e19	36	34	25	8.0	4.7	4.1	1.2	154	0.20
28	130	369	17	34	32	22	8.5	4.2	3.4	1.1	40	0.31
29	47	214	17	33	---	20	8.8	3.7	2.9	0.98	18	1.0
30	32	250	19	37	---	17	8.1	6.3	3.0	0.83	10	0.86
31	25	---	19	38	---	14	---	7.7	---	0.51	5.5	---
MEAN	19.3	190	102	279	117	22.3	22.6	47.4	158	1.75	26.4	2.49
MAX	320	1,190	771	2,340	978	66	131	563	1,170	6.4	267	14
MIN	0.52	23	17	18	30	11	7.9	3.7	2.9	0.42	0.35	0.16

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)
MEAN	27.1	49.5	34.8	84.2	43.6	75.3	44.3	129	82.3	12.4	7.77	4.00
MAX	87.3	190	102	279	117	251	92.7	380	158	46.8	26.4	8.55
(WY)	(2002)	(2005)	(2005)	(2005)	(2005)	(2004)	(2002)	(2002)	(2005)	(2004)	(2005)	(2003)
MIN	0.95	0.03	0.06	0.14	0.54	11.0	3.91	33.1	19.0	0.30	0.25	0.71
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2003)	(2002)	(2003)	(2003)	(2002)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

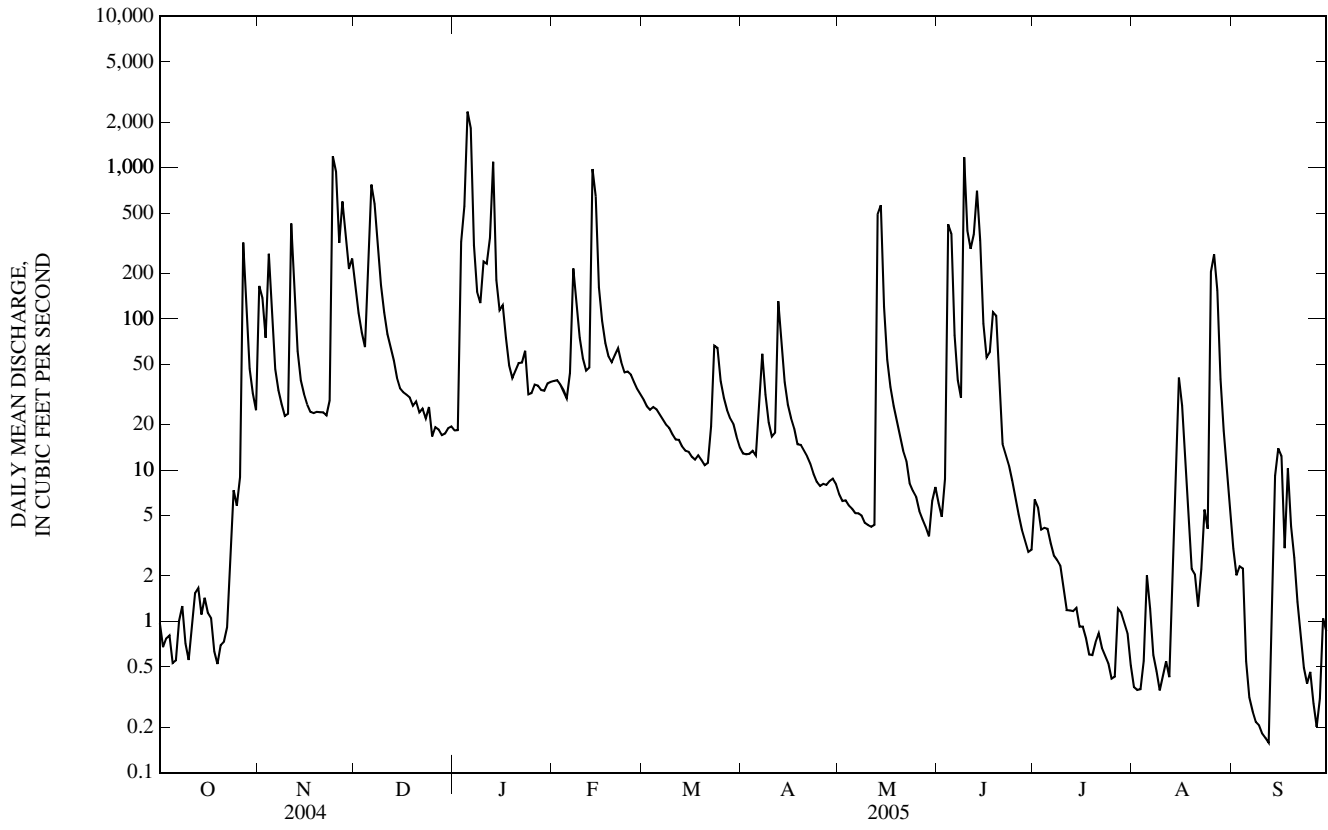
## FOR 2005 WATER YEAR

## WATER YEARS 2002 - 2005

ANNUAL MEAN	74.9	81.9	49.6
HIGHEST ANNUAL MEAN			81.9
LOWEST ANNUAL MEAN			9.28
HIGHEST DAILY MEAN	2,530	Mar 5	2,530
LOWEST DAILY MEAN	0.52	Oct 19	0.00
ANNUAL SEVEN-DAY MINIMUM	0.75	Sep 30	0.00
MAXIMUM PEAK FLOW	---		2,930
MAXIMUM PEAK STAGE	---		20.81
INSTANTANEOUS LOW FLOW	---		0.00
10 PERCENT EXCEEDS	165		83
50 PERCENT EXCEEDS	17		4.2
90 PERCENT EXCEEDS	1.8		0.12

e Estimated

06916675 MIAMI CREEK NEAR BUTLER, MO—Continued



## 06917060 LITTLE OSAGE RIVER AT HORTON, MO

LOCATION.--Lat 37°59'41", long 94°22'09", in SW ¼ NE ¼ NW ¼ sec. 17, T.37 N., R.31 W., Vernon County, Hydrologic Unit 10290103, on left bank at the upstream side of the southbound bridge of U.S. Highway 71, 4 mi above Marmaton River, and 1 mi north of Horton.

DRAINAGE AREA.--498 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	349	e1,010	112	196	250	124	51	31	32	3.4	e255
2	1.6	693	e628	111	203	224	114	47	31	34	3.4	e200
3	1.4	476	e471	705	192	203	107	43	e40	29	3.6	151
4	1.4	1,060	e412	e1,800	176	188	101	40	e66	29	4.4	125
5	1.0	1,080	e561	e5,530	167	182	94	37	e537	30	5.2	100
6	0.85	591	1,890	e6,080	208	169	162	35	e464	26	4.3	83
7	1.1	312	e2,770	e4,110	505	155	983	33	e299	25	3.8	71
8	2.3	217	e1,710	e2,650	663	145	871	31	e210	21	3.5	61
9	4.3	164	e958	e1,690	618	135	403	30	e662	19	3.1	51
10	4.9	137	e634	e1,090	492	129	211	29	e649	16	2.9	45
11	30	904	e471	e872	353	125	167	27	e415	14	2.8	39
12	239	1,670	e381	e927	301	118	702	26	e1,720	13	2.9	36
13	71	1,400	324	e2,770	1,170	110	375	318	e1,990	13	6.0	33
14	29	853	279	e2,240	2,190	102	240	1,750	e1,100	11	11	248
15	17	348	242	e1,360	e1,730	95	186	e1,910	e668	8.8	218	899
16	11	238	219	e845	e990	91	150	e899	e466	8.4	294	446
17	8.0	196	207	e548	e575	90	128	e368	e351	6.7	89	250
18	6.2	181	199	e419	e390	85	116	e226	e251	332	36	450
19	4.5	210	189	e367	e322	82	102	164	e182	150	21	767
20	4.3	241	172	e349	301	79	94	e108	e139	30	15	433
21	4.7	228	160	e339	298	77	87	e81	e114	18	13	259
22	7.7	218	149	330	281	211	81	e68	e93	13	63	167
23	8.6	307	137	293	260	460	72	e58	e76	10	e252	117
24	23	e2,480	150	257	352	467	64	e52	e61	9.4	e75	85
25	54	e3,630	150	235	479	361	59	52	e51	8.4	e1,350	66
26	54	e2,970	122	231	438	277	58	47	e42	7.6	e3,250	54
27	359	e1,880	108	223	336	227	58	44	34	7.5	e2,930	46
28	356	e1,340	105	210	280	194	56	44	29	7.0	e1,870	40
29	443	e1,520	107	198	---	171	55	42	25	5.9	e1,080	36
30	348	e1,540	110	196	---	153	54	40	22	4.5	e646	31
31	214	---	113	196	---	138	---	36	---	4.0	e395	---
MEAN	74.6	914	488	1,203	517	177	202	217	361	30.4	408	188
MAX	443	3,630	2,770	6,080	2,190	467	983	1,910	1,990	332	3,250	899
MIN	0.85	137	105	111	167	77	54	26	22	4.0	2.8	31

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	30.3	198	168	317	266	438	295	535	430	104	92.4	75.1
MAX	74.6	914	488	1,203	561	1,291	500	1,530	812	371	408	188
(WY)	(2005)	(2005)	(2005)	(2005)	(2001)	(2004)	(2004)	(2002)	(2001)	(2004)	(2005)	(2005)
MIN	0.00	0.04	0.60	1.16	10.3	43.8	68.8	174	256	0.05	0.17	0.00
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2001)	(2003)	(2003)	(2002)	(2002)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

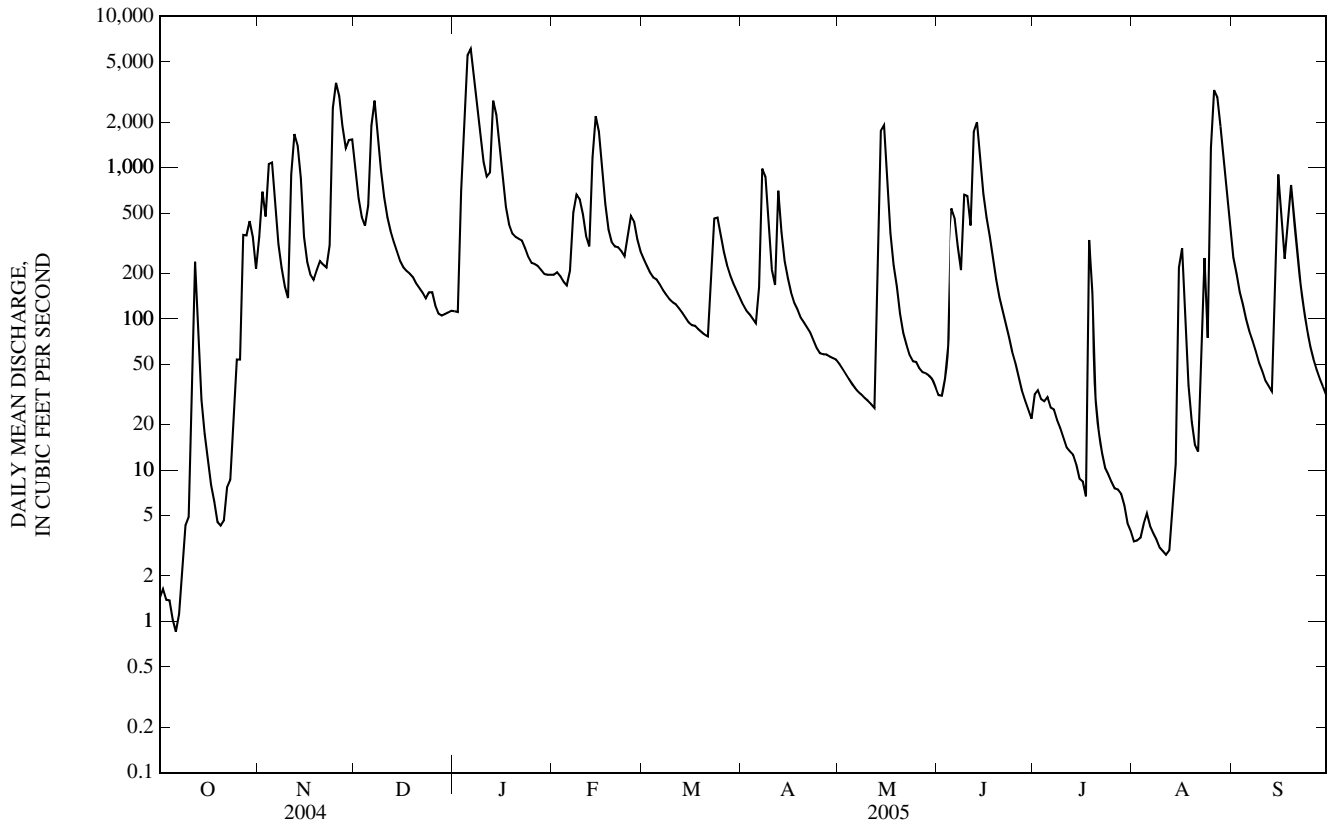
## FOR 2005 WATER YEAR

## WATER YEARS 2001 - 2005

ANNUAL MEAN	401	397	246
HIGHEST ANNUAL MEAN			397
LOWEST ANNUAL MEAN			83.1
HIGHEST DAILY MEAN	6,180	Mar 6	6,180
LOWEST DAILY MEAN	0.85	Oct 6	0.00
ANNUAL SEVEN-DAY MINIMUM	1.2	Oct 1	0.00
MAXIMUM PEAK FLOW	---		6,680
MAXIMUM PEAK STAGE	---		44.85
INSTANTANEOUS LOW FLOW	---		0.83
10 PERCENT EXCEEDS	1,070		1,070
50 PERCENT EXCEEDS	150		153
90 PERCENT EXCEEDS	7.1		8.2

e Estimated

06917060 LITTLE OSAGE RIVER AT HORTON, MO—Continued





## 06917630 EAST DRYWOOD CREEK AT PRAIRIE STATE PARK, MO

LOCATION.--Lat 37°32'07", long 94°33'29", in NE ¼ NW ¼ NE ¼ sec.16, T.32 N., R.33 W., Barton County, Hydrologic Unit 10290104, on left bank in Prairie State Park on north fence line, approximately 3 mi southwest of Liberal, and 17 mi northwest of Lamar.

DRAINAGE AREA.--3.38 mi<sup>2</sup>.

PERIOD OF RECORD.--November 7, 2001 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	e0.00	4.4	1.8	1.5	1.0	1.6	1.8	0.03	0.00	0.00	0.00
2	0.00	e0.00	3.2	2.1	1.4	0.82	1.7	0.90	0.03	0.00	0.00	0.00
3	0.00	e0.00	2.8	6.6	1.2	0.81	1.2	0.67	0.05	0.00	0.00	0.00
4	0.00	0.00	2.4	89	1.2	1.7	0.91	0.56	0.10	0.00	0.00	0.00
5	0.00	0.00	15	177	1.3	1.5	0.97	0.49	0.06	0.00	0.00	0.00
6	0.00	0.00	26	18	5.4	1.2	24	0.47	0.12	0.00	0.00	0.00
7	0.00	0.00	43	4.1	13	1.1	18	0.42	0.13	0.00	0.00	0.00
8	0.00	0.00	5.6	3.6	6.2	0.82	3.9	0.45	0.05	0.00	0.00	0.00
9	0.00	0.00	3.4	5.9	7.7	0.91	2.3	0.52	0.18	0.00	0.00	0.00
10	0.00	0.00	2.9	6.9	3.5	0.77	1.8	0.49	0.20	0.00	0.00	0.00
11	0.00	0.12	2.5	4.1	2.5	0.62	2.9	0.46	0.20	0.00	0.00	0.00
12	0.00	0.84	2.3	39	3.2	0.57	3.1	0.34	0.40	0.00	0.00	0.00
13	0.00	0.70	2.0	43	36	0.48	2.1	0.46	34	0.00	0.00	0.00
14	0.00	0.68	1.8	4.3	6.1	0.46	1.6	54	7.8	0.00	0.00	0.00
15	0.00	0.62	1.6	2.2	2.6	0.49	1.3	4.5	1.5	0.00	0.00	0.00
16	0.00	0.65	1.7	1.4	1.6	0.45	1.0	1.9	0.82	0.00	0.00	0.00
17	0.00	0.70	1.6	1.2	1.4	0.41	0.90	1.2	0.64	0.00	0.00	0.00
18	0.00	0.85	1.6	1.1	1.2	0.43	0.79	0.90	0.45	0.00	0.00	0.00
19	0.00	0.95	1.4	1.3	1.2	0.49	0.69	0.82	0.37	0.00	0.00	0.00
20	0.00	0.95	1.4	1.6	1.2	0.48	0.64	0.77	0.23	0.00	0.00	0.00
21	0.00	1.1	1.4	1.6	1.2	1.8	0.68	0.66	0.19	0.00	0.00	0.00
22	0.00	1.3	1.2	1.5	1.1	7.9	1.2	0.50	0.13	0.00	0.00	0.00
23	0.00	3.3	0.77	0.99	4.1	5.0	1.3	0.41	0.11	0.00	0.00	0.00
24	0.00	46	0.57	1.0	5.5	2.4	1.5	0.46	0.08	0.00	0.00	0.00
25	0.00	11	0.59	1.1	2.3	3.4	1.7	0.47	0.04	0.00	0.00	0.00
26	0.00	3.5	0.67	1.1	1.6	2.4	2.2	0.32	0.02	0.00	0.00	0.00
27	0.00	25	0.75	1.0	1.4	1.9	1.4	0.22	0.00	0.00	0.00	0.00
28	0.00	6.0	0.95	1.0	1.2	1.6	1.4	0.20	0.00	0.00	0.00	0.00
29	e0.00	49	1.1	1.2	---	1.3	1.7	0.17	0.00	0.00	0.00	0.00
30	e0.00	11	1.1	1.6	---	1.00	3.6	0.10	0.00	0.00	0.00	0.00
31	e0.00	---	1.3	1.6	---	0.82	---	0.05	---	0.00	0.00	---
MEAN	0.00	5.48	4.42	13.8	4.21	1.45	2.94	2.44	1.60	0.00	0.00	0.00
MAX	0.00	49	43	177	36	7.9	24	54	34	0.00	0.00	0.00
MIN	0.00	0.00	0.57	0.99	1.1	0.41	0.64	0.05	0.00	0.00	0.00	0.00
IN.	0.00	0.10	0.08	0.26	0.07	0.03	0.05	0.05	0.03	0.00	0.00	0.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

	2002	2003	2004	2005	2002	2003	2004	2005	2002	2003	2004	2005
MEAN	0.65	3.43	4.32	5.23	1.71	4.19	3.95	6.76	1.63	0.48	0.15	1.17
MAX	1.95	5.48	12.6	13.8	4.21	10.5	9.42	17.3	4.03	1.93	0.58	4.69
(WY)	(2004)	(2005)	(2004)	(2005)	(2005)	(2004)	(2004)	(2002)	(2002)	(2004)	(2003)	(2003)
MIN	0.00	0.00	0.00	0.00	0.43	0.85	0.43	2.44	0.33	0.00	0.00	0.00
(WY)	(2003)	(2003)	(2003)	(2003)	(2002)	(2002)	(2002)	(2005)	(2004)	(2003)	(2002)	(2002)

## SUMMARY STATISTICS

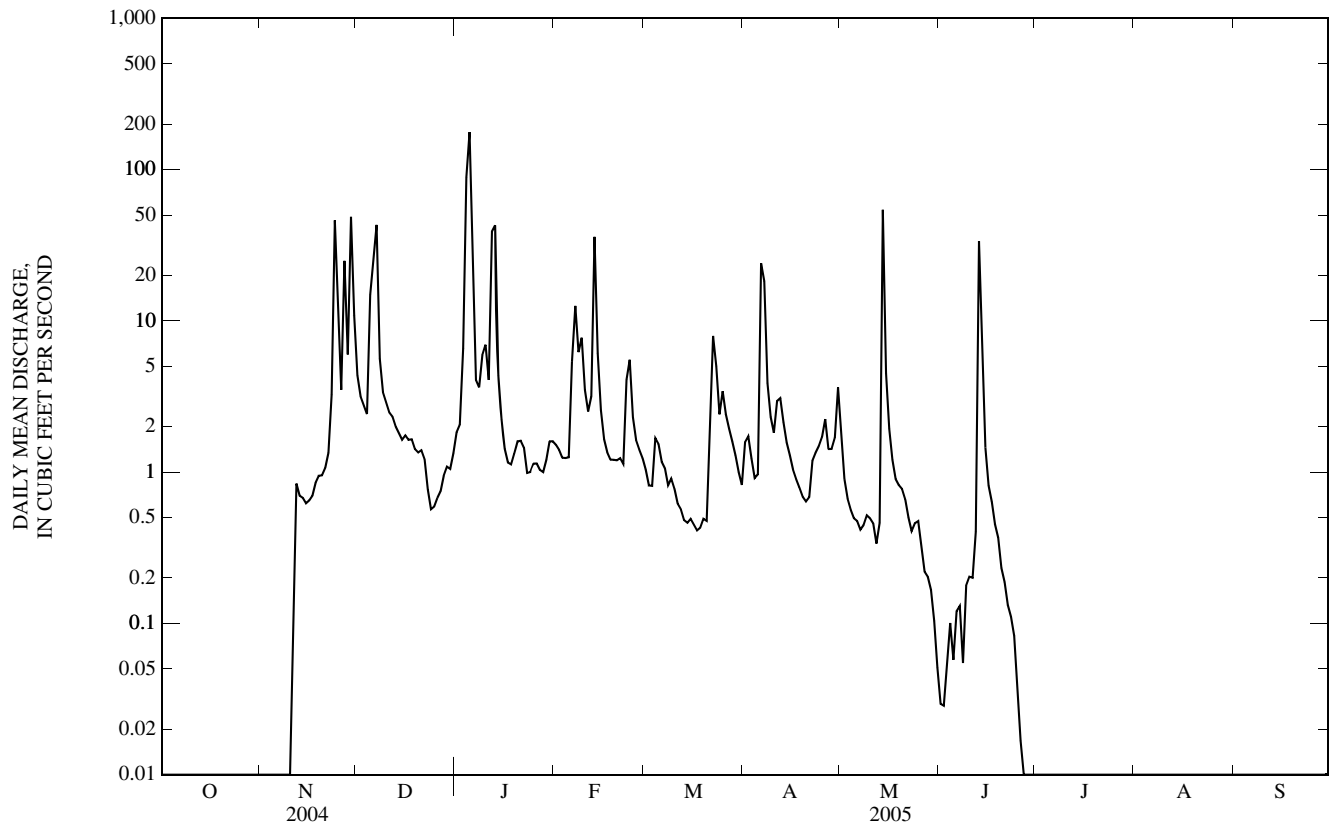
	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2002 - 2005
ANNUAL MEAN	3.51	3.02	2.90
HIGHEST ANNUAL MEAN			4.32
LOWEST ANNUAL MEAN			1.36
HIGHEST DAILY MEAN	213	177	213
LOWEST DAILY MEAN	0.00	0.00	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	0.00	0.00
MAXIMUM PEAK FLOW	---	348 <sup>a</sup>	751 <sup>b</sup>
MAXIMUM PEAK STAGE	---	4.47	6.22
INSTANTANEOUS LOW FLOW	---	0.00	0.00
ANNUAL RUNOFF (INCHES)	0.77	0.66	0.64
10 PERCENT EXCEEDS	3.4	4.1	3.9
50 PERCENT EXCEEDS	0.53	0.49	0.44
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

<sup>a</sup> From rating extended above 198 ft<sup>3</sup>/s on basis of indirect measurement.

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

06917630 EAST DRYWOOD CREEK AT PRAIRIE STATE PARK, MO—Continued



## 06917680 DRY WOOD CREEK NEAR DEERFIELD, MO

LOCATION.--Lat 37°47'53", long 94°30'55", in SW ¼ SE ¼ sec.24, T.35 N., R.33 W., Vernon County, Hydrologic Unit 10290104, on left downstream pier on State Highway KK bridge, 7.2 mi southwest of Nevada.

DRAINAGE AREA.--358 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	72	636	74	147	156	87	122	24	25	5.5	8.2
2	6.0	137	374	72	144	136	81	85	25	25	5.4	6.0
3	4.5	167	274	114	131	126	81	65	30	24	5.2	4.8
4	3.2	606	219	1,120	120	123	79	56	53	29	4.5	4.9
5	2.8	328	329	7,550	113	141	80	50	116	42	e4.3	3.7
6	3.0	118	1,810	11,500	130	128	597	47	62	42	e4.0	e2.7
7	3.2	73	1,780	e4,950	568	114	1,680	44	49	32	e4.0	e2.6
8	4.6	55	1,330	e2,200	584	107	779	43	43	25	e3.9	3.3
9	4.3	44	534	1,090	473	101	341	41	815	21	e4.1	3.9
10	4.5	41	334	906	419	101	231	40	500	19	e4.1	3.5
11	9.4	1,530	251	674	286	97	191	39	220	17	e4.0	e2.6
12	19	2,540	205	1,010	237	88	235	37	754	15	e4.1	e2.4
13	34	920	178	4,970	1,300	83	208	41	2,100	13	e4.2	e2.6
14	26	266	148	5,420	1,540	74	152	650	2,450	12	4.5	3.7
15	19	168	127	1,990	608	70	125	814	826	12	9.1	4.8
16	15	132	117	583	338	68	111	220	235	11	15	10
17	12	113	116	333	248	68	102	131	157	9.8	18	19
18	11	103	113	272	214	66	91	95	119	21	17	15
19	11	121	106	242	193	64	84	73	92	49	14	10
20	10	132	95	245	191	60	78	60	73	38	11	7.0
21	9.0	116	89	249	186	64	73	50	61	30	8.5	5.2
22	8.3	156	86	230	164	627	69	44	52	22	7.0	4.4
23	8.8	236	78	185	167	430	64	40	46	16	6.4	3.5
24	12	2,550	84	150	380	249	57	37	42	12	15	3.3
25	13	3,940	65	149	348	199	52	37	37	9.1	51	3.2
26	18	2,020	62	154	241	210	55	43	32	7.5	853	2.8
27	37	1,150	64	147	197	167	65	38	28	7.3	1,080	e2.7
28	82	1,000	66	131	175	145	67	32	25	6.3	403	e2.7
29	48	785	69	128	---	130	67	28	23	5.7	26	e2.6
30	42	1,400	74	140	---	113	87	26	23	5.8	16	e2.6
31	48	---	76	151	---	98	---	24	---	5.8	12	---
MEAN	17.2	701	319	1,520	352	142	202	102	304	19.7	84.6	5.12
MAX	82	3,940	1,810	11,500	1,540	627	1,680	814	2,450	49	1,080	19
MIN	2.8	41	62	72	113	60	52	24	23	5.7	3.9	2.4
IN.	0.06	2.18	1.03	4.90	1.02	0.46	0.63	0.33	0.95	0.06	0.27	0.02

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	37.1	226	353	485	169	363	379	741	241	130	30.9	154
MAX	72.1	701	1,063	1,520	352	1,120	924	2,058	308	480	84.6	596
(WY)	(2002)	(2005)	(2004)	(2005)	(2005)	(2004)	(2004)	(2002)	(2002)	(2004)	(2005)	(2003)
MIN	3.02	4.64	9.05	6.60	27.5	51.9	77.3	102	120	6.34	4.18	5.12
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2002)	(2003)	(2005)	(2003)	(2003)	(2002)	(2005)

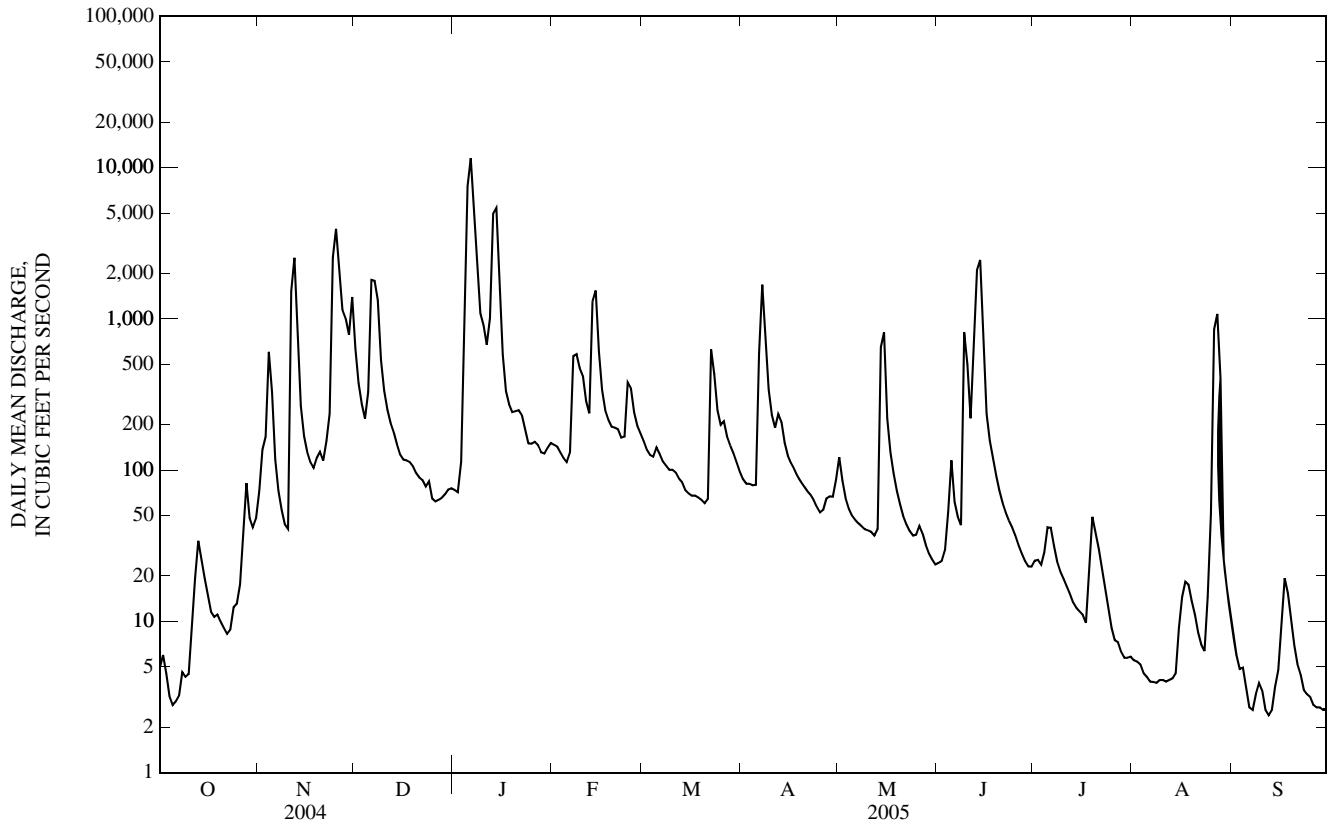
## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2002 - 2005
ANNUAL MEAN	392	314	277
HIGHEST ANNUAL MEAN			415
LOWEST ANNUAL MEAN			116
HIGHEST DAILY MEAN	12,000	11,500	12,000
LOWEST DAILY MEAN	2.8	e2.4	2.0
ANNUAL SEVEN-DAY MINIMUM	3.7	2.8	2.2
MAXIMUM PEAK FLOW	---	12,700	14,100
MAXIMUM PEAK STAGE	---	21.94	22.56
INSTANTANEOUS LOW FLOW	---	--- <sup>a</sup>	1.9
ANNUAL RUNOFF (INCHES)	14.90	11.90	10.50
10 PERCENT EXCEEDS	920	706	472
50 PERCENT EXCEEDS	104	72	39
90 PERCENT EXCEEDS	9.3	4.5	4.3

e Estimated

<sup>a</sup> Minimum not determined, may have occurred during period of estimated record.

06917680 DRY WOOD CREEK NEAR DEERFIELD, MO—Continued



## 06918060 MARMATON RIVER NEAR NEVADA, MO

LOCATION.--Lat 37°51'43", long 94°23'57", in NW ¼ SW ¼ NW ¼ sec.31, T.36 N., R.31 W., Vernon County, Hydrologic Unit 10290104, on left downstream wingwall of Old Pumphouse Bridge, 26 mi above Osage River, and 2.0 mi northwest of Nevada.

DRAINAGE AREA.--1,074 mi<sup>2</sup>.

PERIOD OF RECORD.--October 2003 to current year. October 2000 to September 2003, records collected at site 5 mi downstream, published as Marmaton River below Nevada (06918065).

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	145	e2,960	207	397	608	247	204	51	45	6.8	177
2	8.3	414	e1,790	200	401	517	221	203	55	53	6.7	123
3	9.3	567	1,300	790	379	442	210	155	62	43	6.2	97
4	17	2,070	882	3,780	337	403	202	128	101	51	6.2	77
5	17	2,300	888	9,450	305	392	203	111	1,230	95	4.6	60
6	14	933	4,650	18,100	317	383	666	102	1,050	86	4.2	48
7	12	430	5,830	20,200	1,330	338	3,780	96	556	69	4.3	37
8	14	281	5,710	e10,100	2,350	309	3,430	89	394	56	4.1	29
9	34	215	3,700	e6,320	1,760	288	1,490	83	1,480	43	4.6	23
10	23	179	1,960	e3,780	1,520	280	782	79	2,040	34	4.6	20
11	24	2,060	1,150	e2,770	1,040	280	570	75	1,240	28	5.1	18
12	78	5,930	810	3,790	782	259	765	71	3,950	24	4.7	14
13	107	5,300	660	7,480	2,850	238	643	87	5,800	20	6.7	13
14	76	2,470	544	9,150	5,560	220	477	926	6,440	18	18	22
15	52	927	448	e6,860	3,990	203	358	3,380	5,650	15	72	26
16	38	568	393	e3,800	2,120	193	291	1,670	3,170	14	130	24
17	28	439	369	e2,040	1,230	186	260	615	1,570	12	121	28
18	20	381	357	e1,140	810	184	235	324	e865	62	62	48
19	15	398	339	e902	651	180	214	228	e523	128	37	31
20	13	455	310	778	607	172	193	181	e362	93	28	23
21	12	432	285	780	610	166	180	148	e254	55	28	19
22	11	444	270	743	544	899	167	122	e164	37	68	15
23	11	646	233	612	512	1,450	164	104	126	24	149	13
24	9.4	4,340	234	477	1,260	1,030	155	91	105	16	74	9.8
25	13	7,410	231	428	1,830	679	129	83	89	13	713	8.3
26	23	8,160	176	431	1,250	592	124	90	74	10	4,920	18
27	59	e5,790	170	426	850	502	131	90	61	8.9	5,960	29
28	135	e4,410	173	389	685	416	145	90	49	7.5	5,030	29
29	206	e3,630	183	364	---	361	145	79	40	6.8	2,800	30
30	160	e4,400	195	372	---	316	153	66	36	7.3	e1,250	30
31	117	---	207	389	---	279	---	56	---	7.1	e445	---
MEAN	44.0	2,204	1,207	3,776	1,296	412	558	317	1,253	38.1	709	38.0
MAX	206	8,160	5,830	20,200	5,560	1,450	3,780	3,380	6,440	128	5,960	177
MIN	6.8	145	170	200	305	166	124	56	36	6.8	4.1	8.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

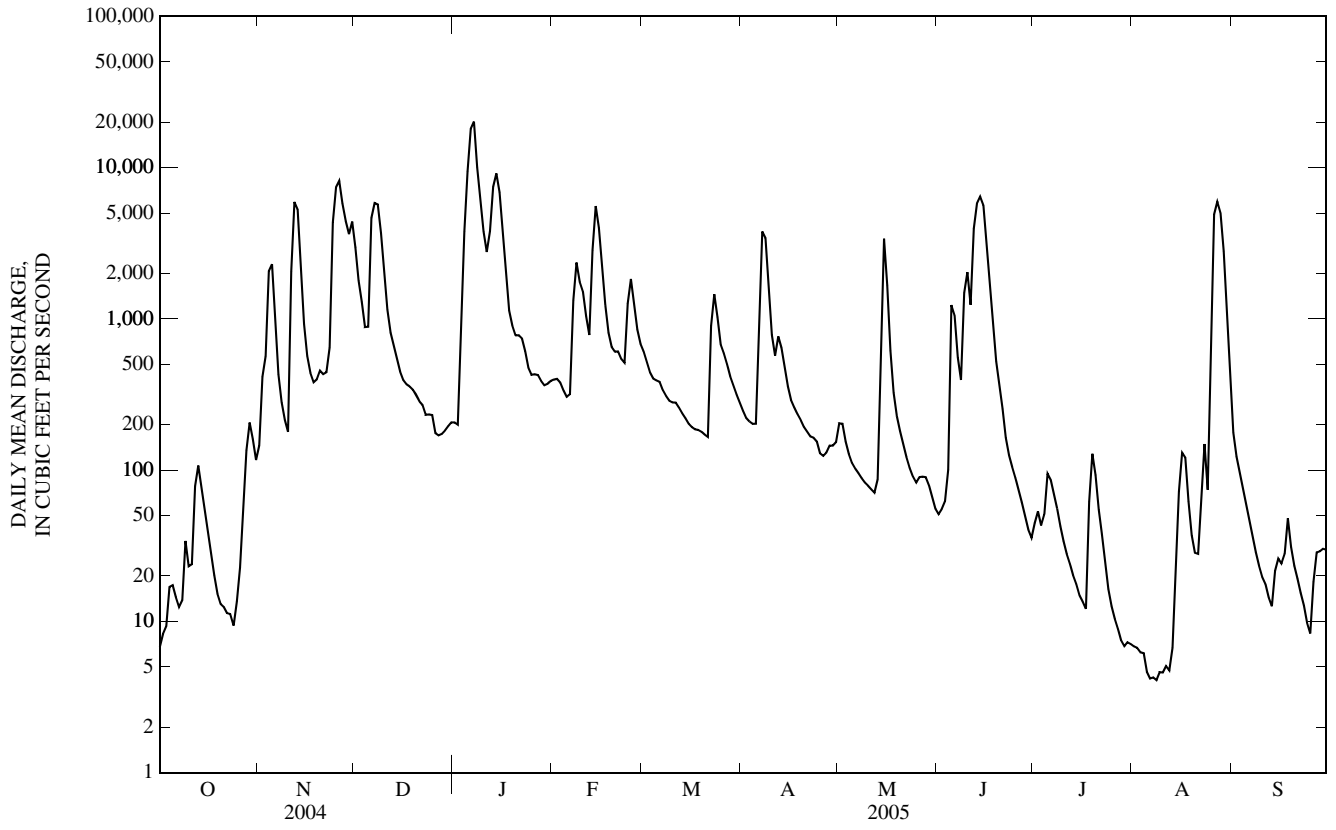
MEAN	67.4	1,270	1,863	2,387	827	1,705	1,307	772	1,023	654	370	24.7
MAX	90.8	2,204	2,519	3,776	1,296	2,998	2,056	1,227	1,253	1,269	709	38.0
(WY)	(2004)	(2005)	(2004)	(2005)	(2005)	(2004)	(2004)	(2004)	(2005)	(2004)	(2005)	(2005)
MIN	44.0	336	1,207	998	375	412	558	317	794	38.1	31.3	11.5
(WY)	(2005)	(2004)	(2005)	(2004)	(2004)	(2005)	(2005)	(2005)	(2004)	(2005)	(2004)	(2004)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 2004 - 2005	
ANNUAL MEAN	1,103		985		1,025	
HIGHEST ANNUAL MEAN					1,065	
LOWEST ANNUAL MEAN					985	
HIGHEST DAILY MEAN	16,400	Mar 6	20,200	Jan 7	20,200	Jan 7, 2005
LOWEST DAILY MEAN	6.8	Oct 1	4.1	Aug 8	4.1	Aug 8, 2005
ANNUAL SEVEN-DAY MINIMUM	7.9	Sep 25	4.5	Aug 5	4.5	Aug 5, 2005
MAXIMUM PEAK FLOW	---		22,600	Jan 7	22,600	Jan 7, 2005
MAXIMUM PEAK STAGE	---		27.64	Jan 7	27.64	Jan 7, 2005
INSTANTANEOUS LOW FLOW	---		3.0	Aug 8	3.0	Aug 8, 2005
10 PERCENT EXCEEDS	3,740		3,400		3,490	
50 PERCENT EXCEEDS	296		207		248	
90 PERCENT EXCEEDS	14		14		15	

e Estimated

06918060 MARMATON RIVER NEAR NEVADA, MO—Continued



## 06918070 OSAGE RIVER ABOVE SCHELL CITY, MO

LOCATION.--Lat 38°03'21", long 94°08'43", in SE ¼ SW ¼ NW ¼ sec.20, T.38 N., R.29 W., Bates County, Hydrologic Unit 10290105, on downstream side of left pier of bridge on State Highway M, 0.8 mi downstream from Shaw Branch, 0.2 mi upstream from McKenzie Creek, and 3.0 mi northwest of Schell City.

DRAINAGE AREA.--5,410 mi<sup>2</sup>, by U.S. Army Corps of Engineers.

## WATER-DISCHARGE RECORDS

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

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

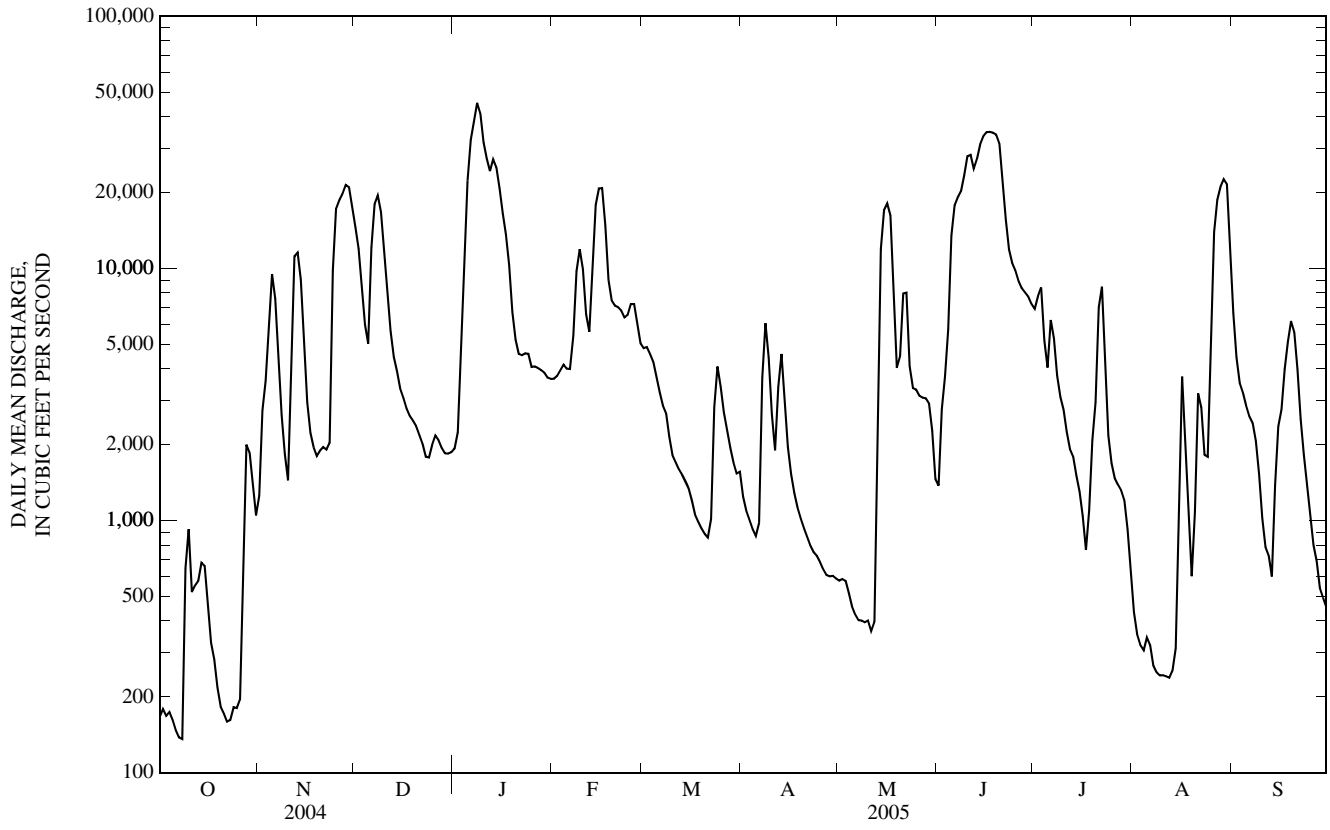
REMARKS.--No estimated daily discharges. Water-discharge records poor. Discharge is calculated using fall computations due to backwater from Harry S. Truman Reservoir. U.S. Army Corps of Engineers satellite telemeter at station.

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

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 49,200 ft<sup>3</sup>/s, Jan. 8; minimum, 136 ft<sup>3</sup>/s, Oct. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	167	1,250	14,600	1,930	3,650	4,830	1,250	577	1,380	6,910	432	6,650
2	179	2,730	12,000	2,240	3,750	4,880	1,100	586	2,760	7,750	354	4,420
3	168	3,580	8,660	4,190	3,950	4,580	1,010	577	3,730	8,410	320	3,520
4	174	5,900	5,980	9,600	4,150	4,260	926	516	5,720	5,170	306	3,220
5	162	9,500	5,030	22,300	4,000	3,720	869	457	13,500	4,050	344	2,860
6	147	7,590	12,100	32,300	3,990	3,230	979	424	17,800	6,250	321	2,600
7	138	4,440	18,000	38,600	5,400	2,860	3,690	402	19,100	5,270	266	2,440
8	136	2,630	19,500	45,400	9,750	2,660	6,060	401	20,300	3,750	250	2,070
9	647	1,830	16,700	41,200	11,900	2,140	4,430	395	23,400	3,100	243	1,530
10	925	1,440	12,000	31,700	9,920	1,820	2,640	401	27,900	2,760	243	1,020
11	521	3,580	8,040	27,300	6,570	1,710	1,900	364	28,200	2,240	241	787
12	552	11,200	5,640	24,300	5,610	1,600	3,390	396	24,900	1,920	238	727
13	577	11,600	4,460	27,100	10,500	1,520	4,580	2,120	27,200	1,800	254	600
14	680	9,010	3,910	25,200	17,900	1,430	2,980	11,900	31,100	1,510	311	1,380
15	661	5,050	3,340	20,800	20,800	1,340	1,960	17,000	33,500	1,300	1,130	2,360
16	450	2,950	3,070	16,500	20,900	1,200	1,530	18,100	34,700	1,040	3,720	2,760
17	327	2,230	2,790	13,600	14,800	1,060	1,290	16,200	34,800	765	2,150	3,980
18	281	1,950	2,600	10,300	8,990	988	1,130	8,350	34,600	1,100	1,060	5,110
19	217	1,810	2,490	6,720	7,470	932	1,020	4,030	34,000	2,080	601	6,180
20	183	1,890	2,370	5,230	7,120	887	933	4,470	31,300	2,950	1,080	5,600
21	172	1,960	2,190	4,580	7,020	857	861	7,960	22,900	7,010	3,190	3,980
22	159	1,910	2,010	4,530	6,810	1,010	796	8,020	15,600	8,460	2,810	2,520
23	162	2,030	1,790	4,610	6,400	2,820	750	4,090	11,900	4,390	1,820	1,820
24	182	9,840	1,780	4,580	6,540	4,080	726	3,350	10,500	2,170	1,790	1,400
25	181	17,200	2,000	4,070	7,220	3,400	685	3,310	9,820	1,690	4,730	1,030
26	195	18,600	2,180	4,090	7,230	2,680	641	3,130	8,920	1,470	13,900	800
27	462	19,700	2,080	4,030	6,090	2,280	608	3,070	8,360	1,390	18,700	690
28	2,000	21,400	1,940	3,950	5,040	1,950	601	3,060	8,030	1,320	21,100	540
29	1,860	21,000	1,850	3,860	---	1,700	604	2,920	7,730	1,200	22,600	495
30	1,410	17,300	1,840	3,690	---	1,540	589	2,280	7,230	924	21,600	454
31	1,050	---	1,870	3,650	---	1,560	---	1,460	---	637	12,000	---
MEAN	488	7,437	5,962	14,590	8,338	2,307	1,684	4,204	18,700	3,251	4,455	2,451
MAX	2,000	21,400	19,500	45,400	20,900	4,880	6,060	18,100	34,800	8,460	22,600	6,650
MIN	136	1,250	1,780	1,930	3,650	857	589	364	1,380	637	238	454
IN.	0.10	1.53	1.27	3.11	1.61	0.49	0.35	0.90	3.86	0.69	0.95	0.51





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

## WATER-QUALITY RECORDS

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

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1979 to September 1981.

WATER TEMPERATURE: March 1979 to September 1981.

SUSPENDED-SEDIMENT: February 1991 to September 1999.

## EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,950 microsiemens per centimeter, Oct. 11, 1980; minimum daily, 114 microsiemens per centimeter, June 12, 1981.

WATER TEMPERATURE: Maximum daily, 32.0 °C, July 11, 1980; minimum daily, 0.0 °C, Feb. 5, 1980, and Feb. 11-14, 1981.

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 4,020 mg/L, Feb. 21, 1997; minimum daily mean, 8 mg/L, Aug. 4 and 5, 1993, and Jan. 10-12, 1995.

SUSPENDED-SEDIMENT LOAD: Maximum daily, 160,000 tons, Feb. 21, 1997; minimum daily, 1.7 tons, Nov. 7-13, 1991.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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)			
Date			Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, field, mg/L (00450)	Carbonate, wat unfltrd, 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 15...	1430	Environmental													
MAR 28...	1245	Environmental													
APR 12...	1030	Environmental													
MAY 24...	0840	Environmental													
JUN 28...	1240	Environmental													
JUN 28...	1241	Replicate													
JUL 25...	1415	Environmental													
NOV 15...	7.96		105	104	127	<1	7.30	.2	33.3	209	109	1.0	<.04		.48
MAR 28...	--		--	--	--	--	--	--	--	--	35	.70	<.04		.57
APR 12...	--		--	--	--	--	--	--	--	--	432d	1.2	<.04		.11
MAY 24...	9.71		135	134	164	<1	7.16	.2	29.2	225	256d	1.2	<.04		1.19
JUN 28...	--		--	--	--	--	--	--	--	--	120	.97	E.02n		.54
JUN 28...	--		--	--	--	--	--	--	--	--	129	.96	E.03n		.57
JUL 25...	7.52		102	104	127	<1	5.98	.2	21.0	181	178d	.79	<.04		.62

## 06918070 OSAGE RIVER ABOVE SCHELL CITY, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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 coliform, M-FC 0.7µ MF col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 15...	<.008	.09	.13	.31	700	940k	2	2,270d	1.2	<.04	.11	1.8	30
MAR 28...	.012	E.01n	E.04n	.08	32k	100	--	--	--	--	--	--	--
APR 12...	E.004n	<.02	E.03n	.38	2,500	2,500	--	--	--	--	--	--	--
MAY 24...	.068	.03	.08	.33	430	660k	9	3,790d	1.5	<.04	.16	2.0	6
JUN 28...	.008	.02	.06	.29	41k	41k	--	--	--	--	--	--	--
JUN 28...	.009	.02	.06	.28	<4b	50k	--	--	--	--	--	--	--
JUL 25...	.017	.05	.09	.27	380	370	2	3,070d	1.6	<.04	.12	2.0	E5n

Date	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)	2,6-Di-ethyl-aniline water, fltrd 0.7µ GF µg/L (82660)	CIAT, water, fltrd, µg/L (04040)	Aceto-chlor, water, fltrd, µg/L (49260)	Ala-chlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)	Atra-zine, water, fltrd, µg/L (39632)
NOV 15...	<.08	3.71	15.1	E.01n	.9	27.0	14	<.006	E.016	<.006	<.004	<.005	.406
MAR 28...	--	--	--	--	--	--	--	<.006	E.005mn	<.006	<.005	<.005	.076
APR 12...	--	--	--	--	--	--	--	<.006	E.015m	.025	.014	<.005	.278
MAY 24...	<.08	5.51	3.2	.01	.9	1.3	18	<.006	E.489m	.500	.147	<.005	6.75
JUN 28...	--	--	--	--	--	--	--	<.006	E.123m	.176	.128	<.005	1.32
JUN 28...	--	--	--	--	--	--	--	<.006	E.128m	.180	.130	<.005	1.31
JUL 25...	<.08	4.89	8.4	E.01n	.4	E.4n	14	<.006	E.049m	.017	.019	<.005	.608

Date	Azin-phos-methyl, water, fltrd 0.7µ GF µg/L (82686)	Ben-flur-alin, water, fltrd 0.7µ GF µg/L (82673)	Butyl-ate, water, fltrd, µg/L (04028)	Car-baryl, water, fltrd 0.7µ GF µg/L (82680)	Carbo-furan, water, fltrd 0.7µ GF µg/L (82674)	Chlor-pyri-fos water, fltrd, µg/L (38933)	cis-Per-methrin water fltrd 0.7µ GF µg/L (82687)	Cyana-zine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µ GF µg/L (82682)	Diazi-non, water, fltrd, µg/L (39572)	Diel-drin, water, fltrd, µg/L (39381)	Disul-foton, water, fltrd 0.7µ GF µg/L (82677)	EPTC, water, fltrd 0.7µ GF µg/L (82668)
NOV 15...	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.02	<.002
MAR 28...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
APR 12...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
MAY 24...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
JUN 28...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
JUN 28...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
JUL 25...	<.050m	<.010	<.004	<.041m	<.020mc	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004

## 06918070 OSAGE RIVER ABOVE SCHELL CITY, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Ethal- flur- alin, water, fltrd 0.7µ GF (82663)	Etho- prop, water, fltrd 0.7µ GF (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)	Linuron water fltrd 0.7µ GF (82666)	Malathion, water, fltrd, µg/L (39532)	Methyl para- thion, water, fltrd 0.7µ GF (82667)	Metola- chlor, water, fltrd, µg/L (39415)	Metri- buzin, water, fltrd, µg/L (82630)	Moli- nate, water, fltrd 0.7µ GF (82671)	Naprop- amide, water, fltrd 0.7µ GF (82684)	p,p'- DDE, water, fltrd, µg/L (34653)	Para- thion, water, fltrd, µg/L (39542)
	NOV 15...	<.009	<.005	<.003	<.004	<.035	<.027	<.006	.016	<.006	<.002	<.007	<.003
MAR 28...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	E.005n	<.006	<.003	<.007	<.003	<.010
APR 12...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.029	<.006	<.003	<.007	<.003	<.010
MAY 24...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.957	.019	<.003	<.007	<.003	<.010
JUN 28...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.334	<.006	<.003	<.007	<.003	<.010
JUL 28...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.339	<.006	<.003	<.007	<.003	<.010
JUL 25...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.096	<.006	<.003	<.007	<.003	<.010
Date	Peb- ulate, water, fltrd 0.7µ GF (82669)	Pendi- meth- alin, water, fltrd 0.7µ GF (82683)	Phorate water fltrd 0.7µ GF (82664)	Prome- ton, water, fltrd, µg/L (04037)	Propy- zamide, water, fltrd 0.7µ GF (82676)	Propa- chlor, water, fltrd, µg/L (04024)	Pro- panil, water, fltrd 0.7µ GF (82679)	Propar- gite, water, fltrd 0.7µ GF (82685)	Sima- zine, water, fltrd, µg/L (04035)	Tebu- thiuron water fltrd 0.7µ GF (82670)	Terba- cil, water, fltrd 0.7µ GF (82665)	Terbu- fos, water, fltrd 0.7µ GF (82675)	Thio- bencarb water fltrd 0.7µ GF (82681)
	NOV 15...	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02
MAR 28...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010
APR 12...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.20	<.005	<.02	<.034m	<.02	<.010
MAY 24...	<.004	<.022	<.011	E.01n	<.004	<.025	<.011	<.02	.023	<.02	<.034m	<.02	<.010
JUN 28...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.007	<.02	<.034m	<.02	<.010
JUL 28...	<.004	<.022	<.011	Mn	<.004	<.025	<.011	<.02	.006	<.02	<.034m	<.02	<.010
JUL 25...	<.004	<.022	<.011	.02	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010

## OSAGE RIVER BASIN

06918070 OSAGE RIVER ABOVE SCHELL CITY, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tri- allate, water, fltrd 0.7 $\mu$ GF $\mu$ g/L (82678)	Tri- flur- alin, water, fltrd 0.7 $\mu$ GF $\mu$ g/L (82661)
NOV 15...	<.002	<.009
MAR 28...	<.006	<.009
APR 12...	<.006	<.009
MAY 24...	<.006	<.009
JUN 28...	<.006	<.009
JUL 25...	<.006	<.009

## Remark codes used in this table:

- < -- Less than.
- E -- Estimated.
- M -- Presence verified but not quantified.

## Value qualifier codes used in this table:

- b -- Value extrapolated at low end
- d -- Diluted sample: method hi range exceeded
- k -- Counts outside acceptable range
- m -- Value is highly variable by this method
- n -- Below the LRL and above the LT-MDL

## 06918440 SAC RIVER NEAR DADEVILLE, MO

LOCATION.--Lat 37°26'35", long 93°41'06", in NE ¼ NE ¼ NW ¼ sec.9, T.31 N., R.25 W., Dade County, Hydrologic Unit 10290106, on downstream side of bridge on State Highway 245, 2 mi upstream from Cave Spring Branch, and 2 mi south of Dadeville.

DRAINAGE AREA.--257 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	1,220	845	131	e280	295	163	131	50	34	13	14
2	11	925	677	127	e268	281	161	125	49	35	12	14
3	10	521	563	145	e252	270	156	120	47	31	12	13
4	11	544	487	335	e239	262	152	115	45	30	11	13
5	11	453	444	5,090	e233	249	147	112	45	29	12	16
6	12	381	469	e3,830	e228	238	171	109	44	27	13	16
7	13	325	973	e1,680	e244	233	227	105	42	26	15	13
8	16	279	945	e1,390	e263	222	247	101	44	25	18	12
9	15	246	782	e1,040	e313	220	250	100	54	23	18	11
10	13	226	645	e816	e332	212	244	97	53	23	17	9.5
11	22	419	532	e769	e325	204	252	92	58	23	14	8.6
12	35	766	466	e606	e306	197	256	87	82	23	13	8.0
13	32	559	408	e2,900	568	186	245	85	79	22	13	7.4
14	27	450	358	e1,870	754	177	231	137	126	22	17	11
15	26	382	327	e1,200	697	171	219	121	96	21	28	23
16	26	337	304	e978	607	166	209	104	86	20	31	160
17	25	303	282	e814	534	163	200	95	77	19	25	69
18	23	283	265	e698	482	158	191	87	67	18	22	53
19	22	263	245	e634	443	150	185	82	59	20	21	44
20	21	241	230	e589	417	145	178	78	53	19	20	36
21	21	221	219	e537	392	142	172	73	49	18	20	30
22	21	214	201	e503	364	146	168	70	45	17	22	26
23	23	203	185	e476	361	154	160	68	43	15	21	23
24	24	479	172	e444	367	150	152	65	40	15	21	21
25	23	772	166	e409	348	161	150	64	38	14	25	20
26	37	635	160	e364	329	157	162	62	36	14	22	19
27	55	631	153	e323	317	162	150	60	34	17	20	19
28	57	590	149	e306	311	167	146	58	33	16	19	19
29	51	730	145	e299	---	168	144	55	32	15	19	19
30	45	1,050	142	e287	---	168	140	54	31	14	17	17
31	48	---	137	e281	---	162	---	52	---	14	15	---
MEAN	25.4	488	390	964	378	191	188	89.2	54.6	21.3	18.3	25.5
MAX	57	1,220	973	5,090	754	295	256	137	126	35	31	160
MIN	10	203	137	127	228	142	140	52	31	14	11	7.4
IN.	0.11	2.12	1.75	4.32	1.53	0.86	0.81	0.40	0.24	0.10	0.08	0.11

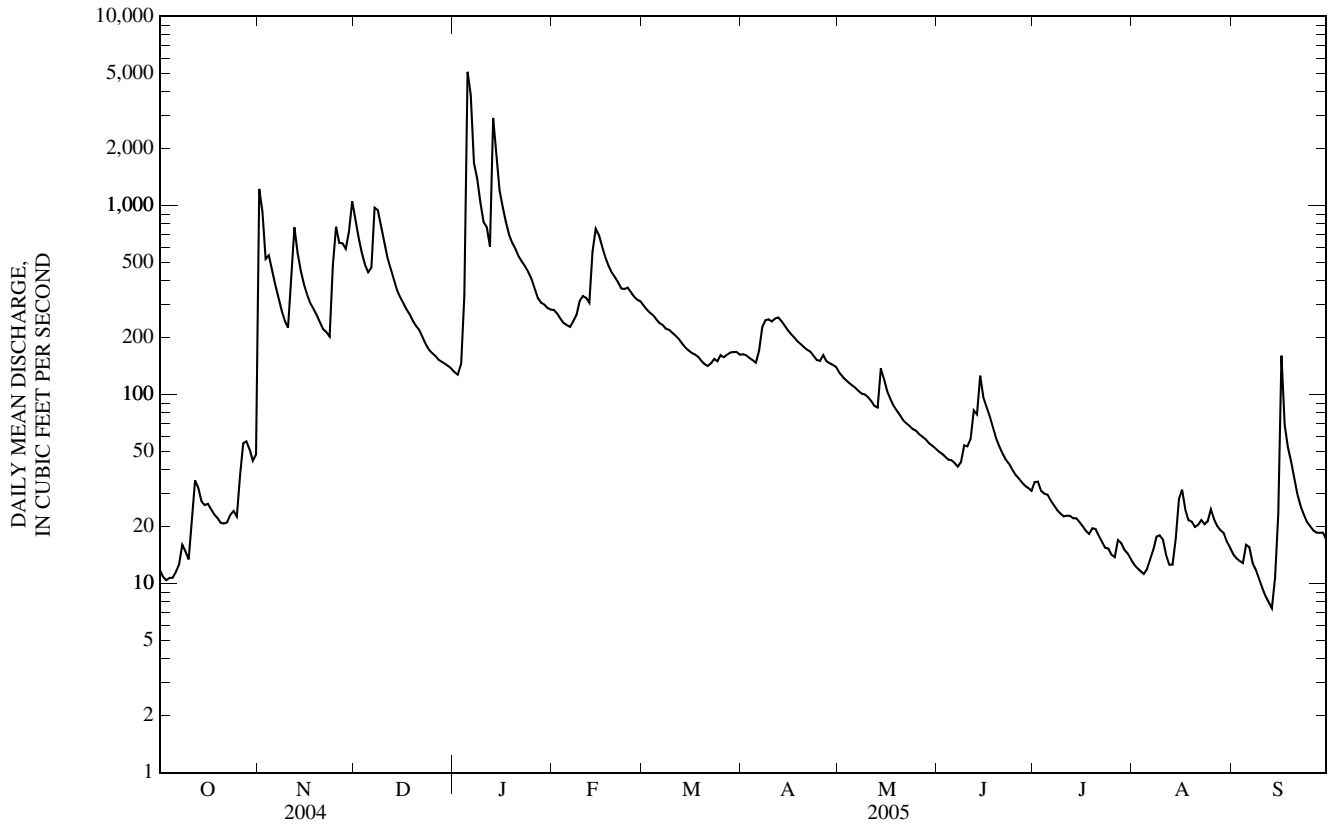
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2005, BY WATER YEAR (WY)

MEAN	129	282	287	250	285	419	385	377	207	108	59.3	101
MAX	780	1,139	1,058	964	918	1,170	1,427	1,747	820	392	205	1,545
(WY)	(1987)	(1986)	(1993)	(2005)	(1985)	(1975)	(1994)	(2002)	(1995)	(1993)	(1968)	(1993)
MIN	16.6	16.8	19.7	14.0	23.5	29.2	30.1	30.1	39.2	21.3	10.1	6.78
(WY)	(1992)	(1981)	(1977)	(1981)	(1981)	(1996)	(1981)	(1977)	(1972)	(2005)	(1980)	(1980)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1966 - 2005
ANNUAL MEAN	250	235	241
HIGHEST ANNUAL MEAN			560
LOWEST ANNUAL MEAN			50.2
HIGHEST DAILY MEAN	2,610	Mar 5	5,090
LOWEST DAILY MEAN	10	Oct 3	7.4
ANNUAL SEVEN-DAY MINIMUM	11	Sep 22	9.6
MAXIMUM PEAK FLOW	---		8,080
MAXIMUM PEAK STAGE	---		18.17
INSTANTANEOUS LOW FLOW	---		7.2
ANNUAL RUNOFF (INCHES)	13.27		12.44
10 PERCENT EXCEEDS	565		561
50 PERCENT EXCEEDS	168		131
90 PERCENT EXCEEDS	22		15

e Estimated



## 06918460 TURNBACK CREEK ABOVE GREENFIELD, MO

LOCATION.--Lat 37°24'09", long 93°48'07", sec.21, T.31 N., R.26 W., Dade County, Hydrologic Unit 10290106, on left downstream side of bridge pier on State Highway O, 1.5 mi downstream from Limestone Creek, and 2.0 mi southeast of Greenfield.

DRAINAGE AREA.--252 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	643	941	171	288	299	209	151	63	37	13	19
2	19	606	804	167	279	284	205	145	62	38	12	17
3	18	423	695	192	276	275	199	141	60	34	10	16
4	18	473	612	493	269	266	194	138	59	33	10	21
5	18	398	561	6,010	259	256	190	134	57	33	11	19
6	18	339	627	3,140	257	245	233	130	56	30	11	17
7	19	292	1,350	1,460	279	240	409	127	54	29	14	16
8	22	252	1,110	1,140	300	230	368	124	52	26	14	15
9	23	223	962	965	356	226	345	124	57	25	12	15
10	22	201	820	844	373	219	322	120	57	25	12	12
11	33	655	705	763	373	211	326	115	64	26	11	11
12	49	1,010	621	777	373	205	335	110	63	28	9.9	10
13	43	740	540	3,180	643	196	312	107	80	26	10	9.8
14	35	593	476	1,550	672	189	293	146	110	25	19	15
15	33	491	432	1,240	631	183	275	135	102	25	34	25
16	33	422	399	e1,020	568	179	259	123	83	25	35	102
17	30	373	368	e855	514	175	245	115	74	22	34	46
18	28	339	343	e751	470	170	233	107	66	21	32	38
19	31	313	317	e694	435	165	222	101	60	23	29	32
20	33	285	299	e644	410	160	212	96	56	21	24	28
21	34	261	282	e596	383	158	203	91	52	20	17	25
22	31	250	261	e563	357	165	202	88	49	18	31	23
23	33	243	243	e532	358	184	192	85	46	17	34	20
24	32	797	227	e498	376	181	181	83	43	16	32	19
25	30	989	219	e452	347	196	177	84	42	14	34	18
26	63	823	209	e402	329	198	183	79	41	13	29	17
27	68	867	198	e379	320	209	174	77	39	18	29	17
28	62	792	192	e356	312	222	169	74	37	16	26	19
29	53	934	188	348	---	219	165	70	35	16	24	17
30	47	1,090	184	326	---	216	160	68	33	15	22	16
31	56	---	177	305	---	208	---	66	---	14	20	---
MEAN	34.0	537	496	994	386	211	240	108	58.4	23.5	21.1	22.5
MAX	68	1,090	1,350	6,010	672	299	409	151	110	38	35	102
MIN	18	201	177	167	257	158	160	66	33	13	9.9	9.8
IN.	0.16	2.38	2.27	4.55	1.60	0.96	1.06	0.50	0.26	0.11	0.10	0.10

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2005, BY WATER YEAR (WY)

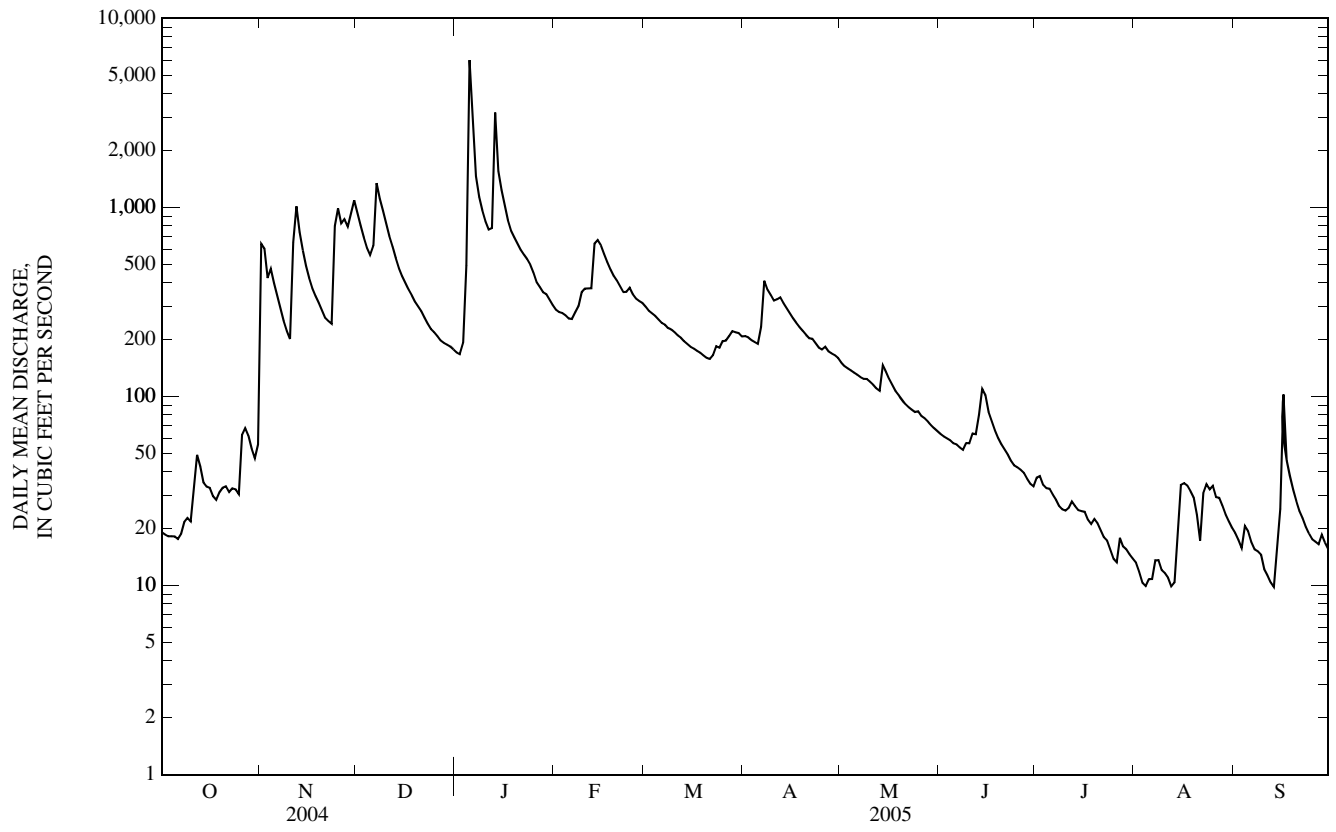
MEAN	141	299	287	260	312	446	425	384	238	151	84.1	122
MAX	921	1,385	982	994	1,020	1,377	1,410	1,797	874	636	354	1,579
(WY)	(1987)	(1986)	(1988)	(2005)	(1985)	(1973)	(1994)	(1990)	(1993)	(1992)	(1982)	(1993)
MIN	23.4	21.7	20.2	19.9	27.5	27.1	39.3	93.9	44.3	23.5	14.4	11.6
(WY)	(1979)	(1981)	(1990)	(1981)	(1981)	(1996)	(1981)	(1981)	(1972)	(2005)	(1980)	(1980)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1965 - 2005
ANNUAL MEAN	283	260	262
HIGHEST ANNUAL MEAN			612
LOWEST ANNUAL MEAN			84.1
HIGHEST DAILY MEAN	2,320	6,010	23,700
LOWEST DAILY MEAN	18	9.8	9.4
ANNUAL SEVEN-DAY MINIMUM	18	12	10
MAXIMUM PEAK FLOW	---	9,420	44,000
MAXIMUM PEAK STAGE	---	18.34	26.34
INSTANTANEOUS LOW FLOW	---	3.8	3.8
ANNUAL RUNOFF (INCHES)	15.30	14.03	14.12
10 PERCENT EXCEEDS	694	643	565
50 PERCENT EXCEEDS	194	146	127
90 PERCENT EXCEEDS	31	17	31

e Estimated

06918460 TURNBACK CREEK ABOVE GREENFIELD, MO—Continued





## 06918493 SOUTH DRY SAC RIVER NEAR SPRINGFILED, MO

LOCATION.--Lat 37°15'58", long 93°14'56", in SW 1/4 NW 1/4 NE 1/4 sec.5, T.29 N., R.21 W., Greene County, Hydrologic Unit 10290106, on downstream side of right wingwall on Barnes Road and 1 mile north of Springfield.

DRAINAGE AREA.--13.7 mi<sup>2</sup>.

PERIOD OF RECORD.--December 2000 to current year (gage height only). Discharge published August 30, 1996 to Sept. 30, 2002. Gage height records prior to Oct. 1, 2004 available from the Missouri Water Science Center.

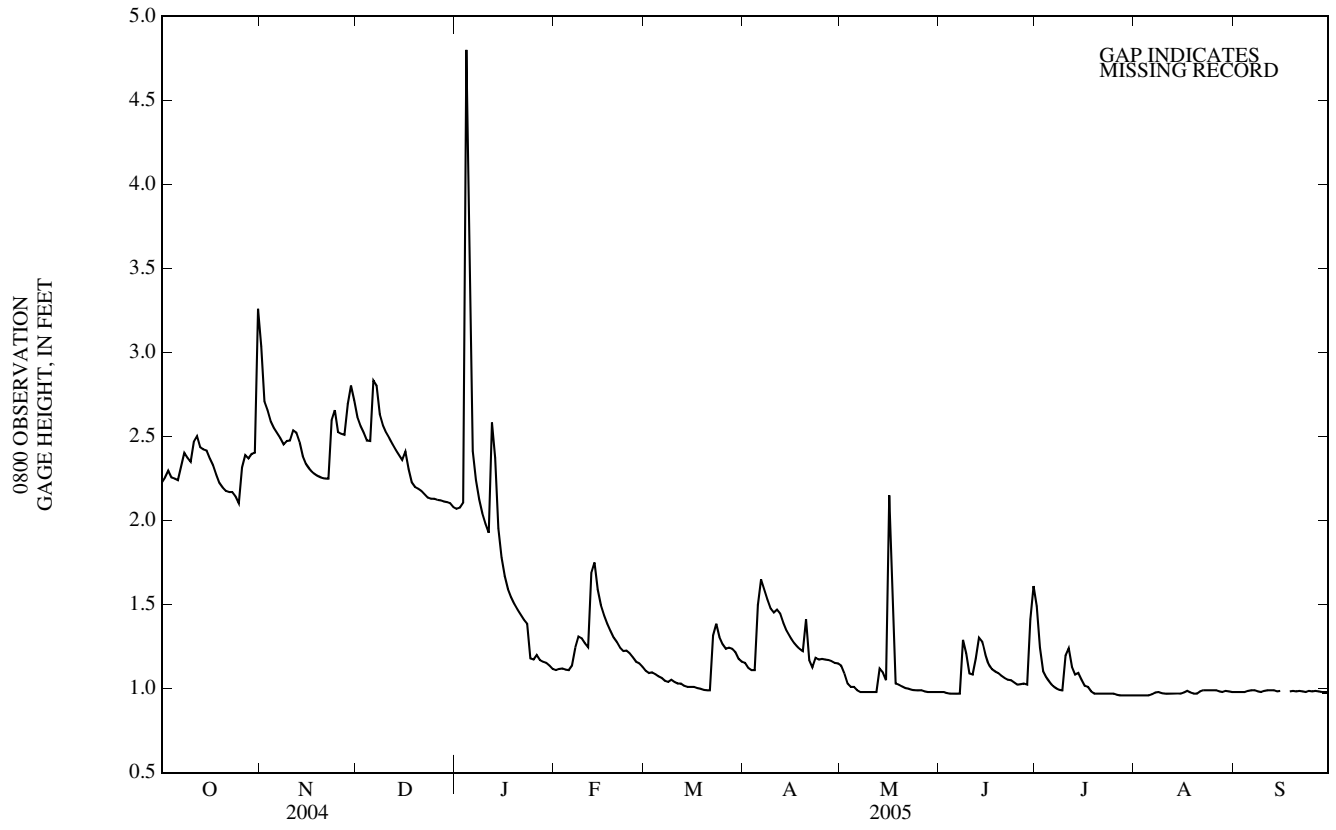
GAGE.--Water-stage recorder. Datum of gage is unknown.

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

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.22	3.69	2.67	2.07	1.11	1.12	1.16	1.15	0.98	1.61	0.96	0.98
2	2.23	2.71	2.59	2.07	1.11	1.10	1.15	1.13	0.98	1.43	0.96	0.98
3	2.27	2.71	2.55	2.08	1.12	1.09	1.11	1.07	0.98	1.15	0.96	0.98
4	2.31	2.63	2.51	2.12	1.12	1.10	1.11	1.01	0.97	1.08	0.96	0.98
5	2.23	2.57	2.46	6.14	1.11	1.08	1.11	1.01	0.97	1.06	0.96	0.98
6	2.26	2.54	2.48	2.60	1.11	1.07	1.69	1.01	0.97	1.03	0.96	0.99
7	2.23	2.51	3.01	2.32	1.15	1.06	1.63	0.98	0.97	1.01	0.97	0.99
8	2.37	2.48	2.70	2.20	1.29	1.04	1.57	0.98	0.97	1.00	0.98	0.99
9	2.42	2.44	2.60	2.09	1.32	1.04	1.51	0.98	1.45	0.99	0.98	0.98
10	2.35	2.49	2.55	2.02	1.29	1.06	1.46	0.98	1.09	0.99	0.97	0.98
11	2.35	2.47	2.51	1.96	1.26	1.03	1.45	0.98	1.09	1.30	0.97	0.99
12	2.53	2.57	2.48	1.91	1.24	1.03	1.48	0.98	1.08	1.21	0.97	0.99
13	2.49	2.50	2.44	2.92	1.91	1.03	1.43	0.98	1.23	1.09	0.97	0.99
14	2.41	2.45	2.41	2.10	1.67	1.01	1.37	1.19	1.34	1.08	0.97	0.99
15	2.43	2.35	2.38	1.88	1.55	1.01	1.33	1.05	1.25	1.10	0.97	0.98
16	2.41	2.33	2.35	1.73	1.47	1.01	1.30	1.05	1.18	1.03	0.97	0.99
17	2.35	2.30	2.44	1.64	1.42	1.01	1.27	2.70	1.13	1.01	0.98	---
18	2.32	2.28	2.24	1.57	1.37	1.00	1.25	1.03	1.11	1.01	0.99	0.99
19	2.25	2.27	2.22	1.53	1.33	1.00	1.23	1.03	1.10	0.97	0.97	0.98
20	2.21	2.26	2.19	1.49	1.29	0.99	1.22	1.02	1.09	0.97	0.97	0.99
21	2.19	2.25	2.19	1.46	1.27	0.99	1.51	1.01	1.07	0.97	0.97	0.98
22	2.17	2.25	2.17	1.43	1.23	0.99	1.00	1.00	1.06	0.97	0.99	0.99
23	2.17	2.25	2.15	1.40	1.22	1.48	1.19	1.00	1.05	0.97	0.99	0.98
24	2.17	2.77	2.13	1.38	1.23	1.34	1.18	0.99	1.05	0.97	0.99	0.98
25	2.13	2.60	2.13	1.08	1.20	1.29	1.17	0.99	1.03	0.97	0.99	0.99
26	2.09	2.49	2.13	1.22	1.18	1.25	1.18	0.99	1.02	0.97	0.99	0.98
27	2.43	2.53	2.12	1.19	1.15	1.23	1.17	0.99	1.03	0.96	0.99	0.99
28	2.37	2.50	2.12	1.16	1.15	1.25	1.17	0.98	1.03	0.96	0.98	0.98
29	2.37	2.79	2.11	1.16	---	1.23	1.16	0.98	1.02	0.96	0.98	0.98
30	2.41	2.81	2.11	1.15	---	1.21	1.15	0.98	1.61	0.96	0.99	0.98
31	2.40	---	2.10	1.13	---	1.16	---	0.98	---	0.96	0.98	---
MEAN	2.31	2.53	2.36	1.88	1.28	1.11	1.29	1.07	1.10	1.06	0.98	---
MAX	2.53	3.69	3.01	6.14	1.91	1.48	1.69	2.70	1.61	1.61	0.99	---
MIN	2.09	2.25	2.10	1.08	1.11	0.99	1.00	0.98	0.97	0.96	0.96	---

06918493 SOUTH DRY SAC RIVER NEAR SPRINGFIELD, MO—Continued



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

LOCATION.--Lat 37°23'55", long 93°24'36", in SW ¼ NW ¼ SE ¼ sec.24, T.31 N., R.23 W., Greene County, Hydrologic Unit 10290106, approximately 7.5 mi east of Walnut Grove at bridge on Highway BB.

DRAINAGE AREA.--119 mi<sup>2</sup>.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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)	
Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, field, mg/L (00450)	Carbonate, wat unfltrd, 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 25...	1100	Environmental	12	7.4	78	7.6	666	16.1	--	--	--	--	
NOV 16...	1100	Environmental	81	9.7	95	7.8	513	13.7	240	83.9	7.26	2.63	
DEC 14...	1430	Environmental	130	13.8	114	8.1	479	6.5	--	--	--	--	
JAN 20...	0830	Environmental	233	10.5	91	7.8	459	7.7	230	82.3	5.62	2.10	
FEB 08...	1040	Environmental	42	11.9	103	8.0	477	7.6	--	--	--	--	
MAR 29...	0900	Environmental	80	10.2	97	8.0	503	11.1	--	--	--	--	
APR 11...	1130	Environmental	186	8.4	91	7.7	444	17.1	--	--	--	--	
MAY 24...	1230	Environmental	7.3	5.5	64	7.5	499	21.2	210	72.9	6.78	3.47	
JUN 14...	1230	Environmental	14	7.0	87	7.7	545	23.8	--	--	--	--	
JUL 27...	0845	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16	
AUG 27...	0900	Environmental	52	4.3	54	7.8	629	24.8	210	72.7	6.62	6.21	
AUG 09...	1630	Environmental	8.8	7.4	97	7.8	672	27.7	--	--	--	--	
SEP 19...	1430	Environmental	19	10.3	125	8.1	512	23.4	--	--	--	--	
OCT 25...	--	--	--	--	--	--	--	--	<10	.36	<.04	.81	
NOV 16...	14.6	213	215	262	<1	26.2	.1	13.1	305	<10	.14	<.04	1.77
DEC 14...	--	--	--	--	--	--	--	--	<10	.10	<.04	1.80	
JAN 20...	9.89	183	184	224	<1	16.6	.1	10.8	270	<10	.20	.06	2.12
FEB 08...	--	--	--	--	--	--	--	--	<10	.18n	<.04	1.73	
MAR 29...	--	--	--	--	--	--	--	--	<10	.47	<.04	1.40	
APR 11...	--	--	--	--	--	--	--	--	10	.37	<.04	.95	
MAY 24...	21.4	187	191	233	<1	30.3	.2	13.7	291	45	.52	<.04	1.02
JUN 14...	--	--	--	--	--	--	--	--	23	.44	<.04	1.64	
JUL 27...	<.20	--	--	--	--	<.20	<.1	<.2	<10	<10	<.10	<.04	<.06
AUG 27...	45.4	171	170	208	<1	66.6	.4	20.0	358	21	.45	E.02n	.78
AUG 09...	--	--	--	--	--	--	--	--	12	.45	<.04	.78	
SEP 19...	--	--	--	--	--	--	--	--	18	.35	<.04	1.28	

## 06918600 LITTLE SAC RIVER NEAR WALNUT GROVE, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7µ MF col/ 100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
OCT 25...	<.008	.17	.19	.20	160	220	--	--	--	--	--	--	--
NOV 16...	<.008	.04	.05	.06	120	140k	E1n	30	.4	<.04	<.04	.9	E5n
DEC 14...	<.008	E.01n	<.04	<.04	35k	27k	--	--	--	--	--	--	--
JAN 20...	.012	.08	.12	.11	230	280	E1n	73	.3	E.03n	E.02n	.9	E4n
FEB 08...	E.004n	<.02	<.04	<.04	61	110	--	--	--	--	--	--	--
MAR 29...	.009	<.02	<.04	<.04	25	42	--	--	--	--	--	--	--
APR 11...	E.007n	<.02	E.02n	E.04n	140	150k	--	--	--	--	--	--	--
MAY 24...	E.006n	.03	.09	.14	110	200k	18	422	.8	.08	.09	1.8	7
JUN 14...	E.004n	.30	.32	.36	92	130k	--	--	--	--	--	--	--
JUL 27...	<.008	<.02	<.04	<.04	--	--	<2	6	<.2	<.04	<.04	<.4	<6
AUG 27...	<.008	.19	.23	.25	300	310	E1n	205	1.2	.07	.09	1.9	<6
SEP 09...	<.008	.19	.21	.23	26	95k	--	--	--	--	--	--	--
SEP 19...	.008	.11	.15	.17	420	360	--	--	--	--	--	--	--

Date	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 25...	--	--	--	--	--	--	--
NOV 16...	E.05n	.12	12.8	<.01	.4	2.2	2
DEC 14...	--	--	--	--	--	--	--
JAN 20...	.31	.41	6.8	<.01	E.3n	3.0	4
FEB 08...	--	--	--	--	--	--	--
MAR 29...	--	--	--	--	--	--	--
APR 11...	--	--	--	--	--	--	--
MAY 24...	.36	1.87	13.2	<.01	.7	6.9	11
JUN 14...	--	--	--	--	--	--	--
JUL 27...	<.08	<.06	<.6	<.01	<.4	<.6	<2
AUG 27...	.18	.87	18.5	E.01n	E.3n	7.8	9
SEP 09...	--	--	--	--	--	--	--
SEP 19...	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

Value qualifier codes used in this table:

k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL

## 06918740 LITTLE SAC RIVER NEAR MORRISVILLE, MO

LOCATION.--Lat 37°28'58", long 93°29'08", in SW ¼ SW ¼ sec.20, T.32 N., R.23 W., Polk County, Hydrologic Unit 10290106, on downstream side of center pier of Hamilton Bridge on State Highway 215, 0.7 mi upstream from Slagle Creek, and 3 mi west of Morrisville.

DRAINAGE AREA.--237 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	3,560	709	61	184	197	129	84	32	17	5.5	16
2	6.3	932	486	59	181	186	127	80	29	33	5.3	12
3	6.0	462	372	125	182	174	119	77	28	40	4.5	11
4	6.1	478	309	1,560	183	214	111	75	28	33	5.4	9.9
5	5.2	329	279	9,880	178	192	108	73	27	25	4.7	9.7
6	5.0	258	314	3,410	179	175	519	72	27	19	4.9	7.6
7	7.1	213	1,710	1,570	195	164	746	66	27	14	5.0	6.5
8	8.9	177	973	1,120	236	153	425	65	45	12	5.6	6.6
9	9.1	155	599	872	297	149	309	64	62	10	6.2	6.5
10	11	138	434	700	285	145	260	61	73	9.8	4.9	5.9
11	23	651	341	593	261	136	263	59	66	9.6	4.5	5.8
12	46	658	290	1,210	257	131	281	54	57	11	4.2	5.2
13	61	339	244	4,540	1,140	121	241	53	86	18	3.9	4.8
14	53	249	208	1,630	849	117	207	366	102	17	6.1	6.4
15	47	205	184	1,060	605	109	185	202	84	13	15	43
16	46	179	169	785	443	106	167	140	65	9.6	14	276
17	42	153	159	617	359	104	155	118	52	7.7	13	123
18	37	142	150	507	315	102	142	101	44	7.9	11	87
19	34	133	128	446	284	97	133	91	37	7.9	12	71
20	34	119	117	402	261	94	126	82	31	12	9.5	57
21	28	108	110	356	240	92	124	83	27	13	7.8	43
22	25	108	101	319	221	94	118	84	24	9.1	280	31
23	27	105	93	283	239	113	102	77	22	7.6	171	26
24	22	881	86	269	295	126	95	79	19	7.1	162	22
25	24	821	80	253	257	157	91	59	18	5.9	94	19
26	61	436	75	238	228	152	104	53	32	5.3	65	16
27	158	476	71	226	211	162	103	45	86	5.8	49	15
28	128	383	69	210	208	178	95	48	23	5.8	35	17
29	112	1,180	69	208	---	164	96	43	19	5.4	29	14
30	87	1,230	66	201	---	151	93	38	16	5.8	23	14
31	96	---	63	190	---	136	---	35	---	5.2	21	---
MEAN	40.7	509	292	1,094	313	142	192	84.7	42.9	13.0	34.9	32.9
MAX	158	3,560	1,710	9,880	1,140	214	746	366	102	40	280	276
MIN	5.0	105	63	59	178	92	91	35	16	5.2	3.9	4.8
IN.	0.20	2.39	1.42	5.32	1.38	0.69	0.91	0.41	0.20	0.06	0.17	0.16

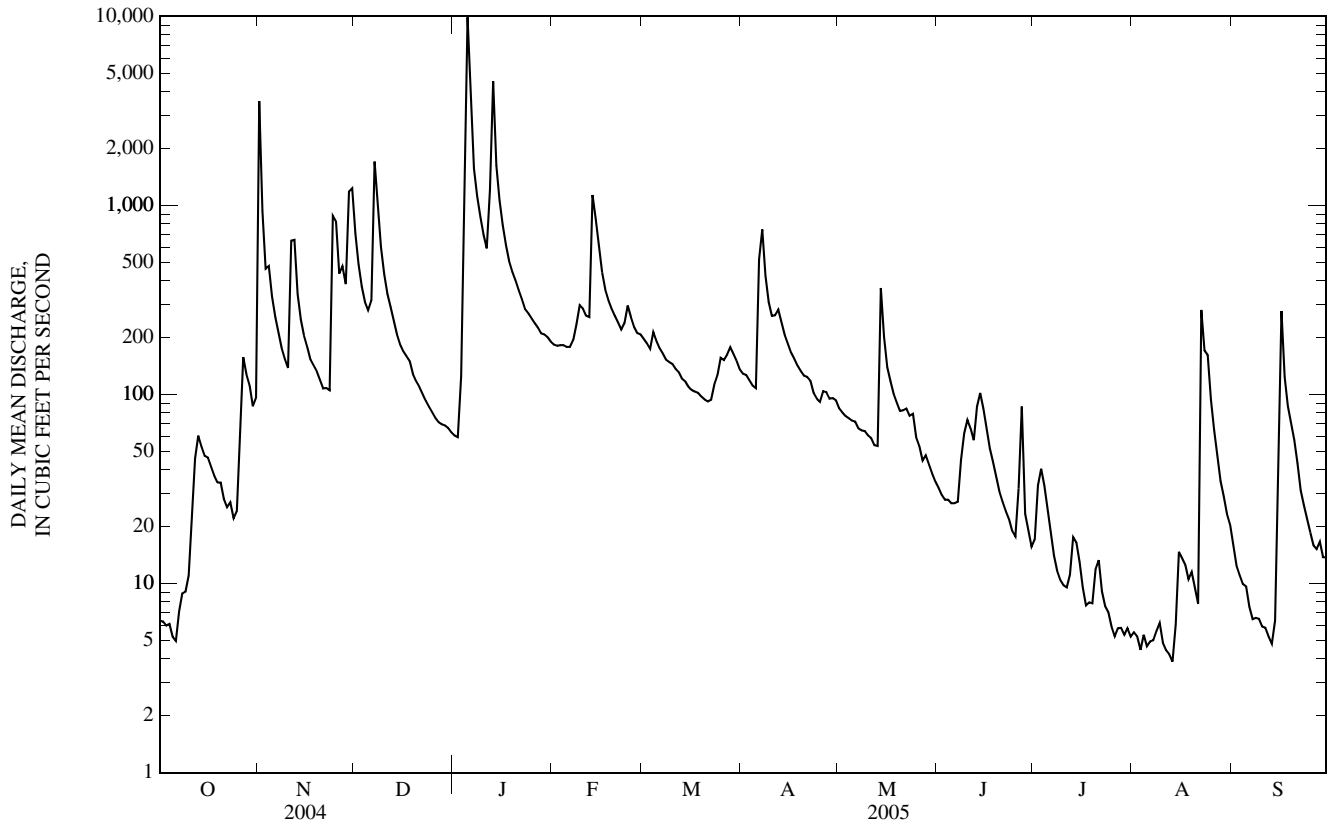
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2005, BY WATER YEAR (WY)

MEAN	116	297	271	249	279	438	392	335	193	81.0	35.9	113
MAX	809	1,256	1,045	1,094	1,139	1,290	1,409	1,359	968	387	145	1,691
(WY)	(1987)	(1986)	(1988)	(2005)	(1985)	(1973)	(1994)	(1990)	(1995)	(2000)	(1988)	(1993)
MIN	10.2	10.5	10.7	9.05	29.4	29.2	32.7	23.7	20.7	11.6	4.90	3.15
(WY)	(1996)	(2000)	(1990)	(1981)	(1996)	(1996)	(1981)	(2000)	(1972)	(1980)	(1980)	(1980)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1969 - 2005
ANNUAL MEAN	226	232	233
HIGHEST ANNUAL MEAN			516
LOWEST ANNUAL MEAN			58.6
HIGHEST DAILY MEAN	3,610	Mar 4	18,600
LOWEST DAILY MEAN	4.2	Sep 11	0.60
ANNUAL SEVEN-DAY MINIMUM	4.7	Sep 9	1.6
MAXIMUM PEAK FLOW	---	15,300	29,100
MAXIMUM PEAK STAGE	---	19.18	23.33
INSTANTANEOUS LOW FLOW	---	2.5	0.30
ANNUAL RUNOFF (INCHES)	13.00	13.31	13.34
10 PERCENT EXCEEDS	506	452	502
50 PERCENT EXCEEDS	108	94	80
90 PERCENT EXCEEDS	7.9	7.1	12

06918740 LITTLE SAC RIVER NEAR MORRISVILLE, MO—Continued



## 06918990 STOCKTON LAKE NEAR STOCKTON, MO

LOCATION.--Lat 37°41'39", long 93°46'11", SW ¼ SE ¼ SW ¼ sec.10, T.34 N., R.26 W., Cedar County, Hydrologic Unit 10290106, in power house at dam on Sac River, 2 mi east of Stockton.

DRAINAGE AREA.--1,160 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Nonrecording gage prior to May 30, 1973. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers).

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,183,000 ac-ft, Jan. 18, elevation, 878.27 ft; minimum, 705,000 ac-ft, Sept. 28, elevation, 859.68 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	864.86	865.39	871.26	871.48	875.92	871.10	869.07	869.17	868.45	867.21	863.52	861.04
2	864.80	866.01	871.47	871.32	875.68	870.83	869.03	869.18	868.45	867.13	863.40	860.90
3	864.80	866.23	871.59	871.14	875.50	870.51	869.08	869.20	868.45	867.13	863.23	860.80
4	864.76	866.44	871.75	870.98	875.27	870.25	869.11	869.08	868.40	867.12	863.07	860.80
5	864.75	866.60	871.88	872.21	875.04	869.92	869.16	869.01	868.41	867.00	862.87	860.80
6	864.73	866.72	872.06	874.67	874.82	869.61	869.16	868.89	868.40	866.85	862.76	860.72
7	864.71	866.80	872.44	875.37	874.60	869.32	869.28	868.84	868.34	866.84	862.75	860.60
8	864.74	866.86	872.86	875.80	874.39	869.26	869.37	868.81	868.24	866.83	862.72	860.51
9	864.73	866.94	873.13	876.05	874.14	869.09	869.40	868.86	868.21	866.71	862.53	860.41
10	864.72	866.99	873.18	876.22	873.92	868.91	869.50	868.86	868.11	866.55	862.37	860.40
11	864.73	867.11	873.20	876.31	873.66	868.70	869.59	868.89	868.06	866.42	862.20	860.37
12	864.89	867.51	873.25	876.34	873.40	868.63	869.59	868.76	868.11	866.36	862.08	860.36
13	864.90	867.74	873.21	877.00	873.29	868.54	869.46	868.69	868.26	866.24	861.92	860.33
14	864.88	867.89	873.12	877.83	873.53	868.50	869.34	868.70	868.24	866.11	861.95	860.32
15	864.91	868.02	873.03	878.10	873.71	868.49	869.24	868.77	868.15	865.96	862.10	860.45
16	864.90	868.13	872.92	878.17	873.54	868.53	869.17	868.81	868.16	865.80	861.99	860.46
17	864.88	868.21	872.78	878.23	873.43	868.57	869.23	868.83	868.15	865.68	861.80	860.49
18	864.86	868.31	872.78	878.26	873.37	868.63	869.28	868.84	868.16	865.66	861.75	860.42
19	864.85	868.39	872.81	878.22	873.28	868.64	869.23	868.76	868.15	865.49	861.54	860.40
20	864.84	868.45	872.88	878.18	873.23	868.66	869.16	868.66	868.14	865.32	861.36	860.33
21	864.85	868.51	872.71	878.11	873.11	868.71	869.10	868.69	868.07	865.18	861.35	860.17
22	864.86	868.59	872.54	877.96	873.00	868.75	869.03	868.69	867.97	864.99	861.42	860.03
23	864.90	868.64	872.35	877.89	872.75	868.79	868.92	868.69	867.90	864.81	861.47	859.93
24	864.88	868.90	872.26	877.77	872.51	868.88	868.95	868.57	867.81	864.64	861.39	859.85
25	864.87	869.45	872.32	877.55	872.26	868.92	868.99	868.46	867.72	864.50	861.23	859.73
26	864.88	869.70	872.34	877.28	871.99	868.96	869.06	868.45	867.72	864.34	861.11	859.74
27	865.03	869.96	872.37	877.08	871.71	869.03	869.08	868.46	867.60	864.21	861.10	859.72
28	865.00	870.25	872.20	876.83	871.40	869.09	869.15	868.48	867.52	864.10	861.10	859.72
29	865.02	870.49	871.97	876.62	---	869.16	869.13	868.45	867.42	863.97	861.08	859.74
30	865.04	870.94	871.83	876.37	---	869.23	869.16	868.45	867.28	863.79	861.07	859.74
31	865.03	---	871.66	876.14	---	869.10	---	868.45	---	863.64	861.07	---
MAX	865.04	870.94	873.25	878.26	875.92	871.10	869.59	869.20	868.45	867.21	863.52	861.04
MIN	864.71	865.39	871.26	870.98	871.40	868.49	868.92	868.45	867.28	863.64	861.07	859.72
(-)	827,000	976,000	995,000	1,119,000	988,000	928,000	929,000	911,000	882,000	794,000	736,000	707,000
(=)	+4,000	+149,000	+19,000	+124,000	-131,000	-60,000	+1,000	-18,000	-29,000	-88,000	-58,000	-29,000

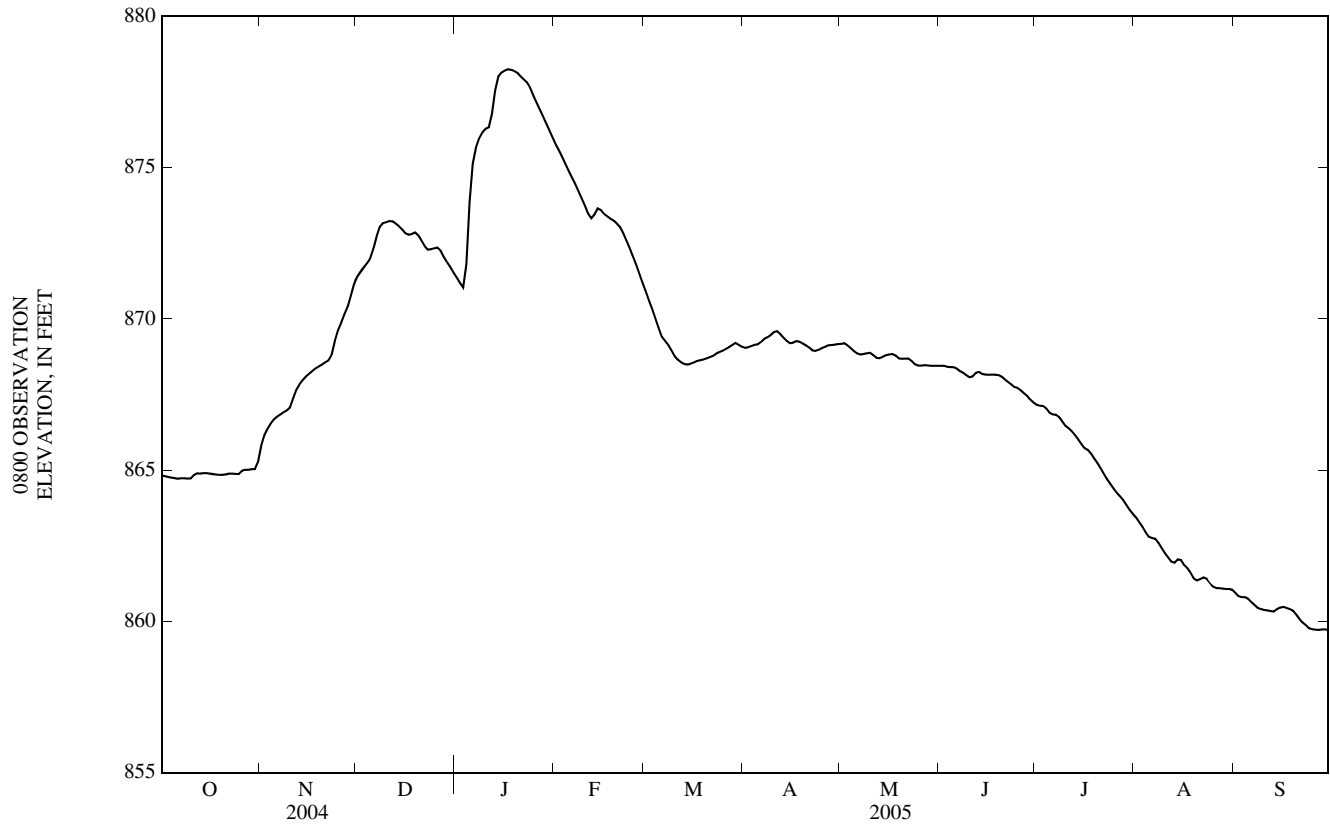
CALYR 2004.... +196,000

WTR YR 20005.... -116,000

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

(=) Change in contents, in acre-feet.

06918990 STOCKTON LAKE NEAR STOCKTON, MO—Continued





## 06919000 SAC RIVER NEAR STOCKTON, MO

LOCATION.--Lat 37°41'51", long 93°45'43", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ SE $\frac{1}{4}$  sec. 10, T.34 N., R. 26W., Cedar County, Hydrologic Unit 10290106, on left bank 0.5 mi upstream from State Highway 32 bridge, 2 mi upstream from Bear Creek, 2.0 mi east of Stockton, and 0.5 mi downstream from Stockton Dam, at mi 49.5.

DRAINAGE AREA.--1,160 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--Dec. 1, 2000 to current year (gage height only). Discharge published June 20, 1921 to Sept. 30, 1989. Gage height records prior to Oct. 1, 2004 available from the Missouri Water Science Center.

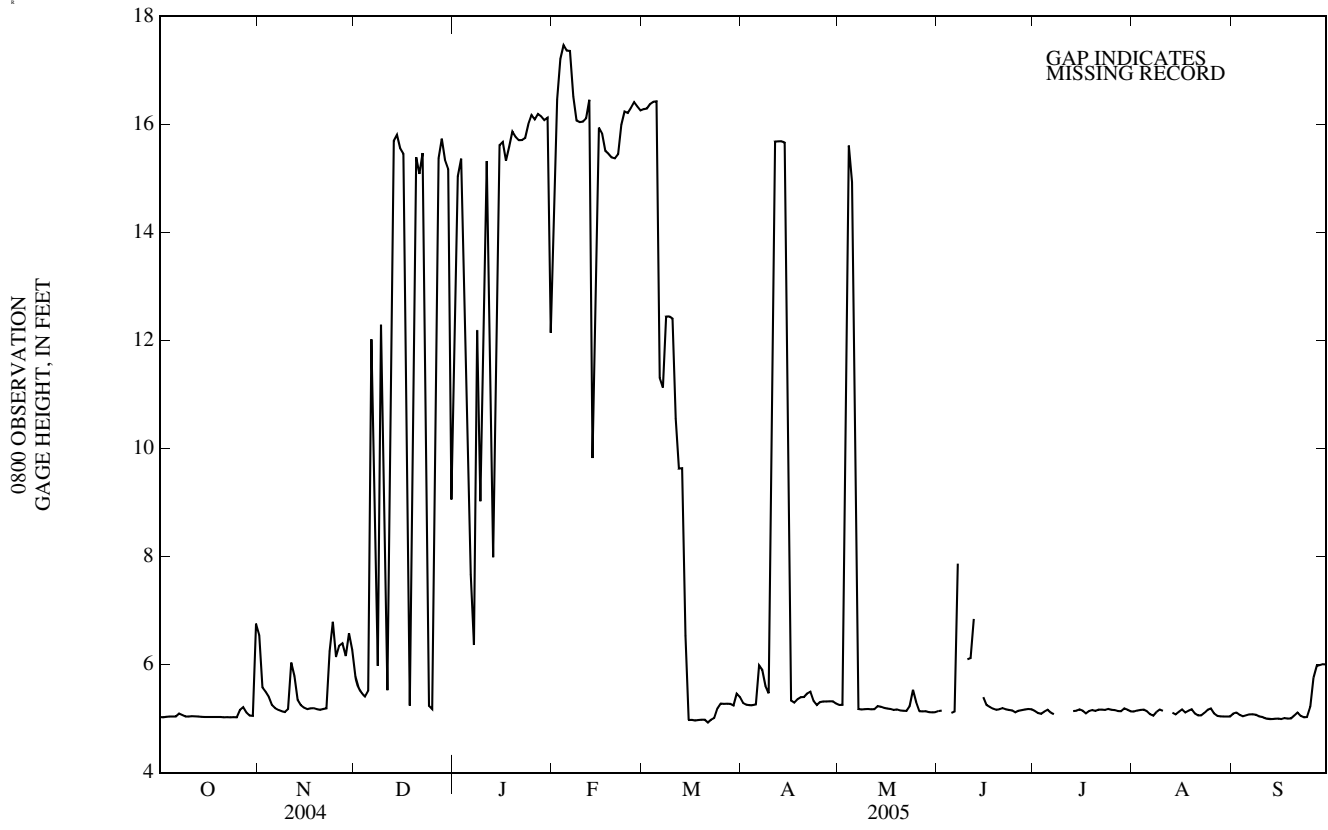
GAGE.--Water stage recorder. Datum of gage 758.12 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Flow completely regulated by Stockton Dam. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 19, 1943 reached a gage height of 31.8 ft. Maximum gage height prior to 1943, 29.3 ft in July 1909.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.03	7.61	6.00	5.97	10.14	16.25	5.31	5.26	5.12	5.17	5.13	5.04
2	5.03	6.02	5.67	14.46	16.04	16.30	5.28	5.25	5.15	5.13	5.13	5.12
3	5.02	5.36	5.52	15.33	16.68	16.29	5.25	5.26	5.15	5.09	5.16	5.11
4	5.04	5.57	5.45	15.38	17.48	16.42	5.25	15.58	---	5.09	5.16	5.05
5	5.04	5.32	5.39	12.54	17.46	16.42	5.25	15.62	5.09	5.15	5.17	5.04
6	5.04	5.22	5.58	9.70	17.32	16.43	5.27	14.59	5.11	5.17	5.12	5.07
7	5.04	5.18	15.24	6.65	17.38	8.75	6.34	5.20	5.14	5.08	5.06	5.08
8	5.12	5.15	6.31	6.22	16.08	12.32	5.68	5.17	9.23	5.08	5.05	5.08
9	5.04	5.13	5.81	15.17	16.07	12.50	5.57	5.17	---	---	5.16	5.07
10	5.04	5.12	15.53	5.95	16.03	12.42	5.42	5.18	6.05	5.17	5.17	5.03
11	5.04	5.21	5.70	15.24	16.06	12.40	15.56	5.18	6.12	---	5.13	5.03
12	5.05	6.45	5.44	15.36	16.14	9.63	15.74	5.17	6.12	---	---	4.99
13	5.04	5.46	15.48	10.86	16.61	9.63	15.66	5.18	7.21	5.14	5.19	5.00
14	5.04	5.29	15.80	6.55	6.43	9.64	15.70	5.26	---	5.14	5.07	4.99
15	5.03	5.23	15.81	15.15	15.36	4.98	15.64	5.20	5.59	5.15	5.08	5.00
16	5.03	5.19	15.43	15.85	16.23	4.97	5.43	5.20	5.30	5.18	5.15	5.00
17	5.03	5.17	15.47	15.59	15.63	4.98	5.29	5.18	5.23	5.13	5.18	4.99
18	5.03	5.20	5.24	15.20	15.45	4.96	5.30	5.18	5.21	5.08	5.08	5.02
19	5.03	5.19	5.24	15.78	15.46	4.98	5.39	5.15	5.17	5.17	5.18	4.99
20	5.03	5.17	15.43	15.91	15.35	4.98	5.40	5.18	5.16	5.15	5.17	5.01
21	5.03	5.16	15.37	15.70	15.38	4.98	5.40	5.14	5.18	5.14	5.06	5.08
22	5.02	5.19	14.94	15.71	15.48	4.90	5.50	5.15	5.20	5.18	5.06	5.13
23	5.03	5.19	15.73	15.71	16.25	5.02	5.50	5.14	5.16	5.16	5.06	5.01
24	5.02	6.78	5.37	15.77	16.23	5.01	5.24	5.28	5.16	5.16	5.13	5.03
25	5.03	6.80	5.17	16.12	16.20	5.28	5.26	5.66	5.15	5.19	5.18	5.03
26	5.02	5.81	5.18	16.20	16.36	5.28	5.33	5.13	5.10	5.15	5.19	5.31
27	5.23	6.62	15.36	16.04	16.44	5.27	5.31	5.14	5.17	5.16	5.05	5.98
28	5.20	6.28	15.38	16.27	16.28	5.28	5.32	5.13	5.15	5.13	5.05	5.97
29	5.07	6.10	15.91	16.09	---	5.27	5.32	5.14	5.18	5.14	5.04	6.00
30	5.05	6.82	15.06	16.07	---	5.23	5.32	5.11	5.18	5.21	5.04	6.01
31	5.05	---	15.23	16.15	---	5.58	---	5.12	---	5.14	5.04	---
MEAN	5.05	5.67	10.65	13.70	15.64	8.79	7.11	6.17	---	---	---	5.18
MAX	5.23	7.61	15.91	16.27	17.48	16.43	15.74	15.62	---	---	---	6.01
MIN	5.02	5.12	5.17	5.95	6.43	4.90	5.24	5.11	---	---	---	4.99



## 06919020 SAC RIVER AT HIGHWAY J BELOW STOCKTON, MO

LOCATION.--Lat 37°44'09", long 93°46'47", in NW ¼ sec.4, T.34 N., R.26 W., Cedar County, Hydrologic Unit 10290106, on right bank on downstream side of bridge on State Highway J, 4.5 mi downstream from Bear Creek, 6.3 mi downstream from Stockton Lake, 3.0 mi north of Stockton, and at mile 44.9.

DRAINAGE AREA.--1,292 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	1,440	584	3,070	4,310	5,200	1,340	136	75	1,030	1,220	982
2	65	663	1,460	3,020	4,260	5,150	350	124	74	254	1,840	1,040
3	65	351	368	3,180	4,150	5,010	124	936	516	79	1,630	330
4	65	399	291	3,270	3,990	5,160	120	1,370	206	940	1,940	57
5	64	263	269	6,120	4,340	5,230	1,010	1,540	73	1,550	1,400	530
6	63	204	872	3,380	4,280	5,140	1,230	1,920	1,320	390	281	947
7	315	175	2,540	975	4,310	2,530	1,920	761	1,770	77	61	931
8	403	153	769	1,260	5,190	2,970	1,260	222	2,830	974	1,580	1,010
9	66	137	1,440	2,010	5,130	3,270	682	102	2,040	1,560	1,670	261
10	64	130	3,100	1,510	5,170	3,230	220	99	2,030	1,600	1,730	56
11	90	355	2,260	3,120	5,160	2,670	1,560	1,650	724	1,160	1,440	54
12	89	753	1,720	3,100	5,180	1,540	2,560	1,550	278	1,350	1,410	54
13	74	332	2,790	2,830	3,920	1,540	2,540	1,650	2,000	1,530	477	54
14	74	243	3,020	1,390	736	1,140	2,580	496	2,060	1,580	65	54
15	71	202	2,880	3,140	3,540	124	2,270	110	583	1,790	1,010	61
16	69	181	3,230	3,320	4,620	110	705	102	209	1,430	1,940	57
17	67	168	2,100	3,010	3,530	106	152	94	169	289	1,580	56
18	67	164	195	3,000	3,070	103	958	1,070	145	1,560	1,860	60
19	67	161	164	2,860	3,060	101	1,580	1,400	128	2,090	1,760	536
20	66	151	2,500	3,660	3,030	98	1,590	344	804	1,670	420	1,500
21	66	144	2,990	3,430	3,020	97	1,580	86	1,170	2,050	64	1,580
22	67	160	3,040	3,540	3,920	101	1,710	83	1,070	2,200	63	1,020
23	68	155	2,690	3,360	5,050	112	595	1,280	1,000	2,040	757	909
24	67	1,340	750	4,120	5,230	115	120	1,770	1,250	1,440	1,940	1,010
25	66	1,050	136	5,020	5,190	143	117	351	297	1,900	1,350	326
26	358	498	129	4,820	5,180	148	126	84	1,110	1,860	494	101
27	1,130	1,190	2,520	4,880	5,240	146	123	81	1,060	1,010	64	177
28	470	777	3,220	4,750	5,210	149	119	79	1,380	1,210	60	178
29	109	1,160	3,270	4,730	---	857	610	77	1,520	1,740	57	182
30	96	1,070	2,900	4,820	---	1,090	534	76	1,300	1,710	56	183
31	92	---	3,070	4,660	---	1,260	---	76	---	1,250	55	---
MEAN	147	472	1,847	3,399	4,251	1,763	1,013	636	973	1,333	977	477
MAX	1,130	1,440	3,270	6,120	5,240	5,230	2,580	1,920	2,830	2,200	1,940	1,580
MIN	63	130	129	975	736	97	117	76	73	77	55	54
IN.	0.13	0.41	1.65	3.03	3.43	1.57	0.87	0.57	0.84	1.19	0.87	0.41

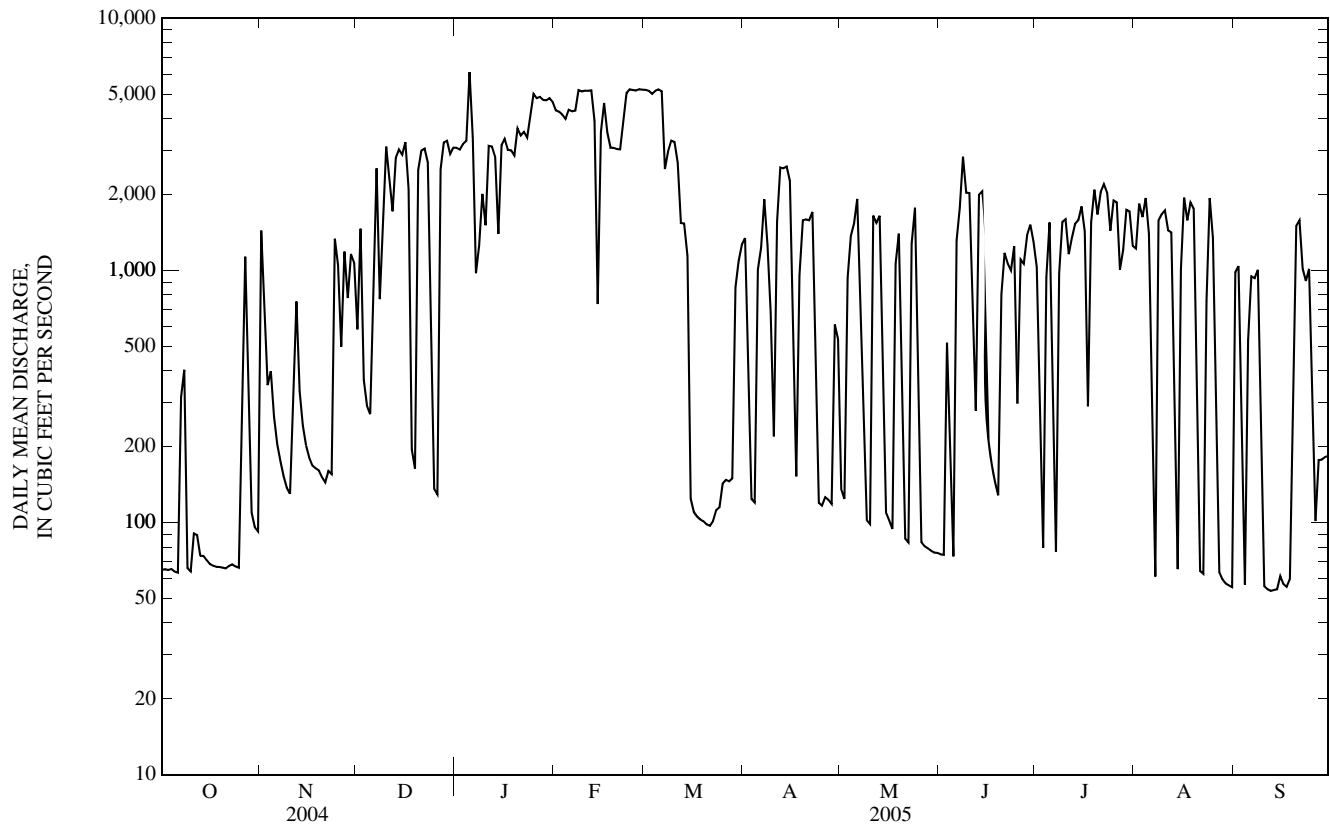
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2005, BY WATER YEAR (WY)

MEAN	590	769	1,125	1,190	1,185	1,422	1,673	1,594	1,532	1,188	961	756
MAX	4,922	4,697	3,983	4,464	4,251	4,230	4,613	3,403	4,863	4,726	2,488	1,949
(WY)	(1994)	(1994)	(1986)	(1993)	(2005)	(1975)	(1974)	(1994)	(1990)	(1995)	(1992)	(1993)
MIN	51.1	60.1	61.9	66.7	98.8	64.8	60.5	110	186	121	71.6	80.4
(WY)	(1974)	(1981)	(1981)	(1981)	(1981)	(1977)	(1981)	(2001)	(1991)	(1977)	(1991)	(1991)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1974 - 2005
ANNUAL MEAN	1,010	1,425	1,165
HIGHEST ANNUAL MEAN			2,450
LOWEST ANNUAL MEAN			256
HIGHEST DAILY MEAN	5,390	May 4	12,800
LOWEST DAILY MEAN	63	Oct 6	25
ANNUAL SEVEN-DAY MINIMUM	65	Sep 30	33
MAXIMUM PEAK FLOW	---		8,150
MAXIMUM PEAK STAGE	---		19.44
INSTANTANEOUS LOW FLOW	---		52
ANNUAL RUNOFF (INCHES)	10.65		14.98
10 PERCENT EXCEEDS	2,510		3,760
50 PERCENT EXCEEDS	698		1,010
90 PERCENT EXCEEDS	74		69

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



## 06919500 CEDAR CREEK NEAR PLEASANT VIEW, MO

LOCATION.--Lat 37°50'03", long 93°52'31", in NE ¼ sec.2, T.35 N., R.27 W., Cedar County, Hydrologic Unit 10290106, on downstream side of right pier of bridge on State Highway 39, 1.5 mi north of Pleasant View, 1.8 mi downstream from Alder Creek, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--420 mi<sup>2</sup>.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.78	4,060	1,470	94	190	238	116	172	16	8.4	1.2	2.0
2	0.71	5,360	888	91	186	215	108	147	14	8.6	1.0	1.7
3	0.65	1,280	660	116	173	202	110	114	14	9.6	0.95	1.4
4	0.60	1,730	528	556	163	206	108	96	15	10	0.89	1.2
5	0.49	1,040	484	3,120	157	186	101	84	13	8.9	0.83	1.0
6	0.46	554	1,160	9,520	160	172	162	76	18	8.5	0.77	0.72
7	0.50	382	4,110	6,560	311	162	762	68	24	7.8	0.76	0.66
8	0.70	287	3,530	1,300	832	153	787	63	15	7.3	0.71	0.64
9	0.70	231	1,190	921	752	146	480	59	21	6.7	0.70	0.59
10	0.72	197	743	965	830	141	345	54	60	6.6	0.68	0.56
11	2.8	810	575	822	542	139	286	49	40	7.4	0.66	0.49
12	12	3,130	473	884	433	133	1,110	43	40	7.3	0.64	0.48
13	17	1,280	378	4,130	2,110	123	1,020	45	414	6.9	0.64	0.50
14	30	586	304	2,820	2,470	113	472	62	423	6.3	0.64	0.90
15	35	415	260	961	1,090	104	331	530	211	5.9	0.77	1.2
16	25	331	235	610	680	99	263	290	158	5.4	1.1	1.0
17	20	281	218	485	509	97	223	150	106	4.9	1.3	0.80
18	17	256	202	392	415	92	193	105	75	4.9	1.5	0.92
19	12	289	187	362	360	87	169	82	55	5.4	1.7	0.91
20	8.8	305	170	353	329	82	151	68	42	5.4	1.6	0.78
21	7.1	270	158	346	299	78	138	56	33	5.1	1.7	0.64
22	7.2	367	145	314	266	82	122	47	27	4.6	40	0.59
23	8.2	508	137	264	265	99	109	42	22	4.7	62	0.54
24	6.7	3,670	136	230	397	126	93	36	18	8.6	22	0.53
25	7.7	6,020	137	220	436	141	85	32	15	6.5	15	0.46
26	15	1,880	136	216	361	204	89	29	12	4.8	12	0.49
27	48	2,570	135	201	299	227	98	26	11	4.3	9.0	0.89
28	212	2,880	112	186	267	187	103	24	9.7	3.3	6.8	1.4
29	206	2,440	97	180	---	166	100	22	8.5	2.5	4.8	1.8
30	127	3,180	98	181	---	150	119	20	7.7	1.9	3.4	1.4
31	91	---	97	187	---	132	---	18	---	1.5	2.6	---
MEAN	29.7	1,553	618	1,212	546	145	278	87.4	64.6	6.13	6.40	0.91
MAX	212	6,020	4,110	9,520	2,470	238	1,110	530	423	10	62	2.0
MIN	0.46	197	97	91	157	78	85	18	7.7	1.5	0.64	0.46
IN.	0.08	4.13	1.70	3.33	1.35	0.40	0.74	0.24	0.17	0.02	0.02	0.00

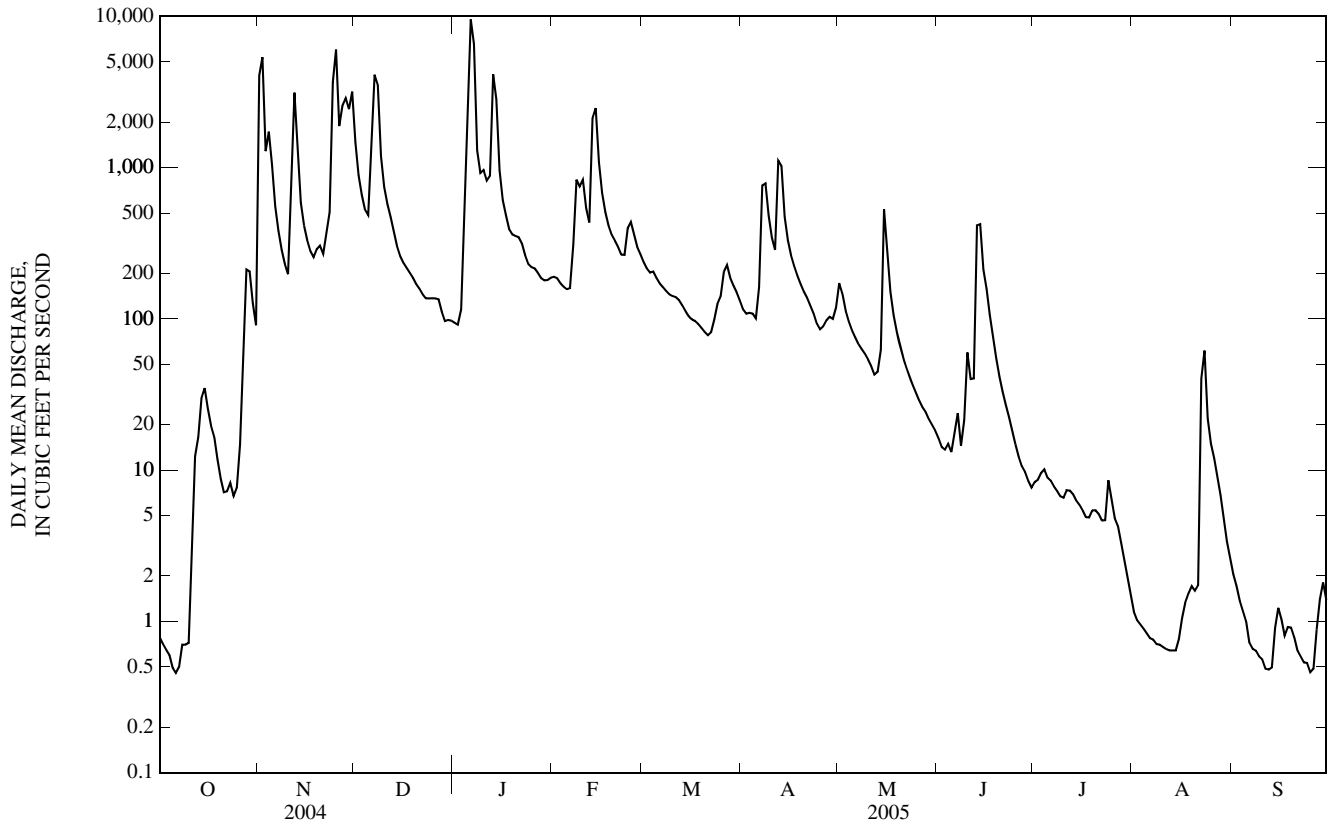
## STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	185	350	292	277	399	556	538	524	357	221	75.8	165
MAX	3,055	1,923	1,490	1,212	2,307	2,275	2,766	2,969	1,753	2,229	641	2,033
(WY)	(1987)	(1993)	(1993)	(2005)	(1985)	(1973)	(1994)	(1961)	(1981)	(1958)	(1950)	(1993)
MIN	0.00	0.00	0.06	0.12	0.14	0.23	4.09	39.1	4.52	0.03	0.00	0.00
(WY)	(1954)	(1954)	(1954)	(1954)	(1954)	(1954)	(1956)	(1988)	(1991)	(1954)	(1954)	(1953)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	452	377	327
HIGHEST ANNUAL MEAN			807
LOWEST ANNUAL MEAN			16.0
HIGHEST DAILY MEAN	8,260	Apr 25	9,520
LOWEST DAILY MEAN	0.46	Oct 6	0.46
ANNUAL SEVEN-DAY MINIMUM	0.59	Oct 3	0.56
MAXIMUM PEAK FLOW	---		11,000
MAXIMUM PEAK STAGE	---		22.09
INSTANTANEOUS LOW FLOW	---		0.40
ANNUAL RUNOFF (INCHES)	14.64		12.17
10 PERCENT EXCEEDS	921		831
50 PERCENT EXCEEDS	167		98
90 PERCENT EXCEEDS	3.6		0.82

06919500 CEDAR CREEK NEAR PLEASANT VIEW, MO—Continued



## 06919900 SAC RIVER NEAR CAPLINGER MILLS, MO

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

DRAINAGE AREA.--1,810 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

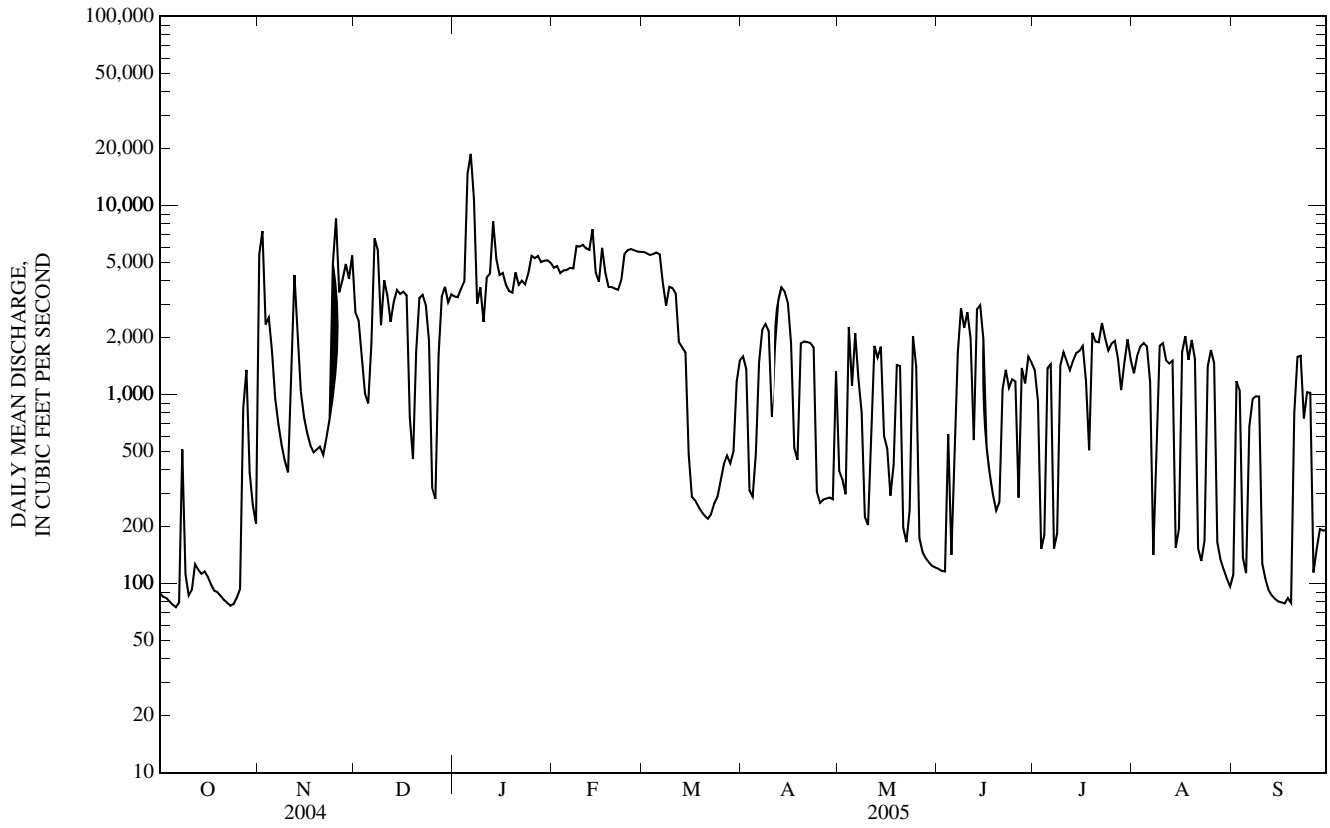
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	5,500	2,730	3,300	4,680	5,670	1,590	394	120	1,350	1,290	112
2	85	7,320	2,470	3,270	4,790	5,580	1,360	356	117	924	1,600	1,170
3	84	2,340	1,510	3,630	4,380	5,470	312	297	116	152	1,800	1,050
4	81	2,550	1,010	3,970	4,530	5,530	289	2,270	616	181	1,870	137
5	77	1,680	897	14,800	4,560	5,640	488	1,120	142	1,380	1,800	113
6	75	951	1,860	18,700	4,680	5,520	1,480	2,110	467	1,440	1,170	676
7	79	693	6,690	10,800	4,650	3,860	e2,200	1,210	1,660	153	142	948
8	512	539	5,800	3,020	6,090	2,950	2,360	806	2,860	184	437	978
9	112	445	2,330	3,690	6,060	3,710	2,170	226	2,250	1,430	1,810	976
10	86	388	4,020	2,420	6,190	3,650	763	204	2,720	1,670	1,870	127
11	93	1,030	3,330	4,150	5,930	3,420	1,830	765	1,980	1,490	1,510	106
12	127	4,290	2,420	4,360	5,810	1,890	3,140	1,800	576	1,340	1,460	92
13	119	2,250	3,090	8,230	7,470	1,780	3,690	1,570	2,820	1,510	1,510	86
14	112	1,030	3,570	5,220	4,430	1,670	3,500	1,790	2,960	1,660	154	83
15	116	759	3,400	4,290	3,940	485	3,060	604	1,960	1,700	194	80
16	109	624	3,500	4,400	5,960	288	1,850	518	529	1,810	1,680	80
17	99	539	3,350	3,800	4,420	276	522	292	378	1,180	2,030	79
18	92	494	758	3,520	3,710	257	452	426	294	507	1,520	84
19	90	512	455	3,460	3,700	240	1,860	1,430	243	2,120	1,940	79
20	86	529	1,700	4,420	3,630	229	1,910	1,410	269	1,910	1,540	798
21	82	480	3,240	3,800	3,570	220	1,890	197	1,070	1,890	153	1,580
22	79	589	3,370	4,000	4,030	232	1,870	166	1,350	2,390	132	1,600
23	76	744	2,980	3,820	5,540	265	1,780	244	1,080	1,990	168	748
24	78	4,890	1,920	4,370	5,790	287	307	2,040	1,200	1,710	1,400	1,030
25	84	8,510	322	5,410	5,870	353	267	1,410	1,170	1,860	1,720	1,020
26	93	3,470	281	5,260	5,790	427	278	174	285	1,920	1,470	114
27	847	4,030	1,620	5,400	5,700	476	282	146	1,380	1,550	165	152
28	1,350	4,900	3,290	5,010	5,680	433	285	136	1,140	1,050	134	194
29	388	4,100	3,710	5,100	---	500	279	129	1,580	1,470	119	191
30	260	5,440	3,070	5,120	---	1,170	1,330	124	1,470	1,960	106	192
31	207	---	3,380	4,970	---	1,510	---	121	---	1,520	97	---
MEAN	189	2,387	2,648	5,345	5,056	2,064	1,446	790	1,160	1,400	1,064	489
MAX	1,350	8,510	6,690	18,700	7,470	5,670	3,690	2,270	2,960	2,390	2,030	1,600
MIN	75	388	281	2,420	3,570	220	267	121	116	152	97	79
IN.	0.12	1.47	1.69	3.41	2.91	1.32	0.89	0.50	0.72	0.89	0.68	0.30

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2005, BY WATER YEAR (WY)

MEAN	1,115	1,370	1,612	1,542	1,766	2,164	2,379	2,403	2,020	1,418	1,057	947
MAX	11,070	5,392	5,838	5,487	5,202	5,630	6,805	5,782	7,046	5,283	2,850	5,283
(WY)	(1987)	(1994)	(1986)	(1993)	(1985)	(1985)	(1994)	(1995)	(1995)	(1995)	(1992)	(1993)
MIN	61.1	66.7	56.6	53.5	101	82.7	76.3	278	241	170	77.3	103
(WY)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(1981)	(2001)	(1991)	(1988)	(1991)	(1991)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1975 - 2005
ANNUAL MEAN	1,581	1,985	1,648
HIGHEST ANNUAL MEAN			3,267
LOWEST ANNUAL MEAN			399
HIGHEST DAILY MEAN	11,400	Mar 5	18,700
LOWEST DAILY MEAN	75	Oct 6	75
ANNUAL SEVEN-DAY MINIMUM	81	Oct 1	81
MAXIMUM PEAK FLOW	---		20,500
MAXIMUM PEAK STAGE	---		24.95
INSTANTANEOUS LOW FLOW	---		74
ANNUAL RUNOFF (INCHES)	11.89		14.89
10 PERCENT EXCEEDS	3,930		4,990
50 PERCENT EXCEEDS	1,030		1,430
90 PERCENT EXCEEDS	114		115

e Estimated





## 06921070 POMME DE TERRE RIVER NEAR POLK, MO

LOCATION.--Lat 37°40'58", long 93°22'13", in NE ¼ NW ¼ NW ¼ sec.17, T.34 N., R.22 W., Polk County, Hydrologic Unit 10290107, on right bank 150 ft upstream from Jefferson Bridge on State Highway D, and 5 mi southwest of Polk.

DRAINAGE AREA.--276 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3,940	833	84	162	229	150	100	17	16	9.2	12
2	3.0	991	587	83	157	200	141	87	16	14	8.9	12
3	3.2	537	461	110	164	187	130	79	16	17	8.7	12
4	3.4	541	380	1,600	165	223	121	74	15	15	9.0	11
5	3.8	367	341	15,200	161	227	113	70	15	14	8.8	11
6	3.6	282	513	5,010	160	196	861	70	17	13	8.4	11
7	3.8	227	2,630	1,210	191	182	2,420	67	401	12	7.9	11
8	7.4	185	1,040	915	263	169	775	63	153	12	8.0	11
9	11	157	672	763	426	158	526	63	116	11	32	11
10	10	140	516	630	354	152	405	60	103	11	22	10
11	13	885	412	552	300	143	383	56	157	12	15	10
12	22	888	350	1,510	286	134	386	52	106	11	13	11
13	21	477	295	7,890	1,500	126	323	52	303	11	14	11
14	21	330	246	1,370	971	117	266	269	190	11	13	11
15	18	255	217	848	620	111	224	228	90	11	20	152
16	20	214	199	625	473	107	194	124	53	11	23	29
17	16	187	184	503	388	103	171	90	38	10	19	18
18	12	169	172	428	333	99	155	74	31	10	16	75
19	9.8	161	158	393	295	95	141	63	27	10	13	66
20	8.9	147	144	377	274	90	130	56	25	9.9	12	74
21	7.7	130	137	353	247	87	123	50	23	9.8	12	60
22	7.5	128	129	311	223	90	117	46	22	9.8	12	33
23	10	130	114	258	238	173	106	43	21	10	12	21
24	11	1,340	e108	235	350	270	96	39	18	10	21	15
25	8.4	1,230	e104	228	307	245	93	34	19	9.7	101	12
26	83	624	e101	219	263	221	119	27	25	9.7	56	10
27	145	808	96	196	239	229	111	21	16	11	32	9.1
28	77	643	94	181	247	260	100	20	15	11	21	8.3
29	57	1,920	94	181	---	221	99	19	15	10	17	7.6
30	37	1,630	93	181	---	190	113	18	14	9.9	14	6.6
31	31	---	90	171	---	162	---	18	---	9.4	13	---
MEAN	22.2	655	371	1,375	348	168	303	68.8	69.2	11.4	19.1	25.1
MAX	145	3,940	2,630	15,200	1,500	270	2,420	269	401	17	101	152
MIN	3.0	128	90	83	157	87	93	18	14	9.4	7.9	6.6
IN.	0.09	2.65	1.55	5.74	1.32	0.70	1.23	0.29	0.28	0.05	0.08	0.10

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2005, BY WATER YEAR (WY)

MEAN	143	344	318	299	334	514	500	398	213	88.8	39.1	142
MAX	1,094	1,408	1,488	1,375	1,496	1,673	1,978	1,658	1,252	450	154	2,348
(WY)	(1987)	(1986)	(1983)	(2005)	(1985)	(1973)	(1994)	(2002)	(1995)	(2000)	(1985)	(1993)
MIN	8.07	9.94	8.94	10.8	42.5	43.4	26.8	23.5	15.9	4.16	2.72	1.70
(WY)	(2003)	(1990)	(1990)	(1977)	(1981)	(1996)	(1981)	(2000)	(1988)	(1980)	(1980)	(1980)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

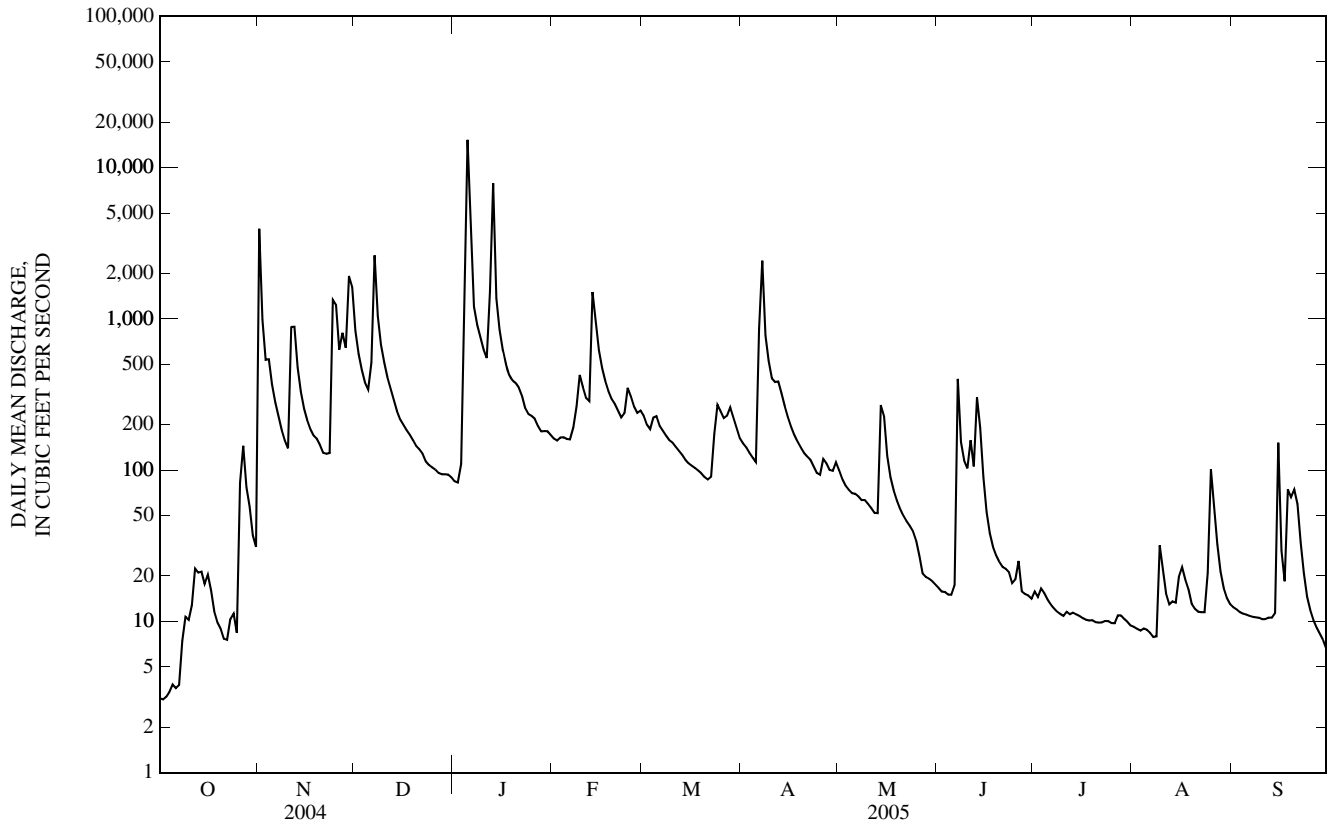
## FOR 2005 WATER YEAR

## WATER YEARS 1969 - 2005

ANNUAL MEAN	273	286	277
HIGHEST ANNUAL MEAN			554
LOWEST ANNUAL MEAN			85.6
HIGHEST DAILY MEAN	5,220	Mar 4	15,200
LOWEST DAILY MEAN	3.0	Sep 26-30, Oct 2	3.0
ANNUAL SEVEN-DAY MINIMUM	3.0	Sep 26	3.4
MAXIMUM PEAK FLOW	---		18,900
MAXIMUM PEAK STAGE	---		20.99
INSTANTANEOUS LOW FLOW	---		2.7
ANNUAL RUNOFF (INCHES)	13.46		14.07
10 PERCENT EXCEEDS	657		539
50 PERCENT EXCEEDS	107		99
90 PERCENT EXCEEDS	8.2		10

e Estimated

06921070 POMME DE TERRE RIVER NEAR POLK, MO—Continued



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

## WATER-QUALITY RECORDS

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 16...	0900	Environmental	221	9.6	91	7.6	392	11.5	200	43.9	23.0	3.81
JAN 20...	1045	Environmental	377	13.2	105	7.7	361	4.5	--	--	--	--
MAR 28...	1530	Environmental	256	14.2	131	8.2	390	9.9	--	--	--	--
MAY 23...	1400	Environmental	44	6.7	84	7.5	426	25.1	220	43.6	27.4	3.37
JUL 27...	1120	Environmental	11	5.1	66	7.5	411	26.7	--	--	--	--
SEP 19...	1300	Environmental	62	6.7	80	8.0	264	22.7	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	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)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NOV 16...	5.61	174	172	210	<1	12.2	E.1n	10.6	233	<10	.22	<.04	1.35
JAN 20...	--	--	--	--	--	--	--	--	--	<10	.19	<.04	1.71
MAR 28...	--	--	--	--	--	--	--	--	--	<10	.30	<.04	.48
MAY 23...	5.81	197	197	240	<1	10.4	E.1n	7.3	242	11	.41	E.02n	.15
JUL 27...	--	--	--	--	--	--	--	--	--	15	.73	.05	.11
SEP 19...	--	--	--	--	--	--	--	--	--	22	.72	<.04	.29

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 col/100 mL (31625)	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)	Iron, water, fltrd, $\mu$ g/L (01046)
NOV 16...	<.008	<.02	.06	.07	300	210	2	53	.4	<.04	<.04	.7	8
JAN 20...	E.005n	.03	.04	.05	160k	280	--	--	--	--	--	--	--
MAR 28...	E.007n	<.02	<.04	<.04	74	180k	--	--	--	--	--	--	--
MAY 23...	.010	<.02	.04	E.03n	27	60	2	111	1.0	<.04	<.04	.8	E3n
JUL 27...	E.005n	.02	.09	.13	670	830k	--	--	--	--	--	--	--
SEP 19...	.009	.09	.14	.19	640k	520k	--	--	--	--	--	--	--

06921070 POMME DE TERRE RIVER NEAR POLK, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 16...	<.08	.10	11.6	<.01	E.2n	E.5n	<2
JAN 20...	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--
MAY 23...	<.08	.35	24.7	<.01	.4	.7	<2
JUL 27...	--	--	--	--	--	--	--
SEP 19...	--	--	--	--	--	--	--

Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

Value qualifier codes used in this table:

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

## 06921200 LINDLEY CREEK NEAR POLK, MO

LOCATION.--Lat 37°45'02", long 93°15'58", in NE 1/4 SE 1/4 sec.29, T.35 N., R.21 W., Polk County, Hydrologic Unit 10290107, on left bank 30 ft upstream from county highway bridge, 0.5 mi downstream from Panther Creek, 2.5 mi northeast of Polk, and 11 mi upstream from Ingalls Creek.

DRAINAGE AREA.--112 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.04	2,640	320	32	64	107	51	75	2.6	1.9	0.57	1.5
2	0.03	374	232	32	62	95	52	50	2.4	1.8	0.56	1.3
3	0.02	255	184	52	71	89	44	38	2.2	2.0	0.52	1.1
4	0.02	285	155	1,600	70	113	40	32	2.9	1.8	0.52	1.0
5	0.02	165	155	7,750	63	100	37	28	2.3	1.4	0.52	0.93
6	0.01	126	354	924	63	87	511	26	8.8	1.2	0.51	0.92
7	0.02	97	1,940	346	107	83	484	24	143	1.0	0.50	0.83
8	0.06	74	380	282	119	75	215	22	118	0.88	0.49	0.78
9	0.05	61	257	296	263	71	149	22	58	0.80	0.48	0.78
10	0.05	53	197	266	165	69	116	19	96	0.74	0.48	0.79
11	0.70	727	158	216	137	62	119	17	249	0.83	0.47	0.84
12	4.3	408	138	1,530	139	57	124	14	97	0.84	0.47	0.88
13	2.1	197	114	3,470	1,410	50	99	16	320	1.1	0.56	0.97
14	1.3	141	94	409	438	44	81	33	169	1.1	0.80	2.1
15	0.76	114	84	238	246	42	68	35	61	0.92	1.1	202
16	0.48	97	81	180	177	40	57	19	32	0.76	3.7	40
17	0.41	85	74	147	148	39	49	14	22	0.73	5.7	10
18	0.36	78	70	130	130	37	43	12	16	0.78	3.5	42
19	0.25	79	61	130	120	34	39	10	11	0.95	2.6	59
20	0.23	71	54	134	116	31	35	9.0	8.5	0.85	2.5	14
21	0.53	63	53	129	105	30	33	7.6	6.7	0.74	1.7	6.2
22	0.80	75	47	113	95	36	36	6.7	5.6	0.65	6.0	3.5
23	1.1	76	44	86	126	62	32	6.0	4.8	0.55	3.1	2.2
24	1.4	1,380	36	86	195	54	27	5.5	3.8	0.50	1.6	1.5
25	1.2	558	36	88	156	86	27	5.0	3.0	0.44	107	1.2
26	174	286	35	87	128	75	60	4.5	2.6	0.45	30	1.0
27	160	870	34	74	116	102	45	4.1	2.2	0.60	9.4	0.82
28	46	339	34	69	124	109	38	3.9	1.8	0.60	4.9	0.94
29	16	1,900	36	74	---	82	44	3.6	1.6	0.58	3.3	1.1
30	9.3	553	36	76	---	67	111	3.2	1.5	0.57	2.5	0.81
31	26	---	34	69	---	51	---	2.8	---	0.57	1.8	---
MEAN	14.4	408	178	617	184	67.1	95.5	18.3	48.5	0.92	6.38	13.4
MAX	174	2,640	1,940	7,750	1,410	113	511	75	320	2.0	107	202
MIN	0.01	53	34	32	62	30	27	2.8	1.5	0.44	0.47	0.78
IN.	0.15	4.06	1.84	6.35	1.71	0.69	0.95	0.19	0.48	0.01	0.07	0.13

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2005, BY WATER YEAR (WY)

MEAN	75.9	109	113	108	127	190	176	167	78.6	35.7	13.6	50.4
MAX	812	566	526	617	764	855	903	854	421	534	100	1,134
(WY)	(1987)	(1986)	(1983)	(2005)	(1985)	(1973)	(1994)	(2002)	(1985)	(1958)	(1958)	(1993)
MIN	0.00	0.04	0.38	0.75	1.49	15.9	4.86	6.04	0.73	0.08	0.00	0.00
(WY)	(1977)	(1964)	(1964)	(1964)	(1964)	(1996)	(1981)	(2000)	(1988)	(1980)	(1980)	(1960)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

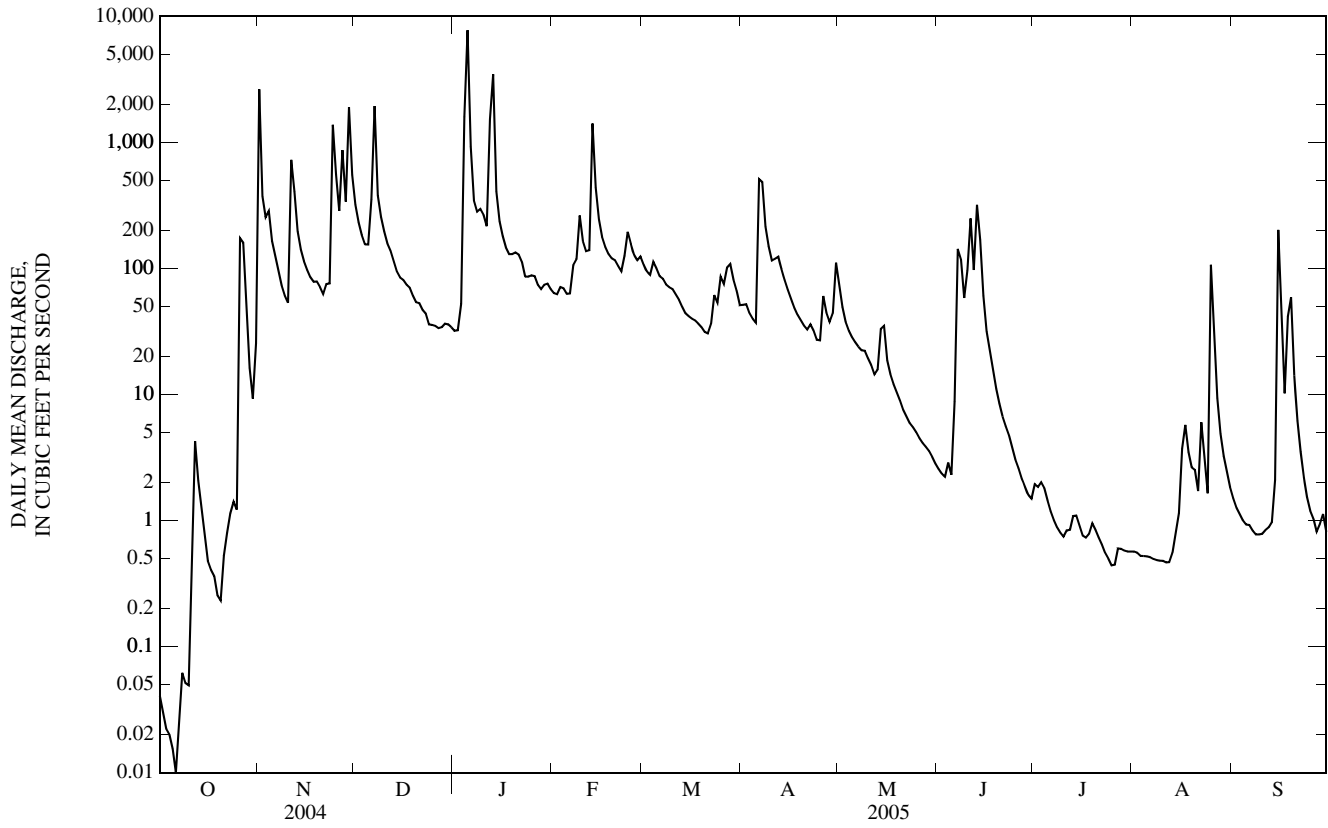
## FOR 2005 WATER YEAR

## WATER YEARS 1957 - 2005

ANNUAL MEAN	122	137	103
HIGHEST ANNUAL MEAN			247
LOWEST ANNUAL MEAN			18.8
HIGHEST DAILY MEAN	2,640	Nov 1	7,750
LOWEST DAILY MEAN	0.01	Oct 6	0.01
ANNUAL SEVEN-DAY MINIMUM	0.02	Oct 1	0.02
MAXIMUM PEAK FLOW	---		12,500
MAXIMUM PEAK STAGE	---		18.90
INSTANTANEOUS LOW FLOW	---		0.01
ANNUAL RUNOFF (INCHES)	14.86		16.63
10 PERCENT EXCEEDS	249		241
50 PERCENT EXCEEDS	35		36
90 PERCENT EXCEEDS	0.29		0.59

12,000 Oct 1, 1986  
0.00 Many Years  
0.00 Many Years  
31,900 Oct 1, 1986  
23.60 May 5, 1961  
0.00 Many Years

06921200 LINDLEY CREEK NEAR POLK, MO—Continued



## 06921325 POMME DE TERRE LAKE NEAR HERMITAGE, MO

LOCATION.--Lat 37°54'11", long 93°19'01", in NE ¼ sec.2, T.36 N., R.22 W., Hickory County, Hydrologic Unit 10290107, in intake tower at dam on Pomme de Terre River, 3.0 mi southwest of Hermitage.

DRAINAGE AREA.--611 mi<sup>2</sup>.

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 370,000 ac-ft, Jan. 14, elevation 853.38 ft; minimum, 234,000 ac-ft, Aug. 13, elevation, 838.55 ft.

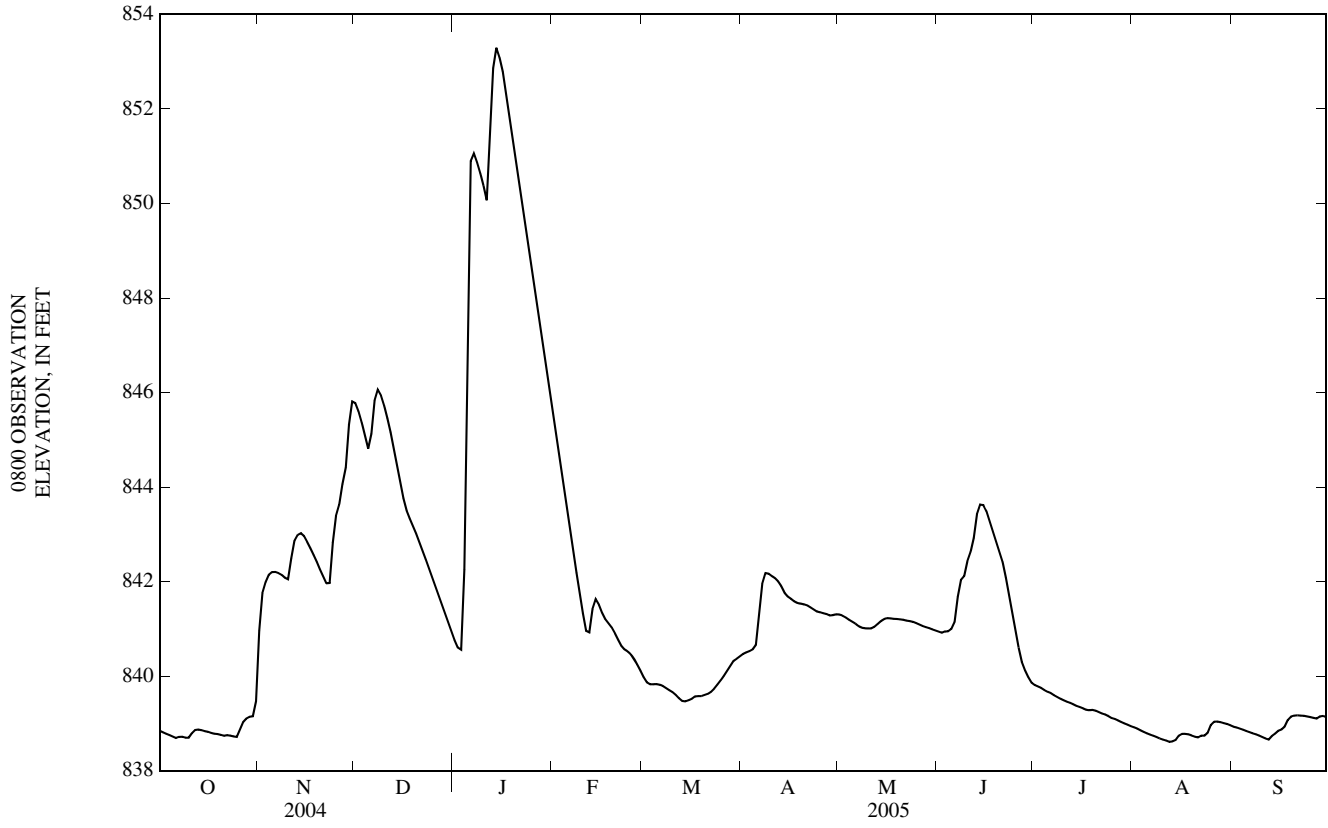
ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	838.87	839.63	845.85	840.89	846.13	840.07	840.44	841.31	840.96	839.83	838.93	838.95
2	838.83	841.63	845.74	840.70	845.64	839.93	840.48	841.30	840.93	839.80	838.91	838.92
3	838.80	841.82	845.53	840.56	845.14	839.84	840.51	841.27	840.91	839.77	838.88	838.91
4	838.77	842.07	845.28	840.56	844.60	839.82	840.54	841.23	840.96	839.74	838.84	838.88
5	838.74	842.18	844.98	843.10	844.07	839.83	840.58	841.18	840.94	839.69	838.81	838.86
6	838.71	842.21	844.73	850.41	843.49	839.83	840.70	841.14	841.03	839.66	838.78	838.83
7	838.68	842.20	845.33	851.14	843.00	839.81	841.58	841.10	841.20	839.63	838.75	838.81
8	838.73	842.17	846.08	851.02	842.49	839.78	842.14	841.04	841.92	839.58	838.73	838.78
9	838.71	842.13	846.05	850.79	842.03	839.73	842.20	841.02	842.09	839.55	838.70	838.76
10	838.69	842.06	845.88	850.56	841.64	839.69	842.15	841.01	842.13	839.51	838.67	838.73
11	838.70	842.04	845.64	850.28	841.17	839.65	842.10	841.01	842.58	839.48	838.65	838.70
12	838.84	842.71	845.36	849.96	840.85	839.58	842.06	841.01	842.65	839.45	838.63	838.67
13	838.87	842.94	845.06	851.86	840.96	839.51	841.97	841.06	843.06	839.43	838.60	838.65
14	838.87	843.01	844.72	853.36	841.65	839.46	841.86	841.12	843.61	839.39	838.63	838.77
15	838.85	843.03	844.38	853.26	841.62	839.47	841.71	841.18	843.64	839.36	838.66	838.79
16	838.83	842.93	844.01	853.00	841.46	839.50	841.67	841.22	843.61	839.34	838.78	838.87
17	838.82	842.79	843.64	852.69	841.28	839.53	841.62	841.23	843.42	839.31	838.78	838.87
18	838.79	842.66	843.44	852.31	841.17	839.59	841.56	841.22	843.22	839.28	838.78	838.96
19	838.78	842.52	843.28	851.95	841.09	839.57	841.54	841.21	843.01	839.28	838.76	839.13
20	838.77	842.37	843.13	851.56	841.00	839.58	841.53	841.21	842.79	839.29	838.73	839.15
21	838.75	842.20	842.96	851.18	840.86	839.61	841.51	841.20	842.57	839.26	838.71	839.17
22	838.73	842.07	842.77	850.78	840.73	839.63	841.49	841.19	842.34	839.23	838.70	839.17
23	838.76	841.91	842.59	850.35	840.60	839.69	841.44	841.17	841.97	839.20	838.76	839.16
24	838.73	842.00	842.41	849.90	840.55	839.76	841.40	841.16	841.61	839.18	838.73	839.16
25	838.72	843.24	842.22	849.44	840.51	839.85	841.35	841.14	841.23	839.14	838.84	839.14
26	838.71	843.47	842.03	848.98	840.43	839.94	841.35	841.11	840.86	839.10	839.03	839.13
27	838.95	843.71	841.84	848.53	840.31	840.04	841.32	841.08	840.48	839.09	839.04	839.11
28	839.07	844.24	841.64	848.06	840.21	840.15	841.31	841.05	840.22	839.05	839.04	839.10
29	839.12	844.50	841.45	847.60	---	840.25	841.27	841.03	840.07	839.02	839.02	839.17
30	839.15	845.73	841.26	847.11	---	840.36	841.30	841.01	839.93	838.99	839.00	839.15
31	839.15	---	841.07	846.62	---	840.37	---	840.98	---	838.96	838.98	---
MAX	839.15	845.73	846.08	853.36	846.13	840.37	842.20	841.31	843.64	839.83	839.04	839.17
MIN	838.68	839.63	841.07	840.56	840.21	839.46	840.44	840.98	839.93	838.96	838.60	838.65
(-)	238,000	294,000	254,000	303,000	247,000	248,000	256,000	253,000	245,000	237,000	237,000	239,000
(=)	+2,000	+56,000	-40,000	+49,000	-56,000	+1,000	+8,000	-3,000	-8,000	-8,000	0	+2,000

CAL YR 2004... +6,000  
WTR YR 2005.... +3,000

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

06921325 POMME DE TERRE LAKE NEAR HERMITAGE, MO—Continued





## 06921350 POMME DE TERRE RIVER NEAR HERMITAGE, MO

LOCATION.--Lat 37°54'22", long 93°19'44", in NW ¼ NW ¼ sec.2, T.36 N., R.22 W., Hickory County, Hydrologic Unit 10290107, on right bank 2,000 ft downstream from outlet of Pomme de Terre Lake, 2.5 mi southwest of Hermitage, 4.5 mi upstream from Green Branch, and at mile 43.4.

DRAINAGE AREA.--615 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	231	2,070	938	2,540	988	106	312	83	281	50	50
2	40	506	2,060	937	2,540	846	106	313	83	94	50	51
3	40	503	2,050	938	2,610	620	107	315	84	94	50	51
4	40	500	2,050	959	2,660	460	108	316	83	94	50	51
5	39	497	2,050	702	2,650	460	109	312	83	94	50	51
6	39	496	2,050	464	2,640	460	117	321	100	94	50	50
7	40	493	2,060	1,760	2,630	463	543	322	86	94	50	50
8	39	491	2,050	2,650	2,630	463	1,050	324	227	95	50	50
9	39	490	2,050	2,630	2,630	463	1,040	212	477	95	50	50
10	39	490	2,050	2,630	2,620	465	1,040	98	478	95	50	50
11	40	494	2,050	2,620	2,210	466	1,040	98	478	95	50	50
12	40	490	2,040	2,630	1,920	465	1,040	98	479	95	50	49
13	39	490	2,040	2,650	1,930	466	1,040	99	503	95	50	50
14	40	489	2,030	2,650	1,930	282	1,040	99	484	95	51	50
15	39	741	2,020	2,640	1,930	95	792	97	484	73	52	50
16	39	975	2,020	2,640	1,790	95	515	96	778	50	51	50
17	39	973	1,640	2,640	1,330	96	514	95	1,000	50	50	49
18	39	969	947	2,630	986	96	445	94	999	50	50	50
19	39	967	948	2,630	986	97	307	93	999	50	50	49
20	39	965	947	2,620	986	98	307	92	999	50	50	49
21	39	964	947	2,620	986	99	307	91	999	50	50	49
22	38	961	948	2,620	986	99	308	91	1,380	50	50	49
23	40	961	947	2,620	987	100	307	90	1,610	50	50	49
24	39	987	945	2,610	987	100	307	89	1,610	50	50	49
25	39	972	943	2,600	987	103	308	89	1,610	50	52	49
26	40	970	942	2,590	986	103	308	88	1,600	50	50	48
27	43	983	940	2,580	986	103	309	145	1,270	50	50	48
28	40	973	940	2,580	990	103	310	82	814	50	50	49
29	39	1,560	939	2,570	---	103	312	82	536	50	50	48
30	40	2,080	939	2,570	---	104	312	82	539	50	50	48
31	40	---	939	2,550	---	105	---	83	---	50	50	---
MEAN	39.5	789	1,535	2,241	1,787	292	482	155	698	76.9	50.2	49.5
MAX	43	2,080	2,070	2,650	2,660	988	1,050	324	1,610	281	52	51
MIN	38	231	939	464	986	95	106	82	83	50	50	48
IN.	0.07	1.43	2.88	4.20	3.03	0.55	0.87	0.29	1.27	0.14	0.09	0.09

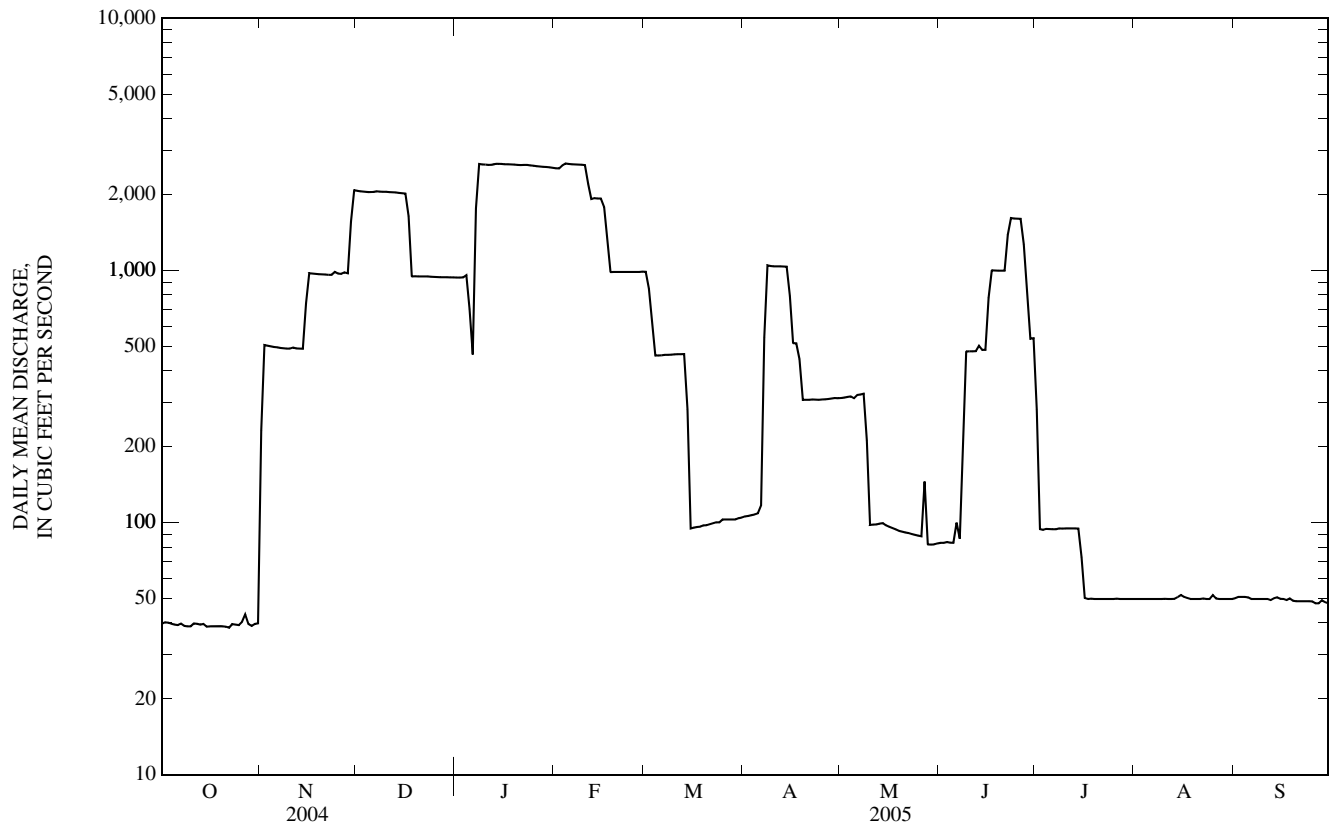
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2005, BY WATER YEAR (WY)

MEAN	309	530	625	538	594	842	836	886	626	339	115	127
MAX	3,116	2,872	2,886	2,241	2,100	3,487	2,948	4,799	2,397	2,349	480	1,110
(WY)	(1994)	(1987)	(1986)	(2005)	(1975)	(1985)	(1984)	(1961)	(2002)	(1995)	(1978)	(1993)
MIN	13.1	7.50	20.5	20.4	21.5	24.6	26.8	26.4	31.9	26.0	18.6	1.27
(WY)	(1969)	(1977)	(1963)	(1962)	(1963)	(1963)	(1963)	(1963)	(1969)	(1970)	(1961)	(1960)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1960 - 2005
ANNUAL MEAN	591	676	530
HIGHEST ANNUAL MEAN			1,163
LOWEST ANNUAL MEAN			67.8
HIGHEST DAILY MEAN	2,380	Apr 28	9,000
LOWEST DAILY MEAN	38	Oct 22	0.00
ANNUAL SEVEN-DAY MINIMUM	39	Oct 16	0.00
MAXIMUM PEAK FLOW	---		5,910
MAXIMUM PEAK STAGE	---		12.15
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	13.08	14.92	11.72
10 PERCENT EXCEEDS	1,580	2,070	1,920
50 PERCENT EXCEEDS	349	307	103
90 PERCENT EXCEEDS	40	49	44

06921350 POMME DE TERRE RIVER NEAR HERMITAGE, MO—Continued



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

LOCATION.--Lat 38°35'20", long 94°26'30", in NW ¼ NW ¼ NE ¼ sec.27, T.44N., R.32 W., Cass County, Hydrologic Unit 10290108, on the left bank on upstream side of bridge on gravel road, approximately 2 mi south of State Highway 2, approximately 6.1 mi southwest of Harrisonville, and 4 mi southeast of Freeman.

DRAINAGE AREA.--150 mi<sup>2</sup>.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 03...	1115	Environmental	105	8.1	77	8.1	427	13.0	200	68.4	7.73	5.70	
JAN 11...	1330	Environmental	412	13.8	101	7.1	419	3.0	--	--	--	--	
JAN 11...	1331	Replicate	--	--	--	--	--	--	--	--	--	--	
MAR 22...	1050	Environmental	39	12.2	104	8.4	514	8.5	--	--	--	--	
MAY 06...	1100	Environmental	16	10.7	106	8.2	686	15.0	300	97.1	13.7	3.56	
JUL 22...	0910	Environmental	12	4.1	54	7.9	883	28.0	--	--	--	--	
SEP 30...	1133	Environmental	8.0	7.0	71	7.7	427	16.5	--	--	--	--	
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 03...	13.7	168	171	208	<1	13.5	.2	28.7	290	38	.88	<.04	.35
JAN 11...	--	--	--	--	--	--	--	--	--	56	.72	<.04	.85
JAN 11...	--	--	--	--	--	--	--	--	--	58	.74	<.04	.86
MAR 22...	--	--	--	--	--	--	--	--	--	13	.74	<.04	<.06
MAY 06...	39.8	220	219	267	<1	19.6	.2	114	429	16	.46	<.04	E.05n
JUL 22...	--	--	--	--	--	--	--	--	--	44d	.56	.05	.14
SEP 30...	--	--	--	--	--	--	--	--	--	25	.60	<.04	.78
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 0.7µ MF col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 03...	E.005n	.10d	.13	.21	550k	640	2	786	1.5	E.03n	.07	2.9	31
JAN 11...	E.005n	.06	.08	.16	720	1,200	--	--	--	--	--	--	--
JAN 11...	E.005n	.06	.08	.18	--	--	--	--	--	--	--	--	--
MAR 22...	<.008	<.02	<.04	.10	40k	160	--	--	--	--	--	--	--
MAY 06...	<.008	<.02	<.04	.07	110	100	3	333	1.2	E.03n	.07	1.3	7
JUL 22...	<.008	.05	.07	.11	180	170	--	--	--	--	--	--	--
SEP 30...	.012	.07	.10	.16	120	340	--	--	--	--	--	--	--

## 06921582 SOUTH GRAND RIVER BELOW FREEMAN, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 03...	.15	1.13	34.2	<.01	.4	2.4	6
JAN 11...	--	--	--	--	--	--	--
JAN 11...	--	--	--	--	--	--	--
MAR 22...	--	--	--	--	--	--	--
MAY 06...	<.08	.61	111	<.01	.6	.7	4
JUL 22...	--	--	--	--	--	--	--
SEP 30...	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

## 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

## 06921760 SOUTH GRAND RIVER NEAR CLINTON, MO

LOCATION.--Lat 38°22'12", long 93°51'29", in NW ¼ SW ¼ SE ¼ sec.1, T.41 N., R.27 W., Henry County, Hydrologic Unit 10290108, at right upstream end of bridge on State Highway 18, 4.4 mi west of Clinton, and 5.4 mi downstream from Big Creek.

DRAINAGE AREA.--1,270 mi<sup>2</sup>.

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

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

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

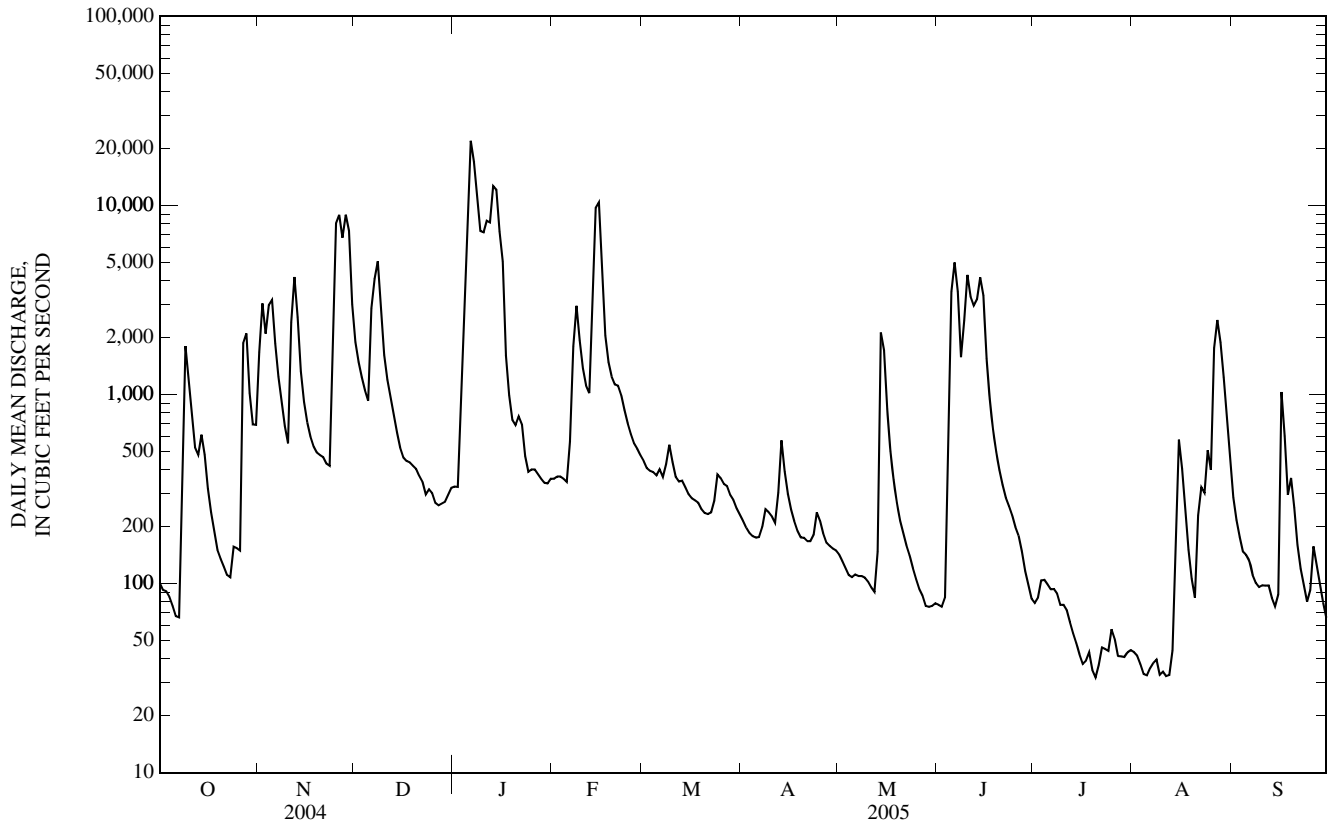
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 23,900 ft<sup>3</sup>/s, Jan. 6; minimum 32 ft<sup>3</sup>/s, July 20 and Aug. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	101	1,680	1,890	326	e358	445	215	142	77	79	43	285
2	93	3,030	1,490	325	e369	408	198	131	75	84	42	216
3	91	2,100	1,240	918	e369	394	185	121	84	104	37	176
4	85	2,980	1,050	3,930	e358	389	178	111	500	105	33	148
5	76	3,170	926	10,200	e345	374	175	108	3,500	99	33	142
6	67	1,860	2,860	22,000	563	402	176	112	4,990	93	36	132
7	66	1,240	4,090	17,000	1,800	367	199	110	3,500	94	38	111
8	238	911	5,070	11,200	2,950	429	247	110	1,580	88	40	101
9	1,800	681	3,010	7,310	1,930	542	239	108	2,460	77	33	96
10	1,210	551	1,620	7,200	1,380	440	227	102	4,290	77	34	98
11	774	2,420	1,200	8,300	1,110	367	210	95	3,290	72	e32	97
12	525	4,180	968	8,120	1,020	347	302	90	2,950	63	e33	98
13	480	2,570	785	12,700	2,980	350	572	147	3,190	55	44	84
14	613	1,330	630	12,100	9,740	323	392	2,130	4,160	48	152	76
15	481	913	523	7,270	10,400	297	298	1,710	3,340	42	577	88
16	318	713	464	5,050	4,590	282	247	839	1,550	38	405	1,030
17	238	600	445	e1,600	2,050	276	214	501	945	39	241	604
18	188	531	438	e991	1,480	268	190	354	654	43	151	295
19	151	494	420	e734	1,240	247	175	268	497	35	106	362
20	135	479	404	e688	1,130	236	175	216	399	32	84	252
21	123	466	370	e766	1,110	233	168	185	333	37	230	160
22	111	431	344	e695	989	237	168	159	285	46	323	120
23	108	420	296	e473	826	275	181	141	258	45	301	97
24	157	2,680	315	e390	704	378	238	120	230	44	507	80
25	154	8,040	301	e402	618	362	215	105	200	57	399	93
26	149	8,910	267	e402	552	337	184	93	180	51	1,760	157
27	1,870	6,750	259	e379	516	328	165	86	149	41	2,480	126
28	2,100	8,930	265	e358	476	294	159	76	117	41	1,890	100
29	1,020	7,350	271	e342	---	277	153	75	98	41	1,230	80
30	696	3,000	294	e339	---	250	150	76	83	43	729	66
31	692	---	321	e358	---	232	---	79	---	44	438	---
MEAN	481	2,647	1,059	4,609	1,855	335	220	281	1,465	59.9	403	186
MAX	2,100	8,930	5,070	22,000	10,400	542	572	2,130	4,990	105	2,480	1,030
MIN	66	420	259	325	345	232	150	75	75	32	32	66
IN.	0.44	2.33	0.96	4.18	1.52	0.30	0.19	0.25	1.29	0.05	0.37	0.16

e Estimated

06921760 SOUTH GRAND RIVER NEAR CLINTON, MO—Continued



## 06922440 HARRY S. TRUMAN RESERVOIR AT WARSAW, MO

LOCATION.-- Lat 38°15'24", long 93°23'43", in NW ¼ NE ¼ sec.7, T.40 N., R.22 W., Benton County, Hydrologic Unit 10290105, in control room near middle of dam on Osage River, 1.5 mi northwest of Warsaw, and at mile 175.

DRAINAGE AREA.--11,500 mi<sup>2</sup>, with 7,856 mi<sup>2</sup> uncontrolled area below other reservoirs.

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

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

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

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,357,000 ac-ft, Jan. 15, elevation, 720.94 ft; minimum, 1,158,000 ac-ft, Oct. 7, elevation, 705.58 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	706.05	707.53	713.03	708.63	712.84	707.55	707.04	706.99	707.37	707.59	706.32	708.20
2	706.05	708.22	713.21	708.61	712.27	707.14	706.99	706.88	707.33	707.65	706.34	708.04
3	706.03	708.56	713.28	708.86	711.70	706.81	706.92	706.73	707.36	707.86	706.27	707.94
4	706.00	708.91	713.22	709.27	711.08	706.66	706.81	706.60	707.51	708.09	706.22	708.00
5	705.83	709.13	712.93	711.27	710.45	706.85	706.71	706.52	707.78	708.07	706.18	708.09
6	705.68	709.42	712.69	714.25	709.77	707.24	706.67	706.58	708.17	707.90	706.22	708.04
7	705.64	709.74	712.84	716.34	709.17	707.45	707.06	706.68	708.43	707.82	706.24	707.97
8	705.65	709.73	713.21	717.94	708.87	707.39	707.39	706.75	708.66	707.71	706.22	707.90
9	705.68	709.59	713.55	718.50	708.80	707.11	707.66	706.82	708.76	707.49	706.15	707.83
10	705.77	709.36	713.72	718.70	708.69	707.12	707.84	706.80	708.80	707.53	706.18	707.79
11	705.85	709.18	713.78	718.84	708.62	707.17	707.90	706.50	708.88	707.51	706.22	707.78
12	706.01	709.51	713.73	718.95	708.57	707.37	708.00	706.53	708.96	707.35	706.24	707.80
13	706.10	710.01	713.51	719.96	709.00	707.48	708.03	706.28	709.33	707.22	706.24	707.66
14	706.16	710.32	713.14	720.87	709.98	707.43	708.12	706.31	710.10	707.07	706.38	707.55
15	706.20	710.43	712.79	720.93	710.68	707.30	708.07	706.91	710.33	706.79	706.45	707.56
16	706.16	710.03	712.42	720.82	711.13	707.30	708.01	707.54	710.37	706.73	706.69	707.62
17	706.14	709.50	712.02	720.57	711.32	707.16	708.02	707.71	710.36	706.80	706.79	707.68
18	706.15	708.94	711.59	720.24	711.24	707.16	707.96	708.19	710.25	706.69	706.63	707.88
19	706.07	708.53	710.98	719.70	711.04	707.27	707.89	708.07	710.21	706.35	706.41	708.07
20	706.01	708.27	710.36	719.22	710.66	707.27	707.87	707.72	710.27	706.20	706.18	708.11
21	705.98	708.22	709.89	718.58	710.18	707.30	707.83	707.41	710.18	706.32	706.27	707.92
22	705.97	708.24	709.55	717.97	709.66	707.21	707.82	707.69	710.05	706.51	706.41	707.53
23	706.03	708.19	709.24	717.15	709.08	707.22	707.74	707.96	709.86	706.45	706.40	707.24
24	706.02	708.66	708.99	716.51	708.47	707.18	707.68	707.73	709.50	706.62	706.48	706.98
25	706.03	709.44	709.00	716.11	708.04	707.24	707.55	707.59	709.03	706.61	707.01	706.77
26	706.02	710.00	708.92	715.70	707.80	707.24	707.50	707.43	708.67	706.42	707.48	706.87
27	706.16	710.69	708.87	715.26	707.78	707.23	707.40	707.21	708.37	706.10	707.94	706.64
28	706.27	711.61	708.79	714.80	707.71	707.21	707.25	707.10	707.88	706.16	708.28	706.67
29	706.51	712.07	708.74	714.37	---	707.15	707.15	707.20	707.58	706.18	708.49	706.60
30	706.71	712.67	708.74	713.88	---	707.10	707.07	707.30	707.41	706.22	708.44	706.60
31	706.77	---	708.73	713.37	---	707.07	---	707.34	---	706.29	708.17	---
MAX	706.77	712.67	713.78	720.93	712.84	707.55	708.12	708.19	710.37	708.09	708.49	708.20
MIN	705.64	707.53	708.73	708.61	707.71	706.66	706.67	706.28	707.33	706.10	706.15	706.60
(-)	1,230,000	1,617,000	1,343,000	1,671,000	1,281,000	1,242,000	1,242,000	1,258,000	1,262,000	1,197,000	1,309,000	1,215,000
(=)	+50,000	+387,000	-274,000	+328,000	-390,000	-39,000	0	+16,000	+4,000	-65,000	+112,000	-94,000

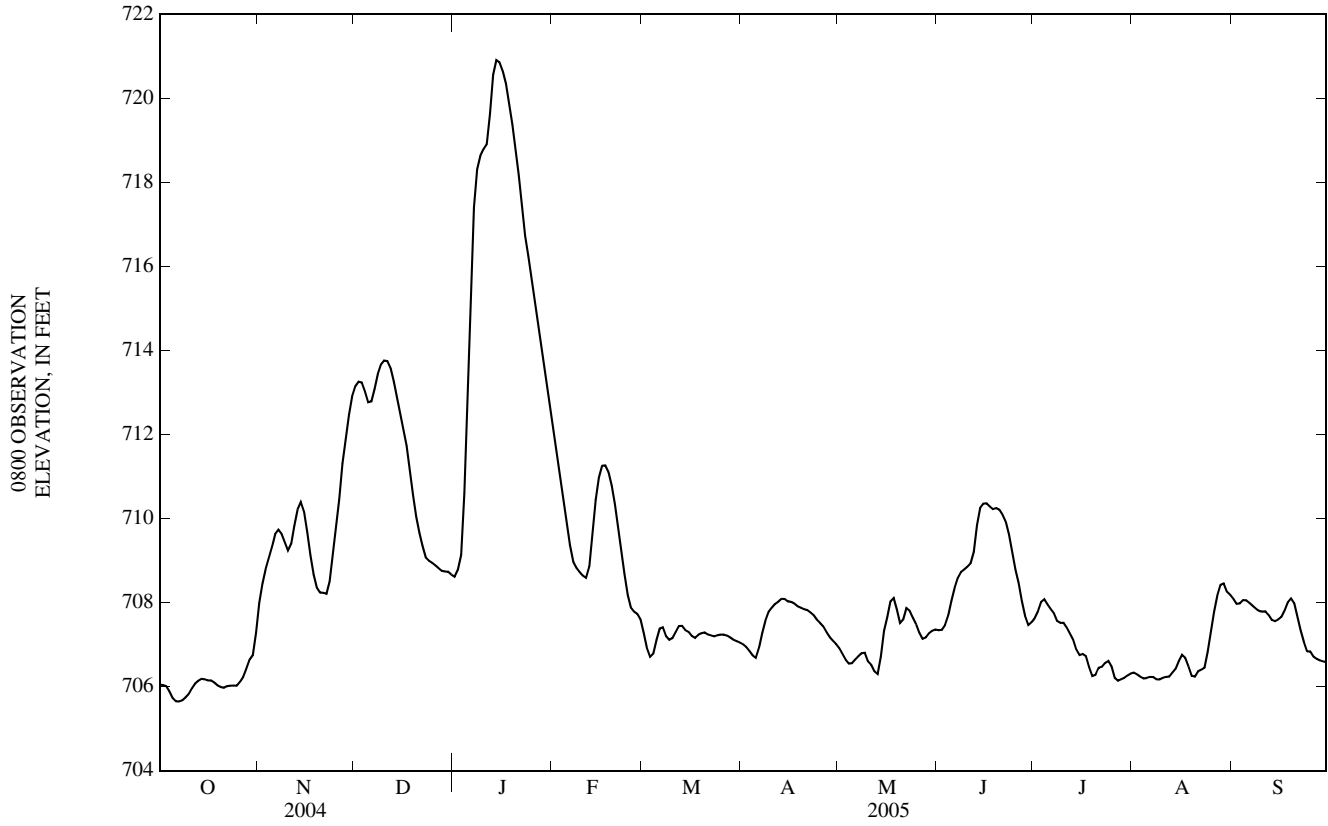
CAL YR 2004.... +23,000

WTR YR 2005.... +35,000

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

(=) Change in contents, in acre-feet.

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





## 06922500 OSAGE RIVER AT WARSAW, MO

LOCATION.--Lat 38°14'39", long 93°23'15", in NE ¼SW ¼ sec. 17, T.40 N., R.22 W., 1.5 mi downstream from Truman Dam, on the left bank at the Old Highway 7 suspension bridge, at Warsaw.

DRAINAGE AREA.--11,500 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--July 2002 to current year (gage height only). Discharge published Oct. 1, 1925 to April 30, 1931. Gage height records prior to Oct. 1, 2004 available from the Missouri Water Science Center

GAGE.--Water stage recorder. Datum of gage is 631.80 above National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by Truman Dam 1.5 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

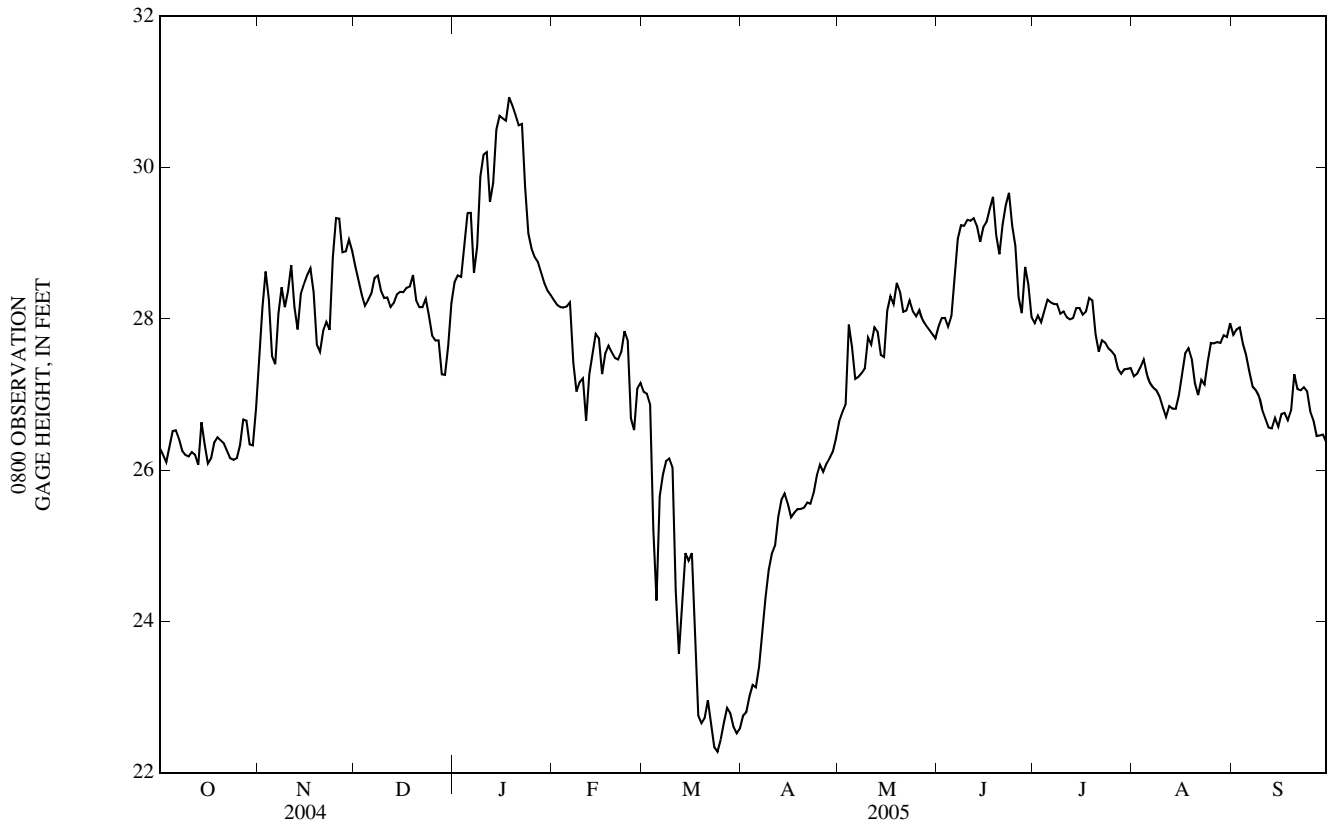
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height known, 44.54 ft, May 21, 22, 1943. Maximum gage height prior to 1943, +44.46 ft in June 1844.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.29	27.03	28.81	28.42	28.30	27.09	22.62	26.49	27.72	27.93	27.36	28.05
2	26.29	27.73	28.63	28.52	28.22	27.01	22.82	26.72	27.99	27.95	27.18	27.66
3	26.16	28.36	28.44	28.60	28.17	27.01	22.79	26.79	28.02	28.09	27.32	27.96
4	26.08	28.76	28.26	28.53	28.15	26.80	23.12	26.91	28.01	27.89	27.38	27.85
5	26.43	28.01	28.13	29.18	28.15	24.43	23.18	28.43	27.84	28.22	27.50	27.58
6	26.56	27.26	28.31	29.51	28.17	24.20	23.10	27.22	28.13	28.27	27.15	27.49
7	26.51	27.47	28.35	29.35	28.24	26.38	23.55	27.20	28.68	28.19	27.15	27.21
8	26.36	28.37	28.64	28.24	27.01	25.72	24.03	27.25	29.25	28.20	27.06	27.05
9	26.20	28.44	28.54	29.31	27.05	26.32	24.45	27.30	29.23	28.19	27.05	27.06
10	26.20	28.01	28.29	30.17	27.22	26.07	24.79	27.37	29.23	28.01	26.93	26.93
11	26.17	28.55	28.27	30.17	27.21	26.02	24.95	27.95	29.35	28.14	26.78	26.73
12	26.27	28.79	28.29	30.22	26.38	23.60	25.03	27.52	29.27	27.96	26.66	26.65
13	26.17	27.84	28.09	29.21	27.71	23.56	25.56	28.07	29.36	28.01	26.94	26.52
14	26.02	27.87	28.27	30.09	27.46	24.65	25.63	27.71	29.16	28.01	26.75	26.57
15	26.94	28.56	28.35	30.71	27.97	25.03	25.72	27.43	28.95	28.21	26.84	26.75
16	26.04	28.41	28.36	30.67	27.63	24.69	25.47	27.53	29.35	28.11	27.07	26.49
17	26.11	28.66	28.35	30.64	27.09	25.01	25.33	28.40	29.25	28.03	27.37	26.87
18	26.18	28.67	28.44	30.61	27.77	23.01	25.49	28.25	29.56	28.13	27.64	26.70
19	26.46	28.19	28.42	31.09	27.58	22.63	25.48	28.17	29.64	28.35	27.60	26.64
20	26.42	27.40	28.66	30.69	27.55	22.67	25.49	28.63	28.84	28.19	27.41	26.86
21	26.38	27.65	28.04	30.70	27.45	22.75	25.51	28.22	28.86	27.60	27.02	27.47
22	26.34	27.94	28.21	30.49	27.47	23.06	25.60	28.03	29.44	27.55	26.98	26.87
23	26.21	27.97	28.13	30.62	27.61	22.43	25.53	28.15	29.54	27.80	27.30	27.15
24	26.13	27.80	28.33	29.29	27.95	22.29	25.78	28.29	29.73	27.63	27.05	27.07
25	26.14	29.32	27.89	29.05	27.60	22.27	26.00	28.00	28.98	27.60	27.62	27.03
26	26.17	29.34	27.72	28.87	26.23	22.52	26.11	28.05	28.95	27.56	27.71	26.65
27	26.41	29.32	27.71	28.79	26.68	22.73	25.91	28.15	27.95	27.50	27.66	26.66
28	26.80	28.66	27.72	28.73	27.28	22.92	26.17	27.91	28.14	27.26	27.71	26.35
29	26.58	29.01	27.04	28.55	---	22.72	26.15	27.92	28.96	27.28	27.67	26.51
30	26.22	29.07	27.37	28.44	---	22.55	26.29	27.83	28.20	27.36	27.84	26.45
31	26.38	---	27.78	28.34	---	22.51	---	27.79	---	27.33	27.72	---
MEAN	26.31	28.28	28.19	29.54	27.55	24.21	24.92	27.73	28.85	27.89	27.27	26.99
MAX	26.94	29.34	28.81	31.09	28.30	27.09	26.29	28.63	29.73	28.35	27.84	28.05
MIN	26.02	27.03	27.04	28.24	26.23	22.27	22.62	26.49	27.72	27.26	26.66	26.35

OSAGE RIVER BASIN

06922500 OSAGE RIVER AT WARSAW, MO—Continued



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

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

DRAINAGE AREA.--4,370 mi<sup>2</sup>.

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

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 17...	1445	Environmental	283	10.7	107	7.6	353	13.7	180	37.4	22.1	2.42
JAN 18...	1200	Blank	--	--	--	--	--	--	--	--	--	--
JAN 18...	1215	Environmental	760	13.2	110	7.5	236	6.8	--	--	--	--
MAR 21...	1045	Environmental	325	12.8	122	7.9	348	11.8	--	--	--	--
MAY 23...	1200	Environmental	153	10.1	112	7.5	375	18.6	200	39.1	24.8	1.81
JUL 25...	1030	Environmental	137	9.2	99	7.6	395	17.5	--	--	--	--
SEP 19...	1030	Environmental	261	11.4	125	7.9	364	18.5	--	--	--	--

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 17...	3.84	166	166	202	<1	7.12	E.1n	6.6	212	<10	.24	<.04	.95
JAN 18...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	<.06
JAN 18...	--	--	--	--	--	--	--	--	--	<10	.23	<.04	1.35
MAR 21...	--	--	--	--	--	--	--	--	--	<10	.16	<.04	.69
MAY 23...	3.65	178	178	217	<1	6.16	E.1n	4.9	212	<10	.18	<.04	.72
JUL 25...	--	--	--	--	--	--	--	--	--	<10	.11	<.04	.85
SEP 19...	--	--	--	--	--	--	--	--	--	12	.25	<.04	.75

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 0.7µ MF 100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 17...	<.008	.02	E.04n	.05	27	58	2	67	E.2n	<.04	<.04	.6	E4n
JAN 18...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
JAN 18...	<.008	E.01n	E.02n	E.04n	280	390k	--	--	--	--	--	--	--
MAR 21...	<.008	<.02	<.04	<.04	3k	3k	--	--	--	--	--	--	--
MAY 23...	<.008	<.02	E.03n	<.04	3k	14k	2	61	.3	<.04	<.04	1.3	<6
JUL 25...	E.007n	<.02	<.04	E.03n	120	25	--	--	--	--	--	--	--
SEP 19...	.008	E.01n	.05	.05	190	180	--	--	--	--	--	--	--

06923700 NIANGUA RIVER BELOW BENNETT SPRINGS, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 17...	<.08	.17	7.9	<.01	E.3n	1.2	E1n
JAN 18...	--	--	--	--	--	--	--
JAN 18...	--	--	--	--	--	--	--
MAR 21...	--	--	--	--	--	--	--
MAY 23...	<.08	.19	9.3	<.01	.4	.8	E1n
JUL 25...	--	--	--	--	--	--	--
SEP 19...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL

## 06923950 NIANGUA RIVER AT TUNNEL DAM NEAR MACKS CREEK, MO

LOCATION.--Lat 37°56'13", long 92°51'05", in SE ¼ SW ¼ SW ¼ sec.19, T.37 N., R.17 W., Camden County, Hydrologic Unit 10290110, at left end of concrete structure on top of Tunnel Dam, 6.5 mi southeast of Macks Creek.

DRAINAGE AREA.--598 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	1,810	2,800	147	295	381	574	367	251	197	174	185
2	131	3,400	1,050	141	278	358	541	299	247	188	189	175
3	130	1,980	723	158	267	330	518	241	245	182	174	166
4	127	770	506	822	273	321	506	226	244	180	148	159
5	128	263	376	10,700	263	313	490	196	235	180	146	155
6	128	160	306	24,100	260	314	527	199	260	175	148	150
7	132	326	1,460	9,250	267	300	959	182	290	171	146	143
8	142	254	2,990	2,730	315	288	2,160	171	349	168	147	139
9	139	179	2,100	2,000	443	291	1,020	165	356	165	149	139
10	139	169	1,470	1,430	542	285	608	171	624	164	162	137
11	146	320	919	1,110	534	272	453	161	354	163	146	134
12	173	554	432	1,010	481	259	481	146	311	165	145	132
13	194	955	367	5,120	1,150	249	627	134	392	165	151	134
14	202	594	235	9,260	2,030	232	357	142	220	162	174	167
15	203	390	268	3,060	1,310	214	255	124	178	162	197	309
16	196	273	342	1,940	994	197	387	286	301	157	200	1,080
17	192	191	300	1,200	746	188	332	232	285	155	186	583
18	187	135	264	724	628	183	334	173	261	154	181	491
19	182	121	234	705	547	173	346	139	245	158	183	279
20	177	197	222	455	489	164	315	112	234	160	172	277
21	172	208	221	404	451	208	302	127	226	156	164	268
22	169	192	198	350	410	203	470	150	222	150	177	135
23	169	187	173	357	385	253	352	305	222	151	283	93
24	163	1,100	146	403	391	290	285	228	201	150	539	70
25	161	2,460	128	455	450	403	252	272	e197	146	269	214
26	248	2,500	127	434	462	401	279	272	e194	141	100	214
27	397	1,650	116	405	428	445	301	277	190	164	107	203
28	249	1,010	116	374	402	537	283	271	190	157	63	197
29	356	2,100	117	353	---	694	251	266	183	153	85	193
30	351	3,790	158	333	---	659	355	260	181	153	216	179
31	341	---	150	316	---	611	---	256	---	148	203	---
MEAN	192	941	613	2,589	553	323	497	211	263	163	178	230
MAX	397	3,790	2,990	24,100	2,030	694	2,160	367	624	197	539	1,080
MIN	127	121	116	141	260	164	251	112	178	141	63	70
IN.	0.37	1.76	1.18	4.99	0.96	0.62	0.93	0.41	0.49	0.31	0.34	0.43

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2005, BY WATER YEAR (WY)

MEAN	212	384	296	462	437	523	563	723	247	172	173	186
MAX	492	1,345	613	2,589	845	1,458	1,696	2,819	370	248	385	462
(WY)	(1999)	(1997)	(2005)	(2005)	(2001)	(1998)	(1999)	(2002)	(1999)	(2001)	(1997)	(1996)
MIN	59.8	66.8	130	56.9	39.2	47.9	106	28.1	55.4	54.8	43.9	110
(WY)	(1998)	(1998)	(1998)	(1997)	(1996)	(1996)	(2000)	(1997)	(1996)	(1997)	(1996)	(1999)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

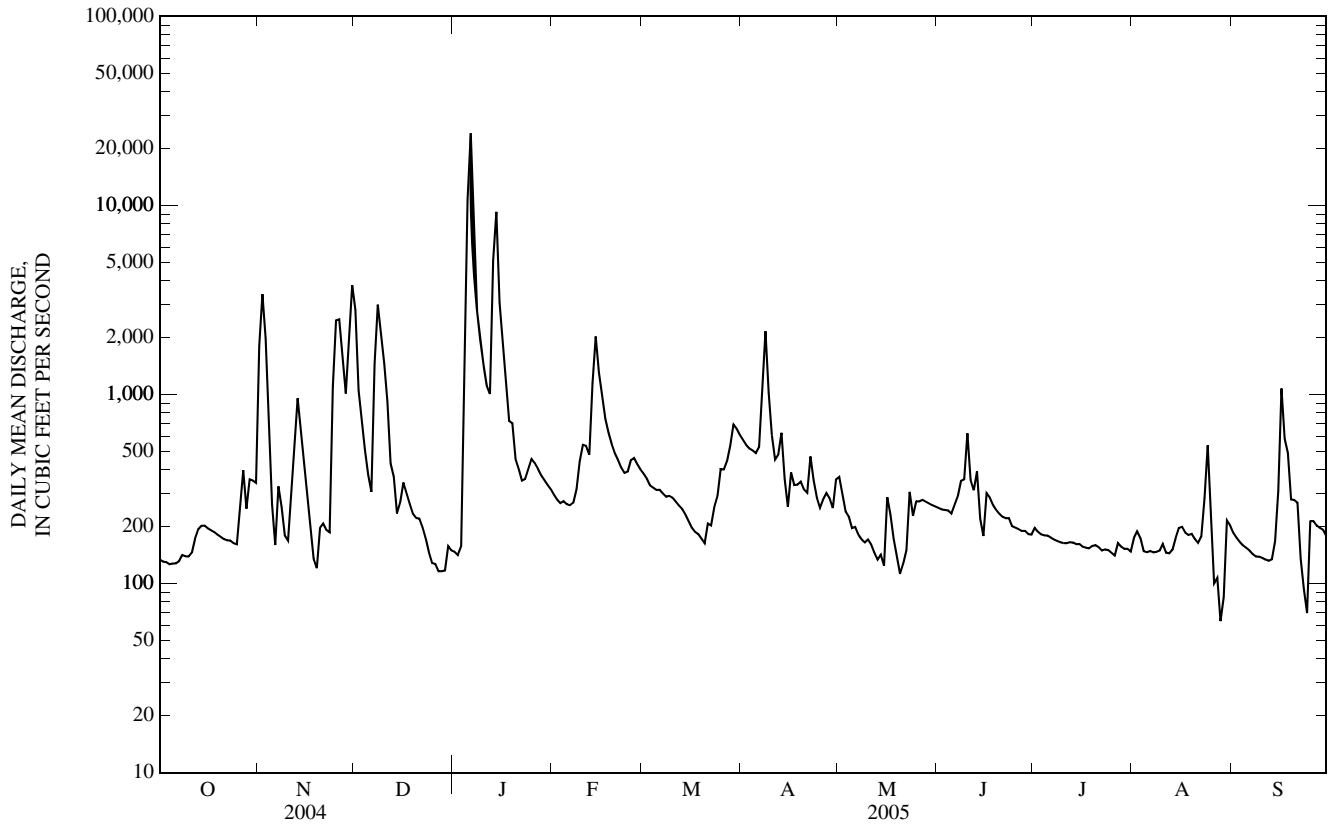
## FOR 2005 WATER YEAR

## WATER YEARS 1995 - 2005

ANNUAL MEAN	445	564	369
HIGHEST ANNUAL MEAN			564
LOWEST ANNUAL MEAN			143
HIGHEST DAILY MEAN	7,990	Mar 5	24,100
LOWEST DAILY MEAN	82	Aug 28	63
ANNUAL SEVEN-DAY MINIMUM	126	Feb 26	130
MAXIMUM PEAK FLOW	---		28,800
MAXIMUM PEAK STAGE	---		16.33
INSTANTANEOUS LOW FLOW	---		40
ANNUAL RUNOFF (INCHES)	10.14		12.80
10 PERCENT EXCEEDS	872		973
50 PERCENT EXCEEDS	222		249
90 PERCENT EXCEEDS	135		142

e Estimated

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



## 06925500 LAKE OF THE OZARKS NEAR BAGNELL, MO

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

DRAINAGE AREA.--14,000 mi<sup>2</sup>.

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

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

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

COOPERATION.--Records furnished by the AmerenUE of Missouri.

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,298,000 ac-ft, Jan. 5, elevation, 661.50 ft; minimum, 890,000 ac-ft, March 23, elevation, 653.88 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	657.97	659.27	659.29	659.54	657.85	656.54	654.55	658.26	659.24	659.30	658.98	659.58
2	657.94	659.43	659.08	659.83	657.74	656.32	654.46	658.34	659.29	659.37	658.99	659.56
3	657.91	659.38	658.90	659.78	657.63	656.18	654.52	658.46	659.34	659.43	659.03	659.39
4	657.96	659.20	658.91	660.17	657.54	656.05	654.50	658.64	659.40	659.41	659.04	659.26
5	658.08	658.88	658.91	661.50	657.44	656.05	654.74	658.72	659.43	659.75	658.98	659.12
6	658.12	658.97	658.93	661.09	657.43	656.10	655.11	658.78	659.55	659.70	658.95	658.90
7	658.05	659.12	659.20	660.12	657.40	655.78	655.68	658.80	659.75	659.68	658.84	658.78
8	657.96	658.83	659.12	658.98	657.32	655.60	656.07	658.86	659.87	659.68	658.78	658.71
9	657.91	658.75	659.07	658.62	657.52	655.24	656.37	658.85	659.68	659.72	658.67	658.59
10	657.89	659.05	658.99	658.62	657.48	655.41	656.59	659.20	659.50	659.68	658.57	658.45
11	657.87	659.23	658.84	658.64	657.49	655.38	656.56	659.13	659.50	659.60	658.54	658.24
12	657.96	659.03	658.95	659.03	657.62	655.30	656.64	659.31	659.47	659.62	658.45	658.14
13	657.94	659.00	658.89	659.53	658.18	655.44	656.63	659.12	659.49	659.58	658.52	658.15
14	657.94	658.95	658.98	659.60	657.98	655.58	656.74	659.14	659.23	659.81	658.62	658.20
15	657.89	659.05	659.00	659.61	657.72	655.34	656.96	659.14	659.14	659.77	658.94	658.34
16	657.89	659.05	658.90	659.53	657.40	654.92	657.03	659.37	659.27	659.78	658.98	658.35
17	657.90	659.11	659.00	659.42	657.25	654.57	657.12	659.20	659.35	659.72	659.20	658.36
18	657.92	659.11	659.00	659.42	657.22	654.55	657.15	659.23	659.38	659.84	659.24	658.46
19	657.97	659.00	659.00	659.41	657.16	654.51	657.10	659.29	659.36	659.80	659.07	658.48
20	657.97	659.24	659.13	659.27	657.08	654.47	657.18	659.53	659.38	659.45	658.85	658.68
21	657.97	659.42	659.25	659.19	657.01	654.47	657.29	659.54	659.47	659.17	658.73	658.81
22	657.98	659.11	659.30	659.05	656.91	654.21	657.45	659.45	659.57	659.31	658.67	658.70
23	657.95	659.29	659.25	659.26	656.94	653.88	657.55	659.23	659.73	659.35	658.79	658.64
24	657.93	659.67	658.90	659.22	657.02	653.97	657.71	659.27	659.88	659.21	659.01	658.48
25	657.94	659.76	658.54	659.05	656.89	654.20	657.74	659.29	659.69	659.17	659.15	658.38
26	658.16	659.72	658.55	658.85	656.97	654.36	657.61	659.35	659.50	659.25	659.17	658.28
27	658.20	659.88	658.58	658.64	656.90	654.61	657.67	659.46	659.32	659.20	659.32	658.09
28	658.26	659.53	658.59	658.48	656.67	654.27	657.70	659.44	659.54	659.18	659.31	658.12
29	658.12	659.52	658.80	658.32	---	654.15	657.87	659.42	659.55	659.15	659.31	658.15
30	658.11	659.51	659.04	658.15	---	654.29	658.04	659.36	659.43	659.12	659.36	658.15
31	658.20	---	659.34	658.00	---	654.32	---	659.27	---	659.07	659.44	---
MEAN	658.00	659.24	658.98	659.29	657.35	655.03	656.61	659.11	659.48	659.48	658.95	658.58
MAX	658.26	659.88	659.34	661.50	658.18	656.54	658.04	659.54	659.88	659.84	659.44	659.58
MIN	657.87	658.75	658.54	658.00	656.67	653.88	654.46	658.26	659.14	659.07	658.45	658.09
(-)	1,116,000	1,190,000	1,180,000	1,104,000	1,032,000	912,000	1,106,000	1,176,000	1,185,000	1,165,000	1,186,000	1,112,000
(=)	+14,000	+74,000	-10,000	-76,000	-72,000	-120,000	+194,000	+70,000	+9,000	-20,000	+21,000	-74,000

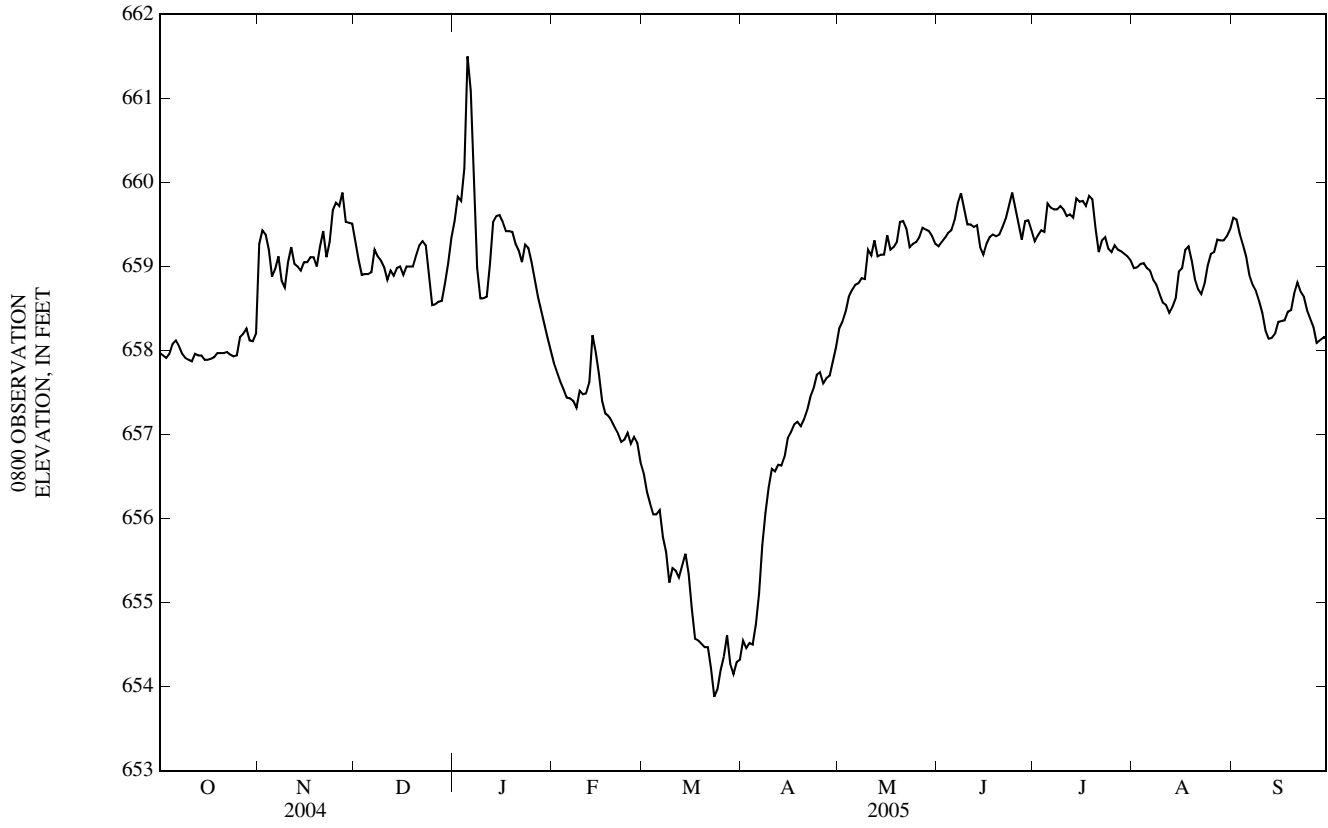
CALYR 2004.... -30,000

WTR YR 2005.... +10,000

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

(=) Change in contents, in acre-feet.

06925500 LAKE OF THE OZARKS NEAR BAGNELL, MO—Continued





## 06926000 OSAGE RIVER NEAR BAGNELL, MO

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

DRAINAGE AREA.--14,000 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

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

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

REMARKS.--No estimated daily discharges. Water-discharge records fair. Flow regulated by Lake of the Ozarks (06925500), 1.3 mi upstream. U.S.G.S. satellite telemeter at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,100	2,430	35,600	2,260	36,700	28,500	1,480	445	2,060	6,160	3,120	13,300
2	990	6,300	33,700	2,790	36,600	27,500	6,070	2,960	577	1,820	2,960	10,400
3	983	13,700	32,500	21,800	36,400	23,400	2,830	2,730	708	911	2,220	8,220
4	992	19,000	30,900	34,900	36,400	20,300	6,640	504	913	787	1,830	5,460
5	755	21,100	24,700	55,000	36,400	3,610	1,480	439	928	5,630	2,430	6,340
6	947	5,540	24,800	60,000	36,400	511	817	419	3,890	9,400	939	9,890
7	4,220	2,110	26,600	50,200	34,800	12,000	663	416	12,400	8,830	2,640	9,520
8	4,460	10,600	35,200	47,600	32,100	19,600	403	421	21,500	8,930	3,980	6,950
9	2,450	19,700	30,600	47,000	26,200	17,700	395	426	21,800	4,380	2,980	5,730
10	955	12,000	29,800	46,800	28,900	6,180	2,010	421	35,200	3,830	2,930	4,820
11	2,550	10,700	29,700	46,900	26,600	5,460	10,300	3,350	30,900	7,610	1,420	4,350
12	1,100	16,300	23,200	47,700	21,300	1,170	10,600	3,540	31,000	7,330	2,450	6,300
13	1,300	15,100	26,500	51,600	19,900	1,500	10,100	14,400	32,000	5,170	1,630	10,500
14	1,250	14,100	23,100	50,500	32,300	4,560	8,870	2,130	35,300	5,390	888	2,040
15	2,330	17,400	22,900	49,900	31,800	9,630	7,140	464	32,800	5,200	897	909
16	446	17,500	28,100	49,600	35,000	14,900	3,310	1,160	29,300	1,250	2,600	1,310
17	407	22,400	22,900	48,600	35,000	14,800	2,080	8,240	29,900	3,600	3,230	900
18	1,420	22,300	24,800	49,300	34,900	3,870	4,640	12,300	30,500	6,580	7,100	2,330
19	593	21,800	24,100	49,600	34,900	1,160	5,650	16,000	32,400	8,670	11,200	5,460
20	1,390	2,270	25,100	49,800	34,800	1,510	5,910	13,100	31,000	10,600	9,690	6,340
21	1,390	448	14,200	49,800	34,200	2,240	4,820	1,310	31,000	10,000	2,930	9,630
22	1,550	10,200	16,600	49,800	34,000	11,500	3,740	2,270	32,400	7,050	3,770	15,700
23	1,690	6,650	17,300	43,600	33,500	13,100	2,160	13,800	32,000	2,330	1,100	13,000
24	1,160	17,200	14,400	37,000	33,100	3,770	514	8,980	31,900	5,080	774	8,600
25	1,070	33,700	19,500	36,900	33,800	1,040	3,150	8,380	34,100	8,340	8,710	7,160
26	644	34,500	4,440	36,800	22,100	1,900	6,320	7,620	31,700	9,060	17,100	8,480
27	1,200	36,100	9,160	36,800	19,400	493	2,600	4,740	30,400	3,020	11,400	5,080
28	1,020	35,800	8,910	36,800	22,100	11,300	4,410	671	18,200	857	11,400	2,690
29	5,320	35,700	3,140	36,800	---	9,820	2,200	457	17,800	802	17,500	1,310
30	912	35,700	2,430	36,700	---	2,480	1,020	2,060	13,100	800	22,800	924
31	474	---	737	36,700	---	4,130	---	2,620	---	2,470	24,900	---
MEAN	1,518	17,280	21,470	41,920	31,410	9,020	4,077	4,412	22,920	5,222	6,113	6,455
MAX	5,320	36,100	35,600	60,000	36,700	28,500	10,600	16,000	35,300	10,600	24,900	15,700
MIN	407	448	737	2,260	19,400	493	395	416	577	787	774	900
IN.	0.13	1.38	1.77	3.45	2.34	0.74	0.33	0.36	1.83	0.43	0.50	0.51

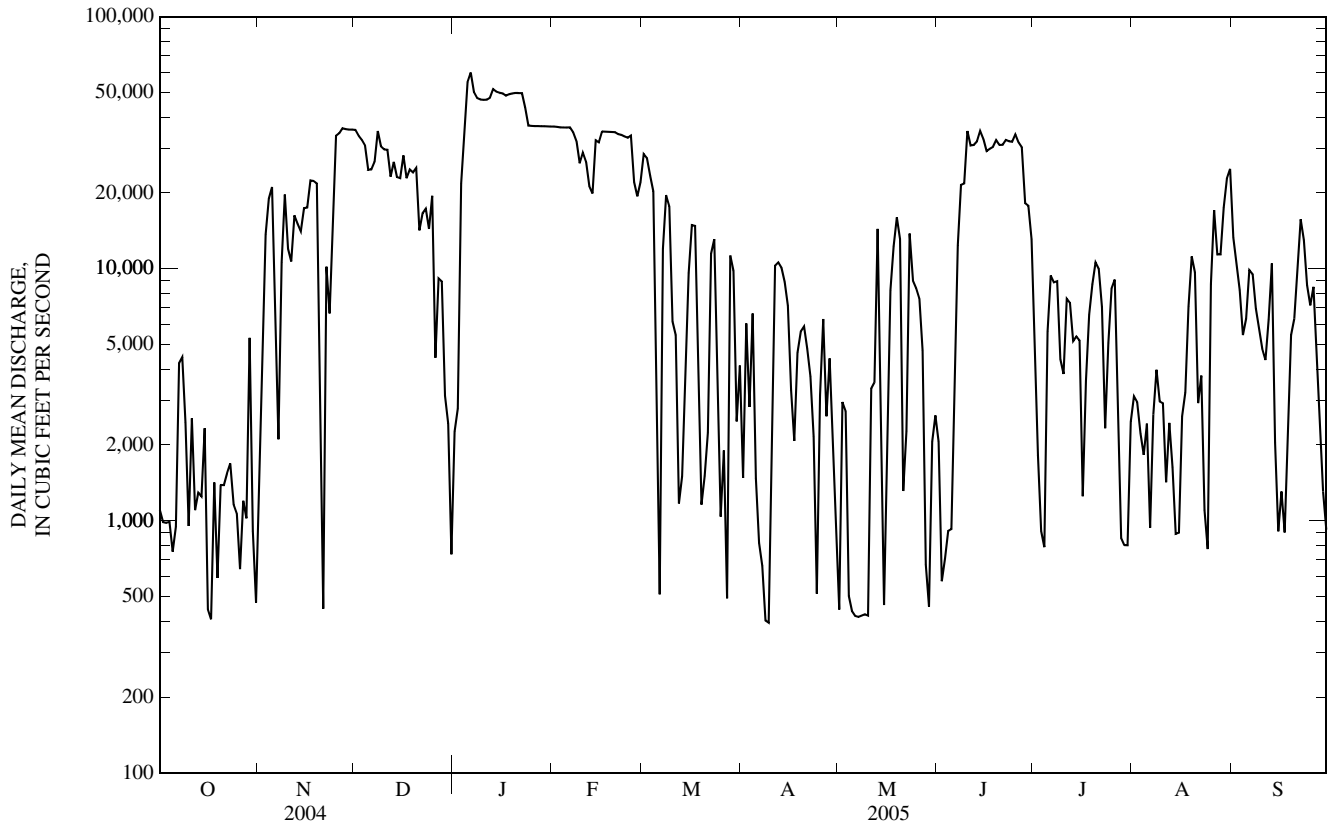
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2005<sup>a</sup>, BY WATER YEAR (WY)

MEAN	6,963	8,438	8,196	8,475	10,150	13,580	15,300	15,760	15,430	9,495	4,955	5,686
MAX	67,300	45,270	45,050	41,920	34,720	57,300	70,040	92,260	78,160	96,780	26,560	54,540
(WY)	(1987)	(1987)	(1993)	(2005)	(1949)	(1973)	(1973)	(1943)	(1935)	(1951)	(1993)	(1951)
MIN	471	538	542	554	535	359	452	516	515	492	510	486
(WY)	(1957)	(1957)	(2003)	(2001)	(1964)	(1931)	(1931)	(1956)	(1931)	(1931)	(1956)	(1954)

06926000 OSAGE RIVER NEAR BAGNELL, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1931 - 2005 <sup>a</sup>	
ANNUAL MEAN	12,940		14,200		10,190	
HIGHEST ANNUAL MEAN					23,360	1973
LOWEST ANNUAL MEAN					1,046	1954
HIGHEST DAILY MEAN	36,100	Nov 27	60,000	Jan 6	212,000	May 19, 1943
LOWEST DAILY MEAN	407	Oct 17	395	Apr 9	235	Apr 23, 1971
ANNUAL SEVEN-DAY MINIMUM	981	Sep 30	435	May 4	320	Mar 3, 1931
MAXIMUM PEAK FLOW	---		65,800	Jan 6	220,000	May 19, 1943
MAXIMUM PEAK STAGE	---		24.53	Jan 6	48.80	May 19, 1943
INSTANTANEOUS LOW FLOW	---		379	Apr 9	183	Sep 9, 1969
ANNUAL RUNOFF (INCHES)	12.58		13.77		9.89	
10 PERCENT EXCEEDS	32,100		35,700		30,300	
50 PERCENT EXCEEDS	9,580		8,340		4,000	
90 PERCENT EXCEEDS	1,100		905		505	

<sup>a</sup> Post-regulation period.



## 06926510 OSAGE RIVER BELOW ST. THOMAS, MO

LOCATION.--Lat 38°25'17", long 92°12'30", in NW ¼ NW ¼ sec.1, T.42 N., R.12 W., Cole County, Hydrologic Unit 10290111, on downstream bridge pier of State Highway B, 3.8 mi north of St. Thomas, and at mile 34.5.

DRAINAGE AREA.--14,584 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,290	2,910	37,200	1,340	36,600	27,200	4,240	1,790	3,670	11,100	2,580	18,600
2	1,260	5,050	36,100	2,950	36,500	27,600	3,100	1,330	2,210	5,560	3,130	12,600
3	1,130	8,680	33,900	11,000	36,400	26,800	5,360	3,490	1,080	1,940	2,960	10,100
4	1,110	18,600	31,900	35,500	36,300	21,600	4,110	2,980	862	1,140	2,230	8,370
5	1,110	19,300	26,800	67,700	36,300	15,700	5,350	1,150	1,130	875	1,740	5,590
6	931	19,000	24,600	79,600	36,300	3,450	1,800	847	1,160	7,050	2,120	7,070
7	934	4,770	30,800	62,100	35,400	2,470	1,240	772	5,010	10,000	1,120	10,100
8	5,200	2,580	36,700	51,300	34,500	17,400	1,230	737	19,800	9,150	2,710	9,510
9	4,110	18,000	33,300	48,300	28,800	19,900	823	718	19,200	9,070	4,060	6,620
10	2,350	13,200	32,000	47,600	27,200	16,400	742	697	31,900	4,380	3,120	6,170
11	1,230	15,000	30,100	47,400	27,900	6,760	3,760	683	32,700	4,180	3,030	5,130
12	3,490	15,600	25,800	47,900	24,000	4,410	13,600	4,070	31,100	9,060	1,530	4,830
13	1,650	18,100	27,200	58,900	22,800	1,730	11,000	6,370	31,500	6,510	2,570	7,300
14	1,350	14,900	24,700	56,400	33,800	1,930	10,300	13,300	36,700	5,400	1,760	11,100
15	1,830	16,200	23,000	52,100	33,600	6,210	9,120	2,340	37,800	5,800	1,140	3,760
16	2,140	17,000	25,000	50,600	36,200	10,400	6,720	962	32,000	4,580	2,220	3,180
17	836	21,300	24,000	49,300	36,200	16,600	3,270	2,070	29,700	1,480	3,230	1,970
18	679	23,000	23,400	49,400	35,700	11,300	2,560	9,660	29,500	4,450	4,010	1,380
19	1,400	24,900	24,800	49,500	35,300	3,610	4,720	14,900	31,100	6,610	8,850	3,060
20	850	15,000	25,600	49,900	35,100	1,610	6,270	15,000	30,700	10,000	10,800	9,660
21	1,290	2,480	18,100	49,900	34,900	1,790	6,600	10,200	30,200	11,200	9,090	8,520
22	1,590	1,960	15,600	49,800	34,100	4,030	5,740	1,850	30,900	10,100	2,940	12,400
23	1,570	11,500	17,200	48,400	33,800	13,200	4,470	5,530	31,300	7,080	5,630	16,200
24	1,770	12,300	16,700	39,300	32,900	11,500	2,620	12,500	31,300	2,300	3,170	10,800
25	1,240	34,400	19,500	37,000	33,500	3,540	1,820	9,280	32,200	6,330	6,290	9,900
26	1,420	36,200	12,900	36,800	31,400	1,670	5,830	9,300	31,600	8,960	19,100	8,010
27	1,380	37,900	6,360	36,800	16,800	2,150	5,500	7,970	30,900	8,560	17,600	7,900
28	1,610	38,400	8,970	36,700	20,200	3,320	3,140	5,140	22,000	2,640	11,100	5,170
29	1,640	37,300	7,320	36,700	---	12,000	4,920	1,320	17,000	1,070	13,800	2,950
30	5,270	38,300	3,640	36,600	---	7,770	2,840	770	16,600	840	19,200	1,760
31	1,510	---	2,850	36,600	---	3,180	---	1,910	---	806	23,600	---
MEAN	1,780	18,130	22,780	43,980	32,230	9,911	4,760	4,827	22,760	5,749	6,336	7,657
MAX	5,270	38,400	37,200	79,600	36,600	27,600	13,600	15,000	37,800	11,200	23,600	18,600
MIN	679	1,960	2,850	1,340	16,800	1,610	742	683	862	806	1,120	1,380
IN.	0.14	1.39	1.80	3.48	2.30	0.78	0.36	0.38	1.74	0.45	0.50	0.59

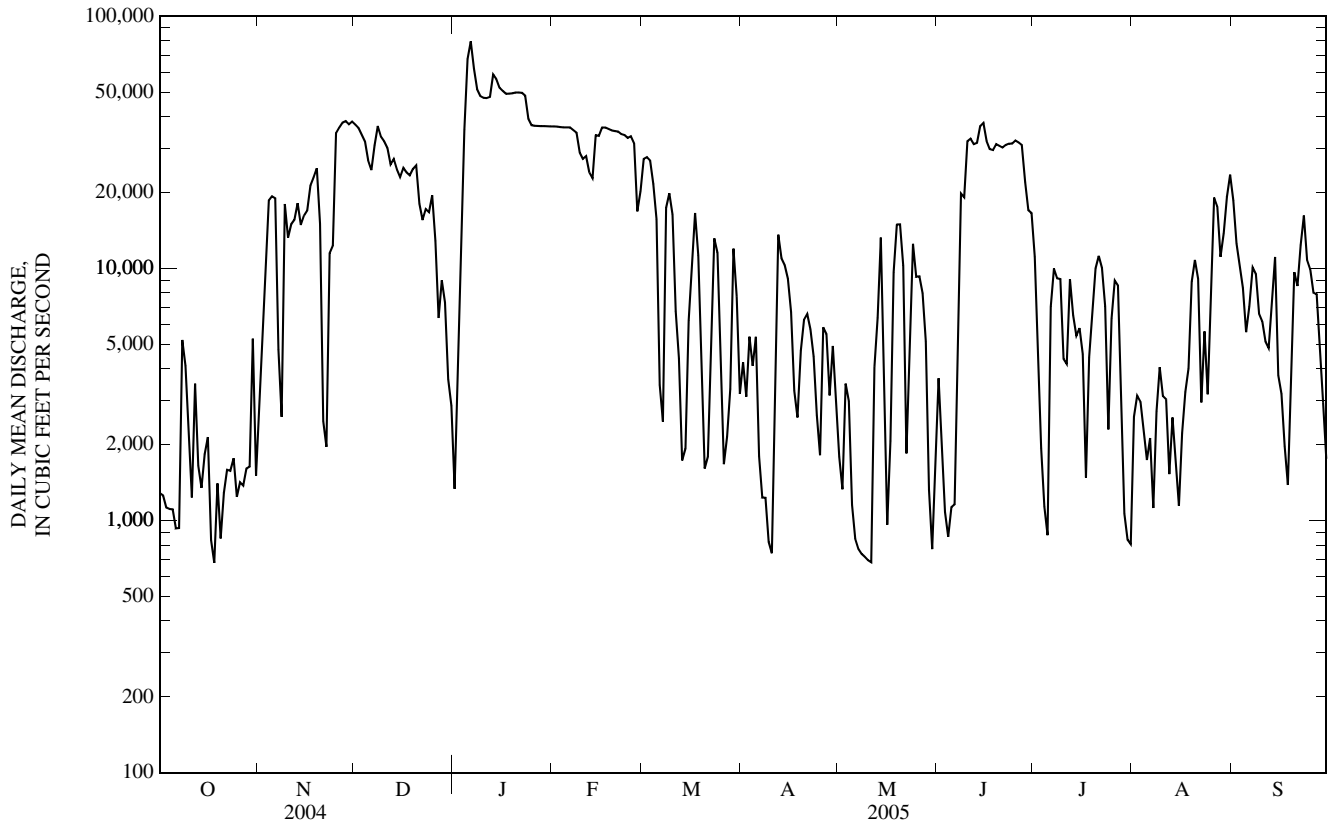
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

MEAN	7,050	9,033	9,562	11,980	13,870	17,100	13,380	16,630	19,930	9,718	4,937	4,661
MAX	41,410	35,360	22,780	43,980	32,230	35,430	32,900	43,010	37,210	21,200	8,775	14,790
(WY)	(1999)	(1999)	(2005)	(2005)	(2005)	(1997)	(1998)	(1999)	(1999)	(1999)	(1998)	(1998)
MIN	661	629	647	687	2,229	4,305	1,814	1,334	6,089	2,761	2,257	1,263
(WY)	(2001)	(2001)	(2003)	(2001)	(2003)	(2003)	(2000)	(2000)	(2000)	(2003)	(2002)	(2001)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1996 - 2005
ANNUAL MEAN	13,700	14,950	11,490
HIGHEST ANNUAL MEAN			22,740
LOWEST ANNUAL MEAN			3,281
HIGHEST DAILY MEAN	38,400	Nov 28	79,600
LOWEST DAILY MEAN	679	Oct 18	679
ANNUAL SEVEN-DAY MINIMUM	1,110	Oct 1	801
MAXIMUM PEAK FLOW	---		82,600
MAXIMUM PEAK STAGE	---		23.37
INSTANTANEOUS LOW FLOW	---		640
ANNUAL RUNOFF (INCHES)	12.79		13.92
10 PERCENT EXCEEDS	32,700		36,500
50 PERCENT EXCEEDS	10,200		8,970
90 PERCENT EXCEEDS	1,560		1,290

06926510 OSAGE RIVER BELOW ST. THOMAS, MO—Continued



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

## WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1981.

WATER TEMPERATURE: October 1974 to September 1981.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 398 microsiemens per centimeter, Jan. 1, 1981; minimum daily, 140 microsiemens per centimeter, Sept. 3, 1981.

WATER TEMPERATURE: Maximum daily, 30.0 °C, July 29, 1977, July 25 and Aug. 11, 1980; minimum daily, 0.0 °C, Jan. 21, 1978.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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)	
Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd end pt, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd titr., mg/L (00450)	Carbonate, wat unfltrd titr., 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 29...	6.16	103	103	126	<1	8.76	.1	21.5	164	10	.45	<.04	.21
JAN 26...	--	--	--	--	--	--	--	--	--	11	.50	.04	.46
MAR 09...	--	--	--	--	--	--	--	--	--	<10	.42	<.04	.55
MAY 02...	5.68	121	121	143	2	7.29	.1	19.9	181	<10	.35	<.04	.33
JUL 13...	--	--	--	--	--	--	--	--	--	14	.39	<.04	.27
SEP 01...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	<.06
SEP 01...	--	--	--	--	--	--	--	--	--	24	.51	.06	.07

## 06926510 OSAGE RIVER BELOW ST. THOMAS, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)	Phos- phorus, water, fltrd, mg/L (00666)	Phos- phorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7µ MF col/ 100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 29...	.011	<.02	E.03n	.05	680	600	2	203	1.4	<.04	E.02n	1.4	E3n
JAN 26...	.023	<.02	.05	.08	50k	120k	--	--	--	--	--	--	--
MAR 09...	<.008	.03	.06	.07	6k	11k	--	--	--	--	--	--	--
MAY 02...	<.008	<.02	<.04	E.03n	6k	4k	E2n	127	.6	<.04	<.04	1.3	E4n
JUL 13...	.021	<.02	<.04	.06	38	53	--	--	--	--	--	--	--
SEP 01...	<.008	<.02	E.03n	<.04	--	--	--	--	--	--	--	--	--
SEP 01...	.009	.02	.05	.08	20	22	--	--	--	--	--	--	--

Date	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 29...	.10	1.59	2.7	<.01	.5	2.4	4
JAN 26...	--	--	--	--	--	--	--
MAR 09...	--	--	--	--	--	--	--
MAY 02...	<.08	.27	17.8	<.01	E.4n	E.5n	E2n
JUL 13...	--	--	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

Value qualifier codes used in this table:

k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL

## 06927000 MARIES RIVER AT WESTPHALIA, MO

LOCATION.--Lat 38°25'55", long 91°59'19", in SW ¼ NE ¼ NE ¼ sec.35, T.43 N., R.10 W., Osage County, Hydrologic Unit 10290111, on the downstream side of bridge on U.S. Highway 63, 0.8 mi southeast of Westphalia, 1.2 mi downstream from Little Maries Creek, and at mile 9.9.

DRAINAGE AREA.--257 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	1,310	894	76	101	112	95	256	15	34	2.0	53
2	8.3	1,030	509	75	97	106	84	167	13	24	1.8	43
3	8.2	409	346	2,000	95	100	78	124	12	18	1.7	35
4	7.9	597	268	3,330	94	97	72	100	11	14	1.6	29
5	7.3	340	224	19,900	91	93	68	85	10	12	2.0	24
6	7.3	211	243	4,970	91	89	66	76	10	10	1.9	20
7	8.0	165	4,230	1,030	97	91	68	69	10	8.8	1.6	18
8	11	137	1,370	561	113	87	63	62	9.9	7.4	1.6	15
9	9.7	120	580	400	130	82	59	56	9.7	6.4	1.6	14
10	9.4	110	369	333	150	79	56	51	11	5.3	1.5	12
11	9.4	1,620	278	290	155	75	62	47	305	4.6	1.3	11
12	17	1,960	230	373	159	71	83	44	186	4.9	1.3	8.6
13	38	560	198	4,710	2,330	68	89	40	107	4.0	2.8	9.5
14	35	295	170	1,470	1,570	65	93	41	693	4.4	3.7	126
15	32	217	151	612	648	62	83	40	294	4.1	9.8	1,560
16	29	185	139	372	369	61	73	41	131	3.7	26	986
17	25	173	131	273	260	58	66	37	82	3.8	91	279
18	117	164	124	224	208	56	61	34	59	3.2	320	158
19	58	212	116	201	177	55	57	31	44	3.1	147	383
20	39	211	109	195	162	53	54	28	35	3.0	61	4,760
21	35	180	104	195	150	51	273	26	29	2.7	37	705
22	34	166	98	181	135	62	332	43	24	2.4	26	289
23	38	200	88	153	123	88	323	113	21	2.2	495	176
24	e32	2,920	84	135	118	104	182	55	18	1.6	536	126
25	e28	2,540	84	129	118	126	131	38	15	1.2	1,050	101
26	311	1,330	80	127	117	221	112	30	13	1.3	1,190	86
27	215	1,810	77	121	113	183	114	26	12	2.5	901	77
28	139	1,370	76	113	114	172	120	25	15	2.9	266	81
29	106	837	76	109	---	155	157	22	100	2.9	142	145
30	91	1,520	76	106	---	130	203	20	53	2.5	94	232
31	84	---	77	105	---	111	---	18	---	2.3	69	---
MEAN	51.6	763	374	1,383	289	95.6	113	59.5	78.3	6.55	177	352
MAX	311	2,920	4,230	19,900	2,330	221	332	256	693	34	1,190	4,760
MIN	7.3	110	76	75	91	51	54	18	9.7	1.2	1.3	8.6
IN.	0.23	3.31	1.68	6.21	1.17	0.43	0.49	0.27	0.34	0.03	0.79	1.53

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

MEAN	111	110	150	240	239	354	333	389	339	138	69.5	107
MAX	1,034	763	815	1,383	623	752	997	1,335	1,304	793	363	661
(WY)	(1970)	(2005)	(1968)	(2005)	(1951)	(1962)	(1966)	(1961)	(1949)	(1951)	(2004)	(1965)
MIN	0.24	2.24	4.12	4.27	6.97	9.92	37.4	24.0	8.16	3.99	0.85	0.43
(WY)	(1957)	(1954)	(1954)	(1956)	(1954)	(1954)	(1956)	(1965)	(1952)	(1959)	(1959)	(1953)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

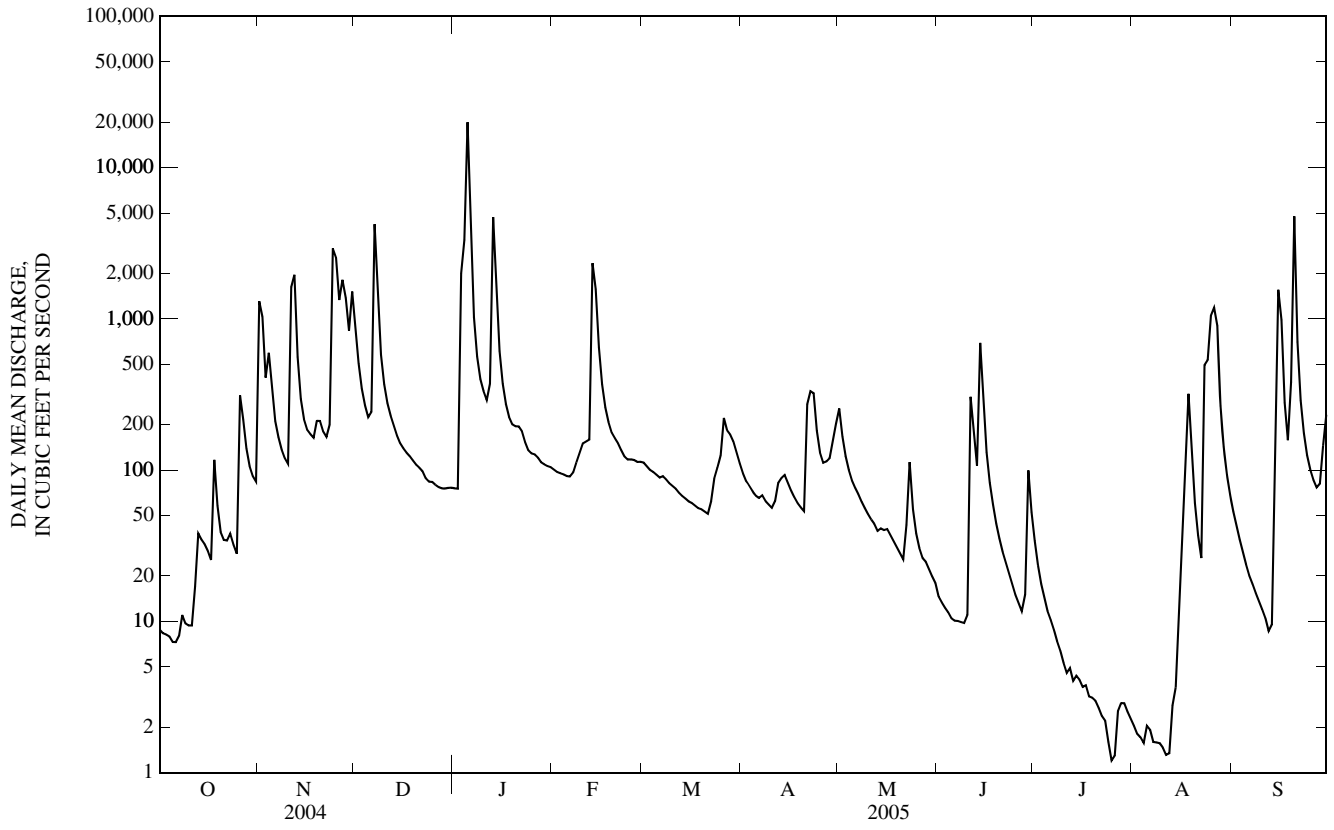
## FOR 2005 WATER YEAR

## FOR PERIOD OF RECORD

ANNUAL MEAN	313	312	214
HIGHEST ANNUAL MEAN			435
LOWEST ANNUAL MEAN			40.7
HIGHEST DAILY MEAN	4,230	Dec 7	19,900
LOWEST DAILY MEAN	6.1	Jul 15	1.2
ANNUAL SEVEN-DAY MINIMUM	7.6	Jul 11	1.5
MAXIMUM PEAK FLOW	---		25,500
MAXIMUM PEAK STAGE	---		19.55
INSTANTANEOUS LOW FLOW	---		0.97
ANNUAL RUNOFF (INCHES)	16.59		16.48
10 PERCENT EXCEEDS	831		560
50 PERCENT EXCEEDS	113		87
90 PERCENT EXCEEDS	17		6.0
			3.6

e Estimated

06927000 MARIES RIVER AT WESTPHALIA, MO—Continued





## 06928000 GASCONADE RIVER NEAR HAZELGREEN, MO

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

DRAINAGE AREA.--1,250 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	748	5,810	370	682	846	653	514	159	95	50	114
2	56	1,640	4,090	363	655	798	606	478	150	103	49	100
3	55	2,560	2,740	375	635	750	572	442	143	250	47	90
4	54	1,580	2,080	1,060	619	779	544	417	135	239	46	82
5	54	1,320	1,680	15,100	610	790	519	397	127	192	50	74
6	53	1,150	1,440	28,400	604	787	508	379	127	187	62	67
7	58	930	2,880	15,200	614	764	604	365	146	167	65	62
8	68	769	5,700	5,470	655	730	1,150	355	195	142	57	57
9	68	648	4,160	3,760	790	702	1,110	346	175	123	51	53
10	73	559	2,760	2,890	1,050	670	1,000	333	280	110	48	50
11	90	672	2,120	2,410	1,070	644	1,670	323	180	100	47	46
12	109	1,510	1,700	2,410	1,020	621	4,410	310	172	104	45	43
13	126	3,470	1,400	9,130	2,000	598	6,440	295	199	103	50	42
14	130	2,010	1,170	15,400	3,720	567	3,230	322	183	97	54	77
15	128	1,410	1,010	7,490	3,620	539	2,260	346	166	89	63	236
16	144	1,110	893	4,110	2,590	514	1,750	402	150	82	77	252
17	153	913	811	2,990	2,030	493	1,440	459	148	78	81	192
18	145	781	747	2,370	1,670	477	1,210	404	169	77	94	223
19	136	687	693	2,010	1,430	463	1,050	363	176	112	72	233
20	131	615	642	1,770	1,260	449	942	333	161	150	63	219
21	125	561	602	1,590	1,140	434	858	307	144	104	60	300
22	119	522	568	1,420	1,050	440	793	285	132	91	64	387
23	116	483	531	1,250	989	450	738	267	121	85	181	328
24	112	610	507	1,110	972	514	734	250	112	71	354	275
25	107	1,160	465	1,020	996	721	667	236	104	71	400	247
26	124	1,510	445	963	972	803	641	223	98	69	282	221
27	157	1,510	425	898	921	793	600	210	96	68	236	199
28	151	1,490	407	832	887	768	586	199	103	63	205	180
29	143	2,120	395	785	---	770	558	187	96	58	175	180
30	258	4,190	384	744	---	740	549	177	90	55	149	207
31	261	---	376	715	---	696	---	168	---	53	129	---
MEAN	115	1,308	1,601	4,336	1,259	649	1,280	326	148	109	110	161
MAX	261	4,190	5,810	28,400	3,720	846	6,440	514	280	250	400	387
MIN	53	483	376	363	604	434	508	168	90	53	45	42
IN.	0.11	1.17	1.48	4.00	1.05	0.60	1.14	0.30	0.13	0.10	0.10	0.14

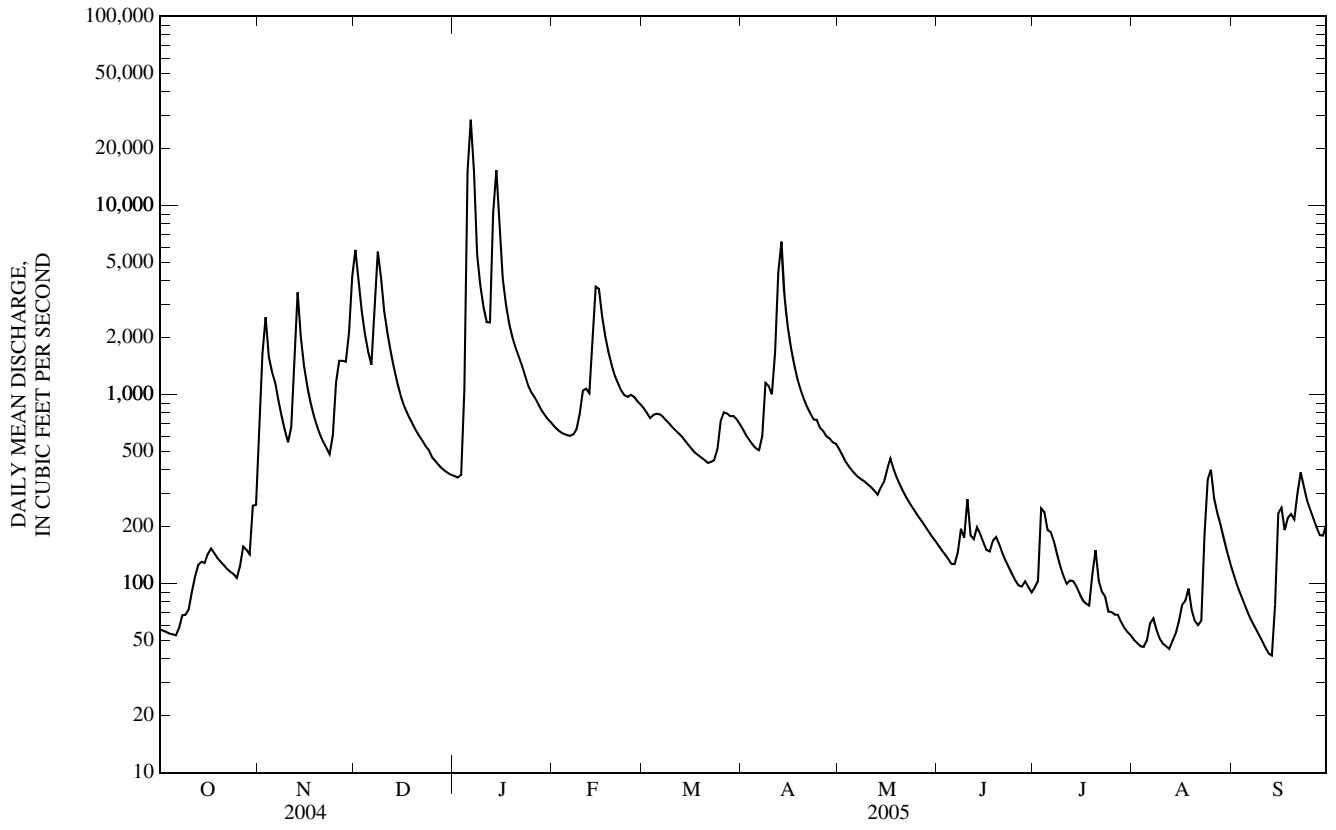
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	472	658	735	1,012	1,187	1,555	1,719	1,848	1,066	516	279	355
MAX	4,943	4,273	3,361	4,805	3,209	6,584	10,180	7,340	8,710	5,322	1,467	2,519
(WY)	(1950)	(1952)	(1943)	(1950)	(1938)	(1945)	(1945)	(1943)	(1935)	(1958)	(1946)	(1970)
MIN	31.6	65.8	72.6	68.0	91.2	141	130	202	83.2	41.8	30.8	25.6
(WY)	(1957)	(1954)	(1956)	(1956)	(1964)	(1956)	(1956)	(1932)	(1936)	(1934)	(1936)	(1954)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	986	950	948
HIGHEST ANNUAL MEAN			2,236
LOWEST ANNUAL MEAN			123
HIGHEST DAILY MEAN	14,800	Mar 5	28,400
LOWEST DAILY MEAN	53	Oct 6	42
ANNUAL SEVEN-DAY MINIMUM	55	Sep 30	50
MAXIMUM PEAK FLOW	---		31,200
MAXIMUM PEAK STAGE	---		21.05
INSTANTANEOUS LOW FLOW	---		38
ANNUAL RUNOFF (INCHES)	10.74		10.32
10 PERCENT EXCEEDS	2,120		2,010
50 PERCENT EXCEEDS	515		400
90 PERCENT EXCEEDS	109		66

06928000 GASCONADE RIVER NEAR HAZELGREEN, MO—Continued



## 06928300 ROUBIDOUX CREEK ABOVE FT. LEONARD WOOD, MO

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

DRAINAGE AREA.--165 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

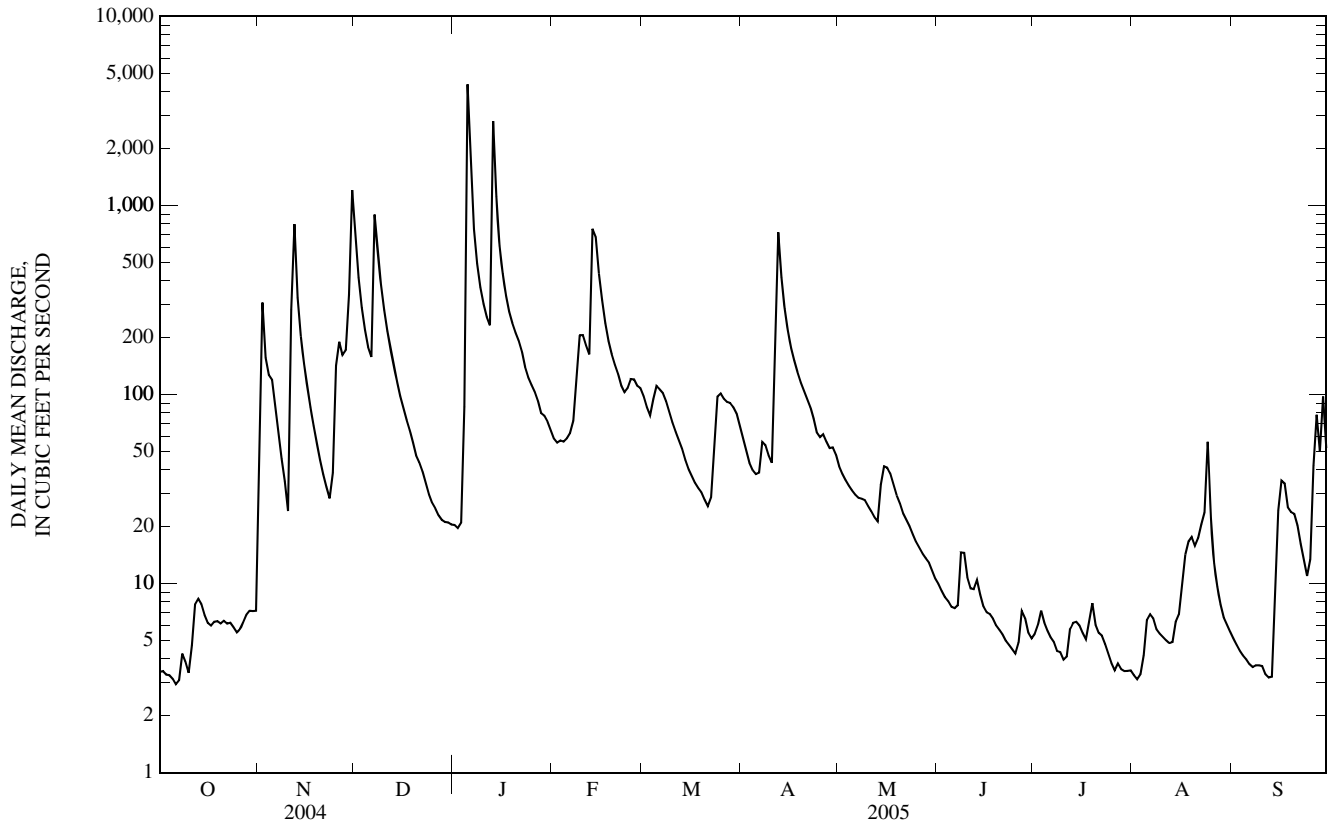
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	67	718	20	58	98	58	42	9.9	5.4	3.3	5.1
2	3.4	307	415	20	56	86	50	38	9.1	6.1	3.1	4.8
3	3.3	156	288	21	57	78	44	35	8.5	7.2	3.3	4.4
4	3.3	127	219	86	56	95	40	33	8.1	6.2	4.2	4.2
5	3.1	120	177	4,370	59	111	38	31	7.5	5.6	6.4	4.0
6	2.9	89	158	1,920	62	107	39	30	7.4	5.2	6.9	3.8
7	3.1	65	894	750	73	102	56	28	7.7	4.9	6.5	3.6
8	4.3	46	607	491	116	92	54	28	15	4.4	5.7	3.7
9	3.9	35	381	369	206	81	48	28	15	4.3	5.4	3.7
10	3.4	24	280	301	206	71	44	26	11	4.0	5.2	3.7
11	4.7	280	216	258	182	64	186	24	9.4	4.1	5.0	3.3
12	7.8	795	176	232	163	57	721	22	9.3	5.7	4.8	3.2
13	8.3	325	144	2,790	752	52	416	21	10	6.2	4.9	3.2
14	7.8	203	117	1,110	682	45	285	33	8.7	6.3	6.3	8.1
15	6.8	145	98	610	436	40	217	42	7.6	6.0	6.9	24
16	6.2	111	85	436	316	37	177	41	7.1	5.5	9.9	35
17	6.0	86	74	335	238	34	151	38	6.9	5.1	14	34
18	6.3	68	65	275	192	32	131	33	6.5	6.3	17	25
19	6.3	56	56	239	164	30	116	29	6.0	7.9	18	24
20	6.2	45	48	213	144	28	105	27	5.7	6.1	16	23
21	6.3	38	44	193	128	26	95	23	5.4	5.5	17	20
22	6.2	32	39	169	112	29	86	22	5.0	5.3	21	16
23	6.2	28	34	140	103	51	75	20	4.7	4.8	24	13
24	5.9	38	30	123	108	98	63	18	4.5	4.3	56	11
25	5.5	142	27	113	121	101	60	17	4.3	3.8	22	13
26	5.8	190	25	104	120	95	62	15	4.9	3.5	13	42
27	6.2	162	23	93	111	91	56	14	7.2	3.8	9.6	78
28	6.8	172	22	80	108	90	52	14	6.6	3.5	7.8	50
29	7.2	337	21	77	---	85	53	13	5.5	3.4	6.6	98
30	7.2	1,210	21	72	---	79	48	12	5.1	3.5	6.1	52
31	7.2	---	21	65	---	68	---	11	---	3.5	5.6	---
MEAN	5.52	183	178	519	183	69.5	121	26.1	7.65	5.08	11.0	20.6
MAX	8.3	1,210	894	4,370	752	111	721	42	15	7.9	56	98
MIN	2.9	24	21	20	56	26	38	11	4.3	3.4	3.1	3.2
IN.	0.04	1.24	1.25	3.62	1.16	0.49	0.82	0.18	0.05	0.04	0.08	0.14

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	7.97	97.3	140	161	179	183	140	226	31.0	8.13	6.14	30.5
MAX	18.4	251	298	519	401	423	296	1,027	73.6	10.5	11.0	141
(WY)	(2004)	(2004)	(2002)	(2005)	(2001)	(2002)	(2002)	(2002)	(2001)	(2002)	(2005)	(2003)
MIN	4.60	7.48	8.49	17.2	35.2	43.4	18.0	8.17	7.65	5.08	3.36	2.31
(WY)	(2001)	(2003)	(2001)	(2000)	(2000)	(2000)	(2000)	(2000)	(2005)	(2005)	(2003)	(2000)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2000 - 2005
ANNUAL MEAN	125	110	114
HIGHEST ANNUAL MEAN			214
LOWEST ANNUAL MEAN			54.5
HIGHEST DAILY MEAN	3,130	4,370	7,580
LOWEST DAILY MEAN	2.9	2.9	1.0
ANNUAL SEVEN-DAY MINIMUM	3.2	3.2	1.3
MAXIMUM PEAK FLOW	---	7,030	12,900
MAXIMUM PEAK STAGE	---	11.28	14.86
INSTANTANEOUS LOW FLOW	---	2.7	0.82
ANNUAL RUNOFF (INCHES)	10.31	9.09	9.40
10 PERCENT EXCEEDS	276	224	231
50 PERCENT EXCEEDS	38	30	22
90 PERCENT EXCEEDS	4.1	4.4	4.2



## 06928430 ROUBIDOUX CREEK BELOW FT. LEONARD WOOD, MO

LOCATION.--Lat 37°49'10", long 92°11'40", in SE ¼ SW ¼ SW ¼ sec.24, T.36 N., R.12 W., Pulaski County, Hydrologic Unit 10290201, on right bank 400 ft downstream from Interstate 44 bridge, on Superior Road, 0.9 mi south of Business 44, and 0.6 mi upstream from Roubidoux Spring.

DRAINAGE AREA.--287 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.37	e5.5	822	2.5	6.5	12	6.7	9.2	1.0	5.2	1.1	2.1
2	e0.36	33	479	2.6	6.3	10	6.4	8.2	0.99	4.8	1.0	2.0
3	e0.35	14	285	4.3	6.1	9.4	6.2	7.3	1.1	4.4	1.0	2.2
4	e0.34	11	165	21	5.6	9.4	6.2	6.5	1.0	4.0	0.83	2.1
5	e0.33	13	95	5,250	5.2	9.1	6.0	6.3	0.95	3.5	0.67	1.9
6	0.34	9.2	56	5,400	5.7	8.4	6.2	5.9	1.1	2.9	0.78	1.9
7	0.44	6.9	288	1,140	6.6	8.5	6.4	5.6	2.7	2.6	1.2	1.9
8	e0.40	5.5	867	589	8.7	8.2	5.9	5.2	3.2	2.2	1.3	1.8
9	e0.39	3.7	435	388	9.7	8.0	5.8	4.8	32	2.0	1.2	1.7
10	e0.38	3.2	268	279	8.4	7.9	5.0	5.1	243	2.0	1.1	1.8
11	e0.48	10	165	205	40	7.6	5.7	5.0	197	1.9	1.2	2.0
12	e0.71	192	95	157	47	7.1	213	4.6	51	3.1	1.4	1.9
13	e0.73	382	51	2,340	276	7.1	432	3.8	39	2.9	2.3	2.3
14	e0.68	157	26	2,430	863	6.8	256	4.9	28	2.3	4.5	8.4
15	e0.67	59	14	e1,020	470	6.5	155	4.6	21	1.8	7.1	76
16	e0.64	21	9.2	e540	311	6.1	90	4.1	17	1.6	17	53
17	e0.63	10	8.5	e267	208	6.2	48	3.7	14	1.3	10	17
18	e0.64	6.9	7.7	220	142	6.0	24	3.1	12	1.2	7.2	41
19	e0.65	5.3	7.2	170	98	6.0	11	2.9	10	1.1	5.7	25
20	e0.64	5.4	6.2	130	67	6.0	6.8	2.7	8.8	1.0	4.8	16
21	e0.65	4.7	6.0	98	46	6.0	6.3	2.4	7.7	1.0	3.8	11
22	e0.64	4.9	5.6	71	29	6.3	7.8	2.7	7.1	0.87	79	9.2
23	e0.65	4.1	7.2	45	20	6.5	7.0	2.4	6.2	0.87	54	7.7
24	e0.63	14	4.5	28	14	6.3	6.4	2.0	5.5	0.88	17	6.6
25	e0.60	20	3.9	18	11	6.9	5.7	1.9	5.6	0.97	12	9.8
26	e0.63	19	3.8	12	11	6.8	6.3	1.8	5.5	1.00	9.6	13
27	e0.65	21	4.3	7.2	10	6.9	5.8	1.7	5.4	1.5	9.2	9.1
28	e0.68	18	3.1	7.8	14	6.7	6.8	1.6	6.5	1.5	7.3	7.1
29	e0.70	41	3.0	8.4	---	6.5	8.1	1.5	6.1	1.5	5.9	6.8
30	e0.69	666	2.7	7.6	---	6.2	10	1.5	5.3	1.3	4.9	5.7
31	e0.68	---	2.5	6.9	---	6.2	---	1.1	---	1.2	3.9	---
MEAN	0.56	58.9	135	673	98.1	7.34	45.8	4.00	24.9	2.08	8.97	11.6
MAX	0.73	666	867	5,400	863	12	432	9.2	243	5.2	79	76
MIN	0.33	3.2	2.5	2.5	5.2	6.0	5.0	1.1	0.95	0.87	0.67	1.7
IN.	0.00	0.23	0.54	2.70	0.36	0.03	0.18	0.02	0.10	0.01	0.04	0.05

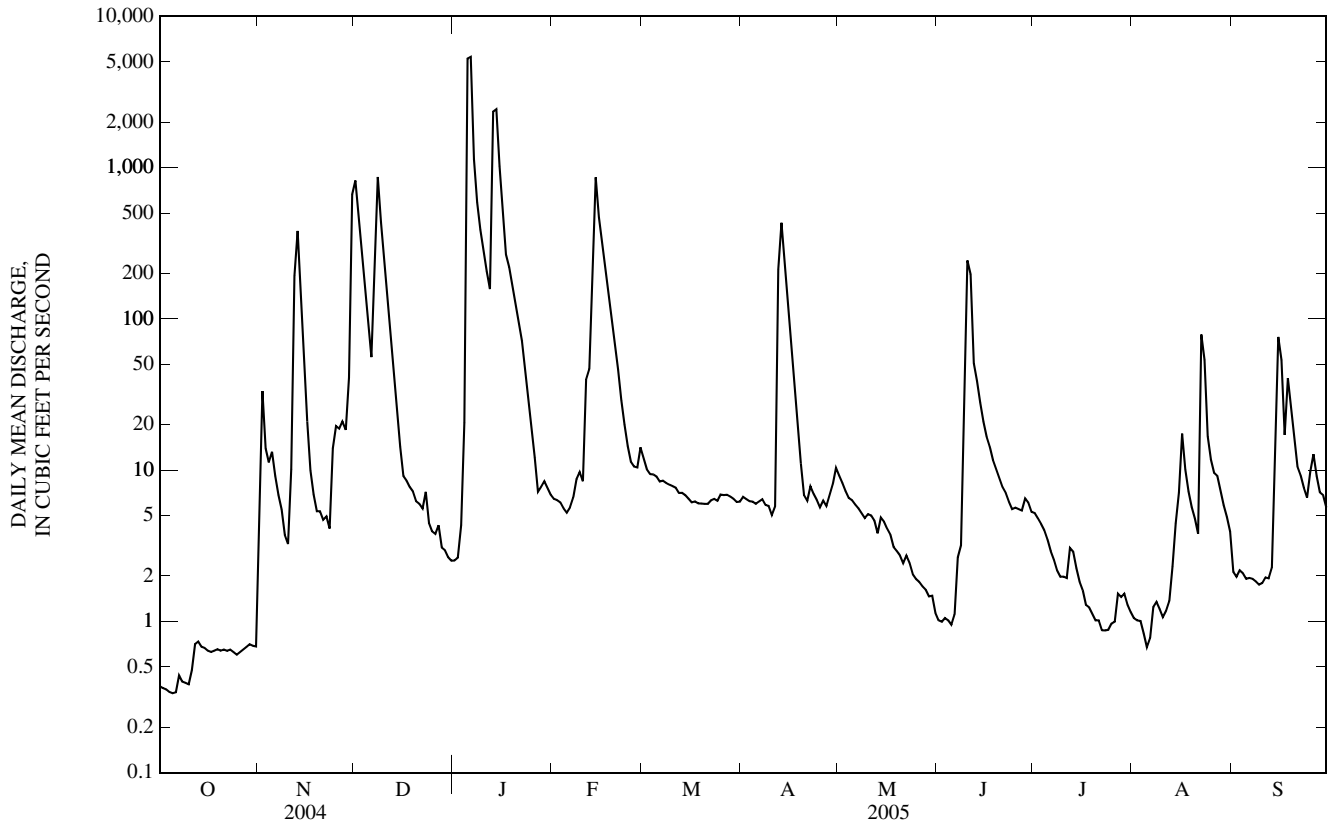
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	1.71	46.1	92.3	170	154	143	91.9	226	21.7	2.15	3.30	11.7
MAX	4.60	168	260	673	350	412	245	1,204	94.5	8.57	8.97	56.8
(WY)	(2004)	(2004)	(2002)	(2005)	(2001)	(2002)	(2004)	(2002)	(2001)	(2004)	(2005)	(2003)
MIN	0.16	0.46	0.52	0.61	15.6	2.55	1.76	0.87	0.70	0.16	0.24	0.19
(WY)	(2003)	(2003)	(2003)	(2001)	(2003)	(2000)	(2000)	(2000)	(2000)	(2003)	(2000)	(2000)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2000 - 2005
ANNUAL MEAN	90.3	89.7	88.4
HIGHEST ANNUAL MEAN			206
LOWEST ANNUAL MEAN			13.3
HIGHEST DAILY MEAN	3,810	5,400	7,240
LOWEST DAILY MEAN	0.32	0.33	0.01
ANNUAL SEVEN-DAY MINIMUM	0.34	0.36	0.05
MAXIMUM PEAK FLOW	---	9,700	14,000
MAXIMUM PEAK STAGE	---	12.42	14.13
INSTANTANEOUS LOW FLOW	---	0.29	0.01
ANNUAL RUNOFF (INCHES)	4.29	4.25	4.19
10 PERCENT EXCEEDS	211	160	143
50 PERCENT EXCEEDS	5.9	6.3	2.3
90 PERCENT EXCEEDS	0.64	0.88	0.32

e Estimated

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



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

LOCATION.--Lat 37°49'30", long 92°11'53", in SW 1/4 NW 1/4 NE 1/4 sec.25, T.36 N., R.12 W., Pulaski County, Hydrologic Unit 10290201, from I-44 Exit 159 at Waynesville to Business 44, approximately 1.5 mi to Superior Road, south on Superior Road 0.3 mi to spring.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 08...	1015	Environmental	89	7.4	74	7.2	388	15.1	210	42.9	24.9	1.66
JAN 03...	1040	Environmental	47	9.3	86	7.0	334	10.8	--	--	--	--
MAR 02...	0950	Environmental	139	10.1	91	7.4	312	9.9	--	--	--	--
MAY 19...	1200	Environmental	65	7.4	74	7.6	368	13.9	200	38.8	24.6	1.40
JUL 13...	1130	Environmental	69	4.2	42	7.2	385	14.3	--	--	--	--
SEP 01...	1010	Environmental	14	5.8	59	7.0	423	14.5	--	--	--	--

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 08...	2.32	198	203	247	<1	3.37	E.1n	4.8	220	<10	E.07n	<.04	.48
JAN 03...	--	--	--	--	--	--	--	--	--	<10	E.09n	<.04	.42
MAR 02...	--	--	--	--	--	--	--	--	--	<10	E.07n	<.04	.25
MAY 19...	2.37	186	187	228	<1	3.93	<.1	6.3	216	<10	E.07n	<.04	.22
JUL 13...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	.45
SEP 01...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	.54

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, col/100 mL (31625)	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)	Iron, water, fltrd, μg/L (01046)
NOV 08...	<.008	<.02	E.02n	<.04	25k	18k	<2	36	.3	<.04	<.04	E.4n	<6
JAN 03...	<.008	<.02	<.04	<.04	2k	6k	--	--	--	--	--	--	--
MAR 02...	<.008	<.02	<.04	<.04	1k	3k	--	--	--	--	--	--	--
MAY 19...	<.008	<.02	<.04	<.04	10k	8k	<2	21	<.2	<.04	E.02n	.5	<6
JUL 13...	<.008	<.02	<.04	E.03n	32	20	--	--	--	--	--	--	--
SEP 01...	<.008	<.02	<.04	<.04	31	68k	--	--	--	--	--	--	--

## GASCONADE RIVER BASIN

06928440 ROUBIDOUX SPRING AT WAYNESVILLE, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 08...	E.06n	E.05n	<.6	E.01n	.4	1.9	<2
JAN 03...	--	--	--	--	--	--	--
MAR 02...	--	--	--	--	--	--	--
MAY 19...	E.05n	.10	<.6	<.01	<.4	.7	E1n
JUL 13...	--	--	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	--

Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

Value qualifier codes used in this table:

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL



## 06930000 BIG PINEY RIVER NEAR BIG PINEY, MO

LOCATION.--Lat 37°39'56", long 92°03'00", in NE ¼ SE ¼ sec. 8, T.34 N., R.10 W., Pulaski County, Hydrologic Unit 10290202, on downstream side of left pier of Ross bridge, 3.0 mi east of Big Piney, 14.8 mi upstream from Spring Creek, and at river mile 22.

DRAINAGE AREA.--560 mi<sup>2</sup>.

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

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

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

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 24.54 ft, Dec. 4, 1982, from floodmark, present datum, discharge, 81,200 ft<sup>3</sup>/s, by indirect measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	265	e2,500	228	393	450	362	273	158	129	104	113
2	114	1,630	e1,680	225	379	427	340	260	154	132	103	112
3	112	1,090	e1,200	227	370	407	324	249	152	137	102	110
4	112	684	e923	255	364	409	309	242	149	136	107	106
5	112	627	e762	3,690	357	412	298	235	146	127	107	105
6	111	524	e700	7,420	356	402	298	229	143	121	121	103
7	113	432	e1,000	3,250	362	394	304	225	145	117	110	101
8	124	367	2,120	1,970	388	388	308	221	151	116	106	101
9	124	321	1,390	1,500	489	373	315	217	155	113	105	101
10	126	287	1,070	1,230	556	357	307	213	150	112	104	99
11	141	374	863	1,050	553	345	321	208	150	113	104	98
12	154	1,110	717	931	529	335	1,210	202	162	129	104	97
13	154	1,130	620	4,370	741	325	1,670	196	154	127	108	97
14	155	764	543	6,530	1,750	312	1,080	264	144	131	113	134
15	156	586	487	2,510	1,460	299	826	667	148	129	115	159
16	152	485	448	1,720	1,130	288	673	440	155	123	122	176
17	148	419	419	1,340	911	281	576	341	148	118	121	169
18	146	377	391	1,110	770	275	512	292	140	117	127	173
19	144	342	363	964	681	271	467	261	135	122	123	168
20	141	317	342	875	619	264	436	241	132	121	117	158
21	140	297	325	814	579	258	411	225	125	146	115	149
22	138	279	310	733	538	262	390	213	123	133	123	147
23	139	264	296	654	508	277	368	204	122	124	116	139
24	138	284	281	588	494	302	344	197	122	118	167	133
25	138	377	267	552	495	338	327	189	119	113	215	180
26	147	667	260	526	486	342	322	183	119	110	172	286
27	155	602	252	495	469	342	312	178	124	114	150	260
28	178	526	244	461	463	359	302	174	128	112	134	248
29	193	526	238	443	---	420	294	171	129	109	126	229
30	195	e1,500	234	430	---	413	286	165	123	109	121	206
31	210	---	231	415	---	390	---	161	---	106	117	---
MEAN	143	582	693	1,532	614	346	476	243	140	121	122	149
MAX	210	1,630	2,500	7,420	1,750	450	1,670	667	162	146	215	286
MIN	111	264	231	225	356	258	286	161	119	106	102	97
IN.	0.29	1.16	1.43	3.16	1.14	0.71	0.95	0.50	0.28	0.25	0.25	0.30

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

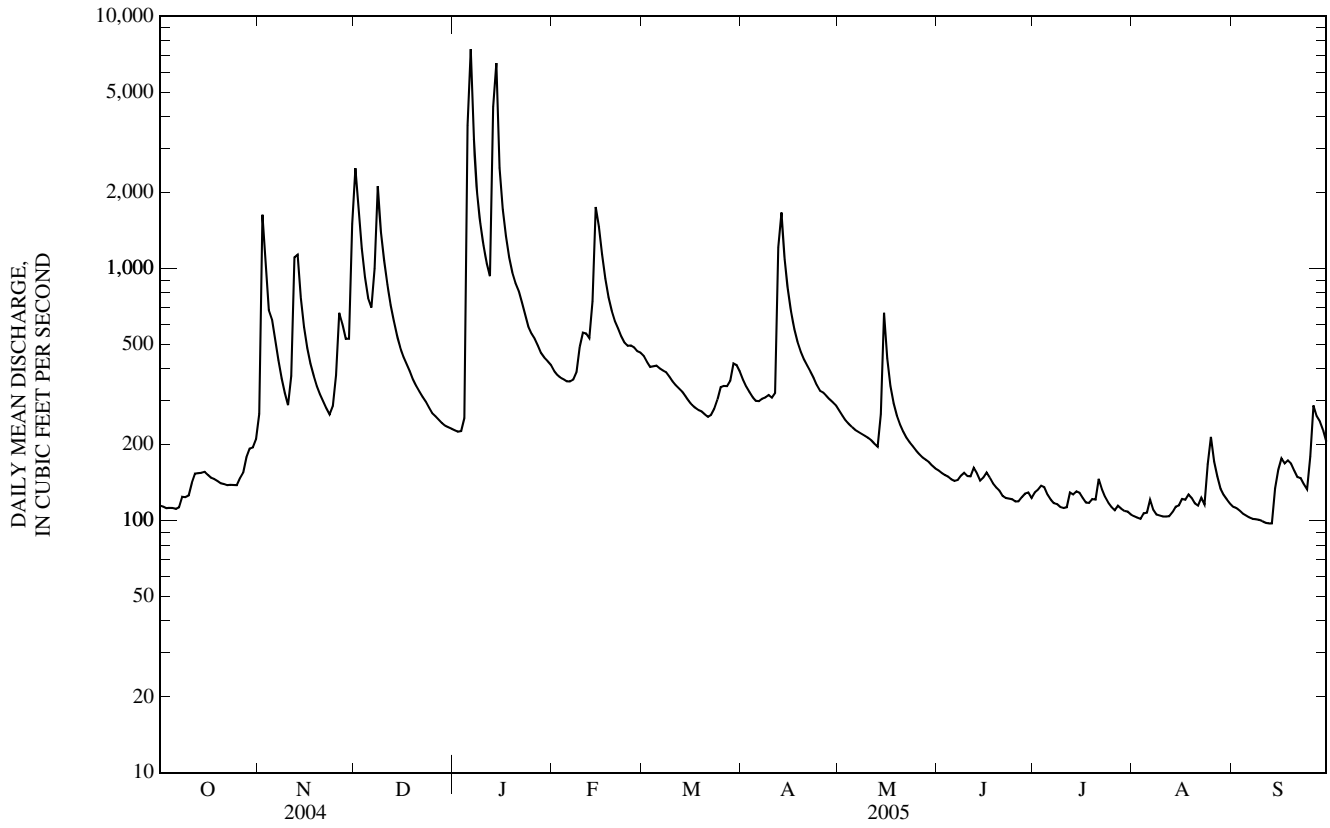
MEAN	262	482	456	561	628	817	974	922	586	283	234	257
MAX	1,261	2,127	1,940	2,554	2,237	2,565	3,637	3,324	4,490	1,969	1,947	1,959
(WY)	(1950)	(1952)	(1943)	(1950)	(1982)	(1945)	(1927)	(1990)	(1983)	(1951)	(1927)	(1993)
MIN	82.3	106	98.5	98.5	127	154	168	132	111	89.3	80.7	72.9
(WY)	(1957)	(1965)	(1956)	(1956)	(1934)	(1981)	(2000)	(2000)	(1934)	(1934)	(2001)	(1954)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	486	430	539
HIGHEST ANNUAL MEAN			1,179
LOWEST ANNUAL MEAN			149
HIGHEST DAILY MEAN	11,500	7,420	22,900
LOWEST DAILY MEAN	110	97	60
ANNUAL SEVEN-DAY MINIMUM	111	99	63
MAXIMUM PEAK FLOW	---	9,260	38,300
MAXIMUM PEAK STAGE	---	12.37	20.70
INSTANTANEOUS LOW FLOW	---	95	58
ANNUAL RUNOFF (INCHES)	11.81	10.42	13.08
10 PERCENT EXCEEDS	912	868	1,050
50 PERCENT EXCEEDS	331	255	257
90 PERCENT EXCEEDS	128	113	122

e Estimated

06930000 BIG PINEY RIVER NEAR BIG PINEY, MO—Continued



06930060 BIG PINEY RIVER BELOW FT. LEONARD WOOD, MO

LOCATION.--Lat 37°45'37", long 92°03'29", in SE 1/4 SW 1/4 NW 1/4 sec.17, T.35 N. R.10 W., Pulaski County, Hydrologic Unit 10290202, on right downstream wingwall of bridge on East Gate Ft. Leonard Wood road, 1.8 mi west of Highway J, 8.5 mi south of Interstate 44.

DRAINAGE AREA.--593 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	296	2,890	282	483	557	450	348	204	152	135	141
2	149	1,240	2,040	276	465	531	422	332	197	156	131	138
3	148	1,370	1,360	283	453	507	402	319	195	161	130	138
4	148	814	1,060	313	443	505	385	308	194	164	128	135
5	149	693	893	3,360	437	503	372	300	190	164	143	134
6	147	608	786	10,000	434	498	369	293	188	156	144	131
7	146	507	1,020	e3,080	443	490	375	288	184	151	155	130
8	161	431	2,230	e2,060	465	480	e378	285	192	148	137	130
9	160	374	1,610	e1,650	551	466	e384	282	192	147	133	127
10	158	336	1,230	1,410	655	446	e374	274	192	146	130	126
11	171	366	1,010	1,230	666	433	387	269	190	147	130	125
12	190	898	862	1,090	643	422	826	260	194	164	130	123
13	185	1,280	754	3,550	879	410	2,110	256	197	163	133	126
14	186	896	666	8,390	1,900	393	1,270	277	184	161	140	162
15	187	686	601	3,300	1,840	376	966	632	180	160	154	227
16	183	569	553	2,190	1,370	365	793	541	188	157	159	220
17	180	489	518	1,630	1,110	357	680	416	183	150	148	208
18	177	438	489	1,350	946	349	603	356	176	146	154	214
19	175	400	454	1,170	837	343	549	322	170	152	150	222
20	173	365	429	1,060	764	334	519	299	167	147	144	196
21	171	345	404	975	713	326	518	283	159	162	142	184
22	170	325	386	894	664	330	488	270	159	165	153	177
23	170	307	368	795	627	345	455	261	152	154	153	171
24	169	335	349	718	607	363	426	252	153	147	156	162
25	169	419	331	673	602	408	405	243	150	141	225	198
26	188	679	320	643	599	424	401	237	150	138	209	302
27	193	717	311	602	583	428	386	229	150	138	182	308
28	189	632	301	562	574	433	379	223	156	141	167	283
29	231	618	294	540	---	496	369	220	156	137	153	279
30	214	1,260	288	519	---	506	361	214	152	136	148	245
31	235	---	284	506	---	479	---	211	---	134	144	---
MEAN	175	623	809	1,777	741	429	560	300	176	151	150	182
MAX	235	1,370	2,890	10,000	1,900	557	2,110	632	204	165	225	308
MIN	146	296	284	276	434	326	361	211	150	134	128	123
IN.	0.34	1.17	1.57	3.46	1.30	0.83	1.05	0.58	0.33	0.29	0.29	0.34

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	167	475	556	601	778	659	631	960	264	187	165	233
MAX	227	1,202	809	1,777	1,798	1,117	1,221	3,628	377	264	224	615
(WY)	(2004)	(2004)	(2005)	(2005)	(2001)	(2004)	(2004)	(2002)	(2002)	(2002)	(2002)	(2003)
MIN	129	158	164	195	269	305	200	160	168	147	121	124
(WY)	(2001)	(2001)	(2001)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2001)	(2000)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

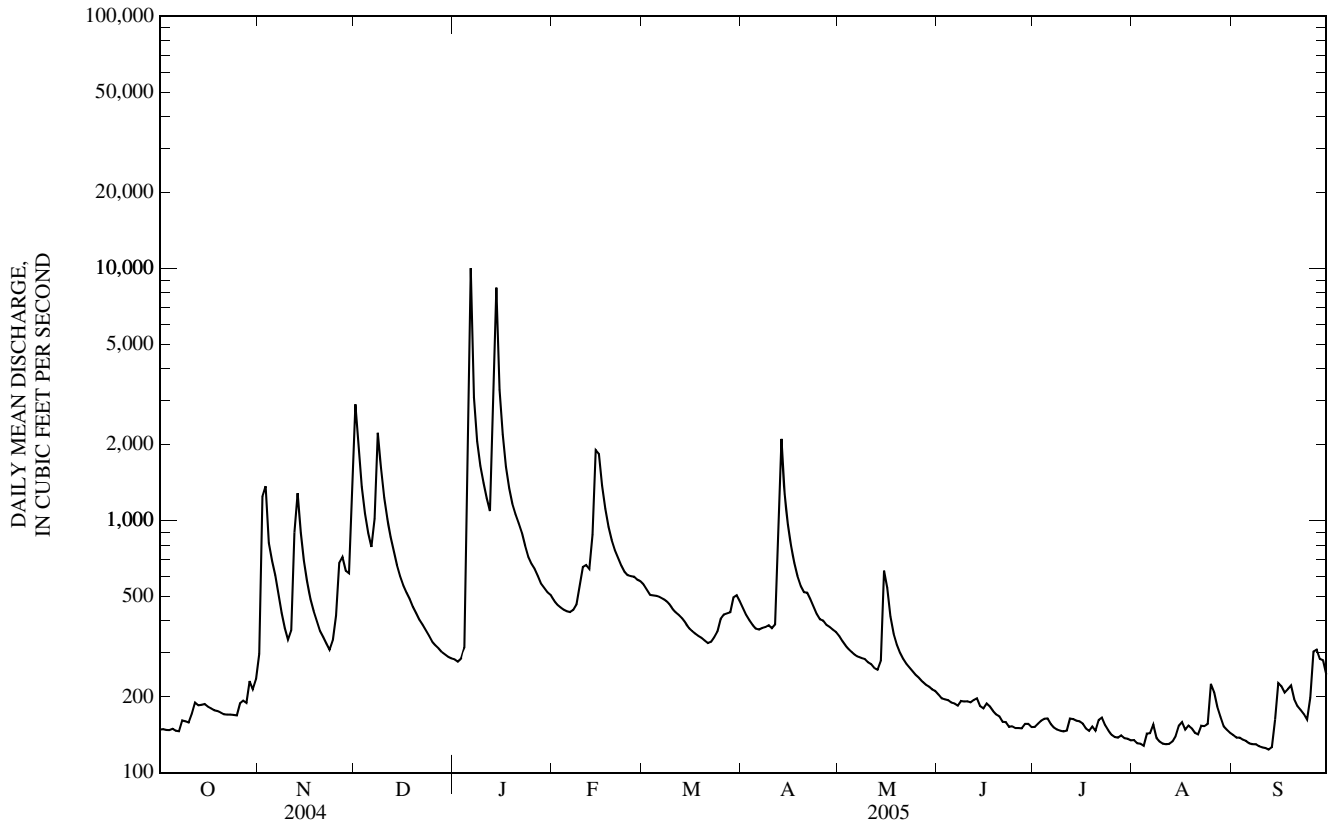
FOR 2005 WATER YEAR

WATER YEARS 2000 - 2005

ANNUAL MEAN	580	506	518
HIGHEST ANNUAL MEAN			758
LOWEST ANNUAL MEAN			329
HIGHEST DAILY MEAN	10,900	Apr 25	10,000
LOWEST DAILY MEAN	145	Sep 22-24,26,27	123
ANNUAL SEVEN-DAY MINIMUM	145	Sep 21	127
MAXIMUM PEAK FLOW	---	11,500	Jan 6
MAXIMUM PEAK STAGE	---	11.51	Jan 6
INSTANTANEOUS LOW FLOW	---	120	Aug 4, Sep 12
ANNUAL RUNOFF (INCHES)	13.32	11.58	11.86
10 PERCENT EXCEEDS	1,070	970	892
50 PERCENT EXCEEDS	396	307	256
90 PERCENT EXCEEDS	167	145	139

e Estimated

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



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

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

DRAINAGE AREA.--746 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd, std units (00400)	Specific conductance, wat unfltrd, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, 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 08...	1330	Environmental	427	10.2	97	7.5	329	12.5	180	37.0	20.1	2.04
JAN 20...	1030	Environmental	713	11.0	92	7.7	239	6.4	--	--	--	--
MAR 02...	1155	Environmental	267	13.7	118	7.8	292	7.8	--	--	--	--
MAY 23...	1025	Environmental	267	8.3	98	7.4	322	21.5	--	--	--	--
JUL 07...	1055	Environmental	158	11.1	137	7.7	348	24.7	200	37.1	25.2	1.22
SEP 01...	0850	Environmental	158	6.4	78	7.6	350	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)
NOV 08...	3.39	161	162	197	<1	5.50	E.1n	6.2	194	<10	.15	<.04	.63
JAN 20...	--	--	--	--	--	--	--	--	--	<10	.15	<.04	.76
MAR 02...	--	--	--	--	--	--	--	--	--	<10	.11	<.04	.30
MAY 23...	--	--	--	--	--	--	--	--	--	<10	.20	<.04	.17
JUL 07...	3.17	171	168	209	<1	4.66	E.1n	4.5	192	<10	.16	<.04	.18
SEP 01...	--	--	--	--	--	--	--	--	--	<10	.16	<.04	.20

Date	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd, mg/L (00665)	E coli, m-TEC, MF, 100 mL (31633)	Fecal coliform, M-FC, 0.7µ MF, 100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 08...	E.005n	E.01n	E.03n	E.03n	25k	46	Mn	46	.4	<.04	<.04	.5	6
JAN 20...	<.008	E.01n	<.04	E.03n	25	71k	--	--	--	--	--	--	--
MAR 02...	<.008	<.02	<.04	<.04	1k	2k	--	--	--	--	--	--	--
MAY 23...	<.008	<.02	<.04	E.03n	28	34	--	--	--	--	--	--	--
JUL 07...	<.008	<.02	E.03n	E.03n	78	13k	2	63	.5	<.04	<.04	.4	E5n
SEP 01...	<.008	.02	E.03n	.05	25	23	--	--	--	--	--	--	--

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 08...	<.08	.17	7.3	E.01n	E.3n	.6	E2n
JAN 20...	--	--	--	--	--	--	--
MAR 02...	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--
JUL 07...	E.07n	.14	10.5	<.01	<.4	1.8	<2
SEP 01...	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

## Value qualifier codes used in this table:

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

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

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

DRAINAGE AREA.--2,570 mi<sup>2</sup>.

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1978 to September 1981.

WATER TEMPERATURE: March 1978 to September 1981.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 588 microsiemens per centimeter, Sept. 23, 1981; minimum, 133 microsiemens per centimeter, Sept. 1, 1981.

WATER TEMPERATURE: Maximum daily, 34.0 °C, Aug. 11 and 17, 1980; minimum, 0.0 °C on many days during winter period.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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 unf 25 degC μS/cm (00095)	Temperature, water, deg C (00010)	Hardness, water, 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 13...	1125	Environmental	467	7.9	81	7.6	356	15.1	--	--	--	--
NOV 18...	1130	Environmental	1,820	8.9	87	7.5	324	13.1	170	34.2	20.1	2.60
NOV 18...	1230	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16
DEC 10...	0930	Environmental	7,740	10.6	96	8.0	262	9.5	--	--	--	--
JAN 19...	1355	Environmental	5,130	13.6	109	7.6	251	5.4	140	28.7	16.5	1.90
FEB 01...	0930	Environmental	1,710	12.0	96	7.4	292	5.4	--	--	--	--
MAR 02...	1330	Environmental	1,990	13.6	118	8.2	317	8.2	--	--	--	--
APR 05...	1040	Environmental	1,320	9.1	95	8.2	344	15.4	--	--	--	--
MAY 23...	0905	Environmental	763	5.4	63	7.5	344	21.9	180	34.1	23.6	1.81
JUN 09...	0855	Environmental	580	5.5	68	7.5	331	23.7	--	--	--	--
JUL 07...	0900	Environmental	484	6.5	80	7.8	357	24.5	200	38.5	26.1	1.47
AUG 01...	0920	Environmental	344	5.9	73	8.0	334	25.0	--	--	--	--
AUG 11...	1025	Environmental	343	6.0	75	7.7	358	25.3	--	--	--	--
SEP 01...	1200	Environmental	473	7.2	89	7.8	343	24.5	--	--	--	--

## 06930800 GASCONADE RIVER ABOVE JEROME, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfixed end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfixed, field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfixed, field, mg/L (00450)	Carbonate, wat unfixed, 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)
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 col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
OCT 13...	<.008	E.01n	<.04	E.04n	4k	17k	--	--	--	--	--	--	--
NOV 18...	<.008	<.02	E.04n	.05	49	35	E1n	119	.3	<.04	E.03n	1.0	12
NOV 18...	<.008	<.02	<.04	<.04	--	--	<2	<2	<.2	<.04	<.04	<.4	<6
DEC 10...	E.004n	.05	.06	.10	>800a	>600a	--	--	--	--	--	--	--
JAN 19...	<.008	E.01n	E.03n	E.04n	170	280	2	226	.2	<.04	<.04	.5	E5n
FEB 01...	E.004n	E.01n	E.03n	E.03n	10k	24	--	--	--	--	--	--	--
MAR 02...	<.008	<.02	<.04	<.04	1k	1k	--	--	--	--	--	--	--
APR 05...	<.008	<.02	<.04	<.04	9k	7k	--	--	--	--	--	--	--
MAY 23...	<.008	<.02	<.04	<.04	14k	15k	E1n	35	.4	<.04	<.04	1.2	9
JUN 09...	E.004n	E.01n	E.02n	E.03n	19k	25	--	--	--	--	--	--	--
JUL 07...	<.008	<.02	<.04	<.04	180	20	2	66	.6	<.04	<.04	.5	<6
AUG 01...	<.008	<.02	E.02n	E.02n	11k	10k	--	--	--	--	--	--	--
AUG 11...	<.008	<.02	<.04	E.02n	13k	3k	--	--	--	--	--	--	--
SEP 01...	<.008	<.02	E.04n	<.04	5k	13k	--	--	--	--	--	--	--



## 06930800 GASCONADE RIVER ABOVE JEROME, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 13...	--	--	--	--	--	--	--
NOV 18...	.09	1.07	6.2	E.01n	E.2n	1.5	2
18...	<.08	.07	<.6	E.01n	<.4	<.6	<2
DEC 10...	--	--	--	--	--	--	--
JAN 19...	<.08	.40	5.0	<.01	E.2n	.9	E2n
FEB 01...	--	--	--	--	--	--	--
MAR 02...	--	--	--	--	--	--	--
APR 05...	--	--	--	--	--	--	--
MAY 23...	<.08	.11	11.4	<.01	E.3n	1.4	E1n
JUN 09...	--	--	--	--	--	--	--
JUL 07...	E.05n	.19	9.8	<.01	<.4	E.5n	<2
AUG 01...	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	--

## Remark codes used in this table:

- < -- Less than.
- > -- Greater than.
- E -- Estimated.

## Value qualifier codes used in this table:

- a -- Value extrapolated at high end
- d -- Diluted sample: method hi range exceeded
- k -- Counts outside acceptable range
- n -- Below the LRL and above the LT-MDL

## 06932000 LITTLE PINEY CREEK AT NEWBURG, MO

LOCATION.--Lat 37°54'34", long 91°54'12", in NW ¼ SW ¼ SE ¼ sec.22, T.37 N., R.9 W., Phelps County, Hydrologic Unit 10290203, on downstream side of bridge pier on State Highway P and T at Newburg, and 2 mi upstream from Mill Creek.

DRAINAGE AREA.--200 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	318	408	96	141	156	131	173	63	60	45	53
2	51	268	326	94	138	147	124	153	63	58	44	52
3	50	183	275	113	136	144	119	140	62	57	44	51
4	50	180	244	317	137	147	117	129	61	57	44	50
5	49	146	219	5,210	134	140	115	121	60	56	46	50
6	50	128	209	1,730	135	135	115	114	60	55	61	50
7	52	112	757	796	170	137	115	109	61	54	66	49
8	59	96	444	595	197	132	110	105	63	54	52	49
9	54	87	354	493	192	129	107	103	61	54	49	49
10	52	81	293	426	179	127	104	101	65	53	47	49
11	57	186	248	391	167	126	147	98	165	54	47	48
12	66	238	219	375	161	125	192	95	127	89	45	48
13	62	187	187	3,250	712	121	176	91	96	68	49	50
14	58	157	165	1,050	461	116	161	108	82	60	50	95
15	56	138	152	653	352	113	148	100	74	57	126	127
16	54	127	144	523	283	110	138	94	70	55	258	82
17	53	115	136	443	241	110	132	93	70	54	88	60
18	54	111	131	390	215	109	127	91	67	52	79	118
19	54	107	122	360	201	108	123	90	65	51	64	100
20	53	100	117	321	195	105	226	88	63	49	59	88
21	52	93	115	294	183	104	371	85	62	48	58	71
22	52	105	107	264	169	118	319	108	62	48	74	64
23	53	103	100	234	168	127	230	87	61	47	67	60
24	52	406	96	223	168	131	181	78	60	47	60	58
25	52	393	96	215	170	180	163	74	60	46	63	94
26	73	274	97	202	169	159	181	71	59	46	93	144
27	81	312	96	184	166	157	159	69	62	49	72	129
28	83	267	95	171	168	158	183	69	68	47	62	126
29	76	449	97	170	---	147	193	70	61	46	58	145
30	73	490	96	159	---	145	203	66	61	46	56	112
31	67	---	95	149	---	139	---	65	---	45	55	---
MEAN	58.0	199	201	642	211	132	164	98.0	70.5	53.6	67.1	77.4
MAX	83	490	757	5,210	712	180	371	173	165	89	258	145
MIN	49	81	95	94	134	104	104	65	59	45	44	48
IN.	0.33	1.11	1.16	3.70	1.10	0.76	0.91	0.57	0.39	0.31	0.39	0.43

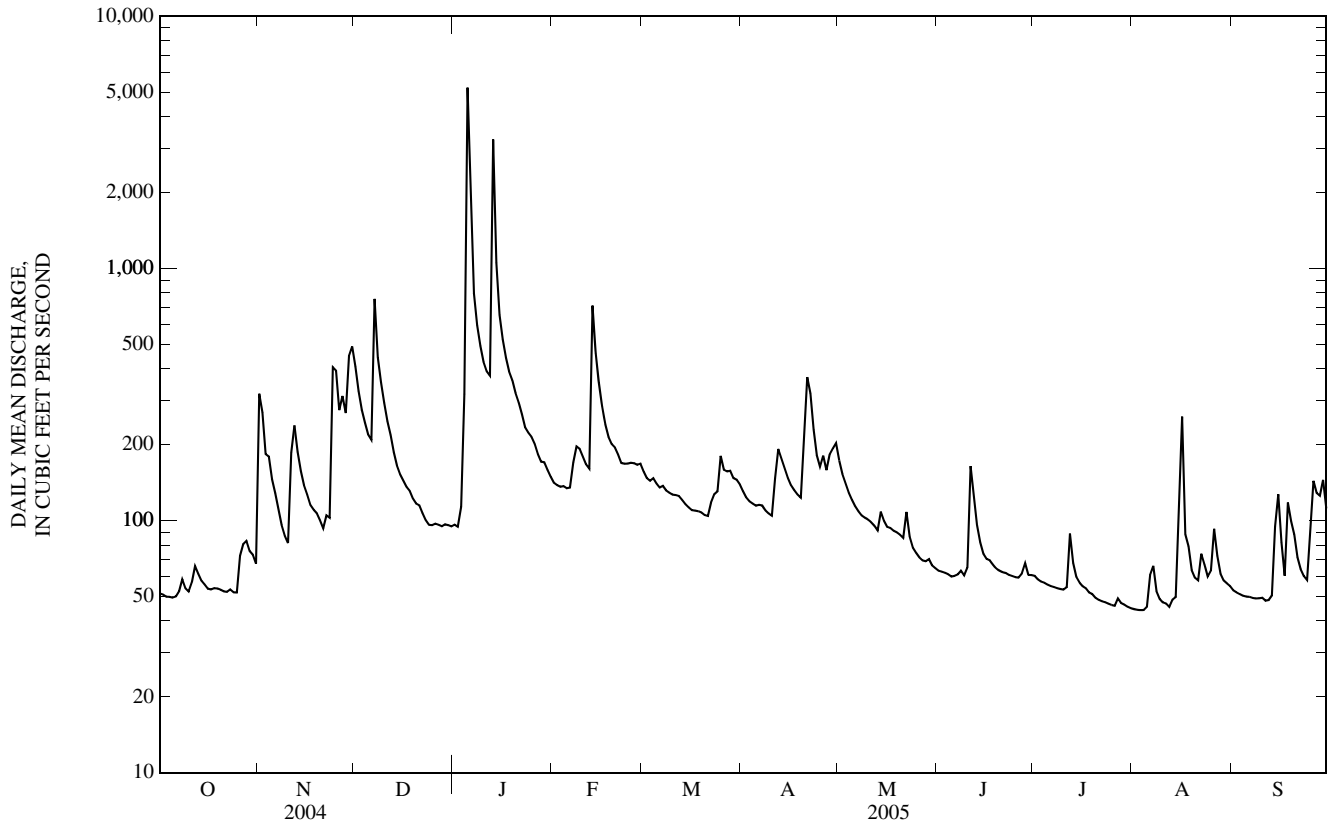
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 2005, BY WATER YEAR (WY)

	MEAN	139	151	157	177	235	267	273	197	106	82.0	86.4
MAX	913	694	1,300	770	678	822	1,335	1,346	1,545	684	493	706
(WY)	(1950)	(1994)	(1983)	(1950)	(1985)	(1945)	(1945)	(2002)	(1935)	(1998)	(1946)	(1993)
MIN	26.9	33.1	35.7	34.9	35.6	42.8	42.0	43.7	32.2	27.6	27.6	28.1
(WY)	(1957)	(1957)	(1956)	(1956)	(1934)	(1956)	(1956)	(1932)	(1934)	(1934)	(1936)	(1954)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1929 - 2005
ANNUAL MEAN	167	164	163
HIGHEST ANNUAL MEAN			391
LOWEST ANNUAL MEAN			47.0
HIGHEST DAILY MEAN	1,690	Mar 5	19,600
LOWEST DAILY MEAN	49	Oct 5	24
ANNUAL SEVEN-DAY MINIMUM	50	Sep 30	24
MAXIMUM PEAK FLOW	---		8,040
MAXIMUM PEAK STAGE	---		11.02
INSTANTANEOUS LOW FLOW	---		43
ANNUAL RUNOFF (INCHES)	11.38		11.16
10 PERCENT EXCEEDS	320		278
50 PERCENT EXCEEDS	121		105
90 PERCENT EXCEEDS	56		50

06932000 LITTLE PINEY CREEK AT NEWBURG, MO—Continued



## 06933500 GASCONADE RIVER AT JEROME, MO

LOCATION.--Lat 37°55'48", long 91°58'38", in NE ¼ NE ¼ SE ¼ sec.13, T.37 N., R.10 W., Phelps County, Hydrologic Unit 10290203, on left bank at Jerome, 0.5 mi downstream from Little Piney Creek, and at mile 107.

DRAINAGE AREA.--2,840 mi<sup>2</sup>.

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	462	1,240	9,440	1,120	1,910	2,320	1,800	1,670	682	546	405	549
2	460	1,700	11,100	1,100	1,850	2,210	1,710	1,540	664	533	397	523
3	458	3,140	8,390	1,180	1,800	2,110	1,620	1,420	653	527	393	501
4	456	3,860	6,170	1,690	1,740	2,050	1,550	1,320	643	525	389	486
5	453	3,300	4,890	14,600	1,690	2,020	1,500	1,240	633	523	392	472
6	451	2,640	4,110	30,500	1,670	2,020	1,470	1,180	626	570	404	457
7	456	2,300	5,910	37,300	1,720	2,020	1,450	1,130	642	567	433	442
8	487	1,940	7,690	32,900	1,830	1,990	1,460	1,090	703	546	431	431
9	483	1,620	9,740	11,900	1,890	1,920	1,740	1,060	689	541	405	424
10	473	1,410	7,970	8,060	2,050	1,850	2,020	1,030	1,050	530	391	416
11	495	1,590	5,890	6,610	2,330	1,780	2,030	998	1,890	515	411	409
12	562	2,080	4,770	5,730	2,500	1,730	3,160	964	1,340	569	412	399
13	560	3,320	3,940	12,100	4,270	1,680	7,140	933	1,040	557	420	399
14	548	4,940	3,290	23,100	6,260	1,610	8,940	974	955	525	479	582
15	547	4,070	2,840	23,400	7,810	1,540	5,780	1,010	842	512	509	967
16	542	2,940	2,530	14,800	7,180	1,480	4,310	1,240	764	506	961	1,020
17	538	2,350	2,270	8,620	5,660	1,430	3,410	1,110	723	492	609	868
18	537	1,980	2,090	6,770	4,650	1,400	2,850	1,070	683	482	532	e1,630
19	543	1,730	1,950	5,710	3,920	1,360	2,480	1,080	650	485	507	e1,090
20	547	1,540	1,800	5,010	3,460	1,320	2,300	1,010	629	482	495	909
21	541	1,390	1,710	4,440	3,110	1,290	2,490	954	619	481	485	804
22	535	1,330	1,610	4,000	2,820	1,310	2,440	946	603	485	516	736
23	535	1,260	1,520	3,510	2,630	1,350	2,130	893	591	503	667	710
24	528	1,900	1,440	3,160	2,510	1,340	1,860	849	573	498	601	782
25	518	2,530	1,360	2,880	2,440	1,500	1,750	817	565	472	561	852
26	570	2,520	1,330	2,680	2,450	1,660	1,750	787	553	454	701	957
27	678	3,620	1,270	2,480	2,460	1,840	1,650	766	548	459	831	947
28	654	3,820	1,220	2,300	2,420	1,900	1,620	750	562	448	748	887
29	645	4,460	1,190	2,210	---	1,890	1,650	739	542	434	673	900
30	674	6,150	1,160	2,090	---	1,920	1,720	717	537	421	618	828
31	644	---	1,140	1,990	---	1,880	---	697	---	414	580	---
MEAN	535	2,622	3,927	9,159	3,108	1,733	2,593	1,032	740	503	528	713
MAX	678	6,150	11,100	37,300	7,810	2,320	8,940	1,670	1,890	570	961	1,630
MIN	451	1,240	1,140	1,100	1,670	1,290	1,450	697	537	414	389	399
IN.	0.22	1.03	1.59	3.72	1.14	0.70	1.02	0.42	0.29	0.20	0.21	0.28

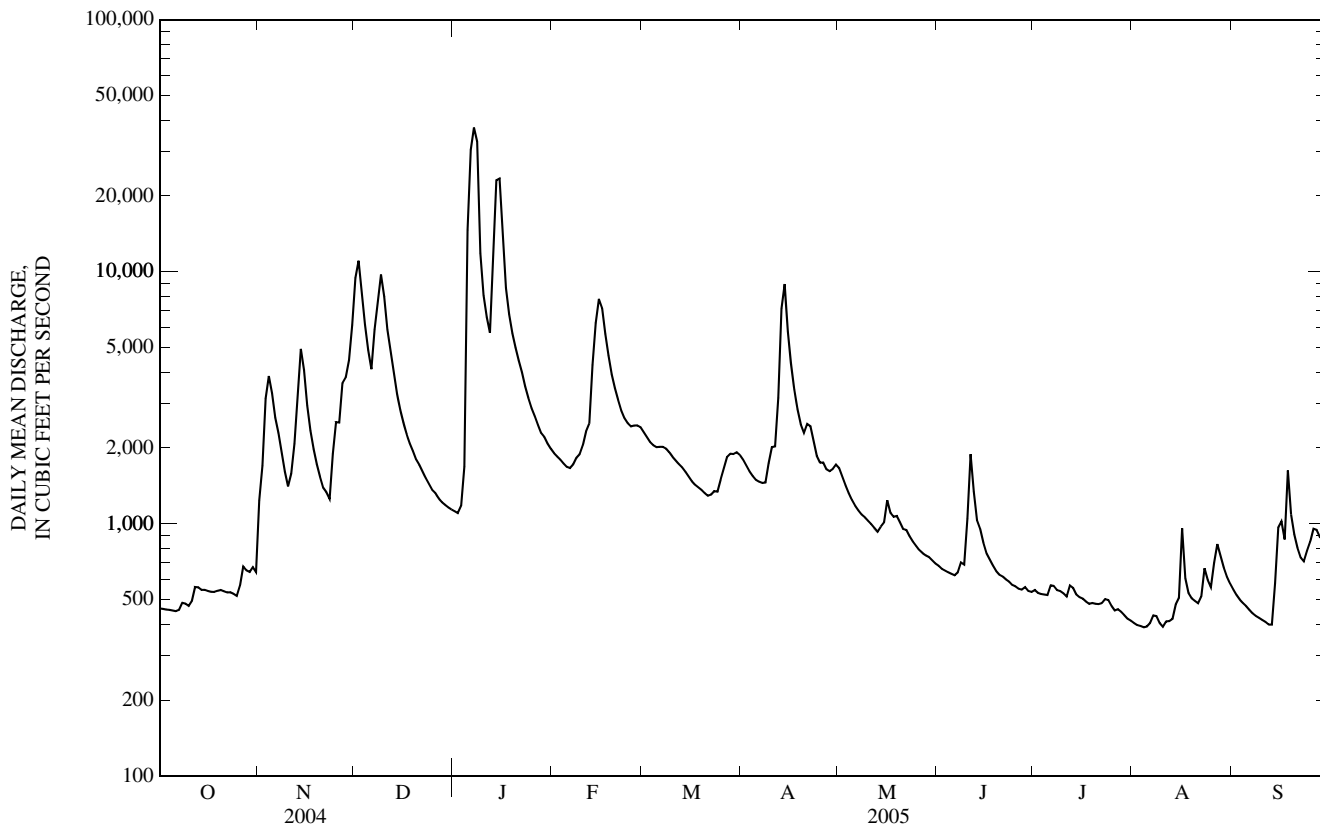
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1,343	2,300	2,476	2,485	2,987	4,011	4,566	4,362	2,949	1,498	1,147	1,247
MAX	10,390	10,400	17,740	10,980	11,540	13,110	20,450	15,390	18,500	10,730	9,244	12,580
(WY)	(1950)	(1994)	(1983)	(1950)	(1985)	(1945)	(1945)	(1990)	(1935)	(1951)	(1927)	(1993)
MIN	289	368	392	368	491	597	504	532	518	339	324	293
(WY)	(1957)	(1957)	(1956)	(1956)	(1964)	(1956)	(1956)	(2000)	(1934)	(1934)	(1936)	(1956)

06933500 GASCONADE RIVER AT JEROME, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	2,441		2,266		2,601	
HIGHEST ANNUAL MEAN					6,491	1985
LOWEST ANNUAL MEAN					544	1954
HIGHEST DAILY MEAN	24,900	Mar 6	37,300	Jan 7	121,000	Dec 5, 1982
LOWEST DAILY MEAN	451	Oct 6	389	Aug 4	259	Sep 21, 1956
ANNUAL SEVEN-DAY MINIMUM	457	Oct 1	399	Jul 31	266	Sep 16, 1956
MAXIMUM PEAK FLOW	---		37,800	Jan 8	136,000	Dec 5, 1982
MAXIMUM PEAK STAGE	---		17.26	Jan 8	31.34	Dec 5, 1982
INSTANTANEOUS LOW FLOW	---		386	Aug 4,5	254	Sep 21, 1956
ANNUAL RUNOFF (INCHES)	11.70		10.83		12.45	
10 PERCENT EXCEEDS	5,150		4,700		5,430	
50 PERCENT EXCEEDS	1,540		1,240		1,230	
90 PERCENT EXCEEDS	542		473		513	

e Estimated



## 06934000 GASCONADE RIVER NEAR RICH FOUNTAIN, MO

LOCATION.--Lat 38°23'20", long 91°49'12", in SE 1/4 sec.16, T.41 N., R.8 W., Osage County, Hydrologic Unit 10290203, on downstream side of State Highway 89 bridge, 100 ft downstream from Brush Creek Slough, 800 ft upstream from Swan Creek, and 4 mi east of Rich Fountain.

DRAINAGE AREA.--3,180 mi<sup>2</sup> (by U.S. Army Corps of Engineers).

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	493	1,620	7,390	1,190	2,270	2,620	2,080	2,450	824	604	463	692
2	492	2,640	10,400	1,170	2,200	2,520	1,990	2,220	802	605	455	652
3	488	2,450	10,100	2,930	2,130	2,420	1,890	2,020	779	592	451	616
4	477	3,810	7,310	4,920	2,070	2,360	1,800	1,860	761	583	443	587
5	472	4,150	5,500	25,900	2,000	2,290	1,720	1,710	748	578	440	564
6	469	3,300	4,580	30,500	1,960	2,260	1,660	1,600	737	573	446	546
7	479	2,830	9,550	34,100	1,970	2,260	1,630	1,500	728	609	463	532
8	521	2,520	7,430	38,900	2,200	2,240	1,590	1,430	753	627	488	521
9	538	2,210	8,910	34,200	2,310	2,180	1,590	1,380	813	606	490	511
10	522	1,940	9,760	11,700	2,350	2,120	1,890	1,320	1,590	592	466	502
11	513	3,150	7,240	7,960	2,460	2,050	2,110	1,270	2,010	583	465	493
12	565	3,860	5,480	6,780	2,710	1,990	2,290	1,230	2,560	618	473	484
13	666	2,990	4,460	13,900	5,410	1,930	4,010	1,170	1,810	649	482	480
14	637	3,990	3,770	19,600	6,450	1,880	8,410	1,180	2,100	644	525	552
15	608	4,970	3,270	26,600	7,540	1,800	7,610	1,180	1,470	603	613	2,170
16	596	3,810	2,910	24,900	8,130	1,730	5,110	1,220	1,170	578	772	2,090
17	589	3,090	2,640	13,000	6,670	1,670	4,070	1,460	1,020	565	1,170	1,360
18	705	2,650	2,420	8,270	5,320	1,620	3,450	1,320	934	549	963	1,130
19	608	2,400	2,240	6,540	4,460	1,570	3,030	1,280	860	538	686	1,680
20	596	2,150	2,080	5,570	3,930	1,530	2,720	1,270	803	545	613	4,080
21	596	1,950	1,960	4,920	3,540	1,490	2,950	1,200	764	533	582	1,660
22	594	1,850	1,850	4,390	3,230	1,530	3,570	1,390	746	526	569	1,170
23	590	1,840	1,730	3,990	2,980	1,660	3,180	1,290	724	533	608	987
24	580	3,730	1,630	3,600	2,870	1,710	2,630	1,120	704	555	801	897
25	573	5,340	1,540	3,320	2,750	1,830	2,330	1,040	674	546	821	957
26	697	4,080	1,470	3,110	2,690	2,040	2,270	989	652	516	932	1,020
27	769	4,590	1,410	2,920	2,700	2,090	2,260	956	637	516	962	1,130
28	859	5,330	1,350	2,720	2,680	2,220	2,140	929	649	504	1,030	1,160
29	820	4,810	1,300	2,590	---	2,210	2,360	908	643	489	923	1,470
30	791	6,840	1,260	2,480	---	2,180	2,410	885	621	480	824	1,310
31	783	---	1,220	2,370	---	2,140	---	854	---	469	742	---
MEAN	603	3,363	4,328	11,450	3,499	2,005	2,892	1,343	1,003	565	650	1,067
MAX	859	6,840	10,400	38,900	8,130	2,620	8,410	2,450	2,560	649	1,170	4,080
MIN	469	1,620	1,220	1,170	1,960	1,490	1,590	854	621	469	440	480
IN.	0.22	1.18	1.57	4.15	1.15	0.73	1.01	0.49	0.35	0.20	0.24	0.37

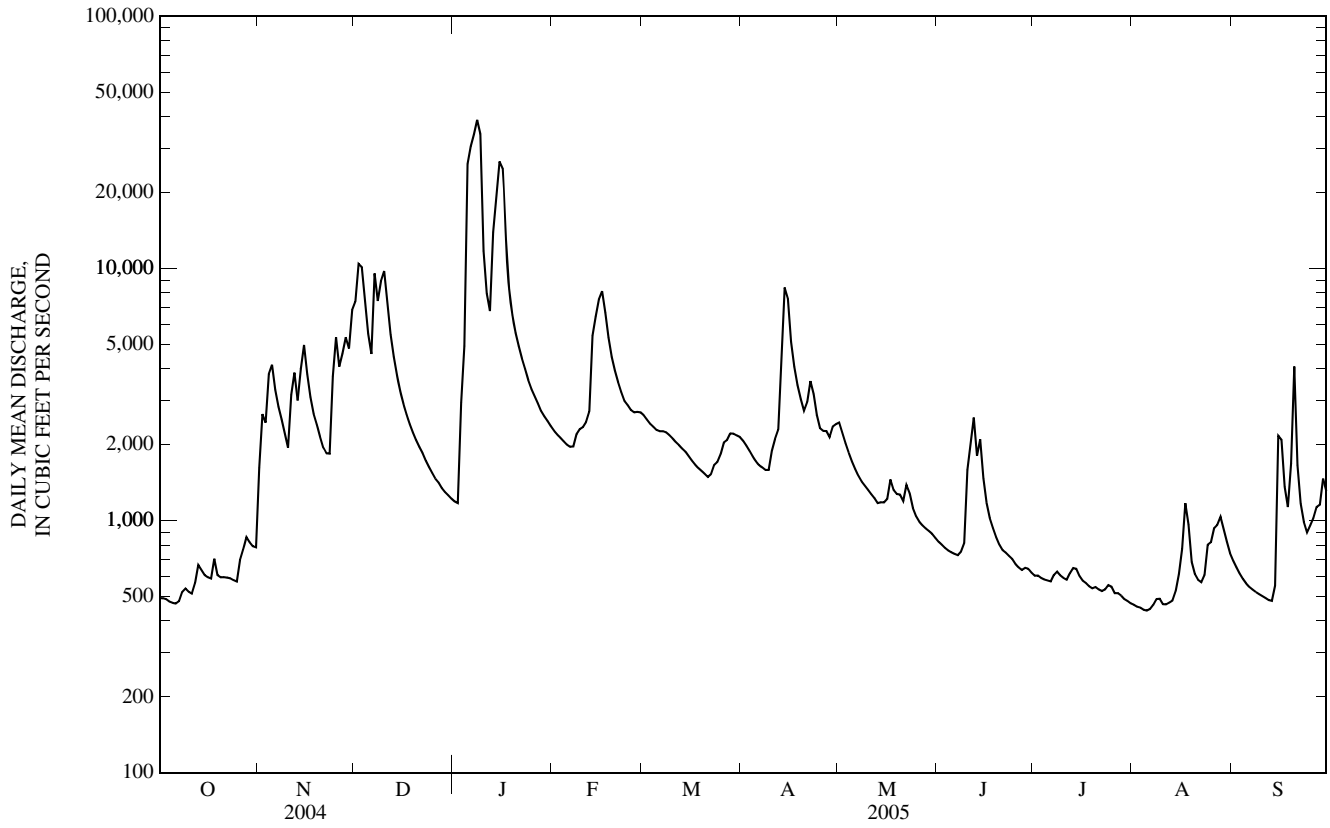
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1,584	2,448	2,522	2,988	3,264	4,497	5,466	5,283	3,620	1,741	1,321	1,373
MAX	12,060	12,230	12,750	12,700	7,637	14,640	22,720	18,300	19,810	12,630	9,365	15,330
(WY)	(1950)	(1994)	(1988)	(1950)	(1949)	(1945)	(1945)	(1990)	(1935)	(1951)	(1927)	(1993)
MIN	288	394	403	374	558	620	531	670	647	385	334	295
(WY)	(1957)	(1957)	(1956)	(1956)	(1954)	(1956)	(1956)	(2000)	(1934)	(1954)	(1936)	(1954)

SUMMARY STATISTICS FOR 2004 CALENDAR YEAR FOR 2005 WATER YEAR FOR PERIOD OF RECORD

ANNUAL MEAN	2,856	2,732	3,004
HIGHEST ANNUAL MEAN			6,560
LOWEST ANNUAL MEAN			629
HIGHEST DAILY MEAN	25,800	Mar 7	38,900
LOWEST DAILY MEAN	469	Oct 6	440
ANNUAL SEVEN-DAY MINIMUM	481	Oct 1	452
MAXIMUM PEAK FLOW	---		39,900
MAXIMUM PEAK STAGE	---		19.86
INSTANTANEOUS LOW FLOW	---		438
ANNUAL RUNOFF (INCHES)	12.23		11.66
10 PERCENT EXCEEDS	6,160		5,330
50 PERCENT EXCEEDS	2,040		1,590
90 PERCENT EXCEEDS	608		526

06934000 GASCONADE RIVER NEAR RICH FOUNTAIN, MO—Continued



## MISSOURI RIVER MAIN STEM

06934500 MISSOURI RIVER AT HERMANN, MO

LOCATION.--Lat 38°42'35", long 91°26'19", in SW  $\frac{1}{4}$  sec.25, T.46 N., R.5 W., Montgomery County, Hydrologic Unit 10300200, on downstream side of third pier from right abutment of bridge on State Highway 19 at Hermann, and at mile 97.9.

DRAINAGE AREA.--522,500 mi<sup>2</sup>. The 3,959 mi<sup>2</sup> in Great Divide basin are not included.

## WATER-DISCHARGE RECORDS

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

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50,000	46,500	99,700	31,700	73,100	71,000	47,700	60,200	55,500	81,700	48,700	87,200
2	50,500	83,200	91,700	31,600	71,700	75,100	48,600	57,700	57,300	78,200	48,800	72,000
3	49,100	95,300	86,200	53,600	72,500	73,800	46,300	54,700	56,600	79,300	45,200	62,200
4	46,800	97,200	79,200	102,000	74,100	70,100	46,900	53,700	59,100	77,200	42,600	56,700
5	45,400	92,700	73,000	206,000	74,700	64,500	45,200	52,100	66,100	72,400	41,300	52,400
6	44,300	87,300	66,200	261,000	74,300	55,400	46,200	49,500	121,000	67,400	40,000	48,600
7	43,300	74,200	84,300	240,000	73,900	45,500	43,900	47,800	164,000	70,600	39,000	48,600
8	43,000	56,900	106,000	200,000	73,900	44,300	43,700	47,000	166,000	72,800	38,600	49,600
9	46,700	49,200	106,000	167,000	79,700	55,500	44,600	46,100	155,000	69,000	38,700	47,900
10	53,600	56,800	96,900	148,000	90,800	58,200	43,700	44,900	150,000	63,600	40,300	44,600
11	62,300	53,900	86,400	124,000	90,100	52,400	43,300	43,800	165,000	57,900	39,300	43,000
12	56,700	62,700	76,800	110,000	84,200	43,900	57,300	44,400	164,000	55,900	39,000	41,600
13	50,100	59,300	68,200	159,000	92,800	40,200	79,800	53,400	176,000	57,000	39,100	41,400
14	47,500	57,500	66,300	194,000	142,000	36,200	89,400	64,500	215,000	53,500	39,900	45,300
15	46,900	53,000	62,100	179,000	184,000	34,800	98,200	103,000	228,000	51,300	41,400	50,200
16	46,600	52,800	59,200	156,000	192,000	37,300	93,800	158,000	204,000	50,100	46,000	48,600
17	44,200	51,300	60,100	132,000	181,000	42,800	83,000	145,000	167,000	47,800	53,400	44,800
18	41,000	54,200	57,300	109,000	166,000	47,500	70,900	123,000	144,000	44,800	56,500	42,400
19	39,100	56,200	56,700	98,500	145,000	42,100	63,800	112,000	131,000	45,600	64,900	43,300
20	36,500	57,000	57,000	94,800	122,000	35,200	61,500	103,000	125,000	48,000	64,900	71,600
21	35,000	45,500	56,600	94,000	109,000	32,100	60,700	94,500	122,000	50,200	58,300	75,400
22	33,400	35,500	48,900	92,900	100,000	31,800	77,900	86,900	119,000	51,100	58,600	59,000
23	32,800	33,800	46,900	91,500	95,200	35,600	79,900	76,800	116,000	50,500	74,900	57,900
24	32,000	51,000	47,200	87,000	91,700	43,600	86,100	77,900	113,000	48,400	74,500	57,900
25	31,900	91,300	45,500	79,500	88,500	43,400	95,000	85,800	109,000	44,100	60,400	52,900
26	31,500	102,000	47,200	77,900	86,100	38,700	88,800	78,600	107,000	46,000	66,300	56,400
27	34,600	109,000	41,300	77,500	78,200	37,200	83,000	71,400	104,000	48,100	92,400	73,700
28	33,100	124,000	36,300	77,000	69,500	37,200	73,900	67,200	103,000	46,900	101,000	70,900
29	35,100	119,000	37,700	76,800	---	39,400	66,800	63,300	92,900	42,300	105,000	63,600
30	38,200	110,000	35,800	77,200	---	49,400	64,000	57,800	85,700	40,200	97,900	52,900
31	40,500	---	32,200	75,900	---	48,900	---	54,500	---	42,000	91,300	---
MEAN	42,640	70,610	65,000	119,500	102,700	47,200	65,800	73,500	128,000	56,580	57,680	55,420
MAX	62,300	124,000	106,000	261,000	192,000	75,100	98,200	158,000	228,000	81,700	105,000	87,200
MIN	31,500	33,800	32,200	31,600	69,500	31,800	43,300	43,800	55,500	40,200	38,600	41,400
IN.	0.09	0.15	0.14	0.26	0.20	0.10	0.14	0.16	0.27	0.12	0.13	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2005<sup>a</sup>, BY WATER YEAR (WY)

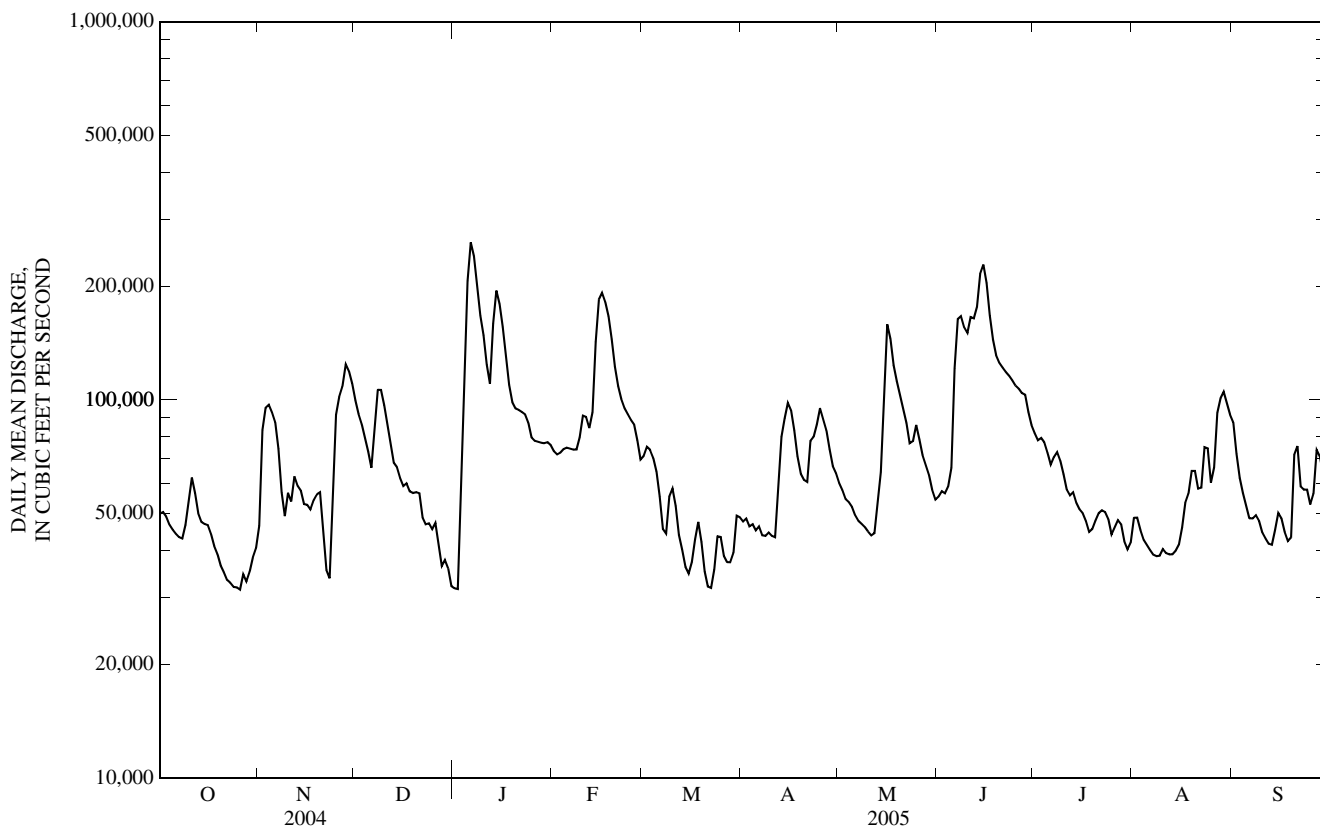
MEAN	77,050	77,720	62,400	51,880	68,200	95,380	118,300	121,100	120,100	98,780	73,660	75,300
MAX	286,700	174,800	178,900	129,000	136,800	267,500	333,400	313,000	282,300	376,300	306,600	243,500
(WY)	(1987)	(1999)	(1983)	(1973)	(1982)	(1973)	(1973)	(1995)	(1995)	(1993)	(1993)	(1993)
MIN	36,680	29,400	17,060	17,350	19,250	22,810	45,800	47,710	46,150	44,010	37,920	37,800
(WY)	(1964)	(1991)	(1964)	(1963)	(1964)	(1964)	(1963)	(1989)	(1988)	(1988)	(2003)	(1963)



06934500 MISSOURI RIVER AT HERMANN, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1958 - 2005 <sup>a</sup>	
ANNUAL MEAN	72,340		73,420		86,670	
HIGHEST ANNUAL MEAN					181,800	1993
LOWEST ANNUAL MEAN					44,980	1963
HIGHEST DAILY MEAN	210,000	Mar 7	261,000	Jan 6	739,000	Jul 31, 1993
LOWEST DAILY MEAN	31,100	Feb 17	31,500	Oct 26	6,210	Dec 23, 1963
ANNUAL SEVEN-DAY MINIMUM	32,800	Oct 22	32,800	Oct 22	7,400	Dec 20, 1963
MAXIMUM PEAK FLOW	---		267,000	Jan 6	750,000	Jul 31, 1993
MAXIMUM PEAK STAGE	---		25.81	Jan 6	36.97	Jul 31, 1993
INSTANTANEOUS LOW FLOW	---		31,200	Oct 26	602	Dec 23, 1963
ANNUAL RUNOFF (INCHES)	1.89		1.91		2.25	
10 PERCENT EXCEEDS	117,000		122,000		162,000	
50 PERCENT EXCEEDS	62,000		59,200		67,200	
90 PERCENT EXCEEDS	38,400		39,400		36,700	

<sup>a</sup> Post-regulation period.



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

## WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1996.

WATER TEMPERATURE: October 1974 to September 1996.

DISSOLVED OXYGEN: June 1984 to September 1984, April 1985 to September 1985, April 1986 to September 1986.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: (water years 1976 to 1996): Maximum daily, 2,150 microsiemens per centimeter, Dec. 9, 1978; minimum daily, 205 microsiemens per centimeter, Apr. 16, 1979.

WATER TEMPERATURE: (water years 1976 to 1996): Maximum daily, 32.5 °C, July 31, 1987; minimum daily, 0.0 °C on many days during winter period.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unf μS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)
OCT 28...	1055	Environmental	32,700	.093	.069	8.4	89	7.9	702	17.2	280	72.1
DEC 09...	1055	Environmental	107,000	.149	.113	11.8	104	7.6	387	8.2	150	41.2
DEC 09...	1103	Blank	--	--	--	--	--	--	--	--	--	<.02
JAN 11...	1030	Environmental	124,000	.135	.100	12.7	98	7.4	359	3.8	150	40.7
FEB 18...	1100	Environmental	167,000	.165	.124	11.5	93	7.4	335	5.9	130	38.4
MAR 10...	1145	Environmental	57,700	.095	.070	11.2	97	7.7	527	7.9	210	59.1
APR 08...	1015	Environmental	43,400	.069	.049	14.3	146	7.9	636	15.1	--i	--i
APR 08...	1023	Blank	--	<.004	<.004	--	--	--	--	--	--	--
APR 14...	1045	Environmental	88,800	.143	.106	7.1	73	7.7	519	15.8	200	53.2
MAY 11...	1010	Environmental	43,800	.096	.069	9.3	105	8.1	685	20.3	280	72.1
MAY 16...	1135	Environmental	162,000	.150	.112	4.9	78	7.7	529	19.3	190	50.8
JUN 08...	1140	Environmental	167,000	.150	.112	5.4	65	7.5	410	23.2	160	43.7
JUN 28...	1025	Environmental	103,000	.124	.091	5.8	76	7.7	549	27.9	240	64.1
JUL 13...	1120	Environmental	57,400	.108	.079	7.0	92	8.1	650	27.6	260	67.6
JUL 13...	1130	Replicate	--	.108	.078	--	--	--	--	--	260	66.7
AUG 16...	1125	Environmental	45,700	.096	.069	6.8	86	8.0	721	26.3	240	59.0
AUG 16...	1133	Blank	--	--	--	--	--	--	--	--	--	--
SEP 13...	0955	Environmental	41,400	.087	.060	7.7	99	8.2	677	26.9	240	60.8

## 06934500 MISSOURI RIVER AT HERMANN, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end field, mg/L as CaCO <sub>3</sub> (39036)	Alkalinity, wat flt inc tit field, mg/L as CaCO <sub>3</sub> (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
OCT 28...	24.5	6.09	43.4	243	203	247	<1	26.1	.5	12.3	109	430	.31
DEC 09...	12.5	4.48	16.2	114	115	141	<1	13.1	.2	9.86	42.5	224	.43
09...	<.008	--	<.20	--	--	--	--	--	--	<.04	--	--	--
JAN 11...	11.1	4.60	16.9	122	126	154	<1	14.7	.2	9.94	38.1	216	.40
FEB 18...	8.41	4.50	14.7	97	96	117	<1	15.0	.2	9.62	33.0	203	.51
MAR 10...	16.2	4.90	24.6	150	151	184	<1	18.5	.2	11.5	59.2	309	.32
APR 08...	--i	--i	--i	--i	154	191	<1	22.2	.5	--i	117	393	.24
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	16.9	5.25	34.0	140	141	172	<1	17.4	.4	9.50	91.7	338	.40
MAY 11...	23.9	5.74	41.9	184	185	226	<1	23.4	.5	10.7	120	432	.28
16...	16.1	5.64	32.1	143	143	174	<1	18.3	.4	9.79	84.4	328	.48
JUN 08...	12.7	5.36	21.0	112	113	138	<1	14.3	.3	10.0	56.2	246	.42
28...	20.3	5.94	26.9	149	150	183	<1	15.6	.4	12.3	92.5	354	.40
JUL 13...	21.6	6.16	35.2	179	180	220	<1	19.6	.4	12.5	109	393	.37
13...	21.4	6.09	34.9	--	--	--	--	19.6	.4	12.5	109	395	.42
AUG 16...	21.4	6.48	57.2	168	171	208	<1	29.4	.5	9.20	140	446	.38
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 13...	20.6	6.22	54.0	151	153	187	<1	20.6	.5	6.68	143	436	.31

Date	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Phaeophytin a, phytoplankton, µg/L (62360)
OCT 28...	.64	<.04	1.41	.012	.40	.095	.105	.20o	3.2	<.1	3.2	85.0d	15.5
DEC 09...	.84	<.04	.99	E.004n	.39	.075	.092	.29o	3.7	<.1	3.7	4.7	4.8
09...	--	<.010	<.016	<.002	--	<.006	--	--	--	--	--	--	--
JAN 11...	.67	E.03n	.98	.015	.30	.068	.086	.23o	2.7	.2	2.5	4.6	2.6
FEB 18...	2.0	.06	1.21	.011	1.42	.055	.069	.65o	13.8	<.1	13.7	5.6	9.4
MAR 10...	.59	<.04	1.35	E.006n	.19	.069	.083	.188	1.8	<.1	1.8	3.5	2.1
APR 08...	.74	<.04	.98	E.005n	.36	.076	.085	.20o	2.6	<.1	2.6	2.8	8.8
08...	--	--	--	--	.04	--	--	--	<.1	<.1	<.1	.4	--
14...	1.8	E.02n	1.25	.033	.76	.077	E.090	.44o	7.9	.2	7.7	4.6	4.8
MAY 11...	.96	<.04	2.04	E.004n	.72	.099	.119	.23o	5.6	<.1	5.5	3.8	19.5
16...	4.5	<.04	2.57	.120	2.57	.071	.094	1.36@o	19.7	.5	19.2	4.8	25.8
JUN 08...	3.1	<.04	2.42	.070	1.87	.080	.094	.88o	15.3	.6	14.7	4.7	20.7
28...	.85	<.04	1.94	E.005n	.38	.120	.137	.32o	3.4	<.1	3.4	3.9	8.9
JUL 13...	.56	<.04	1.93	E.004n	.33	.133	.160	.20o	2.0	<.1	2.0	3.7	8.0
13...	.60	<.04	1.93	E.004n	.31	.130	.162	.21o	2.4	<.1	2.4	3.6	7.7
AUG 16...	.74	<.04	.61	.011	.42	.120	.149	.25o	4.5	<.1	4.5	4.4	23.3
16...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 13...	.72	<.04	E.04n	E.004n	.39	.082	.101	.20o	2.7	<.1	2.7	3.9	21.1

## 06934500 MISSOURI RIVER AT HERMANN, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC col/ 0.7µ MF 100 mL (31625)	Chloro- phyll a phyto- plank- ton, fluoro, µg/L (70953)	Alum- inum, water, fltrd, µg/L (01106)	Anti- mony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryll- ium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chrom- ium, water, fltrd, µg/L (01030)	Cobalt water, fltrd, µg/L (01035)	Copper, water, fltrd, µg/L (01040)
Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lithium water, fltrd, µg/L (01130)	Mangan- ese, water, fltrd, µg/L (01056)	Molyb- denum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selen- ium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Stront- ium, water, fltrd, µg/L (01080)	Vanad- ium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)	2,6-Di- ethyl- aniline water fltrd 0.7µ GF (82660)	CIAT, water, fltrd, µg/L (04040)
OCT 28...	<6	--	30.7	--	--	--	1.7	--	442	3.1	--	<.006	E.009
DEC 09...	14	E.07n	8.7	2.6	1.3	2.98	.9	<.2	203	1.4	1.8	<.006	E.027
09...	<6	<.08	<.6	<.2	<.4	<.06	<.4	<.2	<.40	<.1	<.6	--	--
JAN 11...	7	--	6.3	--	--	--	1.1	--	176	1.4	--	<.006	E.011
FEB 18...	17	--	7.0	--	--	--	.9	--	206	1.7	--	<.006	E.008
MAR 10...	16	<.08	12.5	3.8	1.7	3.93	1.8	<.2	284	1.7	.9	<.006	E.008m
APR 08...	--i	--	--i	--	--	--	--i	--	--i	--i	--	<.006	E.006m
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	7	--	18.5	--	--	--	1.3	--	344	3.7	--	<.006	E.027m
MAY 11...	E3n	<.08	28.2	.8	3.5	2.47	2.6	<.2	449	5.3	1.2	<.006	E.014m
16...	E5n	<.08	24.8	.8	3.2	4.87	2.2	<.2	315	3.7	.6	<.006	E.552m
JUN 08...	<6	<.08	13.1	.7	2.4	3.64	1.3	<.2	270	3.5	1.7	<.006	E.183m
28...	<6	--	18.8	--	--	--	1.9	--	363	5.4	--	<.006	E.065m
JUL 13...	<6	<.08	22.3	.6	3.6	3.23	2.1	<.2	397	5.8	1.9	<.006	E.062m
13...	<6	--	22.8	--	--	--	2.2	--	394	5.8	--	<.006	E.063m
AUG 16...	E5n	<.08	37.0	1.0	4.6	3.78	2.0	<.2	450	5.1	1.7	<.006	E.038m
16...	--	--	--	--	--	--	--	--	--	--	--	<.006	<.006m
SEP 13...	<6	--	36.5	--	--	--	1.5o	--	437	4.1o	--	<.006	E.029m

## 06934500 MISSOURI RIVER AT HERMANN, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Aceto- chlor, water, fltrd, µg/L (49260)	Ala- chlor, water, fltrd, µg/L (46342)	alpha- HCH, water, fltrd, µg/L (34253)	Atra- zine, water, fltrd, µg/L (39632)	Azin- phos- methyl, water, fltrd, 0.7µ GF µg/L (82686)	Ben- flur- alin, water, fltrd, 0.7µ GF µg/L (82673)	Butyl- ate, water, fltrd, µg/L (04028)	Car- baryl, water, fltrd, 0.7µ GF µg/L (82680)	Carbo- furan, water, fltrd, 0.7µ GF µg/L (82674)	Chlor- pyrifos water, fltrd, µg/L (38933)	cis- Per- methrin water fltrd 0.7µ GF µg/L (82687)	Cyana- zine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µ GF µg/L (82682)
OCT 28...	E.005n	<.004	<.005	.460	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003
DEC 09...	.010	<.004	<.005	.187	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	<.010	<.004	<.005	.126	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003
FEB 18...	.011	<.010	<.005	.107	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003
MAR 10...	<.006	<.005	<.005	.101	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
APR 08...	.011	<.005	<.005	.076	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	.483	.128	<.005	1.35	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
MAY 11...	.045	.007	<.005	.464	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
16...	1.03	.266	<.005	7.82	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
JUN 08...	.511	.177	<.005	3.35	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
28...	.087	.033	<.005	1.02	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
JUL 13...	.039	.013	<.005	.729	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
13...	.040	.014	<.005	.775	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
AUG 16...	.018	<.005	<.005	.257	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
16...	<.010	<.005	<.005	<.007	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
SEP 13...	.008	<.005	<.005	.230	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003

Date	Diazi- non, water, fltrd, µg/L (39572)	Diel- drin, water, fltrd, µg/L (39381)	Disul- foton, water, fltrd 0.7µ GF µg/L (82677)	EPTC, water, fltrd 0.7µ GF µg/L (82668)	Ethal- flur- alin, water, fltrd 0.7µ GF µg/L (82663)	Etho- prop, water, fltrd 0.7µ GF µg/L (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)	Linuron water, fltrd 0.7µ GF µg/L (82666)	Mala- thion, water, fltrd, µg/L (39532)	Methyl para- thion, water, fltrd 0.7µ GF µg/L (82667)	Metola- chlor, water, fltrd, µg/L (39415)	Metri- buzin, water, fltrd, µg/L (82630)
OCT 28...	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.006	.052	<.006
DEC 09...	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.006	.030	<.006
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.006	.018	<.006
FEB 18...	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.006	.040	<.006
MAR 10...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.064	<.006
APR 08...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.019	<.006
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.248	<.010
MAY 11...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.104	<.006
16...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	1.50	.054
JUN 08...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.780	.023
28...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.466	<.006
JUL 13...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.237	<.006
13...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.251	<.006
AUG 16...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.114	<.006
16...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006
SEP 13...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.051	<.006

06934500 MISSOURI RIVER AT HERMANN, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Molinate, water, fltrd 0.7µ GF (82671)	Naprop- amide, water, fltrd 0.7µ GF (82684)	p,p'- DDE, water, fltrd, µg/L (34653)	Para- thion, water, fltrd, µg/L (39542)	Peb- ulate, water, fltrd 0.7µ GF (82669)	Pendi- meth- alin, water, fltrd 0.7µ GF (82683)	Phorate water fltrd 0.7µ GF (82664)	Prome- ton, water, fltrd, µg/L (04037)	Propy- zamide, water, fltrd 0.7µ GF (82676)	Propa- chlor, water, fltrd, µg/L (04024)	Pro- panil, water, fltrd 0.7µ GF (82679)	Propar- gite, water, fltrd 0.7µ GF (82685)	Sima- zine, water, fltrd, µg/L (04035)
OCT 28...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.079
DEC 09...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.119
09...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 11...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.118
FEB 18...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.093
MAR 10...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.019
APR 08...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.010
08...	--	--	--	--	--	--	--	--	--	--	--	--	--
14...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.025
MAY 11...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.017
16...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.02	<.004	<.025	<.011	<.02	.237
JUN 08...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.02	<.004	<.025	<.011	<.02	.074
28...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.010
JUL 13...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.01n	<.004	<.025	<.011	<.02	.009
13...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.01n	<.004	<.025	<.011	<.02	.009
AUG 16...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.006
16...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.013	<.02	<.005
SEP 13...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.01n	<.004	<.025	<.011	<.02	<.005

## 06934500 MISSOURI RIVER AT HERMANN, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tebu- thiuron water fltrd 0.7µ GF µg/L (82670)	Terba- cil, water, fltrd 0.7µ GF µg/L (82665)	Terbu- fos, water, fltrd 0.7µ GF µg/L (82675)	Thio- bencarb water fltrd 0.7µ GF µg/L (82681)	Tri- allate, water, fltrd 0.7µ GF µg/L (82678)	Tri- flur- alin, water, fltrd 0.7µ GF µg/L (82661)	Uranium natural water, fltrd, µg/L (22703)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
OCT									
28...	<.02	<.034	<.02	<.005	<.002	<.009	--	98	113
DEC									
09...	<.02	<.034	<.02	<.005	<.002	<.009	1.49	52	318
09...	--	--	--	--	--	--	<.04	--	--
JAN									
11...	<.02	<.034	<.02	<.005	<.002	<.009	--	36	259
FEB									
18...	<.02	<.034	<.02	<.005	<.002	<.009	--	76	1,050
MAR									
10...	<.02	<.034m	<.02	<.010	<.006	<.009	2.30	67	110
APR									
08...	<.02	<.034m	<.02	<.010	<.006	<.009	--	69	111
08...	--	--	--	--	--	--	--	--	--
14...	<.02	<.034m	<.02	<.010	<.006	<.009	--	98	873
MAY									
11...	<.02	<.034m	<.02	<.010	<.006	<.009	5.02	86	132
16...	<.02	<.034m	<.02	<.010	<.006	<.009	2.64	91	2,740
JUN									
08...	<.02	<.034m	<.02	<.010	<.006	<.009	1.76	89	1,880
28...	<.02	<.034m	<.02	<.010	<.006	<.009	--	76	210
JUL									
13...	<.02	<.034m	<.02	<.010	<.006	<.009	4.01	81	105
13...	<.02	<.034m	<.02	<.010	<.006	<.009	--	--	--
AUG									
16...	<.02	<.034m	<.02	<.010	<.006	<.009	3.29	66	137
16...	<.02	<.119m	<.02	<.010	<.006	<.009	--	--	--
SEP									
13...	<.02	<.034m	<.02	<.010	<.006	<.009	--	100	47

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

@ -- Holding time exceeded  
d -- Diluted sample: method hi range exceeded  
k -- Counts outside acceptable range  
m -- Value is highly variable by this method  
n -- Below the LRL and above the LT-MDL  
o -- Result determined by alternate method

## Null value qualifier codes used in this table:

i -- Required sample type not received

06935715 MISSOURI RIVER NEAR CHESTERFIELD, MO  
(Metropolitan St. Louis Sewer District Network)

LOCATION.--Lat 38°39'46", long 90°43'40", St. Louis County, Hydrologic Unit 10300200, at Weldon Spring river access ramp at mile 48, off of Highway 94, south of Interstate 64/Highway 40.

DRAINAGE AREA.--529,900 mi<sup>2</sup>.

PERIOD OF RECORD.--October 2004 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Carbon dioxide water, unfltrd mg/L (00405)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd μS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	
OCT 18...	1235	Environmental	44,400	2.2	9.4	97	8.2	601	15.0	230	61.3	19.6	
APR 06...	1200	Environmental	44,700	2.0	14.2	142	8.2	629	14.2	240	63.6	19.9	
13...	0915	Environmental	73,800	4.1	8.6	92	7.9	631	16.9	230	59.9	19.7	
MAY 02...	1150	Environmental	58,800	9.2	8.8	89	7.5	572	15.3	230	60.8	19.6	
JUN 06...	1115	Environmental	65,300	4.1	7.8	96	7.9	685	24.8	270	67.0	24.1	
12...	1120	Environmental	153,000	12	5.3	63	7.3	395	23.5	160	42.0	12.2	
JUL 18...	1215	Environmental	48,400	1.8	7.5	101	8.2	676	30.6	270	69.1	22.6	
AUG 01...	1105	Blank	--	--	--	--	--	--	--	--	E.02n	E.007n	
01...	1210	Environmental	41,900	1.2	8.3	111	8.5	718	29.8	270	68.1	23.8	
14...	1115	Environmental	40,200	3.6	6.5	85	8.0	743	28.0	280	69.8	24.5	
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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 18...	175	175	214	<1	73	.70	<.04	1.20	E.005n	.10	.26	<10	120
APR 06...	162	164	200	<1	68	.79	<.04	.90	E.004n	.05	.18	20	2k
13...	166	168	205	<1	132	1.0	<.04	.97	E.006n	.04	.27	20	1,500
MAY 02...	157	160	195	<1	316d	1.4	<.04	2.78	E.006n	.09	.51	30	1,900
JUN 06...	168	168	205	<1	162	.96	<.04	2.55	.012	.12	.34	20	60k
12...	116	118	144	<1	325d	1.4	<.04	1.86	E.005n	.03	.50	30	1,300
JUL 18...	161	160	196	<1	26	.67	<.04	1.28	E.005n	.10	.19	20	23k
AUG 01...	--	--	--	--	<10	E.06n	<.04	<.06	<.008	<.02	<.04	<10	--
01...	186	188	E221	E4	28	.64	<.04	.57	.009	.08	.14	20	13k
14...	179	181	220	<1	63	.68	<.04	.58	E.005n	.10	.21	10	26k



06935715 MISSOURI RIVER NEAR CHESTERFIELD, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Fecal coli-form, M-FC 0.7µ MF col/100 mL (31625)	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 recover-able, µg/L (71900)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)
OCT 18...	140k	E1n	3.0	<.06	.06	<.8	2.1	<6	E.06n	2.1	<.01	2.47	1.7
APR 06...	7k	6	2.6	<.06	.04	2.2	1.7	11	.45	.9	<.01	5.87	2.4
13...	1,400k	3	2.6	<.06	E.03n	<.8	1.9	E4n	<.08	1.6	E.01n	3.29	2.3
MAY 02...	570	2	2.7	<.06	E.03n	1.1	2.2	E4n	.35	E.4n	.01	1.45	2.5
JUN 06...	83k	4	3.6	<.06	E.03n	1.2	2.1	<6	.14	E.4n	E.01n	3.55	2.6
12...	1,600	3	1.8	<.06	<.04	<.8	2.1	<6	<.08	E.3n	.01	3.54	1.2
JUL 18...	12k	6	4.4	<.06	E.04n	1.0	2.5	E4n	.13	1.0	<.01	3.59	2.5
AUG 01...	--	<2	<.2	<.06	<.04	<.8	E.2n	<6	<.08	<.6	<.01	E.06n	<.4
01...	36	5	4.5	<.06	E.03n	<.8	2.5	<6	<.08	.8	<.01	2.87	2.4
14...	38k	3	4.5	<.06	E.02n	<.8	1.9	<6	<.08	E.4n	<.01	4.15	1.5

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT 18...	<.2	1.3
APR 06...	<.2	1.0
13...	<.2	1.0
MAY 02...	<.2	.8
JUN 06...	<.2	.7
12...	<.2	1.1
JUL 18...	<.2	1.6
AUG 01...	<.2	E.3n
01...	<.2	.7
14...	<.2	.7

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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

06935755 BONHOMME CREEK NEAR ELLISVILLE, MO

LOCATION.--Lat 38°36'35", long 90°40'21", St. Louis County, Hydrologic Unit 10300200, on right downstream side of Rieger Road bridge, 0.14 mi southwest of State Road 109, 1.56 mi north of State Road 100 (Manchester Road), 1.25 mi west of St. Louis County Highway C, and 9.55 mi upstream of Missouri River.

DRAINAGE AREA.--4.44 mi<sup>2</sup>.

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

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

REMARKS.--Records fair except discharges below 0.5 ft<sup>3</sup>/s and above 500 ft<sup>3</sup>/s, which are poor. U.S.G.S. satellite telemeter at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.05	9.7	6.5	0.72	1.1	1.2	1.2	1.0	0.11	0.04	0.01	0.13
2	0.05	2.1	2.8	0.76	1.1	1.2	1.3	0.73	0.09	0.04	0.01	0.12
3	0.04	1.2	1.7	e112	1.1	1.1	1.0	0.60	0.09	0.04	0.00	0.10
4	0.04	1.7	1.2	e167	1.1	0.99	0.94	0.56	0.08	0.03	0.00	0.09
5	0.04	0.64	1.2	245	1.00	0.93	0.92	0.62	0.08	0.04	0.00	0.08
6	0.04	0.45	5.7	33	0.98	1.1	0.83	0.58	0.14	0.03	0.00	e0.07
7	0.05	0.39	81	11	3.3	1.2	0.78	0.54	0.16	0.02	0.00	0.06
8	0.05	0.33	5.4	6.5	3.5	1.1	0.76	0.48	0.11	0.02	0.00	0.07
9	0.07	0.29	3.2	5.2	2.5	0.98	0.71	0.47	0.14	0.03	0.00	0.06
10	0.07	0.28	2.2	4.1	1.8	0.92	0.70	0.45	0.41	0.03	0.00	0.06
11	0.07	49	1.8	3.8	1.5	0.93	1.5	0.39	1.3	0.03	0.01	0.06
12	1.0	4.2	1.5	68	1.4	0.95	43	0.32	0.67	1.8	0.03	0.05
13	0.28	1.0	1.3	158	55	1.0	18	0.28	2.1	0.45	0.11	0.04
14	0.34	0.57	1.1	15	13	0.91	5.1	0.46	1.6	0.15	0.54	0.06
15	0.78	0.42	0.97	7.1	6.8	0.74	2.9	0.31	0.24	0.50	0.69	38
16	0.19	0.38	0.96	4.8	4.2	0.69	1.9	0.25	0.12	0.18	0.58	4.2
17	0.13	0.31	0.96	3.6	3.1	0.72	1.5	0.20	0.11	0.05	0.25	0.76
18	2.1	0.55	0.95	3.0	2.4	0.69	1.2	0.24	0.09	0.05	0.27	0.37
19	0.35	2.1	0.79	3.2	2.0	0.69	1.0	0.20	0.07	0.04	0.27	10
20	0.16	0.56	0.71	3.2	2.0	0.69	1.2	0.20	0.07	0.03	0.13	22
21	0.12	0.35	0.69	2.8	1.9	1.0	3.7	0.15	0.06	0.02	0.11	0.94
22	0.10	1.0	0.66	2.5	1.9	26	22	0.26	0.07	0.02	0.10	0.65
23	0.13	0.57	0.58	2.2	1.7	8.4	1.8	0.18	0.08	0.01	0.10	0.43
24	0.15	49	0.54	2.2	2.1	4.0	1.1	0.15	0.05	0.01	0.12	0.35
25	0.12	9.9	0.61	2.4	1.7	5.3	0.92	0.13	0.07	0.00	e0.20	e18
26	0.64	11	0.67	2.4	1.3	3.1	1.1	0.12	0.06	0.00	e2.1	e2.3
27	3.7	9.1	0.61	2.0	1.3	2.6	0.88	0.13	0.05	0.07	e1.0	0.55
28	0.37	3.2	0.62	1.7	1.3	2.3	0.93	0.15	0.06	0.04	e0.40	27
29	0.20	5.6	0.64	1.5	---	2.1	1.1	0.12	0.04	0.02	0.15	2.2
30	0.16	14	0.68	1.6	---	1.8	1.0	0.22	0.03	0.01	0.16	0.68
31	0.14	---	0.69	1.4	---	1.3	---	0.14	---	0.05	0.15	---
MEAN	0.38	6.00	4.16	28.3	4.36	2.47	4.03	0.34	0.28	0.12	0.24	4.32
MAX	3.7	49	81	245	55	26	43	1.0	2.1	1.8	2.1	38
MIN	0.04	0.28	0.54	0.72	0.98	0.69	0.70	0.12	0.03	0.00	0.00	0.04
IN.	0.10	1.51	1.08	7.35	1.02	0.64	1.01	0.09	0.07	0.03	0.06	1.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

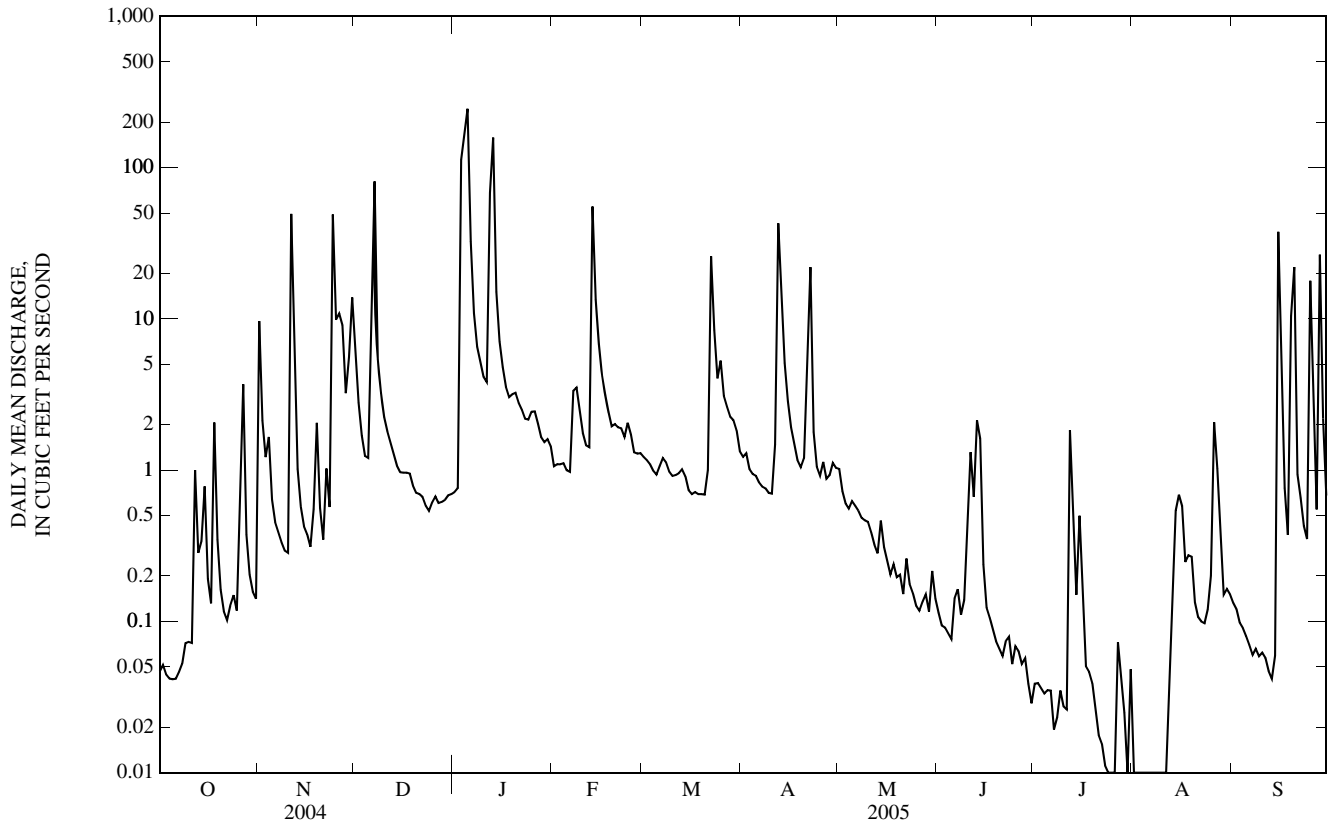
MEAN	1.28	2.50	2.17	7.59	4.31	5.61	3.10	7.60	4.74	1.79	0.51	1.17
MAX	3.21	6.76	5.87	28.3	11.2	13.2	4.47	26.2	13.7	6.29	1.26	4.32
(WY)	(2002)	(2004)	(2002)	(2005)	(1999)	(1998)	(1998)	(2004)	(1998)	(2004)	(2004)	(2005)
MIN	0.22	0.13	0.36	0.13	1.58	1.03	0.39	0.34	0.28	0.12	0.09	0.01
(WY)	(2000)	(2000)	(2001)	(2000)	(2003)	(2000)	(2000)	(2005)	(2005)	(2005)	(2003)	(1999)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1997 - 2005
ANNUAL MEAN	6.01	4.60	3.54
HIGHEST ANNUAL MEAN			6.03
LOWEST ANNUAL MEAN			1.11
HIGHEST DAILY MEAN	349	May 26	349
LOWEST DAILY MEAN	0.04	Sep 21-23,27,28,30,Oct 3-6	0.00
ANNUAL SEVEN-DAY MINIMUM	0.04	Sep 30	0.00
MAXIMUM PEAK FLOW	---	Unknown	Unknown
MAXIMUM PEAK STAGE	---	7.04	9.93
INSTANTANEOUS LOW FLOW	---	0.00	0.00
ANNUAL RUNOFF (INCHES)	18.42	14.06	10.83
10 PERCENT EXCEEDS	6.9	5.2	4.7
50 PERCENT EXCEEDS	1.1	0.68	0.59
90 PERCENT EXCEEDS	0.08	0.04	0.08

e Estimated

06935755 BONHOMME CREEK NEAR ELLISVILLE, MO—Continued



## 06935770 BONHOMME CREEK NEAR CLARKSON VALLEY, MO

LOCATION.--Lat 38°39'28", long 90°37'09", St. Louis County, Hydrologic Unit 10300200, on right downstream wingwall of Highway CC Bridge, 0.96 mi south of U.S. Highway 40, 3.3 mi west of State Highway 340, 1.48 mi east of County Highway C, and 1.48 mi upstream from Missouri River.

DRAINAGE AREA.--11.3 mi<sup>2</sup>

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

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

REMARKS.--Records poor.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.79	41	29	4.3	e5.9	4.5	4.7	4.8	2.3	1.7	0.96	1.1
2	0.87	8.2	13	4.5	e6.0	4.4	4.6	4.4	2.2	1.7	0.93	1.1
3	0.78	3.9	e7.0	323	e5.8	4.4	4.6	4.3	2.0	1.7	0.93	1.1
4	0.67	4.3	e5.1	335	e6.0	4.3	4.5	4.2	2.0	1.8	1.1	1.0
5	0.62	3.2	e4.9	820	e5.7	4.2	4.4	4.1	2.0	1.8	2.6	1.0
6	0.67	2.6	13	167	e5.6	4.1	4.3	3.9	1.9	1.7	1.1	0.98
7	0.86	2.4	253	41	14	4.5	4.1	3.9	1.9	1.6	0.93	0.98
8	e0.94	2.3	28	23	25	4.4	4.0	3.8	2.0	1.5	0.93	1.0
9	e1.0	2.1	15	17	21	4.1	4.0	3.8	2.2	1.5	0.90	1.1
10	e0.98	2.0	7.0	14	15	4.1	4.0	3.8	2.3	1.4	1.1	1.1
11	e0.97	163	4.9	12	12	4.1	5.2	3.7	4.1	1.8	0.99	1.1
12	2.5	36	4.4	31	12	4.2	148	3.6	3.9	4.5	0.89	1.1
13	e1.9	5.1	3.9	516	121	4.6	82	3.5	2.9	3.4	1.7	1.1
14	e2.5	3.7	3.6	62	e48	e4.3	20	4.0	4.4	2.1	1.7	2.0
15	5.8	3.2	3.4	26	e23	e3.9	14	3.4	2.6	2.8	2.0	28
16	e1.8	2.9	3.4	19	e13	e3.8	12	3.1	2.1	1.8	2.5	12
17	e1.3	2.8	3.4	e15	e9.6	e4.0	10	3.0	2.0	1.7	1.6	2.1
18	14	3.3	3.3	12	e7.3	e3.9	9.6	3.0	1.8	2.1	1.7	1.5
19	3.8	5.4	3.3	13	e5.9	e3.8	8.9	3.0	1.8	1.9	1.3	6.2
20	2.8	3.8	3.1	17	e6.1	e3.7	8.5	3.2	1.8	1.4	1.2	42
21	2.6	3.1	3.2	15	e5.9	4.4	11	2.9	1.8	1.3	1.1	2.5
22	e2.5	4.7	3.2	e12	e5.6	51	29	3.3	1.8	1.2	1.2	1.6
23	e3.2	4.1	3.2	e10	5.0	36	7.6	3.0	1.8	1.1	0.97	1.4
24	e3.8	164	3.2	e9.9	7.3	21	6.1	2.8	1.8	1.1	0.89	1.3
25	e2.7	52	3.1	e10	5.1	25	5.5	2.6	1.8	1.0	1.1	14
26	5.9	33	3.0	9.5	4.4	16	5.9	2.5	1.8	1.0	5.6	5.7
27	9.6	28	2.9	e9.5	4.3	8.2	5.2	2.6	1.9	1.4	3.1	2.1
28	3.7	14	2.8	e8.9	4.3	5.8	5.1	2.7	1.9	1.1	1.6	18
29	2.8	15	2.9	e8.4	---	5.2	5.4	2.4	1.9	1.00	1.3	5.8
30	2.5	39	3.2	7.7	---	4.9	5.3	2.6	1.8	0.98	1.2	2.1
31	2.5	---	3.8	6.6	---	4.8	---	2.5	---	0.98	1.1	---
MEAN	2.82	21.9	14.4	83.2	14.6	8.57	14.9	3.37	2.22	1.68	1.49	5.40
MAX	14	164	253	820	121	51	148	4.8	4.4	4.5	5.6	42
MIN	0.62	2.0	2.8	4.3	4.3	3.7	4.0	2.4	1.8	0.98	0.89	0.98
IN.	0.29	2.17	1.47	8.49	1.35	0.87	1.47	0.34	0.22	0.17	0.15	0.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

MEAN	3.76	7.79	7.22	21.7	14.6	17.0	9.75	22.6	13.8	5.48	2.58	3.06
MAX	8.87	21.9	14.4	83.2	36.6	40.9	14.9	67.1	28.9	20.5	7.74	7.16
(WY)	(2003)	(2005)	(2005)	(2005)	(1999)	(1998)	(2005)	(2004)	(2000)	(2004)	(2004)	(2003)
MIN	0.79	0.96	0.63	0.96	5.44	3.09	1.72	3.37	2.22	1.08	0.95	0.69
(WY)	(2000)	(2000)	(2001)	(2000)	(2003)	(2000)	(2000)	(2005)	(2005)	(1997)	(2003)	(1999)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

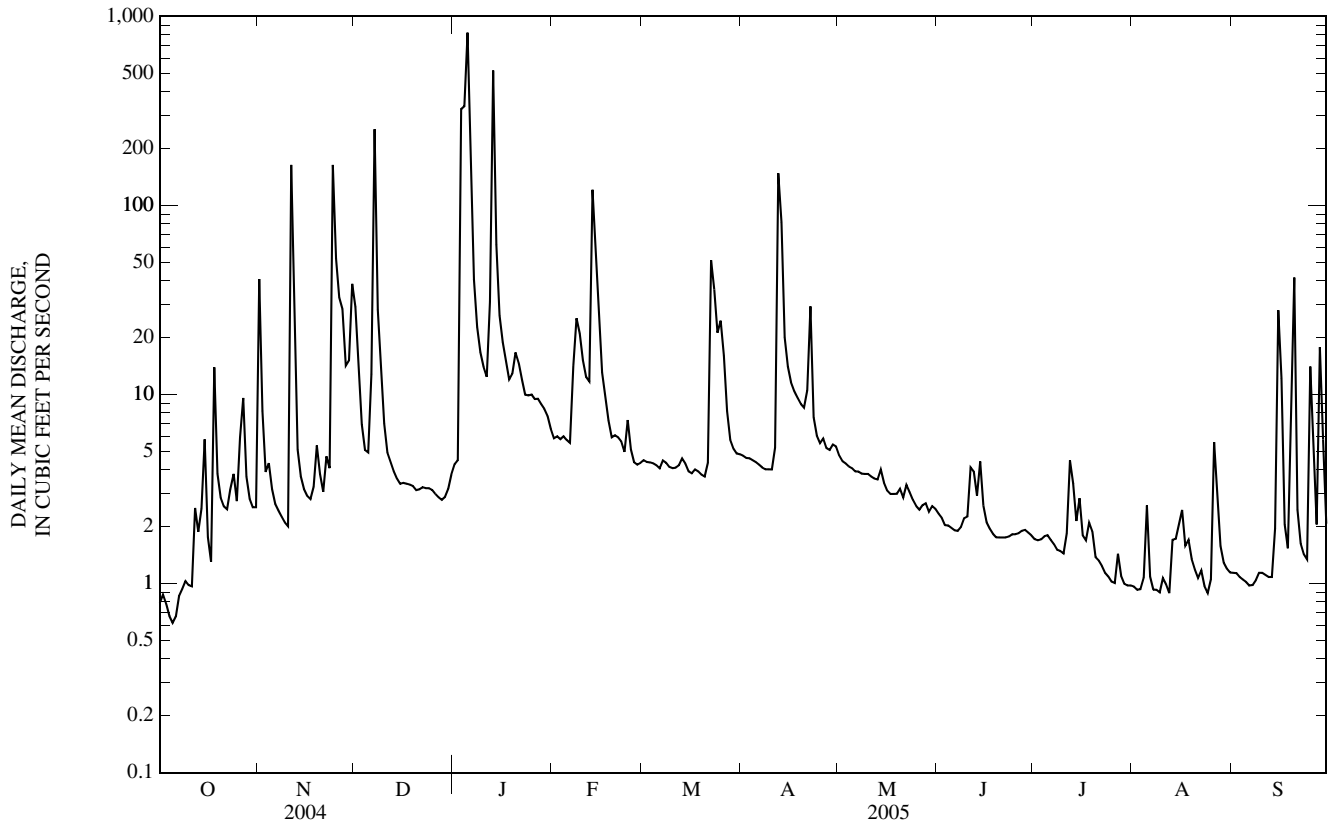
FOR 2005 WATER YEAR

WATER YEARS 1997 - 2005

ANNUAL MEAN	19.6	14.6	10.8
HIGHEST ANNUAL MEAN			19.7
LOWEST ANNUAL MEAN			3.54
HIGHEST DAILY MEAN	529	Jan 4	820
LOWEST DAILY MEAN	0.53	Sep 29	0.62
ANNUAL SEVEN-DAY MINIMUM	0.71	Sep 29	0.75
MAXIMUM PEAK FLOW	---	Unknown	Unknown
MAXIMUM PEAK STAGE	---	17.40	19.62
INSTANTANEOUS LOW FLOW	---	0.60	0.14
ANNUAL RUNOFF (INCHES)	23.65	17.53	13.00
10 PERCENT EXCEEDS	32	19	14
50 PERCENT EXCEEDS	4.8	3.7	2.8
90 PERCENT EXCEEDS	1.8	1.1	0.67

e Estimated

06935770 BONHOMME CREEK NEAR CLARKSON VALLEY, MO—Continued



## 06935830 CAULKS CREEK AT CHESTERFIELD, MO

LOCATION.--Lat 38°39'17", long 90°35'42", St. Louis County, Hydrologic Unit 10300200, on downstream side of middle pier of Highway CC bridge, 2.0 mi west of State Highway 340, 1.1 mi south of U.S. Route 40, and 1.09 mi upstream of Bonhomme Creek.

DRAINAGE AREA.--17.1 mi<sup>2</sup>.

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

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	53	47	9.5	12	11	9.6	12	7.5	6.7	5.7	e13
2	5.9	34	26	8.5	11	10	9.3	11	7.3	6.7	5.6	e9.3
3	5.8	15	18	393	11	9.8	9.1	10	7.1	6.6	5.6	e8.0
4	5.7	20	15	765	11	9.7	9.2	9.7	7.2	6.7	5.5	e7.6
5	5.4	12	13	1,250	11	9.6	9.1	9.3	7.0	7.2	7.4	e7.3
6	5.3	9.8	23	162	11	9.5	8.9	9.2	7.2	6.5	5.9	8.8
7	5.3	9.0	340	74	17	11	8.9	9.1	8.1	6.5	5.7	6.6
8	6.1	7.9	44	53	37	9.8	8.6	8.9	7.3	6.3	5.8	6.3
9	6.8	7.6	28	40	25	9.2	8.6	8.6	8.2	6.4	5.9	6.5
10	5.6	7.0	20	32	20	9.2	8.5	8.5	7.4	6.3	6.2	6.5
11	5.6	174	17	28	16	8.9	10	8.4	16	7.2	6.3	6.7
12	16	64	15	149	15	8.9	226	8.1	19	35	8.9	6.3
13	14	27	12	1,150	120	8.4	119	8.1	18	19	8.4	5.8
14	12	15	11	112	58	8.1	43	9.9	29	9.0	18	11
15	22	11	10	57	34	8.1	25	8.9	11	8.1	13	132
16	11	10	9.7	41	28	8.1	19	8.2	9.0	12	17	48
17	8.1	9.4	9.3	33	23	8.2	17	8.0	8.0	13	9.7	14
18	28	11	9.3	26	18	8.4	15	8.0	7.5	14	11	9.3
19	17	31	8.9	24	16	8.6	14	7.8	7.2	11	10	12
20	10	16	8.6	24	16	8.1	13	8.3	7.0	8.2	7.9	191
21	8.4	11	8.9	21	14	8.1	20	7.7	6.8	7.2	7.0	18
22	7.8	18	8.2	19	13	49	57	9.8	6.8	6.8	6.8	11
23	9.2	14	8.0	16	12	40	26	8.8	6.7	6.6	6.5	9.2
24	9.0	254	7.8	16	12	20	17	8.1	6.7	6.5	6.2	8.5
25	7.7	78	7.8	15	12	24	15	7.6	6.6	6.3	17	70
26	10	52	7.8	14	11	16	17	7.3	6.8	6.4	48	44
27	35	49	7.6	13	11	13	13	7.5	6.8	11	21	17
28	14	32	7.6	12	11	12	14	8.3	6.7	7.8	10	71
29	9.6	29	7.7	13	---	11	17	7.6	6.6	6.6	8.4	36
30	8.5	57	7.6	14	---	11	17	8.7	6.7	6.3	8.7	15
31	7.7	---	7.6	13	---	10	---	8.1	---	5.9	9.5	---
MEAN	10.6	37.9	24.9	148	21.6	12.8	26.8	8.69	9.11	9.03	10.3	27.2
MAX	35	254	340	1,250	120	49	226	12	29	35	48	191
MIN	5.3	7.0	7.6	8.5	11	8.1	8.5	7.3	6.6	5.9	5.5	5.8
IN.	0.71	2.47	1.68	10.00	1.32	0.86	1.75	0.59	0.59	0.61	0.69	1.77

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

	2003	1997	2002	2005	1999	1998	1998	2004	1998	2004	1996	2003
MEAN	14.6	24.5	14.4	36.2	33.2	28.8	19.7	40.1	34.2	17.2	11.8	14.3
MAX	28.9	62.0	27.7	148	72.6	78.1	29.2	102	59.3	42.9	20.2	36.7
(WY)	(2003)	(1997)	(2002)	(2005)	(1999)	(1998)	(1998)	(2004)	(1998)	(2004)	(1996)	(2003)
MIN	8.15	6.33	5.76	5.33	11.5	9.70	6.64	8.69	8.40	7.52	7.11	4.33
(WY)	(2000)	(2000)	(1999)	(2000)	(2003)	(2000)	(2000)	(2005)	(1999)	(2002)	(2002)	(1999)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

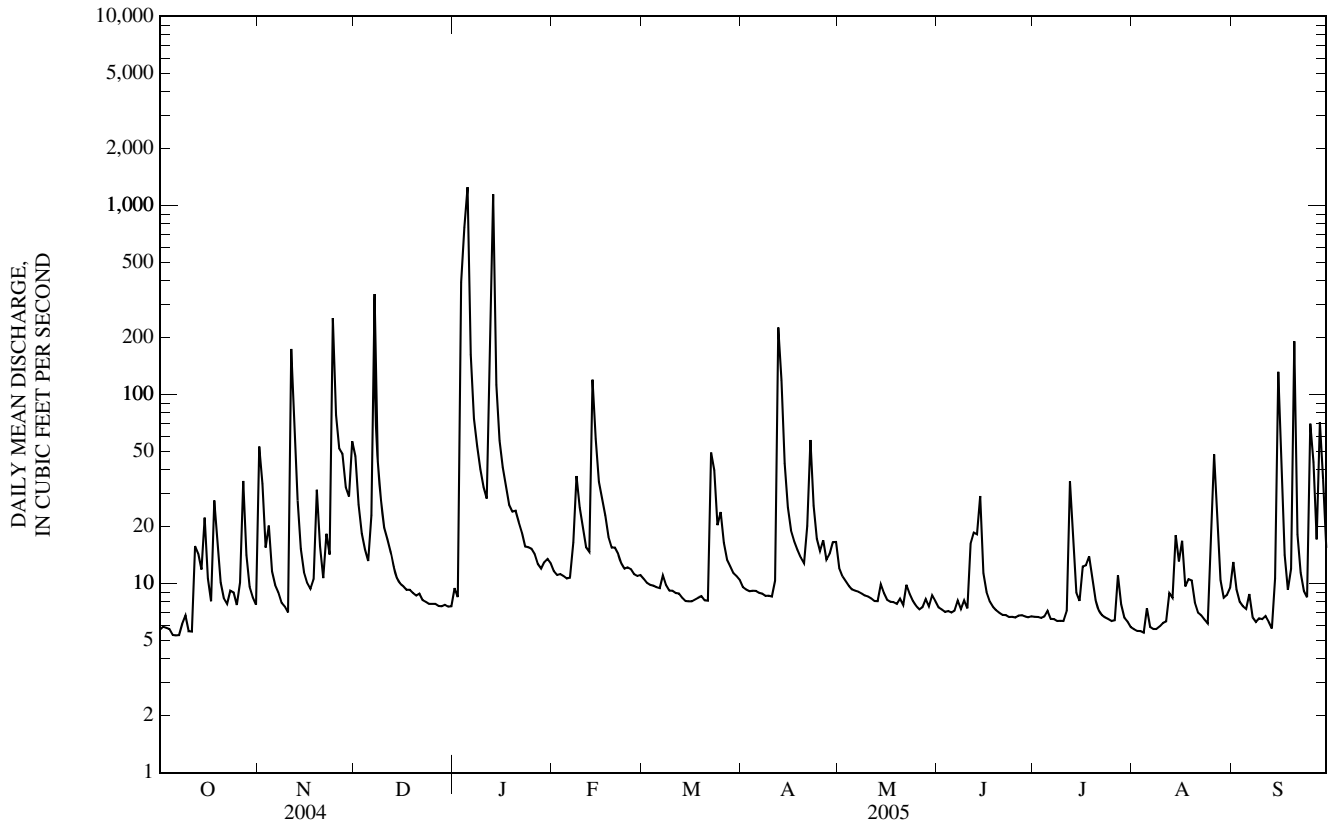
WATER YEARS 1996 - 2005

ANNUAL MEAN	31.8	29.0	23.9
HIGHEST ANNUAL MEAN			32.1
LOWEST ANNUAL MEAN			13.2
HIGHEST DAILY MEAN	807	May 26	1,250
LOWEST DAILY MEAN	5.3	Oct 6,7	5.3
ANNUAL SEVEN-DAY MINIMUM	5.6	Oct 1	5.6
MAXIMUM PEAK FLOW	---		Unknown
MAXIMUM PEAK STAGE	---		13.29
INSTANTANEOUS LOW FLOW	---		5.1
ANNUAL RUNOFF (INCHES)	25.30		23.05
10 PERCENT EXCEEDS	50		40
50 PERCENT EXCEEDS	11		9.8
90 PERCENT EXCEEDS	6.5		6.5

e Estimated

<sup>a</sup> Occurred during period of construction upstream. Verified by field visit.

06935830 CAULKS CREEK AT CHESTERFIELD, MO—Continued



## 06935850 CREVE COEUR CREEK AT CHESTERFIELD, MO

LOCATION.--Lat 38°38'47", long 90°31'37", in SW ¼ NW ¼ NW ¼ sec.13, T.45 N., R.4 E., St. Louis County, Hydrologic Unit 10300200, on left downstream abutment of Highway 40 bridge, 3.71 mi north of State Highway 100 (Manchester Road), 0.75 mi west of State Highway 141, and 10.33 mi upstream of Missouri River.

DRAINAGE AREA.--5.62 mi<sup>2</sup>.

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

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

REMARKS.--Records fair except for estimated daily discharges and discharges below 1 ft<sup>3</sup>/s, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.18	38	10	4.8	1.5	1.4	0.86	e1.6	0.29	0.34	0.11	0.45
2	1.0	6.6	3.7	5.7	1.3	1.1	0.74	e1.3	0.30	0.34	0.09	0.38
3	0.14	5.1	2.3	167	e1.6	0.98	0.61	e1.2	e0.29	0.32	0.09	0.37
4	0.14	4.9	1.8	229	1.4	0.91	0.68	e1.1	e0.31	0.33	0.09	0.36
5	0.13	1.1	4.9	341	1.4	0.78	0.52	e1.1	e0.30	0.33	9.9	0.35
6	0.14	0.69	12	21	2.8	0.65	0.51	e1.0	0.49	0.38	0.72	e0.32
7	0.17	0.57	128	6.1	19	3.7	0.55	e0.94	0.41	0.32	0.39	0.29
8	1.1	0.49	6.0	5.0	9.2	0.68	0.44	e0.90	0.68	0.32	0.33	0.31
9	0.54	0.41	3.8	3.1	9.8	0.51	0.43	e0.92	2.1	0.35	0.27	0.29
10	0.26	0.43	3.2	2.5	3.6	0.54	0.47	0.99	1.8	0.32	8.2	0.47
11	0.39	98	3.6	3.8	2.3	0.59	3.8	e0.86	5.9	5.7	2.5	0.47
12	8.6	8.7	1.9	64	2.0	0.54	286	e0.81	0.87	19	1.6	0.42
13	1.3	2.0	1.1	299	71	0.46	39	e0.78	8.3	2.4	13	0.36
14	7.9	1.0	0.76	12	9.6	0.36	7.4	5.3	6.6	0.90	7.9	8.8
15	3.9	0.81	0.90	5.2	4.9	0.35	3.3	0.62	0.67	0.76	9.2	125
16	0.32	0.76	0.76	4.3	2.7	0.35	2.3	0.45	0.47	0.70	4.6	8.6
17	0.22	0.87	0.67	2.6	1.7	0.44	1.9	0.48	0.39	0.56	0.99	1.7
18	22	6.6	0.77	1.9	1.4	0.34	1.8	0.54	0.39	3.0	4.5	0.83
19	1.5	11	0.54	4.4	1.2	0.39	2.0	0.72	0.39	1.5	1.4	24
20	0.41	1.9	0.65	4.7	1.6	0.33	3.8	3.1	0.39	0.49	0.62	84
21	0.30	0.89	0.52	2.7	1.2	0.40	4.0	0.46	0.39	0.45	0.41	2.8
22	0.42	7.8	0.46	1.7	1.1	41	23	3.9	0.40	0.42	0.40	1.4
23	2.5	1.8	0.40	1.4	1.1	8.5	4.1	0.68	0.41	0.30	0.33	1.1
24	0.45	130	0.33	1.5	2.0	4.8	1.4	0.35	0.50	0.30	0.27	0.93
25	0.25	e20	0.35	1.2	1.2	6.2	1.1	0.32	0.47	0.23	13	51
26	8.3	e8.6	0.39	1.4	1.1	1.8	4.9	e0.34	0.44	0.69	25	8.2
27	7.1	e11	0.41	1.3	1.0	1.2	1.4	0.69	0.39	4.8	2.6	2.1
28	0.49	e3.3	0.48	e1.2	2.1	0.98	5.1	1.2	0.41	0.27	0.84	28
29	0.34	e5.5	0.53	e2.7	---	0.82	5.0	0.32	0.38	0.15	1.3	5.5
30	0.35	45	0.49	e2.4	---	0.89	2.8	0.49	0.35	0.13	2.2	1.5
31	0.35	---	0.60	1.9	---	0.71	---	0.39	---	0.13	0.48	---
MEAN	2.30	14.1	6.20	38.9	5.74	2.67	13.7	1.09	1.18	1.49	3.66	12.0
MAX	22	130	128	341	71	41	286	5.3	8.3	19	25	125
MIN	0.13	0.41	0.33	1.2	1.0	0.33	0.43	0.32	0.29	0.13	0.09	0.29
IN.	0.47	2.81	1.27	7.99	1.06	0.55	2.71	0.22	0.23	0.31	0.75	2.38

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
MEAN	4.79	7.22	3.98	10.0	6.83	7.46	6.67	12.4	10.9	5.24	2.82	4.20
MAX	9.55	15.7	10.3	38.9	14.9	15.5	13.7	26.2	20.5	14.2	5.45	15.1
(WY)	(2003)	(2004)	(2002)	(2005)	(1998)	(1998)	(2005)	(2004)	(2000)	(2004)	(1998)	(2003)
MIN	2.14	0.77	0.93	0.85	3.38	2.67	1.62	1.09	1.18	0.54	0.44	0.33
(WY)	(1998)	(2000)	(2001)	(2000)	(2003)	(2005)	(2000)	(2005)	(2005)	(2002)	(2001)	(1999)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

## FOR 2005 WATER YEAR

## WATER YEARS 1997 - 2005

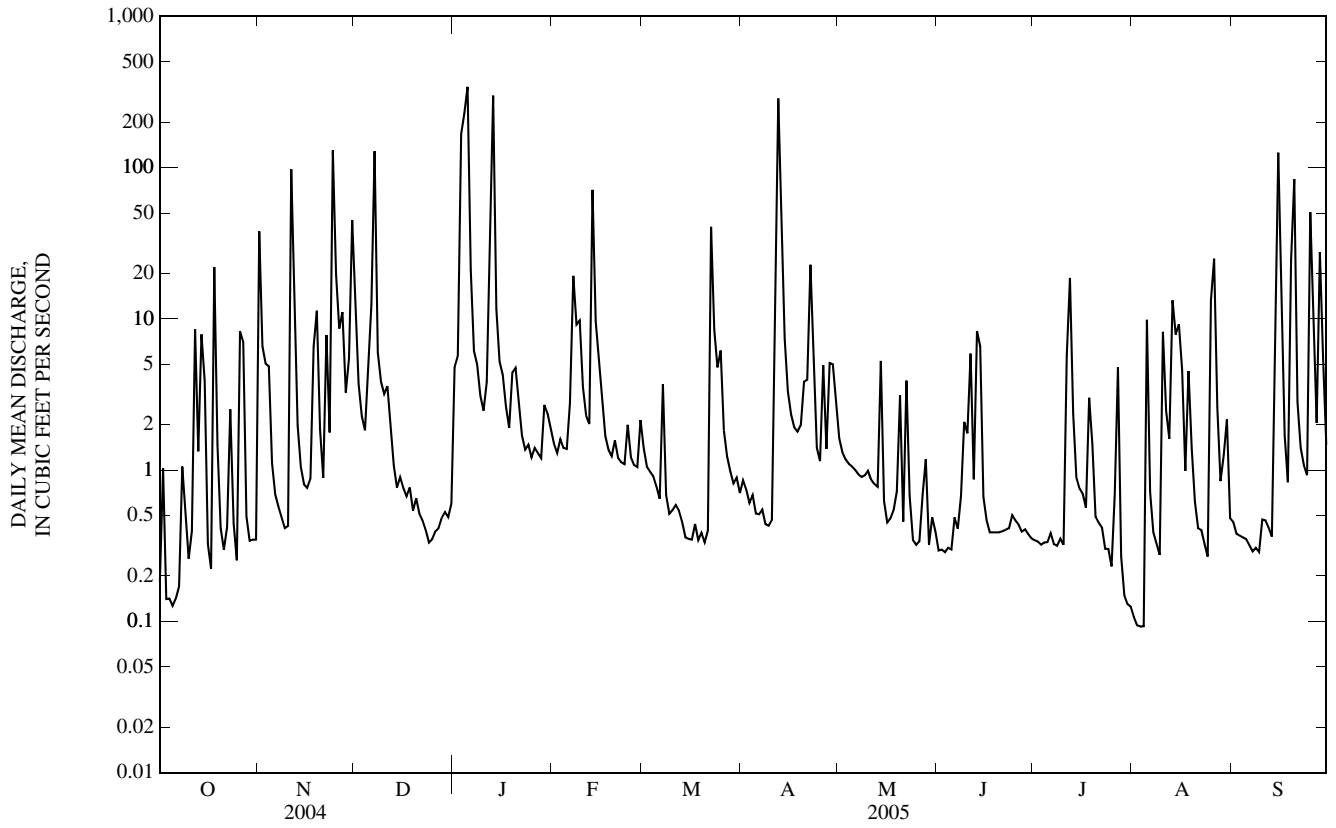
ANNUAL MEAN	8.53	8.59	6.94
HIGHEST ANNUAL MEAN			8.59
LOWEST ANNUAL MEAN			4.54
HIGHEST DAILY MEAN	237	Jan 4	341
LOWEST DAILY MEAN	0.13	Oct 5	0.09
ANNUAL SEVEN-DAY MINIMUM	0.16	Sep 25	0.11
MAXIMUM PEAK FLOW	---		1,710 <sup>a</sup>
MAXIMUM PEAK STAGE	---		15.03
INSTANTANEOUS LOW FLOW	---		0.09
ANNUAL RUNOFF (INCHES)	20.67		20.76
10 PERCENT EXCEEDS	11		9.4
50 PERCENT EXCEEDS	1.2		1.0
90 PERCENT EXCEEDS	0.35		0.32

e Estimated

<sup>a</sup> From rating extended above 509 ft<sup>3</sup>/s on basis of indirect measurement.



06935850 CREVE COEUR CREEK AT CHESTERFIELD, MO—Continued



## 06935890 CREVE COEUR CREEK NEAR CREVE COEUR, MO

LOCATION.--Lat 38°40'58", long 90°29'20", St. Louis County, Hydrologic Unit 10300200, 200 ft downstream of Highway 340 bridge, 2.10 mi west of Interstate 270, 2.95 mi north U.S. Route 40, and 5.80 mi upstream of Missouri River.

DRAINAGE AREA.--22.0 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR MO-03-1: 1997-2002 (P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 449.43 ft above National Geodetic Vertical Datum of 1929. Prior to June 1997, at datum 451.10 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in April 11, 1979 reached a stage of 14.78 ft, former datum, discharge 4,820 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	128	46	19	11	10	8.0	7.6	4.9	3.1	1.2	2.6
2	5.0	29	15	8.5	11	8.9	8.2	6.3	4.2	3.0	1.1	2.3
3	3.5	16	11	716	13	8.8	7.7	5.8	4.0	2.5	1.1	2.0
4	2.7	23	8.5	577	11	8.8	8.2	5.6	4.2	2.6	1.0	1.9
5	2.6	9.1	11	1,680	10	8.4	7.8	5.4	3.8	2.9	27	1.8
6	2.8	6.7	34	126	11	7.9	7.6	5.0	6.2	2.9	4.9	1.7
7	2.9	5.9	537	32	52	16	7.9	4.6	6.1	3.0	2.1	1.6
8	5.0	5.0	26	27	56	9.3	7.4	4.3	4.9	2.6	1.6	1.6
9	6.1	4.7	15	20	38	7.8	7.1	4.5	22	2.5	1.3	1.6
10	3.0	4.6	12	18	20	7.6	7.1	5.2	17	2.4	5.5	1.6
11	2.7	322	15	20	15	7.7	16	4.3	77	14	7.3	1.7
12	45	42	9.7	e198	14	7.6	e1,000	4.1	22	77	5.5	1.7
13	15	12	7.8	e1,300	259	7.2	e171	4.0	22	13	65	1.8
14	27	8.2	6.9	e84	46	6.9	e40	18	36	4.9	44	25
15	28	7.0	7.0	e35	23	6.7	e17	6.1	6.9	26	41	357
16	4.6	6.4	7.2	e31	17	6.7	12	4.1	4.9	7.2	37	28
17	2.9	6.1	6.9	e23	14	6.8	10	3.8	4.3	3.6	7.2	e5.1
18	102	20	7.3	20	13	6.9	9.2	e4.3	3.9	11	16	e3.5
19	18	56	6.9	26	12	6.8	8.5	e5.1	3.7	9.9	7.9	e91
20	9.3	12	6.5	22	13	6.3	17	12	3.4	3.3	4.0	e210
21	7.2	8.1	7.4	18	12	6.4	20	4.8	3.4	2.3	3.1	12
22	6.3	28	6.9	15	11	136	121	15	3.4	2.0	2.6	7.7
23	13	12	6.1	12	11	48	19	7.9	3.4	1.8	2.5	e6.1
24	8.9	540	5.7	12	13	21	9.5	5.7	3.2	1.9	2.2	e5.1
25	5.9	62	6.0	13	11	33	7.4	5.0	3.3	1.7	71	e146
26	35	30	6.3	13	9.9	15	16	5.2	5.3	1.9	96	25
27	38	37	6.0	11	9.7	12	7.5	5.2	3.2	19	16	8.0
28	11	16	6.3	10	12	11	19	8.1	3.2	3.3	5.7	92
29	7.5	35	7.1	19	---	9.8	17	5.4	3.0	1.9	4.2	29
30	6.1	105	7.1	16	---	9.4	15	5.7	2.8	1.3	5.8	7.9
31	5.7	---	7.3	13	---	8.3	---	5.4	---	1.2	3.3	---
MEAN	14.0	53.2	28.0	166	26.7	15.3	54.3	6.24	9.85	7.60	15.9	36.1
MAX	102	540	537	1,680	259	136	1,000	18	77	77	96	357
MIN	2.6	4.6	5.7	8.5	9.7	6.3	7.1	3.8	2.8	1.2	1.0	1.6
IN.	0.74	2.70	1.47	8.68	1.27	0.80	2.75	0.33	0.50	0.40	0.84	1.83

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

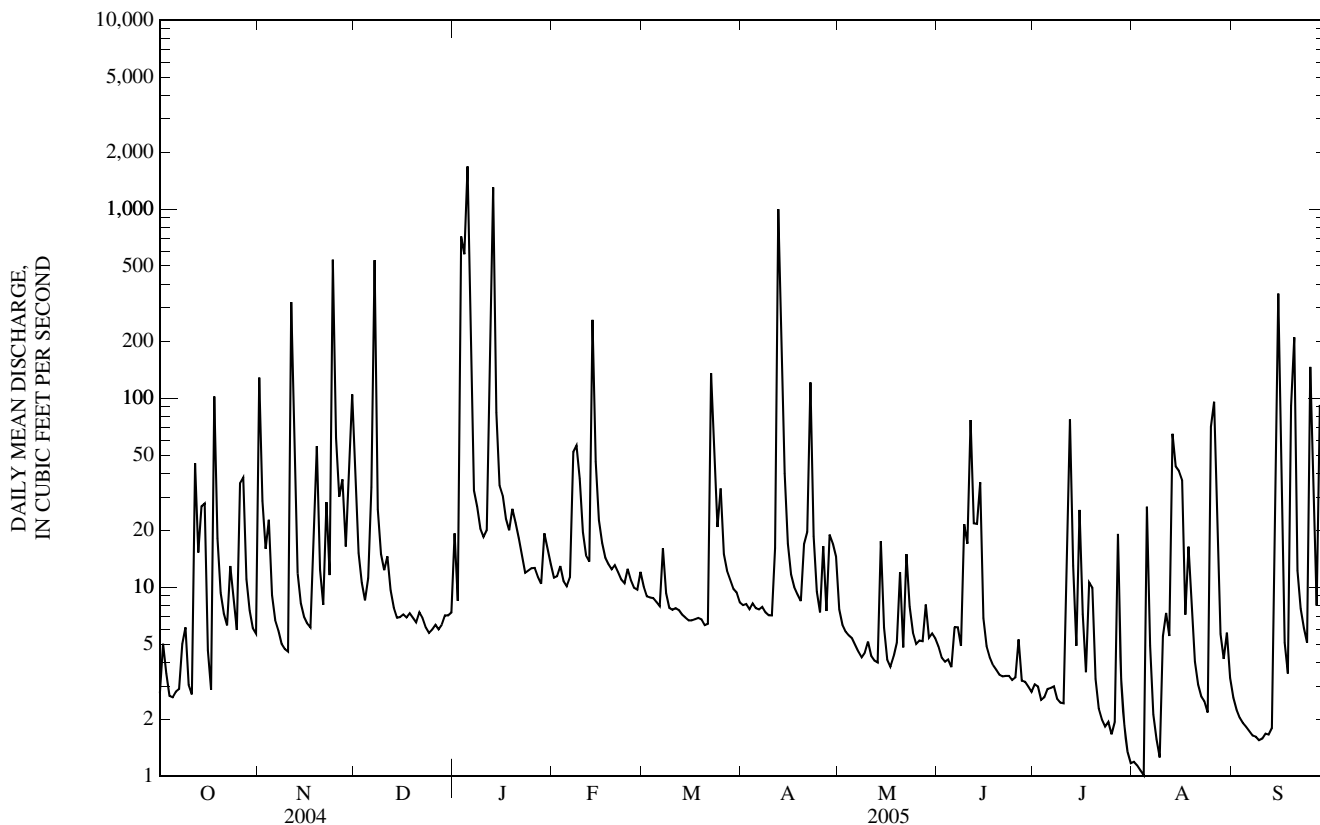
MEAN	17.3	25.6	15.6	45.5	33.2	35.8	28.1	51.2	52.6	19.5	12.4	16.3
MAX	36.2	67.4	35.3	166	80.0	96.2	54.3	118	103	67.5	28.6	63.6
(WY)	(2003)	(2004)	(2002)	(2005)	(1999)	(1998)	(2005)	(2004)	(2003)	(2004)	(1998)	(2003)
MIN	6.51	4.16	5.43	3.40	10.3	9.31	6.56	6.24	9.85	4.05	1.70	1.16
(WY)	(1998)	(2000)	(1999)	(2000)	(2002)	(2000)	(2000)	(2005)	(2005)	(1997)	(2001)	(1999)

06935890 CREVE COEUR CREEK NEAR CREVE COEUR, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1997 - 2005	
ANNUAL MEAN	38.9		36.1		29.6	
HIGHEST ANNUAL MEAN					39.8 2004	
LOWEST ANNUAL MEAN					13.3 2001	
HIGHEST DAILY MEAN	933	Jan 4	1,680	Jan 5	2,050	Jun 24, 2000
LOWEST DAILY MEAN	2.6	Sep 29, Oct 5	1.0	Aug 4	0.20	Sep 17, 1999
ANNUAL SEVEN-DAY MINIMUM	2.8	Sep 25	1.3	Jul 29	0.30	Sep 15, 1999
MAXIMUM PEAK FLOW	---		3,160 <sup>a</sup>	Jan 5	6,560 <sup>a</sup>	Jun 24, 2000
MAXIMUM PEAK STAGE	---		13.68	Jan 5	16.43	Jun 24, 2000
INSTANTANEOUS LOW FLOW	---		0.96	Aug 2-5, 10	0.16	Sep 17, 1999
ANNUAL RUNOFF (INCHES)	24.09		22.30		18.30	
10 PERCENT EXCEEDS	49		44		41	
50 PERCENT EXCEEDS	9.1		7.9		6.3	
90 PERCENT EXCEEDS	3.7		2.6		2.2	

<sup>e</sup> Estimated

<sup>a</sup> From rating extended above 588 ft<sup>3</sup>/s on basis of indirect measurement.



06935890 CREVE COEUR CREEK NEAR CREVE COEUR, MO—Continued  
(Metropolitan St. Louis Sewer District Network)

## WATER-QUALITY RECORDS

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	
OCT 05...	1505	Environmental	2.7	6.3	7.8	76	7.8	884	13.9	330	92.5	24.7	
12...	1003	Environmental	64	4.4	8.0	81	7.8	597	14.9	260	69.2	20.4	
MAR 22...	1404	Environmental	249	4.7	10.0	85	7.8	880	7.1	300	79.9	23.4	
22...	1410	Blank	--	--	--	--	--	--	--	--	.04	<.008	
APR 20...	1110	Environmental	7.8	13	7.9	88	7.6	926	19.2	380	107	26.8	
JUN 20...	1545	Environmental	3.6	11	5.4	66	7.6	882	24.5	330	90.7	24.1	
AUG 10...	0827	Environmental	1.1	10	3.3	42	7.4	657	26.0	230	65.0	15.9	
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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 05...	216	217	265	<1	<10	.44	<.04	.50	E.007n	.05	.12	30	20k
12...	163	165	201	<1	93	.91	.05	.96	.034	.13	.28	30	2,000k
MAR 22...	168	167	204	<1	265	1.3	.24	.41	.018	.03	.34	30	4,800
22...	--	--	--	--	<10	<.10	<.04	<.06	<.008	<.02	<.04	<10	--
APR 20...	244	246	300	<1	11	.54	.11	.52	.044	<.02	.09	10	110
JUN 20...	211	209	255	<1	<10	.60	<.04	.56	.027	.03	.14	20	250
AUG 10...	146	146	178	<1	16	.54	.06	.38	.015	.08	.15	20	320
Date	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	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)	Nickel, water, fltrd, $\mu$ g/L (01065)	Selenium, water, fltrd, $\mu$ g/L (01145)
OCT 05...	130k	E1n	2.1	<.06	E.03n	<.8	2.2	E4n	<.08	94.6	<.01	2.46	.6
12...	8,000	<2	2.3	<.06	.11	E.6n	2.5	21	<.08	95.5	E.01n	2.48	1.0
MAR 22...	2,200k	2	1.2	<.06	.17	.9	3.5	8	<.08	345	.02	5.47	1.0
22...	--	<2	<.2	<.06	<.04	<.8	<.4	<6	<.08	<.6	<.01	<.06	<.4
APR 20...	220	2	2.0	<.06	E.04n	<.8	1.6	16	<.08	331	<.01	3.24	1.0
JUN 20...	330	2	3.5	<.06	E.02n	<.8	1.3	<6	<.08	455	<.01	5.54	.8
AUG 10...	840k	2	3.9	<.06	E.02n	<.8	1.7	<6	E.05n	400	<.01	4.26	.7

06935890 CREVE COEUR CREEK NEAR CREVE COEUR, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT		
05...	<.2	1.2
12...	<.2	2.0
MAR		
22...	<.2	2.5
22...	<.2	<.6
APR		
20...	<.2	1.4
JUN		
20...	<.2	.7
AUG		
10...	<.2	1.0

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

Value qualifier codes used in this table:

k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL

## 06935955 FEE FEE CREEK NEAR BRIDGETON, MO

LOCATION.--Lat 38°43'41", long 90°26'51", St. Louis County, Hydrologic Unit 10300200, on left abutment of old bridge at McKelvey Road, 0.17 mi west of Interstate 270, 0.92 mi north of Dorsett Road, and 0.65 mi upstream of Creve Coeur Creek.

DRAINAGE AREA.--11.7 mi<sup>2</sup>.

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

REVISED RECORDS.--WDR MO-03-1: 1996-2002(P).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 451.99 ft above National Geodetic Vertical Datum of 1929. Prior to 1996 datum of gage 450.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 11, 1979 reached a stage of 21.62 ft, former datum, discharge 3,810 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.5	e17	e8.7	e5.9	5.3	3.3	3.9	3.4	1.7	1.1	0.77	1.0
2	e1.0	e3.4	e4.4	e21	5.6	3.0	3.5	3.5	1.3	1.7	0.68	0.88
3	e0.58	e15	e4.2	e140	6.8	3.3	3.3	2.9	1.2	0.85	0.68	0.81
4	e0.58	e7.5	e4.0	e434	e5.6	3.6	3.4	2.9	0.88	1.1	1.4	0.76
5	0.55	e4.7	e63	e280	e5.3	3.7	3.5	3.1	0.89	1.7	1.3	0.80
6	e0.54	e3.3	e9.5	53	e7.7	3.7	3.3	3.1	1.8	0.95	1.1	0.78
7	e0.55	e3.0	e200	22	e38	8.9	3.3	3.1	1.9	0.82	0.84	0.67
8	e6.0	e2.6	e7.2	16	e9.1	3.5	3.0	2.9	14	1.0	0.83	0.71
9	1.6	e2.7	e3.5	13	e18	3.0	3.0	6.3	140	0.69	0.62	0.86
10	0.78	e123	e3.0	11	e9.0	3.8	2.9	4.9	13	0.68	0.51	0.86
11	11	e39	e3.5	11	6.8	4.7	10	2.6	320	41	0.75	1.3
12	51	e9.5	e2.5	108	6.5	3.5	31	2.7	15	53	3.1	1.3
13	7.2	e6.8	e2.3	e228	114	3.2	12	2.6	23	5.0	55	1.3
14	21	e4.9	e2.2	e9.5	14	3.3	3.7	16	21	1.9	15	31
15	10	e3.7	e2.4	e6.5	7.1	3.3	3.0	3.6	3.1	84	55	99
16	1.7	e3.4	e2.4	e7.0	5.3	3.1	2.8	1.9	2.1	6.1	26	5.0
17	1.2	e3.7	e2.3	e7.5	4.4	3.9	2.7	1.9	1.7	2.4	3.1	2.1
18	44	e63	e2.3	e8.8	4.1	2.8	2.7	1.5	1.5	38	11	1.8
19	4.0	e21	e2.3	e11	3.7	3.2	2.5	1.6	1.4	5.8	2.9	41
20	2.1	e4.4	e2.4	e6.8	4.1	2.6	19	18	1.3	2.0	1.5	89
21	1.7	e8.3	e2.4	e6.7	3.7	2.8	7.9	2.1	1.8	1.4	1.3	3.1
22	1.5	e31	e2.4	e6.1	3.3	92	52	6.2	19	1.1	1.2	1.8
23	7.2	e4.4	e2.3	e6.3	3.3	32	12	1.9	18	0.92	0.90	1.4
24	1.9	e185	e2.4	e7.0	5.8	13	4.7	1.3	1.1	0.90	0.76	1.1
25	1.3	e11	e2.5	e6.0	3.8	15	4.6	1.4	1.2	0.75	31	137
26	e11	e18	e3.2	e4.7	3.3	6.3	17	1.2	1.3	3.0	33	11
27	e5.1	e52	e3.7	e5.5	3.3	5.2	4.5	1.3	0.99	14	4.2	3.4
28	e1.7	e5.9	e3.3	e5.1	6.8	4.7	10	4.1	1.2	1.4	1.8	69
29	e1.5	e35	e3.0	e23	---	4.2	9.6	1.2	1.1	0.91	1.3	7.7
30	e1.8	e82	e2.6	e8.4	---	4.2	5.8	1.9	1.4	0.85	2.7	2.6
31	e1.6	---	e3.1	e4.2	---	3.9	---	1.2	---	0.94	1.3	---
MEAN	6.62	25.8	11.7	47.8	11.2	8.28	8.35	3.62	20.5	8.90	8.44	17.3
MAX	51	185	200	434	114	92	52	18	320	84	55	137
MIN	0.54	2.6	2.2	4.2	3.3	2.6	2.5	1.2	0.88	0.68	0.51	0.67
IN.	0.65	2.46	1.15	4.72	1.00	0.82	0.80	0.36	1.95	0.88	0.83	1.65

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

MEAN	10.6	18.0	8.18	19.0	18.3	17.0	14.7	22.6	23.8	10.7	9.08	9.81
MAX	20.2	49.1	17.4	47.8	39.6	34.2	26.6	56.9	51.4	22.0	15.7	25.7
(WY)	(2002)	(1997)	(2002)	(2005)	(1997)	(1998)	(1998)	(2004)	(2003)	(2004)	(1997)	(2003)
MIN	1.86	1.47	3.09	2.99	5.15	6.58	5.30	3.62	5.54	2.83	2.53	1.31
(WY)	(2000)	(2000)	(1999)	(2000)	(2002)	(2000)	(2000)	(2005)	(2004)	(2000)	(2001)	(2004)

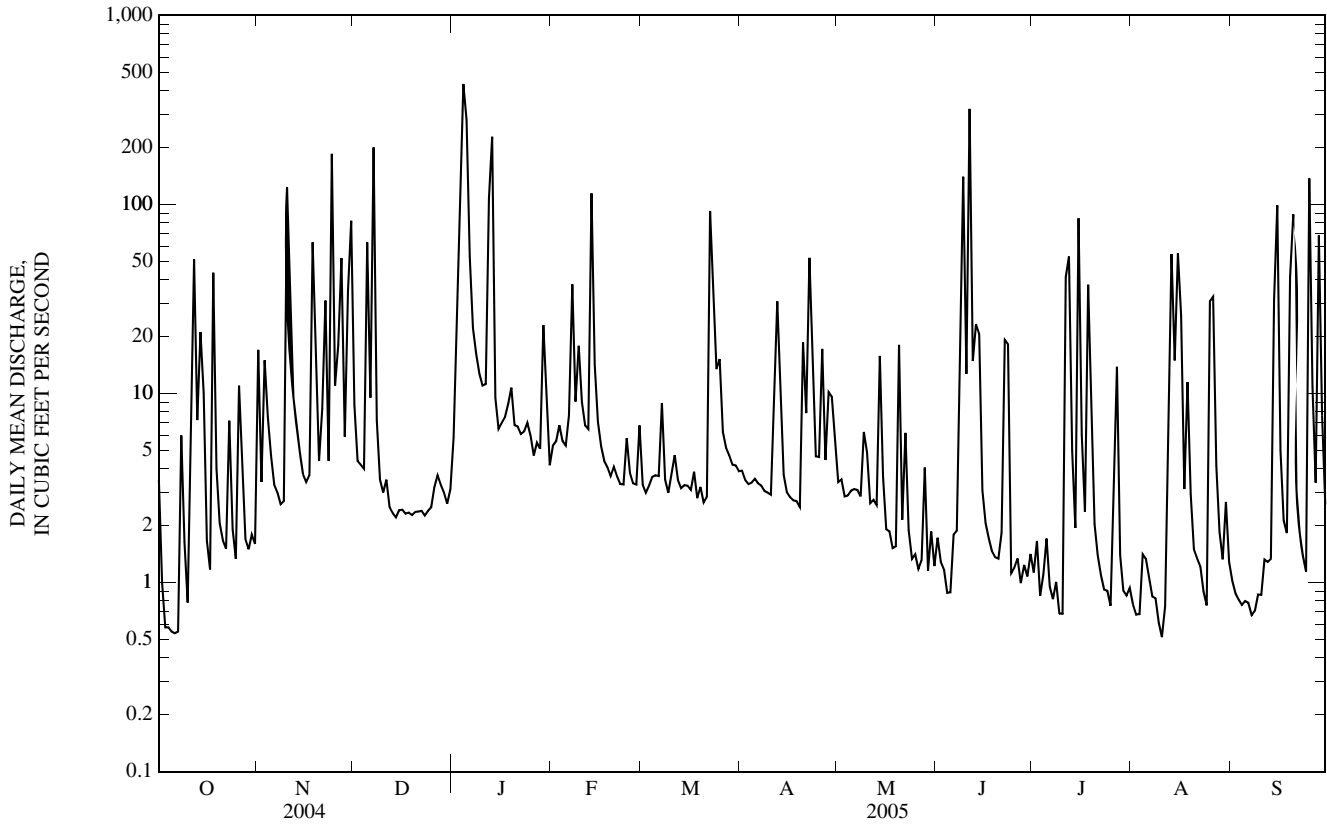
06935955 FEE FEE CREEK NEAR BRIDGETON, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1996 - 2005	
ANNUAL MEAN	18.3		14.9		15.0	
HIGHEST ANNUAL MEAN					19.1	2004
LOWEST ANNUAL MEAN					8.31	2000
HIGHEST DAILY MEAN	570	May 27	434	Jan 4	665	Feb 7, 1999
LOWEST DAILY MEAN	0.54	Oct 6	0.51	Aug 10	0.28	Sep 22, 1999
ANNUAL SEVEN-DAY MINIMUM	0.99	Sep 24	0.77	Sep 3	0.30	Sep 21, 1999
MAXIMUM PEAK FLOW	---		2,870 <sup>a</sup>	Jan 13	3,730 <sup>b</sup>	Jun 26, 2003
MAXIMUM PEAK STAGE	---		16.17	Jan 13	18.30	Jun 26, 2003
INSTANTANEOUS LOW FLOW	---		0.41	Aug 10	0.26	Aug 11, 2003
ANNUAL RUNOFF (INCHES)	21.27		17.26		17.44	
10 PERCENT EXCEEDS	33		31		30	
50 PERCENT EXCEEDS	4.0		3.4		2.9	
90 PERCENT EXCEEDS	1.3		0.93		0.94	

<sup>c</sup> Estimated

<sup>a</sup> From rating extended above 1,130 ft<sup>3</sup>/s on basis of indirect measurement.

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



MISSOURI RIVER MAIN STEM

06935965 MISSOURI RIVER AT ST. CHARLES, MO

LOCATION.--Lat 38°47'20", long 90°28'15", SE ¼ sec. 29, T.47 N., R.5 E., St. Louis County, Hydrologic Unit 10300200, on right bank approximately ¼ mi downstream from State Highway A, on the St. Charles Sand Company property, and at mile 27.9.

DRAINAGE AREA.--524,000 mi<sup>2</sup>. The 3,959 mi<sup>2</sup> in Great Divide basin are not included.

PERIOD OF RECORD.--April 1, 2000 to current year. April 15, 1932 to October 1944 recording gage; Feb. 16, 1984 to Sept. 30, 1997 stage only operated by U.S.G.S.; Oct. 1, 1997 to April 1, 2000, stage only operated by U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage 413.472 ft above North American Vertical Datum of 1988. Prior to March 4, 1994 datum of gage was 413.585 ft above National Geodetic Vertical Datum of 1929.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 2-3, 1993 reached a stage of 40.04 ft. by levels of good highwater mark.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49,700	40,500	109,000	32,800	74,600	69,500	50,400	64,200	55,800	85,700	42,200	89,700
2	48,800	51,800	98,800	32,000	72,300	71,700	49,000	60,800	56,400	81,500	48,400	83,800
3	49,100	88,200	92,200	39,200	71,400	74,600	49,600	58,200	57,900	78,800	49,000	70,700
4	47,900	94,400	85,900	77,500	72,200	72,900	47,900	55,400	57,300	79,900	45,800	62,400
5	45,600	94,600	79,100	168,000	73,600	68,700	47,900	54,300	60,000	77,200	43,500	57,100
6	44,200	87,900	73,200	241,000	73,800	63,700	46,700	52,700	73,100	72,300	42,000	52,900
7	43,100	83,100	80,200	235,000	73,600	55,300	47,400	50,300	137,000	68,500	40,700	49,400
8	42,600	68,500	104,000	201,000	74,100	47,300	45,500	48,800	155,000	71,800	39,400	49,200
9	42,100	55,300	111,000	166,000	75,300	46,200	45,000	48,000	150,000	72,900	39,000	49,900
10	45,500	49,500	106,000	148,000	82,700	55,700	45,700	47,100	142,000	68,800	39,100	48,300
11	53,000	57,000	95,800	132,000	90,800	58,800	45,200	45,800	150,000	63,500	40,500	45,400
12	60,800	61,700	85,500	113,000	87,900	53,000	46,900	44,800	154,000	59,200	39,800	43,600
13	55,600	63,400	76,500	133,000	86,800	45,500	65,300	45,700	156,000	57,200	39,800	42,200
14	49,400	58,800	69,600	179,000	116,000	41,600	83,300	54,200	181,000	57,400	40,200	42,300
15	47,000	56,300	67,100	175,000	158,000	37,700	93,900	67,800	207,000	54,300	40,600	46,900
16	46,100	52,400	63,100	157,000	177,000	36,000	98,300	123,000	201,000	52,200	42,600	51,800
17	45,600	51,800	60,600	136,000	170,000	37,800	91,200	146,000	171,000	50,700	46,500	49,700
18	43,900	51,000	61,200	117,000	159,000	43,200	80,300	126,000	149,000	48,400	53,800	45,800
19	42,100	53,800	58,600	101,000	147,000	47,800	70,300	114,000	134,000	45,800	57,900	43,400
20	39,000	56,100	58,100	94,800	128,000	43,700	64,600	106,000	126,000	46,100	65,300	46,600
21	36,000	55,100	58,100	93,200	113,000	36,800	62,800	98,500	122,000	48,400	64,400	75,000
22	34,400	44,900	56,700	92,500	103,000	34,100	66,300	92,200	119,000	50,500	58,600	72,500
23	32,800	36,000	49,600	91,100	97,100	35,600	84,300	84,400	116,000	51,500	60,500	59,700
24	31,900	35,700	47,600	89,100	92,700	38,500	81,200	76,000	114,000	50,900	75,300	58,900
25	31,200	66,200	47,800	83,000	89,200	45,000	89,600	80,500	111,000	48,600	72,900	58,700
26	31,200	99,800	46,400	77,800	86,600	46,100	93,600	84,700	108,000	44,800	61,500	54,400
27	32,200	104,000	47,300	76,800	84,100	41,400	86,600	76,900	105,000	46,300	70,000	58,500
28	35,200	117,000	41,500	76,400	74,700	39,200	81,400	71,100	104,000	48,100	96,500	74,400
29	33,200	123,000	37,000	76,200	---	38,800	72,900	67,200	100,000	47,000	101,000	71,700
30	33,800	117,000	37,700	76,100	---	40,800	67,200	63,400	90,800	42,900	102,000	63,300
31	37,100	---	36,200	76,200	---	49,600	---	58,500	---	40,700	94,100	---
MEAN	42.260	69.160	69.080	115.700	100.200	48.920	66.680	73.110	122.100	58.450	56.550	57.270
MAX	60.800	123.000	111.000	241.000	177.000	74.600	98.300	146.000	207.000	85.700	102.000	89.700
MIN	31.200	35.700	36.200	32.000	71.400	34.100	45.000	44.800	55.800	40.700	39.000	42.200
IN.	0.09	0.15	0.15	0.25	0.20	0.11	0.14	0.16	0.26	0.13	0.12	0.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	46,550	50,470	45,010	51,960	62,570	73,560	71,460	105,300	114,800	72,420	56,440	54,200
MAX	60.810	69.160	69.080	115.700	100.200	129.000	121.100	196.100	202.100	104.600	73.850	65.630
(WY)	(2002)	(2005)	(2005)	(2005)	(2005)	(2001)	(2001)	(2002)	(2001)	(2001)	(2004)	(2004)
MIN	38.560	40.760	29.200	25.290	28.700	39.360	47.530	59.440	66.550	51.100	38.210	43.620
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)	(2003)	(2002)	(2003)	(2002)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

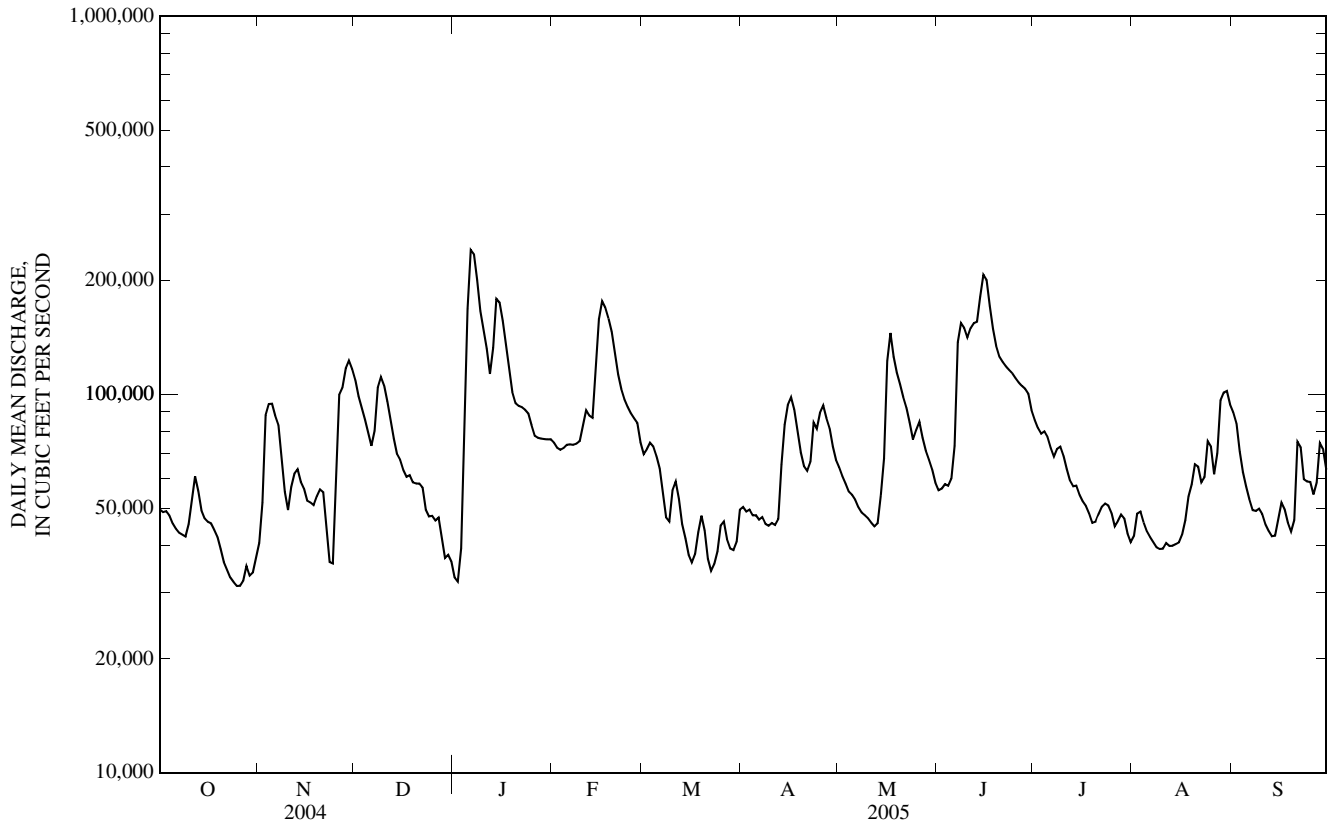
FOR 2005 WATER YEAR

WATER YEARS 2000 - 2005

ANNUAL MEAN	74,330		73,010		68,780
HIGHEST ANNUAL MEAN					87,470
LOWEST ANNUAL MEAN					45,820
HIGHEST DAILY MEAN	201,000	Mar 8	241,000	Jan 6	347,000
LOWEST DAILY MEAN	31,200	Oct 25	31,200	Oct 25,26	22,900
ANNUAL SEVEN-DAY MINIMUM	32,500	Oct 23	32,500	Oct 23	23,600
MAXIMUM PEAK FLOW	---		247,000	Jan 6	350,000
MAXIMUM PEAK STAGE	---		27.09	Jan 6	31.69
INSTANTANEOUS LOW FLOW	---		30,900	Oct 26	22,500
ANNUAL RUNOFF (INCHES)	1.93		1.89		1.78
10 PERCENT EXCEEDS	119,000		122,000		126,000
50 PERCENT EXCEEDS	63,400		61,200		52,200
90 PERCENT EXCEEDS	39,900		40,500		34,400



06935965 MISSOURI RIVER AT ST. CHARLES, MO—Continued



06935972 MISSOURI RIVER BELOW ST. CHARLES, MO  
(Metropolitan St. Louis Sewer District Network)

LOCATION.--Lat 38°49'28", long 90°26'42", St. Louis County, Hydrologic Unit 10300200, at Blanchette Landing, downstream of Highway 370 at mile 24.5.

DRAINAGE AREA.--530,100 mi<sup>2</sup>.

PERIOD OF RECORD.--October 2004 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)				
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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)	
OCT 18...	1540	Environmental														
APR 06...	1325	Environmental														
13...	1100	Environmental														
MAY 02...	1350	Environmental														
JUN 06...	1350	Environmental														
12...	1340	Environmental														
JUL 18...	1330	Environmental														
AUG 01...	1320	Environmental														
14...	1345	Environmental														
OCT 18...	175	173	211	<1	83	.67	<.04	1.23	E.006n	.10	.25	<10	290			
APR 06...	164	167	204	<1	74	.81	<.04	.89	E.004n	.06	.20	20	100			
13...	165	166	203	<1	109	1.1	<.04	.98	E.007n	.04	.08	10	1,100			
MAY 02...	160	160	195	<1	324d	1.4	<.04	2.65	E.004n	.12	.51	<10+	760			
JUN 06...	180	180	220	<1	152	1.0	<.04	2.57	.008	.13	.34	20	140k			
12...	121	127	154	<1	900d	2.5	<.04	1.90	E.005n	.06	1.04	50	720k			
JUL 18...	179	182	215	3	46	.59	<.04	1.30	E.006n	.11	.18	20	100			
AUG 01...	192	197	E231	E4	87	.80	<.04	.61	.009	.09	.21	20	20			
14...	173	172	210	<1	83d	.67	<.04	.59	E.006n	.10	.21	20	80			

0935972 MISSOURI RIVER BELOW ST. CHARLES, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Fecal coli-form, M-FC 0.7µ MF col/100 mL (31625)	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 recover-able, µg/L (71900)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)
OCT 18...	400	Mn	3.0	<.06	E.03n	<.8	2.0	<.6	<.08	2.8	<.01	2.47	1.7
APR 06...	140	4	2.5	<.06	.04	2.0	1.7	7	.41	1.6	<.01	5.73	2.3
13...	1,100	2	2.5	<.06	E.03n	<.8	1.6	E4n	<.08	1.9	E.01n	2.58	2.3
MAY 02...	570	4	2.7	<.06	E.03n	1.1	2.1	<.6	.15	E.4n	.01	1.42	2.4
JUN 06...	<20b	3	3.6	<.06	E.04n	1.2	2.1	<.6	.24	<.6	E.01n	3.58	2.6
12...	1,000	3	1.8	<.06	E.02n	<.8	2.1	6	<.08	E.3n	.04	3.52	1.0
JUL 18...	44	5	4.3	<.06	E.04n	<.8	2.9	<.6	<.08	.9	<.01	3.45	2.3
AUG 01...	28	5	4.4	<.06	E.03n	<.8	2.4	E5n	<.08	.8	<.01	2.90	2.3
14...	160k	9	4.5	<.06	E.03n	<.8	1.8	<.6	E.05n	E.6n	<.01	4.06	1.6

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT 18...	<.2	1.0
APR 06...	<.2	.8
13...	<.2	E.6n
MAY 02...	<.2	1.5
JUN 06...	<.2	.7
12...	<.2	2.6
JUL 18...	<.2	.6
AUG 01...	<.2	.6
14...	<.2	1.0

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.
- M-- Presence verified but not quantified.

Value qualifier codes used in this table:

- + -- Improper preservation
- b -- Value extrapolated at low end
- d -- Diluted sample: method hi range exceeded
- k -- Counts outside acceptable range
- n -- Below the LRL and above the LT-MDL

## 06935980 COWMIRE CREEK AT BRIDGETON, MO

LOCATION.--Lat 38°45'51", long 90°25'58", St. Louis County, Hydrologic Unit 10300200, on left bank of bridge at Kirchner Brick Co., 1.11 mi west of Interstate 70 and 270 interchange, 1.7 mi south of State Highway 370, 0.16 mi north of County Highway A (St Charles Rock Road), and 6.29 mi upstream of the Missouri River.

DRAINAGE AREA.--3.74 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 464.46 ft above National Geodetic Vertical Datum of 1929. Prior to May 1997, at datum 464.55 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges and discharges below 0.5 ft<sup>3</sup>/s and above 300 ft<sup>3</sup>/s, which are poor.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 11, 1979 reached a stage of 13.86 ft, former datum, discharge, 2,500 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	28	4.2	4.8	e2.0	1.5	1.2	1.0	0.57	0.21	0.15	0.28
2	0.35	2.4	1.7	8.1	e2.1	1.5	1.2	0.95	0.64	0.18	0.12	1.2
3	0.20	4.5	1.4	119	2.5	1.5	1.2	0.83	0.68	0.17	0.12	0.17
4	0.20	2.4	1.3	144	2.1	1.5	1.2	0.76	0.58	0.33	0.18	0.16
5	0.19	1.0	5.4	136	2.0	1.4	1.2	0.77	0.47	0.30	1.1	0.17
6	0.21	0.92	22	7.5	4.3	1.3	1.2	0.78	0.69	0.16	0.22	0.19
7	0.21	0.90	82	3.7	15	2.8	1.2	0.77	0.53	0.19	0.15	0.17
8	1.7	0.83	2.4	3.2	4.9	1.3	1.1	0.73	4.3	0.12	0.13	0.17
9	0.36	0.79	1.7	2.8	9.0	1.2	1.2	0.79	20	0.11	0.10	0.48
10	0.23	0.79	1.4	2.6	3.1	1.2	1.2	0.75	1.8	0.10	0.09	0.11
11	2.2	47	1.6	3.0	2.3	1.2	3.4	0.66	90	17	4.1	0.10
12	13	2.7	1.1	129	2.1	1.2	8.5	0.58	4.1	17	0.99	0.12
13	1.4	1.2	0.94	129	34	1.3	5.0	0.62	12	1.1	87	0.14
14	8.0	0.99	0.91	5.1	3.8	1.2	1.5	5.6	19	0.43	6.4	17
15	1.8	0.94	0.94	e2.0	2.5	1.2	1.3	0.81	1.0	4.6	38	37
16	0.38	0.94	0.98	e2.1	2.2	1.2	1.3	0.73	0.70	0.58	15	1.4
17	0.36	0.94	0.93	e2.3	1.9	1.6	1.3	0.70	0.62	0.26	0.95	0.58
18	19	9.9	0.92	e2.8	1.8	1.3	1.3	0.68	0.50	14	4.9	2.8
19	0.77	7.4	0.91	3.6	1.7	1.1	1.3	0.77	0.45	1.1	0.78	53
20	0.47	1.3	0.91	2.9	1.8	1.1	1.9	5.1	0.41	0.33	0.48	17
21	0.40	1.1	0.90	2.6	1.7	1.1	1.5	0.62	0.37	0.29	0.45	0.75
22	0.41	6.9	0.91	2.4	1.6	31	13	4.0	0.37	0.25	0.33	0.49
23	2.4	1.4	0.91	e2.6	1.8	7.2	2.6	0.65	0.37	0.24	0.32	0.44
24	0.50	80	0.91	e2.8	2.5	3.1	1.3	0.76	0.36	0.23	0.33	0.44
25	0.50	4.5	1.0	2.5	e1.7	3.5	2.9	0.84	1.4	0.19	26	29
26	11	5.6	1.2	2.3	1.4	1.6	7.0	0.63	0.46	2.4	8.4	2.9
27	1.9	7.3	0.98	2.3	1.5	1.4	1.3	0.79	0.35	3.3	0.95	0.90
28	0.72	1.6	1.1	2.1	2.3	1.3	3.4	1.1	0.37	0.23	0.47	17
29	0.65	8.4	1.7	4.3	---	1.3	3.5	0.61	0.67	0.19	0.36	3.0
30	0.63	16	1.1	2.9	---	1.2	1.5	2.1	1.1	0.16	0.31	0.89
31	0.71	---	2.0	e1.7	---	1.2	---	0.59	---	0.15	0.37	---
MEAN	2.32	8.29	4.72	23.9	4.13	2.63	2.56	1.20	5.50	2.13	6.43	6.27
MAX	19	80	82	144	34	31	13	5.6	90	17	87	53
MIN	0.19	0.79	0.90	1.7	1.4	1.1	1.1	0.58	0.35	0.10	0.09	0.10
IN.	0.72	2.47	1.46	7.38	1.15	0.81	0.76	0.37	1.64	0.66	1.98	1.87

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)	MEAN	MAX	MIN	(WY)
	3.27	6.78	1.44	(2003)	4.02	9.85	0.84	(2004)	2.63	4.75	0.75	(1999)	6.73	23.9	0.84	(2000)	4.62	11.3	1.46	(2002)
	4.02	9.85	0.84	(2004)	2.63	4.75	0.75	(1999)	6.73	23.9	0.84	(2000)	4.62	11.3	1.46	(2002)	4.35	9.35	1.57	(2001)
	5.31	12.9	1.66	(1998)	5.31	12.9	1.66	(1998)	6.85	14.6	1.20	(2005)	8.33	19.8	1.80	(2004)	4.06	10.4	0.73	(2002)
	6.85	14.6	1.20	(2005)	8.33	19.8	1.80	(2004)	4.06	10.4	0.73	(2002)	3.63	7.23	1.14	(1999)	2.89	6.27	0.57	(1999)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

WATER YEARS 1997 - 2005

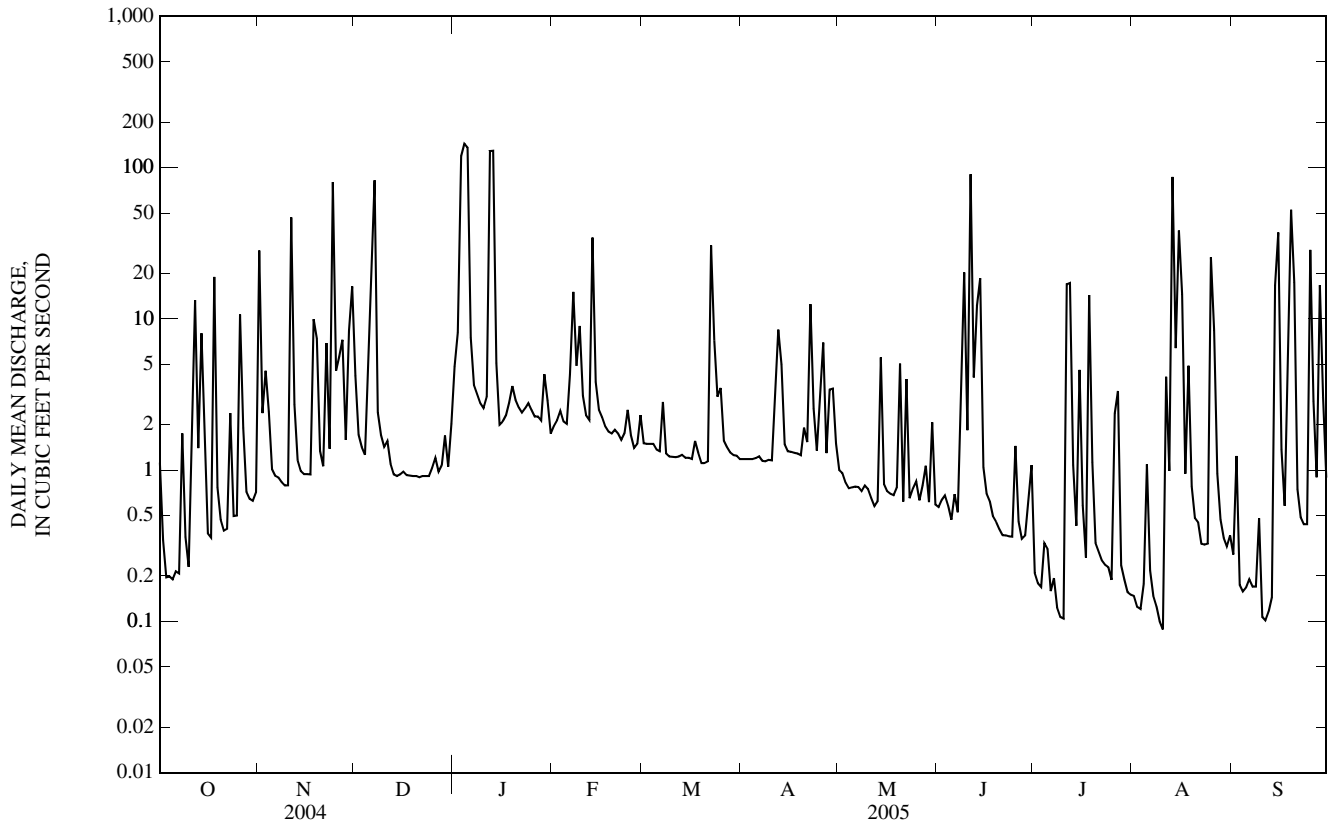
ANNUAL MEAN	5.23		5.86		4.81
HIGHEST ANNUAL MEAN					5.91
LOWEST ANNUAL MEAN					2.63
HIGHEST DAILY MEAN	178	Jan 4	144	Jan 4	240
LOWEST DAILY MEAN	0.19	Oct 5	0.09	Aug 10	0.05
ANNUAL SEVEN-DAY MINIMUM	0.35	Oct 1	0.15	Jul 29	0.07
MAXIMUM PEAK FLOW	---		2,500 <sup>a</sup>	Jan 12	3,490 <sup>b</sup>
MAXIMUM PEAK STAGE	---		13.99	Jan 12	16.04
INSTANTANEOUS LOW FLOW	---		0.07	Aug 10,11	0.04
ANNUAL RUNOFF (INCHES)	19.04		21.26		17.49
10 PERCENT EXCEEDS	7.9		9.4		8.0
50 PERCENT EXCEEDS	1.1		1.2		0.85
90 PERCENT EXCEEDS	0.58		0.23		0.20

e Estimated

<sup>a</sup> From rating extended above 100 ft<sup>3</sup>/s on basis of indirect measurement.

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

06935980 COWMIRE CREEK AT BRIDGETON, MO—Continued



## 06935997 MILL CREEK NEAR FLORISSANT, MO

LOCATION.--Lat 38°50'54", long 90°17'10", St. Louis County, Hydrologic Unit 10300200, on right downstream wingwall of Old Jamestown Road bridge, 2.50 mi west of U.S. 367 and 67 (Lewis and Clark Blvd.), 2.08 mi north of U.S. Route 67 (Lindbergh Blvd.), and 1.70 mi upstream of the Missouri River.

DRAINAGE AREA.--2.12 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 432.34 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.21	2.6	1.5	0.76	1.3	1.1	0.97	0.95	0.34	0.21	0.11	0.19
2	0.24	0.71	0.88	0.77	1.4	1.1	0.96	0.88	0.29	0.17	0.10	0.18
3	0.18	0.70	0.72	11	1.4	1.1	0.92	0.85	0.28	0.17	0.09	0.18
4	0.18	0.81	0.66	60	1.3	1.1	0.92	0.78	0.26	0.21	0.09	0.21
5	0.18	0.45	1.0	54	1.3	1.1	0.93	0.75	0.25	0.20	0.10	0.18
6	0.25	0.38	3.2	4.1	1.5	1.0	1.0	0.76	0.24	0.17	0.11	0.17
7	0.21	0.35	49	2.3	4.1	1.2	1.0	0.70	0.25	0.16	0.09	0.15
8	0.55	0.28	1.4	2.0	2.2	1.0	0.99	0.67	0.48	0.15	0.09	0.13
9	0.40	0.22	1.1	1.9	2.0	0.97	0.97	0.68	1.9	0.13	0.09	0.13
10	0.35	0.22	0.93	1.7	1.4	0.99	0.98	0.66	0.73	0.13	0.08	0.13
11	0.33	4.3	0.89	1.8	1.4	1.0	1.1	0.63	5.9	0.62	0.71	0.14
12	0.98	0.85	0.81	58	1.3	1.0	1.3	0.60	1.2	1.3	0.18	0.13
13	0.93	0.45	0.75	99	7.9	0.91	1.0	0.56	1.8	0.34	7.6	0.12
14	1.3	0.37	0.72	3.2	2.1	0.89	0.84	0.71	2.9	0.22	1.0	0.74
15	1.1	0.32	0.72	2.2	1.6	0.87	0.80	0.52	0.81	0.27	0.51	1.7
16	0.58	0.32	0.73	e1.8	1.4	0.87	0.85	0.51	0.55	0.23	23	0.34
17	0.52	0.30	0.72	e1.4	1.3	0.84	0.87	0.49	0.45	0.17	0.48	0.23
18	3.4	0.53	0.72	e1.2	1.3	0.91	0.82	0.47	0.34	0.37	0.36	0.20
19	0.54	0.95	0.69	2.0	1.3	0.96	0.81	0.46	0.31	0.27	0.26	5.6
20	0.40	0.42	0.74	1.8	1.3	0.90	0.93	1.7	0.30	0.19	0.24	3.4
21	0.37	0.35	0.81	1.7	1.3	0.90	0.93	0.51	0.29	0.18	0.17	0.47
22	0.38	0.78	0.78	1.6	1.2	6.1	1.9	0.50	0.27	0.15	0.22	0.33
23	0.91	0.45	0.78	1.5	1.2	1.6	1.2	0.48	0.25	0.13	0.19	0.28
24	0.53	25	0.78	1.5	1.3	1.1	1.1	0.41	0.23	0.13	0.12	0.27
25	0.44	1.6	0.75	1.5	1.3	1.1	1.1	0.38	0.52	0.12	2.7	2.0
26	1.7	0.87	0.72	1.5	1.2	1.1	1.4	0.37	0.31	0.14	1.5	0.66
27	0.91	1.3	0.71	1.4	1.2	1.1	1.0	0.37	0.27	0.21	0.55	0.37
28	0.59	0.75	0.75	1.4	1.3	0.90	1.1	0.43	0.25	0.11	0.35	2.8
29	0.65	1.3	0.76	1.6	---	0.84	1.2	0.35	0.23	0.12	0.35	0.76
30	0.67	2.6	0.76	1.5	---	0.94	1.0	0.44	0.21	0.11	0.25	0.40
31	0.64	---	0.76	1.4	---	0.97	---	0.35	---	0.11	0.22	---
MEAN	0.67	1.68	2.46	10.6	1.74	1.18	1.03	0.61	0.75	0.23	1.35	0.75
MAX	3.4	25	49	99	7.9	6.1	1.9	1.7	5.9	1.3	23	5.6
MIN	0.18	0.22	0.66	0.76	1.2	0.84	0.80	0.35	0.21	0.11	0.08	0.12
IN.	0.36	0.89	1.34	5.75	0.86	0.64	0.54	0.33	0.39	0.13	0.74	0.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

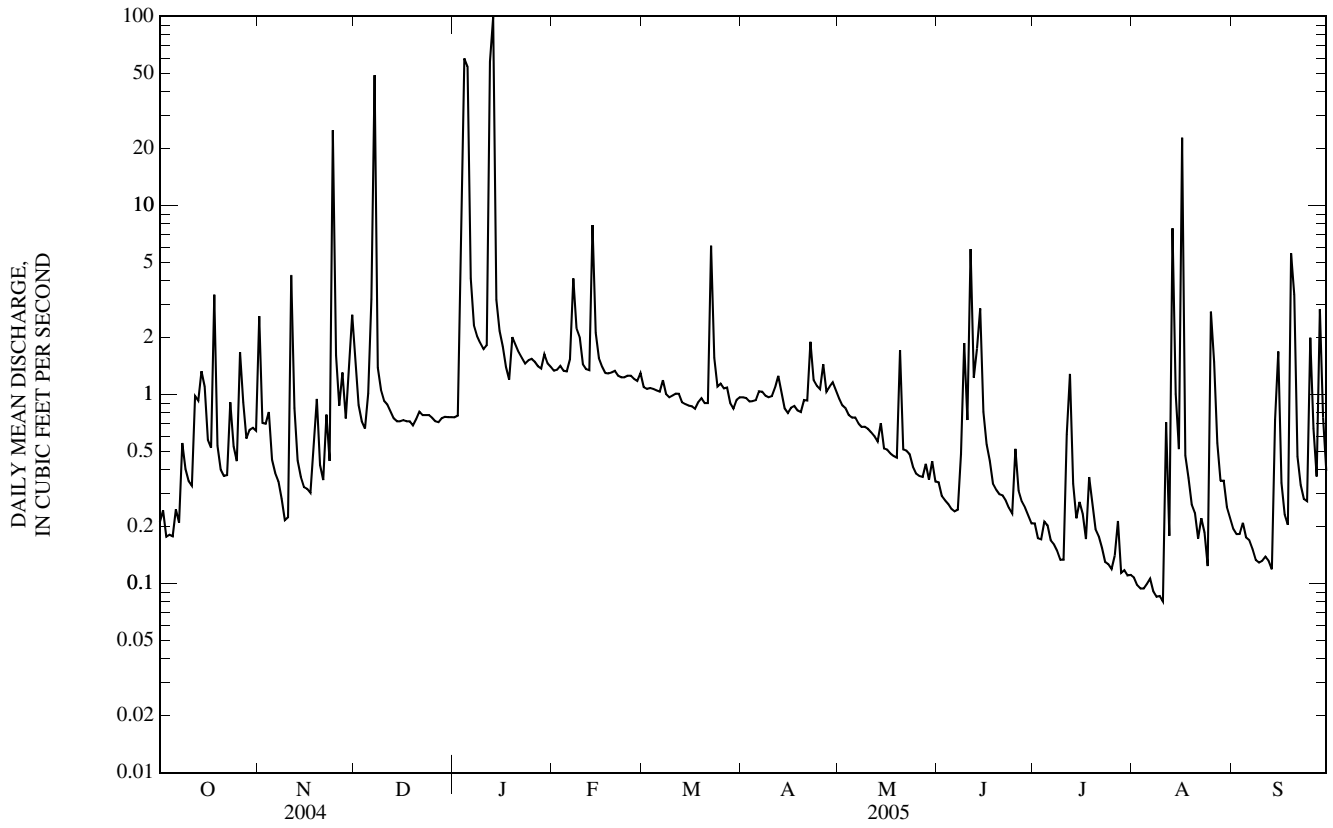
	1997	1998	1999	2000	2001	2002	2003	2004	2005			
MEAN	1.03	1.14	0.94	3.04	2.12	1.74	2.01	3.93	2.63	1.06	1.01	0.71
MAX	3.05	2.34	2.46	10.6	6.73	4.56	5.02	11.3	5.92	3.28	1.72	1.11
(WY)	(2001)	(2002)	(2005)	(2005)	(1999)	(1998)	(1998)	(2002)	(1998)	(1998)	(1998)	(2002)
MIN	0.24	0.32	0.42	0.30	1.03	0.57	0.52	0.46	0.72	0.23	0.34	0.22
(WY)	(1998)	(2000)	(2001)	(2000)	(2003)	(2000)	(2000)	(2001)	(2001)	(2005)	(2003)	(2004)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1997 - 2005
ANNUAL MEAN	1.82	1.93	1.78
HIGHEST ANNUAL MEAN			2.65
LOWEST ANNUAL MEAN			1.18
HIGHEST DAILY MEAN			215
LOWEST DAILY MEAN	0.15	0.08	0.03
ANNUAL SEVEN-DAY MINIMUM	0.16	0.09	0.05
MAXIMUM PEAK FLOW	---	1,530 <sup>a</sup>	Unknown
MAXIMUM PEAK STAGE	---	7.92	10.53
INSTANTANEOUS LOW FLOW	---	0.08	0.02
ANNUAL RUNOFF (INCHES)	11.67	12.35	11.43
10 PERCENT EXCEEDS	2.1	1.8	2.3
50 PERCENT EXCEEDS	0.84	0.75	0.51
90 PERCENT EXCEEDS	0.21	0.17	0.17

e Estimated

<sup>a</sup> From rating extended above 80.2 ft<sup>3</sup>/s on basis of indirect measurement.

06935997 MILL CREEK NEAR FLORISSANT, MO—Continued



## MISSOURI RIVER BASIN

06936475 COLDWATER CREEK NEAR BLACK JACK, MO

LOCATION.--Lat 38°49'05", long 90°15'04", in NE ¼ SE ¼ NW ¼ sec.17, T.47 N., R.7 E., St. Louis County, Hydrologic Unit 10300200, on right downstream abutment of Old Jamestown Road bridge, 0.36 mi south of U.S. Route 67 (Lindbergh Blvd.), 1.1 mi west of Highway 367 (Lewis and Clark Blvd.), and 3.8 mi upstream of the Missouri River.

DRAINAGE AREA.--40.4 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR MO-03-1: 1997-2002 (P).

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

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

REVISIONS.--The maximum discharge for the 1996 water year has been revised to 4,590 ft<sup>3</sup>/s, July 29, gage height 9.62 ft. This supersedes figure published in WDR-MO-98-1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	191	69	26	12	14	10	7.1	4.8	5.4	4.8	3.9
2	9.7	34	21	20	11	11	10	6.1	4.6	5.8	4.1	3.8
3	3.8	20	16	846	20	11	9.9	6.1	4.5	3.1	5.5	3.8
4	3.2	39	13	712	12	11	11	6.1	4.5	5.9	11	3.3
5	3.5	8.6	23	1,850	11	10	9.7	5.8	4.1	6.6	20	3.4
6	2.6	5.5	62	186	13	9.6	11	5.7	3.7	3.7	8.5	3.5
7	2.5	4.5	740	46	92	26	10	5.5	7.6	3.0	4.3	3.1
8	13	3.6	33	33	84	12	9.6	5.3	26	2.9	4.3	4.1
9	11	3.4	21	25	65	10	11	5.2	346	3.1	3.3	4.3
10	4.0	3.1	17	21	24	9.5	8.5	11	96	2.8	3.5	3.7
11	2.9	370	23	25	18	10	14	5.6	364	49	8.5	6.9
12	100	41	12	93	17	9.7	77	4.8	59	185	21	4.2
13	41	10	9.4	2,210	316	8.8	32	4.7	62	22	251	3.2
14	52	6.9	8.4	90	56	8.8	12	29	134	8.5	116	119
15	45	5.5	8.0	40	31	8.7	9.1	8.7	11	21	33	216
16	7.9	5.2	8.6	29	26	8.7	8.6	4.7	6.8	15	594	16
17	3.6	5.1	7.9	29	21	9.0	8.1	4.5	6.1	4.6	16	5.3
18	184	23	8.2	28	19	13	8.2	4.3	5.2	39	26	7.6
19	16	78	6.3	32	17	8.4	7.5	4.5	4.8	28	14	71
20	6.8	11	5.5	27	18	8.2	7.6	77	4.2	5.0	6.8	366
21	4.7	6.2	6.2	20	16	8.4	19	9.0	4.5	3.6	5.5	9.7
22	3.7	48	6.2	15	14	318	101	11	4.3	3.5	4.9	6.0
23	37	10	6.1	12	13	62	24	9.0	4.9	4.1	4.8	4.4
24	8.0	616	6.1	13	16	24	9.3	5.5	4.7	3.7	4.3	3.5
25	3.6	66	6.1	13	14	51	6.7	5.0	91	5.0	139	267
26	84	26	6.2	12	12	19	49	4.7	18	6.9	85	46
27	37	61	6.4	11	12	15	12	7.0	5.8	37	21	7.9
28	7.9	21	6.1	9.9	25	14	13	12	6.0	7.8	7.8	201
29	4.5	64	6.6	27	---	13	20	8.1	4.3	4.8	5.6	48
30	3.1	151	6.6	22	---	12	17	5.7	5.2	3.7	7.2	7.8
31	2.9	---	5.4	15	---	12	---	6.7	---	4.1	4.8	---
MEAN	23.0	64.6	38.1	211	35.9	24.7	18.5	9.53	43.6	16.2	46.6	48.4
MAX	184	616	740	2,210	316	318	101	77	364	185	594	366
MIN	2.5	3.1	5.4	9.9	11	8.2	6.7	4.3	3.7	2.8	3.3	3.1
IN.	0.66	1.78	1.09	6.02	0.93	0.71	0.51	0.27	1.20	0.46	1.33	1.34

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

MEAN	30.7	42.7	24.2	59.8	57.9	45.5	45.5	76.3	84.1	37.8	30.3	24.3
MAX	60.6	95.6	57.6	211	173	118	82.3	185	201	109	46.6	48.4
(WY)	(2002)	(1997)	(2002)	(2005)	(1999)	(1998)	(1998)	(2002)	(2003)	(1998)	(2005)	(2005)
MIN	14.8	7.37	8.59	8.25	18.6	14.9	17.3	9.53	23.1	10.6	16.1	4.80
(WY)	(2000)	(2000)	(1999)	(2000)	(2002)	(2000)	(2000)	(2005)	(2004)	(2002)	(2003)	(2004)

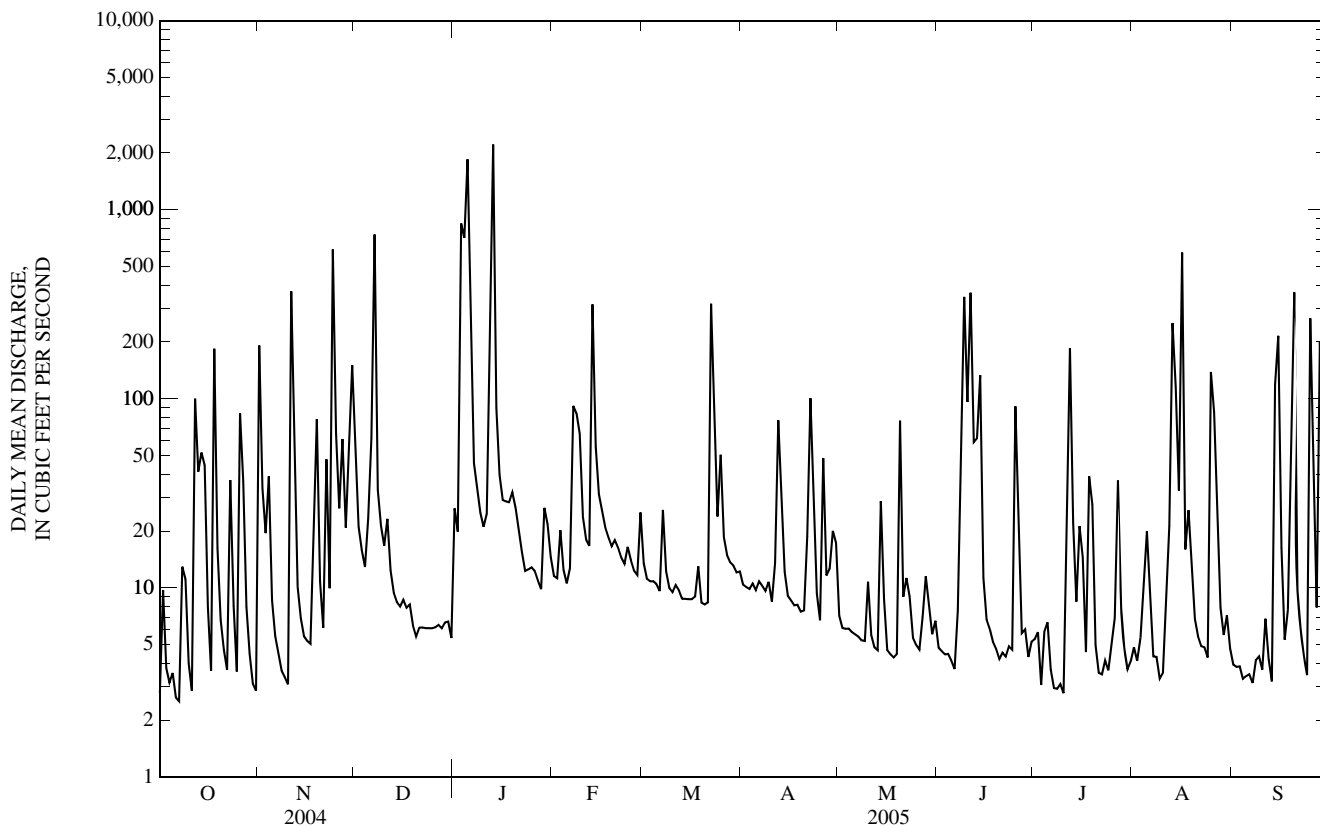


06936475 COLDWATER CREEK NEAR BLACK JACK, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1996 - 2005	
ANNUAL MEAN	48.9		48.5		46.6	
HIGHEST ANNUAL MEAN					59.7	2002
LOWEST ANNUAL MEAN					30.3	2001
HIGHEST DAILY MEAN	1,650	Jan 4	2,210	Jan 13	4,030	Feb 7, 1999
LOWEST DAILY MEAN	2.3	Sep 21,22	2.5	Oct 7	1.2	Oct 16, 2002
ANNUAL SEVEN-DAY MINIMUM	2.6	Sep 20	3.5	Sep 1	1.8	Sep 4, 2002
MAXIMUM PEAK FLOW	---		6,670 <sup>a</sup>	Jan 13	7,670 <sup>b</sup>	Jun 26, 2003
MAXIMUM PEAK STAGE	---		11.72	Jan 13	12.59	Jun 26, 2003
INSTANTANEOUS LOW FLOW	---		2.2	Oct 6,7	0.75	Sep 29, 1997
ANNUAL RUNOFF (INCHES)	16.47		16.30		15.67	
10 PERCENT EXCEEDS	86		80		84	
50 PERCENT EXCEEDS	12		10		9.3	
90 PERCENT EXCEEDS	3.9		3.8		3.3	

<sup>a</sup> From rating extended above 1,250 ft<sup>3</sup>/s, on basis of indirect measurement.

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



06936475 COLDWATER CREEK NEAR BLACK JACK, MO—Continued  
(Metropolitan St. Louis Sewer District Network)

## WATER-QUALITY RECORDS

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Carbon dioxide water, unfltrd mg/L (00405)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, mg/L (00915)	Magnesium, water, mg/L (00925)	
OCT 05...	1000	Environmental	3.5	9.5	5.5	53	7.5	848	13.2	280	69.0	26.1	
05...	1001	Replicate	--	--	5.5	53	7.5	848	13.2	280	68.3	26.3	
12...	2002	Environmental	339	5.1	6.1	62	7.7	815	15.3	220	54.2	21.3	
MAR 22...	1452	Environmental	1,150	3.0	11.7	98	7.8	436	6.9	160	37.0	16.5	
APR 20...	1250	Environmental	7.1	4.2	10.3	118	8.0	827	21.3	300	72.1	28.4	
JUN 20...	1200	Environmental	4.2	3.6	6.6	81	7.8	423	25.3	160	44.5	12.3	
AUG 08...	1113	Environmental	3.5	6.2	6.4	81	7.6	780	26.6	250	60.9	22.9	
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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, mg/L as N (00608)	Nitrite + nitrate water, mg/L as N (00613)	Nitrite water, mg/L as N (00613)	Orthophosphate, water, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 05...	159	160	195	<1	<10	.72	E.03n	.26	.012	.07d	.12	20	164
05...	--	--	--	--	<10	.71	E.03n	.26	.013	.05	.12	20	110
12...	142	142	173	<1	182	1.4	.06	.71	.052	.09	.40	50	1,000k
MAR 22...	97	95	116	<1	1,280d	3.8	.24	.51	.020	.05	1.69	90	1,000k
APR 20...	193	195	238	<1	17	.90	<.04	.29	.023	<.02	.14	30	27k
JUN 20...	117	117	143	<1	21	.91	.04	.46	.057	.05	.23	30	500
AUG 08...	127	127	155	<1	20	.86	.05	.93	.076	.03	.16	20	400
Date	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	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)	Nickel, water, fltrd, $\mu$ g/L (01065)	Selenium, water, fltrd, $\mu$ g/L (01145)
OCT 05...	210	E1n	2.3	<.06	.05	<.8	2.3	E5n	E.06n	210	<.01	4.12	.7
05...	240	E1n	2.3	<.06	.05	<.8	2.4	E4n	E.07n	211	<.01	4.13	.5
12...	2,700k	<2	2.6	<.06	.21	E.4n	3.0	25	.10	142	.01	4.67	1.2
MAR 22...	5,200	3	1.5	<.06	.23	.8	1.7	20	.09	205	.05	3.85	1.1
APR 20...	50k	2	2.5	<.06	E.03n	<.8	1.8	29	.13	347	<.01	3.83	1.2
JUN 20...	420	5	3.6	<.06	E.04n	<.8	1.8	E4n	<.08	284	<.01	4.21	1.0
AUG 08...	270k	2	2.3	<.06	.08	<.8	1.6	E6n	.16	299	<.01	4.23	1.2

06936475 COLDWATER CREEK NEAR BLACK JACK, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT		
05...	<.2	2.2
05...	<.2	2.2
12...	<.2	5.9
MAR		
22...	<.2	4.5
APR		
20...	<.2	1.2
JUN		
20...	<.2	1.9
AUG		
08...	<.2	1.4

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## 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

## 06936530 SPANISH LAKE TRIBUTARY NEAR BLACK JACK, MO

LOCATION.--Lat 38°48'04", long 90°12'59", in SE ¼ SE ¼ NW ¼ sec.22, T.47 N., R.7 E., St. Louis County, Hydrologic Unit 10300200, on left downstream wingwall of Bellefontaine Ave. bridge, 2.14 mi north of Interstate 270, 0.65 mi east of Highway 367 (Lewis and Clark Blvd.), and 1.9 mi upstream of the Missouri River.

DRAINAGE AREA.--0.25 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 502.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	2.9	0.79	0.40	0.36	0.24	0.16	0.13	0.00	0.00	0.00	0.00
2	0.00	0.26	0.33	0.50	0.37	0.21	0.16	0.12	0.01	0.00	0.00	0.00
3	0.00	0.80	0.28	11	0.47	0.21	0.15	0.11	0.01	0.00	0.00	0.00
4	0.00	0.39	0.25	13	0.37	0.21	0.14	0.10	0.00	0.00	0.00	0.00
5	0.00	0.12	0.81	17	0.32	0.21	0.14	0.09	0.00	0.00	0.00	0.00
6	0.00	0.08	2.5	1.8	0.64	0.21	0.15	0.08	0.00	0.00	0.00	0.00
7	0.00	0.07	8.1	0.72	2.1	0.41	0.16	0.08	0.00	0.00	0.00	0.00
8	0.01	0.05	0.47	0.65	1.1	0.21	0.14	0.07	0.31	0.00	0.00	0.00
9	0.00	0.05	0.37	0.57	1.5	0.20	0.12	0.07	1.3	0.00	0.00	0.00
10	0.00	0.06	0.31	0.52	0.50	0.18	0.12	0.07	0.23	0.00	0.00	0.00
11	0.00	6.4	0.31	0.71	0.44	0.22	0.15	0.06	1.5	0.18	0.02	0.00
12	0.30	0.49	0.27	7.1	0.44	0.21	1.3	0.17	0.20	0.71	0.09	0.00
13	0.07	0.20	0.27	16	6.5	0.18	0.20	0.05	0.09	0.02	0.72	0.01
14	0.51	0.15	0.25	1.1	1.1	0.18	0.15	0.21	0.26	0.01	0.12	0.63
15	0.17	0.14	0.24	0.82	0.59	0.16	0.14	0.05	0.03	0.20	0.25	1.3
16	0.04	0.12	0.24	0.68	0.43	0.18	0.13	0.08	0.01	0.01	2.8	0.05
17	0.01	0.10	0.24	0.68	0.35	0.18	0.12	0.07	0.00	0.00	0.03	0.02
18	1.9	0.37	0.24	0.68	0.32	0.18	0.11	0.04	0.00	0.01	0.06	0.00
19	0.10	0.74	0.24	0.73	0.31	0.18	0.10	0.03	0.00	0.00	0.02	2.4
20	0.06	0.19	0.25	0.66	0.35	0.16	0.62	0.62	0.00	0.00	0.00	2.0
21	0.04	0.16	0.27	0.58	0.31	0.16	0.15	0.07	0.00	0.00	0.00	0.04
22	0.03	0.71	0.24	0.44	0.25	7.1	1.9	0.05	0.00	0.00	0.00	0.02
23	0.57	0.21	0.24	0.40	0.24	1.6	0.21	0.03	0.00	0.00	0.00	0.01
24	0.06	9.7	0.24	0.37	0.31	0.89	0.15	0.02	0.00	0.00	0.00	0.00
25	0.04	0.71	0.24	0.41	0.26	1.0	0.16	0.01	0.00	0.00	1.6	4.6
26	1.3	0.35	0.25	0.41	0.24	0.38	0.68	0.01	0.00	0.00	0.66	0.21
27	0.21	0.72	0.27	0.36	0.24	0.30	0.14	0.01	0.00	0.00	0.06	0.06
28	0.08	0.28	0.28	0.33	0.45	0.27	0.28	0.02	0.00	0.00	0.02	1.6
29	0.07	0.97	0.23	0.61	---	0.21	0.35	0.01	0.00	0.00	0.00	0.16
30	0.07	2.6	0.26	0.53	---	0.20	0.20	0.01	0.00	0.00	0.00	0.05
31	0.06	---	0.27	0.41	---	0.17	---	0.01	---	0.00	0.00	---
MEAN	0.18	1.00	0.63	2.59	0.74	0.53	0.29	0.08	0.13	0.04	0.21	0.44
MAX	1.9	9.7	8.1	17	6.5	7.1	1.9	0.62	1.5	0.71	2.8	4.6
MIN	0.00	0.05	0.23	0.33	0.24	0.16	0.10	0.01	0.00	0.00	0.00	0.00
IN.	0.85	4.48	2.91	11.93	3.10	2.44	1.29	0.38	0.59	0.17	0.96	1.96

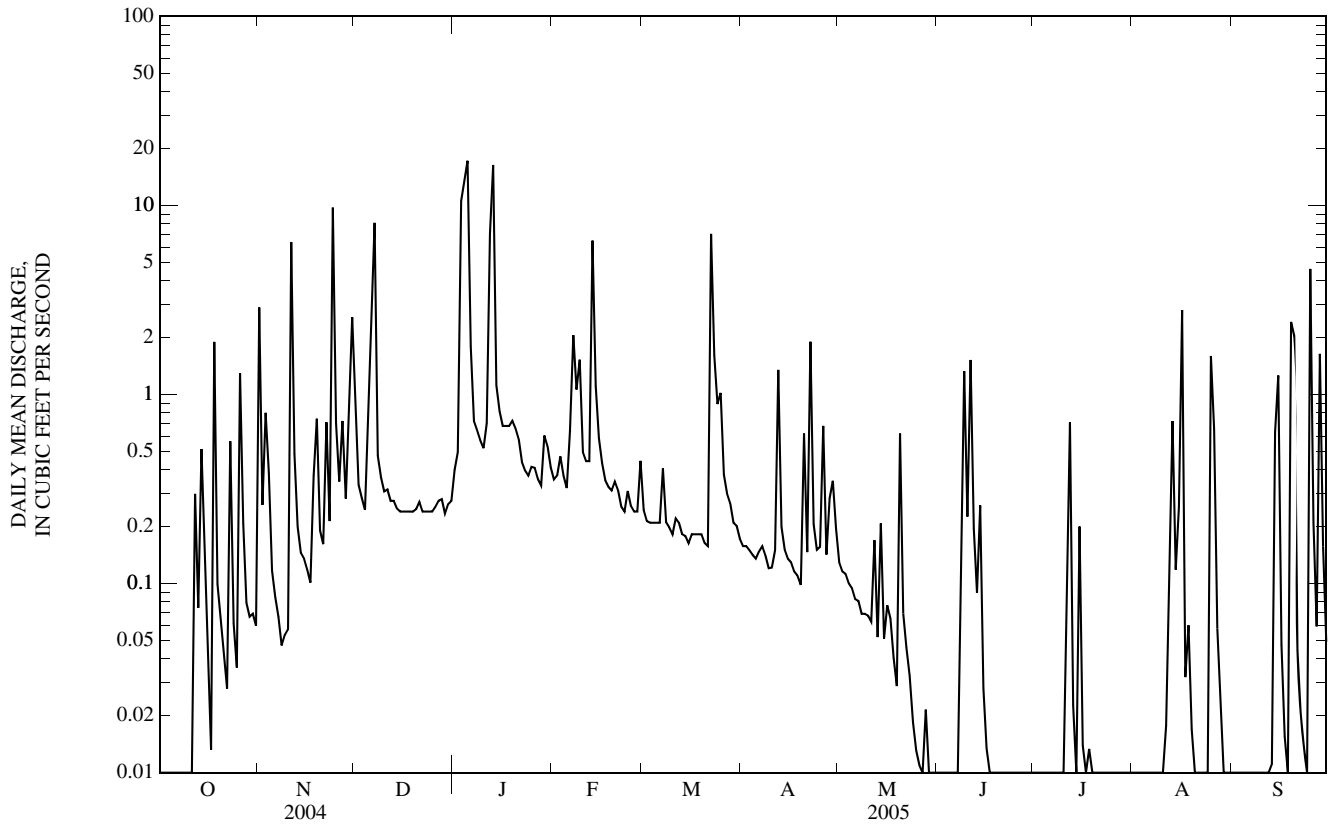
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

MEAN	0.23	0.44	0.32	0.73	0.58	0.59	0.46	0.85	0.55	0.46	0.17	0.18
MAX	0.45	1.12	0.70	2.59	1.81	1.28	0.74	2.05	1.51	1.25	0.26	0.62
(WY)	(2001)	(2004)	(2002)	(2005)	(1999)	(1998)	(1998)	(2004)	(2003)	(1998)	(1998)	(2003)
MIN	0.06	0.02	0.13	0.13	0.18	0.23	0.12	0.08	0.13	0.00	0.07	0.00
(WY)	(2000)	(2000)	(1999)	(2003)	(2002)	(2001)	(2000)	(2005)	(2005)	(2002)	(2003)	(1999)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1997 - 2005
ANNUAL MEAN	0.63	0.57	0.47
HIGHEST ANNUAL MEAN			0.62
LOWEST ANNUAL MEAN			0.28
HIGHEST DAILY MEAN	17	Jan 4	31
LOWEST DAILY MEAN	0.00	Many Days	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 3,18	0.00
MAXIMUM PEAK FLOW	---	177	710
MAXIMUM PEAK STAGE	---	3.81	5.39
INSTANTANEOUS LOW FLOW	---	0.00	0.00
ANNUAL RUNOFF (INCHES)	34.47	31.05	25.31
10 PERCENT EXCEEDS	1.1	0.85	0.87
50 PERCENT EXCEEDS	0.19	0.16	0.11
90 PERCENT EXCEEDS	0.00	0.00	0.00

06936530 SPANISH LAKE TRIBUTARY NEAR BLACK JACK, MO—Continued



06937000 MISSOURI RIVER AT COLUMBIA BOTTOM STATE CONSERVATION AREA  
(Metropolitan St. Louis Sewer District Network)

LOCATION.--Lat 38°48'33", long 90°09'51", St. Louis County, Hydrologic Unit 10300200, off Riverview Road at Columbia Bottom Road to conservation area boat ramp, at mile 4.

DRAINAGE AREA.-- 530,300 mi<sup>2</sup>.

PERIOD OF RECORD.--October 2004 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 19...	0910	Environmental	44,400	2.6	9.7	98	8.1	625	14.8	230	60.6	19.4
APR 07...	0850	Environmental	44,700	3.7	15.2	156	7.9	622	15.4	230	61.5	19.4
13...	1230	Environmental	66,700	3.4	8.6	90	8.0	634	16.9	230	59.9	19.7
MAY 03...	0900	Environmental	56,500	7.2	8.6	86	7.6	575	14.9	230	61.0	19.6
JUN 07...	0900	Environmental	134,000	4.3	7.5	93	7.9	633	24.8	260	65.5	23.4
12...	1520	Environmental	152,000	13	5.7	69	7.3	378	24.0	150	40.8	11.9
JUL 19...	0845	Environmental	48,400	2.2	7.3	98	8.2	672	30.3	260	66.9	22.0
AUG 02...	0900	Environmental	47,900	2.0	8.7	115	8.2	720	29.2	260	66.5	23.1
14...	1535	Environmental	40,200	3.2	6.8	91	8.0	726	29.1	270	68.5	23.8

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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 19...	179	179	218	<1	81	.66	E.03n	1.22	E.006n	.10	.23	<10	220
APR 07...	167	171	209	<1	68	.74	E.02n	.92	E.004n	.06	.18	10	43k
13...	178	179	219	<1	125	1.7	<.04	.96	.008	.03	.23	20	840
MAY 03...	159	160	195	<1	274d	1.3	E.02n	2.70	.011	.12	.48	20	270
JUN 07...	176	176	215	<1	526d	1.6	<.04	2.56	.019	.13	.70	20	77k
12...	122	122	149	<1	1,280d	2.5	<.04	1.96	E.004n	.05	1.12	60	280k
JUL 19...	181	183	223	<1	63	.69	<.04	1.25	E.006n	.07	.23	10	92
AUG 02...	189	196	238	<1	51	.83	<.04	.56	.008	.09	.19	20	220
14...	167	171	209	<1	71	.84	E.02n	.58	E.007n	.11	.23	20	70

06937000 MISSOURI RIVER AT COLUMBIA BOTTOM STATE CONSERVATION AREA—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Fecal coli-form, M-FC 0.7µ MF col/100 mL (31625)	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 recover-able, µg/L (71900)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)
OCT 19...	500	Mn	2.9	<.06	E.04n	<.8	1.9	E4n	<.08	.9	<.01	2.38	1.5
APR 07...	12k	4	2.5	<.06	.05	2.6	1.8	8	.90	1.1	<.01	5.80	2.3
13...	620	2	2.5	<.06	E.03n	<.8	1.5	<6	<.08	.9	E.01n	2.28	2.4
MAY 03...	510	3	2.8	<.06	.08	1.1	2.3	E4n	.22	E.3n	.01	1.54	2.6
JUN 07...	96k	4	3.3	<.06	E.03n	1.0	2.0	<6	.20	E.4n	.02	3.62	2.3
12...	800k	2	1.8	<.06	<.04	<.8	2.1	E4n	<.08	E.4n	.04	3.52	1.1
JUL 19...	300	6	4.4	<.06	E.04n	<.8	2.1	<6	<.08	.8	<.01	3.39	2.4
AUG 02...	200	11	4.4	<.06	E.04n	<.8	2.3	14	<.08	2.4	<.01	2.82	2.2
14...	120	5	4.5	<.06	E.03n	<.8	1.8	<6	<.08	E.4n	<.01	3.97	1.6

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT 19...	<.2	E.6n
APR 07...	<.2	1.6
13...	<.2	.7
MAY 03...	<.2	1.7
JUN 07...	<.2	.6
12...	<.2	E.4n
JUL 19...	<.2	.7
AUG 02...	<.2	.8
14...	<.2	E.5n

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.
- M-- Presence verified but 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

07001985 WATKINS CREEK AT BELLEFONTAINE NEIGHBORS, MO

LOCATION.--Lat 38°45'44", long 90°11'49", 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>.

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.--Records fair except for 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.05	26	7.6	5.0	2.1	1.9	1.7	1.2	0.82	0.44	0.09	0.12
2	0.16	2.8	2.9	2.8	2.2	1.7	1.7	1.0	0.51	0.28	0.09	0.08
3	0.17	5.6	2.2	129	3.4	1.7	1.7	1.0	0.51	0.15	0.09	0.09
4	0.14	4.5	1.8	166	2.4	1.7	1.7	0.99	0.50	0.16	0.09	0.07
5	0.13	1.1	5.4	188	2.2	1.8	1.7	0.96	0.44	0.35	2.1	0.05
6	0.12	0.88	24	17	4.0	1.7	1.8	0.91	0.40	0.19	0.52	0.06
7	0.11	0.78	81	6.2	15	3.4	1.7	0.89	0.42	0.17	0.15	0.08
8	1.4	0.68	4.2	5.7	7.1	1.7	1.5	0.80	8.4	0.12	0.69	0.33
9	0.55	0.62	3.0	4.5	9.5	1.6	1.4	0.76	70	0.21	0.38	0.50
10	0.18	1.4	2.3	3.5	3.5	1.6	1.5	0.79	5.4	0.15	0.21	0.06
11	0.13	51	2.5	4.6	2.8	1.9	1.6	0.75	12	5.3	1.7	0.05
12	4.1	4.3	1.8	57	2.6	1.8	8.3	0.71	2.7	14	1.7	0.09
13	1.4	1.5	1.5	216	47	1.6	1.9	0.71	0.93	1.1	8.5	0.87
14	6.0	1.6	1.3	15	8.3	1.5	1.4	3.0	4.4	0.39	4.5	11
15	2.7	1.1	1.3	e7.9	4.6	1.5	1.3	1.1	0.60	15	6.2	19
16	0.44	0.98	1.3	e5.5	3.4	1.6	1.2	0.90	0.47	1.2	25	2.5
17	0.28	0.92	1.2	e4.1	2.9	1.6	1.2	0.84	0.44	0.37	0.67	0.67
18	17	4.1	1.3	3.2	2.6	1.6	1.2	0.85	0.40	0.34	1.5	0.33
19	1.00	7.5	1.4	4.5	2.5	1.5	1.1	0.82	0.38	0.93	0.59	19
20	0.43	1.5	1.3	3.8	2.7	1.4	1.8	8.8	0.37	0.26	0.26	28
21	0.32	1.1	1.4	3.1	2.3	1.4	2.7	1.1	0.28	0.18	0.17	0.48
22	0.31	6.1	1.1	2.6	2.1	60	14	0.93	0.22	0.15	0.15	0.26
23	6.5	1.4	1.1	2.3	2.1	7.2	2.2	0.87	0.20	0.15	0.15	0.18
24	0.67	96	0.94	2.2	2.5	4.8	1.3	0.81	0.19	0.16	0.15	0.18
25	0.37	6.5	0.89	2.3	2.0	5.5	1.4	0.74	0.20	0.13	16	56
26	12	2.7	1.0	2.4	1.9	2.9	5.1	1.5	0.21	0.37	12	3.1
27	2.3	6.6	0.97	2.1	2.0	2.6	1.4	1.4	0.19	3.3	1.2	0.59
28	0.74	2.2	1.0	1.9	3.7	2.4	2.6	1.1	0.18	0.30	0.33	20
29	0.57	7.8	1.1	5.4	---	2.1	2.6	0.72	0.20	0.14	0.19	2.3
30	0.59	20	1.2	3.4	---	2.0	2.2	0.62	0.88	0.11	0.23	0.96
31	0.65	---	1.3	2.4	---	1.8	---	1.1	---	0.10	0.17	---
MEAN	1.98	8.98	5.20	28.4	5.34	4.11	2.43	1.25	3.76	1.49	2.77	5.57
MAX	17	96	81	216	47	60	14	8.8	70	15	25	56
MIN	0.05	0.62	0.89	1.9	1.9	1.4	1.1	0.62	0.18	0.10	0.09	0.05
IN.	0.44	1.93	1.16	6.30	1.07	0.91	0.52	0.28	0.81	0.33	0.61	1.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

MEAN	3.00	3.71	3.00	8.16	6.19	6.61	5.68	10.5	7.42	5.57	3.17	2.46
MAX	5.38	8.98	8.45	28.4	17.1	18.5	11.3	24.5	18.0	18.5	10.9	5.66
(WY)	(2001)	(2005)	(2002)	(2005)	(1999)	(1998)	(1998)	(2004)	(2003)	(1998)	(1998)	(2003)
MIN	0.50	0.95	1.22	0.90	3.62	1.71	1.23	1.25	1.66	0.32	1.05	0.18
(WY)	(1998)	(2000)	(2001)	(2000)	(2003)	(2000)	(2000)	(2005)	(1997)	(1997)	(2001)	(2004)

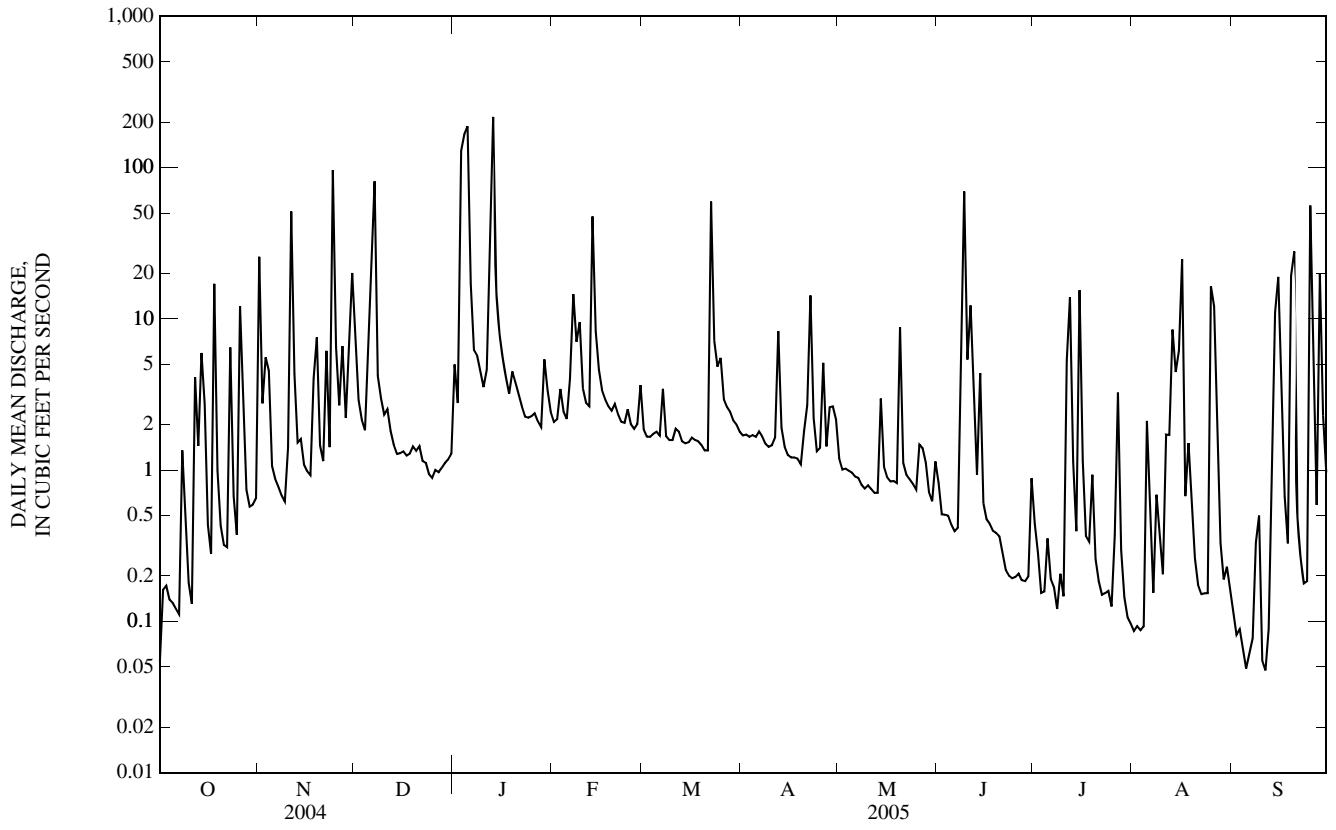
SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1997 - 2005
ANNUAL MEAN	6.44	5.95	5.60
HIGHEST ANNUAL MEAN			8.19
LOWEST ANNUAL MEAN			2.89
HIGHEST DAILY MEAN			381
LOWEST DAILY MEAN	0.03	0.05	0.03
ANNUAL SEVEN-DAY MINIMUM	0.04	0.08	0.04
MAXIMUM PEAK FLOW	---	Unknown	Unknown
MAXIMUM PEAK STAGE	---	9.90	13.10
INSTANTANEOUS LOW FLOW	---	0.03	0.01
ANNUAL RUNOFF (INCHES)	16.90	15.57	14.66
10 PERCENT EXCEEDS	8.4	8.3	8.9
50 PERCENT EXCEEDS	1.5	1.4	1.1
90 PERCENT EXCEEDS	0.17	0.17	0.23

e Estimated



07001985 WATKINS CREEK AT BELLEFONTAINE NEIGHBORS, MO—Continued



## 07005000 MALINE CREEK AT BELLEFONTAINE NEIGHBORS, MO

LOCATION.--Lat 38°44'12", long 90°13'34", 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 and discharges less than 1 ft<sup>3</sup>/s, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	72	22	15	6.7	6.2	9.4	5.1	4.6	1.3	2.0	1.7
2	4.5	20	9.9	5.1	5.4	5.6	10	4.7	4.5	1.7	1.5	1.6
3	1.9	e11	8.2	515	11	5.4	9.3	5.0	4.6	1.6	1.3	1.4
4	0.71	5.0	7.9	500	6.6	5.6	9.8	5.0	4.6	1.5	2.1	2.3
5	0.27	1.3	16	647	5.5	5.3	11	5.3	4.8	3.9	11	4.8
6	0.16	0.73	35	75	7.8	5.2	10	5.3	8.5	2.9	3.1	3.9
7	0.09	0.51	226	33	44	11	10	5.2	7.3	3.4	1.6	1.4
8	5.0	0.41	11	22	27	11	9.2	4.9	31	2.0	2.2	1.4
9	5.8	0.43	6.1	18	31	10	9.3	5.4	170	1.2	2.1	1.3
10	2.1	0.67	4.2	13	12	9.0	9.6	6.5	21	0.95	1.5	1.5
11	1.1	122	7.7	17	9.5	11	13	4.8	41	22	8.8	1.6
12	19	13	3.3	13	8.8	10	40	4.8	15	49	11	1.5
13	10	2.5	2.5	e980	112	9.0	10	4.8	5.9	8.9	40	1.9
14	20	1.4	2.2	43	29	8.5	9.6	17	23	4.2	32	36
15	15	1.2	2.5	24	16	8.6	7.5	5.2	4.4	27	34	63
16	5.4	1.2	2.4	17	12	8.7	7.1	5.0	2.9	6.2	59	8.0
17	0.28	1.2	2.1	15	9.5	8.9	7.0	4.0	2.7	2.8	5.5	3.7
18	61	9.4	2.2	12	8.5	8.7	6.3	4.5	3.6	13	9.5	2.3
19	3.4	26	1.7	17	7.7	8.8	5.9	4.8	2.3	8.1	5.0	46
20	0.59	3.0	1.8	16	8.8	8.7	7.8	35	2.3	2.3	3.0	102
21	0.36	1.5	2.2	11	7.4	8.8	11	6.0	2.2	1.6	2.1	6.2
22	0.29	19	1.6	8.9	6.7	129	52	6.8	2.2	1.5	1.9	4.7
23	25	2.8	3.1	6.7	6.5	32	11	6.2	2.6	1.4	1.8	3.1
24	1.7	238	1.5	8.7	8.4	19	5.3	4.2	2.1	1.3	2.0	2.5
25	0.30	25	1.7	9.2	6.8	27	5.3	4.0	2.2	1.4	45	162
26	48	10	2.8	9.5	6.1	13	24	4.3	2.2	1.8	42	21
27	11	20	3.0	6.5	5.9	11	5.8	4.9	1.7	16	8.1	6.9
28	1.3	8.5	2.7	5.2	11	11	11	6.6	6.0	2.9	3.2	60
29	0.93	22	3.3	18	---	11	12	4.5	4.5	1.5	2.2	17
30	0.72	55	3.3	13	---	10	10	4.2	2.6	1.7	1.9	5.2
31	0.78	---	2.5	8.6	---	9.8	---	5.3	---	1.4	2.0	---
MEAN	7.99	23.2	13.0	100	15.6	14.4	12.0	6.43	13.1	6.34	11.2	19.2
MAX	61	238	226	980	112	129	52	35	170	49	59	162
MIN	0.09	0.41	1.5	5.1	5.4	5.2	5.3	4.0	1.7	0.95	1.3	1.3
IN.	0.38	1.06	0.61	4.73	0.67	0.68	0.55	0.30	0.60	0.30	0.53	0.88

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005		
MEAN	11.2	19.9	10.3	28.1	23.0	23.3	17.4	28.2	28.0	15.0	13.5	10.3
MAX	20.6	51.7	17.2	100	55.5	69.3	31.0	81.8	67.0	42.7	32.9	22.2
(WY)	(2002)	(1997)	(2000)	(2005)	(1999)	(1998)	(1998)	(2004)	(2003)	(1998)	(1998)	(2003)
MIN	6.56	7.54	2.89	7.54	7.18	7.12	7.57	6.43	6.96	1.16	4.14	0.95
(WY)	(2000)	(2003)	(2001)	(2001)	(2002)	(2000)	(2000)	(2005)	(2001)	(1997)	(2001)	(2004)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

## FOR 2005 WATER YEAR

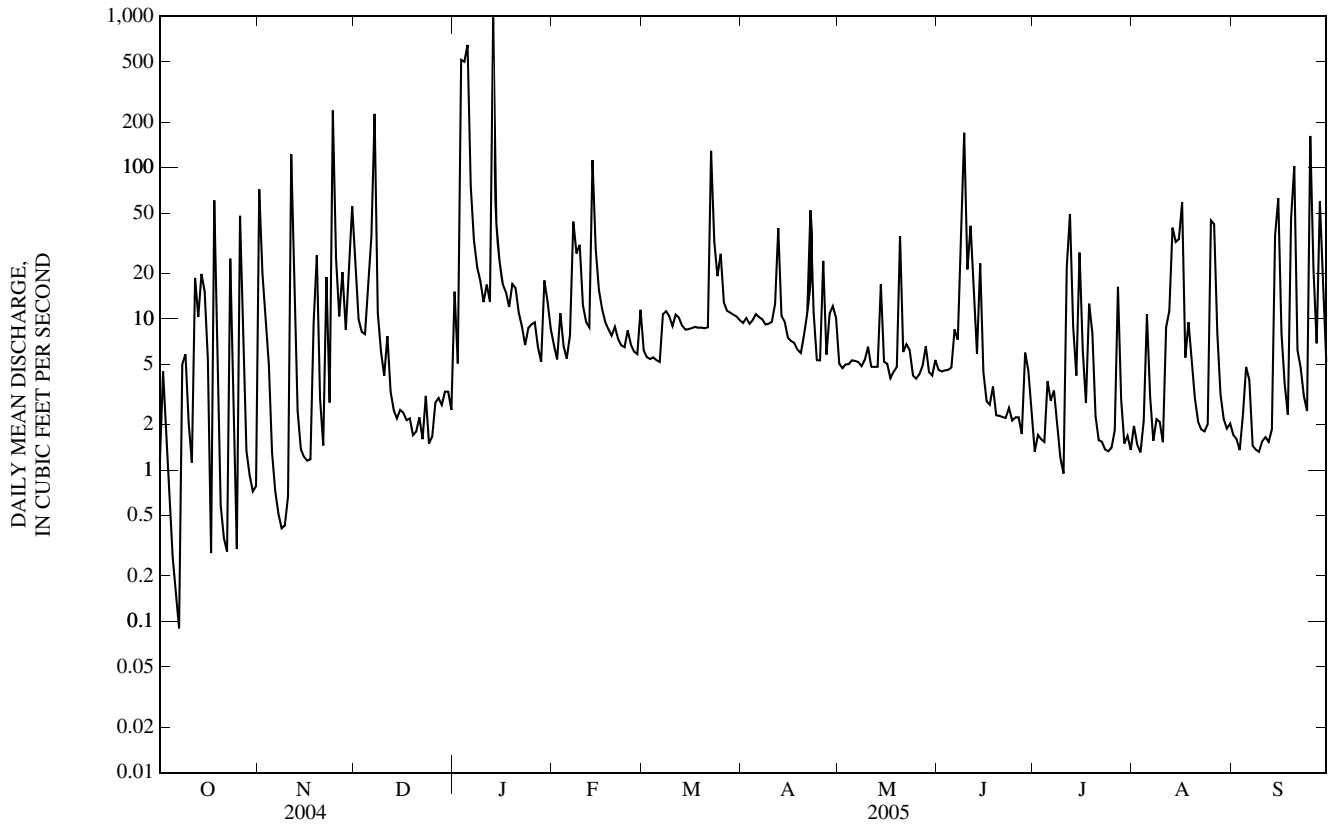
## WATER YEARS 1996 - 2005

ANNUAL MEAN	22.0	20.3	18.9
HIGHEST ANNUAL MEAN			27.7
LOWEST ANNUAL MEAN			7.25
HIGHEST DAILY MEAN	836	May 27	980
LOWEST DAILY MEAN	0.09	Oct 7	0.09
ANNUAL SEVEN-DAY MINIMUM	0.46	Sep 9	1.2
MAXIMUM PEAK FLOW	---		4,950 <sup>a</sup>
MAXIMUM PEAK STAGE	---		11.29
INSTANTANEOUS LOW FLOW	---		0.03
ANNUAL RUNOFF (INCHES)	12.26		11.29
10 PERCENT EXCEEDS	37		32
50 PERCENT EXCEEDS	6.6		6.1
90 PERCENT EXCEEDS	0.68		1.4

e Estimated

<sup>a</sup> From rating extended above 1,270 ft<sup>3</sup>/s on basis of indirect measurement.

07005000 MALINE CREEK AT BELLEFONTAINE NEIGHBORS, MO—Continued



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 2004 TO SEPTEMBER 2005

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, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, mg/L (00915)	Magnesium, water, mg/L (00925)
OCT 05...	1200	Environmental	.35	12	3.1	30	7.4	780	14.2	280	74.5	22.2
05...	1700	Environmental	127	5.2	7.8	82	7.5	310	17.5	110	30.6	7.68
MAR 22...	1322	Environmental	398	3.1	12.1	102	7.6	386	7.1	120	32.7	10.1
APR 25...	1430	Environmental	5.2	7.5	7.0	73	7.5	755	15.3	230	64.1	16.5
JUN 20...	1350	Environmental	2.4	1.2	10.2	134	8.3	561	29.0	200	54.9	14.9
AUG 08...	1213	Environmental	3	8.8	7.0	92	7.4	643	28.9	200	54.7	15.5

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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, mg/L as N (00608)	Nitrite + nitrate water, mg/L as N (00631)	Nitrite water, mg/L as N (00613)	Orthophosphate, water, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 05...	168	169	206	<1	.25	.83	.05	<.06	<.008	.07	.19	30	670
05...	87	87	106	<1	465d	1.8	<.04	.24	.018	.19	.92	60	2,800
MAR 22...	65	63	77	<1	872d	3.3	.28	.54	.022	.05	1.22	80	10,000
APR 25...	138	140	171	<1	<10	.93	.32	.36	.041	.07	.14	20	2,100
JUN 20...	125	125	152	<1	20	.81	<.04	<.06	<.008	E.01n	.18	30	2,100
AUG 08...	109	110	134	<1	14	.73	<.04	.20	.022	.02	.17	30	5,200k

Date	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	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)	Nickel, water, fltrd, $\mu$ g/L (01065)	Selenium, water, fltrd, $\mu$ g/L (01145)
OCT 05...	5,400	E1n	2.7	<.06	E.04n	<.8	2.3	E6n	E.04n	121	<.01	3.92	E.4n
05...	8,400	3	1.8	<.06	E.03n	<.8	1.7	47	.16	251	.04	2.42	.5
MAR 22...	27,000	15	1.3	<.06	E.02n	.9	1.3	38	.14	218	.04	3.01	.6
APR 25...	170k	7	2.6	<.06	E.03n	<.8	2.3	49	.12	438	<.01	3.31	1.0
JUN 20...	2,200	5	3.5	<.06	E.03n	<.8	2.0	E4n	E.06n	7.1	<.01	4.78	.6
AUG 08...	4,200k	2	3.6	<.06	E.03n	<.8	1.9	E3n	E.07n	155	<.01	4.28	.4

07005000 MALINE CREEK AT BELLEFONTAINE NEIGHBORS, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT		
05...	<.2	2.4
26...	<.2	4.3
MAR		
22...	<.2	4.3
APR		
25...	<.2	3.1
JUN		
20...	<.2	1.9
AUG		
08...	<.2	1.2

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## 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

07005500 MISSISSIPPI RIVER ABOVE ST. LOUIS, MO  
(Metropolitan St. Louis Sewer District Network)

LOCATION.--Lat 38°42'03", long 90°12'29", St. Louis County, Hydrologic Unit 07140101, site can be reached by boat 4.5 miles upstream of the St. Louis Arch, upstream of diversion channel and Mosenstein Island, at mile 184.5.

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

PERIOD OF RECORD.--October 2004 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	
OCT 26...	1010	Environmental	105,000	2.6	11.1	113	8.1	524	15.9	220	53.0	21.1	
APR 12...	1425	Environmental	203,000	2.9	9.0	94	8.0	520	16.0	210	51.2	20.2	
22...	0950	Environmental	232,000	2.6	8.1	89	8.0	476	18.7	190	49.0	16.6	
MAY 10...	0930	Environmental	139,000	3.4	10.2	111	8.0	558	18.5	240	59.8	22.0	
JUN 10...	1525	Environmental	262,000	3.4	5.4	65	7.9	442	23.4	190	48.1	16.4	
21...	1005	Environmental	237,000	5.5	6.5	81	7.8	493	25.5	230	58.5	21.1	
JUL 12...	0950	Environmental	153,000	5.3	6.7	86	7.8	539	27.5	230	57.2	20.0	
20...	1540	Environmental	96,300	1.0	9.6	131	8.5	627	30.9	270	66.9	24.0	
AUG 09...	1015	Environmental	77,700	2.7	7.3	97	8.1	614	29.5	230	56.8	22.4	
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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 26...	169	170	207	<1	45	.70	<.04	1.66	.018	.07	.18	<10	20k
APR 12...	162	162	197	<1	136	.59	.05	2.48	.040	.06	<.04	20	12k
22...	139	138	168	<1	149d	1.0	E.04n	2.26	.032	.07	.27	20	10k
MAY 10...	167	168	205	<1	67	.94	<.04	3.08	.009	.06	.20	20	22
JUN 10...	139	141	171	<1	456d	1.7	<.04	3.19	.016	.08	.57	30	230
21...	159	156	194	<1	388d	1.5	<.04	3.27	.026	.06	.51	30	280
JUL 12...	162	160	197	<1	50	.87	E.02n	3.76	.028	.09	.26	10	28k
20...	171	172	200	5	15	.74	E.02n	2.50	.029	.11	.16	30	21
AUG 09...	168	171	208	<1	52	.87	<.04	.71	.019	.09	.23	20	13k

07005500 MISSISSIPPI RIVER ABOVE ST. LOUIS, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Fecal coliform, M-FC 0.7µ MF col/100 mL (31625)	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)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)
OCT 26...	48k	2	2.0	<.06	E.03n	<.8	1.8	<6	<.08	.9	<.01	2.60	.9
APR 12...	6k	E1n	1.5	<.06	E.02n	<.8	1.7	7	E.05n	.8	E.01n	2.65	1.1
22...	20k	2	1.6	E.03n	<.04	<.8	1.9	E5n	E.05n	E.6n	E.01n	2.15	1.2
MAY 10...	25	2	2.2	<.06	E.03n	<.8	1.7	E4n	<.08	.7	<.01	2.63	2.1
JUN 10...	390	3	1.9	<.06	<.04	E.5n	2.0	E5n	<.08	E.3n	.02	3.54	1.1
21...	490	5	2.2	<.06	E.02n	E.4n	2.3	E4n	<.08	1.0	.02	4.26	1.4
JUL 12...	58	2	3.1	<.06	E.03n	<.8	3.2	E4n	<.08	E.5n	E.01n	3.49	1.5
20...	27	5	3.4	<.06	E.03n	<.8	2.1	<6	<.08	.9	<.01	3.69	1.9
AUG 09...	140	9	3.8	<.06	E.03n	<.8	1.9	9	E.06n	2.2	<.01	3.28	1.4

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT 26...	<.2	1.8
APR 12...	<.2	1.1
22...	<.2	1.9
MAY 10...	<.2	2.7
JUN 10...	<.2	.6
21...	<.2	1.4
JUL 12...	<.2	.9
20...	<.2	.7
AUG 09...	<.2	.7

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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

## 07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO

LOCATION.--Lat 38°37'51", long 90°10'40", 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. 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123,000	125,000	242,000	111,000	193,000	198,000	155,000	228,000	183,000	201,000	98,800	127,000
2	121,000	200,000	240,000	105,000	185,000	195,000	160,000	218,000	176,000	194,000	99,800	128,000
3	121,000	232,000	228,000	133,000	179,000	194,000	170,000	205,000	173,000	194,000	95,700	113,000
4	119,000	232,000	216,000	205,000	176,000	189,000	186,000	202,000	173,000	197,000	84,900	94,100
5	117,000	225,000	198,000	342,000	173,000	179,000	191,000	195,000	168,000	196,000	86,300	84,500
6	117,000	226,000	194,000	461,000	174,000	169,000	189,000	180,000	172,000	193,000	78,900	83,400
7	112,000	218,000	236,000	461,000	181,000	161,000	187,000	162,000	220,000	189,000	81,500	78,400
8	112,000	207,000	286,000	386,000	200,000	153,000	189,000	148,000	273,000	185,000	86,900	78,000
9	110,000	191,000	283,000	344,000	203,000	145,000	192,000	144,000	276,000	184,000	78,500	85,600
10	112,000	178,000	270,000	309,000	214,000	154,000	194,000	142,000	269,000	173,000	77,400	92,000
11	111,000	179,000	248,000	284,000	227,000	166,000	201,000	140,000	277,000	160,000	73,900	86,700
12	120,000	187,000	226,000	270,000	225,000	163,000	211,000	141,000	288,000	154,000	73,400	80,700
13	129,000	179,000	217,000	322,000	228,000	155,000	229,000	140,000	277,000	146,000	83,200	76,800
14	121,000	164,000	209,000	404,000	283,000	150,000	263,000	161,000	300,000	136,000	90,100	82,300
15	115,000	160,000	202,000	399,000	345,000	145,000	289,000	179,000	332,000	134,000	89,200	82,100
16	111,000	149,000	198,000	344,000	379,000	142,000	305,000	204,000	339,000	126,000	92,000	84,900
17	102,000	141,000	192,000	319,000	376,000	133,000	302,000	266,000	315,000	115,000	86,300	89,500
18	102,000	137,000	180,000	286,000	359,000	127,000	286,000	264,000	286,000	106,000	81,100	90,400
19	114,000	135,000	180,000	263,000	347,000	133,000	266,000	248,000	270,000	103,000	85,600	86,600
20	109,000	137,000	169,000	255,000	329,000	134,000	249,000	236,000	253,000	96,800	95,100	93,900
21	101,000	139,000	163,000	252,000	307,000	122,000	239,000	231,000	243,000	97,000	106,000	98,900
22	95,900	135,000	152,000	249,000	285,000	118,000	237,000	229,000	235,000	98,700	109,000	112,000
23	96,600	124,000	129,000	236,000	276,000	127,000	242,000	227,000	229,000	93,200	105,000	107,000
24	106,000	129,000	114,000	229,000	260,000	121,000	261,000	216,000	226,000	92,500	116,000	102,000
25	111,000	158,000	117,000	229,000	241,000	123,000	261,000	212,000	220,000	103,000	117,000	103,000
26	111,000	203,000	121,000	222,000	227,000	126,000	264,000	220,000	216,000	109,000	109,000	106,000
27	116,000	223,000	120,000	213,000	223,000	126,000	262,000	216,000	210,000	106,000	98,100	103,000
28	126,000	260,000	121,000	205,000	215,000	123,000	255,000	206,000	203,000	101,000	111,000	113,000
29	129,000	265,000	117,000	204,000	---	124,000	245,000	198,000	205,000	107,000	127,000	131,000
30	129,000	244,000	116,000	202,000	---	135,000	234,000	195,000	205,000	104,000	134,000	126,000
31	120,000	---	109,000	198,000	---	146,000	---	190,000	---	97,300	129,000	---
MEAN	114,200	182,700	186,900	272,300	250,400	147,600	230,500	198,200	240,400	138,400	96,120	97,330
MAX	129,000	265,000	286,000	461,000	379,000	198,000	305,000	266,000	339,000	201,000	134,000	131,000
MIN	95,900	124,000	109,000	105,000	173,000	118,000	155,000	140,000	168,000	92,500	73,400	76,800
IN.	0.19	0.29	0.31	0.45	0.37	0.24	0.37	0.33	0.38	0.23	0.16	0.16

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2005, BY WATER YEAR (WY)

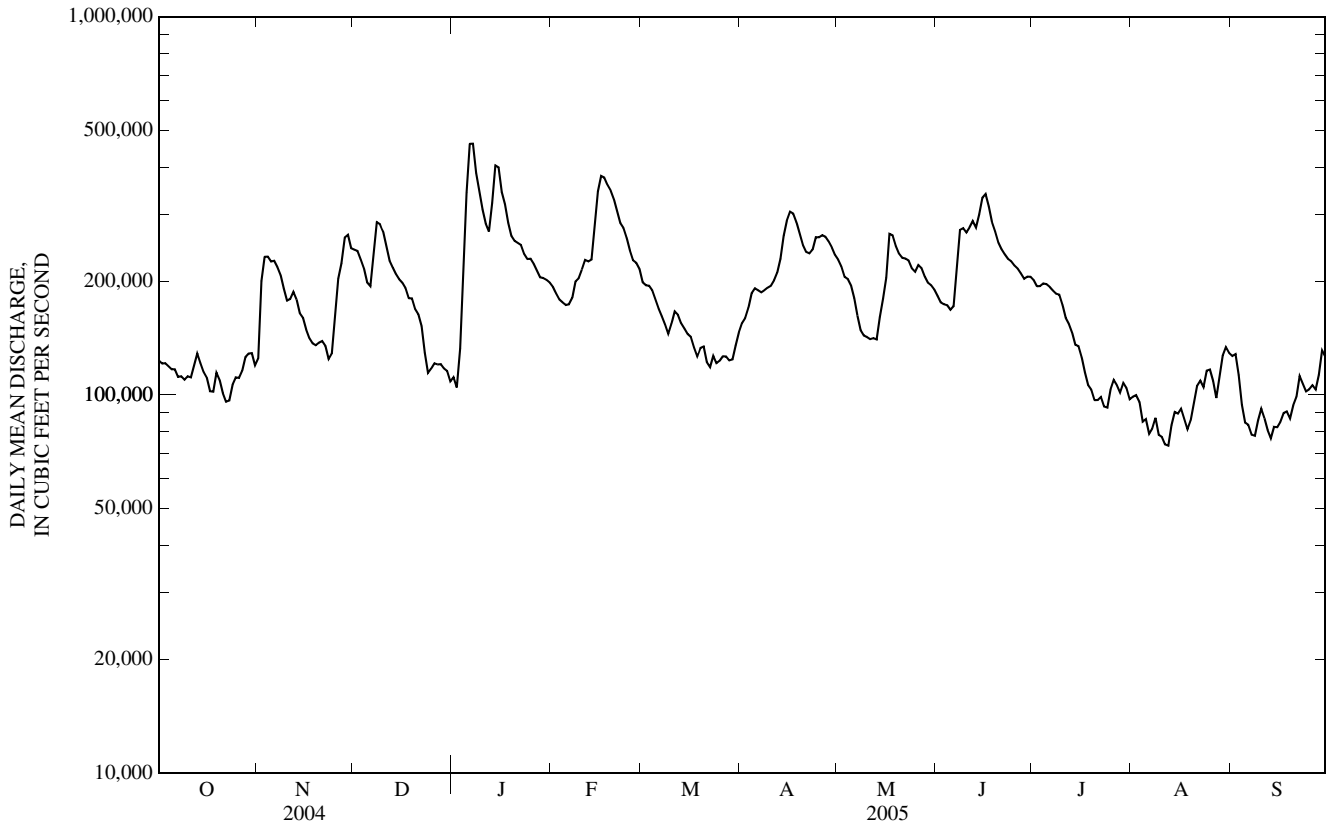
MEAN	138,000	143,500	124,400	116,900	145,700	227,700	301,400	294,100	273,400	221,500	144,400	136,000
MAX	575,300	359,200	452,400	307,800	301,400	521,800	692,500	588,700	600,600	808,800	700,200	531,800
(WY)	(1987)	(1986)	(1983)	(1973)	(1974)	(1973)	(1973)	(1995)	(1947)	(1993)	(1993)	(1993)
MIN	44,170	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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1933 - 2005	
ANNUAL MEAN	193,500		178,900		189,000	
HIGHEST ANNUAL MEAN					429,700	1993
LOWEST ANNUAL MEAN					67,700	1934
HIGHEST DAILY MEAN	460,000	May 29	461,000	Jan 6,7	1,050,000	Aug 1, 1993
LOWEST DAILY MEAN	75,000	Feb 18	73,400	Aug 12	27,800	Dec 12, 1937
ANNUAL SEVEN-DAY MINIMUM	79,400	Feb 14	78,600	Aug 6	28,200	Jan 18, 1940
MAXIMUM PEAK FLOW	---		479,000	Jan 7	1,080,000	Aug 1, 1993
MAXIMUM PEAK STAGE	---		28.80	Jan 7	49.58	Aug 1, 1993
INSTANTANEOUS LOW FLOW	---		71,000	Aug 12	27,800	Dec 12, 1937
ANNUAL RUNOFF (INCHES)	3.78		3.49		3.68	
10 PERCENT EXCEEDS	365,000		276,000		368,000	
50 PERCENT EXCEEDS	170,000		173,000		152,000	
90 PERCENT EXCEEDS	100,000		95,500		69,800	

e Estimated



07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO—Continued  
(Metropolitan St. Louis Sewer District Network)

## WATER-QUALITY RECORDS

## PERIOD OF RECORD.--

WATER TEMPERATURE: October 1951 to September 1992.

SEDIMENT RECORDS: April 1948 to current year.

Metropolitan St. Louis Sewer District Network station: October 2004 to current year.

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

## EXTREMES FOR PERIOD OF 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, 986 mg/L, May 19; minimum daily mean 71 mg/L, July 21 and 24.

SEDIMENT LOADS: Maximum daily, 914,000 tons, Jan. 6; minimum daily, 17,600 tons, July 24.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO3 (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 26...	0915	Environmental	105,000	3.0	10.8	112	8.1	579	16.3	230	56.3	21.8
APR 12...	1335	Environmental	203,000	2.7	11.3	119	8.1	559	16.5	220	54.1	20.7
22...	0910	Environmental	232,000	3.1	8.1	89	7.9	482	18.6	190	48.9	17.6
MAY 10...	0855	Environmental	139,000	5.2	10.1	110	7.8	558	18.4	240	61.0	22.0
JUN 10...	1440	Environmental	262,000	8.8	6.1	75	7.5	447	24.9	190	47.9	16.5
21...	0920	Environmental	238,000	3.0	6.4	79	8.0	491	25.5	230	58.2	21.4
JUL 12...	0910	Environmental	153,000	5.8	6.6	84	7.7	535	26.8	230	58.4	20.2
20...	1510	Environmental	96,300	1.1	9.4	130	8.5	604	31.4	260	66.0	24.0
AUG 09...	0930	Environmental	77,700	3.0	7.0	93	8.0	629	29.4	240	58.2	22.1
09...	0931	Replicate	--	--	7.0	93	8.0	629	29.4	240	57.8	22.1

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	ANC, wat unfltrd end pt, field, mg/L as CaCO3 (00410)	ANC, wat unfltrd, titr., field, mg/L as CaCO3 (00419)	Bicarbonate, wat unfltrd, titr., field, mg/L (00450)	Carbonate, wat unfltrd, titr., field, mg/L (00447)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 26...	189	189	231	<1	44	.81	.08	1.61	.020	.11	.22	<10	42
APR 12...	163	162	197	<1	139	.29	.05	2.16	.033	.06	.12	20	E15k
22...	138	139	170	--	144d	1.1	E.04n	2.51	.035	.07	.30	20	E33k
MAY 10...	165	167	204	<1	71	.97	<.04	3.11	.010	.07	.20	20	E12k
JUN 10...	141	144	175	<1	527d	1.9	E.02n	3.21	.019	.08	.66	30	190
21...	154	156	188	<1	350d	1.4	E.02n	3.29	.033	.07	.49	30	620
JUL 12...	161	161	196	<1	77	.80	<.04	3.86	.033	.13	.26	10	44
20...	177	175	209	2	26	.86	E.02n	2.81	.031	.10	.19	20	40
AUG 09...	172	175	213	<1	68	.86	<.04	.77	.018	.11	.25	20	E13k
09...	--	--	--	--	60	.87	.07	.87	.013	.09	.24	20	E15k

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Fecal coli-form, M-FC 0.7u MF col/100 mL (31625)	Aluminum, water, fltrd, ug/L (01106)	Arsenic, water, fltrd, ug/L (01000)	Beryllium, water, fltrd, ug/L (01010)	Cadmium, water, fltrd, ug/L (01025)	Chromium, water, fltrd, ug/L (01030)	Copper, water, fltrd, ug/L (01040)	Iron, water, fltrd, ug/L (01046)	Lead, water, fltrd, ug/L (01049)	Manganese, water, fltrd, ug/L (01056)	Mercury, water, unfltrd recover-able, ug/L (71900)	Nickel, water, fltrd, ug/L (01065)	Selenium, water, fltrd, ug/L (01145)
OCT 26...	40	2	2.2	<.06	.04	<.8	1.8	E4n	<.08	1.1	<.01	3.09	1.1
APR 12...	E17k	E1n	1.4	<.06	E.02n	<.8	1.6	E5n	<.08	.7	E.01n	4.04	.7
22...	E92k	2	1.3	<.06	E.02n	<.8	1.7	E5n	E.05n	.6	E.01n	1.64	.9
MAY 10...	E8k	2	2.2	<.06	E.03n	<.8	1.7	E4n	E.07n	1.6	<.01	2.56	2.0
JUN 10...	590	2	1.9	<.06	E.02n	<.8	2.1	<6	E.05n	<.6	.02	3.43	1.2
21...	E700k	2	2.2	<.06	E.02n	<.8	3.9	<6	<.08	E.4n	.01	4.25	1.5
JUL 12...	60	4	3.0	<.06	E.03n	4.1	2.9	7	E.06n	1.5	E.01n	3.44	1.6
20...	59	3	3.2	<.06	E.03n	<.8	2.1	<6	E.08n	.8	<.01	3.60	1.7
AUG 09...	45	5	3.8	<.06	E.03n	<.8	2.8	9	E.08n	1.3	<.01	3.06	1.4
09...	52	5	3.8	<.06	E.03n	<.8	2.9	E4n	E.04n	1.0	<.01	3.20	1.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Silver, water, fltrd, ug/L (01075)	Zinc, water, fltrd, ug/L (01090)	Data base number
OCT 26...	<.2	1.4	01
APR 12...	<.2	.8	01
22...	<.2	.9	01
MAY 10...	<.2	.8	01
JUN 10...	<.2	1.3	01
21...	<.2	E.5n	01
JUL 12...	<.2	1.0	01
20...	<.2	.8	01
AUG 09...	<.2	1.5	01
09...	<.2	1.2	02

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Day	Mean discharge (cfs)	Mean concentration	Load (tons/day)	Mean discharge (cfs)	Mean concentration	Load (tons/day)	Mean discharge (cfs)	Mean concentration	Load (tons/day)	
		(mg/l)			(mg/l)			(mg/l)		
		OCTOBER			NOVEMBER			DECEMBER		
1	123,000	148	49,000	125,000	134	45,100	e242,000	292	191,000	
2	121,000	174	56,800	200,000	242	131,000	240,000	245	158,000	
3	121,000	190	62,100	232,000	398	250,000	228,000	222	136,000	
4	119,000	158	50,900	232,000	462	289,000	216,000	184	107,000	
5	117,000	178	56,200	225,000	390	237,000	198,000	167	89,100	
6	117,000	182	57,600	226,000	358	219,000	194,000	158	82,500	
7	112,000	170	51,500	218,000	281	165,000	236,000	265	169,000	
8	112,000	183	55,500	207,000	246	138,000	286,000	372	287,000	
9	110,000	157	46,600	191,000	236	122,000	283,000	329	251,000	
10	112,000	124	37,400	178,000	202	97,300	270,000	230	168,000	
11	111,000	146	43,600	179,000	181	87,200	248,000	244	163,000	
12	120,000	169	54,700	187,000	191	96,400	226,000	306	187,000	
13	129,000	206	71,700	179,000	175	84,800	217,000	230	135,000	
14	121,000	169	55,300	164,000	175	77,500	209,000	191	108,000	
15	115,000	139	43,200	160,000	135	58,200	202,000	175	95,700	
16	111,000	129	38,600	149,000	115	46,300	198,000	168	90,000	
17	102,000	115	31,600	141,000	106	40,300	192,000	149	77,300	
18	102,000	118	32,600	137,000	93	34,300	180,000	139	67,600	
19	114,000	131	40,400	135,000	87	31,700	180,000	144	70,000	
20	109,000	135	39,700	137,000	87	32,200	169,000	147	67,000	
21	101,000	116	31,500	139,000	83	31,300	163,000	138	60,600	
22	95,900	114	29,400	135,000	84	30,800	152,000	133	54,500	
23	96,600	125	32,700	124,000	82	27,500	129,000	105	36,400	
24	106,000	102	29,100	129,000	114	39,500	114,000	94	29,000	
25	111,000	101	30,300	158,000	228	97,400	117,000	85	27,000	
26	111,000	99	29,600	203,000	228	125,000	121,000	73	23,900	
27	116,000	115	36,000	223,000	268	161,000	120,000	100	32,300	
28	126,000	131	44,700	260,000	448	315,000	121,000	87	28,500	
29	129,000	148	51,500	265,000	349	250,000	117,000	84	26,600	
30	129,000	136	47,300	244,000	261	172,000	116,000	122	38,300	
31	120,000	145	47,100	---	---	---	109,000	99	29,100	
TOTAL	3,539,500	---	1,384,200	5,482,000	---	3,531,800	5,793,000	---	3,085,400	
		JANUARY			FEBRUARY			MARCH		
1	111,000	72	21,500	193,000	149	77,500	198,000	163	87,100	
2	105,000	81	23,000	185,000	177	88,600	195,000	166	87,200	
3	133,000	207	74,400	179,000	146	70,600	194,000	137	72,000	
4	205,000	363	201,000	176,000	135	64,200	189,000	129	66,000	
5	342,000	506	467,000	173,000	120	55,800	179,000	125	60,300	
6	461,000	734	914,000	174,000	101	47,500	169,000	117	53,400	
7	461,000	694	864,000	181,000	116	56,500	161,000	138	60,000	
8	386,000	639	666,000	200,000	147	79,600	153,000	105	43,500	
9	344,000	580	539,000	203,000	142	77,700	145,000	91	35,800	
10	309,000	414	345,000	214,000	140	80,900	154,000	96	39,900	
11	284,000	320	245,000	227,000	130	79,800	166,000	94	42,200	
12	270,000	238	174,000	225,000	192	116,000	163,000	92	40,500	
13	322,000	388	337,000	228,000	216	133,000	155,000	94	39,300	
14	404,000	518	566,000	283,000	293	224,000	150,000	94	38,100	
15	399,000	558	601,000	345,000	371	345,000	145,000	113	44,400	
16	344,000	576	535,000	379,000	672	688,000	142,000	111	42,500	
17	319,000	540	465,000	376,000	824	836,000	133,000	77	27,700	
18	286,000	444	343,000	359,000	589	571,000	127,000	95	32,500	
19	263,000	374	266,000	347,000	530	497,000	133,000	101	36,300	
20	255,000	382	263,000	329,000	482	428,000	134,000	84	30,500	
21	252,000	347	236,000	307,000	438	363,000	122,000	81	26,500	
22	249,000	319	214,000	285,000	406	312,000	118,000	86	27,600	
23	236,000	327	208,000	276,000	269	200,000	127,000	110	37,800	
24	229,000	286	177,000	260,000	338	237,000	121,000	98	31,900	
25	229,000	267	165,000	241,000	268	174,000	123,000	94	31,300	
26	222,000	238	143,000	227,000	235	144,000	126,000	74	25,000	
27	213,000	226	130,000	223,000	230	139,000	126,000	88	30,000	
28	205,000	204	113,000	215,000	275	160,000	123,000	83	27,400	
29	204,000	177	97,700	---	---	---	124,000	87	29,000	
30	202,000	158	86,000	---	---	---	135,000	94	34,400	
31	198,000	145	77,400	---	---	---	146,000	125	49,300	
TOTAL	8,442,000	---	9,557,000	7,010,000	---	6,345,700	4,576,000	---	1,329,400	

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

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	
		APRIL			MAY			JUNE		
1	155,000	100	41,600	228,000	263	162,000	183,000	157	77,500	
2	160,000	89	38,500	218,000	248	146,000	176,000	165	78,300	
3	170,000	85	38,900	205,000	250	139,000	173,000	146	68,300	
4	186,000	205	103,000	202,000	213	116,000	173,000	145	67,700	
5	191,000	195	101,000	195,000	210	110,000	168,000	132	59,900	
6	189,000	152	77,600	180,000	196	95,200	172,000	155	71,900	
7	187,000	151	76,200	162,000	184	80,400	220,000	184	109,000	
8	189,000	157	80,000	148,000	155	61,900	273,000	744	548,000	
9	192,000	164	84,900	144,000	164	63,600	276,000	693	517,000	
10	194,000	151	79,100	142,000	169	64,800	269,000	645	468,000	
11	201,000	148	80,200	140,000	135	51,200	277,000	721	539,000	
12	211,000	159	90,800	141,000	125	47,800	288,000	821	638,000	
13	229,000	214	132,000	140,000	104	39,300	277,000	668	500,000	
14	263,000	240	171,000	161,000	115	50,000	300,000	606	491,000	
15	289,000	290	226,000	179,000	172	82,900	332,000	787	705,000	
16	305,000	518	427,000	204,000	248	137,000	339,000	967	885,000	
17	302,000	577	471,000	266,000	642	461,000	315,000	877	746,000	
18	286,000	439	339,000	264,000	969	691,000	286,000	676	522,000	
19	266,000	345	248,000	248,000	986	660,000	270,000	463	338,000	
20	249,000	265	178,000	236,000	883	563,000	253,000	514	351,000	
21	239,000	251	162,000	231,000	661	412,000	243,000	422	277,000	
22	237,000	249	159,000	229,000	597	369,000	235,000	353	224,000	
23	242,000	218	142,000	227,000	519	318,000	229,000	269	167,000	
24	261,000	228	161,000	216,000	319	186,000	226,000	297	181,000	
25	261,000	229	162,000	212,000	336	192,000	220,000	245	146,000	
26	264,000	335	239,000	220,000	325	193,000	216,000	209	122,000	
27	262,000	493	349,000	216,000	297	173,000	210,000	200	113,000	
28	255,000	370	255,000	206,000	283	158,000	203,000	152	83,400	
29	245,000	357	236,000	198,000	246	131,000	205,000	171	94,400	
30	234,000	296	187,000	195,000	221	116,000	205,000	153	84,900	
31	---	---	---	190,000	179	91,800	---	---	---	
TOTAL	6,914,000	---	5,135,800	6,143,000	---	6,161,900	7,212,000	---	9,273,300	
		JULY			AUGUST			SEPTEMBER		
1	201,000	207	112,000	98,800	103	27,400	127,000	283	97,200	
2	194,000	210	110,000	99,800	102	27,600	128,000	238	82,300	
3	194,000	166	87,100	95,700	101	26,000	113,000	168	51,200	
4	197,000	250	133,000	84,900	130	29,700	94,100	199	50,400	
5	196,000	249	132,000	86,300	172	40,000	84,500	190	43,400	
6	193,000	242	126,000	78,900	167	35,500	83,400	181	40,800	
7	189,000	235	120,000	81,500	175	38,500	78,400	149	31,600	
8	185,000	246	123,000	86,900	137	32,200	78,000	135	28,500	
9	184,000	232	115,000	78,500	109	23,100	85,600	112	25,800	
10	173,000	189	88,100	77,400	95	19,900	92,000	103	25,700	
11	160,000	173	74,500	73,900	96	19,200	86,700	83	19,300	
12	154,000	163	67,700	73,400	104	20,700	80,700	88	19,300	
13	146,000	154	60,700	83,200	87	19,500	76,800	104	21,500	
14	136,000	132	48,500	90,100	123	29,900	82,300	100	22,300	
15	134,000	114	41,200	89,200	100	24,100	82,100	129	28,600	
16	126,000	110	37,400	92,000	110	27,400	84,900	94	21,500	
17	115,000	95	29,400	86,300	105	24,500	89,500	103	25,000	
18	106,000	104	29,800	81,100	104	22,900	90,400	164	40,000	
19	103,000	79	22,000	85,600	128	29,500	86,600	107	25,000	
20	96,800	73	19,100	95,100	153	39,400	93,900	127	32,300	
21	97,000	71	18,700	106,000	189	54,000	98,900	117	31,100	
22	98,700	74	19,600	109,000	184	54,100	112,000	238	71,900	
23	93,200	80	20,100	105,000	187	53,100	107,000	272	78,700	
24	92,500	226	56,500	116,000	200	62,700	102,000	165	45,500	
25	103,000	74	20,600	117,000	242	76,600	103,000	126	35,100	
26	109,000	72	21,100	109,000	294	86,600	106,000	122	34,900	
27	106,000	83	23,900	98,100	304	80,400	103,000	102	28,300	
28	101,000	101	27,500	111,000	328	98,400	113,000	120	36,700	
29	107,000	103	29,700	127,000	342	117,000	131,000	139	49,200	
30	104,000	95	26,800	134,000	431	156,000	126,000	---	---	
31	97,300	83	21,800	129,000	306	107,000	---	---	---	
TOTAL	4,291,500	---	1,862,800	2,979,700	---	1,502,900	2,919,800	---	1,143,100	

e Estimated

## 07010022 RIVER DES PERES NEAR UNIVERSITY CITY, MO

LOCATION.--Lat 38°40'06", long 90°19'25", 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.--Water-discharge records poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	60	11	18	1.5	1.8	0.77	1.0	0.66	0.12	0.15	e0.17
2	0.07	3.5	2.6	18	1.8	1.7	0.75	0.89	0.60	0.11	0.16	e0.16
3	0.08	10	1.4	227	3.6	1.4	0.76	0.87	0.63	0.10	0.16	e0.14
4	0.40	4.1	1.1	312	1.6	1.5	0.74	0.80	0.57	0.18	0.15	e0.14
5	0.08	0.99	15	390	1.6	1.3	0.73	0.80	0.56	0.21	3.3	e0.14
6	0.09	0.83	39	30	5.7	1.3	0.86	0.76	4.1	0.17	0.16	e0.15
7	0.11	0.73	104	9.5	34	6.5	0.76	0.74	2.6	0.19	0.15	e0.17
8	2.4	0.70	4.3	9.6	8.5	1.7	0.66	0.70	52	0.16	0.12	e0.19
9	0.08	0.75	3.8	6.7	15	1.4	0.65	0.69	147	0.12	0.06	e0.19
10	0.07	0.87	3.1	4.6	3.2	1.4	0.65	0.94	7.3	0.07	0.01	e0.19
11	7.1	115	7.0	11	2.2	1.4	4.1	0.65	36	39	2.6	e0.18
12	40	4.9	1.9	134	2.3	1.4	19	0.65	4.4	37	0.55	e0.18
13	2.1	1.2	1.6	305	93	1.2	3.8	0.61	5.0	0.56	72	e0.17
14	25	0.87	1.4	16	9.1	1.2	0.87	8.7	6.1	1.3	12	e4.1
15	4.7	0.65	1.4	7.0	4.5	1.2	0.69	0.68	0.84	10	57	103
16	0.84	0.68	1.5	4.9	3.0	2.8	0.65	0.57	0.57	0.30	12	1.2
17	0.80	0.71	1.5	3.8	2.2	1.4	0.61	0.53	0.81	0.15	0.26	0.40
18	56	19	1.4	3.2	1.9	1.4	0.60	0.52	0.42	17	9.7	0.38
19	1.4	20	1.0	7.3	1.5	2.8	0.57	0.72	0.42	0.70	0.24	e17
20	0.91	1.1	0.69	3.7	1.9	2.8	34	16	0.35	0.17	0.15	53
21	0.86	0.80	1.1	2.5	1.5	2.6	5.3	0.63	0.24	0.15	0.14	0.50
22	0.81	15	0.97	1.4	1.2	85	51	4.1	0.26	0.15	0.14	0.41
23	21	1.2	0.55	1.4	1.2	14	4.6	0.64	0.24	0.15	0.14	0.37
24	0.95	170	1.2	1.8	2.9	9.3	1.3	0.54	0.22	0.14	0.15	0.39
25	0.84	13	1.4	2.5	1.8	7.9	1.5	0.53	0.26	0.13	117	126
26	46	5.1	1.1	2.0	1.5	1.6	13	0.53	0.23	0.62	33	3.6
27	5.7	19	0.76	1.4	1.4	1.3	1.5	0.63	0.20	5.5	0.79	0.29
28	0.97	2.2	1.4	1.3	4.4	1.2	6.1	0.90	0.16	0.19	0.30	58
29	0.87	23	1.9	8.1	---	1.1	8.1	0.75	0.14	0.18	0.71	1.8
30	1.1	51	1.0	4.1	---	1.1	1.8	0.55	0.13	0.25	0.36	0.31
31	0.86	---	1.6	2.1	---	0.80	---	0.58	---	0.85	0.22	---
MEAN	7.20	18.2	7.02	50.0	7.64	5.27	5.55	1.55	9.10	3.74	10.4	12.4
MAX	56	170	104	390	93	85	51	16	147	39	117	126
MIN	0.07	0.65	0.55	1.3	1.2	0.80	0.57	0.52	0.13	0.07	0.01	0.14
IN.	0.93	2.28	0.91	6.45	0.89	0.68	0.69	0.20	1.14	0.48	1.35	1.55

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

MEAN	7.56	8.52	5.76	13.6	10.0	12.5	10.5	17.9	21.3	8.88	6.16	7.79
MAX	18.5	18.2	13.3	50.0	27.7	33.4	18.4	41.1	39.0	20.1	10.4	26.4
(WY)	(2002)	(2005)	(2002)	(2005)	(1999)	(1998)	(2002)	(2004)	(2003)	(1998)	(2005)	(2003)
MIN	3.11	1.17	1.23	2.36	2.78	3.61	3.81	1.55	4.87	0.87	0.95	0.26
(WY)	(1998)	(2000)	(1999)	(2000)	(2002)	(2000)	(2000)	(2005)	(2004)	(2001)	(2001)	(2004)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

## FOR 2005 WATER YEAR

## WATER YEARS 1997 - 2005

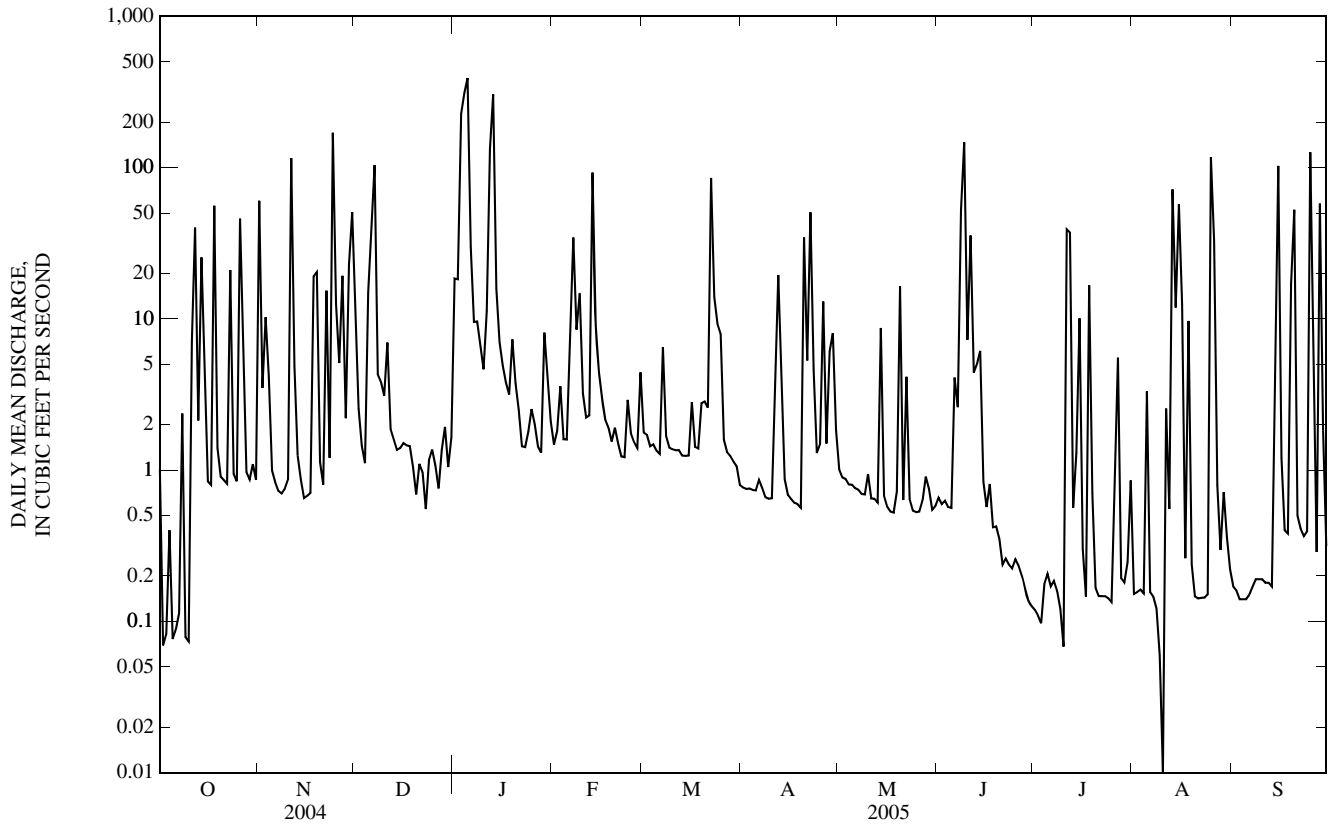
ANNUAL MEAN	12.3	11.5	10.9
HIGHEST ANNUAL MEAN			13.7
LOWEST ANNUAL MEAN			5.55
HIGHEST DAILY MEAN	320	Mar 26	390
LOWEST DAILY MEAN	0.00	Jul 1	0.01
ANNUAL SEVEN-DAY MINIMUM	0.05	Jun 25	0.13
MAXIMUM PEAK FLOW	---		3,340 <sup>a</sup>
MAXIMUM PEAK STAGE	---		14.20
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	18.68		17.54
10 PERCENT EXCEEDS	23		20
50 PERCENT EXCEEDS	1.2		0.53
90 PERCENT EXCEEDS	0.11		0.00

e Estimated

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

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

07010022 RIVER DES PERES NEAR UNIVERSITY CITY, MO—Continued



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 2004 TO SEPTEMBER 2005

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, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, mg/L (00915)	Magnesium, water, mg/L (00925)
OCT 05...	1345	Environmental	.07	.9	11.7	118	8.3	618	15.6	180	47.6	15.5
12...	1614	Environmental	177	5.4	7.0	73	7.3	223	15.8	61	19.4	3.15
MAR 22...	0949	Environmental	109	2.3	12.3	103	7.8	315	6.4	120	33.6	9.31
APR 25...	1300	Environmental	1	6.7	9.5	98	7.6	927	15.5	240	69.7	17.0
JUN 22...	1100	Environmental	.26	7.5	4.4	53	7.3	900	23.9	270	75.1	19.1
AUG 08...	1325	Blank	--	--	--	--	--	--	--	--	<.02	<.008
08...	1330	Environmental	1.3	10	2.2	27	7.4	625	25.7	200	60.5	12.4

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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, ftrd, mg/L as N (00608)	Nitrite + nitrate water ftrd, mg/L as N (00631)	Nitrite water, ftrd, mg/L as N (00613)	Orthophosphate, water, ftrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 05...	100	100	108	7	<10	.92	.05	.49	.078	.04	.16	20	220
12...	53	49	60	<1	383	4.6	.24	.53	.031	.20	1.24	140	110,000
MAR 22...	82	78	E95	<1	375d	6.4d	.51	.72	.061	<.02	1.24	150	7,800
APR 25...	144	146	178	<1	13	4.2	2.06d	.46	.055	.35	.51	60	9,800
JUN 22...	87	89	109	<1	<10	.59	.14	.14	.036	.02	.11	<10	4,200
AUG 08...	--	--	--	--	<10	<.10	E.03n	<.06	<.008	<.02	<.04	<10	--
08...	129	131	160	<1	<10	1.3	.18	E.03n	.010	.14	.41	30	11,000

Date	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	Aluminum, water, ftrd, $\mu$ g/L (01106)	Arsenic, water, ftrd, $\mu$ g/L (01000)	Beryllium, water, ftrd, $\mu$ g/L (01010)	Cadmium, water, ftrd, $\mu$ g/L (01025)	Chromium, water, ftrd, $\mu$ g/L (01030)	Copper, water, ftrd, $\mu$ g/L (01040)	Iron, water, ftrd, $\mu$ g/L (01046)	Lead, water, ftrd, $\mu$ g/L (01049)	Manganese, water, ftrd, $\mu$ g/L (01056)	Mercury water, unfltrd recoverable, $\mu$ g/L (71900)	Nickel, water, ftrd, $\mu$ g/L (01065)	Selenium, water, ftrd, $\mu$ g/L (01145)
OCT 05...	2,000	7	1.7	<.06	<.04	<.8	2.2	16	<.08	57.6	<.01	2.40	.7
12...	100,000	9	1.4	<.06	E.02n	E.7n	2.5	88	.39	224	.37d	1.76	.6
MAR 22...	33,000	9	.9	<.06	.06	2.8	3.2	31	.20	216	.04	3.59	.9
APR 25...	7,700k	9	1.3	<.06	E.03n	<.8	2.8	129	.24	167	<.01	2.44	1.2
JUN 22...	4,200	6	2.2	<.06	E.02n	<.8	2.1	44	E.05n	105	<.01	4.66	.9
AUG 08...	--	2	<.2	<.06	<.04	<.8	<.4	E3n	<.08	<.6	<.01	<.06	<.4
08...	6,000	9	3.4	<.06	E.03n	<.8	1.4	76	.08	668	<.01	3.48	E.4n



07010022 RIVER DES PERES NEAR UNIVERSITY CITY, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT		
05...	<.2	2.2
12...	<.2	6.9
MAR		
22...	<.2	9.5
APR		
25...	<.2	8.9
JUN		
22...	<.2	3.0
AUG		
08...	<.2	<.6
08...	<.2	3.6

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## 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

## 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.01	7.9	2.5	3.8	0.73	0.48	0.46	e0.46	0.09	0.03	0.02	0.04
2	0.02	0.63	1.2	4.6	e1.0	0.44	0.43	e0.32	0.10	0.04	0.00	0.03
3	0.15	1.1	0.91	101	0.72	0.43	0.41	e0.26	0.16	0.04	0.00	0.03
4	0.00	0.63	0.74	121	0.69	0.44	0.39	e0.24	0.08	0.17	0.00	0.03
5	0.00	0.24	2.0	165	1.4	0.41	0.37	e0.22	0.07	0.04	0.84	0.03
6	0.62	0.16	18	26	1.4	0.39	0.42	e0.20	0.83	0.03	0.00	0.03
7	0.01	0.17	46	6.9	7.2	1.5	0.34	e0.19	0.06	0.02	0.00	0.03
8	0.34	0.26	1.8	4.1	2.5	0.45	0.29	e0.17	7.8	0.02	0.00	0.04
9	0.06	0.13	1.2	3.3	3.7	0.43	0.28	e0.15	19	0.02	0.00	0.04
10	0.01	0.11	1.0	1.6	1.2	0.45	0.26	0.33	1.1	0.02	0.00	0.04
11	0.03	17	1.4	3.1	0.96	0.46	0.30	0.17	0.76	6.1	0.61	0.04
12	2.7	1.3	0.80	44	0.89	0.46	e8.2	0.14	0.28	7.7	0.04	0.04
13	0.32	0.55	0.73	91	30	0.43	e1.0	0.13	0.42	1.0	11	0.04
14	2.0	0.43	0.72	8.0	4.4	0.39	e0.59	1.6	0.81	0.23	3.5	2.2
15	0.63	0.32	0.76	2.1	2.3	0.34	e0.42	0.24	2.1	0.37	8.8	17
16	0.18	0.25	0.73	1.7	1.6	0.35	e0.33	0.16	0.08	0.07	2.5	0.65
17	0.12	0.21	0.72	1.1	1.1	0.38	e0.29	0.16	0.03	0.05	0.18	0.24
18	5.2	1.4	0.72	1.0	0.93	0.38	e0.25	0.16	0.02	2.5	1.0	0.19
19	1.1	2.0	0.71	1.4	0.79	0.43	e0.22	0.15	0.01	0.14	0.25	14
20	0.17	0.42	0.70	1.2	0.87	0.43	e12	5.9	0.00	0.05	0.08	10
21	0.11	0.28	0.72	1.1	0.70	0.43	e2.0	0.42	0.00	0.02	0.06	0.54
22	0.08	1.7	0.55	1.0	0.59	26	e21	1.2	0.00	0.02	0.05	0.28
23	2.3	0.40	0.48	0.96	0.57	4.8	e2.1	0.35	0.00	0.02	0.06	0.18
24	0.20	42	0.48	0.96	0.80	4.1	e0.70	0.29	0.00	0.02	0.05	0.13
25	0.13	2.2	0.50	1.0	0.56	3.6	e0.82	0.25	0.01	0.02	24	26
26	5.7	1.0	0.50	1.1	0.50	1.3	e5.0	0.21	4.5	1.1	5.5	2.0
27	0.87	2.9	0.50	0.89	0.48	1.0	e0.75	0.20	0.81	0.50	0.30	0.68
28	0.29	1.1	0.58	0.87	1.1	0.79	e2.9	0.19	0.48	0.01	0.07	12
29	0.21	3.1	0.65	1.6	---	0.64	e3.5	0.16	0.08	0.02	0.65	1.6
30	0.26	7.1	0.66	1.3	---	0.56	e0.76	0.15	0.04	0.01	0.10	0.64
31	0.19	---	0.81	0.91	---	0.48	---	0.10	---	0.01	0.06	---
MEAN	0.77	3.23	2.90	19.5	2.49	1.72	2.23	0.48	1.32	0.66	1.93	2.96
MAX	5.7	42	46	165	30	26	21	5.9	19	7.7	24	26
MIN	0.00	0.11	0.48	0.87	0.48	0.34	0.22	0.10	0.00	0.01	0.00	0.03
IN.	0.44	1.80	1.66	11.17	1.29	0.98	1.24	0.28	0.74	0.38	1.11	1.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

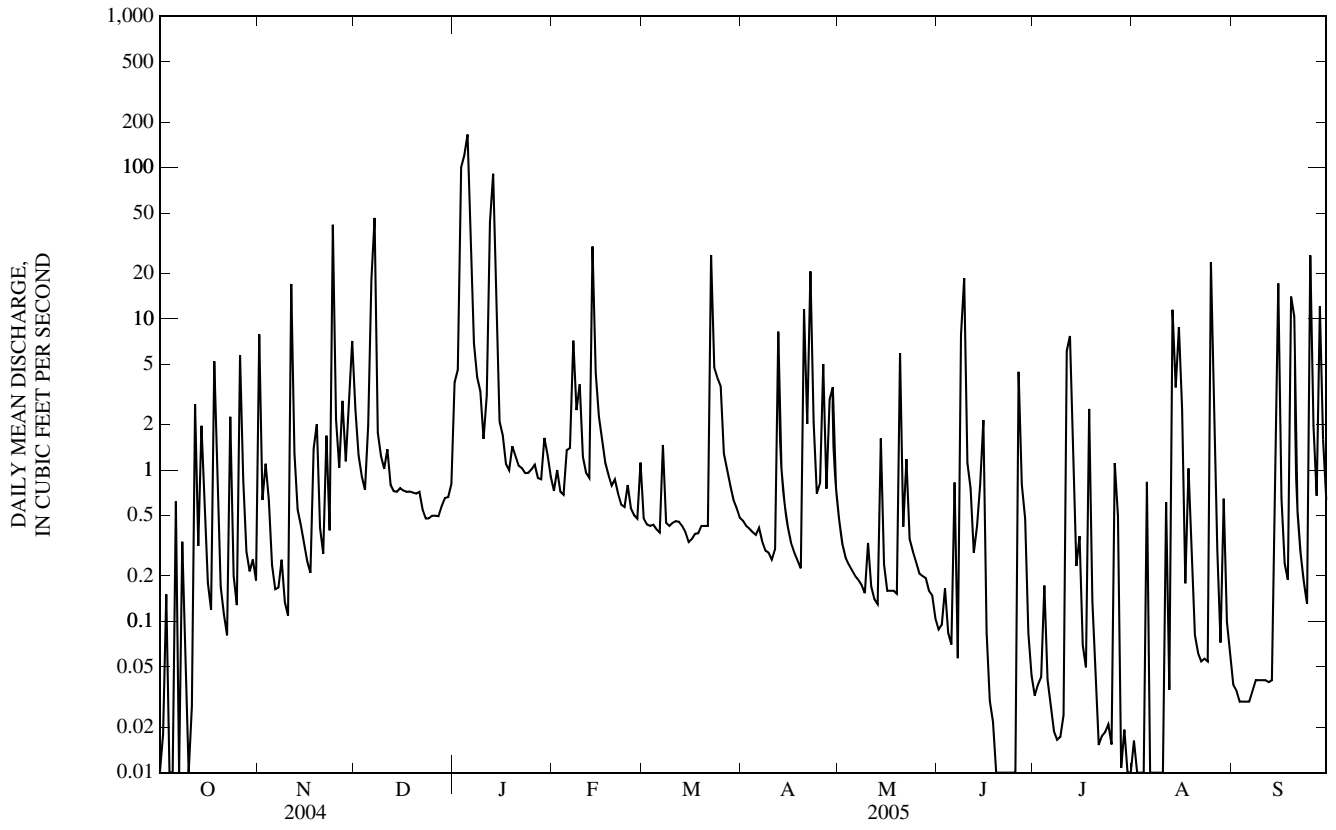
MEAN	0.97	1.45	1.09	3.85	2.10	2.36	1.75	2.99	3.48	1.45	1.27	1.12
MAX	2.59	3.40	2.90	19.5	7.35	6.56	3.06	7.63	6.10	6.51	2.79	2.99
(WY)	(2002)	(2004)	(2005)	(2005)	(1999)	(1998)	(1998)	(2004)	(2003)	(1998)	(2002)	(2003)
MIN	0.39	0.12	0.33	0.22	0.50	0.37	0.48	0.48	0.45	0.25	0.12	0.14
(WY)	(2000)	(2000)	(1999)	(2003)	(2002)	(2000)	(2000)	(2005)	(2001)	(1997)	(2001)	(1999)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1997 - 2005
ANNUAL MEAN	2.40	3.36	2.01
HIGHEST ANNUAL MEAN			3.36
LOWEST ANNUAL MEAN			0.69
HIGHEST DAILY MEAN	61	May 27	165
LOWEST DAILY MEAN	0.00	Oct 4,5	0.00
		Jan 5	165
		Oct 4,5,Jun 20-24,	0.00
		Aug 2-4,6-10	2001,2002,2005
ANNUAL SEVEN-DAY MINIMUM	0.02	Sep 26	0.00
MAXIMUM PEAK FLOW	---	903 <sup>a</sup>	1,290 <sup>a</sup>
MAXIMUM PEAK STAGE	---	7.95	8.84
INSTANTANEOUS LOW FLOW	---	0.00	0.00
ANNUAL RUNOFF (INCHES)	16.24	22.72	13.55
10 PERCENT EXCEEDS	3.1	5.1	3.0
50 PERCENT EXCEEDS	0.58	0.48	0.27
90 PERCENT EXCEEDS	0.13	0.03	0.05

e Estimated

<sup>a</sup> From rating extended above 48 ft<sup>3</sup>/s on basis of indirect measurement.

07010030 RIVER DES PERES TRIBUTARY AT PAGEDALE, MO—Continued



## 07010035 ENGELHOLM CREEK NEAR WELLSTON, MO

LOCATION.--Lat 38°40'58", 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, 0.25 mi south of St. Charles Rock Road, and 2.78 mi east of Interstate 170.

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

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

REVISED RECORDS.--WDR MO-03-1: 1998-2002(P).

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.11	3.8	0.89	1.4	0.76	0.59	0.38	0.22	0.17	e0.10	0.11	0.20
2	0.12	0.50	0.46	1.2	0.81	0.57	0.38	0.22	0.19	e0.12	0.11	0.20
3	0.12	0.63	0.39	17	0.89	0.57	0.38	0.20	0.19	e0.10	0.11	0.20
4	0.13	0.50	0.35	33	0.78	0.59	0.39	0.20	0.19	e3.4	0.11	0.20
5	0.13	0.32	0.69	38	0.74	0.55	0.38	0.20	0.17	e0.36	0.12	0.20
6	0.13	0.31	4.6	3.1	0.98	0.57	0.40	0.20	0.25	0.10	0.13	0.22
7	0.13	0.35	11	1.6	2.2	0.77	0.39	0.17	0.12	0.09	0.13	0.22
8	0.25	0.40	0.99	1.5	1.0	0.56	0.38	0.17	e0.70	0.09	0.13	0.22
9	0.19	0.42	0.84	1.3	1.3	0.55	0.38	0.23	e4.8	0.09	0.13	0.22
10	0.15	0.42	0.80	1.2	0.72	0.80	0.40	0.27	e0.40	0.09	0.15	0.23
11	0.18	7.2	0.92	1.4	0.67	0.55	0.54	0.25	e0.74	0.91	0.28	0.25
12	1.3	0.56	0.74	24	0.64	0.55	0.90	0.27	e0.41	1.2	0.14	0.25
13	0.38	0.30	0.73	29	6.9	0.55	0.36	0.27	e0.33	0.16	1.9	0.25
14	1.0	0.26	0.69	1.7	1.3	0.55	0.31	0.38	e0.41	0.14	0.46	0.69
15	0.46	0.25	0.69	1.1	0.96	0.59	0.28	0.17	e0.28	0.27	2.1	6.4
16	0.39	0.26	0.69	0.88	0.80	0.57	0.28	0.20	e0.18	0.13	0.65	0.25
17	0.46	0.35	0.69	0.80	0.74	0.55	0.28	0.22	e0.13	0.13	0.23	0.21
18	2.1	0.79	0.69	0.70	0.69	0.55	0.28	0.22	e0.11	0.23	0.41	0.24
19	0.28	1.1	0.70	0.94	0.66	0.59	0.28	0.22	e0.10	0.13	0.23	5.9
20	0.25	0.43	0.71	0.86	0.72	0.55	0.68	0.72	e0.15	0.12	0.22	2.5
21	0.30	0.42	0.70	0.74	0.65	0.57	0.40	0.13	e0.13	0.11	0.22	0.26
22	0.33	0.91	0.69	0.78	0.60	5.8	2.1	0.16	e0.11	0.11	0.22	0.25
23	1.0	0.43	0.69	0.80	0.61	0.90	0.39	0.13	e0.10	0.11	0.25	0.25
24	0.36	13	0.69	0.84	0.70	0.71	0.25	0.14	e0.25	0.11	0.23	0.25
25	0.41	0.81	0.70	0.88	0.62	0.64	0.27	0.15	e0.85	0.11	3.4	8.9
26	2.7	0.49	0.73	0.82	0.59	0.43	0.45	0.15	e3.0	0.12	2.2	0.53
27	0.51	0.96	0.67	0.74	0.59	0.38	0.23	0.15	e0.51	0.23	0.32	0.27
28	0.42	0.41	0.68	0.75	0.77	0.37	0.35	0.17	e0.31	0.12	0.25	3.5
29	0.51	1.1	0.71	1.1	---	0.36	0.44	0.17	e0.15	0.11	0.28	0.43
30	0.64	2.7	0.76	1.0	---	0.36	0.25	0.17	e0.12	0.11	0.22	0.26
31	0.67	---	0.79	0.85	---	0.38	---	0.17	---	0.11	0.20	---
MEAN	0.52	1.35	1.16	5.48	1.05	0.73	0.44	0.22	0.52	0.30	0.50	1.13
MAX	2.7	13	11	38	6.9	5.8	2.1	0.72	4.8	3.4	3.4	8.9
MIN	0.11	0.25	0.35	0.70	0.59	0.36	0.23	0.13	0.10	0.09	0.11	0.20
IN.	0.43	1.07	0.96	4.52	0.78	0.60	0.35	0.18	0.41	0.25	0.42	0.90

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	0.72	0.99	0.78	1.80	1.26	1.31	1.08	1.85	1.66	0.99	0.64	0.64
MAX	1.15	2.13	1.51	5.48	3.65	3.22	2.04	4.63	4.80	3.80	1.40	1.63
(WY)	(2002)	(2004)	(2002)	(2005)	(1999)	(2004)	(2002)	(2004)	(2003)	(1998)	(1998)	(2003)
MIN	0.42	0.22	0.30	0.29	0.62	0.38	0.36	0.22	0.28	0.22	0.10	0.11
(WY)	(2001)	(2000)	(2001)	(2003)	(2002)	(2000)	(2000)	(2005)	(2001)	(2001)	(2001)	(2004)

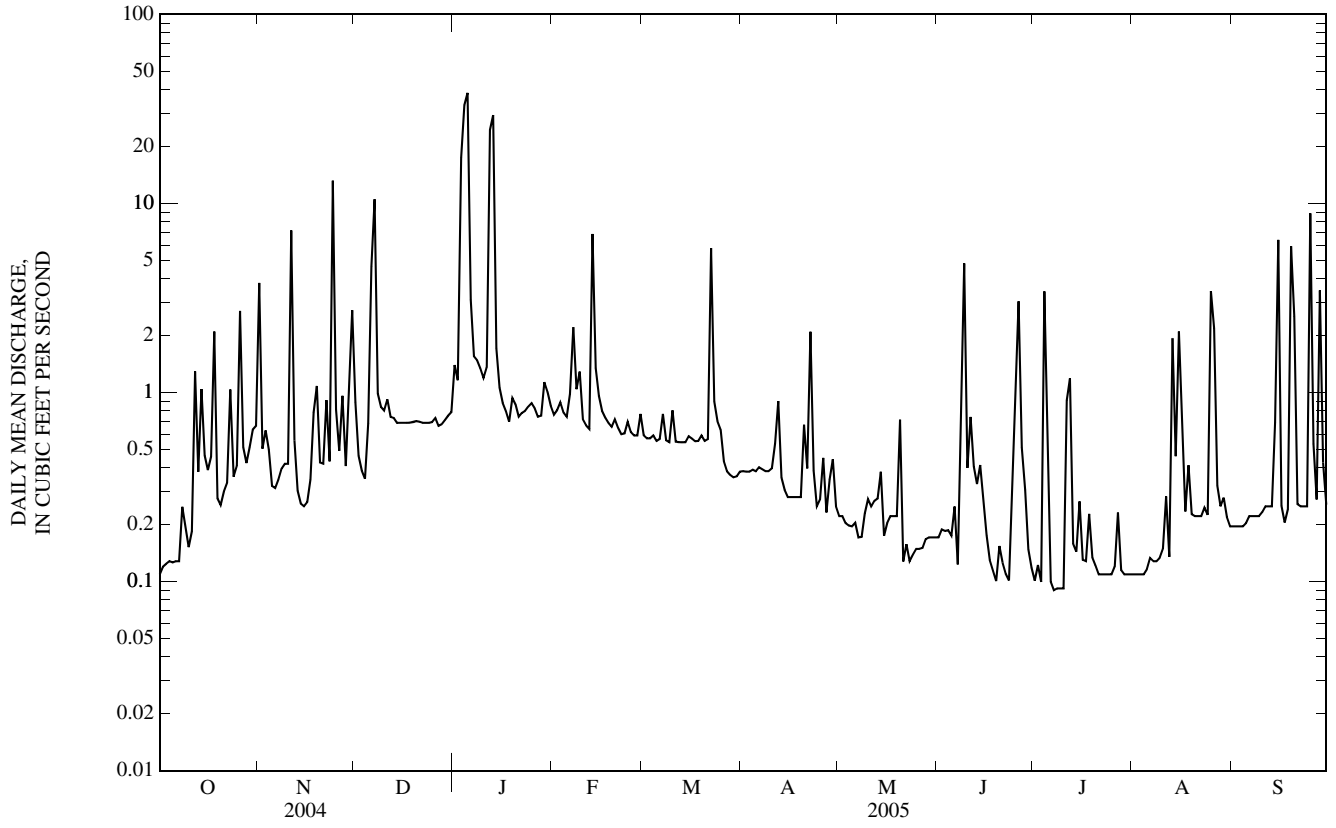
SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1998 - 2005
ANNUAL MEAN	1.51	1.12	1.10
HIGHEST ANNUAL MEAN			1.58
LOWEST ANNUAL MEAN			0.40
HIGHEST DAILY MEAN		Mar 26	58
LOWEST DAILY MEAN	0.09	Sep 3-6,10,12,28	0.04
ANNUAL SEVEN-DAY MINIMUM	0.09	Aug 31	0.04
MAXIMUM PEAK FLOW	---	669 <sup>a</sup>	1,090 <sup>a</sup>
MAXIMUM PEAK STAGE	---	7.45	8.88
INSTANTANEOUS LOW FLOW	---	0.09	0.03
ANNUAL RUNOFF (INCHES)	14.69	10.86	10.67
10 PERCENT EXCEEDS	2.1	1.3	1.7
50 PERCENT EXCEEDS	0.58	0.40	0.30
90 PERCENT EXCEEDS	0.13	0.13	0.11

e Estimated

<sup>a</sup> From rating extended above 52 ft<sup>3</sup>/s on basis of indirect measurement.

07010035 ENGELHOLM CREEK NEAR WELLSTON, MO—Continued



## 07010055 DEER CREEK AT LITZINGER ROAD, AT LADUE, MO

LOCATION.--Lat 38°37'20", long 90°22'31", St. Louis County, Hydrologic Unit 07140101, on left downstream side of bridge on Litzinger Rd., 0.60 mi south of I-40, 0.7 mi west of Hanley Road, and 1.1 mi north of Manchester Road.

DRAINAGE AREA.--12.0 mi<sup>2</sup>.

PERIOD OF RECORD.--June 6, 2001 to current year.

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

REMARKS.--No estimated daily discharges. Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	51	20	6.4	0.82	1.2	1.1	0.52	0.00	0.00	0.00	0.00
2	0.00	5.0	6.2	7.8	0.65	0.95	0.50	0.16	0.00	0.00	0.00	0.00
3	0.00	2.7	4.7	256	1.6	0.84	0.43	0.03	0.00	0.00	0.00	0.00
4	0.00	4.0	1.8	587	0.94	1.1	0.36	0.00	0.00	0.00	0.00	0.00
5	0.00	1.4	8.0	619	0.66	0.89	0.34	0.00	0.00	3.6	22	0.00
6	0.00	0.38	24	54	1.4	0.65	0.28	0.00	0.00	0.11	1.1	0.00
7	0.00	0.00	175	9.4	29	4.6	0.13	0.00	0.00	0.00	0.03	0.00
8	0.00	0.00	8.6	6.0	13	0.97	0.16	0.00	2.2	0.04	0.00	0.00
9	0.00	0.00	3.9	3.5	13	0.55	0.10	0.00	192	0.00	0.00	0.00
10	0.00	0.00	2.5	2.4	4.0	0.52	0.02	0.00	8.4	0.00	0.00	0.00
11	3.1	121	4.2	9.6	2.7	0.70	1.8	0.00	60	14	0.00	0.00
12	33	8.6	1.4	133	2.4	0.75	21	0.00	8.8	27	0.00	0.00
13	2.5	1.3	0.54	863	122	0.62	5.7	0.00	4.6	0.90	71	0.00
14	13	0.26	0.21	27	18	0.44	1.0	3.7	6.3	2.7	17	6.2
15	6.6	0.01	0.16	7.3	6.6	0.52	0.21	0.13	0.48	44	28	96
16	0.05	0.00	0.12	4.1	4.2	0.53	0.04	0.01	0.04	3.8	17	2.2
17	0.00	0.00	0.10	2.6	3.1	0.42	0.00	0.00	0.00	0.39	0.64	0.03
18	31	11	0.09	2.2	2.6	0.79	0.00	0.00	0.00	5.8	8.1	0.00
19	1.9	22	0.07	4.2	2.1	0.63	0.00	0.00	0.00	1.8	0.46	39
20	0.03	2.1	0.06	3.7	2.4	0.26	8.5	13	0.00	0.07	0.01	157
21	0.00	0.40	0.06	2.4	1.8	0.18	3.1	1.00	0.00	0.00	0.00	0.99
22	0.00	11	0.05	1.6	1.5	63	47	1.7	0.00	0.00	0.14	0.06
23	11	1.5	0.04	0.99	1.3	32	5.8	0.13	0.00	0.00	0.24	0.03
24	0.22	240	0.03	1.1	2.6	7.4	1.3	0.00	6.2	0.00	0.00	0.01
25	0.00	21	0.03	1.2	1.7	10	0.41	0.00	7.6	0.00	165	111
26	21	7.6	0.03	1.4	1.3	3.2	6.0	0.00	7.7	0.00	38	9.3
27	9.4	20	0.03	0.92	1.0	2.1	0.77	0.00	7.6	1.9	2.6	0.52
28	0.30	4.2	0.04	0.69	2.6	1.6	4.7	0.05	8.0	0.04	0.10	70
29	0.01	19	0.05	4.3	---	1.8	7.5	0.46	5.9	0.00	0.00	6.0
30	0.00	63	0.04	2.7	---	1.6	2.9	0.00	0.17	0.00	0.00	0.42
31	0.00	---	0.05	1.6	---	0.96	---	0.00	---	0.00	0.00	---
MEAN	4.29	20.6	8.45	84.7	8.75	4.57	4.04	0.67	10.9	3.42	12.0	16.6
MAX	33	240	175	863	122	63	47	13	192	44	165	157
MIN	0.00	0.00	0.03	0.69	0.65	0.18	0.00	0.00	0.00	0.00	0.00	0.00
IN.	0.41	1.92	0.81	8.14	0.76	0.44	0.38	0.06	1.01	0.33	1.15	1.55

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

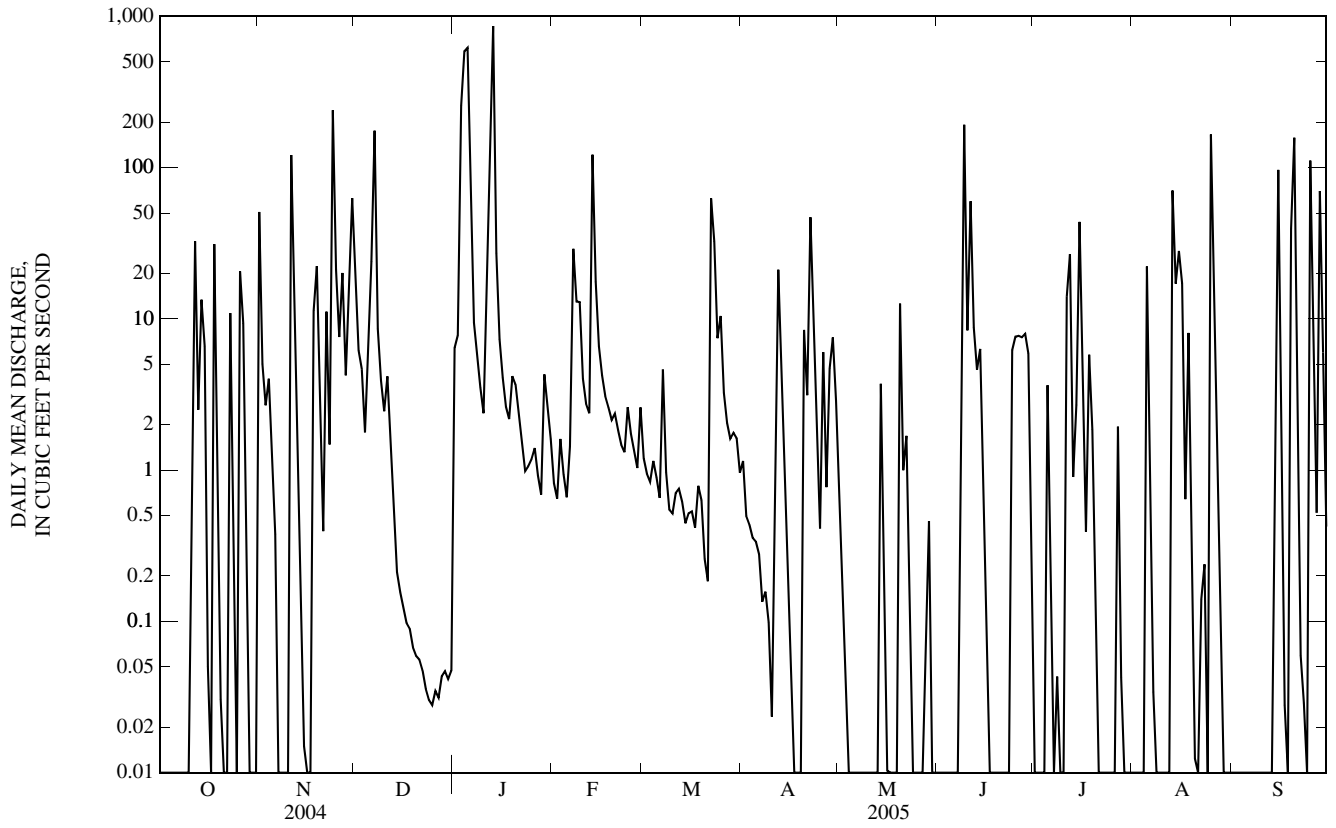
MEAN	7.79	16.0	7.69	29.4	5.24	13.5	7.42	24.8	23.5	10.2	4.45	12.4
MAX	12.7	32.5	13.6	84.7	8.75	26.6	10.3	56.5	50.7	37.7	12.0	36.4
(WY)	(2002)	(2004)	(2002)	(2005)	(2005)	(2004)	(2003)	(2004)	(2003)	(2004)	(2005)	(2003)
MIN	4.29	2.27	2.48	1.03	2.16	4.57	4.04	0.67	5.89	1.25	0.67	0.00
(WY)	(2005)	(2003)	(2003)	(2003)	(2002)	(2005)	(2005)	(2005)	(2004)	(2002)	(2001)	(2004)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2001 - 2005
ANNUAL MEAN	16.5	15.0	13.9
HIGHEST ANNUAL MEAN			17.4
LOWEST ANNUAL MEAN			11.4
HIGHEST DAILY MEAN	573	863	863
LOWEST DAILY MEAN	0.00	0.00	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	0.00	0.00
MAXIMUM PEAK FLOW	---	6,130 <sup>a</sup>	6,130 <sup>a</sup>
MAXIMUM PEAK STAGE	---	13.71	13.71
INSTANTANEOUS LOW FLOW	---	0.00	0.00
ANNUAL RUNOFF (INCHES)	18.71	16.96	15.77
10 PERCENT EXCEEDS	21	21	21
50 PERCENT EXCEEDS	0.90	0.65	0.75
90 PERCENT EXCEEDS	0.00	0.00	0.00

<sup>a</sup> From rating extended above 391 ft<sup>3</sup>/s on basis of indirect measurement.

07010055 DEER CREEK AT LITZINGER ROAD, AT LADUE, MO—Continued



## 07010070 SEBAGO CREEK NEAR ROCK HILL, MO

LOCATION.--Lat 38°36'54", long 90°22'35", St. Louis County, Hydrologic Unit 07140101, on left downstream side of bridge on Old Warson Road, 1.1 mi south of I-40, 0.75 mi west of Hanley Road, and 0.60 mi north of Manchester

DRAINAGE AREA.--1.87 mi<sup>2</sup>.

PERIOD OF RECORD.--July 27, 2001 to current year.

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

REMARKS.--Records fair except for estimated daily discharges and discharges above 40 ft<sup>3</sup>/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e0.00	e15	0.68	0.46	0.11	0.09	0.06	0.14	0.00	0.00	0.00	0.00
2	e0.00	e1.9	0.31	0.66	0.21	0.08	0.05	0.10	0.02	0.00	0.00	0.00
3	e0.00	e0.50	0.16	e33	0.26	0.08	0.05	0.09	0.01	0.00	0.00	0.00
4	e0.00	e0.70	0.10	e95	0.17	0.08	0.05	0.09	0.00	1.3	0.00	0.00
5	e0.00	e0.15	1.5	e60	0.11	0.07	0.16	0.07	0.00	0.01	1.1	0.00
6	e0.00	e0.03	5.0	1.7	0.85	0.07	0.06	0.06	0.61	0.00	0.00	0.00
7	0.00	e0.00	32	0.91	3.6	0.64	0.05	0.06	0.02	0.00	0.00	0.05
8	0.88	e0.00	0.43	1.2	0.78	0.08	0.05	0.05	1.3	0.00	0.00	0.00
9	0.00	e0.00	0.24	0.90	2.3	0.07	0.04	0.06	25	0.00	0.00	0.11
10	0.00	e0.00	0.18	0.53	0.34	0.06	0.04	0.05	0.32	0.00	0.00	0.00
11	1.1	e30	0.23	2.6	0.25	0.07	0.72	0.04	5.0	5.0	0.25	0.00
12	11	e0.90	0.10	19	0.22	0.06	8.8	0.04	0.07	3.8	0.01	0.00
13	0.02	e0.20	0.08	65	18	0.06	0.83	0.04	2.9	0.04	13	0.00
14	6.3	e0.02	0.08	1.5	1.2	0.05	0.10	1.2	0.29	0.30	3.9	1.4
15	0.02	e0.00	0.07	0.72	0.53	0.06	0.06	0.03	0.03	1.1	4.4	26
16	0.00	e0.00	0.07	0.56	0.32	0.06	0.05	0.02	0.02	0.02	0.28	0.25
17	0.00	e0.00	0.06	0.67	0.23	0.06	0.05	0.02	0.01	0.00	0.01	0.01
18	4.9	e1.7	0.06	e0.49	0.18	0.06	0.04	0.01	0.00	4.8	1.3	0.00
19	0.00	e3.5	0.05	3.0	0.15	0.06	0.04	0.49	0.00	0.10	0.01	15
20	0.00	e0.30	0.06	0.41	0.18	0.06	0.42	2.7	0.00	0.02	0.00	4.5
21	0.00	e0.00	0.06	0.30	0.12	0.06	5.0	0.05	0.00	0.00	0.00	2.5
22	0.00	0.50	0.04	0.23	0.10	13	11	0.65	0.00	0.00	3.4	0.02
23	0.20	0.06	e0.04	0.19	0.11	4.0	1.0	0.04	0.00	0.00	0.07	0.00
24	0.00	e55	e0.03	0.20	0.26	0.82	0.17	0.03	0.00	0.00	0.00	0.00
25	0.00	1.1	0.04	0.17	0.10	1.1	0.39	0.02	0.00	0.00	8.1	28
26	3.0	0.53	0.03	0.13	0.08	0.24	1.6	0.01	0.00	0.59	8.8	0.37
27	2.6	0.21	0.02	0.10	0.08	0.18	0.57	0.50	0.02	1.2	0.27	0.20
28	0.08	0.14	0.02	0.11	0.38	0.14	2.0	0.07	0.04	0.00	0.06	22
29	0.03	0.10	0.05	1.1	---	0.10	1.5	0.02	0.04	0.01	0.31	0.42
30	0.00	e19	0.06	0.28	---	0.08	0.35	0.05	0.00	0.00	0.01	0.20
31	0.00	---	e0.04	0.13	---	0.06	---	0.01	---	0.00	0.00	---
MEAN	0.97	4.38	1.35	9.40	1.11	0.70	1.18	0.22	1.19	0.59	1.46	3.37
MAX	11	55	32	95	18	13	11	2.7	25	5.0	13	28
MIN	0.00	0.00	0.02	0.10	0.08	0.05	0.04	0.01	0.00	0.00	0.00	0.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
MEAN	1.32	2.11	1.17	3.42	0.72	1.78	1.95	3.98	2.48	2.18	0.68	1.77
MAX	1.93	4.38	2.15	9.40	1.11	3.15	2.81	7.35	5.28	6.53	1.46	4.23
(WY)	(2002)	(2005)	(2002)	(2005)	(2005)	(2004)	(2003)	(2004)	(2003)	(2004)	(2005)	(2003)
MIN	0.97	0.17	0.34	0.13	0.32	0.70	1.18	0.22	0.74	0.02	0.19	0.01
(WY)	(2005)	(2003)	(2003)	(2003)	(2002)	(2005)	(2005)	(2005)	(2004)	(2002)	(2001)	(2004)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

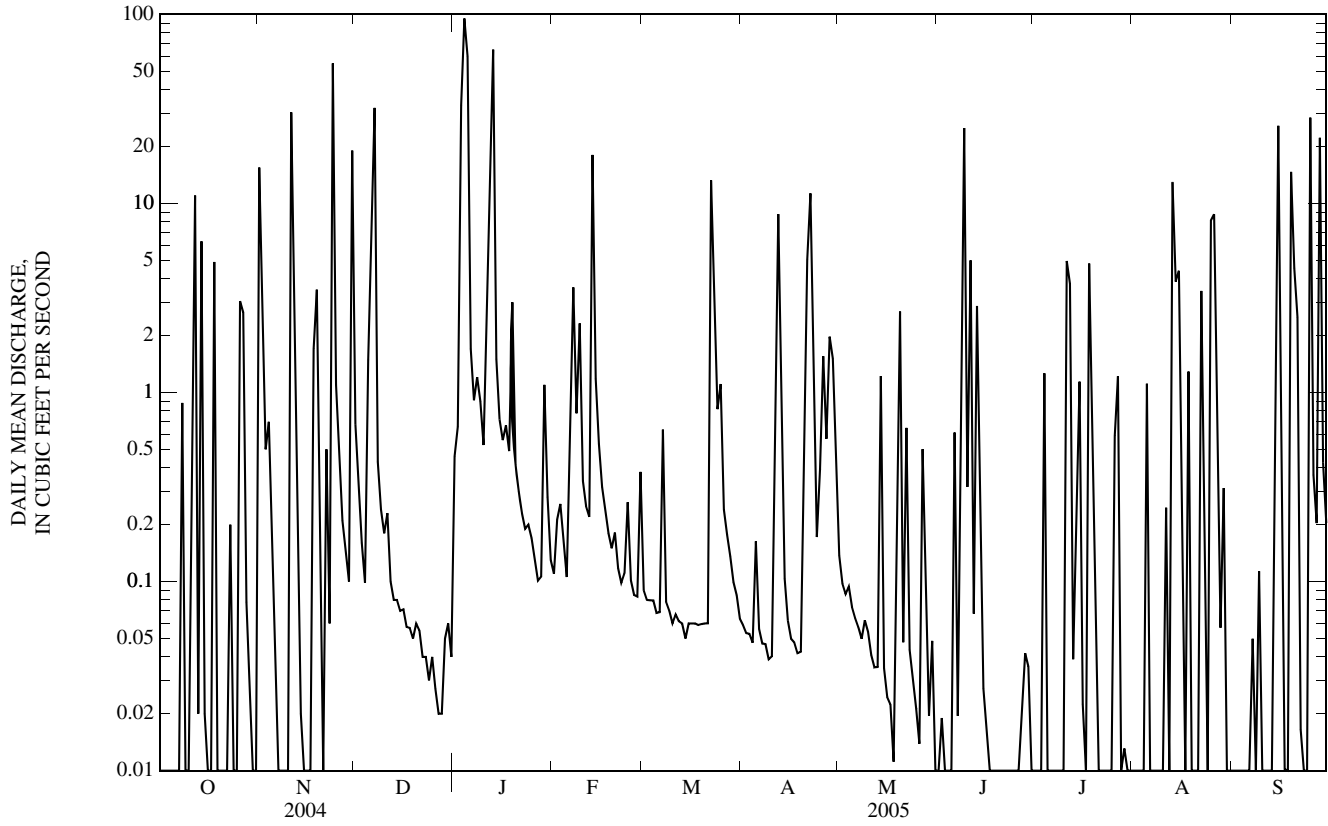
WATER YEARS 2001 - 2005

ANNUAL MEAN	2.53	2.16	2.00
HIGHEST ANNUAL MEAN			2.33
LOWEST ANNUAL MEAN			1.73
HIGHEST DAILY MEAN	114	95	114
LOWEST DAILY MEAN	0.00	0.00	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	0.00	0.00
MAXIMUM PEAK FLOW	---	642 <sup>a</sup>	Unknown
MAXIMUM PEAK STAGE	---	5.33	9.17
INSTANTANEOUS LOW FLOW	---	0.00	0.00
10 PERCENT EXCEEDS	3.6	3.5	3.8
50 PERCENT EXCEEDS	0.05	0.07	0.03
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

<sup>a</sup> From rating extended above 103 ft<sup>3</sup>/s on basis of indirect measurement.





07010075 DEER CREEK AT LADUE, MO

LOCATION.--Lat 38°36'59", long 90°21'51", 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>.

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

REVISED RECORDS.--WDR MO-03-1: 2001(M).

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

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

REVISIONS.--The maximum discharge for water year 2002 has been revised to 5,230 ft<sup>3</sup>/s, June 12, 2002, gage height, 16.30 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	e94	27	8.3	0.69	0.47	0.39	0.73	0.00	0.08	0.00	0.00
2	0.00	e7.8	6.1	12	0.60	0.28	0.14	0.23	0.26	0.00	0.00	0.00
3	0.00	3.5	4.6	484	3.7	0.23	0.04	0.21	0.00	0.00	0.00	0.00
4	0.00	6.3	2.0	792	1.5	0.34	0.03	0.22	0.00	1.3	0.00	0.00
5	0.00	1.2	7.9	1,270	0.36	0.24	0.10	e0.16	0.00	2.5	16	0.00
6	0.00	0.78	49	90	2.2	0.11	0.01	0.18	0.45	0.33	0.30	0.00
7	0.00	0.00	325	9.1	51	3.6	0.01	0.13	0.00	0.03	0.00	0.00
8	1.2	0.00	6.4	4.9	26	0.36	0.01	0.10	1.00	0.00	0.00	0.00
9	0.16	0.00	1.7	2.2	27	0.10	0.00	0.11	302	0.00	e0.00	0.00
10	0.00	0.00	0.77	0.62	7.6	0.13	0.00	0.10	12	0.00	0.00	0.00
11	2.9	262	2.2	16	3.6	0.26	1.4	0.08	83	14	0.00	0.00
12	58	10	0.30	121	2.6	0.35	107	0.01	8.6	28	0.00	0.00
13	5.0	0.70	0.19	1,280	228	0.29	17	0.00	5.8	0.99	130	0.00
14	20	0.05	1.7	44	27	0.27	1.5	2.4	6.8	0.76	e30	24
15	12	0.00	0.63	9.3	9.6	0.26	0.26	0.10	0.59	46	52	232
16	0.14	0.00	0.19	3.5	5.1	0.26	0.09	0.01	0.24	1.7	13	9.7
17	0.00	0.00	0.16	1.7	3.3	0.26	0.07	0.02	0.21	0.01	0.22	0.78
18	39	13	0.15	2.5	2.5	0.24	0.07	0.00	0.14	6.2	5.6	0.42
19	3.2	30	0.13	5.4	1.7	0.46	0.08	0.04	0.03	0.88	0.21	38
20	0.01	1.3	0.17	5.1	2.0	0.17	7.1	11	0.00	0.00	0.00	246
21	0.00	0.14	e0.15	2.5	0.95	0.17	8.4	0.52	0.01	0.00	0.00	6.9
22	0.00	12	0.17	1.3	0.61	115	92	1.0	0.00	0.00	3.5	0.31
23	16	0.67	0.08	0.61	0.95	48	8.3	0.12	0.00	0.00	0.46	0.18
24	0.43	476	0.09	0.71	1.2	6.6	1.8	0.01	3.5	0.00	0.00	0.04
25	0.00	32	e0.07	0.80	0.74	13	0.81	0.00	5.7	0.00	236	262
26	29	11	e0.08	0.77	0.50	2.1	8.2	0.00	5.8	0.00	59	17
27	15	32	e0.10	0.37	0.34	1.00	1.6	0.33	5.8	1.2	2.2	0.79
28	0.60	6.7	0.14	0.17	1.2	0.74	6.7	0.10	6.2	0.00	0.03	191
29	0.00	30	0.13	7.6	---	0.84	11	0.00	4.9	0.00	0.17	12
30	1.6	109	0.17	4.3	---	0.76	4.8	0.01	0.38	0.00	0.00	0.54
31	e0.00	---	0.12	2.2	---	0.33	---	0.02	---	0.00	0.00	---
MEAN	6.59	38.0	14.1	135	14.7	6.36	9.30	0.58	15.1	3.35	17.7	34.7
MAX	58	476	325	1,280	228	115	107	11	302	46	236	262
MIN	0.00	0.00	0.07	0.17	0.34	0.10	0.00	0.00	0.00	0.00	0.00	0.00
IN.	0.36	1.98	0.76	7.27	0.72	0.34	0.48	0.03	0.79	0.18	0.95	1.81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	14.0	26.6	13.6	49.6	7.91	21.4	14.7	44.2	29.4	16.2	6.59	22.1
MAX	25.1	50.7	26.0	135	14.7	41.3	20.1	92.2	71.8	60.5	17.7	61.0
(WY)	(2002)	(2004)	(2002)	(2005)	(2005)	(2004)	(2003)	(2004)	(2003)	(2004)	(2005)	(2003)
MIN	6.59	2.12	3.85	1.11	3.47	6.36	9.30	0.58	8.41	0.59	0.73	0.00
(WY)	(2005)	(2003)	(2003)	(2003)	(2002)	(2005)	(2005)	(2005)	(2001)	(2002)	(2001)	(2004)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

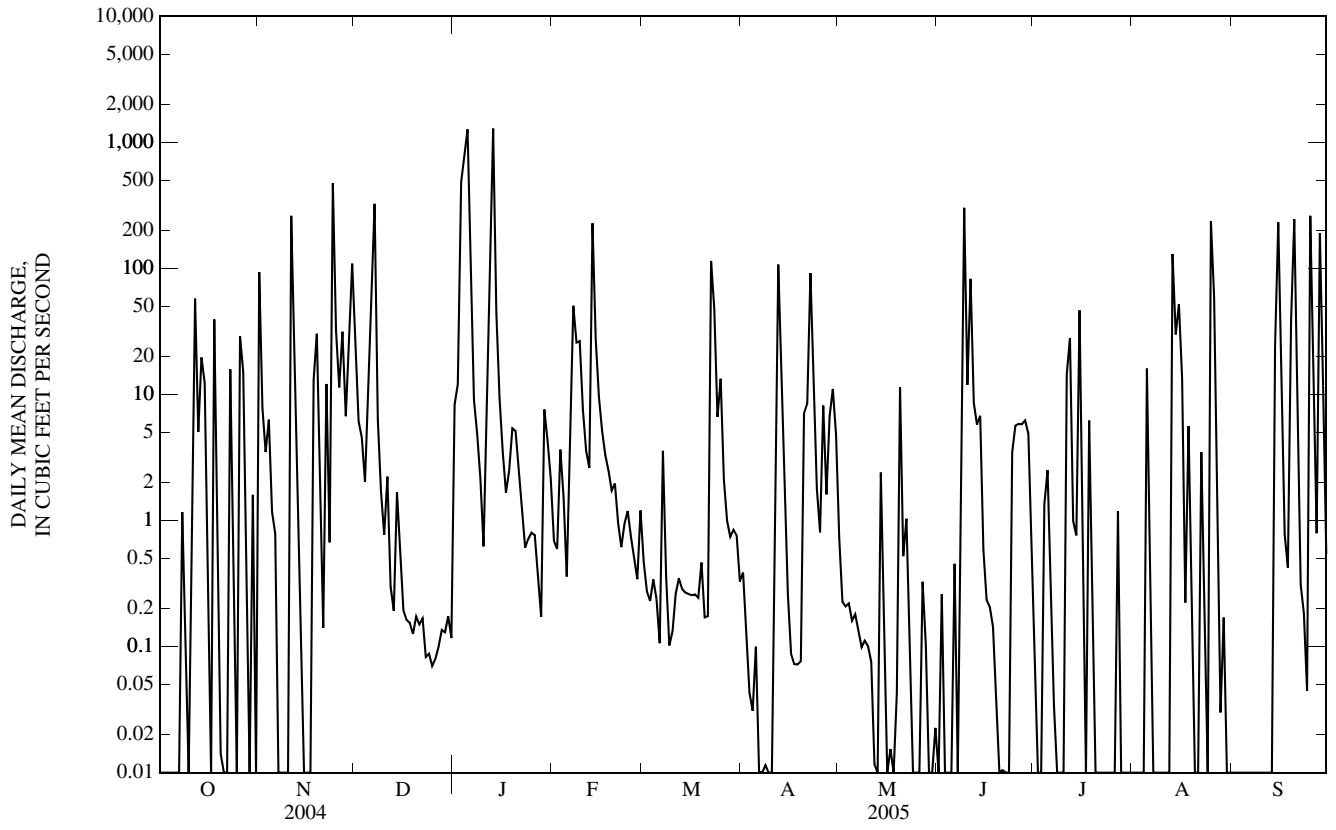
WATER YEARS 2001 - 2005

ANNUAL MEAN	27.5	24.7	23.3
HIGHEST ANNUAL MEAN			28.5
LOWEST ANNUAL MEAN			19.2
HIGHEST DAILY MEAN	840	Jan 4	1,280
LOWEST DAILY MEAN	0.00	Many Days	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	At Times	0.00
MAXIMUM PEAK FLOW	---		6,000 <sup>a</sup>
MAXIMUM PEAK STAGE	---		17.68
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	17.50		15.68
10 PERCENT EXCEEDS	32		30
50 PERCENT EXCEEDS	0.31		0.46
90 PERCENT EXCEEDS	0.00		0.00

e Estimated

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

07010075 DEER CREEK AT LADUE, MO—Continued



## 07010082 BLACK CREEK NEAR BRENTWOOD, MO

LOCATION.--Lat 38°37'00", long 90°20'14", St. Louis County, Hydrologic Unit 07140101, on right upstream abutment on Litzinger Road, 0.9 mi south of I-40, 0.16 mi west of Hanley Road, and 0.35 mi north of Manchester Road.

DRAINAGE AREA.--5.8 mi<sup>2</sup>.

PERIOD OF RECORD.--March 2004 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.57	36	7.9	4.7	1.5	0.58	0.59	0.83	0.48	0.36	0.32	0.42
2	2.8	3.1	2.6	7.9	1.3	0.58	0.48	0.83	0.44	0.40	0.46	0.59
3	0.50	6.6	1.6	116	2.2	0.55	0.39	0.64	0.40	0.29	0.31	0.30
4	0.62	3.2	1.2	306	1.8	0.86	0.46	0.59	0.36	2.7	0.34	0.34
5	0.48	1.2	5.9	378	0.90	0.47	0.48	0.51	0.27	0.69	3.7	0.25
6	0.44	1.0	19	17	2.1	0.37	0.53	0.55	4.5	0.72	0.62	0.33
7	0.48	0.96	86	4.3	11	4.2	1.1	0.56	0.65	0.34	0.39	0.36
8	3.8	0.94	3.0	4.9	4.8	0.63	0.43	0.49	18	0.26	0.39	0.35
9	0.70	0.97	1.9	3.7	8.4	0.47	0.46	0.47	263	0.31	0.43	0.27
10	0.46	1.1	1.8	2.6	2.9	0.44	0.54	0.50	3.9	0.27	0.37	0.28
11	3.4	69	3.8	9.0	1.6	0.44	2.0	0.46	8.7	16	1.2	0.26
12	19	5.2	1.2	4.7	0.97	0.43	11	0.49	1.7	16	1.0	0.29
13	1.5	2.2	1.1	597	48	0.38	2.2	0.47	5.5	1.2	53	0.75
14	9.5	2.2	1.4	12	5.5	0.44	0.66	4.7	2.3	0.79	14	7.4
15	2.4	1.6	1.0	2.9	2.7	0.62	0.52	1.8	0.76	1.1	18	117
16	0.65	1.9	1.0	2.3	2.1	0.71	0.56	0.72	0.57	0.50	8.0	2.5
17	0.82	1.5	0.95	1.4	1.2	0.93	0.42	0.67	0.57	0.42	1.1	0.68
18	15	11	0.88	0.90	0.99	0.47	0.46	0.52	0.46	16	6.6	1.6
19	0.96	13	0.72	2.0	0.89	0.26	0.42	1.1	0.49	1.1	0.99	4.0
20	0.61	2.4	0.67	1.2	1.2	0.22	24	10	0.70	0.63	0.56	139
21	0.60	1.7	0.75	0.91	0.94	0.24	7.3	0.63	0.54	0.53	0.56	0.85
22	0.63	11	0.68	0.72	0.76	47	42	2.4	0.42	0.49	0.91	0.40
23	11	2.3	0.54	0.53	0.74	8.6	3.3	0.58	0.38	0.40	0.65	0.34
24	0.60	130	0.49	1.3	1.8	3.8	1.1	0.48	0.46	0.42	0.53	0.37
25	0.82	8.2	0.59	1.8	0.75	4.7	1.2	0.44	0.43	0.48	132	87
26	16	2.9	0.66	0.56	0.57	1.3	5.3	0.42	0.41	1.1	24	4.6
27	4.9	11	0.62	0.59	0.58	1.3	0.96	2.1	0.58	4.1	1.6	1.4
28	0.81	2.4	0.83	0.44	2.0	1.1	5.6	0.91	0.50	0.53	0.77	45
29	0.70	14	0.87	5.0	---	0.74	6.4	0.48	0.38	0.36	0.63	3.2
30	2.2	29	0.78	2.2	---	0.64	1.9	0.59	0.35	0.35	0.61	1.2
31	1.1	---	0.92	1.8	---	1.0	---	0.44	---	0.33	0.49	---
MEAN	3.36	12.6	4.88	48.2	3.94	2.72	4.09	1.17	10.6	2.23	8.86	14.0
MAX	19	130	86	597	48	47	42	10	263	16	132	139
MIN	0.44	0.94	0.49	0.44	0.57	0.22	0.39	0.42	0.27	0.26	0.31	0.25
IN.	0.67	2.42	0.97	9.57	0.71	0.54	0.79	0.23	2.04	0.44	1.76	2.70

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2004 - 2005, BY WATER YEAR (WY)

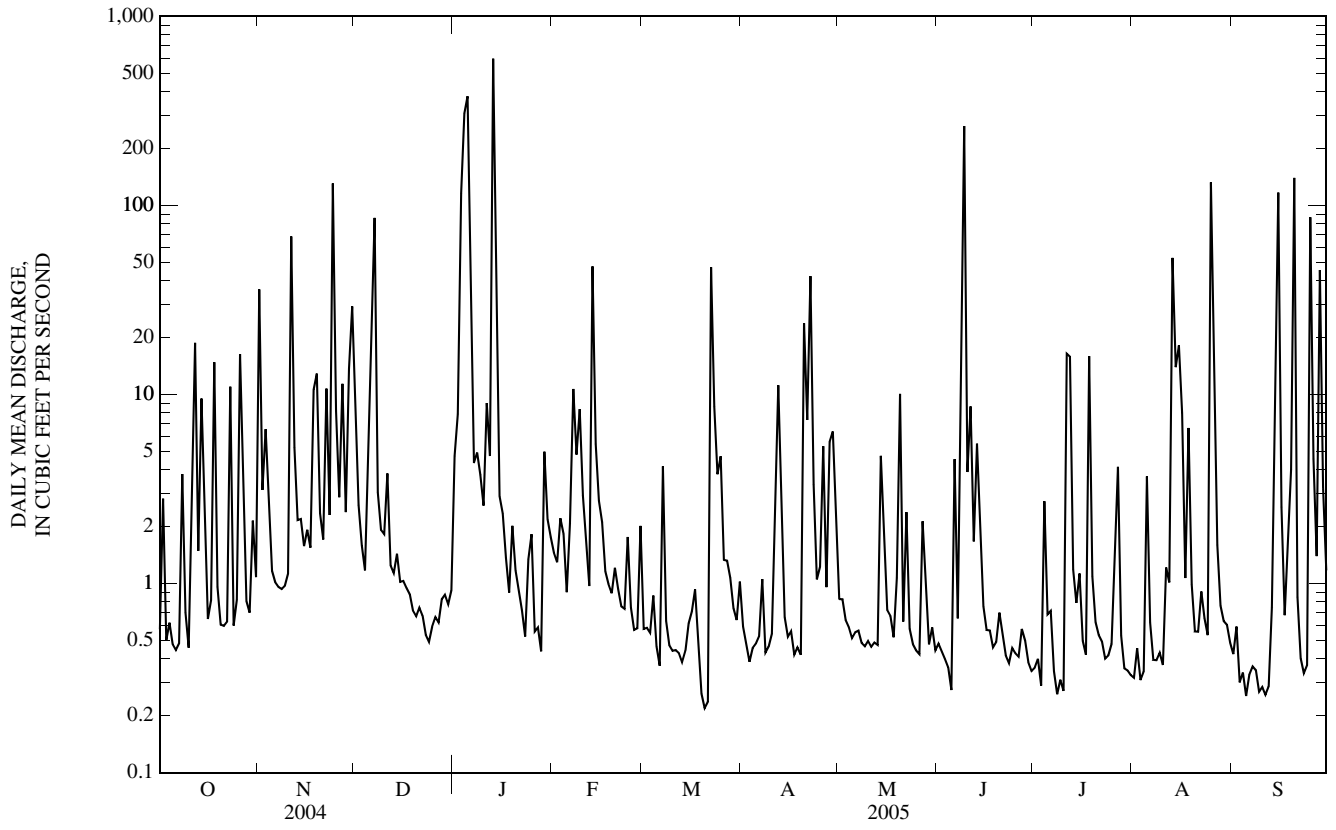
MEAN	3.36	12.6	4.88	48.2	3.94	2.72	5.11	21.2	6.80	16.8	7.37	7.37
MAX	3.36	12.6	4.88	48.2	3.94	2.72	6.13	41.3	10.6	31.4	8.86	14.0
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2004)	(2005)	(2004)	(2005)	(2005)
MIN	3.36	12.6	4.88	48.2	3.94	2.72	4.09	1.17	3.00	2.23	5.89	0.69
(WY)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2004)	(2004)

SUMMARY STATISTICS

	FOR 2005 WATER YEAR	WATER YEARS 2004 - 2005
ANNUAL MEAN	9.77	9.77
HIGHEST ANNUAL MEAN		9.77
LOWEST ANNUAL MEAN		9.77
HIGHEST DAILY MEAN	597	597
LOWEST DAILY MEAN	0.22	0.22
ANNUAL SEVEN-DAY MINIMUM	0.30	0.30
MAXIMUM PEAK FLOW	3,900 <sup>a</sup>	5,110 <sup>a</sup>
MAXIMUM PEAK STAGE	12.82	14.27
INSTANTANEOUS LOW FLOW	0.04	0.04
ANNUAL RUNOFF (INCHES)	22.82	22.84
10 PERCENT EXCEEDS	11	11
50 PERCENT EXCEEDS	0.91	0.91
90 PERCENT EXCEEDS	0.39	0.39

<sup>a</sup> From rating extended above 913 ft<sup>3</sup>/s on basis of indirect measurement.

07010082 BLACK CREEK NEAR BRENTWOOD, MO—Continued



## 07010086 DEER CREEK AT MAPLEWOOD, MO

LOCATION.--Lat 38°36'03", 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>.

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

REVISED RECORDS.--WDR MO-03-1: 1996-2001(M).

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

REVISIONS.--The maximum discharge for the water year 2002 has been revised to 4,280 ft<sup>3</sup>/s, June 12, 2002, gage height, 14.44 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	180	56	12	2.9	3.2	2.1	3.0	0.88	0.73	0.67	0.97
2	3.1	21	12	28	2.4	2.1	2.2	1.9	0.78	0.75	0.63	1.2
3	0.83	14	9.4	653	4.3	2.0	1.7	1.6	1.1	0.58	0.63	0.80
4	0.72	15	5.6	859	3.4	2.0	1.3	1.4	0.75	9.1	0.55	0.70
5	0.81	4.0	16	1,670	2.3	2.1	1.4	1.3	0.59	4.3	27	0.76
6	0.63	3.8	94	169	3.4	1.5	1.4	1.2	8.2	3.0	4.4	0.65
7	0.70	2.6	463	34	60	11	1.8	1.2	2.0	0.96	1.2	0.91
8	6.2	2.2	23	23	46	3.0	1.1	1.2	38	0.56	0.75	1.3
9	1.5	2.2	9.8	13	39	1.7	1.1	1.0	537	0.54	0.65	0.69
10	0.78	1.9	6.6	9.5	11	1.4	1.1	1.00	45	0.54	0.64	0.66
11	4.6	411	11	43	6.2	1.3	2.7	0.95	102	49	1.1	0.87
12	104	32	5.2	82	4.8	1.4	136	0.95	24	96	2.1	1.1
13	14	5.7	3.6	1,550	324	1.3	41	0.93	21	6.9	233	0.93
14	34	4.1	3.6	82	47	1.5	3.7	13	21	1.5	89	25
15	27	2.9	6.6	24	14	1.5	1.7	3.8	3.1	52	68	401
16	1.7	2.7	2.7	12	9.1	1.2	1.3	1.3	1.7	8.5	52	15
17	1.3	2.8	2.5	7.4	6.1	1.9	1.0	1.3	1.2	1.5	4.2	2.6
18	89	25	2.4	5.8	5.2	1.2	0.95	0.98	0.96	56	21	2.9
19	6.5	71	2.2	8.3	4.5	1.1	0.92	1.8	0.92	9.1	4.6	60
20	1.7	6.4	2.0	9.0	4.8	1.2	40	51	1.1	3.2	1.4	336
21	1.1	3.7	2.1	6.4	4.3	0.95	38	2.9	0.92	1.1	1.3	10
22	1.0	34	2.1	4.3	3.3	259	209	5.7	0.78	0.92	23	2.9
23	55	5.6	1.9	2.8	3.7	84	17	2.5	0.80	0.80	6.6	1.5
24	2.6	618	2.1	3.1	5.2	13	4.6	1.3	2.0	0.70	1.6	1.3
25	1.1	61	2.0	3.9	3.8	31	2.8	0.94	6.7	0.73	336	400
26	66	18	2.1	2.6	2.8	7.1	20	0.85	6.8	1.3	140	32
27	32	53	2.0	2.2	2.4	4.6	4.4	3.5	6.8	14	11	4.3
28	3.1	13	2.3	1.7	5.2	3.9	17	3.2	7.5	1.9	3.3	296
29	1.5	53	2.3	10	---	3.1	25	1.1	6.5	0.81	1.7	26
30	6.3	176	2.1	7.4	---	3.1	12	1.2	2.3	0.64	1.6	4.0
31	1.5	---	2.1	4.2	---	3.1	---	0.91	---	0.70	1.2	---
MEAN	15.2	61.5	24.5	172	22.5	14.7	19.8	3.71	28.4	10.6	33.6	54.4
MAX	104	618	463	1,670	324	259	209	51	537	96	336	401
MIN	0.63	1.9	1.9	1.7	2.3	0.95	0.92	0.85	0.59	0.54	0.55	0.65
IN.	0.48	1.88	0.77	5.45	0.64	0.47	0.61	0.12	0.87	0.33	1.06	1.66

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

MEAN	17.1	32.2	13.7	43.3	31.5	35.4	25.5	45.1	52.0	30.1	18.2	22.1
MAX	40.0	82.3	40.8	172	77.0	108	46.9	134	101	87.7	35.3	87.0
(WY)	(2002)	(1997)	(2002)	(2005)	(1999)	(1998)	(1998)	(2004)	(1998)	(2004)	(1996)	(2003)
MIN	8.23	1.93	2.09	2.85	9.52	7.92	9.27	3.71	14.1	2.23	3.67	1.23
(WY)	(1998)	(2000)	(1999)	(2003)	(2002)	(2000)	(2000)	(2005)	(2004)	(1997)	(2001)	(2004)

## SUMMARY STATISTICS

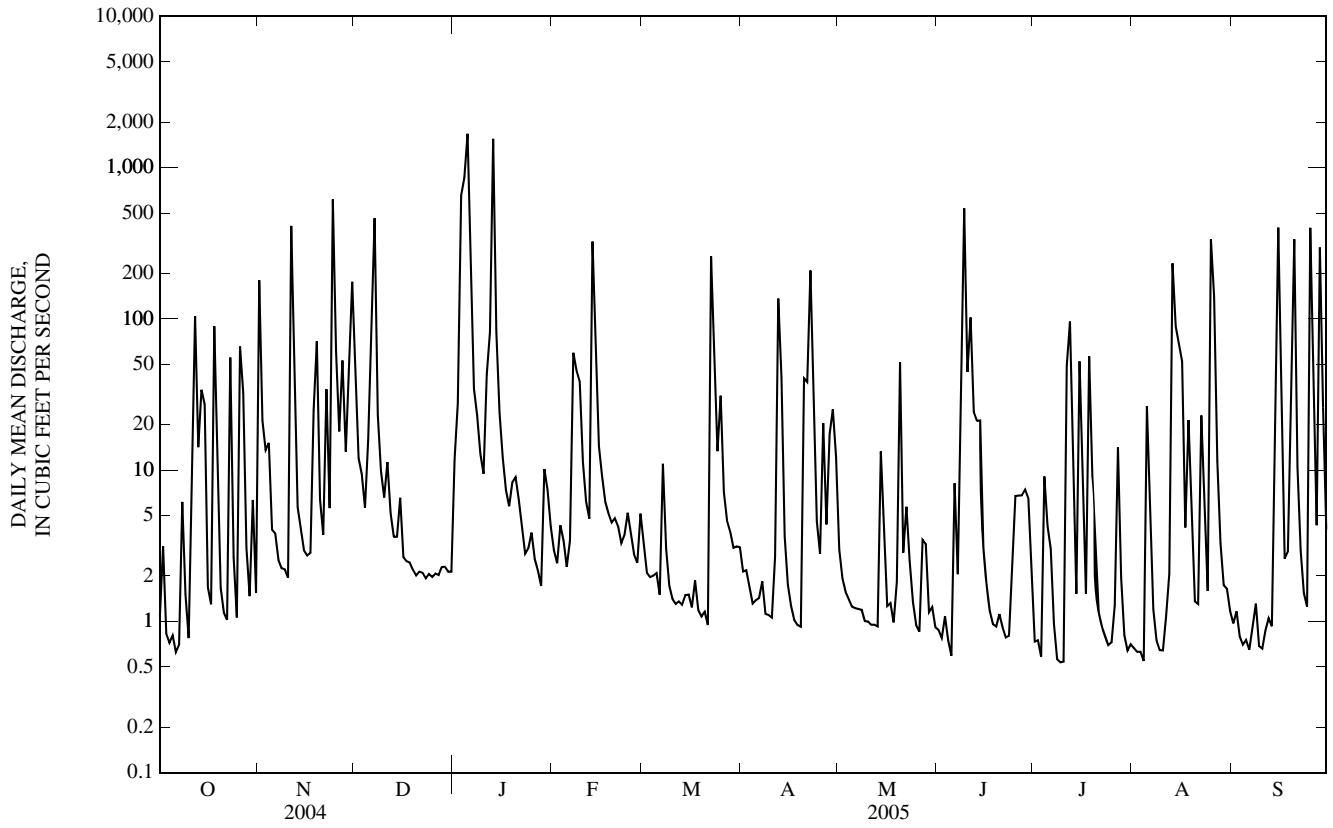
## FOR 2004 CALENDAR YEAR

## FOR 2005 WATER YEAR

## WATER YEARS 1996 - 2005

ANNUAL MEAN	42.8	38.5	30.3
HIGHEST ANNUAL MEAN			43.3
LOWEST ANNUAL MEAN			15.7
HIGHEST DAILY MEAN	1,100	Jan 4	1,980
LOWEST DAILY MEAN	0.63	Oct 6	0.24
ANNUAL SEVEN-DAY MINIMUM	0.83	Sep 23	0.30
MAXIMUM PEAK FLOW	---		5,560 <sup>a</sup>
MAXIMUM PEAK STAGE	---		16.57
INSTANTANEOUS LOW FLOW	---		0.40
ANNUAL RUNOFF (INCHES)	15.98		11.27
10 PERCENT EXCEEDS	71		53
50 PERCENT EXCEEDS	3.2		2.5
90 PERCENT EXCEEDS	1.3		0.85

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



## 07010090 MACKENZIE CREEK NEAR SHREWSBURY, MO

LOCATION.--Lat 38°34'36", long 90°19'25", 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.

REVISED RECORDS.--WDR MO-03-1: 1997-2002(M).

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

REMARKS.--No estimated daily discharges. Records fair except for discharges below 0.5 ft<sup>3</sup>/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.39	25	4.2	3.8	0.73	0.47	0.46	0.34	0.03	0.20	0.08	0.18
2	0.15	2.2	2.7	23	1.0	0.39	0.46	0.27	0.03	0.21	0.05	0.12
3	0.12	3.5	1.2	54	1.1	0.39	0.46	0.22	0.03	0.23	0.05	0.12
4	0.32	1.9	1.0	63	0.72	0.39	0.41	0.21	0.03	5.1	0.05	0.12
5	0.21	0.88	4.4	116	0.64	0.34	0.39	0.19	0.03	0.72	1.4	0.12
6	0.13	0.63	22	10	1.5	0.35	0.39	0.16	1.1	0.12	0.08	0.15
7	0.12	0.82	33	4.6	5.9	1.6	0.39	0.16	0.05	0.08	0.05	0.15
8	3.1	0.46	2.8	4.1	1.8	0.34	0.39	0.16	1.9	0.08	0.05	0.16
9	0.21	0.40	1.7	2.9	4.8	0.32	0.39	0.16	55	0.08	0.04	0.16
10	0.15	0.39	1.4	1.9	1.1	0.32	0.66	0.18	4.8	0.10	0.05	0.16
11	1.5	42	1.8	4.8	0.92	0.32	1.5	0.57	7.5	10	0.08	0.19
12	11	2.9	0.88	16	0.87	0.32	9.6	0.17	1.2	8.1	0.09	0.21
13	0.56	1.4	0.73	74	26	0.28	1.3	0.12	4.1	0.40	15	0.95
14	6.3	1.0	0.65	6.6	3.0	0.26	0.49	2.2	0.74	0.21	11	6.5
15	1.2	0.79	0.63	3.9	1.8	0.30	0.27	0.13	0.33	5.6	4.6	47
16	0.28	0.56	0.59	3.0	1.2	0.27	0.21	0.12	0.32	0.42	1.4	1.9
17	0.21	0.46	0.54	2.6	1.4	0.45	0.21	0.12	0.26	0.19	0.26	0.50
18	30	4.4	0.51	2.0	0.88	0.28	0.21	0.11	0.26	2.3	4.2	0.31
19	0.74	5.0	0.42	2.2	0.85	0.26	0.21	0.10	0.28	0.25	0.29	23
20	0.40	0.89	0.42	1.8	0.88	0.26	2.3	7.2	0.26	0.12	0.16	10
21	0.23	0.65	0.45	1.6	0.71	0.26	6.2	0.12	0.25	0.11	0.12	0.65
22	0.25	3.6	0.38	1.4	0.63	26	13	1.0	0.21	0.11	0.73	0.43
23	16	0.75	0.32	1.3	0.61	4.9	1.9	0.10	0.21	0.08	0.22	0.38
24	0.47	55	0.32	1.2	0.79	1.8	0.50	0.08	0.62	0.08	1.1	0.32
25	0.35	4.1	0.34	1.7	0.55	4.7	0.61	0.05	0.24	0.08	23	46
26	6.5	1.6	0.39	1.2	0.54	1.0	3.4	0.05	0.22	0.09	11	2.5
27	1.4	4.2	0.34	0.94	0.55	0.88	0.58	0.50	0.12	1.6	1.2	0.91
28	0.42	1.0	0.34	0.85	0.83	0.73	3.6	0.11	0.12	0.13	0.68	30
29	0.39	6.7	0.32	3.0	---	0.64	2.8	0.05	0.15	0.09	0.24	2.2
30	1.7	16	0.32	1.5	---	0.63	0.69	0.03	0.16	0.14	0.21	0.92
31	0.40	---	0.32	0.92	---	0.52	---	0.03	---	0.09	0.92	---
MEAN	2.75	6.31	2.76	13.4	2.23	1.61	1.80	0.48	2.69	1.20	2.53	5.88
MAX	30	55	33	116	26	26	13	7.2	55	10	23	47
MIN	0.12	0.39	0.32	0.85	0.54	0.26	0.21	0.03	0.03	0.08	0.04	0.12
IN.	0.91	2.02	0.91	4.43	0.66	0.53	0.58	0.16	0.86	0.40	0.84	1.88

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

MEAN	2.08	2.56	1.86	4.02	3.07	3.65	3.42	5.55	5.46	3.60	2.22	1.96
MAX	3.42	6.31	4.41	13.4	7.01	11.4	5.68	11.1	11.3	8.24	5.55	5.88
(WY)	(2002)	(2005)	(2002)	(2005)	(1999)	(1998)	(1998)	(2004)	(1998)	(2004)	(1998)	(2005)
MIN	1.10	0.32	0.43	0.78	1.33	0.85	1.05	0.48	2.31	0.38	0.32	0.14
(WY)	(2001)	(2000)	(1999)	(2003)	(2002)	(2000)	(2000)	(2005)	(2004)	(2002)	(2003)	(2004)

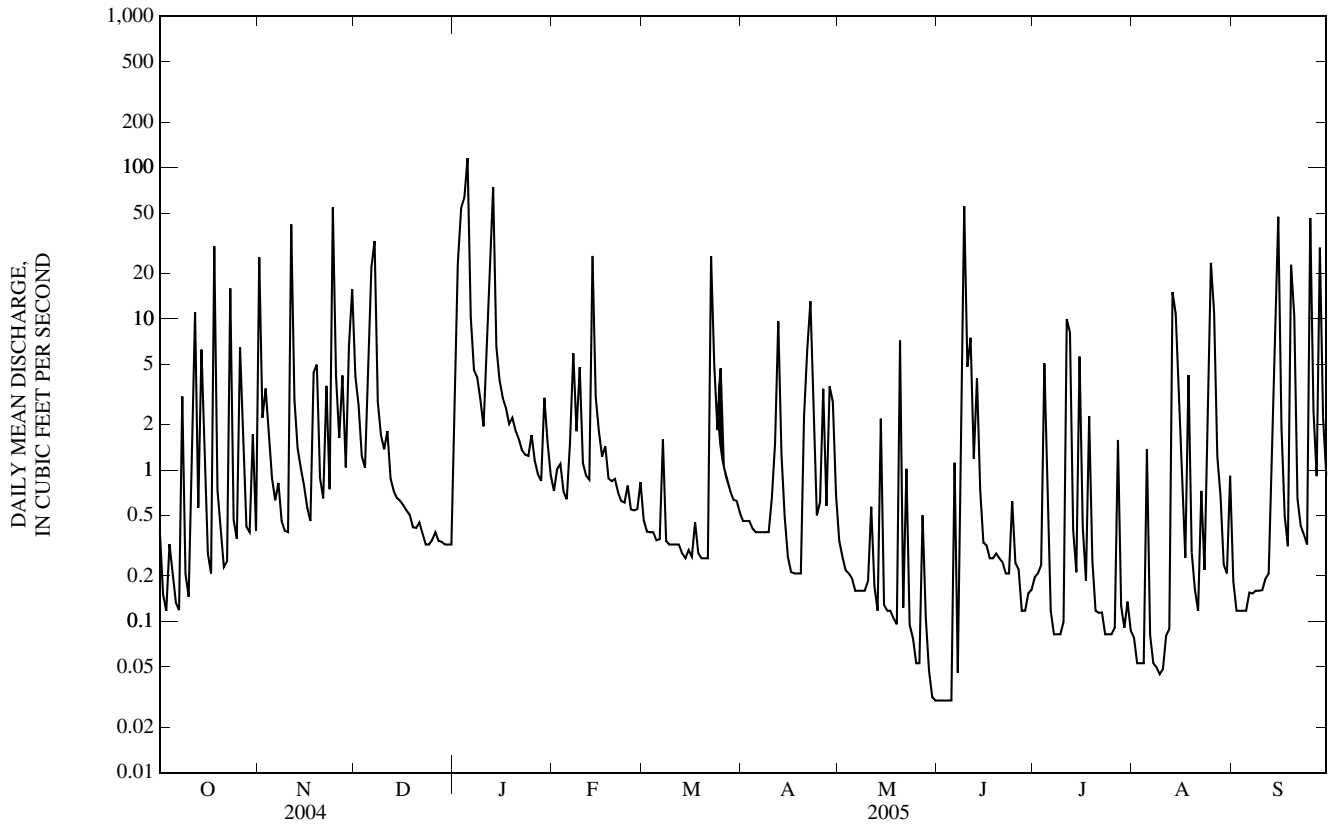
## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1997 - 2005
ANNUAL MEAN	4.01	3.64	3.32
HIGHEST ANNUAL MEAN			4.96
LOWEST ANNUAL MEAN			2.04
HIGHEST DAILY MEAN		116	200
LOWEST DAILY MEAN	0.05	0.03	0.03
ANNUAL SEVEN-DAY MINIMUM	0.06	0.03	0.03
MAXIMUM PEAK FLOW	---	1,390 <sup>a</sup>	1,730 <sup>a</sup>
MAXIMUM PEAK STAGE	---	9.98	10.80
INSTANTANEOUS LOW FLOW	---	0.03	0.03
ANNUAL RUNOFF (INCHES)	15.64	14.17	12.94
10 PERCENT EXCEEDS	6.8	6.5	6.3
50 PERCENT EXCEEDS	0.72	0.54	0.65
90 PERCENT EXCEEDS	0.16	0.11	0.17

<sup>a</sup> From rating extended above 156 ft<sup>3</sup>/s on basis of indirect measurement.



07010090 MACKENZIE CREEK NEAR SHREWSBURY, MO—Continued



## 07010097 RIVER DES PERES AT ST. LOUIS, MO

LOCATION.--Lat 38°33'34", long 90°17'00", 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 and discharges below 1 ft<sup>3</sup>/s, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.60	501	99	35	8.4	6.6	5.8	6.7	0.65	1.6	0.47	3.2
2	1.2	51	19	126	7.6	5.4	5.2	5.2	0.75	0.63	0.41	1.8
3	0.74	18	14	1,450	8.3	5.2	5.3	e4.0	0.64	0.85	0.31	2.2
4	1.2	38	11	1,480	7.5	5.2	5.0	e3.0	5.9	51	0.86	1.3
5	1.0	8.3	79	3,860	7.2	5.4	7.4	e2.6	9.1	19	27	1.1
6	1.9	6.7	166	e271	7.1	4.8	12	2.3	51	6.3	24	1.5
7	1.9	5.9	1,130	e91	69	12	5.6	1.9	17	3.5	6.4	1.7
8	24	5.1	e33	e57	113	7.1	5.1	1.5	123	1.8	3.5	1.3
9	9.2	4.9	e15	e39	30	5.4	4.5	1.4	1,130	1.2	3.1	1.6
10	5.3	4.7	e10	e29	14	5.1	5.7	1.1	191	1.00	3.2	1.5
11	5.7	919	17	e25	9.0	5.0	7.8	0.95	139	122	13	1.0
12	145	88	12	85	8.3	4.9	151	1.6	e22	338	18	1.1
13	50	15	8.6	2,660	492	4.7	85	0.61	e31	23	498	6.2
14	50	11	8.2	e184	66	4.8	10	59	e12	4.6	379	101
15	65	8.9	9.4	e69	e31	5.1	e7.5	17	e6.4	86	129	1,500
16	7.6	7.9	7.5	e41	e22	4.9	e7.1	4.6	e3.7	19	248	126
17	5.3	7.9	6.6	e29	e16	5.0	e6.8	4.6	e2.6	9.6	12	41
18	512	27	6.6	e20	e14	4.8	e6.7	3.4	e2.1	140	47	e45
19	18	161	8.3	16	e12	4.5	e6.2	3.0	e1.8	46	19	404
20	5.6	15	12	16	e13	4.4	71	206	1.3	6.5	4.7	1,070
21	4.2	9.2	6.9	12	e12	4.3	81	11	1.4	3.0	3.6	16
22	4.3	62	9.2	11	e9.8	505	364	18	1.1	1.4	106	4.6
23	217	15	17	16	e7.2	111	21	9.0	0.96	0.85	40	2.9
24	12	1,310	9.0	11	e10	16	10	4.0	0.94	2.1	11	2.3
25	5.1	136	8.7	8.9	6.5	43	6.7	2.3	5.2	5.5	1,030	1,170
26	166	29	5.7	8.4	5.9	13	30	1.9	5.0	7.3	426	114
27	70	78	13	7.5	5.7	9.0	9.3	3.6	2.8	28	45	13
28	8.4	26	5.5	7.1	6.6	8.0	23	18	3.5	5.3	8.9	774
29	5.0	87	5.7	11	---	7.1	31	3.6	3.0	1.8	4.3	e88
30	18	338	5.6	11	---	6.8	23	1.7	2.2	0.98	11	e7.0
31	4.7	---	5.6	9.1	---	6.7	---	1.2	---	0.70	2.5	---
MEAN	46.0	133	56.9	345	36.4	27.1	34.0	13.1	59.2	30.3	101	183
MAX	512	1,310	1,130	3,860	492	505	364	206	1,130	338	1,030	1,500
MIN	0.60	4.7	5.5	7.1	5.7	4.3	4.5	0.61	0.64	0.63	0.31	1.0
IN.	0.64	1.80	0.80	4.82	0.46	0.38	0.46	0.18	0.80	0.42	1.41	2.48

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2002 - 2005, BY WATER YEAR (WY)

MEAN	54.4	110	35.2	157	29.5	68.3	53.0	112	99.8	64.3	50.3	102
MAX	77.7	188	56.9	345	36.4	132	79.2	207	231	175	101	206
(WY)	(2003)	(2004)	(2005)	(2005)	(2005)	(2004)	(2003)	(2004)	(2003)	(2004)	(2005)	(2003)
MIN	39.6	8.85	18.2	7.39	24.2	27.1	34.0	13.1	20.1	10.3	14.5	0.58
(WY)	(2004)	(2003)	(2003)	(2003)	(2004)	(2005)	(2005)	(2005)	(2004)	(2002)	(2003)	(2004)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

## FOR 2005 WATER YEAR

## WATER YEARS 2002 - 2005

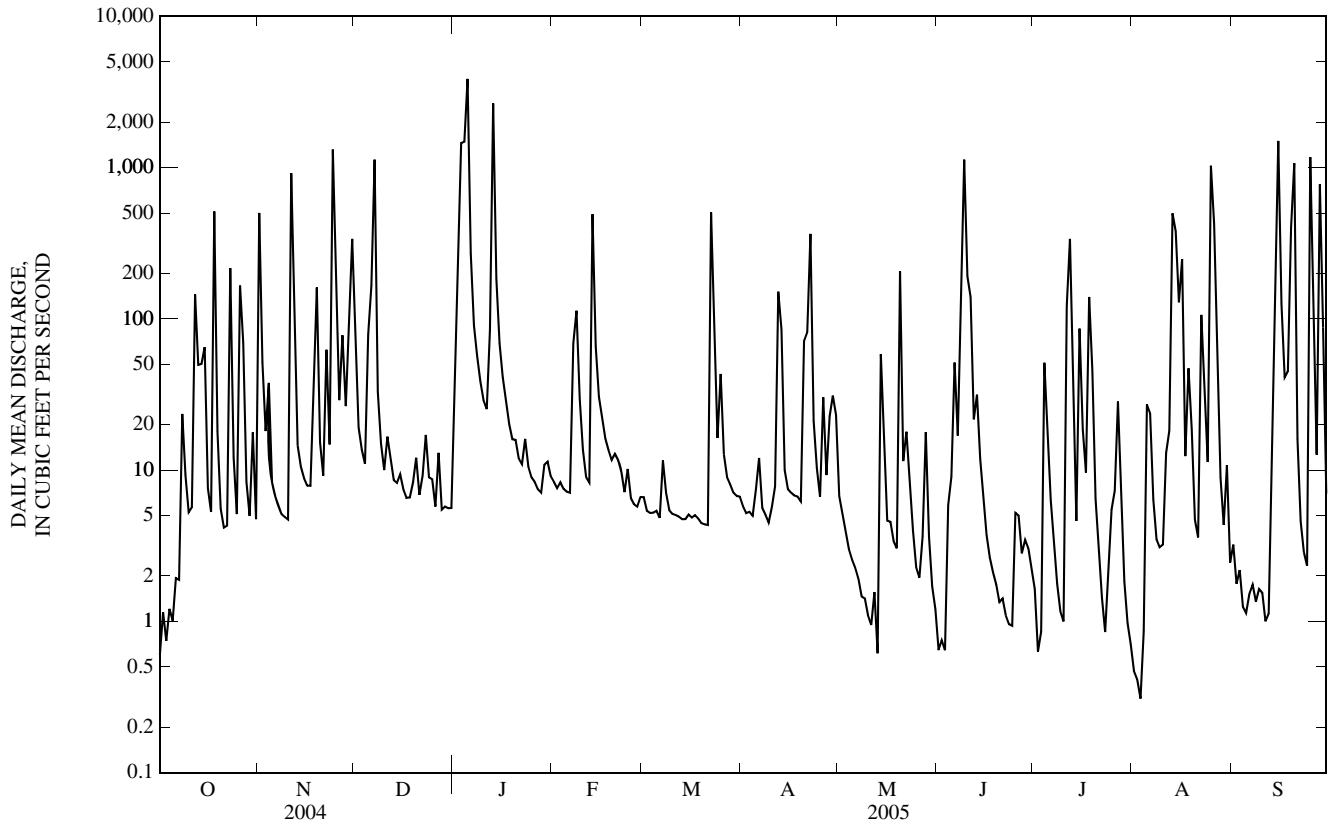
ANNUAL MEAN	84.6	89.1	82.2
HIGHEST ANNUAL MEAN			89.1
LOWEST ANNUAL MEAN			71.2
HIGHEST DAILY MEAN	2,490	Jan 4	4,330
LOWEST DAILY MEAN	0.31	Sep 25	0.28
ANNUAL SEVEN-DAY MINIMUM	0.37	Sep 22	0.37
MAXIMUM PEAK FLOW	---	9,820 <sup>a</sup>	19,900 <sup>b</sup>
MAXIMUM PEAK STAGE	---	14.67	19.85
INSTANTANEOUS LOW FLOW	---	0.24	0.22
ANNUAL RUNOFF (INCHES)	13.97	14.66	13.54
10 PERCENT EXCEEDS	169	139	140
50 PERCENT EXCEEDS	7.6	8.4	6.2
90 PERCENT EXCEEDS	0.74	1.5	1.1

e Estimated

<sup>a</sup> From rating extended above 3,400 ft<sup>3</sup>/s on basis of indirect measurement.

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

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



MISSISSIPPI RIVER BASIN BELOW MISSOURI RIVER  
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 2004 TO SEPTEMBER 2005

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, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, mg/L (00915)	Magnesium, water, mg/L (00925)	
OCT 04...	1255	Environmental	14	.2	16.3	182	8.9	647	20.4	190	47.1	16.6	
12...	1730	Environmental	177	4.5	624	6,510	7.5	345	16.1	110	33.3	5.80	
12...	1731	Replicate	--	--	--	--	--	--	--	110	32.9	5.70	
MAR 22...	0955	Environmental	--	2.5	10.6	90	7.8	378	7.4	120	31.7	8.92	
APR 25...	1140	Environmental	3.2	3.9	12.7	132	7.9	771	15.8	240	72.9	13.4	
JUN 21...	1505	Environmental	23	.1	15.2	220	9.2	629	34.4	180	46.5	15.1	
AUG 10...	0830	Environmental	26	2.6	5.1	66	7.9	595	26.9	200	49.7	17.6	
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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00613)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 04...	89	92	73	19	<10	.62	<.04	.32	.099	.04	.08	30	20k
12...	80	75	92	<1	145	3.0	.36	.72	.047	.14	.69	80	3,700
12...	--	--	--	--	149	2.9	.36	.72	.047	.14	.68	60	2,800
MAR 22...	81	77	93	<1	120d	2.7	.35	.82	.038	.04	.58	70	41,000
APR 25...	148	149	182	<1	14	.68	.06	.57	.071	.04	.12	20	750k
JUN 21...	82	79	48	24	27	.87	<.04	<.06	<.008	<.02	.13	20	40k
AUG 10...	113	112	138	<1	11	.68	<.04	<.06	E.004n	.12	.20	20	150
Date	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	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)	Nickel, water, fltrd, $\mu$ g/L (01065)	Selenium, water, fltrd, $\mu$ g/L (01145)
OCT 04...	96	9	1.4	<.06	.04	<.8	3.5	14	.12	7.0	<.01	1.93	.9
12...	100,000	6	1.4	<.06	E.03n	E.5n	2.2	47	.20	99.5	.05	1.76	.8
12...	78,000	6	1.4	<.06	E.03n	E.5n	2.2	47	.20	116	.07	2.13	.7
MAR 22...	59,000	6	1.0	<.06	E.03n	4.9	2.7	26	.23	72.1	.05	2.88	1.1
APR 25...	140	11	1.6	E.06n	E.03n	<.8	3.1	28	.25	103	<.01	2.66	1.2
JUN 21...	63k	9	3.1	<.06	E.03n	<.8	3.8	33	.19	8.4	E.01n	3.73	1.1
AUG 10...	270k	6	4.4	<.06	E.02n	<.8	2.4	32	.22	106	<.01	3.29	1.1

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT		
04...	<.2	1.7
12...	<.2	4.6
12...	<.2	4.9
MAR		
22...	<.2	7.8
APR		
25...	<.2	4.0
JUN		
21...	<.2	.9
AUG		
10...	<.2	1.5

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

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

## 07010180 GRAVOIS CREEK NEAR MEHLVILLE, MO

LOCATION.--Lat 38°31'37", long 90°17'59", 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>.

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.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.38	207	30	13	4.3	5.0	5.9	e4.3	3.9	6.4	e2.1	1.1
2	0.35	20	12	143	4.4	4.5	5.5	e3.6	3.9	6.1	1.9	1.0
3	0.34	17	8.9	487	9.9	4.4	5.4	10	3.9	6.0	1.8	0.95
4	0.40	19	7.7	349	5.0	4.4	5.3	8.7	3.9	45	1.7	0.87
5	0.78	7.3	22	1,040	4.1	4.4	5.2	e4.5	3.9	13	e36	1.0
6	0.53	5.6	103	74	4.4	4.2	5.2	e3.4	3.9	8.8	e7.1	0.86
7	0.39	4.8	338	26	35	8.5	5.2	e3.4	3.9	6.1	e2.8	0.85
8	27	4.1	18	25	15	4.0	5.1	4.9	7.6	5.0	e1.8	0.79
9	5.1	3.8	12	20	19	3.9	4.9	4.5	294	4.5	1.6	0.91
10	1.3	3.7	9.7	17	5.0	4.3	4.9	4.3	25	4.3	2.6	0.83
11	1.9	278	12	29	3.3	3.9	7.4	4.1	38	35	1.7	0.76
12	111	24	8.4	28	3.2	3.9	299	4.1	13	41	1.6	0.77
13	8.5	9.9	6.4	723	164	3.9	38	4.1	18	5.5	79	0.88
14	33	7.2	6.0	e34	20	3.9	e9.5	11	23	4.2	37	28
15	16	6.1	5.8	e15	11	3.9	e6.8	4.2	17	9.1	8.2	290
16	2.2	5.6	6.5	e9.9	8.5	3.9	e5.4	4.0	14	10	7.4	25
17	1.3	5.1	5.8	e7.8	7.2	3.9	e4.7	3.9	11	4.3	1.9	4.3
18	260	28	5.4	7.9	6.2	3.9	e4.1	3.9	9.3	6.6	8.9	2.6
19	13	43	5.1	10	5.7	3.9	e3.9	4.0	8.6	4.3	3.2	20
20	6.6	8.4	5.4	9.3	5.7	3.9	14	24	8.1	3.9	1.2	201
21	6.1	6.1	4.9	7.9	5.5	3.9	52	7.3	7.7	3.5	1.1	5.6
22	4.3	25	4.4	6.9	5.2	154	145	12	7.7	3.4	0.99	3.7
23	97	7.4	4.1	5.6	4.9	32	e15	e4.9	7.1	3.2	0.93	2.8
24	6.8	438	3.8	5.4	5.8	19	e6.7	e4.5	7.0	e3.5	0.93	2.2
25	4.2	30	3.7	5.4	5.3	34	e4.3	e4.2	7.0	3.0	144	294
26	44	13	5.1	5.9	4.7	19	21	e4.1	6.7	e3.2	53	19
27	16	21	4.6	5.1	4.6	13	e5.5	e4.0	6.7	e22	2.4	6.0
28	5.6	9.8	3.9	4.6	6.0	10	21	4.4	6.7	e4.4	1.3	241
29	4.4	41	3.9	19	---	8.3	19	4.1	6.7	2.3	1.3	20
30	12	108	3.6	9.8	---	7.3	e14	4.1	6.7	2.2	e2.1	6.3
31	4.4	---	3.4	6.1	---	6.6	---	4.1	---	2.1	e1.3	---
MEAN	22.4	46.9	21.7	102	13.7	12.7	25.0	5.70	19.5	9.09	13.5	39.4
MAX	260	438	338	1,040	164	154	299	24	294	45	144	294
MIN	0.34	3.7	3.4	4.6	3.2	3.9	3.9	3.4	3.9	2.1	0.93	0.76
IN.	1.43	2.89	1.38	6.47	0.79	0.81	1.54	0.36	1.20	0.58	0.86	2.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

MEAN	13.1	23.1	11.6	32.1	21.9	24.2	20.2	30.2	35.0	22.4	12.7	18.4
MAX	22.4	55.2	34.1	102	49.5	69.8	32.0	73.4	65.6	54.0	27.3	70.9
(WY)	(2005)	(2004)	(2002)	(2005)	(1999)	(1998)	(1998)	(2004)	(1998)	(2004)	(2000)	(2003)
MIN	7.44	2.04	4.02	2.42	8.53	7.19	6.43	5.70	15.4	3.57	1.63	0.87
(WY)	(1998)	(2000)	(2001)	(2003)	(2002)	(2000)	(2000)	(2005)	(2001)	(2002)	(2001)	(2004)

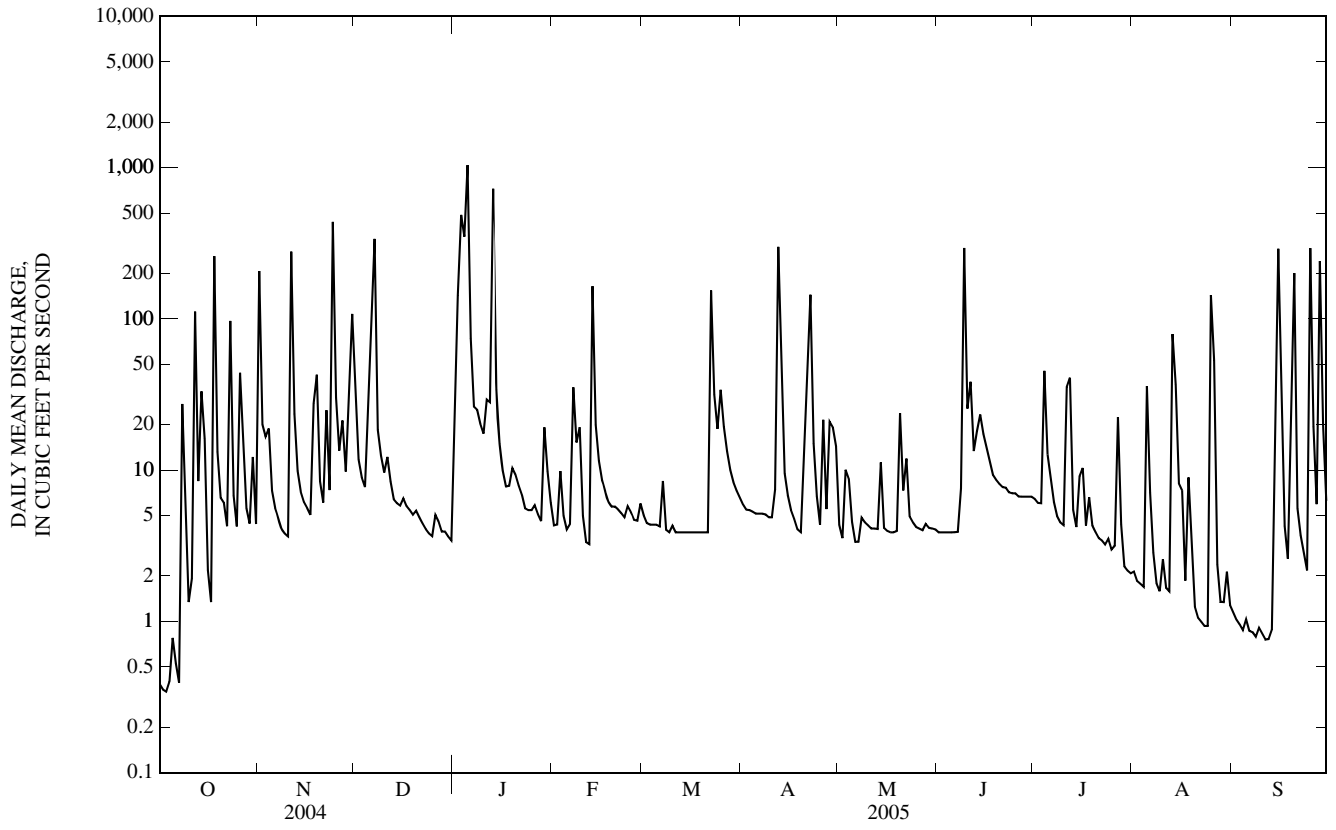
SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1996 - 2005
ANNUAL MEAN	30.2	27.7	22.0
HIGHEST ANNUAL MEAN			28.7
LOWEST ANNUAL MEAN			12.2
HIGHEST DAILY MEAN	1,040	Jan 4	1,290
LOWEST DAILY MEAN	0.34	Oct 3	0.14
ANNUAL SEVEN-DAY MINIMUM	0.38	Sep 28	0.45
MAXIMUM PEAK FLOW	---		2,690 <sup>a</sup>
MAXIMUM PEAK STAGE	---		13.00
INSTANTANEOUS LOW FLOW	---		0.34
ANNUAL RUNOFF (INCHES)	22.73		20.75
10 PERCENT EXCEEDS	53		36
50 PERCENT EXCEEDS	5.1		5.6
90 PERCENT EXCEEDS	1.4		1.9

e Estimated

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

07010180 GRAVOIS CREEK NEAR MEHLVILLE, MO—Continued



## 07010208 MARTIGNEY CREEK NEAR ARNOLD, MO

LOCATION.--Lat 38°29'27", long 90°17'35", 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 poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.45	e50	4.1	3.7	1.5	1.5	1.1	1.1	0.45	0.60	1.1	1.1
2	0.31	e2.0	2.3	20	1.9	1.6	1.1	1.00	0.36	0.44	1.1	1.1
3	0.42	e1.6	2.0	45	2.3	1.5	1.1	0.94	0.43	0.39	1.1	1.1
4	0.39	1.9	1.7	e60	1.5	1.5	1.0	0.92	0.32	4.3	1.2	0.94
5	0.30	1.4	7.5	e80	1.3	1.4	1.0	0.89	0.61	1.4	0.77	0.67
6	0.30	1.2	30	8.0	1.8	1.4	1.1	0.87	0.42	0.89	0.32	0.62
7	0.35	1.2	31	3.8	4.9	2.4	1.1	1.1	0.39	0.80	0.39	0.61
8	4.3	1.5	2.6	3.9	2.8	1.5	0.94	1.2	3.7	0.77	0.47	0.62
9	1.1	1.5	2.0	3.4	4.2	1.4	0.88	1.1	4.5	0.76	0.44	0.74
10	e0.41	1.2	1.7	2.5	2.0	1.4	0.89	1.0	2.5	0.89	2.0	0.65
11	e3.0	38	1.9	10	1.6	1.4	1.2	0.98	4.2	7.0	0.79	0.60
12	e50	3.1	1.4	11	1.7	1.4	7.0	1.0	2.1	8.6	0.63	0.55
13	e6.3	1.8	1.4	70	16	1.2	2.0	1.0	4.0	1.3	4.6	0.55
14	e17	1.5	1.4	4.5	3.8	1.3	0.99	2.2	1.9	2.6	5.8	4.4
15	1.4	1.3	1.3	e2.7	2.7	1.2	0.89	0.86	1.0	3.0	1.9	12
16	0.77	1.1	1.2	e2.1	2.2	1.3	0.84	0.76	1.0	1.1	3.3	4.1
17	0.57	1.1	1.2	e1.9	2.1	1.3	0.82	0.74	0.89	0.73	0.96	1.3
18	24	5.0	1.2	e1.8	1.9	1.3	0.82	0.70	0.64	3.1	6.1	1.2
19	e4.0	10	1.3	2.1	1.8	1.3	0.87	0.66	0.49	1.2	1.1	3.7
20	e1.0	1.7	1.3	2.5	1.9	1.3	3.5	1.6	0.42	0.73	0.80	7.5
21	e0.76	1.4	1.3	2.3	1.7	1.3	6.8	0.58	0.39	0.63	0.72	1.5
22	1.0	5.0	1.2	2.1	1.6	15	7.7	1.2	0.31	0.57	0.67	1.2
23	e13	1.5	1.1	2.3	1.6	5.7	2.1	0.56	0.33	0.53	0.66	1.1
24	e1.3	55	1.1	2.2	1.9	1.8	1.4	0.48	0.32	0.56	0.73	1.8
25	1.7	5.1	1.1	2.1	1.5	5.3	1.6	0.44	0.34	0.59	8.1	16
26	e17	1.5	1.1	2.0	1.4	1.5	3.6	0.42	0.33	1.8	5.6	3.1
27	e11	6.1	1.0	1.8	1.4	1.4	1.2	0.53	0.35	4.0	1.3	1.6
28	1.4	1.4	1.0	1.7	1.8	1.2	3.4	0.44	0.39	1.5	1.1	7.3
29	e0.88	4.0	1.0	3.6	---	1.1	2.4	0.46	0.40	1.4	1.2	3.3
30	e3.1	e20	1.1	2.4	---	1.0	1.4	0.42	0.42	1.2	1.2	1.6
31	e0.97	---	1.1	1.8	---	1.2	---	0.35	---	1.2	1.1	---
MEAN	5.43	7.64	3.57	11.7	2.60	2.10	2.02	0.85	1.13	1.76	1.85	2.75
MAX	50	55	31	80	16	15	7.7	2.2	4.5	8.6	8.1	16
MIN	0.30	1.1	1.0	1.7	1.3	1.0	0.82	0.35	0.31	0.39	0.32	0.55
IN.	2.37	3.23	1.56	5.12	1.03	0.92	0.86	0.37	0.48	0.77	0.81	1.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

	2005	2004	2002	2005	1999	1998	2003	2003	2003	1998	2000	2003
MEAN	2.20	3.40	2.26	3.96	3.08	3.61	3.24	5.38	4.76	2.80	2.06	1.80
MAX	5.43	7.87	5.45	11.7	5.65	8.47	5.59	9.10	10.2	6.53	4.25	3.87
(WY)	(2005)	(2004)	(2002)	(2005)	(1999)	(1998)	(2003)	(2003)	(2003)	(1998)	(2000)	(2003)
MIN	1.21	0.74	0.38	1.23	1.49	1.69	1.30	0.85	1.13	0.71	0.87	0.38
(WY)	(1998)	(2000)	(1999)	(2003)	(2002)	(2000)	(2000)	(2005)	(2005)	(1997)	(2003)	(2004)

SUMMARY STATISTICS

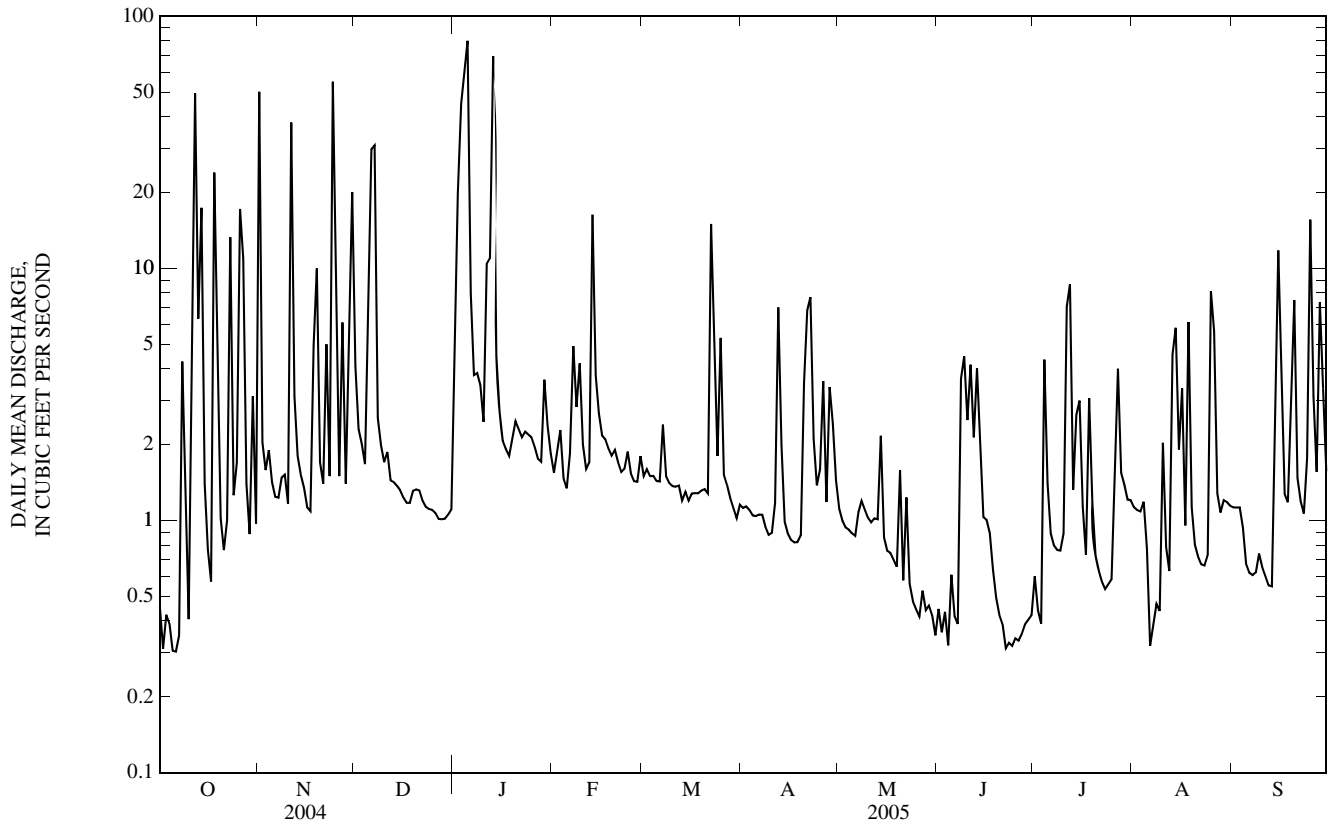
	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1997 - 2005
ANNUAL MEAN	4.03	3.63	3.27
HIGHEST ANNUAL MEAN			3.97
LOWEST ANNUAL MEAN			2.19
HIGHEST DAILY MEAN	92	Jan 4	126
LOWEST DAILY MEAN	0.25	Sep 23	0.17
ANNUAL SEVEN-DAY MINIMUM	0.30	Sep 19	0.34
MAXIMUM PEAK FLOW	---	Unknown	Jan 5
MAXIMUM PEAK STAGE	---	Unknown	Jan 5
INSTANTANEOUS LOW FLOW	---	0.19	Oct 2
ANNUAL RUNOFF (INCHES)	20.77	18.67	16.80
10 PERCENT EXCEEDS	8.6	6.1	6.1
50 PERCENT EXCEEDS	1.1	1.3	0.82
90 PERCENT EXCEEDS	0.41	0.47	0.38

e Estimated

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



07010208 MARTIGNEY CREEK NEAR ARNOLD, MO—Continued



07010220 MISSISSIPPI RIVER AT OAKVILLE, MO  
(Metropolitan St. Louis Sewer District Network)

LOCATION.--Lat 38°25'33", long 90°17'39", St. Louis County, Hydrologic Unit 07140101, site can be reached by boat 15.5 miles downstream of the St. Louis Arch, at mile 164.5.

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

PERIOD OF RECORD.--October 2004 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Carbon dioxide water, unfltrd mg/L (00405)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 26...	1230	Environmental	105,000	3.1	10.9	112	8.0	544	16.1	220	53.7	21.1
APR 12...	1620	Environmental	203,000	3.3	8.7	91	8.0	551	16.2	220	53.5	20.8
22...	1105	Environmental	228,000	3.7	7.8	86	7.9	491	18.7	190	48.8	17.6
MAY 10...	1050	Environmental	139,000	4.9	9.6	105	7.8	570	18.8	240	60.4	21.7
JUN 10...	1630	Environmental	264,000	2.8	5.1	63	8.0	450	24.8	180	46.7	15.8
21...	1115	Environmental	237,000	4.3	6.3	78	7.8	485	25.7	220	57.6	19.6
JUL 12...	1100	Environmental	153,000	3.2	6.3	81	8.0	550	26.9	220	57.6	19.7
20...	1650	Environmental	96,300	1.1	8.9	122	8.5	614	30.9	260	66.8	23.4
AUG 09...	1125	Environmental	78,300	2.5	6.8	90	8.1	633	29.5	230	58.2	21.5

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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 26...	162	162	198	<1	43	.85	.14	1.65	.019	.11	.20	10	64
APR 12...	159	161	196	<1	140	.30	.11	2.25	.034	.04	.11	20	24k
22...	140	143	174	<1	143d	1.2	.13	2.46	.040	.06	.30	20	1,600
MAY 10...	168	170	207	<1	76	.98	<.04	3.18	.009	.07	.22	20	240
JUN 10...	158	160	195	<1	952d	2.4	.05	3.10	.029	.08	.95	50	330
21...	153	153	187	<1	468d	1.6	E.03n	2.97	.024	.07	.57	30	940
JUL 12...	159	156	193	<1	102	1.0	.08	3.37	.033	.10	.31	20	1,200
20...	189	188	221	4	24	.84	E.04n	2.70	.030	.06	.20	30	400k
AUG 09...	168	171	208	<1	72	1.2	.26	.87	.023	.13	.29	20	250

07010220 MISSISSIPPI RIVER AT OAKVILLE, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Fecal coli-form, M-FC 0.7µ MF col/100 mL (31625)	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 recover-able, µg/L (71900)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)
OCT 26...	64	2	2.0	<.06	E.03n	<.8	1.9	<6	<.08	.9	<.01	2.63	.9
APR 12...	82	2	1.3	<.06	E.02n	<.8	1.6	E6n	<.08	.7	E.01n	4.08	.5
22...	3,500	3	1.4	<.06	E.02n	<.8	2.2	E4n	<.08	1.4	E.01n	2.19	1.1
MAY 10...	480k	2	2.0	<.06	E.03n	<.8	1.7	E4n	<.08	.6	<.01	2.45	2.1
JUN 10...	370	4	2.0	<.06	E.02n	<.8	2.1	E3n	E.05n	<.6	.04	3.52	1.2
21...	1,400k	4	2.4	<.06	E.02n	<.8	2.2	<6	<.08	E.6n	.02	4.25	1.5
JUL 12...	960	3	3.2	<.06	E.03n	<.8	2.1	E6n	<.08	.8	E.01n	3.45	1.6
20...	480k	4	3.2	<.06	E.02n	<.8	2.1	<6	<.08	.6	<.01	3.62	1.8
AUG 09...	370	6	3.8	<.06	E.04n	<.8	2.2	E3n	<.08	1.0	<.01	3.31	1.5

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT 26...	<.2	1.4
APR 12...	<.2	1.0
22...	<.2	1.2
MAY 10...	<.2	.8
JUN 10...	<.2	1.4
21...	<.2	.6
JUL 12...	<.2	.7
20...	<.2	1.2
AUG 09...	<.2	2.7

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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

## 07013000 MERAMEC RIVER NEAR STEELVILLE, MO

LOCATION.--Lat 37°59'55", 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.--Records good except for estimated daily discharges, which are fair. 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	315	2,400	192	421	455	405	567	197	150	129	148
2	131	1,050	1,820	189	406	434	386	493	190	147	126	144
3	129	647	1,230	203	399	414	372	441	185	146	125	139
4	131	469	932	261	393	404	364	407	184	148	133	135
5	129	397	751	5,130	387	399	360	375	180	143	132	131
6	130	320	653	e9,010	382	385	360	353	175	141	125	127
7	131	272	1,440	3,600	382	377	366	340	177	141	123	125
8	140	237	1,650	2,070	407	368	367	328	183	139	127	123
9	142	210	1,250	1,490	468	354	364	315	177	135	129	122
10	157	192	996	1,190	474	339	356	303	211	133	133	120
11	155	265	805	1,010	455	328	405	292	305	134	132	118
12	167	1,280	672	922	438	322	837	279	654	169	147	116
13	190	1,040	573	e8,260	1,070	315	852	270	392	223	138	122
14	208	705	490	e11,400	1,620	303	749	279	290	262	140	148
15	189	536	432	3,560	1,240	292	655	297	244	219	150	181
16	172	434	395	1,890	1,010	286	579	298	212	195	448	259
17	165	371	363	1,410	834	282	519	274	199	176	407	224
18	164	330	340	1,150	722	281	472	263	185	173	271	239
19	157	306	314	1,000	641	276	437	253	176	169	226	496
20	154	291	291	904	597	270	409	244	169	176	193	748
21	153	272	278	831	557	266	472	234	164	184	173	589
22	153	260	260	758	516	288	1,320	242	160	179	162	349
23	155	273	241	674	479	327	927	258	157	166	160	266
24	153	369	226	615	471	374	686	257	155	155	191	223
25	154	1,610	223	581	471	429	571	232	153	146	196	235
26	168	1,150	215	553	475	533	534	221	151	142	210	497
27	225	864	205	517	472	480	528	215	165	142	238	537
28	281	873	200	481	466	495	510	211	156	135	220	414
29	287	757	200	470	---	494	605	213	161	135	185	455
30	261	1,790	200	457	---	468	590	208	158	133	167	582
31	222	---	198	443	---	439	---	202	---	131	156	---
MEAN	170	596	653	1,975	595	370	545	296	209	160	180	270
MAX	287	1,790	2,400	11,400	1,620	533	1,320	567	654	262	448	748
MIN	129	192	198	189	382	266	356	202	151	131	123	116
IN.	0.25	0.85	0.96	2.92	0.79	0.55	0.78	0.44	0.30	0.24	0.27	0.39

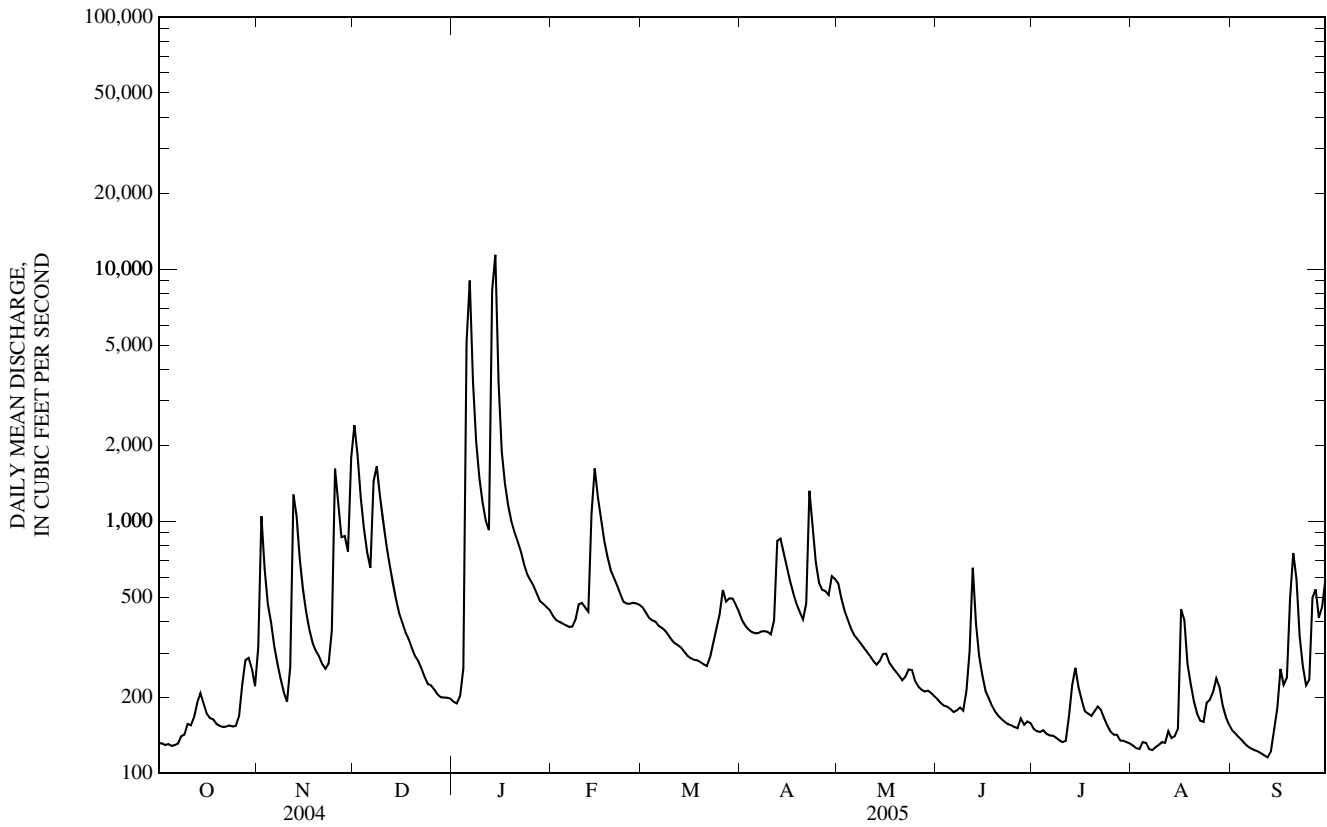
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2005, BY WATER YEAR (WY)

MEAN	279	492	564	580	653	874	1,072	991	712	373	264	276
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1923 - 2005	
ANNUAL MEAN	512		502		593	
HIGHEST ANNUAL MEAN					1,473	1985
LOWEST ANNUAL MEAN					177	1954
HIGHEST DAILY MEAN	6,260	Mar 5	11,400	Jan 14	44,600	Jul 27, 1998
LOWEST DAILY MEAN	129	Oct 3,5	116	Sep 12	76	Jul 22, 1934
ANNUAL SEVEN-DAY MINIMUM	130	Oct 1	121	Sep 7	78	Oct 5, 1956
MAXIMUM PEAK FLOW	---		16,100	Jan 13	55,800	Jul 27, 1998
MAXIMUM PEAK STAGE	---		14.92 <sup>a</sup>	Jan 13	27.22	Jul 27, 1998
INSTANTANEOUS LOW FLOW	---		114	Sep 11-13	74	Jul 22, 1934
ANNUAL RUNOFF (INCHES)	8.93		8.73		10.32	
10 PERCENT EXCEEDS	1,040		885		1,090	
50 PERCENT EXCEEDS	307		282		266	
90 PERCENT EXCEEDS	153		139		132	

e Estimated  
<sup>a</sup> From floodmark.



07014000 HUZDAH 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 2004 TO SEPTEMBER 2005

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, 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 09...	1145	Environmental	101	12.1	114	7.7	418	12.3	220	44.4	25.9	1.20
JAN 04...	1210	Environmental	115	11.1	100	7.6	369	10.1	--	--	--	--
MAR 01...	1315	Environmental	175	13.6	116	8.0	365	7.7	--	--	--	--
MAY 18...	1045	Environmental	135	9.1	97	8.2	395	17.2	200	39.7	24.1	1.20
JUL 06...	1100	Environmental	58	7.7	92	7.8	403	23.0	--	--	--	--
SEP 07...	1145	Environmental	67	8.5	100	7.6	421	22.4	--	--	--	--
07...	1146	Replicate	--	8.6	100	7.7	423	22.3	--	--	--	--

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 09...	9.82	190	192	234	<1	3.67	E.1n	24.9	255	<10	E.06n	<.04	.22
JAN 04...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	.21
MAR 01...	--	--	--	--	--	--	--	--	--	<10	E.08n	<.04	.20
MAY 18...	9.19	180	181	221	<1	2.88	<.1	21.0	236	<10	E.09n	<.04	.13
JUL 06...	--	--	--	--	--	--	--	--	--	<10	E.07n	E.03n	.15
SEP 07...	--	--	--	--	--	--	--	--	--	<10	E.08n	<.04	.19
07...	--	--	--	--	--	--	--	--	--	<10	E.07n	<.04	.19

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, col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 09...	<.008	<.02	<.04	<.04	8k	9k	<2	10	.3	<.04	<.04	.5	<6
JAN 04...	<.008	<.02	<.04	<.04	110	100	--	--	--	--	--	--	--
MAR 01...	<.008	<.02	<.04	<.04	2k	2k	--	--	--	--	--	--	--
MAY 18...	<.008	--u	<.04	<.04	8k	22	2	13	<.2	<.04	E.03n	.6	E4n
JUL 06...	<.008	<.02	<.04	<.04	29	54k	--	--	--	--	--	--	--
SEP 07...	<.008	<.09d	<.04	<.04	3k	32	--	--	--	--	--	--	--
07...	<.008	<.09d	<.04	<.04	2k	41	--	--	--	--	--	--	--

## 07014000 HUZAZH CREEK NEAR STEELVILLE, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 09...	<.08	.08	2.4	<.01	.5	E.6n	<2
JAN 04...	--	--	--	--	--	--	--
MAR 01...	--	--	--	--	--	--	--
MAY 18...	E.07n	.13	3.6	<.01	<.4	1.0	E1n
JUL 06...	--	--	--	--	--	--	--
SEP 07...	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

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

## Null value qualifier codes used in this table:

u -- Unable to determine-matrix interference

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 2004 TO SEPTEMBER 2005

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, 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 09...	1000	Environmental	68	11.9	111	7.5	386	11.6	220	44.7	26.0	1.03		
JAN 04...	1000	Environmental	61	13.1	118	7.4	351	9.8	--	--	--	--		
MAR 01...	1115	Environmental	117	13.5	111	8.1	332	5.9	--	--	--	--		
MAR 01...	1116	Replicate	--	13.5	111	8.2	332	5.9	--	--	--	--		
MAY 18...	1400	Environmental	89	9.6	108	8.1	348	19.8	190	37.7	23.2	.94		
JUL 06...	0925	Environmental	22	7.2	85	7.5	390	22.1	--	--	--	--		
SEP 07...	1040	Environmental	16	7.8	92	7.6	400	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 09...	2.38	191	191	233	<1	2.96	E.1n	15.7	226	<10	E.07n	<.04	.11	
JAN 04...	--	--	--	--	--	--	--	--	--	<10	E.06n	<.04	.09	
MAR 01...	--	--	--	--	--	--	--	--	--	<10	E.07n	<.04	.08	
MAR 01...	--	--	--	--	--	--	--	--	--	<10	E.07n	<.04	.08	
MAY 18...	1.80	168	168	205	<1	2.01	<.1	8.2	202	<10	<.10	<.04	E.05n	
JUL 06...	--	--	--	--	--	--	--	--	--	<10	E.07n	E.03n	.10	
SEP 07...	--	--	--	--	--	--	--	--	--	<10	E.06n	<.04	.08	
Date		Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, col/100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 09...	<.008	<.02	<.04	<.04	28	41	<2	4	.3	<.04	<.04	.5	E4n	
JAN 04...	<.008	<.02	<.04	<.04	37	40	--	--	--	--	--	--	--	
MAR 01...	<.008	<.02	<.04	<.04	1k	1k	--	--	--	--	--	--	--	
MAR 01...	<.008	<.02	<.04	<.04	1k	2k	--	--	--	--	--	--	--	
MAY 18...	<.008	--u	<.04	<.04	8k	16k	E1n	12	.2	<.04	<.04	.5	<6	
JUL 06...	<.008	<.02	<.04	<.04	13k	27	--	--	--	--	--	--	--	
SEP 07...	<.008	<.04d	<.04	<.04	6k	22	--	--	--	--	--	--	--	



07014200 COURTOIS CREEK AT BERRYMAN, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 09...	<.08	E.05n	1.2	<.01	E.4n	2.5	2
JAN 04...	--	--	--	--	--	--	--
MAR 01...	--	--	--	--	--	--	--
MAY 18...	E.06n	.15	3.7	<.01	<.4	1.8	E2n
JUL 06...	--	--	--	--	--	--	--
SEP 07...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

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

## Null value qualifier codes used in this table:

u -- Unable to determine-matrix interference

07014500 MERAMEC RIVER NEAR SULLIVAN, MO

LOCATION.--Lat 38°09'31", 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	272	770	5,290	430	915	981	947	1,460	420	305	265	283
2	272	1,550	4,240	422	882	946	881	1,310	408	293	258	273
3	270	1,700	2,870	461	868	907	830	1,160	398	287	251	262
4	270	1,240	2,150	783	846	886	789	1,050	389	285	249	254
5	269	990	1,760	7,650	828	872	762	969	383	301	264	247
6	268	841	1,550	17,500	810	848	746	902	373	285	248	241
7	269	731	2,280	11,500	810	827	746	852	377	280	251	237
8	280	646	3,280	4,810	858	805	744	804	387	274	254	234
9	289	583	2,580	3,390	942	783	736	766	406	268	254	232
10	294	534	2,100	2,700	967	756	709	734	401	262	257	228
11	309	869	1,760	2,310	960	737	712	703	453	264	252	224
12	325	2,750	1,510	2,140	924	723	1,050	669	540	337	245	220
13	341	2,750	1,330	10,700	1,740	708	1,590	636	783	396	256	219
14	368	1,810	1,160	18,200	3,300	683	1,600	685	534	499	272	306
15	383	1,390	1,030	9,200	2,830	660	1,450	746	454	459	275	400
16	362	1,140	936	4,430	2,320	642	1,290	730	406	397	413	560
17	349	967	861	3,290	1,950	631	1,150	673	378	357	727	650
18	348	856	800	2,690	1,670	623	1,050	623	358	333	562	602
19	343	819	744	2,350	1,480	616	972	595	343	792	446	742
20	328	796	681	2,140	1,360	601	970	580	330	1,090	379	1,480
21	322	751	642	1,960	1,270	587	5,330	553	320	697	337	1,550
22	318	722	605	1,780	1,170	737	8,120	556	313	532	311	1,040
23	327	697	564	1,570	1,090	1,000	3,690	555	306	444	300	766
24	336	1,190	523	1,420	1,060	1,080	2,490	553	299	390	330	623
25	354	2,810	497	1,320	1,030	1,160	1,950	522	294	351	329	626
26	369	2,780	484	1,250	1,020	1,240	1,740	492	291	324	346	728
27	438	2,060	465	1,160	1,010	1,210	1,560	475	299	310	365	1,050
28	487	1,770	451	1,070	1,000	1,170	1,510	469	354	301	377	1,130
29	515	1,770	445	1,040	---	1,160	1,670	463	326	292	354	1,040
30	524	3,370	442	996	---	1,100	1,630	458	318	283	318	1,130
31	468	---	438	956	---	1,020	---	436	---	274	297	---
MEAN	344	1,388	1,434	3,923	1,282	861	1,647	715	388	386	324	586
MAX	524	3,370	5,290	18,200	3,300	1,240	8,120	1,460	783	1,090	727	1,550
MIN	268	534	438	422	810	587	709	436	291	262	245	219
IN.	0.27	1.05	1.12	3.07	0.91	0.67	1.25	0.56	0.29	0.30	0.25	0.44

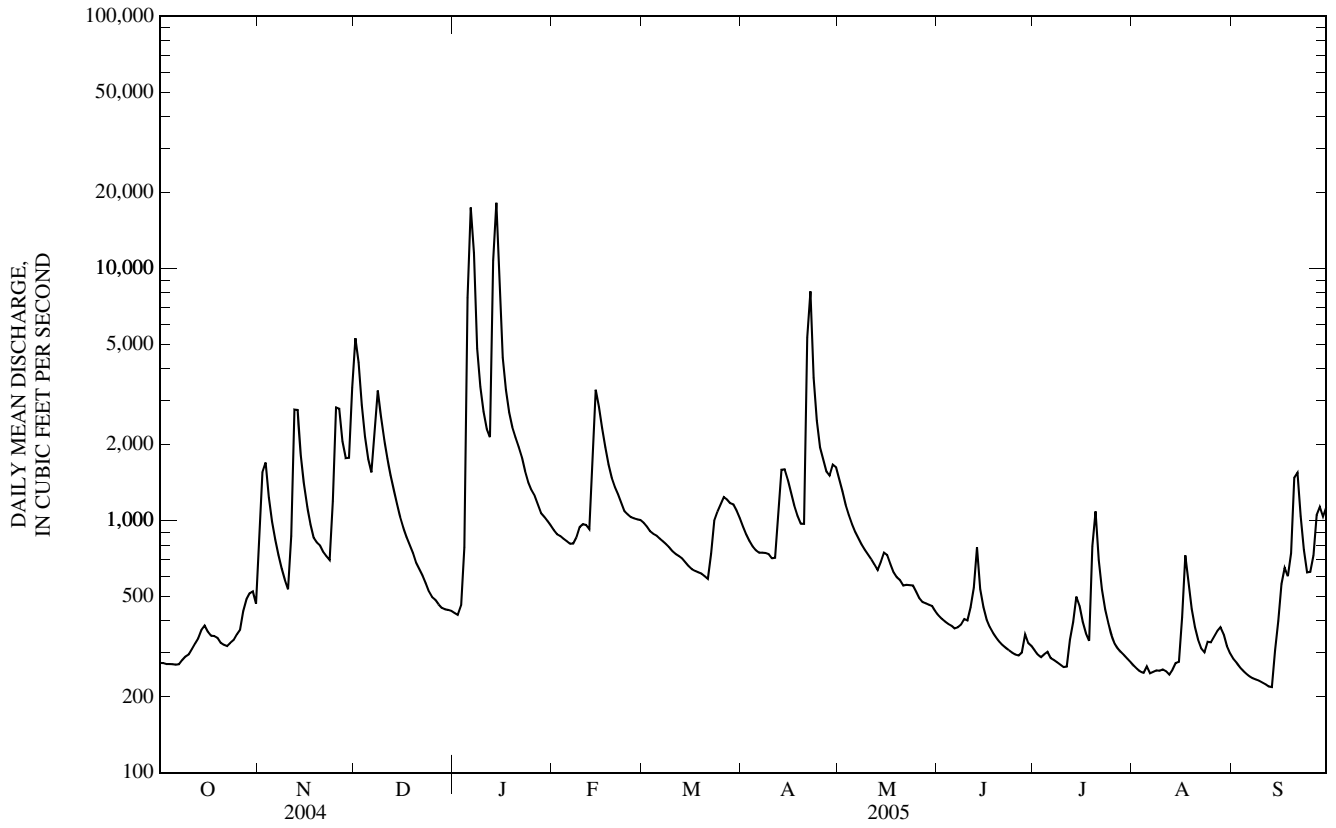
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	577	1,041	1,213	1,251	1,437	1,920	2,359	2,016	1,308	745	537	534
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)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	1,079	1,106	1,243
HIGHEST ANNUAL MEAN			3,014
LOWEST ANNUAL MEAN			341
HIGHEST DAILY MEAN	9,830	Mar 5	18,200
LOWEST DAILY MEAN	268	Oct 6	219
ANNUAL SEVEN-DAY MINIMUM	270	Oct 1	228
MAXIMUM PEAK FLOW	---		19,900
MAXIMUM PEAK STAGE	---		16.34
INSTANTANEOUS LOW FLOW	---		214
ANNUAL RUNOFF (INCHES)	9.96		10.18
10 PERCENT EXCEEDS	2,240		2,080
50 PERCENT EXCEEDS	706		697
90 PERCENT EXCEEDS	326		274

07014500 MERAMEC RIVER NEAR SULLIVAN, MO—Continued



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 2004 TO SEPTEMBER 2005

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, 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)	
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)
OCT 14...	1200	Environmental	367	8.9	91	7.6	371	15.1	--	--	--	--	
NOV 03...	1525	Environmental	1,570	8.6	85	7.7	349	13.7	170	36.2	20.4	2.18	
DEC 14...	0930	Environmental	1,180	12.8	101	7.9	275	5.3	--	--	--	--	
JAN 03...	1200	Environmental	465	10.5	102	7.9	323	13.0	170	33.8	21.7	1.25	
FEB 02...	1105	Environmental	877	12.8	106	7.5	297	6.1	--	--	--	--	
MAR 10...	0930	Environmental	754	10.9	95	8.0	317	8.1	--	--	--	--	
APR 05...	1310	Environmental	760	9.4	98	8.1	334	15.6	--	--	--	--	
MAY 04...	1220	Environmental	1,050	9.7	96	8.0	303	14.8	170	33.5	19.9	1.19	
JUN 08...	0920	Blank	--	--	--	--	--	--	--	--	--	--	
JUN 08...	0930	Environmental	386	6.1	76	8.0	354	25.1	--	--	--	--	
JUL 25...	1000	Environmental	353	5.9	80	8.1	374	29.8	200	40.3	25.0	1.31	
AUG 01...	1120	Environmental	266	7.4	95	8.1	349	27.1	--	--	--	--	
AUG 17...	1230	Environmental	896	7.3	89	7.6	340	24.4	--	--	--	--	
SEP 01...	0925	Environmental	283	6.0	76	8.2	365	25.9	--	--	--	--	
OCT 14...	--	--	--	--	--	--	--	--	<10	E.10n	<.04	.17	
NOV 03...	7.27	155	156	190	<1	8.41	E.1n	13.2	183	36	.34	<.04	.33
DEC 14...	--	--	--	--	--	--	--	--	<10	.12	<.04	.35	
JAN 03...	4.42	164	165	201	<1	4.37	.1	10.6	178	<10	.10	<.04	.21
FEB 02...	--	--	--	--	--	--	--	--	<10	E.08n	<.04	.52	
MAR 10...	--	--	--	--	--	--	--	--	<10	.11	<.04	.12	
APR 05...	--	--	--	--	--	--	--	--	<10	.13	<.04	E.04n	
MAY 04...	4.26	144	144	176	<1	3.72	E.1n	9.5	173	<10	.11	<.04	E.04n
JUN 08...	--	--	--	--	--	--	--	--	<10	<.10	<.04	<.06	
JUN 08...	--	--	--	--	--	--	--	--	<10	.15	<.04	.23	
JUL 25...	4.97	171	170	208	<1	4.22	<.1	11.5	206	<10	.13	<.04	.07
AUG 01...	--	--	--	--	--	--	--	--	<10	.13	<.04	<.06	
AUG 17...	--	--	--	--	--	--	--	--	15	.22	<.04	.17	
SEP 01...	--	--	--	--	--	--	--	--	<10	.18	<.04	E.04n	

07014500 MERAMEC RIVER NEAR SULLIVAN, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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)	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)	Iron, water, fltrd, µg/L (01046)
OCT 14...	<.008	<.02	<.04	<.04	29	28	--	--	--	--	--	--	--
NOV 03...	<.008	<.02	.04	.07	410k	490k	E1n	331	.4	<.04	E.03n	.8	7
DEC 14...	<.008	<.02	<.04	E.02n	18k	21	--	--	--	--	--	--	--
JAN 03...	<.008	<.02	<.04	<.04	66	56	E1n	44	.3	<.04	<.04	.5	6
FEB 02...	<.008	<.02	<.04	<.04	6k	6k	--	--	--	--	--	--	--
MAR 10...	<.008	<.02	<.04	<.04	3k	2k	--	--	--	--	--	--	--
APR 05...	<.008	<.02	<.04	<.04	3k	2k	--	--	--	--	--	--	--
MAY 04...	<.008	<.02	<.04	<.04	21	22	E1n	80	.2	<.04	<.04	.4	9
JUN 08...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
JUN 08...	E.004n	<.02	<.04	<.04	18k	20	--	--	--	--	--	--	--
JUL 25...	<.008	<.02	<.04	<.04	30	41	2	72	.6	<.04	<.04	.5	15
AUG 01...	<.008	.14	.15	<.04	4k	34	--	--	--	--	--	--	--
AUG 17...	<.008	<.02	<.04	<.04	110k	120k	--	--	--	--	--	--	--
SEP 01...	<.008	<.02	E.02n	<.04	13k	21	--	--	--	--	--	--	--

Date	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 14...	--	--	--	--	--	--	--
NOV 03...	E.07n	1.41	2.7	<.01	<.4	2.8	3
DEC 14...	--	--	--	--	--	--	--
JAN 03...	.11	.27	5.4	<.01	E.3n	.8	E1n
FEB 02...	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--
APR 05...	--	--	--	--	--	--	--
MAY 04...	<.08	.37	12.7	<.01	<.4	.6	E2n
JUN 08...	--	--	--	--	--	--	--
JUN 08...	--	--	--	--	--	--	--
JUL 25...	<.08	.49	8.4	E.01n	E.2n	.6	E1n
AUG 01...	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

Value qualifier codes used in this table:

- k -- Counts outside acceptable range
- n -- Below the LRL and above the LT-MDL

## 07015720 BOURBEUSE RIVER NEAR HIGH GATE, MO

LOCATION.--Lat 38°08'49", long 91°34'51", 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.--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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	500	622	11	52	66	43	251	3.3	2.5	0.46	1.9
2	3.6	284	326	304	53	59	36	141	3.1	2.3	0.44	1.2
3	3.4	110	196	949	63	55	31	95	2.9	2.0	0.42	0.69
4	3.8	134	139	1,840	63	54	27	70	2.8	1.9	0.35	0.49
5	3.4	82	110	8,050	57	50	25	59	2.7	2.0	0.36	0.32
6	3.2	54	143	1,220	54	47	24	49	2.9	1.9	0.34	0.18
7	4.0	40	2,150	474	161	46	23	41	2.7	1.7	0.27	0.12
8	6.7	30	513	271	579	41	22	35	2.9	1.6	0.22	0.10
9	6.1	25	277	188	357	38	20	31	3.1	2.1	0.22	0.08
10	6.3	20	173	149	187	37	19	27	30	2.5	0.19	0.05
11	6.6	e700	122	148	125	34	199	24	76	2.6	0.18	0.04
12	11	578	96	176	102	31	488	21	236	6.8	0.15	0.03
13	9.9	212	74	2,920	1,800	30	292	19	67	12	0.14	0.08
14	9.5	113	59	698	618	28	174	31	86	8.4	0.27	0.75
15	6.3	77	51	285	311	25	95	30	41	5.6	3.5	21
16	5.1	58	46	158	189	23	65	22	19	3.3	30	93
17	4.4	54	42	117	136	22	49	12	11	1.7	31	17
18	4.0	48	37	95	109	21	40	6.5	6.4	0.82	22	23
19	3.9	55	33	85	95	21	34	5.4	4.9	0.74	13	107
20	3.8	53	27	94	92	19	30	4.5	3.8	1.3	6.4	566
21	3.9	43	22	94	82	17	178	3.7	3.8	1.6	3.3	118
22	3.8	128	20	80	75	27	859	19	3.3	1.5	2.0	40
23	3.8	138	20	62	70	66	292	38	3.0	1.3	1.2	16
24	3.7	1,600	20	55	76	75	136	11	2.8	1.2	0.91	9.2
25	3.6	943	19	53	80	412	86	5.9	2.5	0.98	3.7	9.2
26	4.9	698	18	53	75	257	130	4.4	2.4	0.77	12	70
27	42	1,160	15	49	69	183	158	3.7	2.4	1.5	24	36
28	30	598	13	45	69	168	395	3.6	2.4	0.98	16	68
29	18	1,380	13	48	---	105	467	3.8	2.7	0.76	11	410
30	13	983	11	54	---	74	474	4.2	2.8	0.60	6.3	102
31	11	---	11	53	---	52	---	3.7	---	0.48	3.4	---
MEAN	7.95	363	175	609	207	70.4	164	34.7	21.2	2.43	6.25	57.0
MAX	42	1,600	2,150	8,050	1,800	412	859	251	236	12	31	566
MIN	3.2	20	11	11	52	17	19	3.6	2.4	0.48	0.14	0.03
IN.	0.07	3.00	1.49	5.20	1.60	0.60	1.35	0.30	0.18	0.02	0.05	0.47

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2005, BY WATER YEAR (WY)

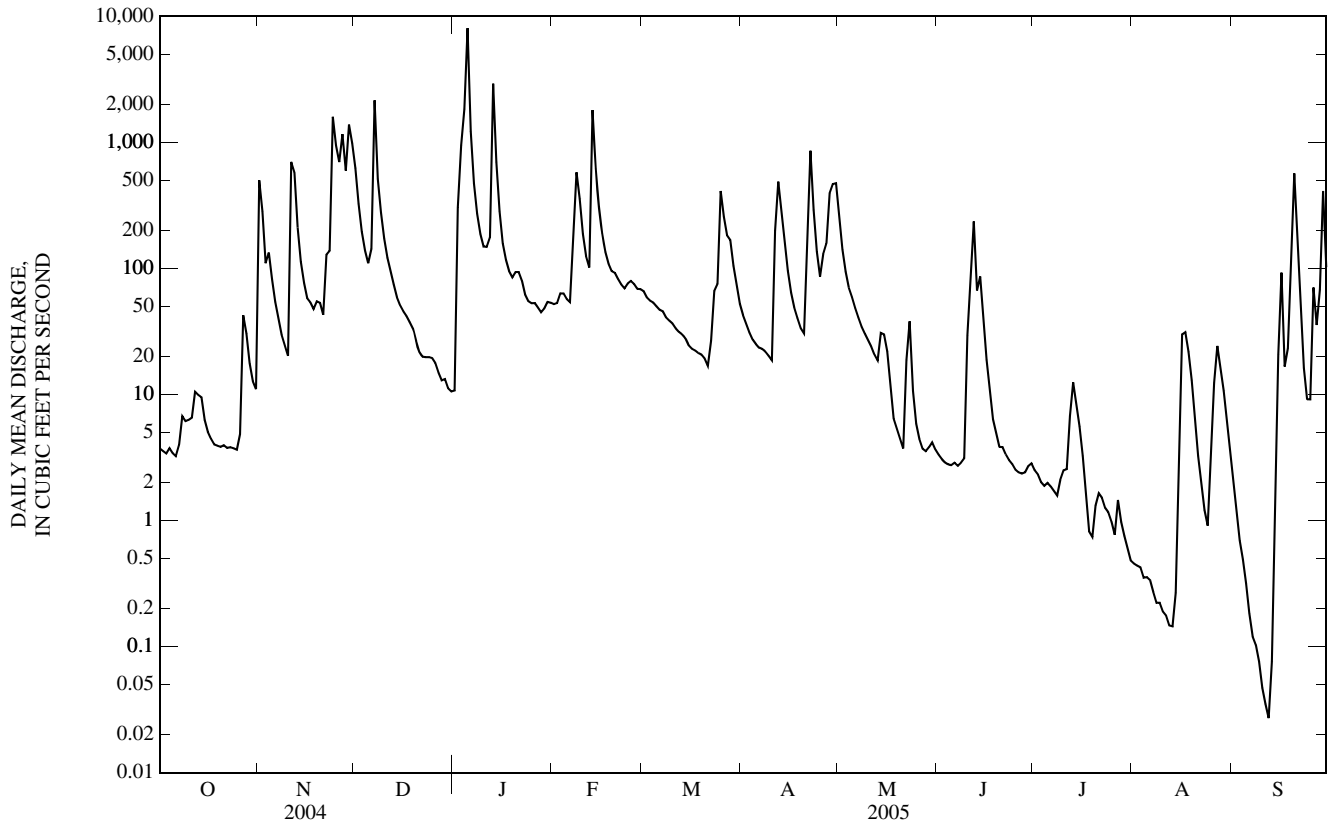
MEAN	41.8	155	176	161	174	233	258	190	133	50.6	36.8	43.7
MAX	552	799	1,213	609	634	747	1,191	894	963	546	373	865
(WY)	(1987)	(1986)	(1983)	(2005)	(1985)	(1984)	(1994)	(1995)	(1985)	(1998)	(1982)	(1993)
MIN	0.34	0.94	1.68	0.65	12.4	1.32	1.57	3.88	0.95	0.25	0.19	0.14
(WY)	(1967)	(1981)	(1990)	(1977)	(1981)	(1981)	(1981)	(1977)	(1972)	(1972)	(1971)	(1971)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1965 - 2005
ANNUAL MEAN	181	143	137
HIGHEST ANNUAL MEAN			315
LOWEST ANNUAL MEAN			15.6
HIGHEST DAILY MEAN	5,920	8,050	21,000
LOWEST DAILY MEAN	1.1	0.03	0.00
ANNUAL SEVEN-DAY MINIMUM	1.5	0.07	0.00
MAXIMUM PEAK FLOW	---	13,500	49,300
MAXIMUM PEAK STAGE	---	18.68	23.65
INSTANTANEOUS LOW FLOW	---	0.02	0.00
ANNUAL RUNOFF (INCHES)	18.24	14.34	13.77
10 PERCENT EXCEEDS	473	292	226
50 PERCENT EXCEEDS	42	28	20
90 PERCENT EXCEEDS	3.2	1.2	0.83

e Estimated

07015720 BOURBEUSE RIVER NEAR HIGH GATE, MO—Continued



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 2004 TO SEPTEMBER 2005

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, 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 03...	1250	Environmental	2,050	8.9	89	7.1	222	14.6	100	20.9	12.0	4.63
JAN 06...	1300	Environmental	17,100	11.4	93	6.8	75	5.9	--	--	--	--
MAR 10...	1120	Blank	--	--	--	--	--	--	--	--	--	--
MAR 10...	1130	Environmental	358	11.3	99	7.9	276	8.2	--	--	--	--
MAY 03...	1155	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16
MAY 03...	1200	Environmental	863	9.3	91	7.4	190	13.9	88	17.3	10.9	1.85
JUL 25...	1205	Environmental	133	7.6	108	8.1	336	32.4	--	--	--	--
SEP 07...	1415	Environmental	109	7.1	89	7.6	270	26.3	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfixed end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfixed, titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfixed, titr., field, mg/L (00450)	Carbonate, wat unfixed, titr., field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate, water, fltrd, mg/L (00945)	Residue on evap. at 180degC, wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)
NOV 03...	4.90	80	83	101	<1	6.95	E.1n	14.1	130	110	1.1	<.04	.14
JAN 06...	--	--	--	--	--	--	--	--	--	278d	1.2	E.03n	.20
MAR 10...	--	--	--	--	--	--	--	--	--	11	<.10	<.04	<.06
MAR 10...	--	--	--	--	--	--	--	--	--	14	.18	<.04	E.05n
MAY 03...	<.20	--	--	--	--	<.20	<.1	<.2	<10	<10	<.10	.05	<.06
MAY 03...	4.39	71	70	87	<1	4.69	E.1n	13.6	113	24	.40	<.04	.17
JUL 25...	--	--	--	--	--	--	--	--	--	<10	.22	<.04	<.06
SEP 07...	--	--	--	--	--	--	--	--	--	31	.30	<.04	<.06

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 coliform, M-FC, col/100 mL (31625)	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)	Iron, water, fltrd, μg/L (01046)
NOV 03...	E.004n	.02	.08	.20	1,500	1,800k	5	1,070d	.8	<.04	.06	1.5	48
JAN 06...	E.004n	.02	.05	.32	6,300	8,600	--	--	--	--	--	--	--
MAR 10...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
MAR 10...	<.008	<.02	<.04	<.04	2k	5k	--	--	--	--	--	--	--
MAY 03...	<.008	<.02	<.04	<.04	--	--	<2	2	<.2	<.04	<.04	<.4	<6
MAY 03...	<.008	<.02	E.02n	.06	74	120	4	415	.4	<.04	<.04	.9	24
JUL 25...	<.008	<.02	E.03n	E.03n	6k	11k	--	--	--	--	--	--	--
SEP 07...	<.008	<.04d	<.04	<.04	6k	11k	--	--	--	--	--	--	--



## 07016400 BOURBEUSE RIVER ABOVE UNION, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 03...	.13	3.74	4.1	E.01n	<.4	1.3	7
JAN 06...	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--
MAY 03...	<.08	<.06	<.6	<.01	<.4	1.2	<2
03...	<.08	1.00	26.8	<.01	<.4	.7	4
JUL 25...	--	--	--	--	--	--	--
SEP 07...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## 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

## 07016500 BOURBEUSE RIVER AT UNION, MO

LOCATION.--Lat 38°26'39", long 90°59'44", 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 good 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	458	5,330	264	372	329	491	1,310	88	49	e38	29
2	46	938	3,410	323	378	311	414	1,170	82	58	e31	25
3	45	2,010	1,950	2,220	372	296	359	819	79	94	e27	24
4	44	1,080	1,310	7,040	356	283	317	625	75	73	e23	21
5	43	729	1,010	12,700	361	270	289	516	72	59	e21	18
6	41	622	887	17,200	366	257	270	440	71	48	e21	e15
7	44	547	2,750	26,700	387	251	249	381	68	40	e18	e15
8	44	467	7,200	18,100	463	243	233	337	80	36	e18	e15
9	41	399	5,120	2,150	1,270	238	222	304	79	33	e19	e14
10	43	342	1,850	1,540	1,550	232	214	276	83	29	e19	e13
11	45	709	1,300	1,270	1,250	220	228	251	85	31	e17	e13
12	59	1,710	1,000	1,120	937	212	419	230	86	e56	e18	17
13	46	4,120	830	4,190	1,620	202	2,330	212	112	e179	e22	16
14	81	1,700	716	8,920	5,640	193	1,770	206	122	e623	25	37
15	233	958	636	8,420	5,120	184	1,130	186	90	e266	41	121
16	156	708	571	2,220	1,920	177	807	172	160	e143	62	49
17	120	583	522	1,420	1,220	172	610	163	207	e81	68	111
18	117	534	487	1,070	900	166	489	153	181	e55	68	232
19	97	541	457	889	728	161	409	145	154	e46	62	133
20	85	633	430	804	630	154	355	137	130	e72	313	199
21	77	677	407	747	553	148	348	127	105	e147	243	339
22	89	585	383	710	503	323	4,960	130	91	e169	148	1,110
23	82	519	360	666	457	498	8,440	134	78	e131	117	621
24	69	1,040	349	605	425	814	2,610	127	70	e99	84	369
25	61	3,780	319	541	393	962	1,270	122	64	e72	106	274
26	74	6,740	304	489	371	1,240	895	120	66	e56	90	201
27	76	3,730	291	452	354	1,430	724	113	72	e88	60	162
28	67	3,920	280	420	348	1,020	670	112	65	e141	66	300
29	94	3,940	274	402	---	846	691	113	56	e90	83	649
30	145	3,060	270	380	---	748	1,100	103	55	e58	58	1,310
31	123	---	266	366	---	602	---	94	---	e40	42	---
MEAN	78.5	1,593	1,331	4,011	1,044	425	1,110	301	94.2	102	65.4	215
MAX	233	6,740	7,200	26,700	5,640	1,430	8,440	1,310	207	623	313	1,310
MIN	41	342	266	264	348	148	214	94	55	29	17	13
IN.	0.11	2.20	1.90	5.72	1.35	0.61	1.53	0.43	0.13	0.15	0.09	0.30

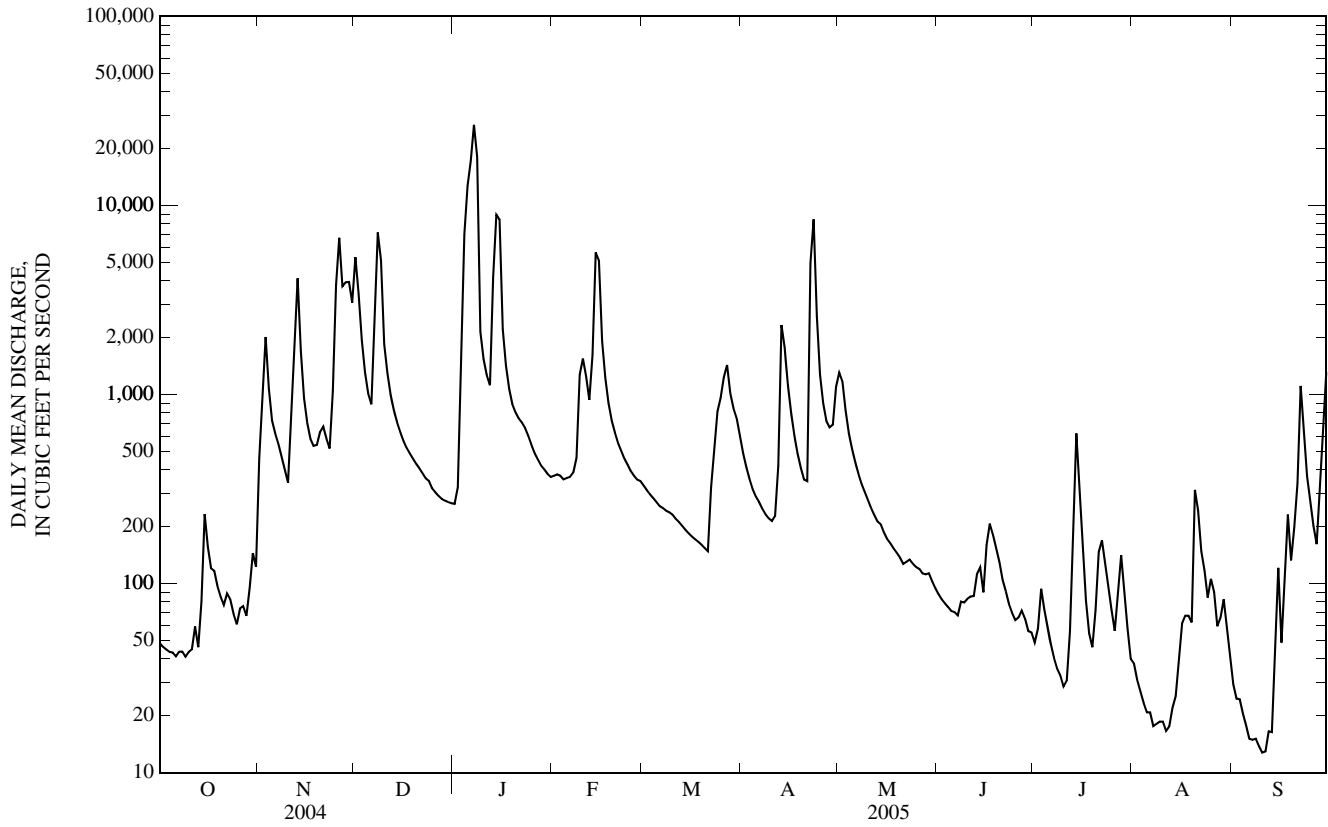
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2005, BY WATER YEAR (WY)

MEAN	289	539	652	689	792	1,125	1,277	1,167	838	331	198	243
MAX	4,575	3,320	6,107	4,011	3,214	4,207	5,303	4,578	4,583	3,650	1,927	4,859
(WY)	(1950)	(1986)	(1983)	(2005)	(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)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1921 - 2005
ANNUAL MEAN	1,019	864	677
HIGHEST ANNUAL MEAN			1,771
LOWEST ANNUAL MEAN			106
HIGHEST DAILY MEAN	11,600	26,700	63,000
LOWEST DAILY MEAN	41	13	12
ANNUAL SEVEN-DAY MINIMUM	43	15	13
MAXIMUM PEAK FLOW	---	29,700	73,300
MAXIMUM PEAK STAGE	---	23.89	33.80
INSTANTANEOUS LOW FLOW	---	13	11
ANNUAL RUNOFF (INCHES)	17.18	14.52	11.38
10 PERCENT EXCEEDS	2,630	1,650	1,320
50 PERCENT EXCEEDS	395	251	173
90 PERCENT EXCEEDS	75	41	41

07016500 BOURBEUSE RIVER AT UNION, MO—Continued



## 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 poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	173	1,080	53	96	102	118	121	26	10	9.3	9.5
2	8.9	513	471	54	97	92	103	103	25	9.8	8.8	8.6
3	8.7	192	330	55	111	87	91	90	25	8.9	8.3	7.9
4	8.6	165	266	75	106	87	83	80	24	11	7.9	7.3
5	8.6	115	226	3,090	101	81	76	71	23	13	7.4	6.9
6	8.8	81	239	1,740	98	74	72	65	21	11	7.7	6.5
7	9.0	61	792	690	112	72	72	59	20	11	9.4	6.2
8	11	47	419	442	172	68	70	55	21	9.7	8.8	6.1
9	15	39	308	343	197	63	64	53	21	9.0	8.3	5.9
10	14	34	252	281	190	61	61	50	20	9.0	7.7	5.8
11	13	1,890	214	247	168	58	61	79	19	9.0	7.2	5.5
12	17	816	187	223	155	56	96	145	19	20	6.7	5.3
13	19	308	160	e4,500	392	53	128	71	19	34	6.4	5.5
14	17	208	134	1,270	387	50	136	159	18	24	8.7	12
15	19	159	117	580	269	49	113	139	16	19	14	53
16	17	128	108	396	220	47	97	87	16	16	19	225
17	16	106	98	314	184	46	86	69	15	15	25	87
18	15	94	91	256	161	45	77	59	14	18	17	50
19	15	e134	81	220	145	44	71	53	14	26	14	39
20	15	e168	73	199	138	43	69	48	13	29	12	200
21	18	e137	71	185	124	42	220	44	13	24	10	85
22	18	124	67	166	110	312	389	44	12	20	9.9	47
23	26	118	59	140	105	697	274	43	12	17	9.9	34
24	41	1,230	54	130	124	359	210	38	11	15	e9.8	29
25	30	903	52	124	136	287	170	36	11	14	e9.7	32
26	25	379	52	117	126	239	168	34	11	12	e9.6	81
27	68	277	50	105	116	232	155	32	11	13	e11	61
28	177	226	49	97	112	231	146	34	9.8	13	e13	47
29	77	611	51	108	---	188	155	32	9.6	12	e12	185
30	50	1,880	53	113	---	163	143	30	9.5	11	e11	96
31	39	---	52	104	---	138	---	27	---	9.8	10	---
MEAN	26.9	377	202	530	159	134	126	66.1	16.6	15.3	10.6	48.3
MAX	177	1,890	1,080	4,500	392	697	389	159	26	34	25	225
MIN	8.6	34	49	53	96	42	61	27	9.5	8.9	6.4	5.3
IN.	0.18	2.41	1.33	3.49	0.95	0.89	0.80	0.44	0.11	0.10	0.07	0.31

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2005, BY WATER YEAR (WY)

MEAN	56.9	221	255	212	250	319	345	270	113	48.5	53.6	59.4
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)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

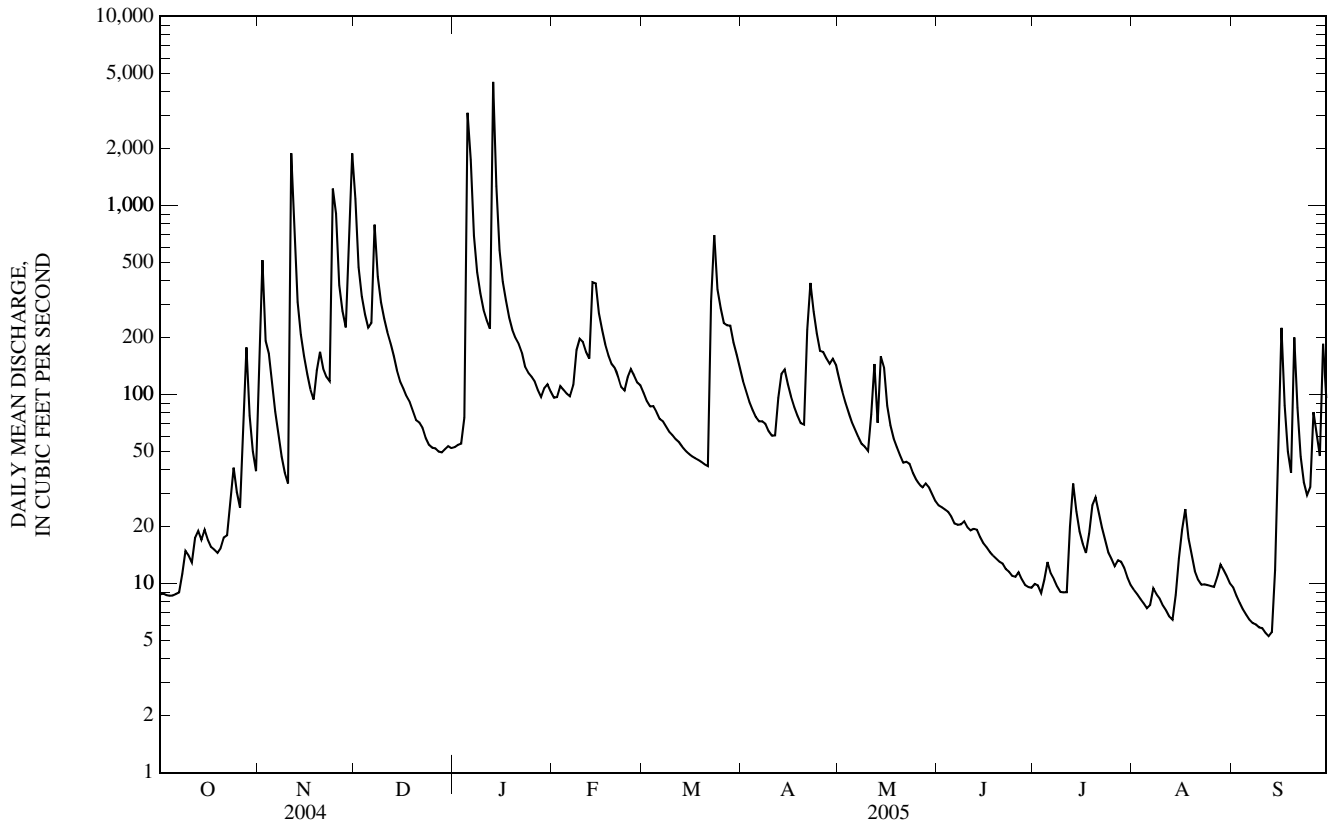
## FOR 2005 WATER YEAR

## WATER YEARS 1965 - 2005

ANNUAL MEAN	153	143	183
HIGHEST ANNUAL MEAN			449
LOWEST ANNUAL MEAN			33.9
HIGHEST DAILY MEAN	2,320	May 1	21,300
LOWEST DAILY MEAN	8.6	Sep 28,29,Oct 4,5	1.2
ANNUAL SEVEN-DAY MINIMUM	8.7	Sep 28	1.5
MAXIMUM PEAK FLOW	---	11,400	49,100
MAXIMUM PEAK STAGE	---	13.60	28.95
INSTANTANEOUS LOW FLOW	---	5.0	0.72
ANNUAL RUNOFF (INCHES)	11.89	11.06	14.22
10 PERCENT EXCEEDS	324	267	361
50 PERCENT EXCEEDS	66	58	56
90 PERCENT EXCEEDS	12	9.4	10

e Estimated

07017200 BIG RIVER AT IRONDALE, MO—Continued



## 07018100 BIG RIVER NEAR RICHWOODS, MO

LOCATION.--Lat 38°09'35", 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	577	6,010	e296	538	526	625	845	222	122	104	110
2	98	2,050	2,860	e308	518	497	567	734	212	115	101	103
3	101	1,540	1,710	361	529	474	523	655	205	111	98	97
4	104	976	1,260	426	540	461	490	598	202	112	95	92
5	104	776	1,030	5,920	533	452	465	554	196	122	93	89
6	105	646	996	13,000	514	438	447	515	197	128	91	85
7	106	538	2,180	5,160	515	425	467	484	198	119	103	83
8	113	458	2,410	2,240	587	415	465	457	194	114	104	83
9	139	396	1,520	1,610	680	398	438	438	192	112	97	81
10	144	352	1,160	1,290	724	386	416	431	186	109	97	79
11	134	3,310	971	1,090	688	375	411	410	182	112	103	77
12	178	6,590	843	973	635	367	557	414	192	189	103	75
13	249	2,380	747	9,520	1,200	358	896	426	183	292	102	73
14	228	1,260	661	11,700	2,140	345	957	560	172	254	99	84
15	219	895	592	3,220	1,510	337	769	603	163	227	147	113
16	218	735	548	1,950	1,130	329	655	572	156	199	221	213
17	187	639	517	1,420	935	322	583	472	150	183	229	282
18	183	581	493	1,150	809	315	533	411	144	173	212	328
19	221	791	466	1,010	729	311	498	378	138	163	175	272
20	216	894	435	922	683	303	482	350	136	174	157	276
21	188	760	416	860	652	296	3,120	324	133	203	139	255
22	171	669	e389	797	611	541	13,900	320	130	196	126	332
23	290	648	e371	713	570	2,930	3,500	316	127	173	118	274
24	342	2,780	e344	654	564	2,640	1,730	296	123	150	118	213
25	297	6,780	e331	625	573	1,510	1,230	284	119	135	116	208
26	267	2,590	e327	609	569	1,310	1,070	267	118	124	113	258
27	696	1,520	e319	581	554	1,050	970	255	117	121	131	274
28	821	1,150	e315	543	546	1,060	920	256	138	122	143	255
29	612	1,150	e308	546	---	920	1,050	249	146	118	127	382
30	529	4,220	e304	562	---	793	962	250	132	112	122	307
31	424	---	e300	563	---	699	---	238	---	108	117	---
MEAN	251	1,622	1,004	2,278	742	696	1,323	431	163	151	126	182
MAX	821	6,780	6,010	13,000	2,140	2,930	13,900	845	222	292	229	382
MIN	93	352	300	296	514	296	411	238	117	108	91	73
IN.	0.39	2.46	1.58	3.57	1.05	1.09	2.01	0.68	0.25	0.24	0.20	0.28

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2005, BY WATER YEAR (WY)

MEAN	265	664	809	743	917	1,202	1,273	1,076	565	376	258	299
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)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

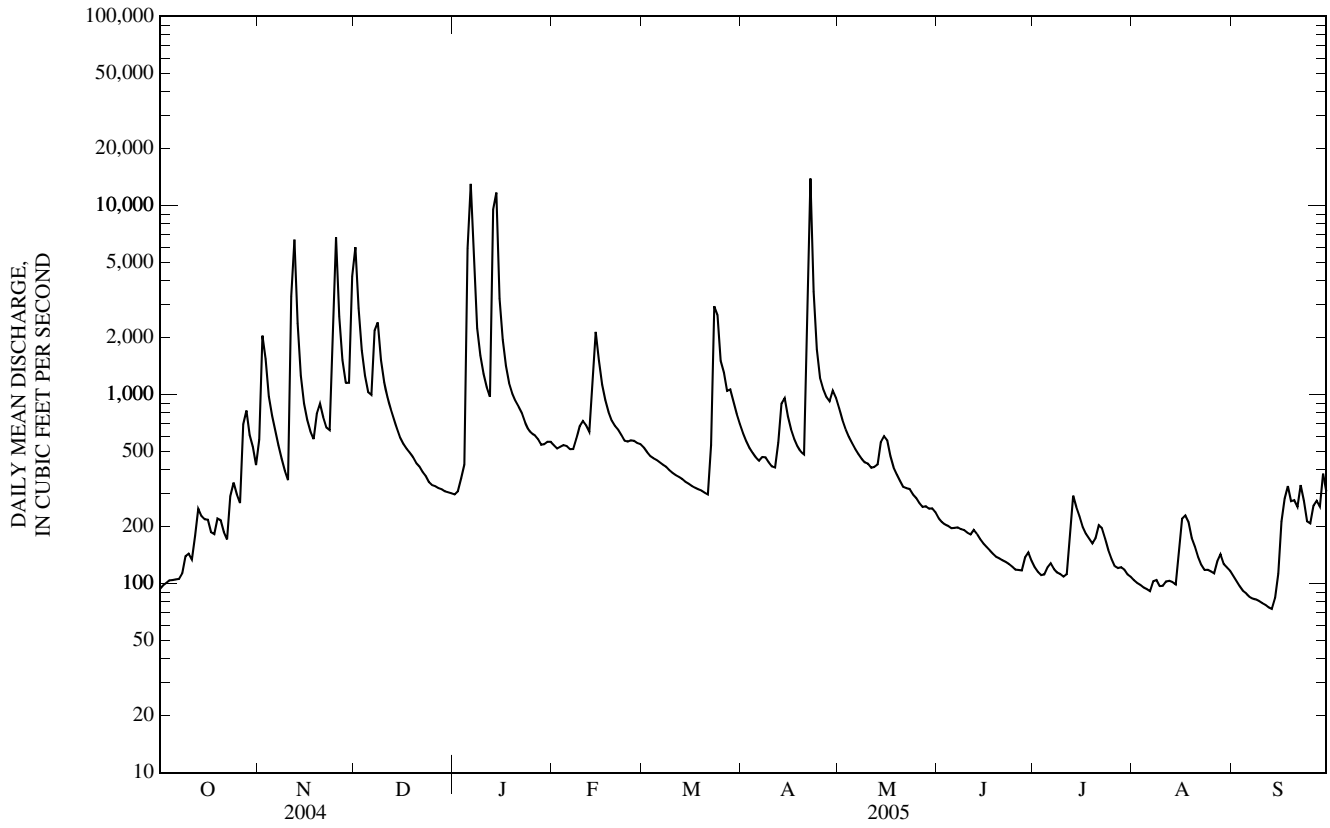
## FOR 2005 WATER YEAR

## WATER YEARS 1949 - 2005

ANNUAL MEAN	725	747	703
HIGHEST ANNUAL MEAN			1,766
LOWEST ANNUAL MEAN			171
HIGHEST DAILY MEAN	7,160	May 2	13,900
LOWEST DAILY MEAN	91	Sep 30	73
ANNUAL SEVEN-DAY MINIMUM	94	Sep 26	79
MAXIMUM PEAK FLOW	---		21,400
MAXIMUM PEAK STAGE	---		20.36
INSTANTANEOUS LOW FLOW	---		72
ANNUAL RUNOFF (INCHES)	13.43		13.79
10 PERCENT EXCEEDS	1,560		1,300
50 PERCENT EXCEEDS	398		375
90 PERCENT EXCEEDS	125		110

e Estimated

07018100 BIG RIVER NEAR RICHWOODS, MO—Continued



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 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd, std units (00400)	Specific conductance, wat unfltrd, $\mu$ S/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, 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 03...	0930	Environmental	1,660	8.3	83	7.5	369	14.6	190	41.2	21.1	3.50			
JAN 03...	1515	Environmental	367	11.3	107	7.8	475	12.1	--	--	--	--			
MAR 10...	1310	Environmental	394	13.4	118	8.2	462	8.5	--	--	--	--			
MAY 04...	0920	Environmental	656	8.5	81	8.0	420	13.2	230	48.6	27.2	1.39			
JUL 25...	1415	Environmental	152	9.1	128	8.3	505	31.7	--	--	--	--			
SEP 01...	1150	Environmental	138	6.8	87	8.2	242	26.7	--	--	--	--			
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 03...	5.25	155	156	190	<1	7.33	E.1n	24.4	215	58	.65	<.04	E.03n		
JAN 03...	--	--	--	--	--	--	--	--	--	<10	.12	<.04	.24		
MAR 10...	--	--	--	--	--	--	--	--	--	<10	.14	<.04	<.06		
MAY 04...	4.48	189	190	232	<1	5.90	E.1n	21.2	243	<10	.14	<.04	.13		
JUL 25...	--	--	--	--	--	--	--	--	--	<10	.19	<.04	<.06		
SEP 01...	--	--	--	--	--	--	--	--	--	<10	.19	<.04	<.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, col/100 mL (31625)	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)	Iron, water, fltrd, $\mu$ g/L (01046)
NOV 03...	.036	<.02	.05	.13	1,800k	1,700k	2	586	.7	.05	.97	2.1	15		
JAN 03...	<.008	E.01n	<.04	E.03n	23	22	--	--	--	--	--	--	--		
MAR 10...	<.008	<.02	<.04	<.04	5k	<1b	--	--	--	--	--	--	--		
MAY 04...	<.008	<.02	<.04	<.04	56	39	E.1n	92	.4	.12	.23	.9	10		
JUL 25...	<.008	<.02	E.02n	E.03n	13k	59	--	--	--	--	--	--	--		
SEP 01...	<.008	<.02	E.03n	<.04	16k	23	--	--	--	--	--	--	--		



## 07018100 BIG RIVER NEAR RICHWOODS, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 03...	2.90	159d	6.9	<.01	<.4	7.9	53
JAN 03...	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--
MAY 04...	2.66	23.3	31.4	<.01	<.4	8.3	20
JUL 25...	--	--	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

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

## 07018500 BIG RIVER AT BYRNESVILLE, MO

LOCATION.--Lat 38°23'30", long 90°38'16, in SE 1/4 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 good except for the periods Dec. 2-4 and 24-27, 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	785	6,320	396	651	618	804	1,220	291	160	109	112
2	97	1,540	4,950	423	626	594	723	1,050	275	147	106	107
3	96	1,880	2,840	637	615	568	663	924	264	138	103	100
4	96	1,390	2,270	739	620	546	616	828	256	161	98	94
5	94	1,010	1,830	e4,750	626	531	580	754	249	155	96	89
6	92	832	1,610	10,700	614	517	553	697	242	137	91	85
7	93	702	2,980	13,500	618	507	564	649	239	142	90	83
8	98	597	3,460	4,630	712	491	622	608	242	140	90	89
9	107	519	2,660	2,350	806	478	569	573	237	132	99	91
10	112	457	1,920	1,810	861	461	533	549	232	126	97	77
11	129	1,520	1,580	1,520	858	445	509	530	231	125	93	76
12	140	6,030	1,330	1,350	803	436	713	516	229	154	95	82
13	163	4,930	1,120	7,350	1,560	423	1,200	501	227	177	98	74
14	219	2,040	957	12,500	2,250	412	1,340	533	221	269	111	75
15	239	1,330	855	11,600	2,180	397	1,090	669	208	282	110	91
16	214	1,040	785	3,120	1,550	387	895	670	199	250	123	103
17	211	884	721	2,070	1,250	376	771	638	190	227	192	142
18	211	792	680	1,590	1,060	366	685	551	182	203	221	229
19	220	1,010	639	1,350	935	361	623	490	177	191	229	295
20	233	1,150	603	1,220	856	354	581	456	171	182	196	301
21	239	1,060	570	1,130	803	347	4,450	421	165	176	167	280
22	212	918	541	1,040	759	620	8,190	404	163	197	150	268
23	274	833	511	938	711	1,800	13,200	394	159	203	135	297
24	334	2,170	472	848	669	3,550	3,660	382	156	190	126	295
25	351	6,470	449	788	653	2,380	1,960	359	152	165	136	271
26	348	5,330	440	751	655	1,740	1,600	343	151	147	132	245
27	404	2,400	426	721	649	1,440	1,430	329	146	141	118	260
28	690	1,690	415	680	635	1,240	1,290	319	145	127	116	386
29	787	1,530	407	654	---	1,190	1,470	314	146	120	132	459
30	629	3,130	401	650	---	1,030	1,410	304	168	118	129	438
31	556	---	398	660	---	905	---	301	---	113	117	---
MEAN	251	1,866	1,456	2,983	914	823	1,776	557	204	168	126	186
MAX	787	6,470	6,320	13,500	2,250	3,550	13,200	1,220	291	282	229	459
MIN	92	457	398	396	614	347	509	301	145	113	90	74
IN.	0.32	2.27	1.83	3.75	1.04	1.03	2.16	0.70	0.25	0.21	0.16	0.23

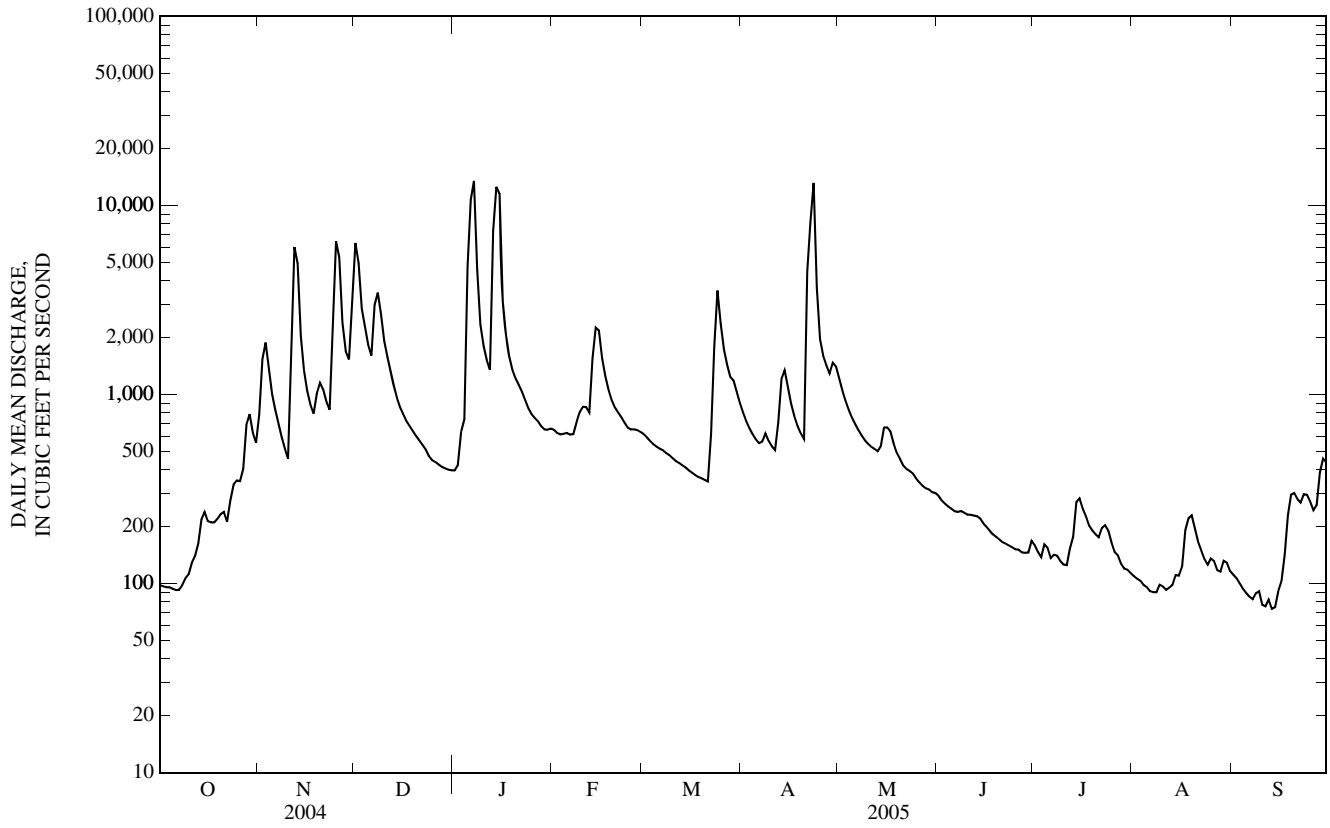
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2005, BY WATER YEAR (WY)

	321	712	870	932	1,099	1,425	1,656	1,450	818	472	292	340
MEAN	321	712	870	932	1,099	1,425	1,656	1,450	818	472	292	340
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)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1922 - 2005
ANNUAL MEAN	899	942	865
HIGHEST ANNUAL MEAN			1,934
LOWEST ANNUAL MEAN			227
HIGHEST DAILY MEAN	6,530	May 27	13,500
LOWEST DAILY MEAN	92	Oct 6	74
ANNUAL SEVEN-DAY MINIMUM	95	Oct 1	81
MAXIMUM PEAK FLOW	---		15,900
MAXIMUM PEAK STAGE	---		19.58
INSTANTANEOUS LOW FLOW	---		69
ANNUAL RUNOFF (INCHES)	13.34		13.95
10 PERCENT EXCEEDS	1,980		1,850
50 PERCENT EXCEEDS	546		461
90 PERCENT EXCEEDS	137		108

07018500 BIG RIVER AT BYRNESVILLE, MO—Continued



## 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.--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. 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

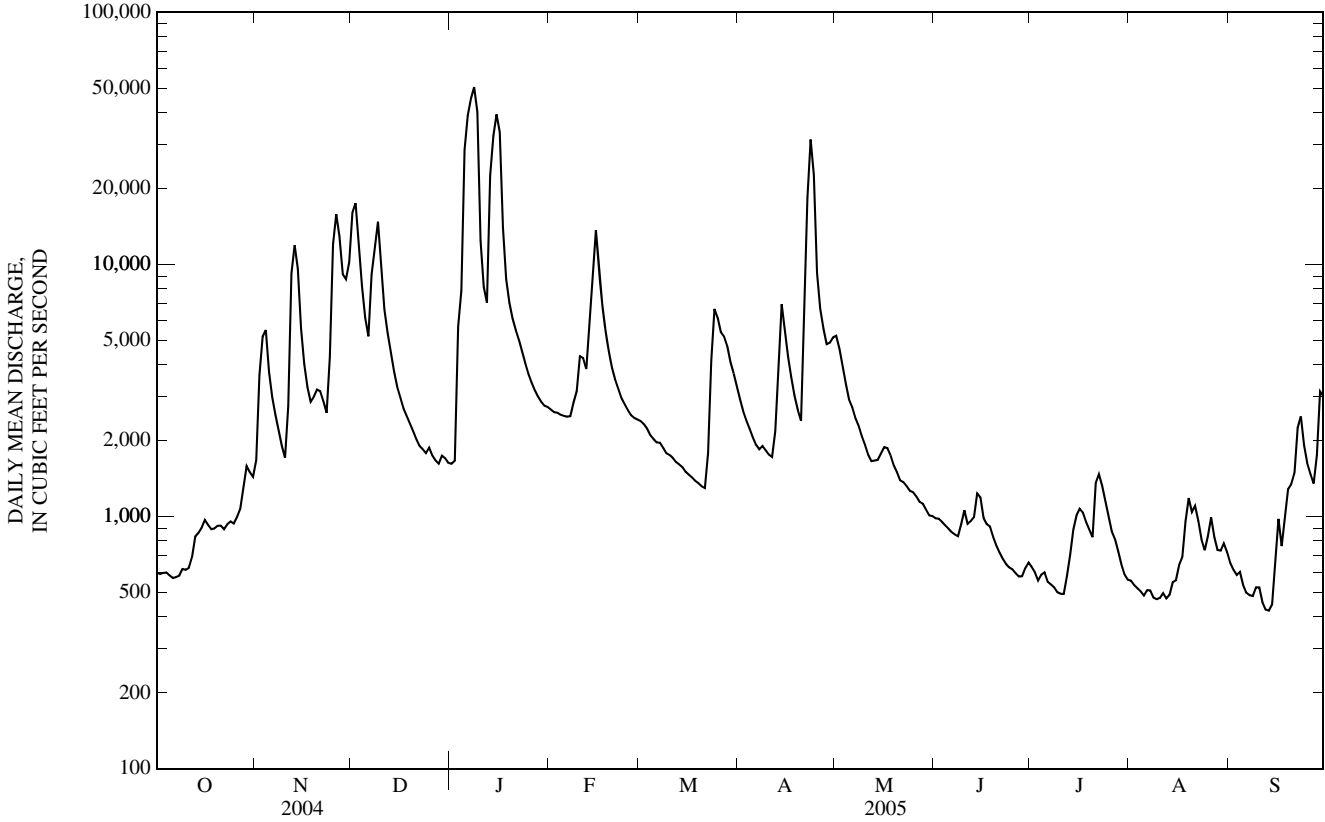
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	599	1,670	16,000	1,620	2,660	2,390	2,920	5,210	985	631	557	655
2	591	3,640	17,500	1,670	2,590	2,330	2,610	4,630	981	601	535	615
3	597	5,170	12,200	5,680	2,580	2,230	2,400	3,960	954	558	519	587
4	600	5,490	8,210	7,870	2,540	2,110	2,230	3,360	924	589	505	603
5	583	3,750	6,140	28,500	2,510	2,030	2,060	2,910	897	601	486	536
6	571	2,970	5,180	38,900	2,490	1,970	1,930	2,720	869	551	511	499
7	575	2,530	9,140	45,500	2,500	1,960	1,850	2,460	849	537	509	488
8	582	2,190	11,800	50,500	2,830	1,870	1,910	2,290	836	523	477	484
9	619	1,910	14,800	40,300	3,140	1,780	1,830	2,090	935	501	470	524
10	615	1,710	9,730	12,400	4,330	1,760	1,760	1,930	1,060	494	476	524
11	626	2,740	6,630	8,150	4,260	1,710	1,720	1,760	935	493	497	457
12	692	9,210	5,360	7,060	3,850	1,650	2,180	1,660	959	581	473	428
13	834	11,900	4,520	22,500	6,320	1,610	4,260	1,670	995	705	489	423
14	862	9,600	3,780	32,300	9,610	1,570	6,950	1,680	1,240	888	549	447
15	903	5,590	3,280	39,400	13,700	1,500	5,450	1,780	1,190	1,010	559	640
16	968	4,030	2,960	33,500	10,000	1,470	4,300	1,880	986	1,070	642	980
17	927	3,260	2,680	14,000	6,910	1,430	3,560	1,870	933	1,040	690	763
18	892	2,850	2,500	8,760	5,470	1,390	3,020	1,750	915	952	957	986
19	896	2,990	2,330	7,060	4,540	1,360	2,650	1,590	831	889	1,180	1,280
20	919	3,190	2,180	6,110	3,900	1,320	2,400	1,500	768	828	1,040	1,340
21	920	3,140	2,030	5,500	3,500	1,300	6,010	1,390	720	1,360	1,100	1,490
22	892	2,870	1,910	5,020	3,210	1,790	18,400	1,370	680	1,470	961	2,250
23	932	2,580	1,850	4,500	2,950	4,160	31,300	1,320	649	1,330	812	2,500
24	956	4,300	1,790	4,050	2,790	6,660	22,700	1,260	628	1,160	735	1,920
25	939	12,000	1,880	3,680	2,640	6,150	9,260	1,250	618	1,010	837	1,630
26	995	15,800	1,750	3,400	2,530	5,390	6,660	1,200	596	874	992	1,480
27	1,070	12,900	1,670	3,170	2,460	5,180	5,570	1,140	579	816	830	1,350
28	1,300	9,140	1,620	2,980	2,430	4,750	4,830	1,130	580	730	737	1,750
29	1,590	8,730	1,740	2,850	---	4,100	4,890	1,070	625	647	733	3,140
30	1,500	10,200	1,700	2,750	---	3,700	5,130	1,010	657	589	783	3,000
31	1,440	---	1,630	2,720	---	3,300	---	1,010	---	562	723	---
MEAN	870	5,602	5,371	14,590	4,259	2,643	5,758	1,995	846	793	689	1,126
MAX	1,590	15,800	17,500	50,500	13,700	6,660	31,300	5,210	1,240	1,470	1,180	3,140
MIN	571	1,670	1,620	1,620	2,430	1,300	1,720	1,010	579	493	470	423
IN.	0.27	1.65	1.64	4.44	1.17	0.80	1.70	0.61	0.25	0.24	0.21	0.33

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

MEAN	1,384	2,513	2,998	3,323	3,869	5,198	6,204	5,462	3,589	1,888	1,199	1,396
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 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	3,781		3,712		3,239	
HIGHEST ANNUAL MEAN					7,407	1985
LOWEST ANNUAL MEAN					751	1954
HIGHEST DAILY MEAN	25,500	Mar 7	50,500	Jan 8	139,000	Dec 6, 1982
LOWEST DAILY MEAN	571	Oct 6	423	Sep 13	196	Aug 27, 1936
ANNUAL SEVEN-DAY MINIMUM	586	Oct 2	470	Sep 8	209	Aug 26, 1936
MAXIMUM PEAK FLOW	---		50,900	Jan 8	145,000	Dec 6, 1982
MAXIMUM PEAK STAGE	---		24.92	Jan 8	42.89	Dec 6, 1982
INSTANTANEOUS LOW FLOW	---		399	Sep 11	196	Aug 27, 1936
ANNUAL RUNOFF (INCHES)	13.59		13.30		11.62	
10 PERCENT EXCEEDS	9,870		8,170		6,770	
50 PERCENT EXCEEDS	2,160		1,720		1,410	
90 PERCENT EXCEEDS	800		580		532	



## 07019072 KIEFER CREEK NEAR BALLWIN, MO

LOCATION.--Lat 38°33'20", long 90°33'05", 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>.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	16	12	2.4	3.4	2.8	2.8	4.3	1.4	1.1	e1.8	1.3
2	1.4	8.7	6.4	6.5	3.2	2.5	2.6	3.7	1.4	1.2	1.7	1.3
3	1.3	5.0	4.5	52	3.2	2.4	2.5	3.5	1.4	1.2	e1.6	1.3
4	1.1	6.2	3.5	97	2.8	2.4	2.3	3.2	1.3	1.4	e1.6	1.3
5	1.0	3.7	3.0	162	2.5	2.3	2.1	3.2	1.3	1.7	e1.5	1.3
6	1.2	2.7	7.5	48	2.4	2.2	2.1	3.1	2.2	1.4	e1.5	1.2
7	1.3	2.1	59	31	7.2	3.4	1.9	3.1	1.9	1.2	e1.4	1.1
8	2.0	1.9	17	16	8.9	2.6	1.7	2.9	1.3	1.1	e1.4	1.1
9	1.9	2.1	12	9.0	7.5	2.2	2.1	2.9	1.8	0.98	e1.3	1.1
10	1.7	2.0	9.6	7.0	5.8	2.2	2.3	2.8	1.6	1.0	e1.3	1.1
11	1.6	54	9.1	7.7	4.8	2.3	3.5	2.8	2.9	1.6	1.9	1.1
12	6.1	16	7.6	50	4.4	2.2	21	2.9	3.9	14	2.7	1.2
13	5.3	6.2	6.6	127	31	1.9	17	2.9	16	7.2	3.3	1.2
14	3.5	4.5	5.4	38	16	1.8	8.9	4.4	7.2	3.9	11	3.5
15	8.4	3.5	4.8	23	9.2	1.6	6.0	3.4	2.6	4.0	8.8	49
16	3.7	3.1	4.5	13	7.0	1.6	5.2	2.9	1.6	3.2	6.6	15
17	2.4	2.8	4.1	10	6.1	1.7	4.9	2.6	1.5	2.4	3.6	7.4
18	7.2	4.1	3.8	8.4	5.4	1.7	4.5	2.5	1.3	2.4	3.8	4.5
19	4.6	11	3.3	7.6	4.8	1.6	4.3	2.5	1.2	2.9	3.9	15
20	2.2	5.4	3.1	7.2	4.8	1.3	4.1	2.5	1.1	2.2	2.5	20
21	1.7	3.5	2.7	6.3	4.4	1.2	9.9	2.2	1.0	e2.0	2.1	4.1
22	1.5	5.8	2.6	5.7	3.8	15	21	3.9	1.1	e1.8	2.0	2.8
23	2.8	4.9	2.4	4.8	3.5	9.9	7.7	2.8	1.1	e1.7	1.9	2.4
24	2.0	58	2.2	4.6	3.6	5.7	5.2	2.2	1.0	e1.6	1.9	2.1
25	1.7	23	2.1	4.4	3.3	8.1	4.5	2.0	1.1	e1.5	13	29
26	2.5	12	1.9	4.1	3.0	5.9	5.3	2.0	1.0	e1.7	14	10
27	8.3	13	1.7	3.4	3.0	4.6	4.1	1.9	1.0	4.4	5.3	3.5
28	3.7	9.0	1.7	3.1	3.2	4.1	4.7	2.4	1.2	2.9	2.8	26
29	2.3	8.9	1.7	3.7	---	3.9	5.6	1.9	1.2	2.4	2.1	8.5
30	2.1	18	1.6	3.9	---	3.5	5.2	2.3	1.2	2.1	2.2	4.3
31	1.8	---	1.6	3.4	---	3.2	---	1.6	---	1.9	1.5	---
MEAN	2.89	10.6	6.74	24.8	6.01	3.48	5.83	2.82	2.19	2.58	3.61	7.42
MAX	8.4	58	59	162	31	15	21	4.4	16	14	14	49
MIN	1.0	1.9	1.6	2.4	2.4	1.2	1.7	1.6	1.0	0.98	1.3	1.1
IN.	0.85	3.02	1.99	7.33	1.60	1.03	1.66	0.83	0.63	0.76	1.07	2.12

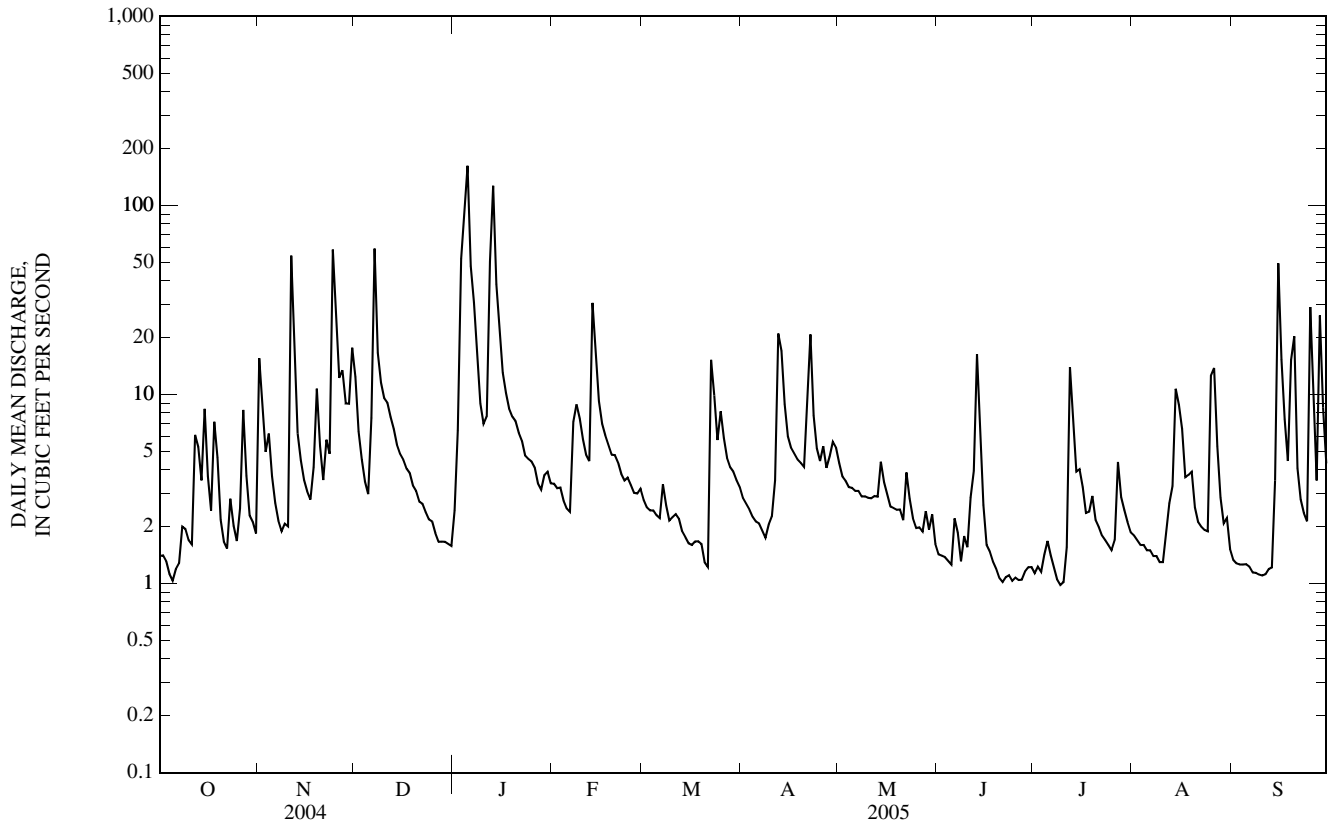
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

MEAN	3.53	5.24	3.46	7.22	6.68	6.68	5.10	8.85	6.74	4.22	2.84	4.20
MAX	6.61	10.7	6.74	24.8	12.5	16.1	7.65	22.6	16.9	12.0	6.29	12.1
(WY)	(1997)	(1997)	(2005)	(2005)	(1999)	(1998)	(1998)	(2004)	(1998)	(2004)	(1998)	(1996)
MIN	1.86	1.35	1.35	1.41	3.14	2.75	1.97	2.82	1.68	1.70	0.96	0.82
(WY)	(2000)	(2000)	(1999)	(2000)	(2003)	(2001)	(2000)	(2005)	(1999)	(1997)	(2003)	(1999)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1996 - 2005
ANNUAL MEAN	7.58	6.59	5.33
HIGHEST ANNUAL MEAN			7.39
LOWEST ANNUAL MEAN			3.11
HIGHEST DAILY MEAN	146	162	251
LOWEST DAILY MEAN	1.0	0.98	0.52
ANNUAL SEVEN-DAY MINIMUM	1.2	1.0	0.63
MAXIMUM PEAK FLOW	---	Unknown	Unknown
MAXIMUM PEAK STAGE	---	6.48	9.04
INSTANTANEOUS LOW FLOW	---	0.98	0.22
ANNUAL RUNOFF (INCHES)	26.40	22.88	18.51
10 PERCENT EXCEEDS	14	12	9.9
50 PERCENT EXCEEDS	3.2	2.9	2.4
90 PERCENT EXCEEDS	1.6	1.3	1.1

e Estimated

07019072 KIEFER CREEK NEAR BALLWIN, MO—Continued



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>.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.73	2.2	24	1.6	5.3	4.5	5.1	9.2	1.6	1.3	0.65	1.6
2	0.76	8.8	15	3.4	5.0	4.2	4.8	8.5	1.6	1.3	0.63	1.6
3	0.90	5.8	12	65	4.9	3.8	4.7	7.7	1.6	1.2	0.63	1.5
4	0.97	6.0	9.4	69	4.9	3.8	4.5	6.9	1.6	1.2	0.58	1.5
5	0.96	4.4	7.8	185	4.9	3.7	4.3	6.3	1.6	1.9	0.53	1.4
6	0.84	3.8	7.9	56	4.9	3.5	4.0	5.9	1.6	1.6	0.53	1.3
7	0.73	3.3	39	23	5.2	3.7	3.8	5.6	1.7	1.3	0.53	1.3
8	0.78	2.7	22	e16	7.1	3.5	3.3	5.2	1.7	1.3	0.53	1.3
9	0.95	2.3	15	e13	7.8	3.2	3.0	4.8	70	1.3	0.53	1.3
10	0.89	3.1	12	11	8.2	3.1	3.0	4.4	25	1.2	0.49	1.3
11	0.82	23	10	9.8	7.9	3.0	2.8	4.2	21	1.3	0.45	1.3
12	2.5	10	8.8	21	7.7	3.0	5.6	3.8	14	4.8	0.45	1.3
13	3.6	5.1	7.0	145	19	2.8	13	3.6	7.6	3.3	1.7	1.4
14	2.1	3.3	6.8	36	16	2.5	12	3.5	7.1	2.3	5.7	1.5
15	3.9	2.2	6.3	20	12	2.1	10	3.4	5.0	2.8	2.9	24
16	2.1	1.8	5.3	e15	9.7	2.1	9.0	3.2	4.0	2.0	3.8	6.2
17	1.4	1.4	4.6	e12	8.4	2.2	8.5	2.8	3.4	1.5	2.0	2.4
18	2.1	2.1	4.9	e11	7.4	2.3	8.0	2.8	3.2	1.5	3.2	1.4
19	2.8	4.7	3.9	e9.6	6.7	2.2	7.4	2.8	2.8	1.5	3.6	1.1
20	1.7	3.1	3.4	e8.8	6.6	2.0	6.9	2.7	2.5	1.3	1.8	4.0
21	1.2	2.1	3.4	e7.8	6.1	1.9	16	2.5	2.3	1.1	1.2	1.9
22	1.1	2.8	2.7	e7.1	5.3	7.4	72	2.5	2.1	1.1	0.90	1.1
23	2.1	2.5	2.5	e7.2	5.1	14	24	2.5	2.0	1.1	0.77	0.83
24	2.7	44	2.2	7.0	5.3	11	17	2.3	1.9	1.1	0.73	0.65
25	e1.1	23	2.1	6.8	5.1	11	14	2.1	1.8	0.96	4.7	5.6
26	e1.6	15	2.0	6.5	4.9	9.8	14	1.8	1.8	0.96	5.9	6.4
27	e5.2	12	1.7	6.0	4.7	8.5	11	1.8	1.6	0.96	3.9	2.9
28	e2.4	9.9	1.7	5.5	4.7	7.8	10	1.8	1.6	0.96	2.4	10
29	e1.5	9.5	1.8	5.4	---	7.0	10	1.8	1.4	0.86	1.8	12
30	e1.4	20	1.8	5.5	---	6.5	10	1.7	1.3	0.84	1.8	6.9
31	e1.3	---	1.8	5.6	---	5.8	---	1.6	---	0.75	1.8	---
MEAN	1.71	8.00	8.03	25.9	7.17	4.90	10.7	3.86	6.55	1.50	1.84	3.57
MAX	5.2	44	39	185	19	14	72	9.2	70	4.8	5.9	24
MIN	0.73	1.4	1.7	1.6	4.7	1.9	2.8	1.6	1.3	0.75	0.45	0.65
IN.	0.26	1.17	1.21	3.91	0.98	0.74	1.57	0.58	0.96	0.23	0.28	0.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	2002	2003	2004	2005			
MEAN	1.67	3.30	3.71	8.22	8.19	10.5	9.57	10.6	7.11	3.34	2.24	1.72
MAX	3.22	8.08	10.4	25.9	21.5	30.5	17.8	25.3	16.7	8.27	5.75	3.77
(WY)	(2002)	(2004)	(2002)	(2005)	(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)

SUMMARY STATISTICS

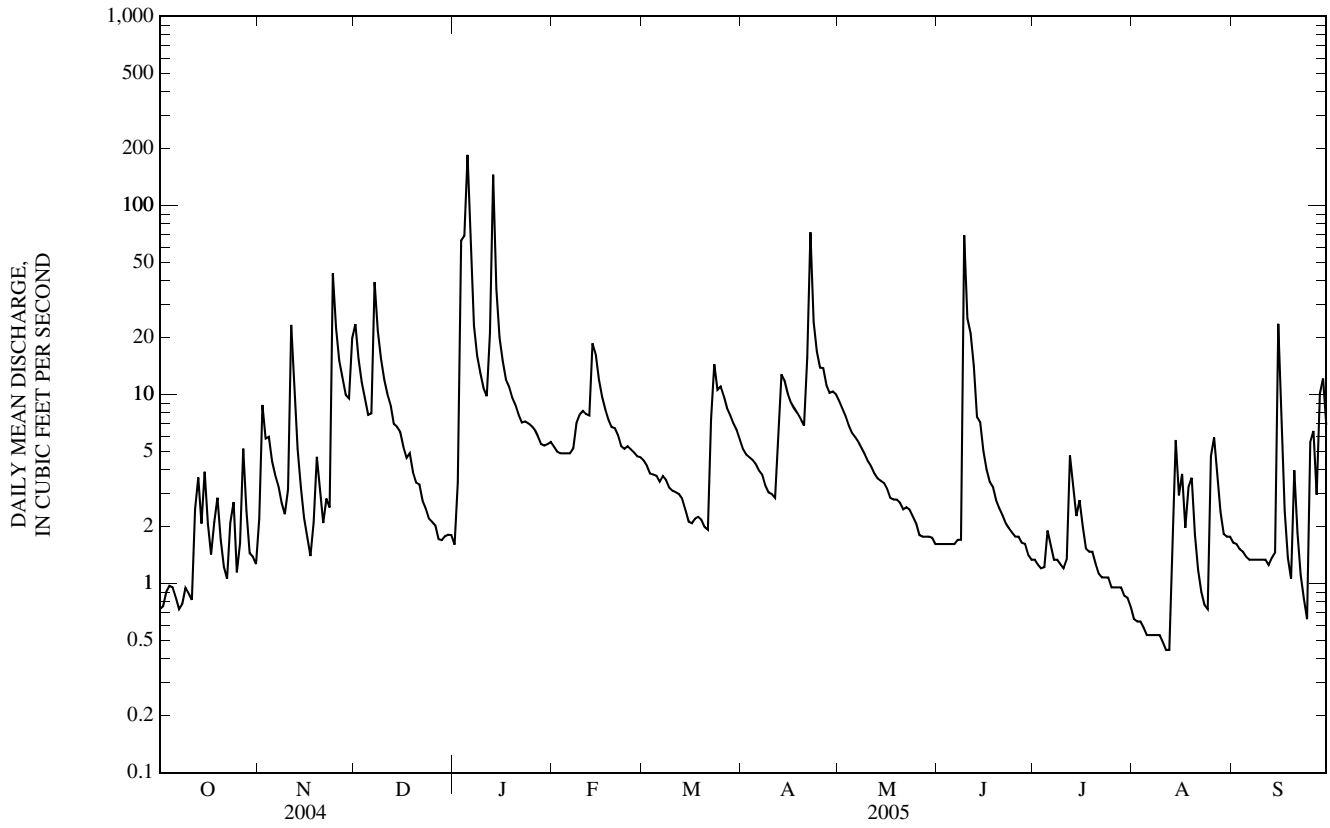
	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1997 - 2005
ANNUAL MEAN	7.78	6.97	5.85
HIGHEST ANNUAL MEAN			9.20
LOWEST ANNUAL MEAN			2.61
HIGHEST DAILY MEAN	104	185	208
LOWEST DAILY MEAN	0.54	0.45	0.29
ANNUAL SEVEN-DAY MINIMUM	0.66	0.50	0.29
MAXIMUM PEAK FLOW	---	685 <sup>a</sup>	685 <sup>a</sup>
MAXIMUM PEAK STAGE	---	9.85	9.85
INSTANTANEOUS LOW FLOW	---	0.45	0.29
ANNUAL RUNOFF (INCHES)	13.90	12.42	10.43
10 PERCENT EXCEEDS	17	13	14
50 PERCENT EXCEEDS	4.4	3.3	2.0
90 PERCENT EXCEEDS	1.1	1.1	0.67

e Estimated

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



07019090 WILLIAMS CREEK NEAR PEERLESS PARK, MO—Continued



07019120 FISHPOT CREEK AT VALLEY PARK, MO

LOCATION.--Lat 38°33'06", 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>.

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.--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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	35	2.3	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.00	0.19
2	0.00	0.68	0.03	12	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.10
3	0.00	0.17	0.00	179	0.01	0.00	0.00	0.07	0.00	0.00	0.00	0.03
4	0.00	0.06	0.00	328	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.01
5	0.00	0.01	0.01	476	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00
6	0.00	0.00	11	17	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00
7	0.00	0.00	152	2.4	15	0.00	0.00	0.05	0.00	0.00	0.00	0.00
8	0.00	0.00	0.14	1.5	1.4	0.00	0.00	0.04	0.00	0.00	0.00	0.00
9	0.00	0.00	0.01	1.0	0.15	0.00	0.00	0.03	8.8	0.00	0.00	0.00
10	0.00	0.00	0.00	0.77	0.03	0.00	0.00	0.02	0.62	0.00	0.00	0.00
11	0.00	183	0.00	3.8	0.01	0.00	0.00	0.01	15	0.14	0.00	0.00
12	0.47	3.4	0.00	e227	0.00	0.00	108	0.01	0.38	1.6	0.00	0.00
13	0.01	0.29	0.00	e480	81	0.00	13	0.00	33	0.32	44	0.00
14	0.44	0.10	0.00	15	0.35	0.00	0.33	0.08	1.3	0.40	8.7	0.34
15	0.22	0.05	0.00	e4.0	0.03	0.00	0.21	0.03	0.20	22	7.0	217
16	0.23	0.02	0.00	e3.0	0.01	0.00	0.17	0.00	0.15	0.51	0.59	10
17	0.05	0.01	0.00	e2.0	0.00	0.00	0.13	0.00	0.12	0.18	0.10	1.7
18	2.1	0.90	0.00	e1.3	0.00	0.00	0.09	0.00	0.09	0.18	0.14	1.3
19	0.06	4.3	0.00	e1.1	0.00	0.00	0.07	0.00	0.05	0.14	0.04	15
20	0.00	0.31	0.00	e1.0	0.00	0.00	0.08	0.00	0.02	0.10	0.03	99
21	0.00	0.11	0.00	e0.90	0.00	0.00	0.59	0.00	0.00	0.07	0.02	1.1
22	0.00	0.50	0.00	e0.80	0.00	43	40	0.05	0.00	0.04	0.01	0.77
23	0.03	0.11	0.00	e0.65	0.00	0.15	0.39	0.01	0.00	0.01	0.00	0.65
24	0.00	201	0.00	e0.50	0.00	0.00	0.23	0.00	0.00	0.00	0.01	0.52
25	0.00	2.9	0.00	0.42	0.00	0.22	0.20	0.00	0.00	0.00	69	53
26	0.21	0.15	0.00	0.26	0.00	0.00	0.26	0.00	0.00	0.00	44	3.3
27	0.02	4.0	0.00	0.09	0.00	0.00	0.15	0.00	0.00	0.12	1.2	0.86
28	0.00	0.06	0.00	0.03	0.00	0.00	0.26	0.00	0.00	0.02	0.53	102
29	0.00	3.9	0.00	0.19	---	0.00	0.18	0.00	0.00	0.00	0.38	3.8
30	0.01	27	0.00	0.03	---	0.00	0.13	0.00	0.00	0.00	0.32	0.77
31	0.00	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.26	---
MEAN	0.12	15.6	5.34	56.8	3.50	1.40	5.48	0.03	1.99	0.83	5.69	17.0
MAX	2.1	201	152	480	81	43	108	0.10	33	22	69	217
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IN.	0.01	1.82	0.64	6.83	0.38	0.17	0.64	0.00	0.23	0.10	0.68	1.99

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

MEAN	2.13	8.07	2.40	11.6	8.62	6.02	3.78	13.0	10.8	6.86	2.41	7.25
MAX	8.26	22.4	9.44	56.8	19.0	21.5	6.23	41.4	31.5	35.9	5.69	32.6
(WY)	(2002)	(2004)	(2002)	(2005)	(2000)	(1998)	(1998)	(2004)	(2000)	(2004)	(2005)	(2003)
MIN	0.12	0.01	0.16	0.06	0.37	0.78	0.26	0.03	0.80	0.83	0.02	0.00
(WY)	(2005)	(2003)	(1999)	(2003)	(2003)	(2000)	(2000)	(2005)	(1999)	(1997)	(2003)	(2004)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

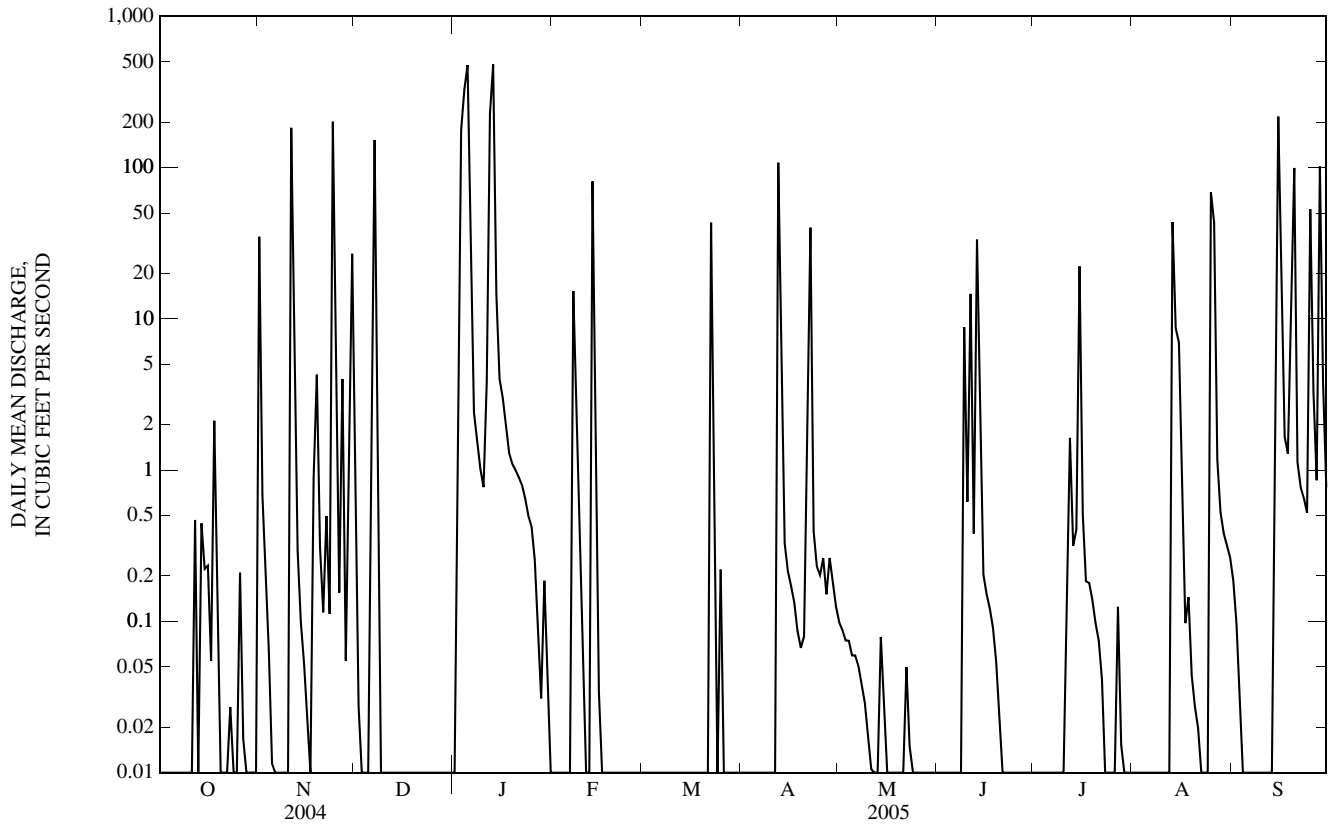
FOR 2005 WATER YEAR

WATER YEARS 1996 - 2005

ANNUAL MEAN	11.0	9.53	6.82
HIGHEST ANNUAL MEAN			11.3
LOWEST ANNUAL MEAN			3.38
HIGHEST DAILY MEAN	496	Jul 30	817
LOWEST DAILY MEAN	0.00	Many Days	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jul 14, Aug 9, 30, Dec 10	0.00
MAXIMUM PEAK FLOW	---	Unknown	Unknown
MAXIMUM PEAK STAGE	---	9.30	10.08
INSTANTANEOUS LOW FLOW	---	0.00	0.00
ANNUAL RUNOFF (INCHES)	15.63	13.50	9.68
10 PERCENT EXCEEDS	4.6	4.1	4.7
50 PERCENT EXCEEDS	0.14	0.01	0.18
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

07019120 FISHPOT CREEK AT VALLEY PARK, MO—Continued



## 07019130 MERAMEC RIVER AT VALLEY PARK, MO

LOCATION.--Lat 38°32'48", long 90°29'06", SW<sup>1</sup>/<sub>4</sub> SW<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub> sec. 17, T.4 N., R.5 E., St. Louis County, Hydrologic Unit 07140102, 0.5 mi north of I-44, 0.7 mile downstream of Highway 141 at river access on River Drive and at river mi<sup>2</sup>1.4.

DRAINAGE AREA.--3,850 mi<sup>2</sup>.

PERIOD OF RECORD.--Oct. 1, 2004 to current year.

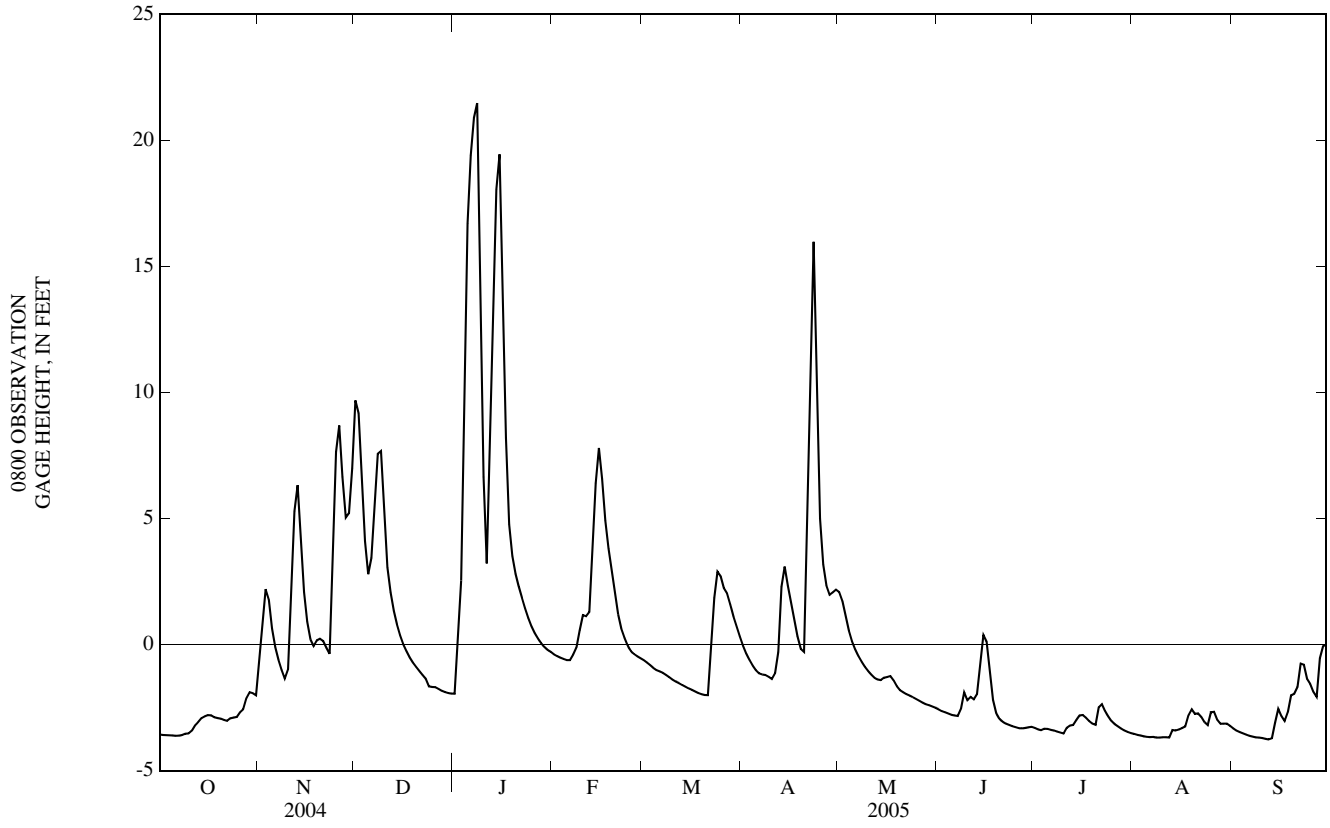
GAGE.--Water stage recorder. Datum of gage

REMARKS.--U.S. Army Corps of Engineers satellite telemeter at station.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY OBSERVATION AT 0800 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-3.56	-2.04	7.76	-1.95	-0.31	-0.56	0.19	2.19	-2.52	-3.25	-3.52	-3.26
2	-3.57	0.23	10.65	-1.95	-0.42	-0.64	-0.16	2.03	-2.59	-3.33	-3.55	-3.36
3	-3.59	1.29	8.44	1.70	-0.47	-0.74	-0.45	1.58	-2.66	-3.38	-3.59	-3.44
4	-3.59	2.65	5.39	2.96	-0.54	-0.85	-0.69	0.91	-2.70	-3.40	-3.61	-3.49
5	-3.60	1.35	3.47	12.91	-0.59	-0.96	-0.90	0.39	-2.75	-3.31	-3.65	-3.54
6	-3.61	0.28	2.46	18.60	-0.63	-1.04	-1.07	0.01	-2.80	-3.36	-3.67	-3.59
7	-3.62	-0.28	3.93	19.81	-0.61	-1.08	-1.18	-0.29	-2.82	-3.39	-3.67	-3.63
8	-3.61	-0.75	5.90	21.45	-0.27	-1.14	-1.19	-0.54	-2.83	-3.42	-3.66	-3.66
9	-3.57	-1.13	8.40	21.49	-0.03	-1.24	-1.21	-0.75	-2.40	-3.47	-3.70	-3.69
10	-3.52	-1.46	7.31	11.76	0.87	-1.32	-1.31	-0.94	-1.64	-3.50	-3.68	-3.68
11	-3.52	-0.75	3.90	4.09	1.32	-1.42	-1.39	-1.09	-2.48	-3.54	-3.67	-3.72
12	-3.36	3.27	2.65	2.78	1.03	-1.49	-1.01	-1.23	-1.87	-3.18	-3.68	-3.75
13	-3.13	6.30	1.78	9.47	1.42	-1.55	0.06	-1.35	-2.32	-3.23	-3.69	-3.77
14	-3.04	6.33	1.13	16.21	4.53	-1.62	3.41	-1.40	-1.78	-3.16	-3.24	-3.69
15	-2.86	3.26	0.64	18.98	7.34	-1.69	2.93	-1.41	-0.22	-2.90	-3.49	-2.80
16	-2.84	1.50	0.22	19.68	8.03	-1.76	2.03	-1.26	0.68	-2.77	-3.31	-2.42
17	-2.78	0.60	-0.10	12.62	5.84	-1.81	1.45	-1.30	-0.16	-2.80	-3.31	-3.04
18	-2.82	0.02	-0.35	5.98	4.46	-1.88	0.74	-1.22	-1.60	-2.95	-3.22	-3.03
19	-2.91	-0.09	-0.59	4.17	3.49	-1.94	0.13	-1.52	-2.48	-3.07	-2.60	-2.50
20	-2.91	0.29	-0.78	3.18	2.61	-1.98	-0.32	-1.71	-2.83	-3.17	-2.55	-1.78
21	-2.95	0.20	-0.94	2.62	1.73	-2.01	-0.28	-1.86	-3.00	-3.19	-2.85	-2.04
22	-3.01	0.11	-1.10	2.15	0.95	-2.00	8.23	-1.91	-3.09	-2.14	-2.67	-1.51
23	-3.03	-0.24	-1.26	1.71	0.48	0.71	14.27	-1.99	-3.16	-2.47	-2.97	-0.38
24	-2.87	-0.43	-1.40	1.30	0.17	2.42	16.83	-2.04	-3.20	-2.72	-3.13	-1.01
25	-2.90	5.52	-1.78	0.93	-0.14	3.13	7.24	-2.11	-3.25	-2.92	-3.22	-1.53
26	-2.85	8.70	-1.63	0.62	-0.32	2.50	3.88	-2.18	-3.29	-3.10	-2.42	-1.58
27	-2.60	8.68	-1.72	0.38	-0.41	2.11	2.82	-2.25	-3.32	-3.18	-2.79	-2.03
28	-2.54	5.64	-1.78	0.17	-0.49	1.99	2.10	-2.33	-3.33	-3.27	-3.08	-2.10
29	-1.92	4.74	-1.86	0.00	---	1.40	1.91	-2.38	-3.29	-3.36	-3.17	0.24
30	-1.88	5.46	-1.90	-0.14	---	0.98	2.15	-2.42	-3.28	-3.43	-3.12	-0.21
31	-1.95	---	-1.93	-0.24	---	0.60	---	-2.47	---	-3.48	-3.14	---
MEAN	-3.05	1.98	1.77	6.89	1.39	-0.48	1.97	-1.06	-2.43	-3.16	-3.28	-2.60
MAX	-1.88	8.70	10.65	21.49	8.03	3.13	16.83	2.19	0.68	-2.14	-2.42	0.24
MIN	-3.62	-2.04	-1.93	-1.95	-0.63	-2.01	-1.39	-2.47	-3.33	-3.54	-3.70	-3.77

07019130 MERAMEC RIVER AT VALLEY PARK, MO—Continued



## 07019150 GRAND GLAIZE CREEK NEAR MANCHESTER, MO

LOCATION.--Lat 38°35'34", 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.--Records fair except for estimated daily discharges and discharges above 900 ft<sup>3</sup>/s and below 0.50 ft<sup>3</sup>/s, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.28	26	7.5	3.0	0.93	0.77	0.70	1.1	0.17	0.06	0.03	0.21
2	0.33	2.5	2.7	13	1.1	0.62	0.70	0.83	0.14	0.03	0.02	0.20
3	0.35	6.9	1.7	76	1.7	0.61	0.72	0.73	0.15	0.02	0.01	0.13
4	0.28	6.0	1.3	150	0.85	0.62	0.73	0.69	0.14	0.67	e0.27	0.11
5	0.27	1.8	7.0	159	0.75	0.55	0.72	0.58	0.12	0.35	e0.82	0.12
6	0.27	1.1	20	6.6	2.8	0.54	0.80	0.55	1.8	0.15	e0.30	0.15
7	0.28	0.78	55	1.7	17	3.1	0.87	0.53	0.35	0.08	e0.14	0.11
8	2.0	0.60	3.2	1.7	5.6	0.64	0.80	0.56	0.37	0.03	e0.13	0.17
9	0.83	0.58	2.4	1.1	8.6	0.51	0.76	0.55	8.7	0.02	e0.12	0.19
10	0.40	0.56	2.4	0.72	2.6	0.49	1.0	0.49	1.3	0.00	e2.2	0.15
11	1.3	80	3.2	3.9	1.8	0.47	4.8	0.43	14	9.3	e0.56	0.14
12	14	8.2	1.8	138	1.6	0.46	144	0.43	1.3	14	e0.54	0.12
13	1.7	2.8	1.4	146	51	0.41	17	0.50	15	1.4	e46	0.13
14	9.1	1.8	1.3	8.2	5.6	0.39	3.8	4.1	2.6	0.93	e7.1	7.0
15	3.3	1.3	1.2	3.6	2.9	0.38	2.5	0.62	0.46	14	e5.8	105
16	0.59	1.1	1.2	2.7	2.0	0.39	2.1	0.37	0.28	1.4	e2.2	6.7
17	0.53	1.0	1.1	1.9	1.6	0.40	1.9	0.34	0.22	0.53	e0.70	3.3
18	14	15	1.1	1.6	1.3	0.41	1.7	0.40	0.19	2.8	e3.0	2.1
19	1.7	14	0.93	3.7	1.3	0.40	1.7	0.30	0.20	0.93	e0.82	36
20	0.65	3.1	0.90	3.1	1.4	0.37	2.9	2.3	0.24	0.34	e0.30	24
21	0.54	1.8	0.97	2.5	1.1	0.40	9.8	0.39	0.21	0.21	e0.24	1.6
22	0.48	12	0.85	1.4	0.92	34	22	3.7	0.17	0.16	e0.52	1.1
23	5.0	2.9	0.64	0.96	0.94	7.4	4.3	0.64	0.19	0.10	e0.56	0.86
24	0.74	98	0.54	1.0	1.7	4.0	1.6	0.57	0.19	0.07	e0.31	0.74
25	0.41	10	0.65	1.0	0.94	6.6	1.7	0.26	0.13	1.5	e60	32
26	7.4	7.8	0.81	1.1	0.78	1.8	5.0	0.23	0.14	2.3	e13	3.7
27	8.0	13	0.74	0.98	0.78	1.3	1.4	0.43	0.16	2.6	e1.2	1.5
28	0.85	2.8	0.89	0.80	1.5	1.0	5.7	0.59	0.17	0.28	e0.81	54
29	0.67	13	1.0	4.3	---	0.88	5.8	0.24	0.13	0.10	1.1	4.3
30	2.0	27	0.99	2.1	---	0.77	2.2	0.44	0.09	0.05	1.2	1.6
31	1.4	---	1.0	1.3	---	0.69	---	0.24	---	0.03	0.38	---
MEAN	2.57	12.1	4.08	24.0	4.32	2.30	8.32	0.78	1.64	1.76	4.85	9.58
MAX	14	98	55	159	51	34	144	4.1	15	14	60	105
MIN	0.27	0.56	0.54	0.72	0.75	0.37	0.70	0.23	0.09	0.00	0.01	0.11
IN.	0.58	2.66	0.92	5.43	0.88	0.52	1.82	0.18	0.36	0.40	1.10	2.10

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

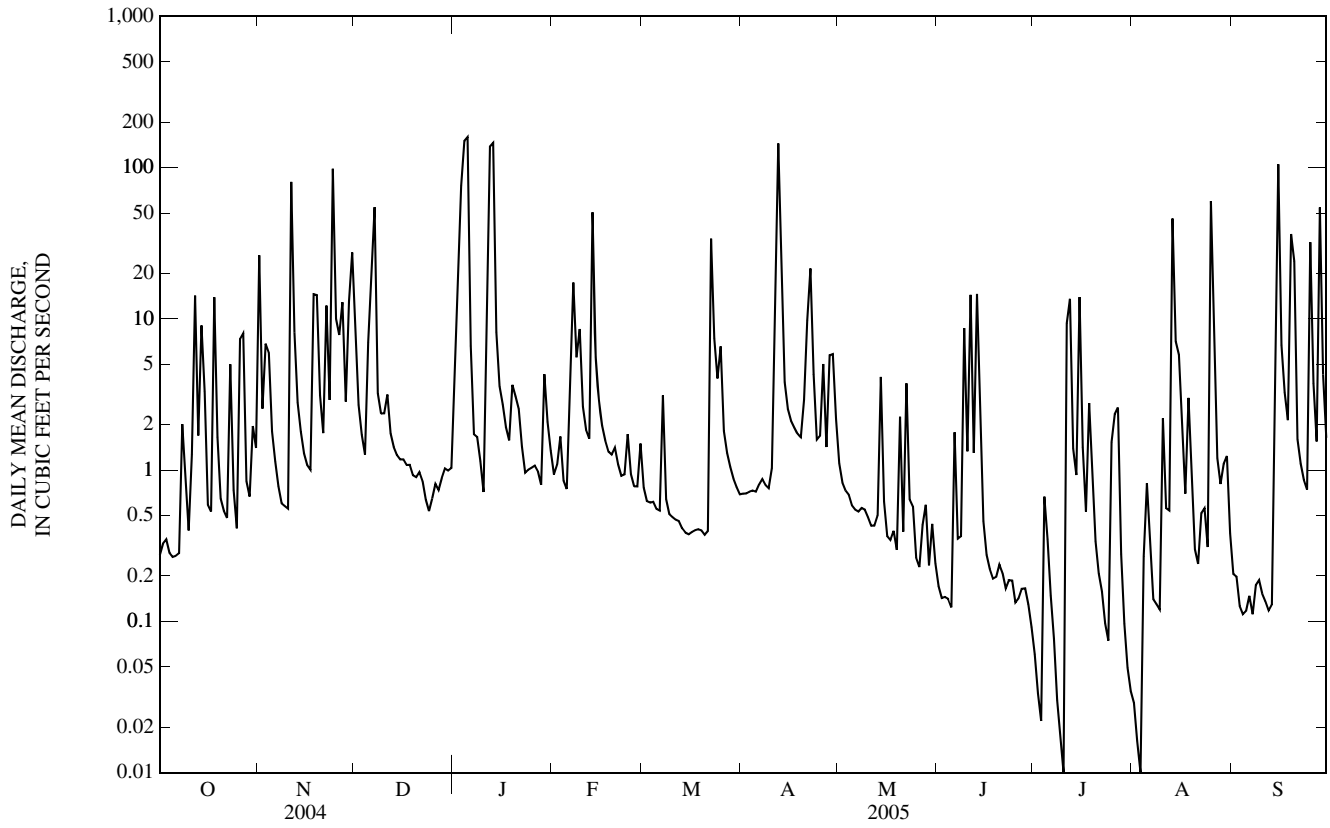
MEAN	3.32	5.07	2.66	7.69	6.13	7.02	5.77	10.3	9.07	4.44	2.96	3.81
MAX	6.39	12.1	7.17	24.0	12.6	19.9	9.61	22.3	27.7	15.2	5.92	14.0
(WY)	(2003)	(2005)	(2002)	(2005)	(1999)	(1998)	(1999)	(2004)	(2000)	(2004)	(1998)	(2003)
MIN	1.39	1.03	0.38	0.77	1.43	2.30	2.92	0.78	1.64	0.43	0.78	0.27
(WY)	(2000)	(2000)	(1999)	(2003)	(2002)	(2005)	(2000)	(2005)	(2005)	(1997)	(2001)	(2004)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1997 - 2005
ANNUAL MEAN	7.14	6.36	5.81
HIGHEST ANNUAL MEAN			7.66
LOWEST ANNUAL MEAN			3.41
HIGHEST DAILY MEAN	207	Jul 5	159
LOWEST DAILY MEAN	0.02	Sep 22	0.00
ANNUAL SEVEN-DAY MINIMUM	0.06	Sep 21	0.07
MAXIMUM PEAK FLOW	---	Unknown	Jan 12
MAXIMUM PEAK STAGE	---	7.86	Jan 12
INSTANTANEOUS LOW FLOW	---	0.00	Jul 2-4,8-11,Aug 1-3
ANNUAL RUNOFF (INCHES)	19.09	16.96	15.50
10 PERCENT EXCEEDS	12	12	11
50 PERCENT EXCEEDS	1.0	0.98	0.63
90 PERCENT EXCEEDS	0.15	0.16	0.13

e Estimated

07019150 GRAND GLAIZE CREEK NEAR MANCHESTER, MO—Continued



## 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.--No estimated daily discharges. Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.13	24	7.4	2.0	1.2	0.72	0.89	1.00	0.14	0.07	0.10	0.39
2	0.16	2.5	4.1	10	1.2	0.63	0.74	0.83	0.16	0.07	0.12	0.36
3	0.13	2.2	3.1	113	1.4	0.63	0.68	0.66	0.15	0.09	0.10	0.33
4	0.12	2.1	2.6	193	1.1	0.65	0.67	0.57	0.13	0.45	0.10	0.32
5	0.11	1.1	3.9	298	1.0	0.57	0.64	0.52	0.13	0.27	0.12	0.29
6	0.12	0.89	14	14	1.3	0.54	0.63	0.47	1.4	0.09	0.25	0.28
7	0.13	0.76	81	5.7	6.8	1.2	0.56	0.40	0.31	0.07	0.15	0.28
8	0.46	0.73	4.7	4.8	3.4	0.60	0.53	0.38	0.38	0.06	0.13	0.27
9	0.44	0.69	3.3	4.0	5.0	0.51	0.52	0.36	38	0.10	0.10	0.28
10	0.22	0.74	2.7	3.5	2.0	0.49	0.52	0.39	2.5	0.12	0.08	0.32
11	0.43	68	3.2	7.0	1.6	0.47	1.6	0.32	19	5.6	0.27	0.32
12	12	4.1	2.3	44	1.5	0.46	173	0.33	1.4	6.6	0.22	0.26
13	0.84	1.7	2.4	322	40	0.43	15	0.23	4.3	0.85	35	0.26
14	4.8	1.3	2.3	8.2	5.1	0.44	2.7	1.4	1.5	1.4	7.0	1.9
15	1.6	1.0	2.2	4.6	3.0	0.44	1.8	0.26	0.39	3.7	5.5	100
16	0.48	0.82	2.1	3.8	2.1	0.43	1.3	0.17	0.27	0.29	1.8	2.0
17	0.29	0.67	1.9	3.3	1.8	0.44	1.1	0.19	0.19	0.18	0.65	0.61
18	6.2	5.1	1.8	2.7	1.5	0.45	0.92	0.15	0.16	1.4	2.6	0.43
19	0.51	6.4	1.7	2.7	1.4	0.44	0.82	0.14	0.12	0.81	0.69	9.9
20	0.20	1.6	1.6	2.5	1.4	0.44	0.96	1.6	0.10	0.41	0.37	59
21	0.17	1.1	1.6	2.2	1.2	0.69	7.6	0.23	0.09	0.27	0.28	0.83
22	0.23	4.6	1.5	2.0	1.0	20	26	1.2	0.10	0.19	1.7	0.57
23	3.8	1.4	1.5	2.0	0.96	7.5	3.2	0.28	0.09	0.18	0.78	0.49
24	0.31	115	1.5	2.0	1.1	2.4	1.5	0.16	0.07	0.20	0.48	0.55
25	0.18	8.1	1.5	2.0	0.90	3.8	1.2	0.15	0.06	0.30	42	44
26	6.1	4.4	1.4	1.8	0.77	1.6	3.3	0.14	0.07	0.29	18	2.7
27	1.8	7.1	1.4	1.4	0.73	1.3	1.3	0.17	0.07	1.3	1.3	0.94
28	0.52	3.4	1.3	1.3	0.94	1.2	3.4	0.23	0.05	0.36	0.67	78
29	0.55	9.2	1.2	2.9	---	1.1	3.5	0.16	0.05	0.26	0.48	2.6
30	2.9	20	1.2	1.9	---	0.90	1.8	0.18	0.05	0.16	0.46	1.0
31	1.7	---	1.4	1.4	---	0.91	---	0.18	---	0.13	0.46	---
MEAN	1.54	10.0	5.28	34.5	3.26	1.69	8.61	0.43	2.38	0.85	3.93	10.3
MAX	12	115	81	322	40	20	173	1.6	38	6.6	42	100
MIN	0.11	0.67	1.2	1.3	0.73	0.43	0.52	0.14	0.05	0.06	0.08	0.26
IN.	0.35	2.20	1.20	7.83	0.67	0.38	1.89	0.10	0.52	0.19	0.89	2.27

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

MEAN	2.22	4.76	2.67	8.78	5.34	5.98	4.95	10.1	9.36	5.13	2.23	3.74
MAX	5.06	14.9	5.91	34.5	16.2	19.4	8.61	25.1	19.2	20.3	3.93	17.5
(WY)	(2002)	(2004)	(2002)	(2005)	(1999)	(1998)	(2005)	(2004)	(2000)	(2004)	(2005)	(2003)
MIN	1.19	0.71	0.75	0.83	1.60	1.69	1.43	0.43	2.38	0.27	0.40	0.20
(WY)	(1998)	(2000)	(2001)	(2003)	(2002)	(2005)	(2000)	(2005)	(2005)	(2002)	(2001)	(1999)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

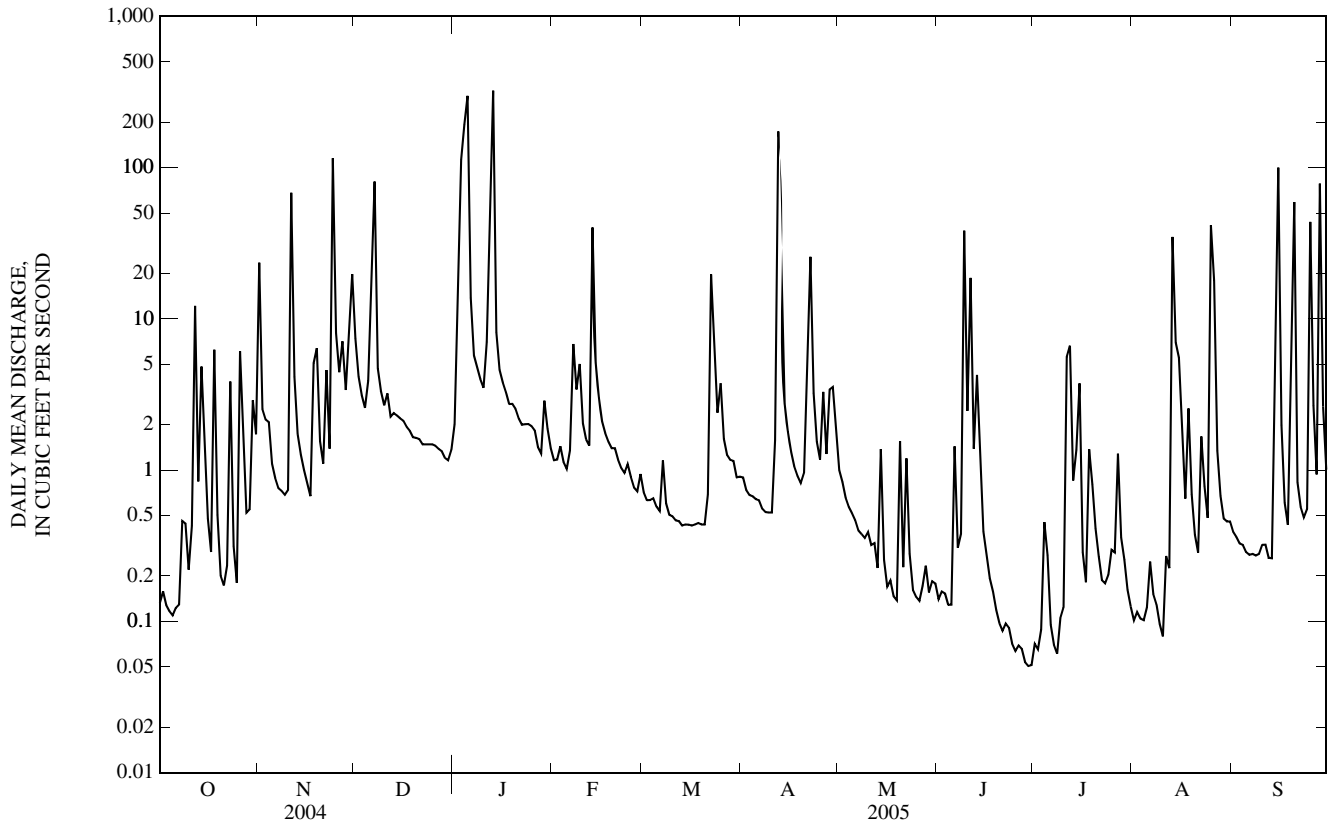
## FOR 2005 WATER YEAR

## WATER YEARS 1997 - 2005

ANNUAL MEAN	8.00	6.92	5.51
HIGHEST ANNUAL MEAN			8.21
LOWEST ANNUAL MEAN			2.46
HIGHEST DAILY MEAN	272	Jul 30	322
LOWEST DAILY MEAN	0.11	Oct 5	0.05
ANNUAL SEVEN-DAY MINIMUM	0.13	Oct 1	0.06
MAXIMUM PEAK FLOW	---		Unknown
MAXIMUM PEAK STAGE	---		15.95
INSTANTANEOUS LOW FLOW	---		0.03
ANNUAL RUNOFF (INCHES)	21.43		18.50
10 PERCENT EXCEEDS	7.5		7.0
50 PERCENT EXCEEDS	1.4		0.94
90 PERCENT EXCEEDS	0.43		0.13



07019175 SUGAR CREEK AT KIRKWOOD, MO—Continued



## 07019185 GRAND GLAIZE CREEK NEAR VALLEY PARK, MO

LOCATION.--Lat 38°33'58", long 90°28'19", 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.--No estimated daily discharges. Water-discharge records fair except discharges below 0.5 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 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	126	41	12	8.0	6.1	6.3	6.3	1.1	0.72	0.51	1.6
2	1.4	14	17	39	8.0	5.4	5.8	5.5	1.1	0.77	0.55	1.3
3	1.2	12	12	472	11	6.3	5.6	4.5	1.3	0.72	0.64	1.1
4	1.1	16	9.7	601	8.1	5.7	5.5	3.8	1.0	1.9	1.5	1.2
5	1.1	5.3	20	1,260	7.7	4.8	5.3	3.7	0.97	2.4	4.7	1.0
6	0.78	3.8	46	95	10	4.8	5.2	3.6	6.8	0.89	2.4	1.3
7	0.80	3.1	338	31	57	12	5.4	3.4	2.6	0.69	1.1	1.5
8	4.8	2.8	24	27	29	5.6	5.5	3.1	1.2	0.60	0.93	1.2
9	4.7	2.9	17	21	30	4.8	5.4	3.0	135	0.58	0.74	0.98
10	2.1	3.5	14	17	12	5.2	5.3	2.9	16	0.79	9.9	1.1
11	2.9	336	18	41	8.2	5.2	15	2.7	130	25	4.4	1.1
12	66	29	11	104	7.2	5.5	569	2.5	12	52	3.1	1.3
13	9.8	9.9	8.9	1,360	226	5.0	152	2.4	42	8.9	162	1.1
14	32	6.2	8.2	55	31	4.9	21	13	15	8.1	55	17
15	19	4.8	7.8	28	15	4.6	13	2.6	2.6	59	41	349
16	2.8	4.3	7.7	20	11	4.8	9.6	1.6	1.4	8.6	18	21
17	2.6	4.1	7.3	15	9.0	4.7	7.7	1.7	1.1	3.1	5.3	7.1
18	51	33	7.3	13	8.3	5.1	7.2	1.8	0.92	9.3	17	4.1
19	7.1	48	6.5	17	7.9	4.9	7.5	2.0	0.82	7.0	6.7	15
20	2.3	9.7	5.9	16	8.6	4.3	9.9	8.9	0.75	2.6	2.4	233
21	2.0	6.1	6.4	14	7.3	5.0	34	2.5	0.78	1.6	1.6	8.3
22	2.9	31	5.8	11	6.4	131	123	12	0.78	1.1	3.1	5.0
23	20	8.9	5.0	9.8	6.2	40	21	2.9	0.76	0.93	3.8	3.6
24	3.3	454	4.4	10	10	15	8.9	1.9	0.77	0.82	1.8	3.4
25	2.2	48	4.6	12	6.8	29	6.9	1.9	0.82	1.8	184	191
26	33	26	5.1	13	5.6	11	20	1.6	0.73	4.4	99	23
27	27	45	4.7	9.6	5.5	8.0	8.1	4.0	0.67	7.8	12	8.1
28	5.0	16	5.2	7.9	8.4	7.0	20	2.5	0.64	1.7	4.5	250
29	6.1	48	5.8	18	---	6.3	24	1.5	0.54	0.98	2.7	23
30	14	115	5.7	13	---	5.9	14	1.5	0.51	0.66	4.7	8.3
31	6.5	---	5.6	9.5	---	5.9	---	1.5	---	0.58	2.2	---
MEAN	10.9	49.1	22.1	141	20.3	12.1	38.2	3.64	12.7	6.97	21.2	39.5
MAX	66	454	338	1,360	226	131	569	13	135	59	184	349
MIN	0.78	2.8	4.4	7.9	5.5	4.3	5.2	1.5	0.51	0.58	0.51	0.98
IN.	0.57	2.51	1.17	7.46	0.97	0.64	1.96	0.19	0.65	0.37	1.12	2.02

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

MEAN	12.2	21.8	13.4	38.2	25.3	29.7	24.0	37.9	31.4	20.2	11.9	18.5
MAX	25.5	63.4	33.5	141	64.3	78.5	38.2	103	67.2	71.3	21.2	70.4
(WY)	(2002)	(2004)	(2002)	(2005)	(1999)	(1998)	(2005)	(2004)	(1998)	(2004)	(2005)	(2003)
MIN	5.23	3.68	4.52	4.35	10.8	11.1	5.64	3.64	8.40	2.80	2.01	2.10
(WY)	(2000)	(2000)	(2001)	(2003)	(2002)	(2001)	(2000)	(2005)	(1999)	(2002)	(2001)	(2004)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

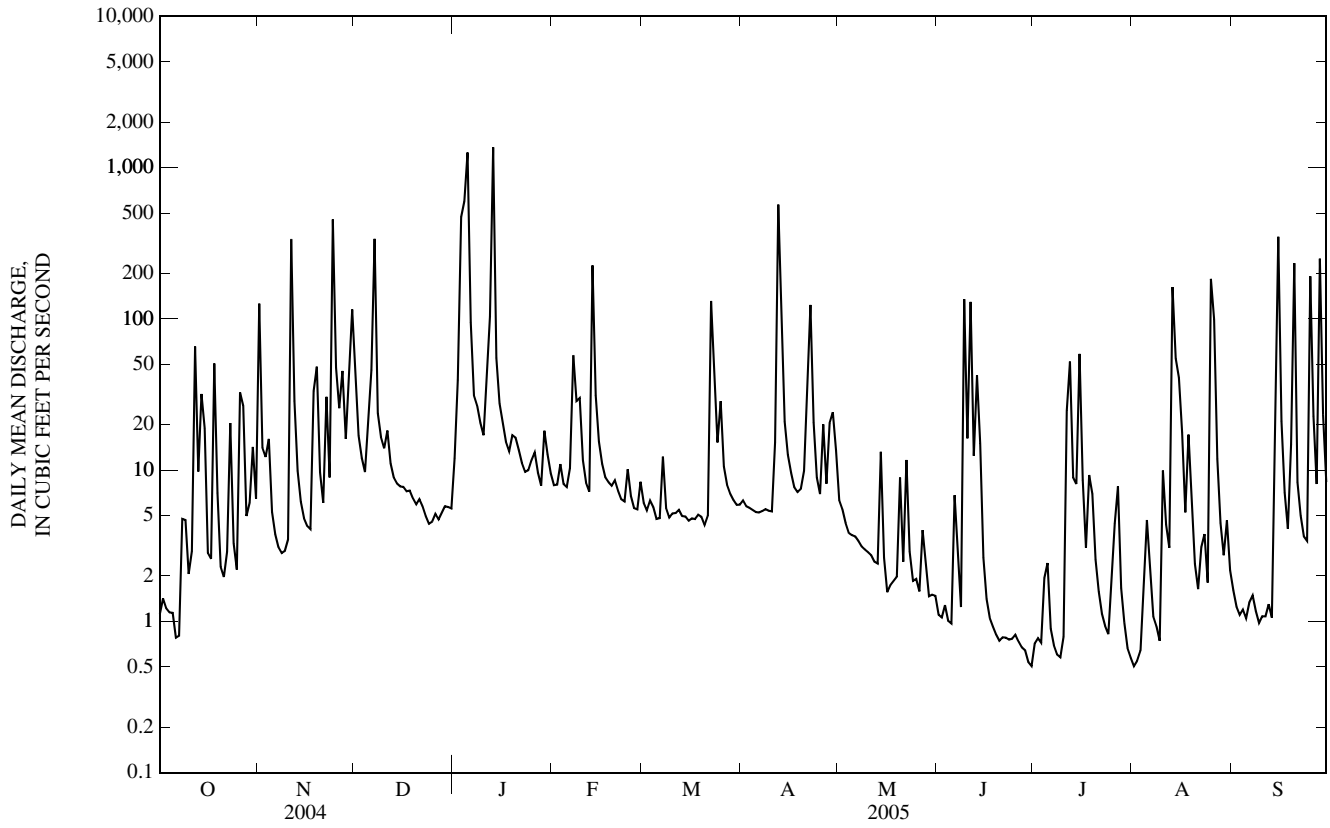
## FOR 2005 WATER YEAR

## WATER YEARS 1997 - 2005

ANNUAL MEAN	34.1	31.5	24.4
HIGHEST ANNUAL MEAN			35.2
LOWEST ANNUAL MEAN			11.4
HIGHEST DAILY MEAN	905	Jan 4	1,430
LOWEST DAILY MEAN	0.78	Oct 6	0.21
ANNUAL SEVEN-DAY MINIMUM	1.1	Oct 1	0.26
MAXIMUM PEAK FLOW	---		Unknown
MAXIMUM PEAK STAGE	---		13.03
INSTANTANEOUS LOW FLOW	---		0.39
ANNUAL RUNOFF (INCHES)	21.29	19.64	15.23
10 PERCENT EXCEEDS	47	45	41
50 PERCENT EXCEEDS	6.8	6.1	4.7
90 PERCENT EXCEEDS	1.8	1.0	1.1

<sup>a</sup> From crest-stage gage.

07019185 GRAND GLAIZE CREEK NEAR VALLEY PARK, MO—Continued



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 2004 TO SEPTEMBER 2005

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, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)	
OCT 04...	1445	Environmental	1.1	8.1	6.2	62	7.7	995	15.6	340	93.4	25.6	
12...	1715	Environmental	137	3.7	8.2	83	7.7	465	15.2	130	39.1	8.04	
MAR 22...	1127	Environmental	188	7.1	12.0	103	7.7	1,040	7.9	370	98.9	29.3	
APR 20...	1000	Environmental	7.9	12	8.1	88	7.6	1,090	18.7	410	116	29.4	
JUN 22...	0840	Blank	--	--	--	--	--	--	--	--	<.02	<.008	
22...	0850	Environmental	.76	9.5	2.5	31	7.6	943	23.9	330	89.4	25.4	
AUG 10...	0935	Environmental	.85	13	3.0	38	7.3	781	26.7	270	74.1	20.2	
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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 04...	210	214	261	<1	<10	.41	<.04	<.06	<.008	.05	.09	20	2k
12...	98	99	121	<1	92	.86	<.04	.66	.012	.12	.28	40	5,800
MAR 22...	193	194	236	<1	122	.86	.05	.20	E.007n	E.02n	.17	20	1,200k
APR 20...	249	253	308	<1	<10	.37	.05	.21	.008	E.01n	.06	<10	150
JUN 22...	--	--	--	--	<10	<.10	.08d	<.06	<.008	<.04d	<.04	<10	--
22...	205	207	253	<1	13	.58	<.04	.10	E.005n	<.02	.10	10	420
AUG 10...	136	135	165	<1	<10	.48	.04	.21	.010	E.02n	.08	20	92
Date	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	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)	Nickel, water, fltrd, $\mu$ g/L (01065)	Selenium, water, fltrd, $\mu$ g/L (01145)
OCT 04...	40	E1n	1.5	<.06	.07	<.8	2.6	<6	<.08	71.2	<.01	3.10	.5
12...	14,000k	3	1.4	<.06	.13	1.7	2.3	24	<.08	45.4	E.01n	2.34	.4
MAR 22...	1,200k	E1n	.9	<.06	.13	.8	2.4	20	E.07n	287	E.01n	5.75	.8
APR 20...	260k	2	1.1	<.06	.04	<.8	1.6	12	E.04n	189	<.01	2.77	.9
JUN 22...	--	<2	<.2	<.06	<.04	<.8	<.4	<6	<.08	<.6	<.01	<.06	<.4
22...	490	3	2.1	<.06	.05	<.8	1.3	E4n	E.05n	531	<.01	6.08	.6
AUG 10...	300k	2	2.3	<.06	.09	<.8	1.9	12	.15	250	<.01	4.78	.9

07019185 GRAND GLAIZE CREEK NEAR VALLEY PARK, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT		
04...	<.2	2.1
12...	<.2	2.4
MAR		
22...	<.2	3.9
APR		
20...	<.2	2.5
JUN		
22...	<.2	E.3n
22...	<.2	1.0
AUG		
10...	<.2	2.5

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

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

## 07019195 YARNELL CREEK AT FENTON, MO

LOCATION.--Lat 38°31'37", 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 poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.16	26	4.1	e1.3	0.78	0.69	0.65	0.89	0.55	0.33	0.25	0.43
2	0.31	2.4	1.6	e2.7	1.2	0.60	0.69	0.81	0.50	0.33	0.27	0.40
3	0.40	2.7	1.1	e50	2.1	0.51	0.67	0.75	0.48	0.33	0.23	0.40
4	0.44	1.8	0.89	e20	1.1	0.49	0.65	0.70	0.46	4.1	0.23	0.40
5	0.41	0.63	2.6	e165	e0.95	0.51	0.61	0.65	0.43	0.42	0.23	0.33
6	0.40	0.51	12	e10	e1.6	0.48	0.60	0.64	0.66	0.26	0.23	0.33
7	0.39	0.45	40	e5.6	6.8	1.2	0.60	0.59	0.64	0.25	0.23	0.33
8	1.5	0.43	2.8	e3.4	2.5	0.67	0.59	0.59	1.3	0.28	0.21	0.33
9	1.1	0.43	1.6	e2.5	5.5	0.58	0.56	0.54	79	0.28	0.21	0.35
10	0.65	0.43	1.1	2.1	e1.8	0.55	0.52	0.48	3.8	0.27	0.21	0.33
11	2.0	47	e0.95	4.3	e1.2	0.65	2.6	0.53	17	6.5	0.21	0.35
12	17	3.2	e0.89	21	e1.0	0.63	29	0.52	1.9	6.6	0.21	0.38
13	1.4	1.4	e0.81	175	28	0.56	6.7	0.47	4.7	0.65	26	0.41
14	8.3	0.57	e0.79	e11	3.9	0.52	1.7	2.5	1.4	0.47	8.9	2.9
15	2.6	0.48	e0.77	e4.4	2.3	0.53	1.1	0.77	0.59	0.74	6.2	73
16	0.80	0.43	e0.70	e2.5	1.7	0.51	0.91	0.63	0.56	0.51	2.5	4.0
17	1.3	0.41	e0.67	1.8	1.4	0.50	0.82	0.62	0.48	0.44	0.71	0.68
18	12	5.9	e0.63	1.5	1.3	0.48	0.81	0.62	0.45	1.6	4.2	0.54
19	0.83	4.8	e0.62	e1.2	1.3	0.45	0.81	0.65	0.40	0.53	0.69	9.3
20	0.49	0.88	e0.60	e1.1	1.2	0.43	1.9	1.0	0.40	0.28	0.50	19
21	0.43	0.62	e0.58	e1.0	1.1	0.47	12	0.77	0.39	0.28	0.50	0.78
22	0.43	3.3	e0.56	e0.95	1.0	21	36	2.4	0.36	0.28	0.53	0.70
23	6.0	0.77	e0.55	e0.98	0.98	5.3	2.7	0.70	0.36	0.26	0.46	0.71
24	0.57	75	e0.54	e0.97	1.2	1.9	1.4	0.63	0.36	0.25	0.69	0.67
25	0.42	6.2	e0.52	e0.96	0.91	4.3	1.3	0.62	0.36	0.23	16	22
26	11	2.2	e0.52	e0.90	0.75	1.3	3.7	0.73	0.36	0.23	13	2.2
27	2.1	3.8	e0.53	e0.85	0.66	0.99	1.2	0.63	0.36	0.84	1.4	0.89
28	0.59	1.3	e0.52	e0.84	0.88	0.83	4.0	0.58	0.33	0.50	0.64	27
29	0.62	7.2	e0.50	e2.4	---	0.77	2.7	0.61	0.31	0.30	0.47	2.2
30	2.4	15	e0.49	1.2	---	0.70	1.5	0.55	0.33	0.28	e0.45	0.70
31	0.67	---	e0.48	0.92	---	0.65	---	0.56	---	0.25	e0.44	---
MEAN	2.51	7.21	2.61	16.1	2.68	1.60	3.97	0.77	3.97	0.93	2.81	5.73
MAX	17	75	40	175	28	21	36	2.5	79	6.6	26	73
MIN	0.16	0.41	0.48	0.84	0.66	0.43	0.52	0.47	0.31	0.23	0.21	0.33
IN.	1.07	2.97	1.11	6.84	1.03	0.68	1.63	0.33	1.64	0.40	1.19	2.36

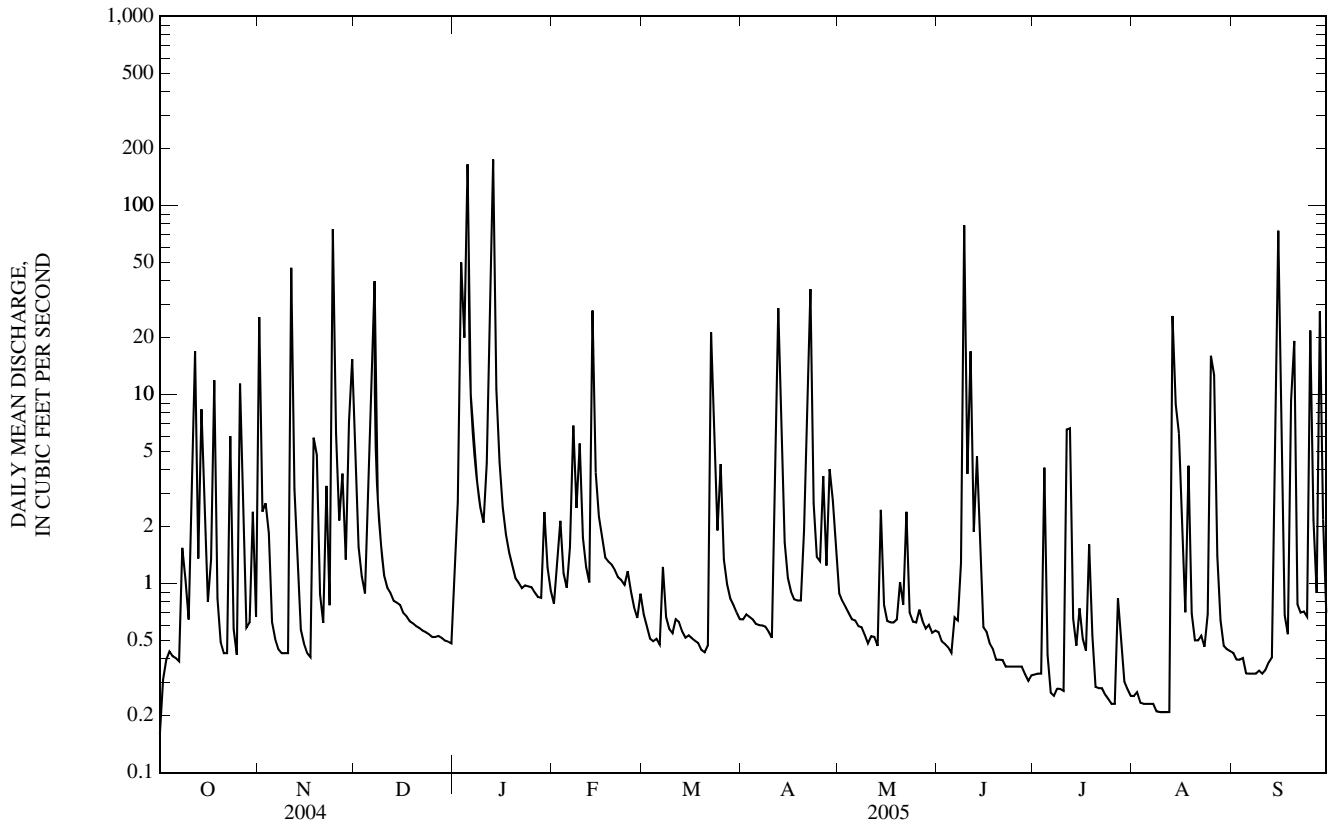
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

MEAN	1.96	2.95	1.66	4.63	3.44	3.69	3.55	5.10	5.46	3.25	2.06	2.24
MAX	2.96	7.21	4.32	16.1	9.37	11.8	6.08	11.2	11.7	9.35	3.76	6.87
(WY)	(2002)	(2005)	(2002)	(2005)	(1999)	(1998)	(1998)	(2004)	(1998)	(2004)	(1997)	(2003)
MIN	1.25	0.40	0.44	0.38	1.03	1.18	0.81	0.77	2.17	0.48	0.43	0.26
(WY)	(2004)	(2000)	(1999)	(2003)	(2003)	(2000)	(2000)	(2005)	(2001)	(2002)	(2003)	(2004)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1997 - 2005	
ANNUAL MEAN	4.42		4.24		3.34	
HIGHEST ANNUAL MEAN					4.64	
LOWEST ANNUAL MEAN					1.88	
HIGHEST DAILY MEAN	190	Jul 30	175	Jan 13	190	Jul 30, 2004
LOWEST DAILY MEAN	0.16	Oct 1	0.16	Oct 1	0.13	Oct 4, 2001
ANNUAL SEVEN-DAY MINIMUM	0.19	Sep 25	0.22	Aug 6	0.15	Sep 28, 2001
MAXIMUM PEAK FLOW	---		Unknown	Jan 13	Unknown	Jul 30, 2004
MAXIMUM PEAK STAGE	---		7.39	Jan 13	8.52	Jul 30, 2004
INSTANTANEOUS LOW FLOW	---		0.14	Oct 1	0.09	Oct 24, 2002
ANNUAL RUNOFF (INCHES)	22.19		21.25		16.74	
10 PERCENT EXCEEDS	8.4		6.6		5.7	
50 PERCENT EXCEEDS	0.89		0.70		0.58	
90 PERCENT EXCEEDS	0.41		0.33		0.23	

e Estimated

07019195 YARNELL CREEK AT FENTON, MO—Continued



## 07019220 FENTON CREEK NEAR FENTON, MO

LOCATION.--Lat 38°30'40", long 90°26'39", 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>.

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

GAGE.--Water-stage recorder and crest-stage gage. 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.--Records fair except for estimated daily discharges and discharges above 650 ft<sup>3</sup>/s, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.34	41	8.6	1.4	1.5	0.83	0.91	1.6	0.58	0.36	0.37	0.61
2	0.30	3.2	3.8	36	1.6	0.79	0.89	1.4	0.56	0.35	0.37	0.61
3	0.35	2.9	2.6	137	2.2	0.77	0.87	1.4	0.56	0.34	0.36	0.61
4	0.33	2.4	2.1	150	1.5	0.79	0.87	1.4	0.55	18	0.35	0.61
5	0.32	1.1	5.3	243	1.2	0.74	0.89	1.3	0.67	0.94	0.35	0.62
6	0.32	0.89	29	24	1.8	0.75	0.83	1.2	0.73	0.59	0.38	0.60
7	0.37	0.78	62	8.4	11	1.7	0.83	1.1	0.65	0.54	0.39	0.62
8	1.0	0.71	5.7	6.6	4.6	0.84	0.79	1.1	1.6	0.51	0.41	0.61
9	0.36	0.71	3.9	5.4	8.3	0.79	0.77	1.1	188	0.50	0.41	0.60
10	0.34	0.72	3.2	4.3	2.7	0.82	0.71	1.0	11	0.49	0.61	0.58
11	1.2	80	3.8	8.6	2.0	0.73	2.4	1.2	32	8.7	0.39	0.56
12	19	4.4	2.4	60	1.8	0.72	e30	0.89	2.5	10	0.41	0.53
13	1.1	1.4	2.0	207	48	0.68	8.0	0.88	11	1.1	26	0.55
14	7.6	0.81	1.8	13	4.8	0.68	1.6	3.0	2.2	0.76	15	3.0
15	2.0	0.72	1.7	6.7	2.5	0.69	1.1	0.76	1.1	0.67	6.8	133
16	0.61	0.78	1.7	5.1	1.7	0.69	0.94	0.76	0.90	0.63	3.6	7.0
17	0.53	0.71	1.6	4.2	1.4	0.71	0.95	0.73	0.81	0.59	0.78	0.98
18	14	9.8	1.5	3.7	1.2	0.71	1.0	0.72	0.75	5.2	8.4	0.68
19	1.0	6.9	1.3	4.4	1.2	0.71	1.0	0.63	0.69	0.93	0.99	14
20	0.68	1.4	1.3	4.2	1.2	0.70	e10	0.64	0.64	0.59	0.58	27
21	0.63	0.92	1.3	3.6	1.1	0.73	e20	0.52	0.63	0.54	0.52	1.1
22	0.62	5.1	1.2	3.0	0.98	41	e128	4.7	0.60	0.42	0.50	0.88
23	8.8	1.4	0.94	2.4	0.99	12	5.3	1.4	0.56	0.41	0.50	0.81
24	0.81	154	0.85	2.2	1.1	3.7	2.7	1.0	0.51	0.41	0.52	1.0
25	0.73	13	0.84	2.2	1.0	11	2.3	1.0	0.49	0.41	55	49
26	19	6.1	0.83	2.1	0.88	2.2	7.2	1.1	0.46	0.46	15	4.1
27	2.4	9.7	0.80	1.9	0.86	1.6	1.8	0.67	0.43	0.79	1.5	1.3
28	0.79	4.1	0.81	1.9	1.1	1.3	6.8	0.71	0.41	0.40	0.78	33
29	0.73	15	0.82	4.0	---	1.1	4.7	0.66	0.40	0.38	0.69	3.6
30	1.1	32	0.81	2.6	---	1.0	3.0	0.62	0.38	0.37	0.65	1.3
31	0.88	---	0.76	2.0	---	0.91	---	0.53	---	0.39	0.61	---
MEAN	2.85	13.4	5.01	31.0	3.94	2.98	8.24	1.15	8.75	1.83	4.62	9.65
MAX	19	154	62	243	48	41	128	4.7	188	18	55	133
MIN	0.30	0.71	0.76	1.4	0.86	0.68	0.71	0.52	0.38	0.34	0.35	0.53
IN.	0.77	3.49	1.35	8.33	0.96	0.80	2.14	0.31	2.28	0.49	1.24	2.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2005, BY WATER YEAR (WY)

MEAN	2.36	4.79	2.91	8.20	5.15	6.37	6.19	8.20	7.38	4.03	2.68	2.69
MAX	3.45	13.4	7.10	31.0	12.6	18.1	10.4	20.5	14.3	12.2	4.80	9.65
(WY)	(2003)	(2005)	(2002)	(2005)	(1999)	(1998)	(2002)	(2004)	(1998)	(2004)	(2000)	(2005)
MIN	1.08	0.83	0.37	0.76	1.76	1.69	1.23	1.15	2.83	0.64	0.45	0.26
(WY)	(1998)	(2003)	(1999)	(2003)	(2002)	(2000)	(2000)	(2005)	(2001)	(2002)	(2003)	(1999)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

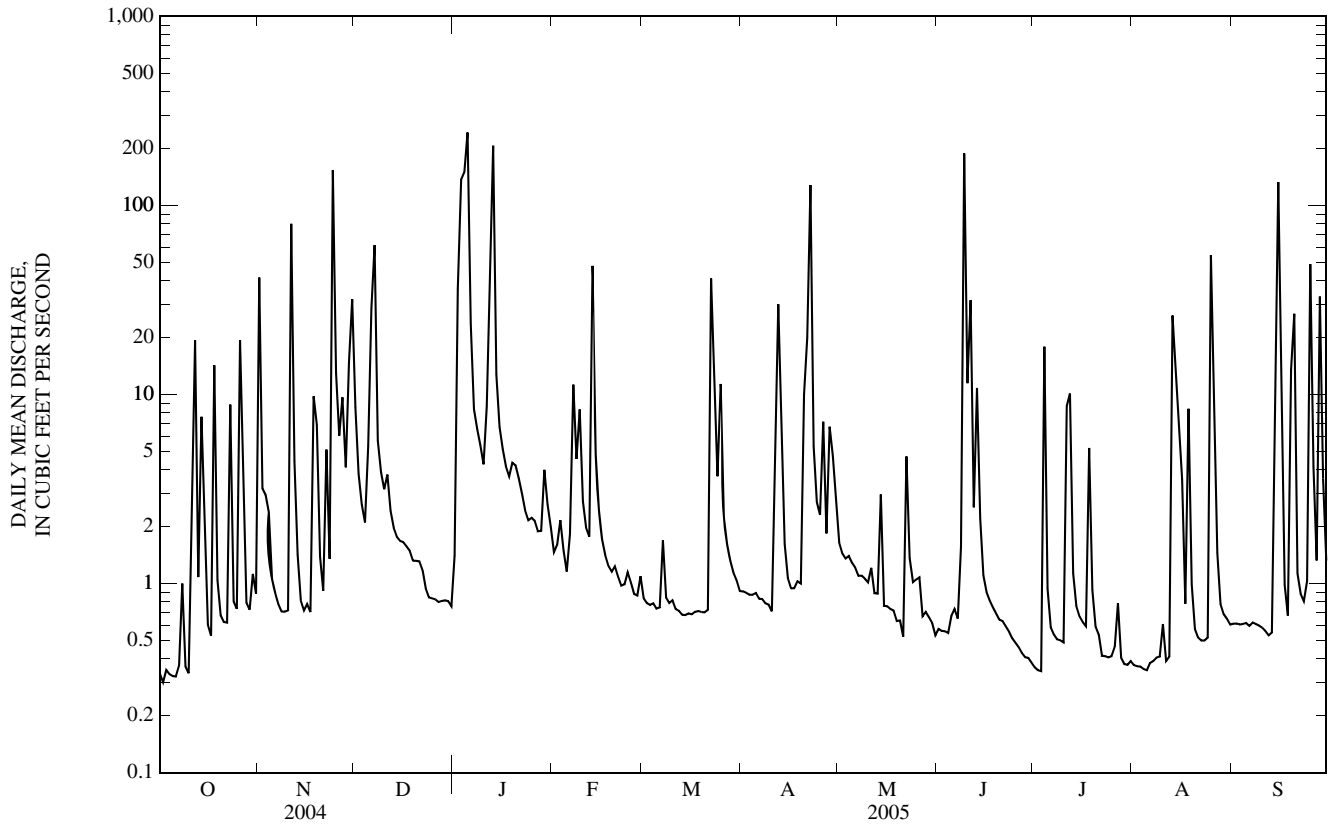
WATER YEARS 1997 - 2005

ANNUAL MEAN	7.50	7.79	5.11
HIGHEST ANNUAL MEAN			7.79
LOWEST ANNUAL MEAN			2.51
HIGHEST DAILY MEAN	263	243	263
LOWEST DAILY MEAN	0.27	0.30	0.13
ANNUAL SEVEN-DAY MINIMUM	0.31	0.33	0.17
MAXIMUM PEAK FLOW	---	Unknown	Unknown
MAXIMUM PEAK STAGE	---	6.86	9.71
INSTANTANEOUS LOW FLOW	---	0.21	0.07
ANNUAL RUNOFF (INCHES)	23.80	24.66	16.19
10 PERCENT EXCEEDS	12	12	8.9
50 PERCENT EXCEEDS	1.3	1.0	0.83
90 PERCENT EXCEEDS	0.49	0.46	0.32

e Estimated



07019220 FENTON CREEK NEAR FENTON, MO—Continued



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 2004 TO SEPTEMBER 2005

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, 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 13...	1515	Environmental	990	7.6	81	8.2	410	17.1	--	--	--	--
NOV 02...	1605	Environmental	3,630	5.7	59	7.6	429	16.5	210	45.0	23.2	2.68
DEC 13...	1310	Environmental	4,580	11.9	98	7.6	279	7.0	--	--	--	--
JAN 04...	0845	Environmental	6,410	10.7	83	7.2	279	4.6	130	29.1	13.6	2.74
FEB 02...	0835	Environmental	2,990	15.8	126	7.3	395	5.4	--	--	--	--
FEB 02...	0836	Replicate	--	16.1	128	7.3	394	5.2	--	--	--	--
MAR 10...	1440	Environmental	2,200	8.6	79	8.0	387	9.9	--	--	--	--
APR 05...	1045	Environmental	2,430	9.1	94	8.2	365	15.7	--	--	--	--
MAY 03...	1415	Environmental	4,930	6.8	67	7.6	288	14.8	160	34.1	18.2	1.64
JUN 07...	1400	Environmental	1,100	7.8	99	8.2	425	26.4	--	--	--	--
JUL 27...	0840	Environmental	909	4.8	64	8.2	425	29.5	210	43.5	24.8	2.23
AUG 01...	1323	Environmental	597	4.8	66	8.3	404	30.6	--	--	--	--
AUG 17...	1020	Environmental	755	6.0	76	7.5	433	26.4	--	--	--	--
SEP 08...	0845	Environmental	586	6.2	79	8.2	327	26.6	--	--	--	--

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., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, titr., mg/L (00450)	Carbonate, wat unfltrd, titr., 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 13...	--	--	--	--	--	--	--	--	--	30	.53	.09	.48
NOV 02...	11.4	170	173	211	<1	15.9	.1	20.9	232	36	.40	.04	.23
DEC 13...	--	--	--	--	--	--	--	--	--	20	.37	.04	.38
JAN 04...	7.20	115	117	143	<1	9.55	.1	15.1	169	122d	.75	E.04n	.44
FEB 02...	--	--	--	--	--	--	--	--	--	<10	.31	.17	.68
FEB 02...	--	--	--	--	--	--	--	--	--	10	.32	.17	.69
MAR 10...	--	--	--	--	--	--	--	--	--	<10	.46	.15	.08
APR 05...	--	--	--	--	--	--	--	--	--	11	.42	.11	.08
MAY 03...	5.60	146	150	178	<1	6.63	.1	14.3	190	61	.41	E.04n	.29
JUN 07...	--	--	--	--	--	--	--	--	--	29	.57	<.04	.20
JUL 27...	11.4	161	162	197	<1	12.1	.1	25.5	238	33	.51	E.03n	.30
AUG 01...	--	--	--	--	--	--	--	--	--	19	.53	<.04	.22
AUG 17...	--	--	--	--	--	--	--	--	--	40	.62	.08	.51
SEP 08...	--	--	--	--	--	--	--	--	--	30	.40	<.04	.41

07019280 MERAMEC RIVER AT PAULINA HILLS, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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 coliform, M-FC 0.7µ MF col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
OCT 13...	.050	.09	.11	.14	540	690k	--	--	--	--	--	--	--
NOV 02...	.017	E.01n	.06	.10	160	530	E2n	446	.8	E.02n	.08	1.1	E3n
DEC 13...	E.006n	.02	E.03n	.07	330	440	--	--	--	--	--	--	--
JAN 04...	.009	<.02	.07	.20	4,700	5,900	8	2,110d	.6	<.04	.12	1.4	28
FEB 02...	E.006n	.03	.04	.05	440k	600k	--	--	--	--	--	--	--
FEB 02...	E.006n	.03	.05	.04	460k	640k	--	--	--	--	--	--	--
MAR 10...	E.004n	<.02	<.04	.05	27	76k	--	--	--	--	--	--	--
APR 05...	.017	E.01n	E.02n	E.04n	7k	3k	--	--	--	--	--	--	--
MAY 03...	E.006n	<.02	E.03n	.09	78	88	2	690	.4	<.04	.12	.9	8
JUN 07...	.015	<.02	E.03n	.11	640	1,000	--	--	--	--	--	--	--
JUL 27...	.018	.02	.06	.12	5k	8k	3	365	1.3	<.04	.07	1.0	<6
AUG 01...	.019	.05	.09	.11	20	21	--	--	--	--	--	--	--
AUG 17...	.031	.09	.11	.17	200	220k	--	--	--	--	--	--	--
SEP 08...	.019	.08	.07	.12	23	18k	--	--	--	--	--	--	--

Date	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 13...	--	--	--	--	--	--	--
NOV 02...	.27	12.1	7.0	<.01	<.4	.9	6
DEC 13...	--	--	--	--	--	--	--
JAN 04...	.19	15.2	6.9	.01	E.3n	1.4	17
FEB 02...	--	--	--	--	--	--	--
FEB 02...	--	--	--	--	--	--	--
MAR 10...	--	--	--	--	--	--	--
APR 05...	--	--	--	--	--	--	--
MAY 03...	.28	24.2	37.8	<.01	<.4	1.1	14
JUN 07...	--	--	--	--	--	--	--
JUL 27...	.47	12.8	5.6	E.01n	E.4n	1.3	7
AUG 01...	--	--	--	--	--	--	--
AUG 17...	--	--	--	--	--	--	--
SEP 08...	--	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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°29'00", long 90°20'28", in SW ¼ NW ¼ NW ¼ 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>.

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

REVISED RECORDS.--WDR MO-03-1: 1996-2002(P).

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

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	171	16	8.6	1.3	2.0	1.7	2.5	0.02	0.00	0.03	0.33
2	0.00	12	6.5	95	1.7	1.2	1.5	2.0	0.00	0.00	0.00	0.27
3	0.00	11	4.7	210	4.3	1.0	1.4	1.8	0.00	0.00	0.00	0.18
4	0.00	7.1	3.8	157	1.8	1.0	1.3	1.6	0.00	0.00	0.01	0.05
5	0.00	2.6	16	388	1.4	0.93	1.2	1.5	0.00	e0.26	0.00	0.01
6	0.00	1.6	103	36	3.2	0.78	1.1	1.4	0.00	e0.11	0.00	0.00
7	0.00	0.94	121	11	19	5.2	1.0	1.3	0.00	e0.00	0.00	0.01
8	5.1	0.63	12	10	7.2	1.3	0.96	1.0	6.1	e0.00	0.00	0.00
9	0.26	0.40	8.2	8.6	14	1.1	0.87	0.99	23	e0.00	0.00	0.00
10	0.01	0.37	6.5	7.0	3.7	0.90	0.74	0.89	4.2	e0.00	2.1	0.00
11	0.55	143	7.7	13	2.7	0.89	2.3	0.85	25	e53	0.64	0.00
12	52	11	5.4	45	2.4	0.89	71	0.83	2.7	e80	0.02	0.00
13	1.9	4.7	4.6	287	84	0.83	13	0.66	7.6	1.1	47	0.00
14	12	2.5	3.9	e12	8.7	0.78	3.4	6.4	2.5	0.67	32	e6.4
15	3.2	2.3	3.6	e6.2	4.9	0.78	2.5	0.90	0.58	11	4.8	e175
16	0.56	1.3	3.4	e4.7	3.6	0.78	2.1	0.54	0.35	2.6	9.8	e4.9
17	0.18	0.91	2.9	e3.8	2.6	0.71	1.8	0.47	0.19	0.49	0.95	e1.3
18	201	19	2.8	e3.2	2.3	0.69	1.7	0.39	0.09	17	22	e1.1
19	8.9	22	2.8	3.3	2.1	0.69	1.5	0.37	0.03	2.1	1.7	e20
20	1.9	4.1	2.7	2.9	2.1	0.69	8.7	3.1	0.00	0.56	0.69	e70
21	0.66	2.4	2.5	2.7	1.9	0.69	53	0.45	0.00	0.28	0.34	e3.5
22	1.1	16	2.2	2.4	1.7	79	80	5.1	0.00	0.18	0.26	e1.3
23	105	3.2	2.2	2.3	1.6	14	6.9	0.97	0.00	0.13	0.19	e1.1
24	3.5	225	2.2	1.9	2.2	6.1	3.4	0.47	0.00	0.08	0.07	e1.3
25	2.2	16	2.2	1.9	1.7	19	3.0	0.29	0.01	0.01	142	e104
26	37	7.3	2.2	1.8	1.3	4.4	9.8	0.25	0.00	0.62	33	e3.0
27	7.6	10	2.2	1.5	1.1	3.4	2.5	0.27	0.00	5.1	2.8	e1.5
28	2.1	4.2	2.2	1.4	2.9	2.6	11	0.46	0.00	0.15	1.2	e43
29	1.2	28	2.1	3.7	---	2.2	7.9	0.19	0.00	0.02	0.83	e4.3
30	6.1	75	1.8	3.0	---	1.9	4.1	0.12	0.00	0.00	0.62	e1.6
31	0.86	---	1.7	1.8	---	1.7	---	0.08	---	0.00	0.47	---
MEAN	14.7	26.9	11.6	43.1	6.69	5.10	10.0	1.23	2.41	5.66	9.79	14.8
MAX	201	225	121	388	84	79	80	6.4	25	80	142	175
MIN	0.00	0.37	1.7	1.4	1.1	0.69	0.74	0.08	0.00	0.00	0.00	0.00
IN.	2.15	3.80	1.70	6.31	0.88	0.75	1.42	0.18	0.34	0.83	1.43	2.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2005, BY WATER YEAR (WY)

	4.94	11.3	5.14	12.0	9.31	9.92	8.53	11.6	14.8	8.43	5.17	6.02
MEAN	4.94	11.3	5.14	12.0	9.31	9.92	8.53	11.6	14.8	8.43	5.17	6.02
MAX	14.7	32.9	11.6	43.1	23.9	31.9	19.6	24.2	30.8	18.7	10.7	17.8
(WY)	(2005)	(2004)	(2005)	(2005)	(1997)	(1998)	(1998)	(2004)	(2000)	(1998)	(1998)	(2003)
MIN	1.58	0.62	0.66	0.62	3.00	2.63	2.33	1.23	2.41	1.12	0.41	0.04
(WY)	(2000)	(2003)	(1999)	(2003)	(2002)	(2001)	(2000)	(2005)	(2005)	(2002)	(2003)	(2004)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

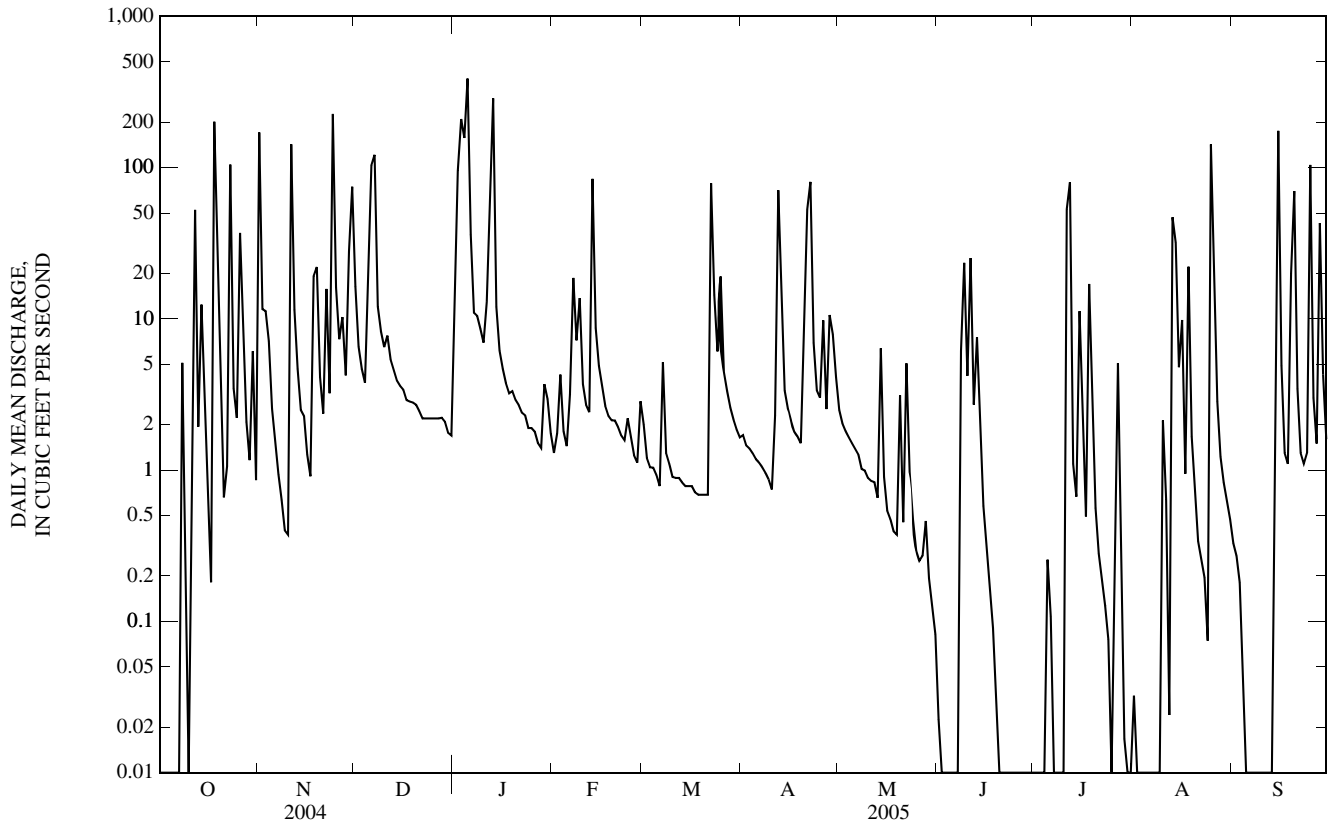
WATER YEARS 1996 - 2005

ANNUAL MEAN	11.7	12.7	8.90
HIGHEST ANNUAL MEAN			12.7
LOWEST ANNUAL MEAN			4.85
HIGHEST DAILY MEAN	353	Jan 4	643
LOWEST DAILY MEAN	0.00	Many Days	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Sep 1,18	0.00
MAXIMUM PEAK FLOW	---		3,780 <sup>a</sup>
MAXIMUM PEAK STAGE	---		11.32
INSTANTANEOUS LOW FLOW	---		0.00
ANNUAL RUNOFF (INCHES)	20.19		21.90
10 PERCENT EXCEEDS	19		22
50 PERCENT EXCEEDS	1.9		1.8
90 PERCENT EXCEEDS	0.01		0.00

e Estimated

<sup>a</sup> From rating extended above 571 ft<sup>3</sup>/s on basis of indirect measurement.

07019317 MATTESE CREEK NEAR MATTESE, MO—Continued



07019370 MISSISSIPPI RIVER AT KIMMSWICK, MO  
(Metropolitan St. Louis Sewer District Network)

LOCATION.--Lat 38°21'28", long 90°21'24", Jefferson County, Hydrologic Unit 07140101, below Hoppies Marina, seven miles downstream of station Mississippi River at Oakville (07010220), at mile 159.

DRAINAGE AREA.--703,000 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--October 2004 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Carbon dioxide water, unfltrd mg/L (00405)	Dis-solved oxygen, mg/L (00300)	Dis-solved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specif. conductance, wat unfltrd 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnesium, water, fltrd, mg/L (00925)
OCT 26...	1150	Environmental	105,000	3.8	10.7	111	8.0	565	16.8	220	54.1	21.2
APR 12...	1550	Environmental	206,000	4.9	8.9	94	7.8	548	16.4	220	53.3	21.4
22...	1145	Environmental	246,000	3.9	7.7	84	7.8	473	18.4	200	49.7	17.6
MAY 10...	1115	Environmental	141,000	2.1	9.7	106	8.2	545	18.7	240	58.5	21.7
JUN 10...	1700	Environmental	279,000	2.5	5.4	67	8.1	469	24.9	200	49.6	18.1
21...	1200	Environmental	238,000	3.1	6.4	79	8.0	499	25.8	230	58.4	21.3
JUL 12...	1130	Environmental	154,000	3.5	6.3	81	7.9	537	27.0	220	55.9	20.2
20...	1710	Environmental	97,200	1.1	8.9	122	8.5	603	30.9	270	68.2	23.8
AUG 09...	1150	Environmental	78,300	1.7	6.8	90	8.3	603	29.5	230	54.8	22.2

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)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	COD, high level, water, unfltrd mg/L (00340)	E coli, m-TEC MF, water, col/100 mL (31633)
OCT 26...	175	177	215	<1	43	.81	.09	1.63	.018	.10	.20	10	580
APR 12...	175	174	213	<1	147	.22	.10	2.46	.041	.06	<.04	20	74
22...	138	141	172	<1	176d	1.5	.10	2.45	.043	.04	.39	20	150
MAY 10...	168	168	205	<1	70	1.1	<.04	3.16	.011	.03	.22	20	58
JUN 10...	148	151	185	<1	760d	2.1	<.04	3.44	.029	.08	.79	40	280
21...	157	158	192	<1	374d	1.5	E.02n	3.30	.038	.06	.49	30	400
JUL 12...	158	157	192	<1	80	.89	.06	3.71	.037	.10	.29	20	700
20...	171	172	197	6	29	.85	.04	2.63	.030	.08	.18	10	410k
AUG 09...	164	169	206	<1	67	.97	<.04	.84	.029	.10	.26	20	270

07019370 MISSISSIPPI RIVER AT KIMMSWICK, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Fecal coli-form, M-FC 0.7µ MF col/100 mL (31625)	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 recover-able, µg/L (71900)	Nickel, water, fltrd, µg/L (01065)	Selenium, water, fltrd, µg/L (01145)
OCT 26...	760k	2	2.1	<.06	E.04n	<.8	1.9	E4n	.09	E.6n	<.01	2.65	1.0
APR 12...	100	E1n	1.5	<.06	E.03n	<.8	1.9	E5n	<.08	.7	E.01n	2.67	1.1
22...	200	2	1.3	<.06	E.03n	<.8	1.7	E6n	E.04n	.8	.01	1.61	.7
MAY 10...	60	3	1.9	<.06	E.03n	<.8	1.8	E4n	<.08	1.8	<.01	2.58	1.9
JUN 10...	410	3	1.9	<.06	E.03n	<.8	2.0	E4n	<.08	<.6	.03	3.51	1.2
21...	800	4	2.2	<.06	E.03n	<.8	2.2	E6n	<.08	1.2	.01	4.31	1.5
JUL 12...	580	3	3.0	<.06	E.02n	<.8	1.8	E4n	<.08	.8	<.01	3.50	1.5
20...	470k	3	3.3	<.06	E.02n	<.8	2.3	<.6	<.08	E.5n	<.01	3.57	1.9
AUG 09...	410	7	3.6	<.06	E.03n	<.8	1.9	<.6	<.08	1.2	<.01	3.21	1.2

Date	Silver, water, fltrd, µg/L (01075)	Zinc, water, fltrd, µg/L (01090)
OCT 26...	<.2	3.5
APR 12...	<.2	1.0
22...	<.2	.9
MAY 10...	<.2	.9
JUN 10...	<.2	E.5n
21...	<.2	1.3
JUL 12...	<.2	1.6
20...	<.2	.7
AUG 09...	<.2	.6

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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

## 07020500 MISSISSIPPI RIVER AT CHESTER, IL

LOCATION.--Lat 37°54'13", long 89°50'08", in SW  $\frac{1}{4}$  sec.24, T.7 S., R.7 W., third principal meridian, Randolph County, Hydrologic Unit 07140105, on downstream side of left pier of main truss of highway bridge at Chester, 8.1 mi downstream from Kaskaskia River, and at mile 109.9 above Ohio River.

DRAINAGE AREA.--708,600 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

## PERIOD OF RECORD.--

DISCHARGE: October 1927 to current year. Monthly discharge only for some periods, published in WSP 1311. Since August 1873, results of discharge measurements in reports of the Mississippi River Commission.

GAGE HEIGHT: July 1942 to current year. Since May 1891, in reports of the Mississippi River Commission and 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 341.05 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 1, 1962, nonrecording gage 0.4 mi downstream at present datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 30, 1844, reached a gage height of 39.8 ft, discharge, 1,050,000 ft<sup>3</sup>/s, computed by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130,000	125,000	272,000	117,000	209,000	222,000	157,000	242,000	190,000	205,000	99,200	129,000
2	124,000	154,000	269,000	117,000	202,000	210,000	163,000	234,000	182,000	199,000	99,800	128,000
3	123,000	215,000	256,000	119,000	196,000	208,000	170,000	221,000	176,000	194,000	99,700	126,000
4	122,000	242,000	242,000	161,000	189,000	205,000	181,000	209,000	175,000	195,000	95,500	111,000
5	120,000	235,000	226,000	284,000	186,000	200,000	194,000	205,000	172,000	198,000	86,800	94,100
6	118,000	232,000	210,000	436,000	185,000	189,000	197,000	195,000	169,000	196,000	85,600	85,700
7	117,000	227,000	224,000	489,000	187,000	181,000	195,000	179,000	181,000	192,000	81,100	83,500
8	113,000	218,000	278,000	475,000	198,000	172,000	194,000	162,000	240,000	188,000	82,700	78,900
9	113,000	206,000	307,000	432,000	215,000	164,000	197,000	151,000	278,000	186,000	85,600	79,100
10	112,000	190,000	299,000	398,000	221,000	159,000	200,000	148,000	275,000	181,000	79,900	86,000
11	113,000	188,000	280,000	357,000	235,000	167,000	203,000	144,000	274,000	172,000	77,800	91,000
12	115,000	210,000	257,000	329,000	244,000	176,000	211,000	144,000	286,000	161,000	74,600	87,000
13	124,000	204,000	238,000	347,000	245,000	172,000	227,000	142,000	285,000	155,000	75,100	81,700
14	129,000	191,000	227,000	421,000	272,000	164,000	253,000	147,000	286,000	145,000	85,500	78,600
15	123,000	177,000	218,000	458,000	335,000	159,000	285,000	165,000	317,000	138,000	91,900	83,000
16	117,000	168,000	210,000	432,000	384,000	153,000	308,000	182,000	341,000	134,000	93,800	86,600
17	112,000	155,000	204,000	394,000	403,000	148,000	317,000	227,000	334,000	126,000	94,000	89,300
18	105,000	147,000	193,000	355,000	393,000	139,000	306,000	269,000	307,000	114,000	88,300	91,800
19	110,000	143,000	186,000	318,000	381,000	136,000	288,000	262,000	284,000	109,000	84,400	91,300
20	118,000	142,000	181,000	295,000	369,000	140,000	268,000	247,000	268,000	104,000	88,000	92,400
21	113,000	144,000	172,000	285,000	348,000	139,000	255,000	237,000	252,000	98,500	96,800	99,200
22	105,000	144,000	164,000	277,000	322,000	133,000	259,000	232,000	243,000	97,900	107,000	106,000
23	102,000	138,000	151,000	267,000	302,000	140,000	261,000	231,000	235,000	98,900	109,000	114,000
24	103,000	133,000	132,000	251,000	289,000	147,000	275,000	225,000	231,000	93,900	109,000	109,000
25	110,000	157,000	120,000	246,000	269,000	142,000	282,000	216,000	225,000	94,100	117,000	106,000
26	114,000	187,000	123,000	243,000	251,000	143,000	275,000	216,000	221,000	104,000	118,000	110,000
27	120,000	225,000	126,000	233,000	240,000	145,000	274,000	221,000	216,000	109,000	111,000	110,000
28	125,000	249,000	126,000	224,000	235,000	144,000	269,000	214,000	209,000	106,000	104,000	108,000
29	132,000	277,000	125,000	217,000	---	139,000	263,000	205,000	205,000	104,000	115,000	123,000
30	134,000	275,000	124,000	217,000	---	140,000	252,000	199,000	206,000	108,000	128,000	134,000
31	131,000	---	121,000	213,000	---	148,000	---	195,000	---	104,000	134,000	---
MEAN	117,600	189,900	202,000	303,500	268,000	162,100	239,300	202,100	242,100	142,300	96,710	99,770
MAX	134,000	277,000	307,000	489,000	403,000	222,000	317,000	269,000	341,000	205,000	134,000	134,000
MIN	102,000	125,000	120,000	117,000	185,000	133,000	157,000	142,000	169,000	93,900	74,600	78,600
IN.	0.19	0.30	0.33	0.49	0.39	0.26	0.38	0.33	0.38	0.23	0.16	0.16

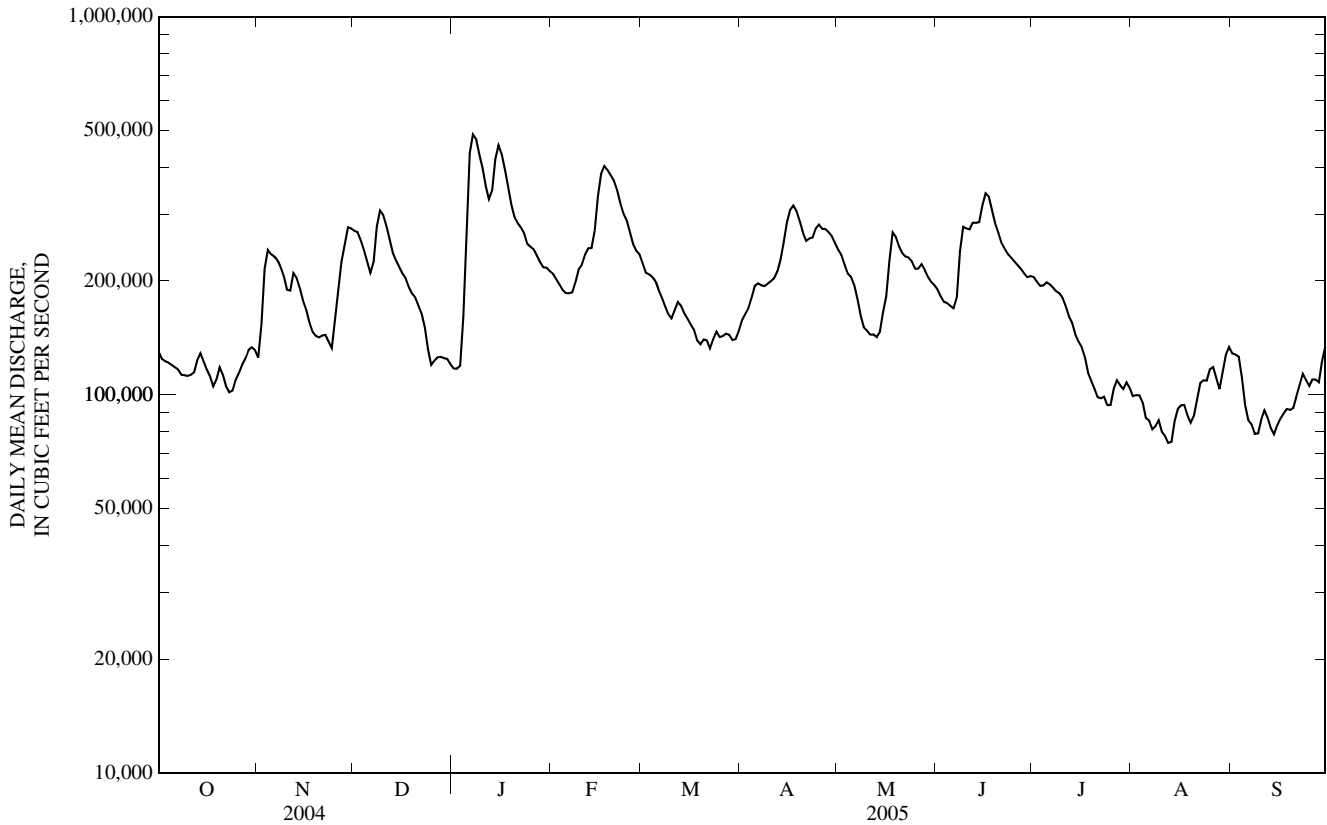
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2005, BY WATER YEAR (WY)

MEAN	148,700	156,300	140,600	132,900	161,200	247,400	328,100	322,700	288,400	241,100	159,100	145,300
MAX	588,300	380,400	500,100	323,200	331,000	528,400	719,100	630,900	597,200	795,300	769,500	551,000
(WY)	(1987)	(1986)	(1983)	(1973)	(1974)	(1973)	(1973)	(1995)	(1947)	(1993)	(1993)	(1993)
MIN	59,490	59,320	51,070	47,810	52,860	84,200	129,400	127,200	81,040	69,050	69,580	66,030
(WY)	(1957)	(1957)	(1964)	(1964)	(1964)	(1964)	(2000)	(1989)	(1988)	(1988)	(1988)	(1976)



07020500 MISSISSIPPI RIVER AT CHESTER, IL—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1942 - 2005	
ANNUAL MEAN	200,100		188,100		206,000	
HIGHEST ANNUAL MEAN					441,700	1993
LOWEST ANNUAL MEAN					96,770	1956
HIGHEST DAILY MEAN	455,000	May 30	489,000	Jan 7	1,000,000	Aug 6, 1993
LOWEST DAILY MEAN	78,500	Feb 19	74,600	Aug 12	37,600	Jan 1, 1964
ANNUAL SEVEN-DAY MINIMUM	83,000	Feb 15	79,500	Aug 7	38,500	Dec 20, 1963
MAXIMUM PEAK FLOW	---		496,000	Jan 7	1,000,000	Aug 7, 1993
MAXIMUM PEAK STAGE	---		30.76	Jan 7	49.74	Aug 7, 1993
INSTANTANEOUS LOW FLOW	---		73,000	Aug 13	30,000	Dec 12, 1937
ANNUAL RUNOFF (INCHES)	3.84		3.60		3.95	
10 PERCENT EXCEEDS	364,000		286,000		396,000	
50 PERCENT EXCEEDS	178,000		181,000		166,000	
90 PERCENT EXCEEDS	108,000		97,500		78,500	



MISSISSIPPI RIVER MAIN STEM  
07020500 MISSISSIPPI RIVER AT CHESTER, IL—Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT: August 1980 to current year.

REMARKS.--Sediment records fair.

EXTREMES FOR PERIOD OF RECORD.--

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,380 mg/L, Apr. 13, 1987; minimum daily mean, 13 mg/L, Mar. 18, 1981.

SUSPENDED-SEDIMENT LOADS: Maximum daily, 3,330,000 tons, Feb. 25, 1997; minimum daily, 3,580 tons, Mar. 18, 1981.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATIONS.--Maximum daily mean, 1,540 mg/L, June 17; minimum daily mean, 112 mg/L, July 23.

SUSPENDED-SEDIMENT LOADS.--Maximum daily, 1,480,000 tons, Jan. 7; minimum daily 24,300 tons, Aug. 12.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Day	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	NOVEMBER			DECEMBER		
				Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)
				OCTOBER					
1	130,000	161	61,300	125,000	183	61,900	272,000	528	387,000
2	124,000	174	58,500	154,000	302	129,000	269,000	441	320,000
3	123,000	197	65,200	215,000	532	311,000	256,000	415	287,000
4	122,000	201	65,900	242,000	531	346,000	242,000	447	291,000
5	120,000	195	63,200	235,000	483	307,000	226,000	359	219,000
6	118,000	189	60,500	232,000	415	260,000	210,000	243	138,000
7	117,000	184	58,000	227,000	368	226,000	224,000	242	147,000
8	113,000	184	56,000	218,000	323	190,000	278,000	398	301,000
9	113,000	184	55,900	206,000	290	162,000	307,000	566	470,000
10	112,000	179	54,200	190,000	287	147,000	299,000	522	422,000
11	113,000	177	54,100	188,000	329	168,000	280,000	489	370,000
12	115,000	186	57,500	210,000	374	212,000	257,000	429	298,000
13	124,000	204	68,300	204,000	328	181,000	238,000	384	246,000
14	129,000	218	75,900	191,000	253	131,000	227,000	376	231,000
15	123,000	202	67,000	177,000	221	106,000	218,000	308	182,000
16	117,000	192	60,300	168,000	241	109,000	210,000	248	140,000
17	112,000	181	54,600	155,000	167	70,100	204,000	232	128,000
18	105,000	169	48,100	147,000	155	61,600	193,000	212	110,000
19	110,000	173	51,400	143,000	160	61,800	186,000	208	104,000
20	118,000	187	59,900	142,000	167	63,800	181,000	272	133,000
21	113,000	182	55,500	144,000	186	72,200	172,000	261	122,000
22	105,000	171	48,600	144,000	177	69,100	164,000	244	108,000
23	102,000	159	43,700	138,000	193	72,100	151,000	231	94,100
24	103,000	154	42,600	133,000	245	88,100	132,000	210	75,200
25	110,000	151	44,800	157,000	383	163,000	120,000	204	66,800
26	114,000	149	46,000	187,000	386	196,000	123,000	222	73,700
27	120,000	147	47,600	225,000	512	311,000	126,000	208	70,700
28	125,000	145	48,800	249,000	451	303,000	126,000	208	70,700
29	132,000	147	52,400	277,000	469	351,000	125,000	199	67,100
30	134,000	177	63,900	275,000	508	378,000	124,000	221	74,300
31	131,000	222	78,800	---	---	---	121,000	220	71,700
TOTAL	3,647,000	---	1,768,500	5,698,000	---	5,307,700	6,261,000	---	5,818,300

## 07020500 MISSISSIPPI RIVER AT CHESTER, IL—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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	117,000	151	47,900	209,000	237	134,000	222,000	214	129,000
2	117,000	156	49,400	202,000	248	136,000	210,000	212	120,000
3	119,000	169	54,400	196,000	224	119,000	208,000	189	106,000
4	161,000	248	113,000	189,000	181	92,500	205,000	177	98,300
5	284,000	744	595,000	186,000	272	136,000	200,000	166	89,300
6	436,000	1,210	1,430,000	185,000	223	112,000	189,000	178	90,700
7	489,000	1,120	1,480,000	187,000	219	110,000	181,000	219	107,000
8	475,000	1,100	1,410,000	198,000	245	131,000	172,000	189	87,800
9	432,000	1,020	1,190,000	215,000	211	122,000	164,000	206	91,100
10	398,000	781	842,000	221,000	266	159,000	159,000	218	93,700
11	357,000	556	537,000	235,000	322	204,000	167,000	230	104,000
12	329,000	449	399,000	244,000	376	248,000	176,000	156	73,900
13	347,000	481	454,000	245,000	430	284,000	172,000	163	75,900
14	421,000	803	915,000	272,000	480	353,000	164,000	164	72,500
15	458,000	816	1,010,000	335,000	523	475,000	159,000	164	70,500
16	432,000	814	950,000	384,000	858	892,000	153,000	151	62,400
17	394,000	809	862,000	403,000	1,060	1,150,000	148,000	126	50,600
18	355,000	696	670,000	393,000	1,090	1,160,000	139,000	158	59,300
19	318,000	474	409,000	381,000	859	884,000	136,000	188	69,100
20	295,000	455	362,000	369,000	713	710,000	140,000	177	66,700
21	285,000	459	353,000	348,000	592	556,000	139,000	150	56,500
22	277,000	368	275,000	322,000	530	461,000	133,000	146	52,200
23	267,000	430	310,000	302,000	406	331,000	140,000	183	69,500
24	251,000	363	246,000	289,000	364	285,000	147,000	197	78,300
25	246,000	351	234,000	269,000	316	230,000	142,000	209	80,200
26	243,000	355	232,000	251,000	278	188,000	143,000	186	72,000
27	233,000	352	222,000	240,000	279	181,000	145,000	177	69,400
28	224,000	309	187,000	235,000	266	169,000	144,000	196	76,100
29	217,000	323	190,000	---	---	---	139,000	174	65,700
30	217,000	240	141,000	---	---	---	140,000	164	62,000
31	213,000	255	147,000	---	---	---	148,000	159	63,600
TOTAL	9,407,000	---	16,316,700	7,505,000	---	10,012,500	5,024,000	---	2,463,300
		APRIL		MAY			JUNE		
1	157,000	177	75,400	242,000	458	299,000	190,000	230	118,000
2	163,000	193	85,400	234,000	387	245,000	182,000	226	111,000
3	170,000	234	107,000	221,000	311	185,000	176,000	198	94,400
4	181,000	212	103,000	209,000	313	177,000	175,000	185	87,400
5	194,000	230	121,000	205,000	329	182,000	172,000	188	87,300
6	197,000	230	123,000	195,000	333	175,000	169,000	186	85,100
7	195,000	226	119,000	179,000	271	131,000	181,000	226	112,000
8	194,000	240	126,000	162,000	232	102,000	240,000	606	403,000
9	197,000	258	137,000	151,000	200	81,400	278,000	1,340	1,010,000
10	200,000	276	149,000	148,000	200	79,600	275,000	1,260	935,000
11	203,000	294	161,000	144,000	197	76,700	274,000	1,150	849,000
12	211,000	345	197,000	144,000	188	73,300	286,000	1,120	865,000
13	227,000	453	279,000	142,000	191	73,500	285,000	1,030	792,000
14	253,000	561	384,000	147,000	175	69,300	286,000	941	728,000
15	285,000	665	513,000	165,000	199	89,300	317,000	1,040	893,000
16	308,000	675	562,000	182,000	292	144,000	341,000	1,450	1,330,000
17	317,000	648	554,000	227,000	564	352,000	334,000	1,540	1,390,000
18	306,000	620	513,000	269,000	1,320	957,000	307,000	1,280	1,060,000
19	288,000	581	451,000	262,000	1,470	1,040,000	284,000	934	717,000
20	268,000	539	391,000	247,000	1,530	1,020,000	268,000	742	538,000
21	255,000	497	343,000	237,000	1,340	856,000	252,000	625	425,000
22	259,000	473	331,000	232,000	962	603,000	243,000	526	345,000
23	261,000	555	390,000	231,000	717	446,000	235,000	479	304,000
24	275,000	647	481,000	225,000	557	339,000	231,000	441	274,000
25	282,000	657	500,000	216,000	457	266,000	225,000	402	245,000
26	275,000	644	478,000	216,000	413	241,000	221,000	364	217,000
27	274,000	631	467,000	221,000	414	248,000	216,000	326	190,000
28	269,000	618	449,000	214,000	366	211,000	209,000	287	162,000
29	263,000	591	420,000	205,000	363	201,000	205,000	249	137,000
30	252,000	526	358,000	199,000	312	168,000	206,000	215	120,000
31	---	---	---	195,000	245	129,000	---	---	---
TOTAL	7,179,000	---	9,367,800	6,266,000	---	9,260,100	7,263,000	---	14,624,200

## MISSISSIPPI RIVER MAIN STEM

07020500 MISSISSIPPI RIVER AT CHESTER, IL—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Day	Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)				Mean discharge (cfs)	Mean concentration (mg/l)	Load (tons/day)
				JULY	AUGUST	SEPTEMBER			
1	205,000	211	117,000	99,200	167	44,900	129,000	210	73,000
2	199,000	226	121,000	99,800	187	50,400	128,000	203	70,200
3	194,000	285	150,000	99,700	138	37,200	126,000	201	68,600
4	195,000	310	163,000	95,500	113	29,200	111,000	182	54,700
5	198,000	312	167,000	86,800	120	28,100	94,100	164	41,600
6	196,000	246	130,000	85,600	143	33,000	85,700	151	34,900
7	192,000	219	114,000	81,100	151	33,200	83,500	143	32,200
8	188,000	236	120,000	82,700	144	32,200	78,900	135	28,700
9	186,000	213	107,000	85,600	125	28,900	79,100	136	29,000
10	181,000	195	95,000	79,900	118	25,400	86,000	149	34,500
11	172,000	197	91,400	77,800	116	24,500	91,000	151	37,100
12	161,000	185	80,700	74,600	121	24,300	87,000	142	33,300
13	155,000	165	69,300	75,100	121	24,500	81,700	131	28,800
14	145,000	167	65,300	85,500	119	27,600	78,600	122	25,800
15	138,000	161	60,200	91,900	138	34,200	83,000	134	30,100
16	134,000	141	51,000	93,800	133	33,600	86,600	147	34,400
17	126,000	135	46,000	94,000	158	40,200	89,300	156	37,600
18	114,000	146	44,800	88,300	136	32,500	91,800	160	39,600
19	109,000	171	50,400	84,400	170	38,700	91,300	150	37,100
20	104,000	145	40,800	88,000	140	33,200	92,400	133	33,100
21	98,500	134	35,600	96,800	157	41,100	99,200	127	34,000
22	97,900	120	31,800	107,000	163	47,200	106,000	144	41,500
23	98,900	112	29,900	109,000	162	47,900	114,000	254	78,000
24	93,900	132	33,400	109,000	163	48,100	109,000	195	57,700
25	94,100	140	35,600	117,000	171	54,100	106,000	139	39,500
26	104,000	151	42,300	118,000	176	56,300	110,000	140	41,600
27	109,000	119	35,100	111,000	160	47,700	110,000	134	39,700
28	106,000	128	36,600	104,000	146	40,900	108,000	117	34,100
29	104,000	149	41,800	115,000	170	52,800	123,000	145	48,300
30	108,000	170	49,500	128,000	201	69,400	134,000	183	63,400
31	104,000	188	52,800	134,000	228	82,300	---	---	---
TOTAL	4,410,300	---	2,308,300	2,998,100	---	1,243,600	2,993,200	---	1,282,100

07021000 CASTOR RIVER AT ZALMA, MO

LOCATION.--Lat 37°08'48", long 90°04'32", in SE ¼ sec.29, T.29 N., R.9 E., Bollinger County, Hydrologic Unit 07140107, on downstream side of left bridge pier on State Highway 51 in Zalma and 2.5 mi downstream from Perkins Creek.

DRAINAGE AREA.--423 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1920 to September 1991, November 8, 2000 to current year. Prior to October 1921 monthly discharge only published in WSP 1311.

REVISED RECORDS.--WSP 1147: 1922-23(M). WSP 1281: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 350.38 ft above National Geodetic Vertical Datum of 1929. January 1920 to Oct. 1, 1925, at site 500 ft upstream at datum 49.82 ft lower; Oct. 1, 1925 to Nov. 12, 1930, at site 500 ft upstream at datum 0.18 ft higher; Nov. 13, 1930 to June 8, 1953, nonrecording gage at present site and datum; June 1953 to September 1991 and October 2000 to current year, water-stage recorder at present site and datum; Dec. 18, 1949 to September 1991, auxiliary nonrecording gage 6.0 mi downstream; October 2000 to current year, auxiliary water-stage recorder 6.0 mi downstream.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of 1915 reached a stage of 28.0 ft, present datum, from floodmarks by local residents.

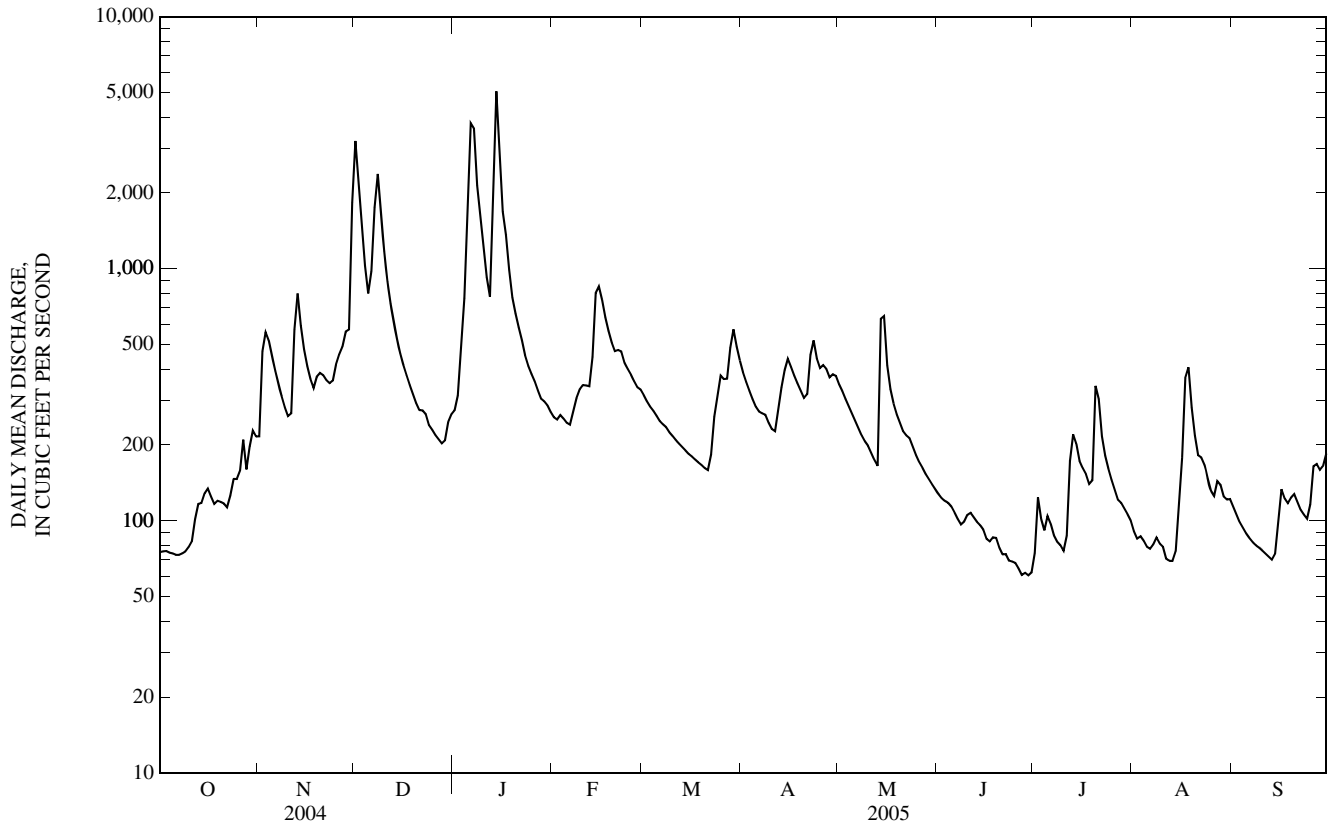
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	217	3,210	275	258	316	388	348	128	74	91	114
2	76	470	2,250	314	252	298	355	327	123	124	85	106
3	76	560	1,460	473	263	284	328	305	120	102	87	99
4	75	519	1,030	764	255	273	304	285	118	92	83	94
5	74	452	798	1,620	245	262	284	267	114	105	79	89
6	73	393	978	3,780	241	249	272	250	108	97	77	86
7	73	351	1,750	3,610	273	242	267	234	102	88	81	82
8	74	313	2,380	2,140	307	235	263	218	97	83	86	80
9	76	283	1,640	1,570	332	225	245	207	99	80	81	78
10	79	260	1,170	1,190	346	217	232	199	106	76	79	76
11	83	267	892	924	344	210	227	186	108	87	71	74
12	102	574	727	775	342	203	279	175	103	173	69	72
13	117	799	617	2,260	447	197	338	165	99	220	69	70
14	118	594	527	5,050	801	190	397	633	96	202	76	74
15	129	480	462	2,980	850	184	440	649	92	173	114	99
16	134	412	415	1,690	752	180	408	414	85	162	178	133
17	125	366	378	1,360	643	175	377	334	83	153	369	123
18	117	337	346	992	568	171	352	292	86	140	407	117
19	120	374	319	770	511	167	328	265	86	145	281	124
20	119	387	293	664	472	162	307	245	78	343	218	128
21	117	378	275	585	476	159	318	227	74	304	182	119
22	113	362	275	520	470	183	456	218	74	216	179	111
23	126	352	265	453	424	259	519	213	70	182	167	106
24	147	360	240	412	401	310	441	196	69	161	147	102
25	147	418	230	383	380	377	404	182	68	146	132	116
26	158	458	219	358	358	365	415	171	65	133	126	165
27	210	491	211	330	339	366	401	162	61	121	144	168
28	160	564	203	306	332	486	371	153	62	118	139	159
29	197	575	209	298	---	575	381	146	61	112	125	165
30	228	1,830	247	287	---	491	376	139	62	106	122	185
31	216	---	265	271	---	433	---	133	---	100	122	---
MEAN	120	473	783	1,207	417	272	349	256	89.9	143	138	110
MAX	228	1,830	3,210	5,050	850	575	519	649	128	343	407	185
MIN	73	217	203	271	241	159	227	133	61	74	69	70
IN.	0.33	1.25	2.14	3.29	1.03	0.74	0.92	0.70	0.24	0.39	0.38	0.29

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

MEAN	159	409	594	717	708	1,016	1,008	817	419	166	112	123
MAX	1,576	2,045	5,507	3,735	2,279	3,521	3,645	3,944	4,082	1,195	336	883
(WY)	(1985)	(1985)	(1983)	(1937)	(1989)	(1945)	(1927)	(2002)	(1928)	(1976)	(2003)	(1965)
MIN	37.0	59.1	72.1	60.7	95.4	98.0	142	90.2	43.9	33.4	22.5	31.5
(WY)	(1921)	(1921)	(1956)	(1956)	(1934)	(1941)	(1971)	(1932)	(1936)	(1936)	(1936)	(1953)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	455		364		521	
HIGHEST ANNUAL MEAN					1,088	1950
LOWEST ANNUAL MEAN					149	1941
HIGHEST DAILY MEAN	5,610	Apr 25	5,050	Jan 14	42,700	Dec 4, 1982
LOWEST DAILY MEAN	73	Oct 6,7	61	Jun 27,29	16	Aug 31, 1936
ANNUAL SEVEN-DAY MINIMUM	74	Oct 2	64	Jun 24	19	Aug 25, 1936
MAXIMUM PEAK FLOW	---		5,460	Jan 14	97,100	Dec 4, 1982
MAXIMUM PEAK STAGE	---		19.57	Jan 14	29.92	Dec 4, 1982
INSTANTANEOUS LOW FLOW	---		59	Jun 28,29	16	Aug 31, 1936
ANNUAL RUNOFF (INCHES)	14.65		11.68		16.73	
10 PERCENT EXCEEDS	852		637		1,060	
50 PERCENT EXCEEDS	281		227		184	
90 PERCENT EXCEEDS	97		80		60	



07021000 CASTOR RIVER AT ZALMA, MO—Continued  
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 22...	1410	Environmental	361	8.7	84	7.3	178	13.3	92	18.7	11.0	1.10
JAN 24...	1230	Environmental	411	12.5	96	7.6	152	3.8	--	--	--	--
JAN 24...	1231	Replicate	--	12.4	95	7.6	152	3.8	--	--	--	--
MAR 14...	1510	Environmental	189	11.6	103	7.9	180	9.6	--	--	--	--
MAY 17...	0850	Environmental	340	7.4	79	7.2	156	17.9	73	15.1	8.60	.96
JUL 18...	1435	Environmental	139	6.4	82	7.9	214	27.2	--	--	--	--
SEP 06...	1525	Environmental	85	6.8	84	7.5	234	25.4	--	--	--	--

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 22...	1.93	83	85	103	<1	2.52	<.1	3.9	96	<10	.13	<.04	.11
JAN 24...	--	--	--	--	--	--	--	--	--	<10	E.07n	<.04	.39
JAN 24...	--	--	--	--	--	--	--	--	--	<10	E.10n	<.04	.38
MAR 14...	--	--	--	--	--	--	--	--	--	<10	.13	<.04	E.04n
MAY 17...	1.59	64	64	79	<1	1.72	<.1	4.2	81	25	.20	<.04	.12
JUL 18...	--	--	--	--	--	--	--	--	--	18	.23	<.04	E.03n
SEP 06...	--	--	--	--	--	--	--	--	--	26	.13	<.04	<.06

Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L (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 col/100 mL (31625)	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)	Iron, water, fltrd, μg/L (01046)
NOV 22...	<.008	<.02	<.04	<.04	53	55	2	108	E.2n	<.04	<.04	E.3n	8
JAN 24...	<.008	<.02	<.04	<.04	2k	13k	--	--	--	--	--	--	--
JAN 24...	<.008	<.02	<.04	<.04	3k	15k	--	--	--	--	--	--	--
MAR 14...	<.008	<.02	<.04	<.04	3k	8k	--	--	--	--	--	--	--
MAY 17...	<.008	--u	<.04	E.02n	100	180	3	231	.2	<.04	E.02n	E.3n	13
JUL 18...	<.008	<.02	<.04	<.04	46	120k	--	--	--	--	--	--	--
SEP 06...	<.008	<.09d	<.04	<.04	18k	26	--	--	--	--	--	--	--

## MISSISSIPPI RIVER BASIN BELOW MISSOURI RIVER

07021000 CASTOR RIVER AT ZALMA, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 22...	<.08	.49	29.2	E.01n	<.4	.7	E1n
JAN 24...	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--
MAY 17...	<.08	.74	23.7	<.01	<.4	.9	E2n
JUL 18...	--	--	--	--	--	--	--
SEP 06...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

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

## Null value qualifier codes used in this table:

u -- Unable to determine-matrix interference



## 07022000 MISSISSIPPI RIVER AT THEBES, IL

LOCATION.--Lat 37°12'59", long 89°28'03", in NW ¼ sec.17, T.15 S., R.3 W., Alexander County, Hydrologic Unit 07140105, near center span on downstream side of railroad bridge at Thebes, 5.0 mi downstream from Headwater Diversion Channel, and at mile 43.7 above Ohio River.

DRAINAGE AREA.--713,200 mi<sup>2</sup>, approximately.

## WATER-DISCHARGE RECORDS

## PERIOD OF RECORD.--

DISCHARGE: October 1932 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to April 1941, published as "at Cape Girardeau, Mo".

GAGE HEIGHT: March 1933 to February 1938 and October 1939 to current year. Prior to April 1941, published as "at Cape Girardeau, Mo". Since November 1878, under name of "at Grays Point" in files of the U.S. Army Corps of Engineers; January 1879 to May of 1896, published as "at Grays Point"; since May 1896, published as "at Cape Girardeau" in reports of the Mississippi River Commission; February 1891 to February 1894 and since 1904, published as "at Cape Girardeau in reports of the National Weather Service.

REVISED RECORDS.--WSP 1341: 1844(M). WDR MO-76-1: Drainage area, WDR MO-98-1: Extreme outside period of record.

GAGE.--Water-stage recorder. Datum of gage is 300.00 ft above National Geodetic Vertical Datum of 1929. Mar. 17, 1933, to Dec. 21 1934, nonrecording gage; Dec. 22, 1934, to Apr. 4, 1941, water-stage recorder, at site 8.2 mi upstream at datum 4.65 ft higher; Apr. 5, 1941, to Sept. 30, 1941, nonrecording gage at present site and datum; Oct. 1, 1941, to Oct. 11, 1943, at datum 0.07 ft higher. Prior to Apr. 5, 1941, various auxiliary gages used. Since Oct. 1, 1943, former gage at Cape Girardeau used as auxiliary gage.

REMARKS.--No estimated daily discharges. Water-discharge records good. Natural flow of stream affected by many reservoirs and navigation dams in the upper Mississippi River Basin and by many reservoirs and diversions for irrigation in the Missouri River Basin. U.S. Army Corps of Engineers satellite telemeter and telemark at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 4, 1844, reached an elevation of 345.14 ft, present datum, at Grays Point, from floodmarks, discharge, 1,075,000 ft<sup>3</sup>/s, computed by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138,000	134,000	301,000	129,000	231,000	247,000	162,000	251,000	195,000	207,000	106,000	134,000
2	131,000	137,000	298,000	128,000	222,000	231,000	172,000	244,000	189,000	204,000	103,000	130,000
3	125,000	178,000	288,000	128,000	212,000	222,000	177,000	234,000	182,000	198,000	103,000	130,000
4	123,000	235,000	272,000	143,000	204,000	219,000	185,000	222,000	178,000	196,000	102,000	125,000
5	122,000	251,000	256,000	230,000	198,000	214,000	197,000	215,000	176,000	199,000	96,400	110,000
6	120,000	244,000	240,000	425,000	195,000	205,000	206,000	209,000	173,000	199,000	89,900	95,300
7	118,000	242,000	239,000	519,000	196,000	194,000	206,000	196,000	173,000	196,000	87,500	89,100
8	116,000	234,000	282,000	534,000	201,000	186,000	203,000	179,000	201,000	193,000	84,600	85,800
9	113,000	223,000	334,000	500,000	217,000	177,000	203,000	164,000	261,000	189,000	86,000	82,000
10	112,000	208,000	342,000	465,000	229,000	169,000	206,000	155,000	282,000	187,000	86,700	83,100
11	111,000	196,000	328,000	427,000	239,000	169,000	209,000	152,000	278,000	181,000	82,500	89,500
12	112,000	210,000	301,000	391,000	254,000	178,000	218,000	149,000	283,000	175,000	78,600	92,800
13	115,000	219,000	276,000	392,000	259,000	181,000	231,000	149,000	292,000	165,000	76,800	88,700
14	124,000	209,000	259,000	448,000	272,000	175,000	250,000	150,000	288,000	156,000	79,300	84,100
15	128,000	195,000	248,000	488,000	322,000	169,000	281,000	160,000	304,000	146,000	90,000	83,300
16	122,000	185,000	238,000	491,000	388,000	163,000	309,000	177,000	332,000	141,000	92,600	86,700
17	116,000	174,000	229,000	459,000	429,000	158,000	324,000	199,000	343,000	135,000	94,800	89,700
18	111,000	163,000	220,000	423,000	435,000	151,000	320,000	254,000	325,000	126,000	93,200	92,700
19	106,000	156,000	208,000	385,000	424,000	143,000	301,000	273,000	298,000	117,000	88,200	94,700
20	111,000	152,000	202,000	356,000	408,000	142,000	279,000	260,000	280,000	114,000	85,700	93,800
21	117,000	150,000	194,000	338,000	388,000	144,000	261,000	247,000	263,000	107,000	90,500	97,400
22	113,000	151,000	185,000	328,000	360,000	141,000	260,000	239,000	250,000	103,000	99,200	103,000
23	108,000	150,000	172,000	317,000	333,000	142,000	263,000	235,000	242,000	103,000	108,000	112,000
24	105,000	143,000	154,000	300,000	317,000	151,000	268,000	232,000	234,000	102,000	107,000	115,000
25	106,000	147,000	137,000	286,000	300,000	152,000	282,000	224,000	230,000	97,400	110,000	112,000
26	112,000	173,000	129,000	282,000	280,000	149,000	280,000	218,000	224,000	99,400	117,000	110,000
27	118,000	213,000	132,000	274,000	263,000	151,000	277,000	222,000	220,000	108,000	116,000	113,000
28	123,000	248,000	134,000	261,000	256,000	156,000	276,000	222,000	214,000	111,000	108,000	112,000
29	127,000	284,000	134,000	251,000	---	152,000	271,000	212,000	208,000	108,000	106,000	114,000
30	134,000	304,000	134,000	244,000	---	149,000	263,000	204,000	206,000	109,000	119,000	130,000
31	136,000	---	135,000	239,000	---	155,000	---	199,000	---	110,000	131,000	---
MEAN	118,500	196,900	225,800	341,300	286,900	172,100	244,700	207,900	244,100	147,800	97,370	102,600
MAX	138,000	304,000	342,000	534,000	435,000	247,000	324,000	273,000	343,000	207,000	131,000	134,000
MIN	105,000	134,000	129,000	128,000	195,000	141,000	162,000	149,000	173,000	97,400	76,800	82,000
IN.	0.19	0.31	0.37	0.55	0.42	0.28	0.38	0.34	0.38	0.24	0.16	0.16

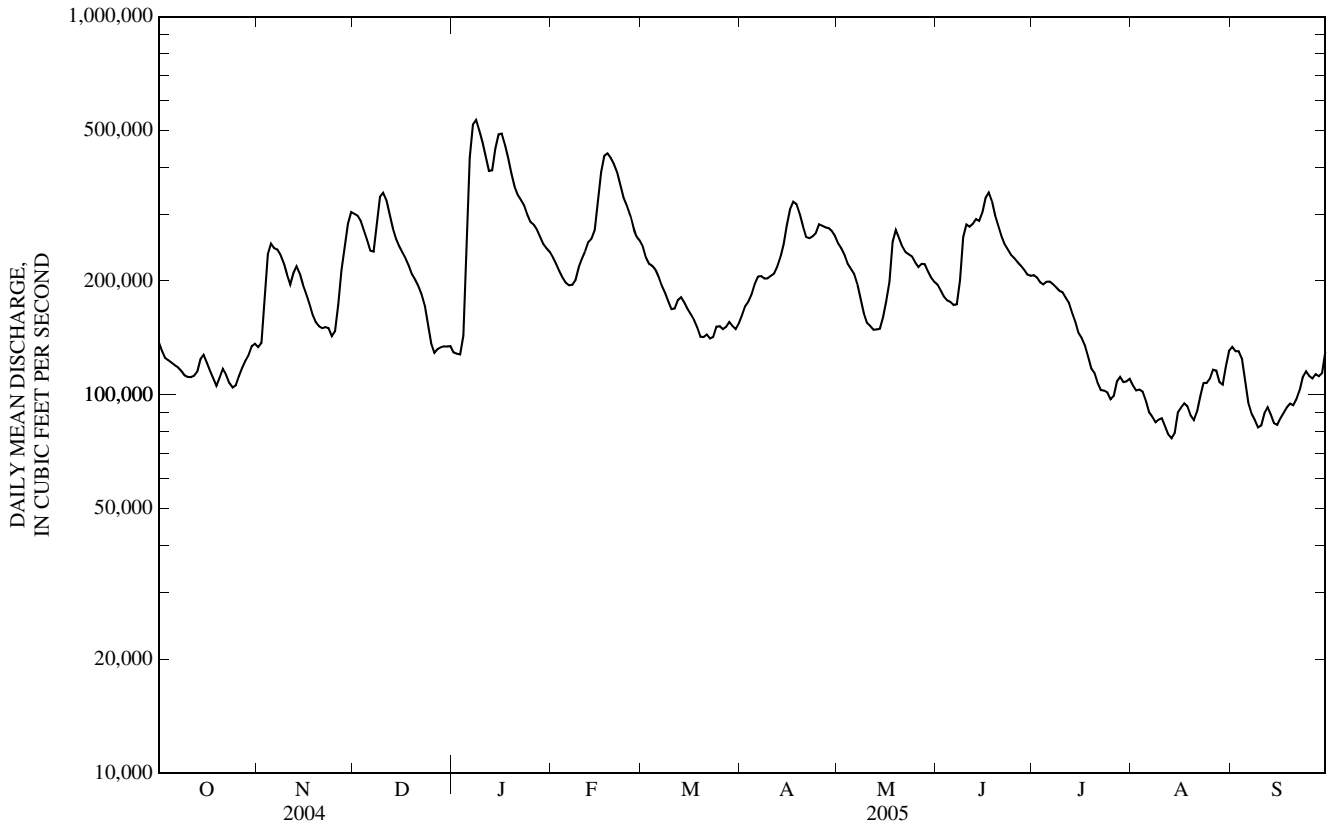
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 2005, BY WATER YEAR (WY)

MEAN	148,200	156,600	142,500	136,700	164,300	249,600	324,600	323,300	290,900	238,100	155,600	142,000
MAX	589,600	389,000	531,700	341,300	350,400	542,000	731,000	655,800	584,100	765,500	768,000	539,300
(WY)	(1987)	(1986)	(1983)	(2005)	(1974)	(1985)	(1973)	(1973)	(1947)	(1993)	(1993)	(1993)
MIN	45,500	50,080	53,850	33,650	46,920	80,260	115,600	88,170	72,350	73,290	45,000	59,890
(WY)	(1940)	(1940)	(1956)	(1940)	(1940)	(1934)	(1934)	(1934)	(1934)	(1936)	(1936)	(1937)

MISSISSIPPI RIVER MAIN STEM

07022000 MISSISSIPPI RIVER AT THEBES, IL—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1933 - 2005	
ANNUAL MEAN	212,900		198,100		206,400	
HIGHEST ANNUAL MEAN					446,000	1993
LOWEST ANNUAL MEAN					71,730	1934
HIGHEST DAILY MEAN	500,000	May 31	534,000	Jan 8	978,000	Aug 7, 1993
LOWEST DAILY MEAN	84,200	Feb 20	76,800	Aug 13	24,700	Jan 21, 1940
ANNUAL SEVEN-DAY MINIMUM	89,200	Feb 16	82,100	Aug 8	26,700	Jan 20, 1940
MAXIMUM PEAK FLOW	---		539,000	Jan 8	996,000	Aug 7, 1993
MAXIMUM PEAK STAGE	---		35.20	Jan 8	45.91	May 23, 1995
INSTANTANEOUS LOW FLOW	---		75,500	Aug 13	23,400	Dec 13, 1937
ANNUAL RUNOFF (INCHES)	4.07		3.77		3.93	
10 PERCENT EXCEEDS	395,000		312,000		402,000	
50 PERCENT EXCEEDS	185,000		186,000		166,000	
90 PERCENT EXCEEDS	111,000		101,000		76,300	



07022000 MISSISSIPPI RIVER AT THEBES, IL—Continued  
(National Stream-Quality Accounting Network)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1981.

WATER TEMPERATURE: October 1974 to September 1981.

SUSPENDED-SEDIMENT: October 1980 to current year.

REMARKS.--National Stream-Quality Accounting Network (NASQAN) station January 1973 to September 1986. Illinois Environmental Protection Agency station October 1986 to September 1994 (during this period, samples were analyzed by the Illinois EPA). Re-established as a NASQAN station October 1994 to current year. Sediment records good.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 705 microsiemens per centimeter, Aug. 5-7, 1980; minimum daily, 272 microsiemens per centimeter, Apr. 6, 1979.

WATER TEMPERATURE: Maximum daily, 31.5 °C, July 10, 11, 1975, and July 17, 1977; minimum daily, 0.0 °C, on several days during winter periods.

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 3,890 mg/L, Dec. 22, 1985; minimum daily mean, 13 mg/L, Jan. 28, 1981.

SUSPENDED-SEDIMENT LOAD: Maximum daily, 6,280,000 tons, Mar. 1, 1985; minimum daily, 2,530 tons, Jan. 28, 1981.

EXTREMES FOR CURRENT YEAR.--

SUSPENDED-SEDIMENT CONCENTRATION.--Maximum daily mean, 1,110 mg/L, June 18; minimum daily mean, 97 mg/L, Dec. 29.

SUSPENDED-SEDIMENT LOAD.--Maximum daily, 1,530,000 tons, Jan. 7; minimum daily 26,200 tons, Sept. 14

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	UV absorbance, 254 nm, wat flt units /cm (50624)	UV absorbance, 280 nm, wat flt units /cm (61726)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd field, std units (00400)	Specific conductance, wat unfltrd μS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)
OCT												
20...	1445	Environmental	112,000	.116	.084	10.8	110	8.1	561	15.5	210	52.1
DEC												
01...	1450	Environmental	300,000	.158	.119	12.1	103	7.6	411	8.3	170	42.0
01...	1458	Blank	--	<.004	<.004	--	--	--	--	--	--	--
JAN												
12...	1445	Environmental	388,000	.162	.123	12.8	101	7.7	346	4.7	150	36.9
FEB												
16...	1425	Environmental	394,000	.164	.123	13.0	104	7.6	508	5.7	210	52.3
MAR												
14...	1425	Environmental	174,000	.121	.091	10.9	90	7.8	548	7.0	240	61.0
APR												
04...	1445	Environmental	186,000	.125	.095	11.1	105	8.2	565	12.4	240	60.7
04...	1453	Blank	--	--	--	--	--	--	--	--	--	.04
18...	1405	Environmental	319,000	.169	.126	8.1	85	7.6	429	17.1	180	47.2
MAY												
04...	1340	Environmental	220,000	.135	.098	9.1	90	7.9	489	14.7	210	51.3
23...	1415	Environmental	235,000	.150	.110	6.8	79	7.7	476	21.4	210	51.2
JUN												
15...	1355	Environmental	305,000	.137	.100	6.1	75	7.8	458	25.5	200	50.3
22...	1410	Environmental	249,000	.145	.105	6.1	77	7.9	482	26.6	220	54.3
JUL												
06...	1335	Environmental	199,000	.161	.115	6.0	79	7.8	554	28.8	240	57.5
06...	1343	Blank	--	--	--	--	--	--	--	--	--	--
AUG												
03...	1345	Environmental	104,000	.141	.100	6.5	88	8.0	592	30.7	230	54.5
03...	1355	Replicate	--	.144	.103	--	--	--	--	--	230	54.0
SEP												
14...	1405	Environmental	83,800	.124	.088	9.6	125	7.9	543	28.1	220	52.6

## 07022000 MISSISSIPPI RIVER AT THEBES, IL—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Magnesium, water, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	Sodium, water, fltrd, mg/L (00930)	Alkalinity, wat flt fxd end field, mg/L as CaCO <sub>3</sub> (39036)	Alkalinity, wat flt inc tit field, mg/L as CaCO <sub>3</sub> (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Silica, water, fltrd, mg/L (00955)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia + org-N, water, fltrd, mg/L as N (00623)
Date	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Particulate nitrogen, susp, water, mg/L (49570)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inorganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)	Organic carbon, water, fltrd, mg/L (00681)	Phaeophytin a, phytoplankton, µg/L (62360)
OCT 20...													
DEC 01...													
JAN 01...													
JAN 12...													
FEB 16...													
MAR 14...													
APR 04...													
APR 04...													
APR 18...													
MAY 04...													
MAY 23...													
JUN 15...													
JUN 22...													
JUL 06...													
JUL 06...													
AUG 03...													
AUG 03...													
SEP 14...													
OCT 20...	.78	.05	1.42	.022	.34	.123	.138	.25o	2.9	<.1	2.9	4.3	11.4
DEC 01...	.98	E.04n	1.65	.010	.51	.119	.137	.33o	4.6	<.1	4.6	4.9n	5.4
DEC 01...	--	--	--	--	.06	--	--	--	<.1	<.1	<.1	E.3n	--
JAN 12...	1.2	.07	1.86	.012	.60	.097	.118	.38o	4.6	<.1	4.5	5.3	6.3
FEB 16...	1.1	.08	2.59	.012	.63	.102	.117	.40o	5.5	<.1	5.4	4.8	5.1
MAR 14...	.70	.09	3.18	.015	.34	.112	.132	.28o	2.4	<.1	2.4	4.1	E7.9
APR 04...	.99	<.04	2.34	.014	.52	.061	.080	.21o	3.6	<.1	3.5	4.4	13.6
APR 04...	--	<.010	<.016	E.001n	--	<.006	--	--	--	--	--	--	--
APR 18...	1.7	<.04	2.29	.076	.66	.071	.090	.51o	6.1	<.1	6.0	5.9	12.9
MAY 04...	1.1	<.04	3.28	.033	.53	.101	.112	.28o	4.4	<.1	4.3	4.4	9.5
MAY 23...	2.0	<.04	4.16	.018	1.02	.092	.107	.64o	9.1	<.1	9.0	4.7	13.4
JUN 15...	1.6	<.04	3.20	E.007n	--	.102	.117	.49o	--	--	--	4.8	8.4
JUN 22...	1.4	<.04	3.41	<.008	.84	.119	.133	.48o	7.8	.1	7.7	4.6	9.2
JUL 06...	.86	<.04	2.98	.013	.52	.148	.184	.31o	3.2	<.1	3.2	5.5	6.5
JUL 06...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 03...	.95	E.02n	1.22	.030	.34	.107	.140	.25o	2.0	<.1	2.0	4.7	19.2
AUG 03...	.91	<.04	1.18	.030	.38	.103	.140	.24o	2.4	<.1	2.4	4.8	21.2
SEP 14...	.62	<.04	.26	.016	.38	.143	<.004	.24o	2.6	<.1	2.5	5.1	14.6

07022000 MISSISSIPPI RIVER AT THEBES, IL—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coli-form, M-FC col/0.7µ MF (31625)	Chloro-phyll a phyto-plank-ton, fluoro, µg/L (70953)	Alum-inum, water, fltrd, µg/L (01106)	Anti-mony, water, fltrd, µg/L (01095)	Arsenic water, fltrd, µg/L (01000)	Barium, water, fltrd, µg/L (01005)	Beryll-ium, water, fltrd, µg/L (01010)	Boron, water, fltrd, µg/L (01020)	Cadmium water, fltrd, µg/L (01025)	Chrom-ium, water, fltrd, µg/L (01030)	Cobalt water, fltrd, µg/L (01035)	Copper, water, fltrd, µg/L (01040)
OCT 20...	850k	690k	22.5	--	--	2.3	--	--	73	--	--	--	--
DEC 01...	1,300k	1,200k	4.1	2	E.14n	1.4	63	<.06	40	<.04	<.8	.212	1.7
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 12...	600	720	6.5	--	--	1.2	--	--	27	--	--	--	--
FEB 16...	120	180	7.0	--	--	1.2	--	--	32	--	--	--	--
MAR 14...	68	96	E12.5	2	E.15n	1.3	66	<.06	46	<.04	<.8	.215	1.5
APR 04...	42	58	21.8	--	--	1.2	--	--	59	--	--	--	--
04...	--	--	--	<2	<.20	<.2	<.2	<.06	<8	<.04	<.8	<.014	<.4
18...	130k	300k	9.1	--	--	1.2	--	--	38	--	--	--	--
MAY 04...	54	140k	8.5	2	.22	1.6	74	<.06	48	E.03n	<.8	.174	1.7
23...	310	300	10.7	3	.28	1.9	85	<.06	70	E.03n	<.8	.410	2.1
JUN 15...	500	630k	4.7	3	.28	1.8	81	<.06	50	E.03n	<.8	.177	2.2
22...	230	600	7.9	--	--	2.2	--	--	47	--	--	--	--
JUL 06...	110	190	9.4	4	.32	3.1	91	<.06	63	E.03n	<.8	.220	2.4
06...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 03...	10k	16k	32.6	7	.41	3.6	83	<.06	81	E.03n	<.8	.283	2.9
03...	--	--	35.1	7	.41	3.6	83	<.06	78	E.03n	<.8	.272	2.8
SEP 14...	16k	8k	29.2	--	--	3.5o	--	--	83	--	--	--	--

Date	Iron, water, fltrd, µg/L (01046)	Lead, water, fltrd, µg/L (01049)	Lithium water, fltrd, µg/L (01130)	Mangan-ese, water, fltrd, µg/L (01056)	Molyb-denum, water, fltrd, µg/L (01060)	Nickel, water, fltrd, µg/L (01065)	Selen-ium, water, fltrd, µg/L (01145)	Silver, water, fltrd, µg/L (01075)	Stront-ium, water, fltrd, µg/L (01080)	Vanad-ium, water, fltrd, µg/L (01085)	Zinc, water, fltrd, µg/L (01090)	2-6-Di-ethyl-aniline water fltrd 0.7µ GF (82660)	CIAT, water, fltrd, µg/L (04040)
OCT 20...	<6	--	16.8	--	--	--	1.0	--	238	3.5	--	E.005n	E.023
DEC 01...	10	<.08	5.8	2.9	1.5	1.42	.8	<.2	154	1.7	.9	<.006	E.025
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 12...	14	--	2.9	--	--	--	1.2	--	111	1.7	--	E.006n	E.012
FEB 16...	7	--	7.2	--	--	--	1.0	--	176	1.2	--	<.006	E.016
MAR 14...	9	E.05n	7.7	2.4	1.6	2.22	.9	<.2	188	1.9	1.1	<.006	E.017m
APR 04...	6	--	8.3	--	--	--	1.0	--	212	2.9	--	<.006	E.018m
04...	<6	<.08	<.6	<.2	<.4	<.06	<.4	<.2	<.40	<.1	<.6	--	--
18...	10	--	7.7	--	--	--	.9	--	177	2.2	--	<.006	E.028m
MAY 04...	E3n	<.08	8.0	1.2	1.9	2.56	1.3	<.2	184	2.1	.8	.008	E.037m
23...	E4n	<.08	9.2	.3	2.4	10.3	1.8	<.2	212	3.2	1.0	<.006	E.276m
JUN 15...	E3n	<.08	12.2	.6	2.2	3.43	1.2	<.2	212	3.2	.7	<.006	E.150m
22...	<6	--	10.4	--	--	--	1.5	--	220	3.6	--	<.006	E.086m
JUL 06...	E3n	<.08	17.5	.7	2.7	4.01	1.8	<.2	230	4.6	2.2	<.006	E.090m
06...	--	--	--	--	--	--	--	--	--	--	--	<.006	E.005mm
AUG 03...	<6	.17	18.7	.6	3.9	3.68	1.6	<.2	266	5.2	.9	<.006	E.079m
03...	E4n	E.05n	18.6	.6	3.9	3.74	1.5	<.2	270	5.0	.7	--	--
SEP 14...	<6	--	18.5	--	--	--	.95o	--	294	4.0o	--	<.006	E.025m

## 07022000 MISSISSIPPI RIVER AT THEBES, IL—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Aceto- chlor, water, fltrd, µg/L (49260)	Ala- chlor, water, fltrd, µg/L (46342)	alpha- HCH, water, fltrd, µg/L (34253)	Atra- zine, water, fltrd, µg/L (39632)	Azin- phos- methyl, water, fltrd 0.7µ GF (82686)	Ben- flur- alin, water, fltrd 0.7µ GF (82673)	Butyl- ate, water, fltrd, µg/L (04028)	Car- baryl, water, fltrd 0.7µ GF (82680)	Carbo- furan, water, fltrd 0.7µ GF (82674)	Chlor- pyrifos water, fltrd, µg/L (38933)	cis- Per- methrin water fltrd 0.7µ GF (82687)	Cyana- zine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µ GF (82682)
OCT 20...	.017	<.004	<.005	.128	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003
DEC 01...	.024	<.004	<.005	.202	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 12...	.018	<.004	<.005	.110	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003
FEB 16...	.030	<.010	<.005	.109	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003
MAR 14...	.024	<.010	<.005	.082	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
APR 04...	.066	<.005	<.005	.136	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	.163	.026	<.005	.838	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
MAY 04...	.224	.014	<.005	1.44	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
23...	1.26	.112	<.005	6.79	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
JUN 15...	.291	.076	<.005	.910	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
22...	.173	.026	<.005	.508	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
JUL 06...	.056	<.008	<.005	.661	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
06...	<.006	<.005	<.005	.033	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
AUG 03...	<.015	<.005	<.005	.463	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 14...	.032	<.005	<.005	.290	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003

Date	Diazi- non, water, fltrd, µg/L (39572)	Diel- drin, water, fltrd, µg/L (39381)	Disul- foton, water, fltrd 0.7µ GF (82677)	EPTC, water, fltrd 0.7µ GF (82668)	Ethal- flur- alin, water, fltrd 0.7µ GF (82663)	Etho- prop, water, fltrd 0.7µ GF (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)	Linuron water fltrd 0.7µ GF (82666)	Malathion, water, fltrd, µg/L (39532)	Methyl para- thion, water, fltrd 0.7µ GF (82667)	Metola- chlor, water, fltrd, µg/L (39415)	Metri- buzin, water, fltrd, µg/L (82630)
OCT 20...	<.005	<.005	<.02	<.010	<.009	<.005	<.003	<.004	<.035	<.027	<.006	.036	<.006
DEC 01...	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.006	.025	<.006
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 12...	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.006	.029	<.006
FEB 16...	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.006	.045	<.006
MAR 14...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.097	<.006
APR 04...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.055	<.006
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.250	<.015
MAY 04...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.310	<.006
23...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	1.49	.043
JUN 15...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.507	.013
22...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.342	.006
JUL 06...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.240	<.006
06...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.013	<.006
AUG 03...	<.005	<.009	<.02m	<.004	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.053	<.006
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 14...	<.005	<.009	<.02m	<.005	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.041	<.006

## 07022000 MISSISSIPPI RIVER AT THEBES, IL—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Molinate, water, fltrd 0.7µ GF (82671)	Naprop- amide, water, fltrd 0.7µ GF (82684)	p,p'- DDE, water, fltrd, µg/L (34653)	Para- thion, water, fltrd, µg/L (39542)	Peb- ulate, water, fltrd 0.7µ GF (82669)	Pendi- meth- alin, water, fltrd 0.7µ GF (82683)	Phorate water fltrd 0.7µ GF (82664)	Prome- ton, water, fltrd, µg/L (04037)	Propy- zamide, water, fltrd 0.7µ GF (82676)	Propa- chlor, water, fltrd, µg/L (04024)	Pro- panil, water, fltrd 0.7µ GF (82679)	Propar- gite, water, fltrd 0.7µ GF (82685)	Sima- zine, water, fltrd, µg/L (04035)
OCT 20...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005
DEC 01...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.170
01...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 12...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.217
FEB 16...	<.002	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	.067
MAR 14...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.042
APR 04...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.051
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
18...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.046
MAY 04...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.01n	<.004	<.025	<.011	<.02	.082
23...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.083
JUN 15...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	.037
22...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.01n	<.004	<.025	<.011	<.50	.025
JUL 06...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.01n	<.004	<.025	<.011	<.02	.016
06...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005
AUG 03...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	E.01n	<.004	<.025	<.011	<.02	<.012
03...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 14...	<.003	<.007	<.003	<.010	<.004	<.022	<.011	.01	<.004	<.025	<.011	<.02	<.009

## MISSISSIPPI RIVER MAIN STEM

07022000 MISSISSIPPI RIVER AT THEBES, IL—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tebu- thiuron water fltrd 0.7µ GF µg/L (82670)	Terba- cil, water, fltrd 0.7µ GF µg/L (82665)	Terbu- fos, water, fltrd 0.7µ GF µg/L (82675)	Thio- bencarb water fltrd 0.7µ GF µg/L (82681)	Tri- allate, water, fltrd 0.7µ GF µg/L (82678)	Tri- flur- alin, water, fltrd 0.7µ GF µg/L (82661)	Uranium natural water, fltrd, µg/L (22703)	Suspnd. sedi- ment, sieve diametr percent <.063mm (70331)	Sus- pended sedi- ment concen- tration mg/L (80154)
OCT									
20...	<.02	<.034	<.02	<.005	<.002	<.009	--	64	158
DEC									
01...	<.02	<.034	<.02	<.005	<.002	<.009	1.29	94	194
01...	--	--	--	--	--	--	--	--	--
JAN									
12...	<.02	<.034	<.02	<.005	<.002	<.009	--	69	456
FEB									
16...	<.02	<.034	<.02	<.005	<.002	<.009	--	73	440
MAR									
14...	<.02	<.034m	<.02	<.010	<.006	<.009	1.80	60	115
APR									
04...	<.02	<.034m	<.02	<.010	<.006	<.009	--	87	89
04...	--	--	--	--	--	--	<.04	--	--
18...	<.02	<.034m	<.02	<.010	<.006	<.009	--	90	659
MAY									
04...	<.02	<.034m	<.02	<.010	<.006	<.009	2.16	97	762
23...	<.02	<.034m	<.02	<.010	<.006	<.009	2.45	89	631
JUN									
15...	<.02	<.034m	<.02	<.010	<.006	<.009	2.16	94	688
22...	<.02	<.034m	<.02	<.010	<.006	<.009	--	95	428
JUL									
06...	<.02	<.034m	<.02	<.010	<.006	<.009	3.02	82	171
06...	<.02	<.034m	<.02	<.010	<.006	<.009	--	--	--
AUG									
03...	<.02	<.034m	<.02	<.010	<.006	<.009	2.88	90	100
03...	--	--	--	--	--	--	2.94	--	--
SEP									
14...	<.02	<.034m	<.02	<.010	<.006	<.009	--	76	91

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

Value qualifier codes used in this table:

k -- Counts outside acceptable range  
m -- Value is highly variable by this method  
n -- Below the LRL and above the LT-MDL  
o -- Result determined by alternate method



## 07022000 MISSISSIPPI RIVER AT THEBES, IL—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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	138,000	150	48,600	134,000	166	59,900				301,000	309	251,000			
2	131,000	163	57,400	137,000	171	63,400				298,000	281	226,000			
3	125,000	156	52,600	178,000	229	111,000				288,000	262	204,000			
4	123,000	152	50,800	235,000	303	194,000				272,000	222	163,000			
5	122,000	165	54,300	251,000	435	295,000				256,000	196	136,000			
6	120,000	165	53,400	244,000	414	273,000				240,000	170	110,000			
7	118,000	160	51,200	242,000	358	234,000				239,000	165	107,000			
8	116,000	156	48,800	234,000	316	200,000				282,000	210	162,000			
9	113,000	164	50,000	223,000	259	156,000				334,000	332	300,000			
10	112,000	163	48,900	208,000	234	132,000				342,000	406	376,000			
11	111,000	166	49,900	196,000	235	124,000				328,000	361	319,000			
12	112,000	150	45,400	210,000	235	133,000				301,000	327	266,000			
13	115,000	141	44,000	219,000	268	158,000				276,000	281	209,000			
14	124,000	159	53,300	209,000	235	133,000				259,000	248	173,000			
15	128,000	172	59,200	195,000	215	113,000				248,000	199	133,000			
16	122,000	176	57,900	185,000	197	98,200				238,000	180	116,000			
17	116,000	169	52,800	174,000	158	74,100				229,000	156	96,500			
18	111,000	155	46,200	163,000	164	72,100				220,000	151	89,600			
19	106,000	151	43,100	156,000	156	65,500				208,000	138	77,400			
20	111,000	159	47,800	152,000	155	63,500				202,000	138	75,100			
21	117,000	165	52,200	150,000	146	59,100				194,000	148	77,400			
22	113,000	139	42,500	151,000	129	52,700				185,000	141	70,400			
23	108,000	141	40,900	150,000	118	47,700				172,000	134	62,200			
24	105,000	162	45,700	143,000	116	44,700				154,000	126	52,500			
25	106,000	166	47,600	147,000	149	59,700				137,000	118	43,600			
26	112,000	150	45,400	173,000	224	105,000				129,000	112	39,200			
27	118,000	149	47,600	213,000	237	136,000				132,000	116	41,500			
28	123,000	152	50,400	248,000	264	177,000				134,000	104	37,700			
29	127,000	173	59,500	284,000	303	233,000				134,000	97	35,100			
30	134,000	161	58,600	304,000	319	262,000				134,000	108	39,000			
31	136,000	188	69,400	---	---	---				135,000	117	42,700			
TOTAL	3,673,000	---	1,575,400	5,908,000	---	3,929,600				7,001,000	---	4,130,900			
	JANUARY			FEBRUARY			MARCH								
1	129,000	132	46,000	231,000	152	94,700	247,000			219		146,000			
2	128,000	157	54,500	222,000	159	95,100	231,000			205		128,000			
3	128,000	110	38,100	212,000	160	91,500	222,000			183		110,000			
4	143,000	140	54,800	204,000	148	81,800	219,000			164		97,300			
5	230,000	322	213,000	198,000	143	76,600	214,000			149		86,300			
6	425,000	753	880,000	195,000	173	91,300	205,000			154		85,500			
7	519,000	1,090	1,530,000	196,000	138	72,700	194,000			153		80,200			
8	534,000	1,010	1,460,000	201,000	134	72,900	186,000			152		76,100			
9	500,000	785	1,060,000	217,000	136	79,700	177,000			163		77,600			
10	465,000	634	797,000	229,000	174	107,000	169,000			161		73,200			
11	427,000	503	580,000	239,000	174	113,000	169,000			140		64,200			
12	391,000	431	456,000	254,000	189	130,000	178,000			144		69,200			
13	392,000	379	402,000	259,000	196	137,000	181,000			141		68,700			
14	448,000	473	574,000	272,000	260	192,000	192,000			135		63,800			
15	488,000	590	779,000	322,000	371	324,000	169,000			128		58,500			
16	491,000	618	819,000	388,000	525	552,000	163,000			128		56,200			
17	459,000	583	723,000	429,000	807	936,000	158,000			146		62,400			
18	423,000	506	579,000	435,000	1,040	1,220,000	151,000			124		50,500			
19	385,000	430	448,000	424,000	1,050	1,210,000	143,000			125		48,200			
20	356,000	352	338,000	408,000	824	908,000	142,000			130		49,900			
21	338,000	326	298,000	388,000	695	729,000	144,000			141		54,900			
22	328,000	295	261,000	360,000	615	599,000	141,000			130		49,400			
23	317,000	266	228,000	333,000	521	469,000	142,000			158		61,000			
24	300,000	253	205,000	317,000	437	375,000	151,000			222		90,700			
25	286,000	246	190,000	300,000	423	343,000	152,000			176		72,300			
26	282,000	220	168,000	280,000	294	223,000	149,000			179		72,000			
27	274,000	208	154,000	263,000	257	182,000	151,000			180		73,500			
28	261,000	190	134,000	256,000	249	172,000	156,000			164		69,000			
29	251,000	180	122,000	---	---	---	152,000			155		63,800			
30	244,000	213	140,000	---	---	---	149,000			141		56,800			
31	239,000	165	107,000	---	---	---	155,000			139		58,100			
TOTAL	10,581,000	---	13,838,400	8,032,000	---	9,677,300	5,335,000			---		2,273,300			

## MISSISSIPPI RIVER MAIN STEM

07022000 MISSISSIPPI RIVER AT THEBES, IL—Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY)—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)
		APRIL		MAY	JUNE				
1	162,000	147	64,700	251,000	364	247,000	195,000	193	102,000
2	172,000	147	68,200	244,000	317	209,000	189,000	181	92,400
3	177,000	152	72,300	234,000	272	172,000	182,000	169	83,200
4	185,000	149	74,000	222,000	249	149,000	178,000	156	74,700
5	197,000	154	81,700	215,000	247	143,000	176,000	149	70,900
6	206,000	163	90,400	209,000	236	133,000	173,000	133	62,000
7	206,000	172	95,400	196,000	224	119,000	173,000	122	57,100
8	203,000	165	90,500	179,000	213	103,000	201,000	155	85,100
9	203,000	163	89,400	164,000	201	89,200	261,000	383	275,000
10	206,000	153	85,400	155,000	189	79,300	282,000	804	612,000
11	209,000	147	83,200	152,000	177	72,700	278,000	804	605,000
12	218,000	158	93,400	149,000	164	65,900	283,000	809	619,000
13	231,000	190	119,000	149,000	168	67,400	292,000	832	655,000
14	250,000	198	134,000	150,000	167	67,500	288,000	759	590,000
15	281,000	250	190,000	160,000	158	68,300	304,000	708	581,000
16	309,000	293	245,000	177,000	160	76,300	332,000	824	741,000
17	324,000	380	332,000	199,000	184	99,200	343,000	1,060	981,000
18	320,000	571	492,000	254,000	365	256,000	325,000	1,110	977,000
19	301,000	541	440,000	273,000	834	615,000	298,000	884	713,000
20	279,000	399	301,000	260,000	1,020	713,000	280,000	647	489,000
21	261,000	310	219,000	247,000	966	644,000	263,000	522	370,000
22	260,000	283	199,000	239,000	857	553,000	250,000	467	315,000
23	263,000	304	215,000	235,000	622	395,000	242,000	380	248,000
24	268,000	282	204,000	232,000	491	308,000	234,000	332	210,000
25	282,000	303	231,000	224,000	409	247,000	230,000	294	183,000
26	280,000	275	208,000	218,000	338	198,000	224,000	265	160,000
27	277,000	295	221,000	222,000	298	178,000	220,000	250	149,000
28	276,000	430	321,000	222,000	275	164,000	214,000	227	131,000
29	271,000	486	356,000	212,000	285	163,000	208,000	209	117,000
30	263,000	422	300,000	204,000	240	132,000	206,000	181	101,000
31	---	---	---	199,000	212	114,000	---	---	---
TOTAL	7,340,000	---	5,715,600	6,446,000	---	6,640,800	7,324,000	---	10,449,400
		JULY		AUGUST		SEPTEMBER			
1	207,000	175	98,100	106,000	125	35,900	134,000	334	121,000
2	204,000	167	92,300	103,000	123	34,200	130,000	296	104,000
3	198,000	164	87,700	103,000	159	44,400	130,000	277	97,500
4	196,000	153	80,800	102,000	177	48,800	125,000	235	79,200
5	199,000	172	92,600	96,400	155	40,500	110,000	191	56,700
6	199,000	210	113,000	89,900	145	35,100	95,300	198	51,000
7	196,000	226	120,000	87,500	152	35,900	89,100	197	47,500
8	193,000	214	112,000	84,600	151	34,500	85,800	185	42,900
9	189,000	214	109,000	86,000	151	35,100	82,000	162	35,900
10	187,000	215	108,000	86,700	143	33,400	83,100	146	32,700
11	181,000	196	95,600	82,500	137	30,500	89,500	140	33,900
12	175,000	185	87,500	78,600	129	27,600	92,800	145	36,400
13	165,000	187	83,000	76,800	135	28,100	88,700	139	33,400
14	156,000	177	74,700	79,300	141	30,300	84,100	115	26,200
15	146,000	174	68,400	90,000	163	39,800	83,300	124	27,900
16	141,000	187	71,400	92,600	189	47,400	86,700	116	27,200
17	135,000	152	55,500	94,800	164	42,100	89,700	159	38,400
18	126,000	151	51,300	93,200	141	35,600	92,700	217	54,300
19	117,000	157	49,700	88,200	139	33,100	94,700	166	42,500
20	114,000	179	55,200	85,700	133	30,800	93,800	149	37,700
21	107,000	164	47,600	90,500	143	34,900	97,400	158	41,600
22	103,000	139	38,600	99,200	159	42,700	103,000	184	51,200
23	103,000	128	35,300	108,000	165	47,900	112,000	194	58,500
24	102,000	124	34,100	107,000	176	50,900	115,000	245	76,500
25	97,400	127	33,400	110,000	169	50,200	112,000	243	73,700
26	99,400	135	36,200	117,000	183	57,500	110,000	180	53,600
27	108,000	133	38,900	116,000	230	71,800	113,000	162	49,700
28	111,000	138	41,600	108,000	270	78,800	112,000	162	49,000
29	108,000	140	40,900	106,000	270	77,600	114,000	158	48,500
30	109,000	152	44,500	119,000	275	88,500	130,000	147	49,400
31	110,000	144	42,900	131,000	312	110,000	---	---	---
TOTAL	4,581,800	---	2,139,800	3,018,500	---	1,433,900	3,078,700	---	1,578,000

## 07035800 ST. FRANCIS RIVER NEAR MILL CREEK, MO

LOCATION.--Lat 37°30'09", long 90°27'28", in NE ¼ sec.35, T.33 N., R.5 E., Madison County, Hydrologic Unit 08020202, on downstream side of Highway E bridge, 8.7 mi southwest of Mill Creek, and 2.9 mi downstream from Little St. Francis River.

DRAINAGE AREA.--505 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1987 to September 1997, October 1999 to current year.

GAGE.--Water-stage recorder. Datum of gage is 556.27 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	333	4,520	235	250	308	461	368	28	10	20	52
2	2.6	3,080	1,950	239	245	283	387	320	27	12	16	41
3	2.3	1,300	1,220	256	262	264	341	288	24	18	12	33
4	2.7	945	876	391	273	255	309	260	22	18	10	28
5	4.5	683	707	6,180	257	247	285	240	18	32	11	23
6	5.4	488	909	9,690	252	234	265	221	15	28	14	20
7	5.9	389	3,720	2,720	302	223	257	201	14	25	11	18
8	8.1	319	2,330	1,740	440	214	250	186	14	21	9.4	16
9	13	272	1,400	1,310	524	203	233	173	14	19	8.6	16
10	22	244	1,040	1,060	499	193	219	162	18	19	8.1	14
11	33	3,680	807	909	434	185	217	150	32	23	7.9	12
12	54	3,870	669	814	392	178	328	139	39	63	9.9	10
13	58	1,490	569	13,200	759	167	519	122	42	133	17	9.4
14	69	856	480	5,980	1,520	159	622	143	39	181	30	31
15	80	602	422	2,080	1,010	151	473	196	28	108	214	77
16	53	481	393	1,330	725	146	383	176	25	69	1,420	156
17	49	409	371	941	555	141	331	135	21	44	791	246
18	49	368	344	734	473	134	296	112	16	33	399	189
19	38	667	323	637	414	130	268	97	12	33	259	130
20	28	834	299	583	389	126	252	91	11	64	185	104
21	25	619	284	514	372	122	310	80	9.6	134	138	147
22	25	509	285	446	340	207	673	78	8.7	95	121	170
23	35	498	273	380	315	2,110	842	81	8.2	63	102	113
24	53	2,530	223	331	339	1,750	516	71	7.7	45	84	78
25	120	3,880	203	315	365	1,140	398	61	8.0	34	67	82
26	89	1,570	193	306	358	1,070	371	49	9.3	26	221	168
27	615	1,040	188	287	334	1,930	384	40	9.5	24	327	259
28	1,950	823	183	261	321	1,870	361	36	8.9	21	187	200
29	565	1,040	191	261	---	1,090	398	32	8.2	17	120	267
30	350	4,920	223	274	---	766	411	28	8.2	15	90	294
31	268	---	237	265	---	585	---	28	---	23	65	---
MEAN	151	1,291	833	1,764	454	535	379	141	18.2	46.8	160	100
MAX	1,950	4,920	4,520	13,200	1,520	2,110	842	368	42	181	1,420	294
MIN	2.3	244	183	235	245	122	217	28	7.7	10	7.9	9.4
IN.	0.34	2.85	1.90	4.03	0.94	1.22	0.84	0.32	0.04	0.11	0.37	0.22

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

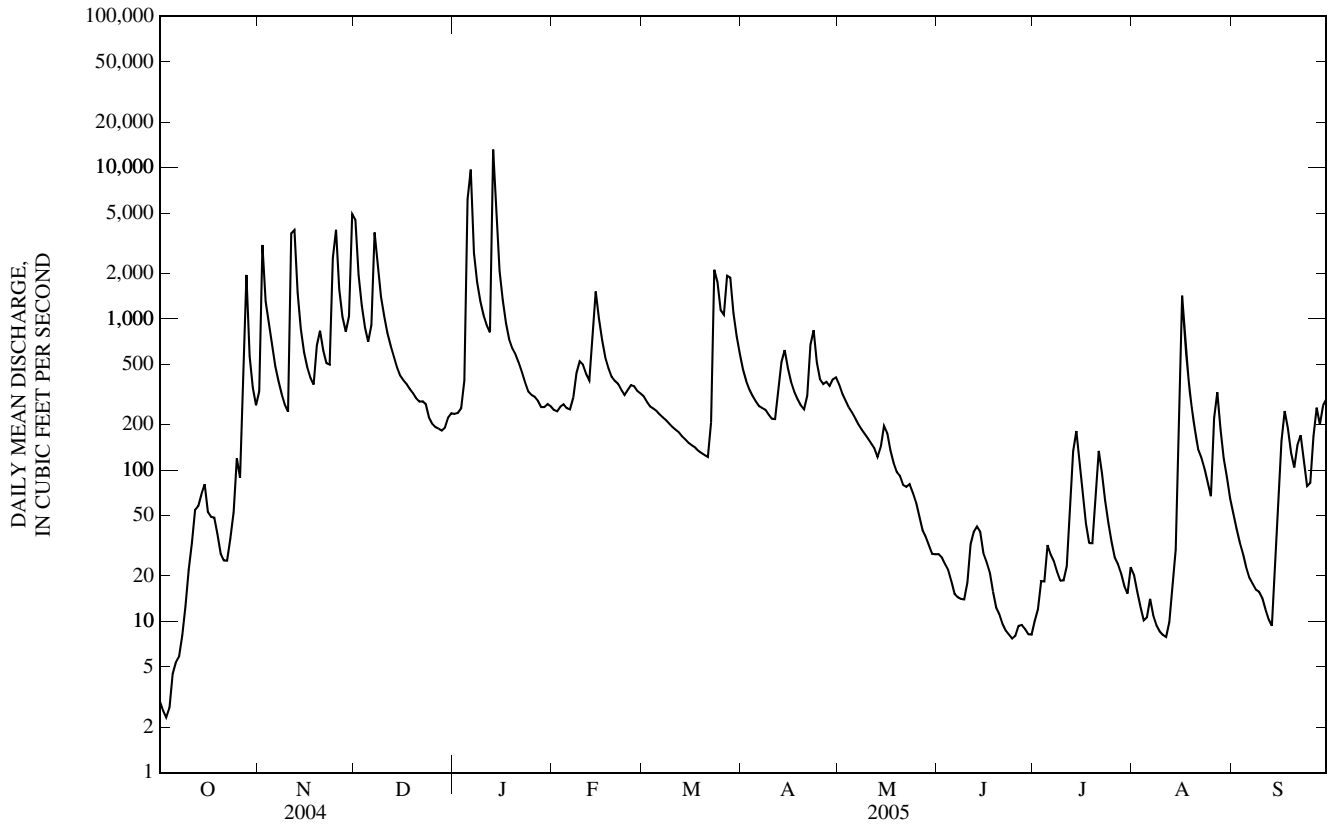
MEAN	88.2	791	804	829	823	861	1,014	1,077	288	87.9	78.8	112
MAX	438	3,774	2,428	2,187	1,745	1,936	2,890	4,927	899	200	201	1,153
(WY)	(1994)	(1994)	(1991)	(1993)	(1989)	(2002)	(1994)	(2002)	(1997)	(2001)	(2002)	(1993)
MIN	12.9	23.9	32.7	141	153	304	159	64.5	16.4	26.0	4.18	10.9
(WY)	(2001)	(2000)	(1990)	(2000)	(1996)	(2001)	(2000)	(1987)	(1988)	(2004)	(1988)	(2004)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	560	490	580
HIGHEST ANNUAL MEAN			949
LOWEST ANNUAL MEAN			194
HIGHEST DAILY MEAN	8,350	Mar 5	13,200
LOWEST DAILY MEAN	1.5	Sep 22-24	2.3
ANNUAL SEVEN-DAY MINIMUM	1.6	Sep 21	3.8
MAXIMUM PEAK FLOW	---	18,600	Jan 13
MAXIMUM PEAK STAGE	---	14.76	Jan 13
INSTANTANEOUS LOW FLOW	---	2.1	Oct 3,4
ANNUAL RUNOFF (INCHES)	15.11	13.18	15.61
10 PERCENT EXCEEDS	1,290	1,040	1,130
50 PERCENT EXCEEDS	297	214	190
90 PERCENT EXCEEDS	4.6	14	16

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

07035800 ST. FRANCIS RIVER NEAR MILL CREEK, MO—Continued



07036100 ST. FRANCIS RIVER NEAR SACO, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°23'06", long 90°28'27", in NE ¼ SE ¼ NE ¼ sec.10, T.31 N., R.5 E., Madison County, Hydrologic Unit 08020202, 3.5 mi northwest of Saco, and 1.3 mi downstream from Twelve Mile Creek.

DRAINAGE AREA.--664 mi<sup>2</sup>.

PERIOD OF RECORD--November 1983 to September 1989, November 1999 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd, std units (00400)	Specific conductance, wat unfltrd, µS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Hardness, water, 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 23...	0840	Environmental	767	9.2	88	7.2	191	12.3	88	18.0	10.4	2.04
JAN 25...	0915	Environmental	614	13.5	100	7.8	190	2.4	--	--	--	--
MAR 15...	0930	Environmental	293	11.4	96	8.2	227	7.6	--	--	--	--
MAY 17...	1145	Environmental	266	8.4	96	7.7	230	20.7	100	19.8	12.3	1.68
JUL 19...	0930	Environmental	129	7.6	97	7.5	284	27.2	--	--	--	--
SEP 06...	1150	Environmental	81	6.4	78	6.8	274	25.0	--	--	--	--

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 23...	5.45	73	72	88	<1	6.30	E.1n	13.1	109	<10	.20	<.04	.32
JAN 25...	--	--	--	--	--	--	--	--	--	<10	.11	<.04	.59
MAR 15...	--	--	--	--	--	--	--	--	--	<10	.21	<.04	<.06
MAY 17...	5.96	88	89	108	<1	5.95	E.1n	13.1	119	<10	.27	<.04	<.06
JUL 19...	--	--	--	--	--	--	--	--	--	<10	.29	<.04	<.06
SEP 06...	--	--	--	--	--	--	--	--	--	<10	.26	<.04	E.03n

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, 0.7µ MF, 100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 23...	<.008	<.02	E.02n	.04	32	40	3	23	.3	<.04	<.04	.8	14
JAN 25...	<.008	E.01n	<.04	E.03n	13k	18k	--	--	--	--	--	--	--
MAR 15...	<.008	<.02	<.04	<.04	1k	4k	--	--	--	--	--	--	--
MAY 17...	<.008	--u	<.04	<.04	12k	30	E.1n	34	.4	<.04	<.04	.8	17
JUL 19...	<.008	<.02	<.04	<.04	360	500k	--	--	--	--	--	--	--
SEP 06...	<.008	<.09d	.04	.04	7k	12k	--	--	--	--	--	--	--

07036100 ST. FRANCIS RIVER NEAR SACO, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 23...	.30	<.06	13.0	E.01n	<.4	.7	<2
JAN 25...	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--
MAY 17...	.40	3.12	11.4	<.01	<.4	E.4n	<2
JUL 19...	--	--	--	--	--	--	--
SEP 06...	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

## Value qualifier codes used in this table:

d -- Diluted sample: method hi range exceeded

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

## Null value qualifier codes used in this table:

u -- Unable to determine-matrix interference

07037300 BIG CREEK AT SAM A. BAKER STATE PARK  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°15'40", long 90°30'23", in SE ¼ NE ¼ SW ¼ sec.21, T.30 N., R.5 E., Wayne County, Hydrologic Unit 08020202, at Bridge 435 on County Highway NN in Sam A. Baker State Park.

DRAINAGE AREA.--189 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1992 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 22...	1130	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16	
NOV 22...	1145	Environmental	368	9.7	94	7.4	223	13.1	110	23.1	13.6	1.28	
JAN 24...	1515	Environmental	159	12.3	98	7.9	201	5.3	--	--	--	--	
MAR 14...	1245	Environmental	86	13.1	115	8.0	232	9.1	--	--	--	--	
MAY 17...	1410	Environmental	91	8.7	98	8.0	260	20.2	130	25.5	15.9	1.27	
JUL 18...	1230	Environmental	31	6.5	84	7.8	281	26.8	--	--	--	--	
SEP 06...	1315	Environmental	216	7.2	89	7.6	304	26.0	--	--	--	--	
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 22...	<.20	--	--	--	--	<.20	<.1	<.2	<10	<10	<.10	<.04	<.06
NOV 22...	2.68	105	106	130	<1	3.05	E.1n	7.7	128	<10	E.08n	<.04	.19
JAN 24...	--	--	--	--	--	--	--	--	--	<10	E.06n	<.04	.27
MAR 14...	--	--	--	--	--	--	--	--	--	<10	E.06n	<.04	.08
MAY 17...	2.56	118	118	144	<1	2.77	E.1n	6.8	137	<10	E.07n	<.04	.12
JUL 18...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	.09
SEP 06...	--	--	--	--	--	--	--	--	--	<10	E.06n	<.04	.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 col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 22...	<.008	<.02	<.04	<.04	--	--	<2	<2	<.2	<.04	<.04	<.4	<6
NOV 22...	<.008	<.02	<.04	<.04	25	23	E1n	8	E.1n	<.04	E.03n	.5	<6
JAN 24...	<.008	<.02	<.04	<.04	2k	6k	--	--	--	--	--	--	--
MAR 14...	<.008	<.02	<.04	<.04	<1b	<1b	--	--	--	--	--	--	--
MAY 17...	<.008	--u	<.04	<.04	<1b	4k	Mn	14	E.1n	E.02n	E.03n	E.3n	E4n
JUL 18...	<.008	<.02	<.04	<.04	20	18k	--	--	--	--	--	--	--
SEP 06...	<.008	<.09d	<.04	<.04	5k	5k	--	--	--	--	--	--	--

## 07037300 BIG CREEK AT SAM A. BAKER STATE PARK—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 22...	<.08	.07	<.6	E.01n	<.4	<.6	E1n
22...	<.08	.07	1.9	E.01n	<.4	.6	<2
JAN 24...	--	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--
MAY 17...	<.08	.16	4.4	<.01	<.4	.8	E2n
JUL 18...	--	--	--	--	--	--	--
SEP 06...	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

## Value qualifier codes used in this table:

b -- Value extrapolated at low end

d -- Diluted sample: method hi range exceeded

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

## Null value qualifier codes used in this table:

u -- Unable to determine-matrix interference



## 07037500 ST. FRANCIS RIVER NEAR PATTERSON, MO

LOCATION.--Lat 37°11'40", long 90°30'12", in NE ¼ sec.16, T.29 N., R.5 E., Wayne County, Hydrologic Unit 08020202, near left bank on downstream side of bridge pier on State Highway 34, 1 mi upstream from Clark Creek, and 3 mi east of Patterson.

DRAINAGE AREA.--956 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1920 to Sept. 30, 1997, Oct. 1, 1998 to current year. Prior to June 1921, monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 732: 1922-23.

GAGE.--Water-stage recorder. Datum of gage is 370.45 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1938, nonrecording gage at site 50 ft upstream at datum 2.00 ft higher; Oct. 1, 1938, to Apr. 12, 1939, nonrecording gage; Apr. 13, 1939, to Sept. 5, 1956, water-stage recorder at site 50 ft upstream at present datum; Sept. 6, 1956, to Sept. 26, 1958, nonrecording gage at present site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of August 1915 reached a stage of 33.8 ft, present datum, from floodmarks, discharge, 100,000 ft<sup>3</sup>/s, from rating curve extended above 55,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	445	9,210	395	520	660	1,260	792	123	59	62	126
2	46	1,460	4,950	403	510	624	1,040	715	118	53	57	110
3	46	3,220	2,930	505	512	582	892	631	116	51	54	97
4	48	1,750	2,100	638	511	548	782	565	113	51	53	89
5	48	1,420	1,690	2,410	518	521	701	507	108	58	51	80
6	47	1,100	1,710	16,200	501	495	648	458	102	62	50	73
7	47	851	3,720	8,440	558	475	614	419	99	63	52	68
8	49	691	5,990	3,790	686	446	580	383	96	64	60	64
9	53	574	3,310	2,810	937	425	542	354	98	63	55	60
10	54	489	2,370	2,210	1,040	405	502	331	100	61	53	57
11	60	1,090	1,860	1,870	989	381	506	306	101	69	50	53
12	90	7,280	1,540	1,650	898	365	717	281	100	119	47	51
13	98	3,780	1,310	10,400	1,120	346	1,010	258	97	139	46	49
14	104	2,100	1,120	19,400	2,260	330	1,190	381	100	132	50	59
15	141	1,470	955	5,550	2,440	314	1,180	356	97	154	52	96
16	145	1,130	844	3,280	1,860	301	986	330	93	188	64	120
17	146	926	765	2,380	1,490	288	839	314	91	162	1,170	124
18	134	802	704	1,860	1,250	277	737	284	87	148	750	172
19	143	894	643	1,570	1,090	268	653	257	81	156	439	259
20	136	1,350	590	1,400	969	259	593	239	77	152	325	230
21	124	1,410	545	1,260	931	252	646	221	74	159	260	189
22	115	1,160	519	1,110	855	313	852	213	70	152	248	162
23	139	996	505	960	777	794	1,360	205	67	156	198	154
24	166	1,190	468	840	742	2,980	1,360	193	65	143	170	169
25	158	5,840	411	755	737	2,160	1,050	182	62	120	150	168
26	152	3,810	375	702	745	1,810	916	172	59	102	152	174
27	183	2,310	352	655	724	2,140	827	162	57	88	174	171
28	879	1,810	334	604	696	3,970	802	153	54	81	225	196
29	1,480	1,700	329	571	---	2,710	819	144	54	77	246	263
30	765	5,670	337	548	---	1,930	823	136	55	71	189	283
31	522	---	364	538	---	1,530	---	129	---	65	150	---
MEAN	205	1,957	1,705	3,087	960	932	848	325	87.1	104	184	132
MAX	1,480	7,280	9,210	19,400	2,440	3,970	1,360	792	123	188	1,170	283
MIN	46	445	329	395	501	252	502	129	54	51	46	49
IN.	0.25	2.28	2.06	3.72	1.05	1.12	0.99	0.39	0.10	0.13	0.22	0.15

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

MEAN	346	1,042	1,324	1,473	1,578	2,105	2,334	1,813	894	318	212	240
MAX	3,391	6,214	12,380	6,725	4,577	6,981	9,221	10,490	8,724	2,513	1,478	2,103
(WY)	(1985)	(1994)	(1983)	(1950)	(1951)	(1945)	(1927)	(2002)	(1928)	(1957)	(1985)	(1965)
MIN	29.0	48.1	60.9	64.9	125	178	287	139	33.6	21.3	11.2	14.8
(WY)	(1954)	(1954)	(1954)	(1956)	(1963)	(1941)	(1981)	(1930)	(1936)	(1936)	(1936)	(1955)

## SUMMARY STATISTICS

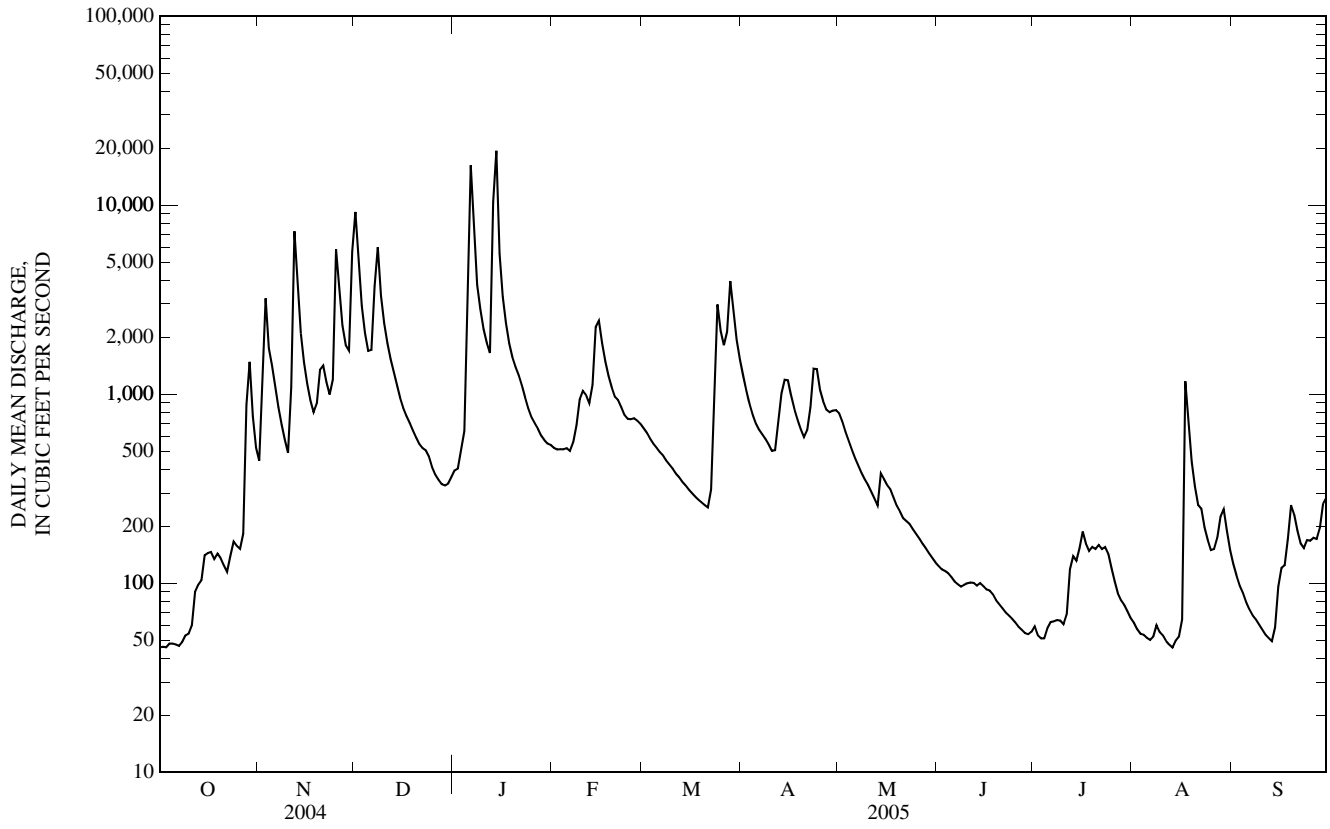
## FOR 2004 CALENDAR YEAR

## FOR 2005 WATER YEAR

## FOR PERIOD OF RECORD

ANNUAL MEAN	1,127	878	1,137
HIGHEST ANNUAL MEAN			2,731
LOWEST ANNUAL MEAN			343
HIGHEST DAILY MEAN	17,100	Mar 5	107,000
LOWEST DAILY MEAN	46	Sep 29-Oct 3	8.0
ANNUAL SEVEN-DAY MINIMUM	47	Sep 28	8.4
MAXIMUM PEAK FLOW	---	25,300	155,000 <sup>a</sup>
MAXIMUM PEAK STAGE	---	19.43	35.77
INSTANTANEOUS LOW FLOW	---	43	8.0
ANNUAL RUNOFF (INCHES)	16.05	12.47	16.16
10 PERCENT EXCEEDS	2,630	1,860	2,320
50 PERCENT EXCEEDS	606	364	342
90 PERCENT EXCEEDS	79	59	54

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



## 07039000 WAPPAPELLO LAKE AT WAPPAPELLO, MO

LOCATION.--Lat 36°55'42", long 90°17'04", in NW ¼ SE ¼ sec.3, T.26 N., R.7 E., Wayne County, Hydrologic Unit 08020202, at intake tower at dam on St. Francis River, 0.8 mi southwest of Wappapello, and at mile 309.

DRAINAGE AREA.--1,310 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--April 1941 to current year.

GAGE.--Datum of gage is National Geodetic Vertical Datum of 1929. Prior to June 19, 1941, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by earthfill type dam. Closure of channel at dam began July 10, 1940; river began to flow through outlet structure July 24, 1940. Stop logs placed in outlet structure and storage began Apr. 1, 1941; conservation pool level reached Apr. 20, 1941. Capacity at bottom of outlet tunnels (elevation, 339.0 ft), 2,600 ac-ft; at conservation pool level (elevation, 355.0 ft), 30,900 ac-ft; at spillway crest (elevation, 395.0 ft), 613,000 ac-ft; at maximum pool level (elevation, 410.4 ft), uncontrollable above spillway crest, 1,022,000 ac-ft. Lake is used for flood control, power and recreational purposes. U.S. Army Corps of Engineers satellite telemeter at station.

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

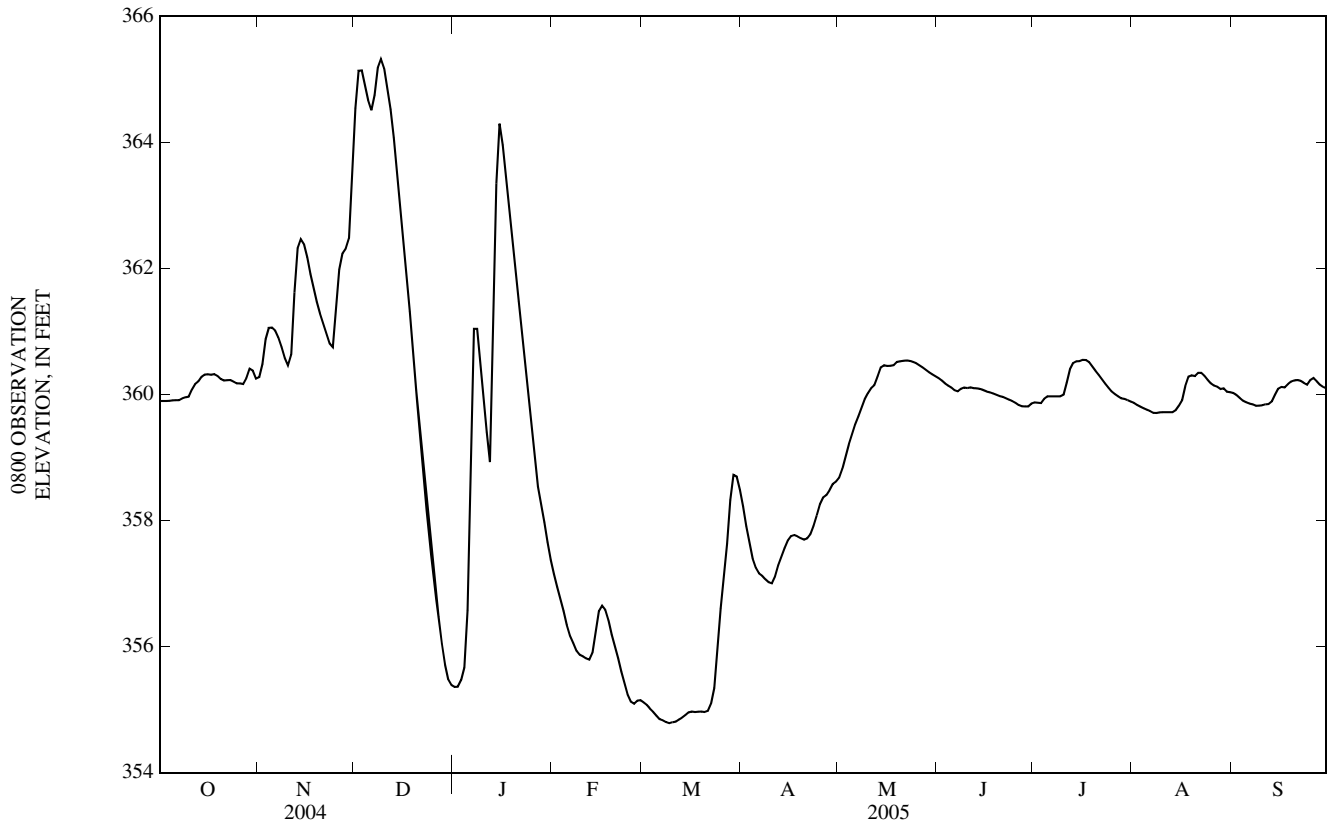
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 729,800 ac-ft, Apr. 16, 1945, elevation, 399.35 ft; minimum, since initial filling to conservation pool level, 23,340 ac-ft, Mar. 1-3, 1970; elevation, 352.20 ft, Sept. 26-27, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 113,000 ac-ft, Dec. 9, 10, elevation, 365.35 ft, Dec. 9; minimum, 30,000 ac-ft, March 10, elevation, 354.76 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	359.87	360.21	363.73	355.38	357.29	355.14	358.41	358.62	360.28	359.88	359.88	360.05
2	359.91	360.31	364.95	355.35	357.08	355.10	358.13	358.71	360.25	359.87	359.86	360.01
3	359.89	360.57	365.23	355.37	356.88	355.06	357.80	358.88	360.21	359.87	359.82	359.98
4	359.90	361.03	365.10	355.52	356.70	354.99	357.57	359.08	360.16	359.86	359.80	359.93
5	359.90	361.07	364.82	355.74	356.50	354.95	357.31	359.27	360.13	359.97	359.77	359.89
6	359.91	361.06	364.59	356.99	356.27	354.88	357.22	359.42	360.10	359.97	359.75	359.87
7	359.91	360.99	364.47	360.51	356.13	354.83	357.13	359.58	360.05	359.97	359.73	359.85
8	359.91	360.86	364.89	361.31	356.02	354.83	357.12	359.69	360.05	359.97	359.70	359.84
9	359.95	360.70	365.33	360.91	355.89	354.79	357.04	359.84	360.11	359.97	359.71	359.81
10	359.96	360.52	365.32	360.40	355.86	354.78	357.01	359.97	360.11	359.97	359.72	359.83
11	359.97	360.43	365.10	359.85	355.84	354.81	357.00	360.05	360.10	360.01	359.72	359.83
12	360.13	360.73	364.75	359.18	355.80	354.81	357.17	360.13	360.12	360.28	359.72	359.85
13	360.18	362.06	364.41	358.80	355.79	354.86	357.35	360.16	360.09	360.46	359.72	359.85
14	360.22	362.45	363.91	361.35	355.96	354.88	357.47	360.35	360.10	360.52	359.72	359.91
15	360.31	362.47	363.35	364.35	356.39	354.93	357.61	360.47	360.08	360.53	359.77	360.04
16	360.32	362.34	362.79	364.27	356.65	354.97	357.72	360.46	360.06	360.53	359.85	360.12
17	360.32	362.10	362.22	363.80	356.65	354.97	357.77	360.45	360.04	360.56	359.94	360.12
18	360.31	361.82	361.66	363.23	356.55	354.96	357.77	360.46	360.03	360.54	360.23	360.11
19	360.33	361.63	361.15	362.68	356.35	354.97	357.74	360.47	360.01	360.50	360.31	360.19
20	360.28	361.39	360.39	362.18	356.11	354.97	357.71	360.54	359.99	360.42	360.30	360.21
21	360.23	361.23	359.91	361.76	355.95	354.96	357.69	360.52	359.97	360.35	360.29	360.23
22	360.22	361.07	359.47	361.34	355.75	354.99	357.73	360.54	359.96	360.29	360.37	360.23
23	360.23	360.91	358.96	360.79	355.53	355.15	357.81	360.54	359.93	360.22	360.33	360.21
24	360.23	360.76	358.42	360.19	355.36	355.44	357.97	360.53	359.91	360.15	360.28	360.17
25	360.19	360.75	357.90	359.74	355.18	356.26	358.14	360.51	359.89	360.09	360.21	360.15
26	360.17	361.77	357.36	359.27	355.10	356.78	358.32	360.49	359.86	360.03	360.16	360.27
27	360.18	362.09	356.79	358.79	355.09	357.23	358.39	360.45	359.82	360.00	360.13	360.26
28	360.16	362.31	356.31	358.41	355.17	357.83	358.41	360.42	359.81	359.96	360.12	360.19
29	360.31	362.32	355.91	358.18	---	358.57	358.52	360.38	359.81	359.93	360.07	360.14
30	360.46	362.56	355.62	357.87	---	358.80	358.61	360.34	359.81	359.93	360.11	360.11
31	360.34	---	355.41	357.55	---	358.65	---	360.31	---	359.90	360.01	---
MEAN	360.14	361.35	361.62	359.71	356.07	355.59	357.72	360.05	360.03	360.15	359.97	360.04
MAX	360.46	362.56	365.33	364.35	357.29	358.80	358.61	360.54	360.28	360.56	360.37	360.27
MIN	359.87	360.21	355.41	355.35	355.09	354.78	357.00	358.62	359.81	359.86	359.70	359.81

07039000 WAPPAPELLO LAKE AT WAPPAPELLO, MO—Continued



RESERVOIR STORAGE, ACRE FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61,800	64,600	97,000	32,800	43,700	31,600	51,200	52,600	65,200	61,900	61,900	63,200
2	62,100	65,500	109,000	32,700	42,300	31,400	49,200	53,300	65,000	61,800	61,700	62,900
3	62,000	67,700	112,000	32,700	41,100	31,200	47,000	54,500	64,600	61,800	61,500	62,700
4	62,000	71,700	111,000	33,500	40,000	30,900	45,500	55,900	64,200	61,700	61,300	62,300
5	62,000	72,000	108,000	34,600	38,800	30,700	43,800	57,300	63,900	62,600	61,100	62,000
6	62,100	71,900	106,000	41,700	37,500	30,400	43,200	58,500	63,700	62,600	60,900	61,800
7	62,100	71,300	104,000	67,200	36,700	30,300	42,600	59,600	63,200	62,600	60,800	61,700
8	62,100	70,200	109,000	74,200	36,000	30,300	42,600	60,500	63,200	62,600	60,600	61,600
9	62,400	68,800	113,000	70,600	35,400	30,100	42,100	61,600	63,700	62,600	60,600	61,400
10	62,500	67,300	113,000	66,200	35,200	30,100	41,900	62,600	63,700	62,600	60,700	61,500
11	62,600	66,500	111,000	61,700	35,100	30,200	41,800	63,200	63,700	62,900	60,700	61,500
12	63,900	69,100	107,000	56,600	34,900	30,200	42,900	63,900	63,800	65,200	60,700	61,700
13	64,300	81,100	104,000	53,900	34,900	30,400	44,100	64,200	63,600	66,800	60,700	61,700
14	64,700	84,700	98,700	74,600	35,700	30,400	44,900	65,800	63,700	67,300	60,700	62,100
15	65,500	84,900	93,300	103,000	38,200	30,600	45,800	66,800	63,500	67,400	61,100	63,100
16	65,600	83,700	87,900	102,000	39,700	30,800	46,500	66,800	63,300	67,400	61,700	63,800
17	65,600	81,400	82,600	97,700	39,700	30,800	46,800	66,700	63,100	67,600	62,400	63,800
18	65,500	78,900	77,400	92,100	39,100	30,700	46,800	66,800	63,100	67,400	64,800	63,700
19	65,600	77,100	72,800	86,900	38,000	30,800	46,600	66,800	62,900	67,100	65,500	64,400
20	65,200	74,900	66,200	82,200	36,500	30,800	46,400	67,400	62,700	66,400	65,400	64,600
21	64,800	73,500	62,100	78,300	35,700	30,700	46,300	67,300	62,600	65,800	65,300	64,800
22	64,700	72,000	58,800	74,500	34,600	30,900	46,500	67,400	62,500	65,300	66,000	64,800
23	64,800	70,600	55,000	69,600	33,500	31,600	47,100	67,400	62,300	64,700	65,600	64,600
24	64,800	69,300	51,200	64,400	32,700	33,100	48,100	67,400	62,100	64,100	65,200	64,300
25	64,400	69,200	47,600	60,800	31,800	37,400	49,300	67,200	62,000	63,600	64,600	64,100
26	64,300	78,400	44,100	57,300	31,400	40,500	50,500	67,000	61,700	63,100	64,200	65,100
27	64,300	81,300	40,600	53,800	31,300	43,300	51,000	66,700	61,500	62,800	63,900	65,000
28	64,200	83,400	37,700	51,200	31,800	47,200	51,200	66,400	61,400	62,500	63,800	64,400
29	65,500	83,500	35,500	49,600	---	52,300	51,900	66,100	61,400	62,300	63,400	64,000
30	66,800	85,800	34,000	47,500	---	53,900	52,600	65,700	61,400	62,300	63,700	63,700
31	65,700	---	33,000	45,400	---	52,800	---	65,500	---	62,000	62,900	---
MEAN	64,000	74,700	80,100	62,900	36,500	34,400	46,500	63,500	63,100	64,100	62,700	63,200
MAX	66,800	85,800	113,000	103,000	43,700	53,900	52,600	67,400	65,200	67,600	66,000	65,100
MIN	61,800	64,600	33,000	32,700	31,300	30,100	41,800	52,600	61,400	61,700	60,600	61,400

## 07039500 ST. FRANCIS RIVER AT WAPPAPELLO, MO

LOCATION.--Lat 36°55'41", long 90°15'55", in NW ¼ SE ¼ sec.2, T.26 N., R.7 E., Butler County, Hydrologic Unit 08020202, on right bank at downstream side of highway bridge, 0.5 mi southeast of Wappapello, and 1.25 mi downstream from Wappapello Dam.

DRAINAGE AREA.--1,311 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1940 to Sept. 30, 1997, Oct. 1, 1998 to current year. Since January 1939 in reports of the Mississippi River Commission. Gage-height records collected in this vicinity since April 1920 in reports of the U.S. Army Corps of Engineers.

REVISED RECORDS.--WSP 1211: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 315.15 ft (revised) above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1984, at datum 10.00 ft higher at present site. Prior to Oct. 14, 1940, nonrecording gage at same site.

REMARKS.--Records fair. Flow completely regulated by Wappapello Lake (07039000), 1.25 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1920, 30.7 ft, former datum, May 15, 1933, discharge 82,500 ft<sup>3</sup>/s, determined by the U.S. Army Corps of Engineers. Maximum discharge, as determined by the U.S. Army Corps of Engineers, 85,000 ft<sup>3</sup>/s, Aug. 1915, stage unknown.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	1,150	3,410	935	1,660	1,010	2,690	798	321	51	154	156
2	50	1,160	3,570	927	1,540	1,010	2,530	556	320	49	155	293
3	50	1,160	3,680	953	1,500	1,010	2,170	162	319	50	155	299
4	50	1,280	3,820	1,090	1,420	1,000	1,900	65	318	e49	155	299
5	49	1,450	3,820	1,600	1,400	950	1,670	60	316	48	155	241
6	49	1,460	3,820	2,980	1,390	893	1,290	58	313	50	155	168
7	50	1,440	3,840	4,650	1,390	849	1,160	57	250	49	155	166
8	50	1,430	3,840	5,610	1,380	791	1,040	57	170	48	109	167
9	50	1,370	3,860	5,870	1,370	747	936	58	168	e49	51	121
10	50	1,250	3,870	5,580	1,370	659	766	56	166	e49	50	50
11	52	1,180	3,850	5,210	1,360	550	701	107	169	50	e49	45
12	51	1,200	3,810	4,940	1,360	456	709	173	167	56	48	42
13	50	1,360	3,840	4,900	1,380	448	788	175	166	48	50	39
14	51	1,650	3,940	5,550	1,450	449	962	245	165	90	50	38
15	113	1,910	3,950	6,300	1,740	447	1,030	391	163	216	50	39
16	194	2,140	3,900	6,390	2,110	448	1,040	474	162	308	51	87
17	198	2,260	3,770	6,090	2,150	441	1,040	445	162	301	94	162
18	199	2,240	3,580	5,640	2,140	437	1,040	343	162	358	222	169
19	295	2,230	3,520	4,970	2,120	435	1,030	333	161	499	370	203
20	429	2,210	3,380	4,370	2,100	433	1,030	332	161	503	451	243
21	401	2,200	3,120	3,910	2,080	433	1,040	331	160	504	455	244
22	368	2,160	2,960	3,690	2,000	438	1,030	334	159	502	468	271
23	374	2,020	2,830	3,610	1,830	440	939	332	159	499	460	320
24	372	1,900	2,650	3,480	1,670	514	886	330	159	498	458	323
25	368	1,830	2,580	3,220	1,520	672	823	328	161	445	457	332
26	368	1,900	2,530	2,960	1,260	688	827	328	159	323	458	330
27	372	1,950	2,350	2,630	1,080	705	826	327	134	307	457	382
28	462	1,960	1,990	2,270	1,020	926	825	328	87	244	456	454
29	856	2,140	1,750	2,020	---	1,450	827	327	54	158	454	457
30	1,010	2,830	1,510	1,980	---	2,060	830	324	52	154	451	424
31	1,140	---	1,140	1,880	---	2,680	---	322	---	154	264	---
MEAN	265	1,747	3,241	3,749	1,600	789	1,146	276	186	216	244	219
MAX	1,140	2,830	3,950	6,390	2,150	2,680	2,690	798	321	504	468	457
MIN	49	1,150	1,140	927	1,020	433	701	56	52	48	48	38
IN.	0.23	1.49	2.85	3.30	1.27	0.69	0.98	0.24	0.16	0.19	0.21	0.19

STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD<sup>a</sup>, BY WATER YEAR (WY)

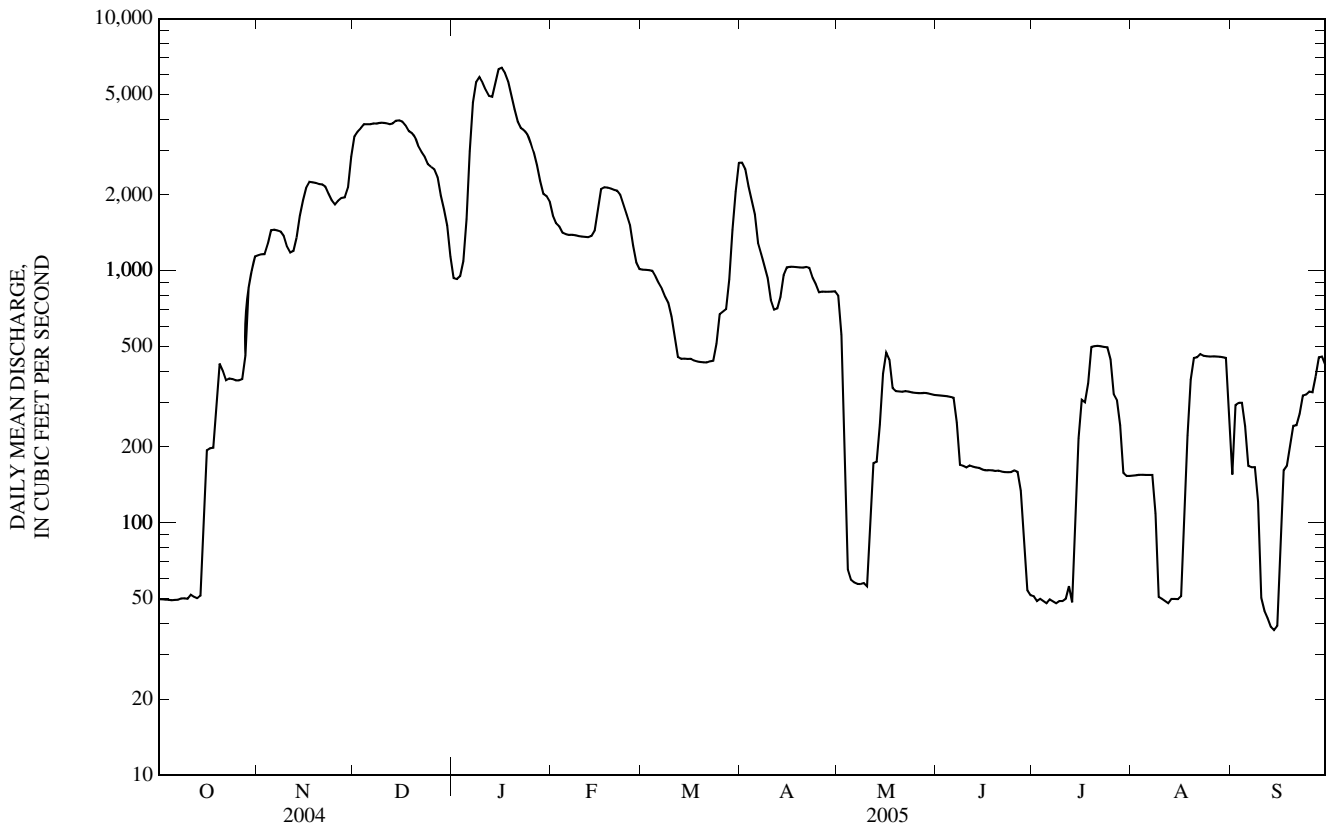
MEAN	406	951	2,053	2,376	2,334	2,701	2,790	2,544	1,486	693	376	384
MAX	3,239	4,959	8,897	8,867	7,796	7,072	11,920	9,243	6,442	4,866	3,385	2,239
(WY)	(1950)	(1952)	(1983)	(1950)	(1949)	(1979)	(1945)	(1983)	(2002)	(1945)	(1945)	(1982)
MIN	33.9	43.8	167	188	286	474	63.5	62.3	6.00	87.1	40.0	34.0
(WY)	(1949)	(1954)	(1990)	(1981)	(1963)	(1981)	(1981)	(1987)	(1978)	(1980)	(1965)	(1955)

07039500 ST. FRANCIS RIVER AT WAPPAPELLO, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		FOR PERIOD OF RECORD <sup>a</sup>	
ANNUAL MEAN	1,470		1,140		1,588	
HIGHEST ANNUAL MEAN					3,534	1985
LOWEST ANNUAL MEAN					579	1954
HIGHEST DAILY MEAN	6,440	Mar 8	6,390	Jan 16	21,800	Apr 16, 1945
LOWEST DAILY MEAN	49	Oct 5.6	38	Sep 14	0.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	50	Sep 30	49	Sep 10	0.00	At Times
MAXIMUM PEAK FLOW	---		6,490	Jan 16	22,300	Apr 16, 1945
MAXIMUM PEAK STAGE	---		25.63	Jan 16	31.44	May 17, 2002
INSTANTANEOUS LOW FLOW	---		33	Sep 14	0.00	Several Years
ANNUAL RUNOFF (INCHES)	15.26		11.80		16.45	
10 PERCENT EXCEEDS	3,820		3,440		4,060	
50 PERCENT EXCEEDS	1,140		462		686	
90 PERCENT EXCEEDS	182		51		46	

e Estimated

<sup>a</sup> Post-regulation period, water years 1942-1977 and 1999-2005.



07042450 ST. JOHNS DITCH NEAR HENDERSON MOUND, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 36°40'26", long 89°28'30", in NE ¼ NE ¼ NW ¼ sec.6, T.23 N., R.15 E., Madrid County, Hydrologic Unit 08020204, located approximately 2.5 mi east of Interstate 55 on State Highway P, and 4.0 mi south of Henderson Mound.

DRAINAGE AREA.--313 mi<sup>2</sup>.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, mg/L as CaCO <sub>3</sub> (00900)	Calcium, fltrd, mg/L (00915)	Magnesium, fltrd, mg/L (00925)	Potassium, water, fltrd, mg/L (00935)	
NOV 02...	1320	Environmental	1,110	6.6	71	6.6	115	18.4	47	13.9	3.06	5.22	
FEB 14...	1340	Environmental	918	8.3	79	7.3	198	12.9	87	26.5	4.94	1.93	
MAR 14...	1330	Environmental	320	8.6	79	7.7	267	10.9	--	--	--	--	
MAY 10...	1130	Environmental	288	7.7	86	7.7	273	20.5	130	39.3	7.10	1.44	
JUL 18...	1320	Environmental	487	5.9	75	7.6	160	26.6	70	21.8	3.84	2.76	
SEP 13...	1420	Environmental	59	7.8	101	7.6	281	27.7	--	--	--	--	
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 02...	1.77	34	36	44	<1	3.92	E.1n	7.4	74	96d	1.2	<.04	.35
FEB 14...	3.67	60	60	73	<1	6.25	.2	13.4	120	137d	.88	<.04	.66
MAR 14...	--	--	--	--	--	--	--	--	--	<10	.12	<.04	.17
MAY 10...	5.95	100	101	123	<1	8.45	.1	17.5	175	41	.32	<.04	.28
JUL 18...	2.79	53	52	63	<1	4.54	.2	11.1	97	82	.71	<.04	.72
SEP 13...	--	--	--	--	--	--	--	--	--	13	.22	<.04	.52
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, 0.7µ MF, 100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 02...	.022	.19	.33	.62	3,200	6,100k	3	1,470d	2.2	<.04	.06	1.8	46
FEB 14...	E.007n	.06	.10	.40	270	370	E1n	2,580d	1.5	<.04	.07	1.7	8
MAR 14...	<.008	.08	.10	.18	16k	24	--	--	--	--	--	--	--
MAY 10...	E.006n	.06	.12	.34	400	590k	<2	500	2.0	<.04	E.04n	.5	14
JUL 18...	.026	.13	.19	.39	520	660	8	1,030	2.5	<.04	.05	1.7	7
SEP 13...	.010	.24	.24	.31	89k	35	--	--	--	--	--	--	--

## 07042450 ST. JOHNS DITCH NEAR HENDERSON MOUND, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover-able, µg/L (01051)	Mangan-ese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover-able, µg/L (71900)	Selen-ium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover-able, µg/L (01092)	2,6-Di-ethyl-aniline water fltrd 0.7µ GF (82660)	CIAT, water, fltrd, µg/L (04040)	Aceto-chlor, water, fltrd, µg/L (49260)	Ala-chlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)	Atra-zine, water, fltrd, µg/L (39632)
NOV 02...	E.04n	2.87	178	E.01n	<.4	2.2	12	<.006	E.010	<.010	<.010	<.005	.250
FEB 14...	<.08	3.00	79.8	.01	E.2n	.9	19	--	--	--	--	--	--
MAR 14...	--	--	--	--	--	--	--	<.006	<.006m	<.006	<.005	<.005	E.004t
MAY 10...	<.08	1.22	44.5	<.01	<.4	.8	5	<.006	E.007m	.007	.009	<.005	.227
JUL 18...	E.05n	1.97	12.6	.01	<.4	1.7	9	<.006	E.088m	<.006	.038	<.005	1.56
SEP 13...	--	--	--	--	--	--	--	<.006	<.006m	<.006	<.005	<.005	.015
Date	Azin-phos-methyl, water, fltrd 0.7µ GF µg/L (82686)	Ben-flur-alin, water, fltrd 0.7µ GF µg/L (82673)	Butyl-ate, water, fltrd, µg/L (04028)	Car-baryl, water, fltrd 0.7µ GF µg/L (82680)	Carbo-furan, water, fltrd 0.7µ GF µg/L (82674)	Chlor-pyrifos water, fltrd, µg/L (38933)	cis-Per-methrin water fltrd 0.7µ GF µg/L (82687)	Cyana-zine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µ GF µg/L (82682)	Diazi-non, water, fltrd, µg/L (39572)	Diel-drin, water, fltrd, µg/L (39381)	Disul-foton, water, fltrd 0.7µ GF µg/L (82677)	EPTC, water, fltrd 0.7µ GF µg/L (82668)
NOV 02...	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.02	<.002
FEB 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
MAY 10...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
JUL 18...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
SEP 13...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.011
Date	Ethal-flur-alin, water, fltrd 0.7µ GF µg/L (82663)	Etho-prop, water, fltrd 0.7µ GF µg/L (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)	Linuron water fltrd 0.7µ GF µg/L (82666)	Malathion, water, fltrd, µg/L (39532)	Methyl parathion, water, fltrd 0.7µ GF µg/L (82667)	Metola-chlor, water, fltrd, µg/L (39415)	Metri-buzin, water, fltrd, µg/L (82630)	Moli-nate, water, fltrd 0.7µ GF µg/L (82671)	Naprop-amide, water, fltrd 0.7µ GF µg/L (82684)	p,p'-DDE, water, fltrd, µg/L (34653)	Para-thion, water, fltrd, µg/L (39542)
NOV 02...	<.009	<.005	<.003	<.004	<.035	<.027	<.006	.261	<.006	<.002	<.007	<.003	<.010
FEB 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.007	<.006	<.003	<.007	<.003	<.010
MAY 10...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.041	<.006	.004	<.007	<.003	<.010
JUL 18...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	.252	<.006	.010	<.007	<.003	<.010
SEP 13...	<.009	<.005	<.003	<.004	<.035	.032	<.015	E.005n	<.006	<.003	<.007	<.003	<.010



## 07042450 ST. JOHNS DITCH NEAR HENDERSON MOUND, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Peb- ulate, water, fltrd 0.7µ GF µg/L (82669)	Pendi- meth- alin, water, fltrd 0.7µGF µg/L (82683)	Phorate water fltrd 0.7µ GF µg/L (82664)	Prome- ton, water, fltrd, µg/L (04037)	Propy- zamide, water, fltrd 0.7µ GF µg/L (82676)	Propa- chlor, water, fltrd, µg/L (04024)	Pro- panil, water, fltrd 0.7µ GF µg/L (82679)	Propar- gite, water, fltrd 0.7µGF µg/L (82685)	Sima- zine, water, fltrd, µg/L (04035)	Tebu- thiuron water fltrd 0.7µ GF µg/L (82670)	Terba- cil, water, fltrd 0.7µ GF µg/L (82665)	Terbu- fos, water, fltrd 0.7µ GF µg/L (82675)	Thio- bencarb water fltrd 0.7µ GF µg/L (82681)
NOV 02...	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005
FEB 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010
MAY 10...	<.004	E.013n	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010
JUL 18...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.013	<.02	<.034m	<.02	<.010
SEP 13...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010

Date	Tri- allate, water, fltrd 0.7µ GF µg/L (82678)	Tri- flur- alin, water, fltrd 0.7µ GF µg/L (82661)
NOV 02...	<.002	<.009
FEB 14...	--	--
MAR 14...	<.006	<.009
MAY 10...	<.006	<.009
JUL 18...	<.006	<.009
SEP 13...	<.006	<.009

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

Value qualifier codes used in this table:

d -- Diluted sample; method hi range exceeded  
k -- Counts outside acceptable range  
m -- Value is highly variable by this method  
n -- Below the LRL and above the LT-MDL  
t -- Below the long-term MDL

## 07043500 LITTLE RIVER DITCH 1 NEAR MOREHOUSE, MO

LOCATION.--Lat 36°50'04", long 89°43'48", in SW ¼ SE ¼ sec.2, T.25 N., R.12 E., Stoddard County, Hydrologic Unit 08020204, on downstream side of second pier right of left abutment of bridge on State Highway 114, 1.5 mi downstream from Little River Ditch 39, and 2.0 mi west of Morehouse.

DRAINAGE AREA.--450 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1945 to September 1991, October 1995 to current year. Prior to January 1946 monthly discharge only, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 280.76 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 17, 1949 and from June 11, 1951, to Feb. 22, 1962, nonrecording gage at same datum. Nov. 17, 1949, to June 10, 1951, nonrecording gage at site 50 ft downstream at present datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1945 reached a stage of 19.85 ft, from floodmark, discharge, 5,830 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	106	2,530	1,320	239	331	985	490	111	62	93	99
2	41	1,580	1,390	1,740	236	313	593	332	114	65	87	91
3	41	1,050	821	2,240	238	302	401	290	116	59	82	100
4	41	536	519	2,640	236	299	339	267	105	54	68	81
5	40	373	404	3,100	234	282	316	252	92	62	66	67
6	41	257	949	6,130	234	274	296	239	81	75	63	68
7	42	190	2,240	4,370	457	282	449	231	81	69	63	75
8	44	149	2,010	2,600	1,100	270	462	231	70	61	91	57
9	46	131	1,090	1,920	889	257	355	230	84	55	80	61
10	46	119	669	1,260	613	259	309	220	89	45	71	58
11	49	139	466	846	476	254	288	203	202	169	62	59
12	53	1,050	383	652	412	254	797	194	417	2,550	53	50
13	52	698	326	2,940	691	238	806	208	267	3,010	55	49
14	53	434	288	4,380	1,520	230	565	399	141	1,550	55	46
15	56	288	270	2,240	1,080	223	389	1,010	102	943	68	82
16	53	212	261	1,490	722	223	323	523	87	825	95	214
17	51	178	251	931	531	223	292	357	87	870	126	170
18	57	159	245	600	457	222	279	284	79	382	133	142
19	55	288	232	488	407	219	276	245	74	249	121	132
20	52	318	224	447	413	208	267	220	73	295	106	111
21	52	262	227	414	434	206	259	206	72	335	96	107
22	53	216	e234	391	616	222	893	202	68	221	106	93
23	57	220	e344	358	561	239	1,260	189	65	175	111	80
24	57	278	e523	338	470	246	521	176	67	159	125	76
25	59	323	e374	324	402	266	367	169	64	142	120	93
26	59	288	e272	304	359	236	331	161	58	131	89	146
27	69	386	236	279	341	291	350	157	56	120	95	143
28	89	581	235	266	338	1,170	319	143	54	115	177	135
29	75	461	296	272	---	938	329	135	60	111	195	142
30	74	1,870	1,000	261	---	675	555	125	59	105	147	199
31	77	---	1,880	249	---	886	---	114	---	103	115	---
MEAN	53.9	438	684	1,477	525	340	466	265	103	425	97.2	101
MAX	89	1,870	2,530	6,130	1,520	1,170	1,260	1,010	417	3,010	195	214
MIN	38	106	224	249	234	206	259	114	54	45	53	46
IN.	0.14	1.09	1.75	3.79	1.22	0.87	1.15	0.68	0.26	1.09	0.25	0.25

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

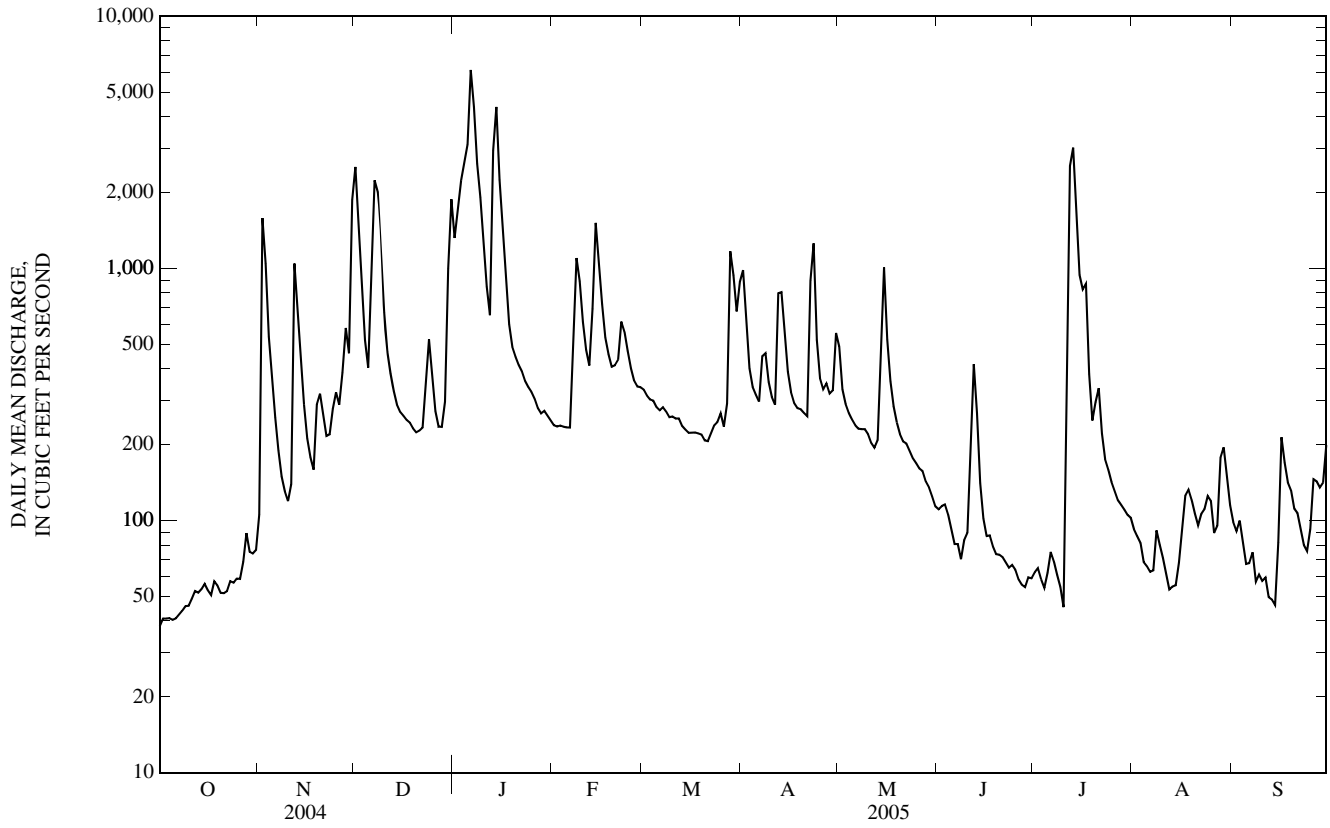
MEAN	165	428	664	799	869	923	848	783	397	266	185	181
MAX	944	2,615	2,875	4,286	3,646	2,800	2,851	3,821	1,564	817	658	1,097
(WY)	(1985)	(1958)	(1983)	(1950)	(1989)	(1979)	(1979)	(2002)	(1989)	(1957)	(1985)	(2003)
MIN	30.6	45.4	73.5	72.3	115	106	146	139	88.7	70.9	47.6	27.4
(WY)	(1954)	(2000)	(1954)	(1981)	(1963)	(1981)	(1971)	(2001)	(1988)	(1954)	(1999)	(1999)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	318	415	543
HIGHEST ANNUAL MEAN			1,261
LOWEST ANNUAL MEAN			134
HIGHEST DAILY MEAN	2,670	Mar 5	6,130
LOWEST DAILY MEAN	34	Aug 19	38
ANNUAL SEVEN-DAY MINIMUM	38	Aug 14	41
MAXIMUM PEAK FLOW	---		6,680
MAXIMUM PEAK STAGE	---		14.82
INSTANTANEOUS LOW FLOW	---		37
ANNUAL RUNOFF (INCHES)	9.63		12.52
10 PERCENT EXCEEDS	686		945
50 PERCENT EXCEEDS	204		232
90 PERCENT EXCEEDS	47		58

e Estimated

07043500 LITTLE RIVER DITCH 1 NEAR MOREHOUSE, MO—Continued



07046250 LITTLE RIVER DITCHES NEAR RIVES, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 36°05'25", long 90°04'47", in SW ¼ SE ¼ SW ¼ sec.28, T.17 N., R.9 E., Dunklin County, Hydrologic Unit 08020204. Located at the Little River Ditches bridge chain on State Highway 164. Samples are taken during high flow from the three western most ditches.

PERIOD OF RECORD.--November 1969 to June 1970, August 1972 to September 1973, July 1977 to June 1989, November 1992 to current year.

REMARKS.--Analyses represent a composite of water from five ditches. Bacteria is usually taken from Ditch 66. Published as Little River Ditches near Kennett (07046001) for periods of record from November 1969 to September 1993.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 19...	1300	Environmental	467	6.5	122	7.9	349	21.1	--	--	--	--
NOV 03...	0855	Environmental	13,800	6.5	68	6.6	101	17.1	41	11.2	3.08	7.34
DEC 14...	1100	Environmental	1,390	15.1	119	7.5	264	5.7	--	--	--	--
JAN 25...	1000	Environmental	1,990	15.3	119	7.8	364	4.2	170	47.1	12.2	2.71
FEB 15...	0910	Environmental	3,920	8.3	79	6.9	195	12.5	--	--	--	--
MAR 15...	0915	Environmental	835	10.7	91	8.0	397	8.4	--	--	--	--
APR 19...	0830	Environmental	892	6.8	76	8.0	380	20.4	--	--	--	--
MAY 11...	0845	Environmental	769	6.2	74	7.8	397	23.9	190	53.0	13.7	2.42
JUN 14...	0820	Environmental	1,540	5.7	73	7.6	270	27.4	--	--	--	--
JUN 14...	0821	Replicate	--	5.6	72	7.6	270	27.4	--	--	--	--
JUL 19...	0915	Environmental	1,840	5.0	65	7.6	203	28.2	88	25.0	6.13	4.26
AUG 03...	0915	Environmental	395	5.1	68	8.0	383	29.5	--	--	--	--
SEP 13...	0830	Environmental	163	9.2	116	7.7	372	26.3	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, 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)	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 19...	--	--	--	--	--	--	--	--	--	30	.33	<.04	<.06
NOV 03...	2.04	33	35	42	<1	4.14	.1	5.4	70	202d	1.4	<.04	.44
DEC 14...	--	--	--	--	--	--	--	--	--	19	.43	.07	.25
JAN 25...	10.0	135	135	164	<1	12.7	.2	23.7	224	<10	.28	.11	.22
FEB 15...	--	--	--	--	--	--	--	--	--	162d	1.2	.04	.49
MAR 15...	--	--	--	--	--	--	--	--	--	<10	.14	<.04	<.06
APR 19...	--	--	--	--	--	--	--	--	--	47	.40	E.02n	.16
MAY 11...	11.8	155	155	188	<1	14.3	.2	22.8	245	43	.33	<.04	<.06
JUN 14...	--	--	--	--	--	--	--	--	--	102d	1.8	.51	3.21
JUN 14...	--	--	--	--	--	--	--	--	--	65	1.7	.48	3.06
JUL 19...	4.47	74	73	89	<1	5.90	.2	10.2	124	38	.72	E.02n	.79
AUG 03...	--	--	--	--	--	--	--	--	--	22	.39	<.04	<.06
SEP 13...	--	--	--	--	--	--	--	--	--	42	.50	<.04	<.06





## 07046250 LITTLE RIVER DITCHES NEAR RIVES, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Peb- ulate, water, fltrd 0.7µ GF (82669)	Pendi- meth- alin, water, fltrd 0.7µ GF (82683)	Phorate water fltrd 0.7µ GF (82664)	Prome- ton, water, fltrd, µg/L (04037)	Propy- zamide, water, fltrd 0.7µ GF (82676)	Propa- chlor, water, fltrd, µg/L (04024)	Pro- panil, water, fltrd 0.7µ GF (82679)	Propar- gite, water, fltrd 0.7µ GF (82685)	Sima- zine, water, fltrd, µg/L (04035)	Tebu- thiuron water fltrd 0.7µ GF (82670)	Terba- cil, water, fltrd 0.7µ GF (82665)	Terbu- fos, water, fltrd 0.7µ GF (82675)	Thio- bencarb water fltrd 0.7µ GF (82681)
OCT 19...	--	--	--	--	--	--	--	--	--	--	--	--	--
NOV 03...	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005
DEC 14...	--	--	--	--	--	--	--	--	--	--	--	--	--
JAN 25...	--	--	--	--	--	--	--	--	--	--	--	--	--
FEB 15...	--	--	--	--	--	--	--	--	--	--	--	--	--
MAR 15...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010
APR 19...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.016	<.02	<.034m	<.02	<.010
MAY 11...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	.011	<.02	<.034m	<.02	<.010
JUN 14...	<.004	<.022	<.011	<.01	<.004	<.025	.028	<.02	.210	<.02	<.034m	<.02	.028
JUN 14...	<.004	<.022	<.011	<.01	<.004	<.025	.029	<.02	.223	<.02	<.034m	<.02	.031
JUL 19...	<.004	<.022	<.011	E.01n	<.004	<.025	<.011	<.02	.015	<.02	<.034m	<.02	<.010
AUG 03...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 13...	--	--	--	--	--	--	--	--	--	--	--	--	--

Date	Tri- allate, water, fltrd 0.7µ GF (82678)	Tri- flur- alin, water, fltrd 0.7µ GF (82661)
OCT 19...	--	--
NOV 03...	<.002	<.009
DEC 14...	--	--
JAN 25...	--	--
FEB 15...	--	--
MAR 15...	<.006	<.009
APR 19...	<.006	<.009
MAY 11...	<.006	<.009
JUN 14...	<.006	<.009
JUN 14...	<.006	<.009
JUL 19...	<.006	<.009
AUG 03...	--	--
SEP 13...	--	--

Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

Value qualifier codes used in this table:

d -- Diluted sample: method hi range exceeded

k -- Counts outside acceptable range

m -- Value is highly variable by this method

n -- Below the LRL and above the LT-MDL

07050150 ROARING RIVER SPRING NEAR CASSVILLE, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 36°35'30", long 93°50'00", in SE ¼ SE ¼ NE ¼ sec.27, T.22 N., R.27 W., Barry County, Hydrologic Unit 11010001, at outlet of spring in Roaring River State Park.

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

REMARKS.--Previously sampled downstream from spring and published as Roaring River at Roaring River State Park (07050152) November 1991 to October 1993.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 03...	1000	Environmental	54	7.5	76	7.0	357	14.5	190	69.6	3.56	1.25
JAN 04...	1400	Environmental	230	10.9	110	7.0	232	13.6	--	--	--	--
MAR 29...	0900	Environmental	30	9.1	91	6.9	332	13.4	--	--	--	--
MAY 17...	0925	Environmental	27	8.0	80	6.8	342	13.8	170	62.7	2.59	1.34
JUL 12...	1010	Environmental	22	7.8	79	7.2	344	14.4	180	69.4	2.81	1.41
JUL 12...	1010	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16
SEP 13...	1045	Environmental	22	6.7	69	6.8	352	14.4	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	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)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)
NOV 03...	4.17	160	161	196	<1	6.90	<1	3.4	204	<10	<.10	<.04	3.10
JAN 04...	--	--	--	--	--	--	--	--	--	<10	E.06n	<.04	3.66
MAR 29...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	3.08
MAY 17...	3.88	146	148	180	<1	6.88	<1	3.7	215	<10	E.07n	<.04	3.01
JUL 12...	4.14	143	142	174	<1	6.71	<1	3.6	214	<10	E.06n	<.04	3.02
JUL 12...	<.20	--	--	--	--	<.20	<1	<.2	<10	<10	<.10	<.04	<.06
SEP 13...	--	--	--	--	--	--	--	--	--	<10	E.06n	<.04	3.12

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 col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 03...	<.008	<.02	E.02n	E.03n	18k	15k	<2	15	<.2	.05	E.04n	E.3n	<6
JAN 04...	<.008	E.01n	<.04	E.02n	160	160	--	--	--	--	--	--	--
MAR 29...	<.008	E.02n	<.04	E.03n	7k	8k	--	--	--	--	--	--	--
MAY 17...	<.008	<.02	<.04	<.04	10k	16k	E1n	36	<.2	E.04n	.05	E.4n	<6
JUL 12...	<.008	<.02	E.02n	E.02n	54	65k	Mn	15	E.1n	.04	E.04n	.5	E3n
JUL 12...	<.008	<.02	<.04	<.04	--	--	E2n	<2	<.2	<.04	<.04	<.4	E5n
SEP 13...	<.008	.02	E.03n	E.03n	27	22	--	--	--	--	--	--	--



## 07050150 ROARING RIVER SPRING NEAR CASSVILLE, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 03...	<.08	<.06	<.6	<.01	E.3n	4.1	3
JAN 04...	--	--	--	--	--	--	--
MAR 29...	--	--	--	--	--	--	--
MAY 17...	E.05n	.14	<.6	<.01	<.4	2.9	3
JUL 12...	<.08	<.06	<.6	.01	E.2n	3.8	4
JUL 12...	<.08	<.06	<.6	.01	<.4	.8	E1n
SEP 13...	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

## Value qualifier codes used in this table:

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

07050690 PEARSON CREEK NEAR SPRINGFIELD, MO

LOCATION.--Lat 37°10'41", long 93°11'54", in NW 1/4 NE 1/4 NW 1/4 sec. 35, T.29 N., R.21 W., Greene County, Hydrologic Unit 11010002, 1.4 mi east of Highway 65 and 0.13 mi south of Highway D (Sunshine).

DRAINAGE AREA.--21.0 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 21, 1999 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	133	112	11	28	21	24	13	4.8	16	2.6	5.4
2	2.0	84	84	11	26	20	23	12	4.4	11	2.4	5.2
3	1.8	61	67	12	26	19	22	11	4.4	8.0	2.3	4.9
4	1.8	60	55	77	25	18	20	11	4.4	6.4	2.3	4.9
5	1.7	47	49	659	24	18	20	11	4.2	5.2	2.8	4.6
6	1.7	38	51	385	24	17	43	10	4.3	4.4	2.6	4.4
7	2.2	32	141	227	24	16	53	10	4.4	3.9	3.1	4.4
8	5.0	26	124	156	25	15	57	10	4.9	3.9	2.7	4.3
9	4.0	23	94	114	26	15	51	9.5	8.9	3.6	2.4	4.2
10	3.3	20	74	91	27	15	44	9.0	7.7	3.5	2.2	4.1
11	19	32	59	79	28	14	41	8.9	7.1	4.5	2.1	3.8
12	17	41	50	169	29	14	40	8.4	7.2	4.0	1.9	4.2
13	11	38	42	547	77	13	35	8.2	9.9	3.8	1.8	5.0
14	8.5	32	37	252	87	12	32	16	13	3.6	3.4	43
15	8.3	27	32	166	75	12	29	13	9.3	3.5	3.0	186
16	7.3	24	29	121	61	12	27	11	7.5	3.3	4.5	70
17	5.8	21	26	95	52	11	25	10	6.8	3.0	5.1	34
18	4.9	19	24	80	45	11	23	9.4	6.0	3.7	5.0	24
19	4.1	18	22	70	40	10	22	8.6	5.0	9.5	3.7	19
20	3.5	17	20	62	37	10	21	8.2	4.5	6.7	2.8	15
21	3.1	15	19	55	34	9.9	19	7.8	4.4	5.2	3.7	11
22	2.9	15	17	50	31	18	18	7.5	4.2	4.2	61	9.1
23	3.0	15	16	46	29	38	17	7.4	4.1	3.7	73	7.5
24	3.1	63	15	43	28	36	16	7.0	3.9	3.3	30	6.3
25	2.9	86	14	40	26	33	15	6.6	3.8	3.0	21	6.4
26	4.7	67	14	38	25	31	16	6.1	3.6	2.8	15	6.0
27	16	76	13	35	24	30	15	5.8	4.6	4.3	12	5.1
28	23	75	12	33	22	29	14	5.8	5.0	4.0	10	5.1
29	13	138	12	32	---	29	14	5.5	4.2	3.5	8.1	6.4
30	21	162	12	30	---	28	13	5.5	4.9	3.1	6.8	5.0
31	14	---	11	29	---	27	---	5.1	---	2.8	6.0	---
MEAN	7.15	50.2	43.5	123	35.9	19.4	27.0	8.98	5.71	4.88	9.85	17.3
MAX	23	162	141	659	87	38	57	16	13	16	73	186
MIN	1.7	15	11	11	22	9.9	13	5.1	3.6	2.8	1.8	3.8
IN.	0.39	2.67	2.39	6.76	1.78	1.07	1.43	0.49	0.30	0.27	0.54	0.92

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2005, BY WATER YEAR (WY)

MEAN	6.01	14.4	21.3	34.0	28.2	29.0	21.6	33.6	15.0	19.2	8.50	7.11
MAX	14.7	50.2	43.5	123	53.2	57.1	37.7	126	31.1	59.6	12.4	17.3
(WY)	(2002)	(2005)	(2005)	(2005)	(2001)	(2004)	(2002)	(2002)	(2003)	(2000)	(2001)	(2005)
MIN	2.70	3.77	3.73	4.39	9.62	11.3	5.20	5.63	5.71	4.88	3.10	1.98
(WY)	(2001)	(2000)	(2001)	(2000)	(2000)	(2000)	(2000)	(2000)	(2005)	(2005)	(1999)	(2002)

SUMMARY STATISTICS

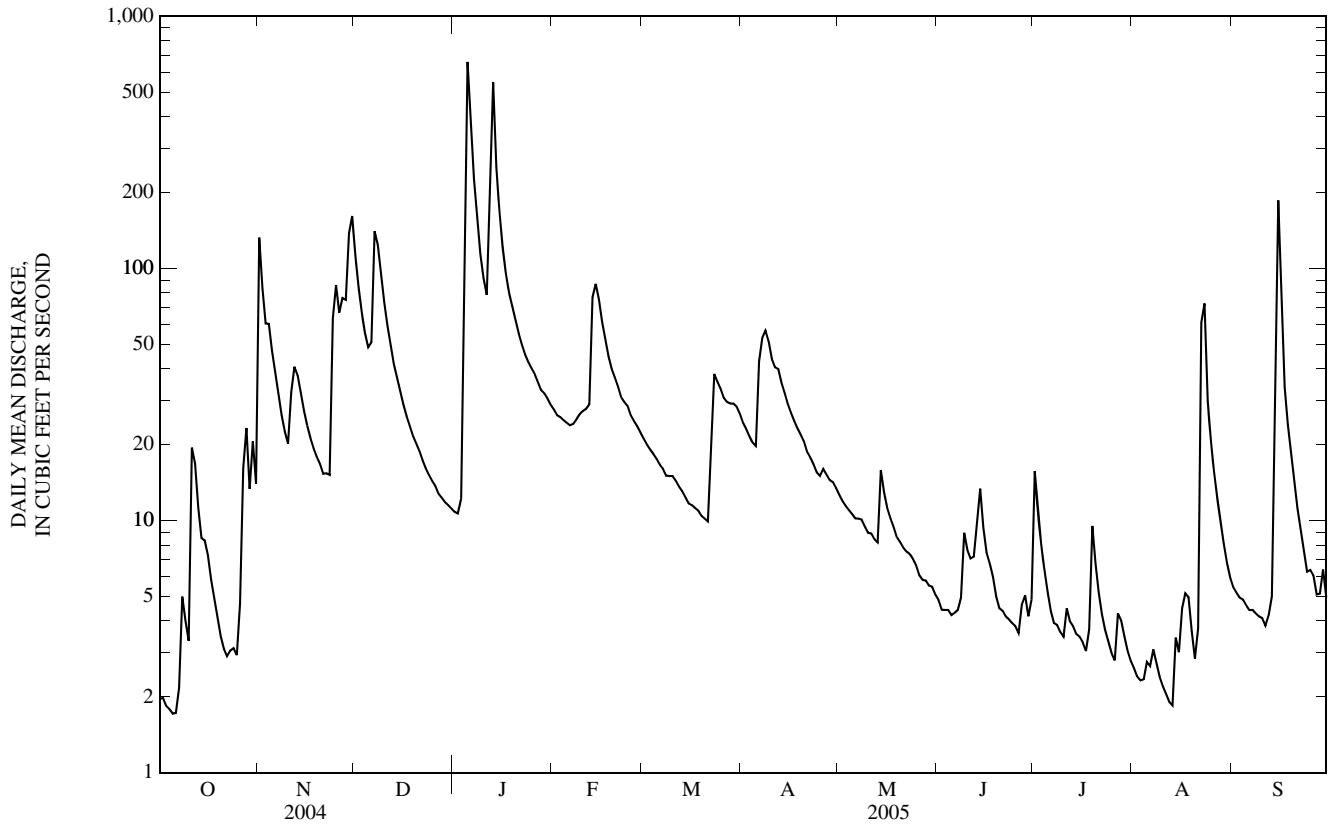
FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

WATER YEARS 1999 - 2005

ANNUAL MEAN	27.3	29.4	20.0
HIGHEST ANNUAL MEAN			29.4
LOWEST ANNUAL MEAN			12.2
HIGHEST DAILY MEAN	306	Mar 5	916
LOWEST DAILY MEAN	1.7	Oct 5,6	1.5
ANNUAL SEVEN-DAY MINIMUM	1.9	Sep 30	1.7
MAXIMUM PEAK FLOW	---		2,200
MAXIMUM PEAK STAGE	---		7.53
INSTANTANEOUS LOW FLOW	---		1.4
ANNUAL RUNOFF (INCHES)	17.69	19.01	12.91
10 PERCENT EXCEEDS	65	67	40
50 PERCENT EXCEEDS	15	14	9.3
90 PERCENT EXCEEDS	3.8	3.5	3.1

07050690 PEARSON CREEK NEAR SPRINGFIELD, MO—Continued



## 07050700 JAMES RIVER NEAR SPRINGFIELD, MO

LOCATION.--Lat 37°09'00", long 93°12'12", in SW ¼ SE ¼ SW ¼ sec.2, T.28 N., R.21 W., Greene County, Hydrologic Unit 11010002, on right bank upstream of county road at Kinser Bridge, 1.1 mi downstream from Pearson Creek, and 2.5 mi southeast of Springfield.

DRAINAGE AREA.--246 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,143.27 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to Dec. 19, 1955, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records fair except for discharges below 10 ft<sup>3</sup>/s, which are poor. Flows are affected by the pumping of Blackman Water Treatment Plant, 1.0 mi upstream. Springfield City Utilities gage-height and U.S.G.S satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 1909 reached a stage of about 22 ft, from information by local resident, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	552	959	65	140	136	172	82	31	36	5.7	14
2	4.8	676	610	78	132	123	157	79	30	34	5.3	8.9
3	4.4	361	457	82	130	118	143	75	29	27	5.0	7.1
4	4.5	316	373	1,260	124	118	127	73	27	27	5.0	13
5	4.6	266	321	9,780	127	115	119	70	25	24	5.5	13
6	4.7	216	335	3,520	129	111	240	68	24	22	5.5	6.6
7	5.5	173	1,960	1,340	132	105	597	66	23	19	5.8	9.2
8	11	134	1,030	871	139	108	560	64	24	17	6.0	3.7
9	9.9	107	632	660	156	114	393	63	29	15	7.0	5.9
10	4.9	91	474	529	162	110	311	62	27	13	6.8	6.7
11	27	117	372	448	165	106	270	60	25	14	6.0	6.0
12	16	437	313	522	172	102	538	58	26	13	5.5	4.8
13	11	309	265	5,940	624	98	361	55	31	13	5.0	5.0
14	19	235	225	1,680	766	94	277	75	45	11	6.3	82
15	16	182	196	919	510	90	232	83	36	11	6.7	262
16	17	147	175	662	389	88	202	77	31	9.6	8.1	227
17	20	125	158	520	316	75	174	70	31	8.9	9.3	136
18	19	108	147	424	269	66	153	64	28	8.4	11	89
19	29	95	135	375	241	65	137	59	25	17	8.7	139
20	23	84	121	339	218	63	121	55	23	16	7.1	113
21	16	75	113	309	200	60	112	52	21	13	6.2	67
22	10	67	105	281	179	93	110	50	19	11	41	43
23	14	62	94	254	170	407	114	48	18	9.3	106	29
24	17	540	90	232	169	377	106	45	16	8.3	176	20
25	15	861	86	215	164	317	101	43	15	7.4	125	24
26	14	469	80	199	158	279	105	41	14	6.8	66	24
27	14	471	70	183	152	254	99	40	13	9.1	41	13
28	58	535	66	172	143	255	94	38	15	9.4	33	8.5
29	32	1,670	61	167	---	235	91	37	13	8.1	28	14
30	48	2,100	61	159	---	216	87	34	14	7.1	25	14
31	55	---	61	146	---	190	---	33	---	6.3	16	---
MEAN	17.7	386	327	1,043	228	151	210	58.7	24.3	14.6	25.6	46.9
MAX	58	2,100	1,960	9,780	766	407	597	83	45	36	176	262
MIN	4.4	62	61	65	124	60	87	33	13	6.3	5.0	3.7
IN.	0.08	1.75	1.53	4.89	0.96	0.71	0.95	0.28	0.11	0.07	0.12	0.21

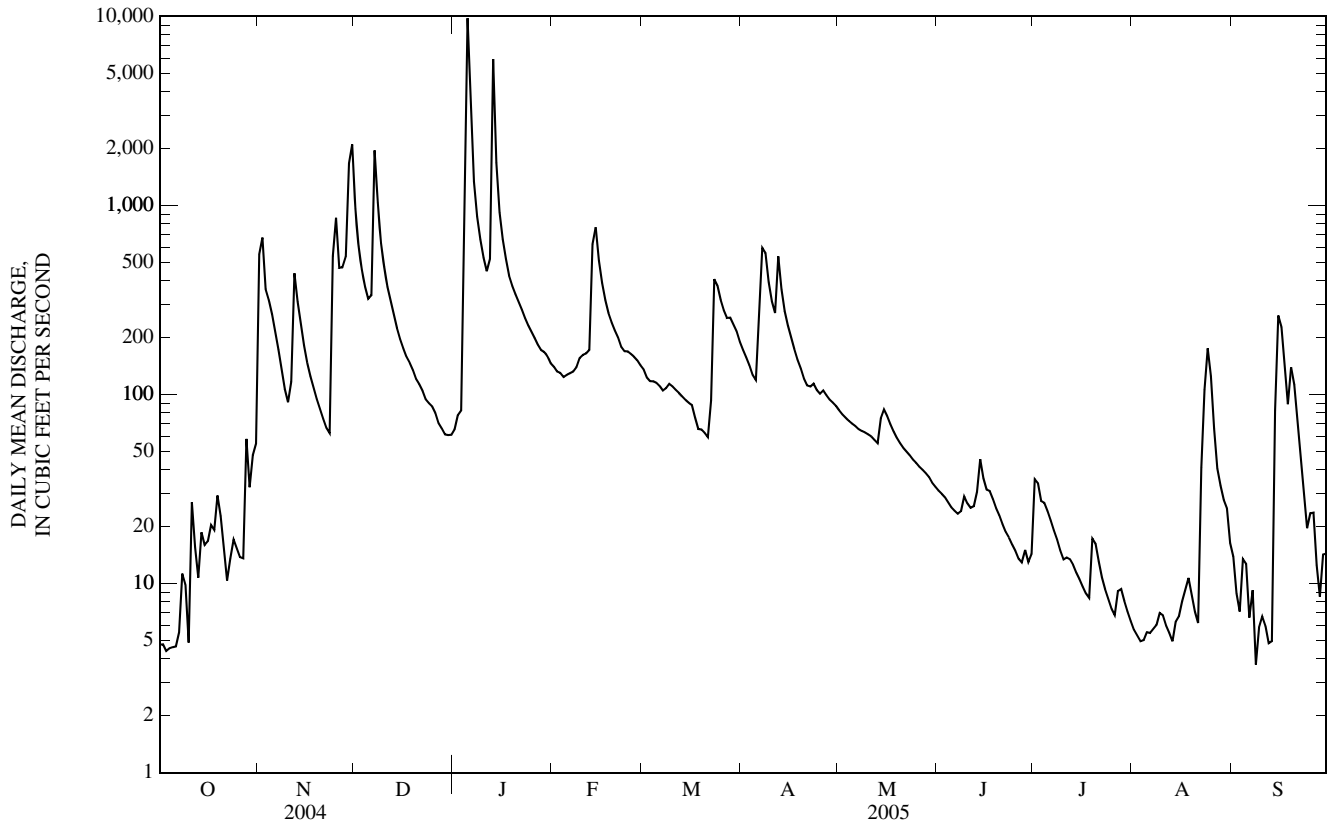
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2005, BY WATER YEAR (WY)

	90.3	241	280	229	274	409	420	398	187	102	37.1	104
MEAN	90.3	241	280	229	274	409	420	398	187	102	37.1	104
MAX	587	1,327	1,370	1,043	972	1,055	1,396	1,672	873	1,148	262	1,566
(WY)	(1971)	(1973)	(1983)	(2005)	(1985)	(1998)	(1994)	(1961)	(1985)	(1958)	(1958)	(1993)
MIN	2.74	9.39	8.26	5.56	8.35	16.4	16.3	27.6	24.3	12.2	3.22	1.05
(WY)	(1957)	(1964)	(1956)	(1981)	(1981)	(1981)	(1981)	(2000)	(2005)	(1962)	(1962)	(1956)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1956 - 2005	
ANNUAL MEAN	240		211		231	
HIGHEST ANNUAL MEAN					465	
LOWEST ANNUAL MEAN					52.8	
HIGHEST DAILY MEAN	8,020	May 1	9,780	Jan 5	24,500	Sep 25, 1993
LOWEST DAILY MEAN	4.4	Oct 3	3.7	Sep 8	0.30	Sep 16, 1956
ANNUAL SEVEN-DAY MINIMUM	4.7	Sep 30	4.8	Oct 1	0.53	Sep 12, 1956
MAXIMUM PEAK FLOW	---		13,500	Jan 5	41,100	Sep 25, 1993
MAXIMUM PEAK STAGE	---		15.69	Jan 5	19.45	Sep 25, 1993
INSTANTANEOUS LOW FLOW	---		1.1	Sep 8	0.10	Sep 16, 1956
ANNUAL RUNOFF (INCHES)	13.28		11.67		12.74	
10 PERCENT EXCEEDS	470		441		496	
50 PERCENT EXCEEDS	103		75		73	
90 PERCENT EXCEEDS	11		7.3		12	

07050700 JAMES RIVER NEAR SPRINGFIELD, MO—Continued



## 07052000 WILSON CREEK AT SPRINGFIELD, MO

LOCATION.--Lat 37°11'13", long 93°19'53", in SE ¼ NE ¼ SE ¼ sec. 28, T.29 N., R.22 W., Greene County, Hydrologic Unit 11010002, 1,600 ft downstream from confluence of Jordan and Fassnight Creeks, at bridge on Scenic Drive in Springfield.

DRAINAGE AREA.--17.8 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1932 to November 1939, June 28, 1973 to Sept. 22, 1977, June 4, 1998 to present.

REVISED RECORDS.--WDR MO-01-1: 1999, 2000(P).

GAGE.--Water-stage recorder. Datum of gage is 1200.86 ft above National Geodetic Vertical Datum of 1929. May 1932 to January 1939, recorder 0.5 mi downstream and at datum 4.7 ft lower.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	356	22	6.0	7.1	7.1	14	5.9	3.7	e12	1.5	2.1
2	1.1	27	19	10	13	6.8	5.4	5.5	3.6	e4.8	1.5	2.1
3	1.1	57	17	17	9.0	6.3	4.7	5.4	3.5	e3.6	1.5	1.9
4	1.1	24	15	257	7.7	11	4.5	5.1	3.5	e2.9	1.6	1.9
5	1.1	18	28	567	7.2	6.3	55	4.9	4.6	e2.4	1.8	1.6
6	1.1	16	89	63	12	5.9	129	4.9	3.3	2.1	3.8	1.5
7	2.0	14	85	36	24	5.8	31	4.7	34	1.8	1.6	1.4
8	43	13	22	28	10	5.7	15	4.6	6.7	1.8	1.4	1.4
9	2.7	12	19	22	17	15	12	4.7	132	1.7	1.4	1.5
10	2.2	12	17	20	8.7	6.3	11	4.4	6.0	2.4	1.4	1.5
11	202	103	15	22	7.9	5.7	61	4.3	22	2.2	1.5	1.3
12	19	20	14	346	49	5.3	30	4.3	4.5	1.6	1.5	1.3
13	6.2	15	13	262	82	4.9	14	4.3	114	1.6	1.6	1.9
14	21	13	12	57	21	4.8	12	103	23	1.6	3.4	195
15	11	12	12	37	16	4.6	11	6.4	5.5	1.6	21	664
16	7.4	12	11	27	14	4.4	10	5.3	5.5	1.6	4.3	20
17	4.3	11	10	22	13	4.0	9.5	4.9	4.3	1.6	16	12
18	4.0	15	9.6	19	12	3.8	9.1	4.7	3.7	29	2.4	14
19	3.8	11	9.2	17	11	3.6	8.5	4.7	3.4	39	1.7	9.2
20	3.4	16	9.1	15	10	3.4	8.0	4.6	3.3	2.6	1.7	7.4
21	3.2	16	8.8	13	13	3.3	7.6	4.4	3.0	1.8	249	6.3
22	3.2	17	8.8	12	8.9	98	7.3	4.9	3.1	1.7	86	5.2
23	4.1	11	8.5	12	18	22	6.8	4.4	2.9	1.6	45	4.5
24	3.1	193	8.2	11	10	7.7	6.6	4.4	2.8	1.6	6.3	3.9
25	3.0	22	7.8	10	8.6	11	17	4.2	2.8	1.6	4.3	6.1
26	38	17	7.5	9.3	8.3	5.9	28	4.1	2.7	1.7	3.8	3.8
27	118	48	7.2	8.6	7.8	16	7.4	4.0	2.9	26	3.6	3.4
28	12	17	6.9	8.4	8.3	6.5	14	3.9	2.9	1.8	3.0	11
29	30	158	6.6	11	---	5.5	7.2	3.7	2.7	1.6	2.7	4.8
30	20	30	6.2	8.2	---	5.1	6.5	3.6	e3.7	1.6	2.6	2.9
31	40	---	5.9	7.8	---	4.6	---	3.6	---	1.5	2.3	---
MEAN	19.8	43.5	17.1	63.3	15.5	9.88	18.8	7.80	14.0	5.17	15.5	33.7
MAX	202	356	89	567	82	98	129	103	132	39	249	664
MIN	1.1	11	5.9	6.0	7.1	3.3	4.5	3.6	2.7	1.5	1.4	1.3
IN.	1.28	2.73	1.11	4.10	0.91	0.64	1.18	0.51	0.88	0.34	1.01	2.11

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

MEAN	12.9	17.6	14.3	20.7	18.9	21.8	22.3	28.5	29.4	19.2	11.1	32.2
MAX	27.7	43.5	29.4	63.3	41.0	57.6	52.9	74.5	119	100	26.2	361
(WY)	(1937)	(2005)	(2000)	(2005)	(2001)	(1935)	(1933)	(2002)	(1935)	(2000)	(2003)	(1975)
MIN	4.67	4.39	5.33	4.33	6.30	7.90	4.13	7.80	6.60	5.17	4.37	1.99
(WY)	(2004)	(2003)	(2001)	(2000)	(1934)	(1936)	(2000)	(2005)	(1936)	(2005)	(1999)	(2002)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

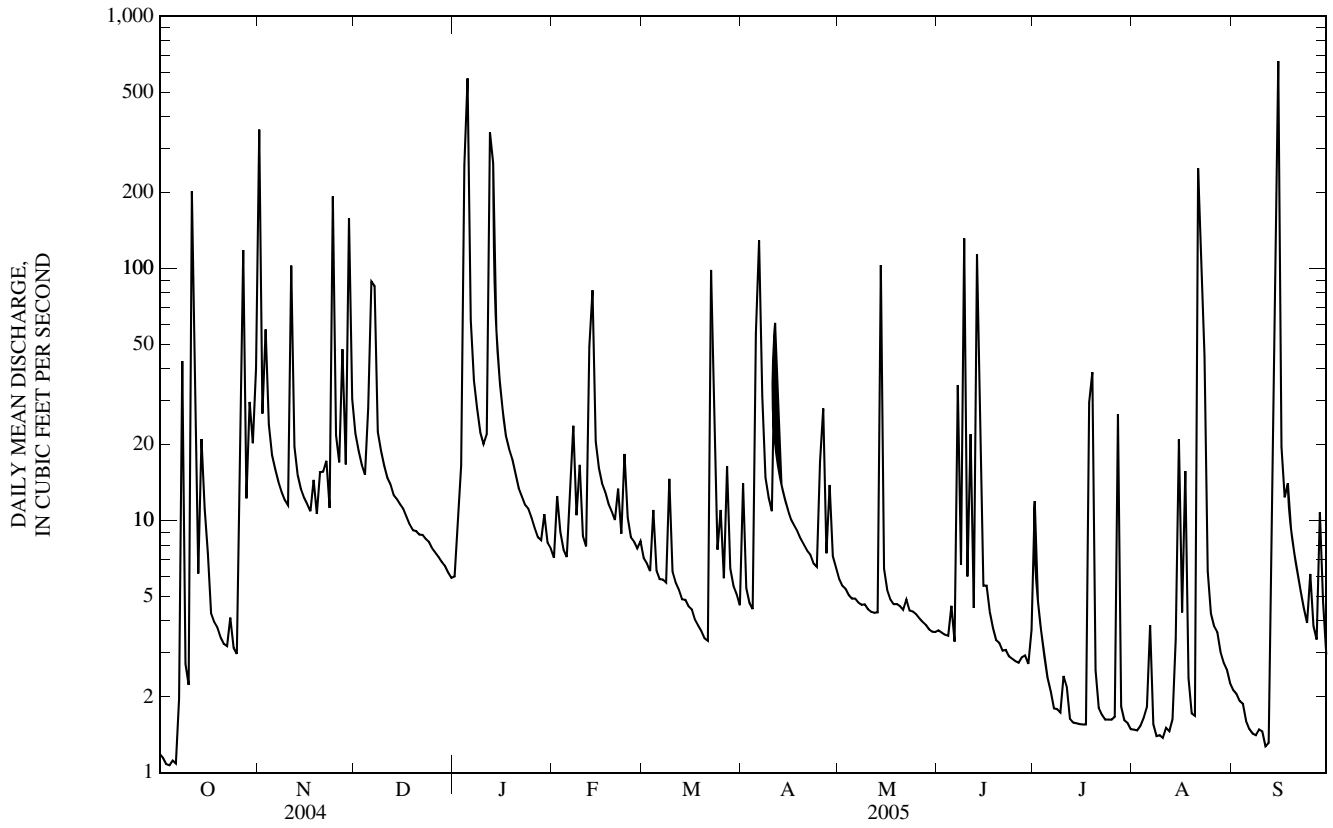
FOR PERIOD OF RECORD

ANNUAL MEAN	17.7	22.0	18.5
HIGHEST ANNUAL MEAN			29.9
LOWEST ANNUAL MEAN			8.26
HIGHEST DAILY MEAN	356	664	2,160
LOWEST DAILY MEAN	1.0	1.1	0.81
ANNUAL SEVEN-DAY MINIMUM	1.1	1.2	0.84
MAXIMUM PEAK FLOW	---	2,890 <sup>a</sup>	6,750 <sup>a</sup>
MAXIMUM PEAK STAGE	---	10.11	12.70
INSTANTANEOUS LOW FLOW	---	0.76	0.31
ANNUAL RUNOFF (INCHES)	13.52	16.78	14.09
10 PERCENT EXCEEDS	30	35	37
50 PERCENT EXCEEDS	7.8	7.1	8.6
90 PERCENT EXCEEDS	2.6	1.6	3.0

e Estimated

<sup>a</sup> From rating extended above 600 ft<sup>3</sup>/s on basis of indirect measurement.

07052000 WILSON CREEK AT SPRINGFIELD, MO—Continued



## 07052100 WILSON CREEK NEAR SPRINGFIELD, MO

LOCATION.--Lat 37°10'07", long 93°22'13", in NE ¼ NE ¼ sec. 6, T.28 N., R.22 W., Greene County, Hydrologic Unit 11010002 on right bank just downstream from bridge on County Road 156, 1 mile upstream of Sewage Treatment Plant, and 0.75 mi upstream of South Creek.

DRAINAGE AREA.--31.4 mi<sup>2</sup>.

PERIOD OF RECORD.--Sept. 21, 1972 to Sept. 30, 1982, May 28, 1998 to current year.

REVISED RECORDS.--WDR MO-01-1: 1999-2000(P).

GAGE.--Water-stage recorder. Datum of gage is 1149.65 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	e550	e24	0.00	0.00	0.92	7.1	0.00	0.00	26	0.00	0.00
2	0.00	e39	e12	0.15	0.92	0.39	1.1	0.00	0.00	0.00	0.00	0.00
3	0.00	e104	e7.1	e4.0	1.0	0.02	0.02	0.00	0.00	0.00	0.00	0.00
4	0.00	e31	e4.5	e350	0.37	3.7	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	e13	e30	e997	0.00	0.05	1.2	0.00	0.00	0.00	0.00	0.00
6	0.00	e7.5	e89	e163	0.68	0.00	172	0.00	0.00	0.00	0.00	0.00
7	0.00	e3.2	e171	e21	e4.0	0.00	32	0.00	30	0.00	0.00	0.00
8	80	1.9	e38	e7.8	e2.6	0.00	13	0.00	4.8	0.00	0.00	0.00
9	0.00	1.3	e22	e4.8	e3.4	4.3	9.4	0.00	72	0.00	0.00	0.00
10	0.00	0.27	e14	e3.7	e2.1	0.01	7.3	0.00	0.25	0.00	0.00	0.00
11	e322	e193	e7.7	e5.2	e1.8	0.00	39	0.00	9.5	0.00	0.00	0.00
12	e23	e22	e5.6	e328	e19	0.00	43	0.00	0.12	0.00	0.00	0.00
13	e1.4	e8.4	e3.8	e482	121	0.00	11	0.00	61	0.00	0.00	0.00
14	e18	e3.7	e2.7	e18	21	0.00	9.2	100	29	0.00	0.00	156
15	e1.9	2.3	e2.4	e8.7	15	0.00	7.1	0.55	0.08	0.00	3.9	908
16	e4.3	1.7	e2.2	e5.8	12	0.00	5.5	0.00	0.00	0.00	0.62	22
17	0.00	1.1	1.9	e4.5	9.4	0.00	4.1	0.00	0.00	0.00	1.8	6.6
18	0.00	1.6	1.7	e3.8	7.8	0.00	3.0	0.00	0.00	0.00	0.00	5.7
19	0.00	0.49	1.4	e3.3	6.7	0.00	2.1	0.00	0.00	28	0.00	0.90
20	0.00	1.9	1.3	e3.0	5.7	0.00	1.2	0.00	0.00	0.00	0.00	0.00
21	0.00	0.14	0.97	e2.6	7.5	0.00	0.48	0.00	0.00	0.00	201	0.00
22	0.00	e7.4	0.62	e2.2	4.1	86	0.12	0.00	0.00	0.00	52	0.00
23	0.00	e0.83	0.50	1.9	11	28	0.01	0.00	0.00	0.00	39	0.00
24	0.00	e193	0.52	1.7	6.3	5.6	0.00	0.00	0.00	0.00	0.61	0.00
25	0.00	e34	0.59	1.5	3.9	8.1	0.85	0.00	0.00	0.00	0.00	0.00
26	e44	e17	0.10	0.65	3.1	3.0	27	0.00	0.00	0.00	0.00	0.00
27	e184	e81	0.00	0.02	2.1	11	2.3	0.00	0.00	8.3	0.00	0.00
28	e52	e17	0.00	0.00	2.1	3.6	5.8	0.00	0.00	0.00	0.00	1.7
29	e2.2	e247	0.00	1.2	---	1.6	1.3	0.00	0.00	0.00	0.00	0.51
30	e55	e68	0.00	0.15	---	0.44	0.20	0.00	0.00	0.00	0.00	0.00
31	e12	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
MEAN	25.8	55.1	14.4	78.2	9.81	5.06	13.5	3.24	6.89	2.01	9.64	36.7
MAX	322	550	171	997	121	86	172	100	72	28	201	908
MIN	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IN.	0.95	1.96	0.53	2.87	0.33	0.19	0.48	0.12	0.24	0.07	0.35	1.30

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

MEAN	15.0	22.6	14.8	16.9	16.4	31.2	27.3	36.1	25.5	18.1	10.1	13.3
MAX	54.6	88.6	34.1	78.2	47.5	74.6	78.1	151	56.6	73.9	30.4	73.0
(WY)	(1973)	(1973)	(1974)	(2005)	(2001)	(1975)	(1979)	(2002)	(1981)	(2000)	(2003)	(1977)
MIN	2.04	0.26	0.56	0.36	2.55	1.08	0.05	3.24	4.31	2.01	1.23	0.06
(WY)	(2000)	(2003)	(2001)	(1977)	(1977)	(2001)	(2000)	(2005)	(2002)	(2005)	(1999)	(2004)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

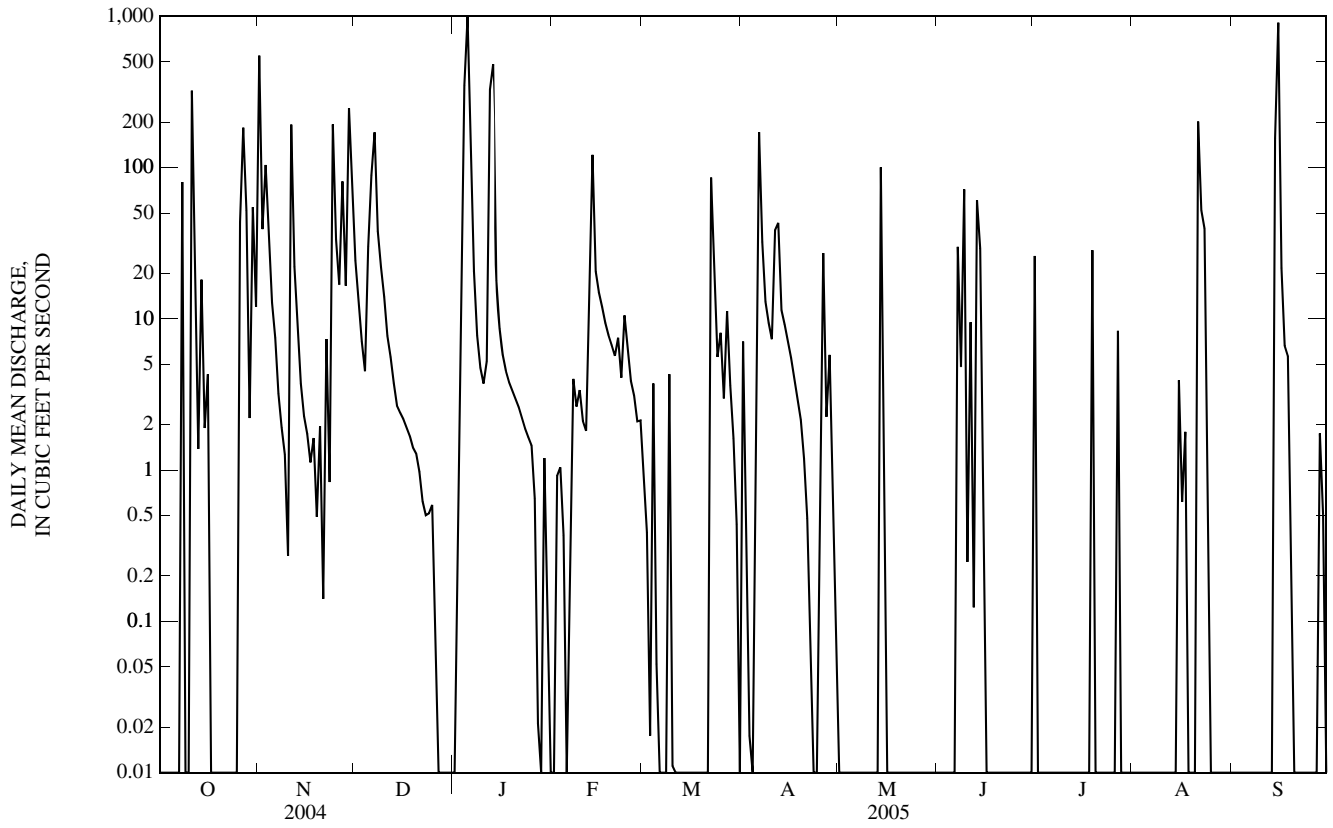
FOR PERIOD OF RECORD

ANNUAL MEAN	25.1		21.7		20.8
HIGHEST ANNUAL MEAN					35.2
LOWEST ANNUAL MEAN					9.43
HIGHEST DAILY MEAN	550	Nov 1	997	Jan 5	1,810
LOWEST DAILY MEAN	0.00	Many Days	0.00	Many Days	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	At Times	0.00	At Times	0.00
MAXIMUM PEAK FLOW	---		2,820	Sep 15	5,480
MAXIMUM PEAK STAGE	---		8.03	Sep 15	9.49
INSTANTANEOUS LOW FLOW	---		0.00	Many Days	0.00
ANNUAL RUNOFF (INCHES)	10.87		9.40		8.99
10 PERCENT EXCEEDS	64		33		44
50 PERCENT EXCEEDS	1.1		0.20		5.8
90 PERCENT EXCEEDS	0.00		0.00		0.00

e Estimated



07052100 WILSON CREEK NEAR SPRINGFIELD, MO—Continued



## 07052120 SOUTH CREEK NEAR SPRINGFIELD, MO

LOCATION.--Lat 37°09'13", long 93°21'46", Greene County, Hydrologic Unit 11010002, 50 ft downstream of State Highway FF bridge, 0.25 mi west of junction of James River Expressway and Highway FF.

DRAINAGE AREA.--10.5 mi<sup>2</sup>.

PERIOD OF RECORD.--May 29, 1998 to current year.

REVISED RECORDS.--WDR MO-01-1: 2000 (M).

GAGE.--Water-stage recorder. Elevation of gage is 1146.00 ft from topographic map.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	e82	5.1	0.00	0.00	0.00	0.46	0.00	0.00	3.5	0.00	0.00
2	0.00	4.6	3.3	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	11	1.9	1.9	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	3.3	0.57	43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.20	3.9	117	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	9.3	27	0.00	0.00	16	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	33	15	0.00	0.00	3.9	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	10	9.7	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	7.6	5.7	0.00	0.34	0.00	0.00	6.1	0.00	0.00	0.00
10	0.00	0.00	5.3	3.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	35	21	3.4	1.5	0.00	0.00	6.0	0.00	0.39	0.00	0.00	0.00
12	0.24	1.5	1.4	e61	2.6	0.00	8.6	0.00	0.00	0.00	0.00	0.00
13	0.00	0.00	0.39	66	15	0.00	1.2	0.00	4.4	0.00	0.00	0.00
14	1.6	0.00	0.05	15	3.5	0.00	0.38	10	12	0.00	0.00	70
15	0.00	0.00	0.00	8.7	2.2	0.00	0.00	0.00	0.00	0.00	0.00	219
16	0.00	0.00	0.00	5.6	1.4	0.00	0.00	0.00	0.00	0.00	0.00	4.0
17	0.00	0.00	0.00	e2.9	0.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00
18	0.00	0.00	0.00	e1.2	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
19	2.3	0.00	0.00	e0.42	0.00	0.00	0.00	0.00	0.00	13	0.00	0.00
20	0.15	0.00	0.00	e0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
21	0.00	0.00	0.00	e0.00	0.58	0.00	0.00	0.00	0.00	0.00	20	0.00
22	0.00	0.00	0.00	e0.00	0.00	12	0.00	0.00	0.00	0.00	5.4	0.00
23	0.00	0.00	0.00	e0.00	2.1	4.4	0.00	0.00	0.00	0.00	8.9	0.00
24	0.00	32	0.00	e0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.00	0.00
25	0.00	3.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
26	5.5	0.80	0.00	e0.00	0.00	0.00	3.5	0.00	0.00	0.00	0.00	0.00
27	4.0	12	0.00	0.00	0.00	0.31	0.00	0.00	0.00	1.7	0.00	0.00
28	0.02	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	0.00	38	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30	8.5	8.9	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00
31	0.22	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
MEAN	1.86	7.32	2.75	12.4	1.03	0.55	1.34	0.32	0.76	0.59	1.11	9.77
MAX	35	82	33	117	15	12	16	10	12	13	20	219
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IN.	0.20	0.78	0.30	1.36	0.10	0.06	0.14	0.04	0.08	0.06	0.12	1.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2005, BY WATER YEAR (WY)

MEAN	8.91	2.09	5.19	3.31	6.14	12.5	6.74	13.8	2.21	6.07	3.27	2.37
MAX	55.0	7.32	21.6	12.4	30.1	71.9	31.2	63.8	6.16	24.5	17.6	9.77
(WY)	(2003)	(2005)	(2003)	(2005)	(2003)	(2003)	(2003)	(2003)	(2003)	(2000)	(2002)	(2005)
MIN	0.00	0.00	0.00	0.01	0.15	0.09	0.14	0.32	0.56	0.59	0.00	0.00
(WY)	(2001)	(2003)	(2001)	(2001)	(2004)	(2001)	(2000)	(2005)	(2004)	(2005)	(1999)	(1999)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

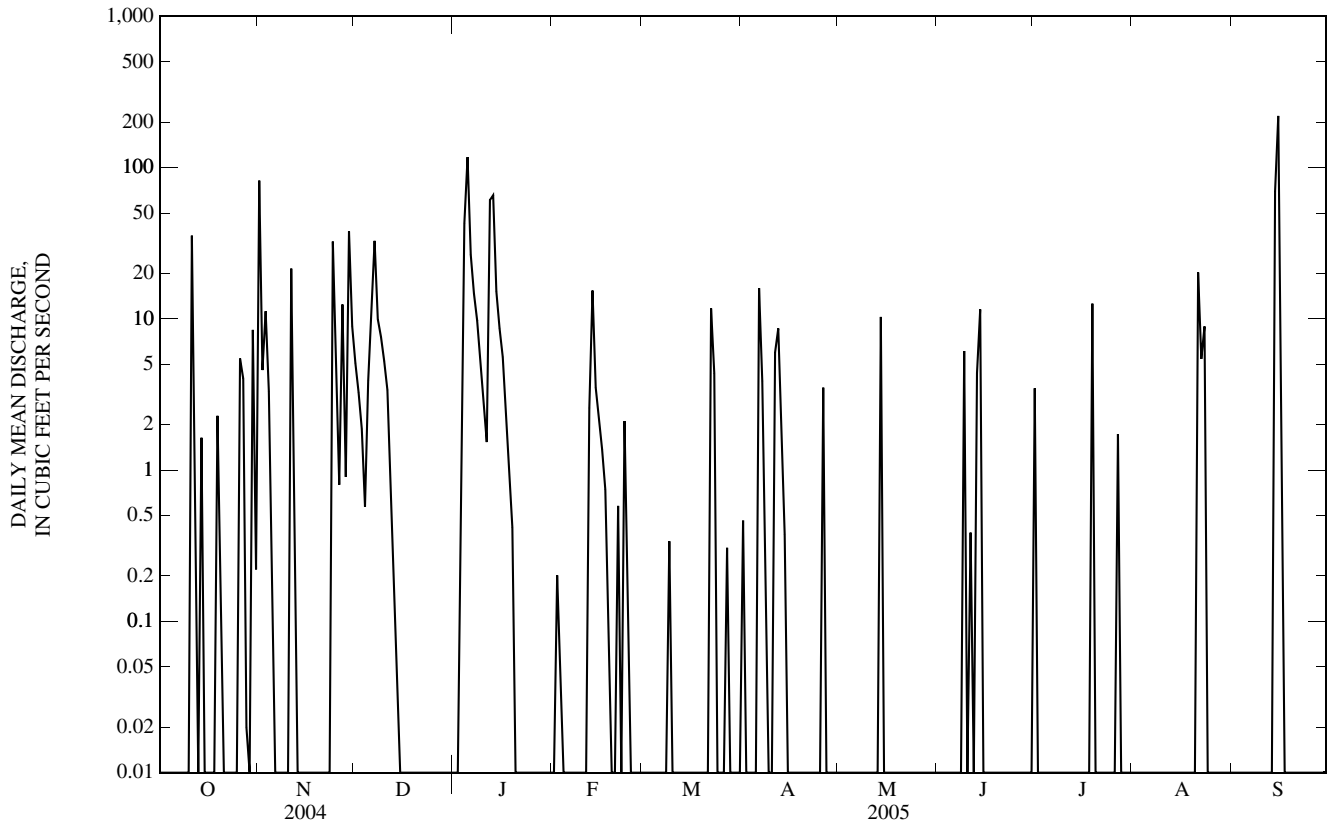
FOR 2005 WATER YEAR

WATER YEARS 1998 - 2005

ANNUAL MEAN	3.10	3.32	6.18
HIGHEST ANNUAL MEAN			24.2
LOWEST ANNUAL MEAN			1.57
HIGHEST DAILY MEAN		Nov 1	611
LOWEST DAILY MEAN	0.00	Many Days	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	At Times	0.00
MAXIMUM PEAK FLOW	---	711	Unknown
MAXIMUM PEAK STAGE	---	5.33	9.63
INSTANTANEOUS LOW FLOW	---	0.00	0.00
ANNUAL RUNOFF (INCHES)	4.02	4.29	7.99
10 PERCENT EXCEEDS	8.8	5.6	6.9
50 PERCENT EXCEEDS	0.00	0.00	0.00
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

07052120 SOUTH CREEK NEAR SPRINGFIELD, MO—Continued



## 07052152 WILSON CREEK NEAR BROOKLINE, MO

LOCATION.--Lat 37°08'50", long 93°22'32", in NW ¼ NE ¼ NE ¼ sec.7, T.28 N., R.22 W., Greene County, Hydrologic Unit 11010002, at bridge on Farm Road 168, 2.0 mi southeast of Brookline, approximately 0.25 mi downstream from the Southwest Treatment Plant, and 0.5 mi downstream from South Creek.

DRAINAGE AREA.--44.6 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 10, 2001 to current year.

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

REMARKS.--No estimated daily discharges. Water-discharge records good except for discharges over 1,000 ft<sup>3</sup>/s, which are fair. Natural flow partially regulated and affected by sewage effluent.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	621	119	47	50	50	57	46	38	63	37	37
2	31	106	95	44	52	43	58	47	41	38	38	38
3	33	118	81	58	57	41	49	43	41	34	39	34
4	33	93	78	286	56	48	50	43	39	34	35	30
5	33	79	80	1,320	50	41	50	46	38	39	37	32
6	36	75	96	429	54	45	208	47	40	39	37	35
7	36	54	283	229	61	47	106	42	53	39	31	38
8	48	52	139	156	62	42	83	44	45	39	35	38
9	36	51	97	110	65	50	75	42	122	36	37	38
10	34	47	88	103	61	45	66	44	46	34	38	34
11	187	149	83	100	59	48	91	45	44	39	38	32
12	58	69	79	452	78	46	109	44	41	39	37	36
13	52	64	74	1,050	178	36	80	44	98	38	31	39
14	54	62	74	251	85	43	66	125	98	41	30	272
15	48	61	71	146	78	40	66	49	49	37	38	1,370
16	43	51	62	101	73	41	68	45	47	35	39	95
17	44	52	61	94	71	41	62	45	45	34	43	65
18	43	51	58	91	67	41	59	44	40	37	42	46
19	38	47	53	74	64	44	56	43	37	73	40	46
20	37	49	63	73	52	33	59	43	41	43	35	44
21	38	45	60	63	55	42	55	42	41	40	207	40
22	41	53	41	61	50	117	54	45	42	39	120	40
23	35	52	59	55	57	94	54	40	41	36	98	37
24	33	251	52	58	56	64	48	44	41	38	48	34
25	36	126	53	52	55	61	53	43	37	37	45	38
26	53	87	45	59	52	61	70	44	35	39	42	38
27	125	136	52	56	43	53	53	39	39	47	38	36
28	62	78	51	56	53	60	55	39	40	39	35	40
29	49	268	48	61	---	55	56	35	40	38	39	39
30	68	171	48	57	---	54	53	38	40	34	39	34
31	47	---	49	53	---	55	---	40	---	33	38	---
MEAN	49.8	107	77.2	189	64.1	51.0	69.0	45.8	48.0	39.7	47.9	92.5
MAX	187	621	283	1,320	178	117	208	125	122	73	207	1,370
MIN	31	45	41	44	43	33	48	35	35	33	30	30

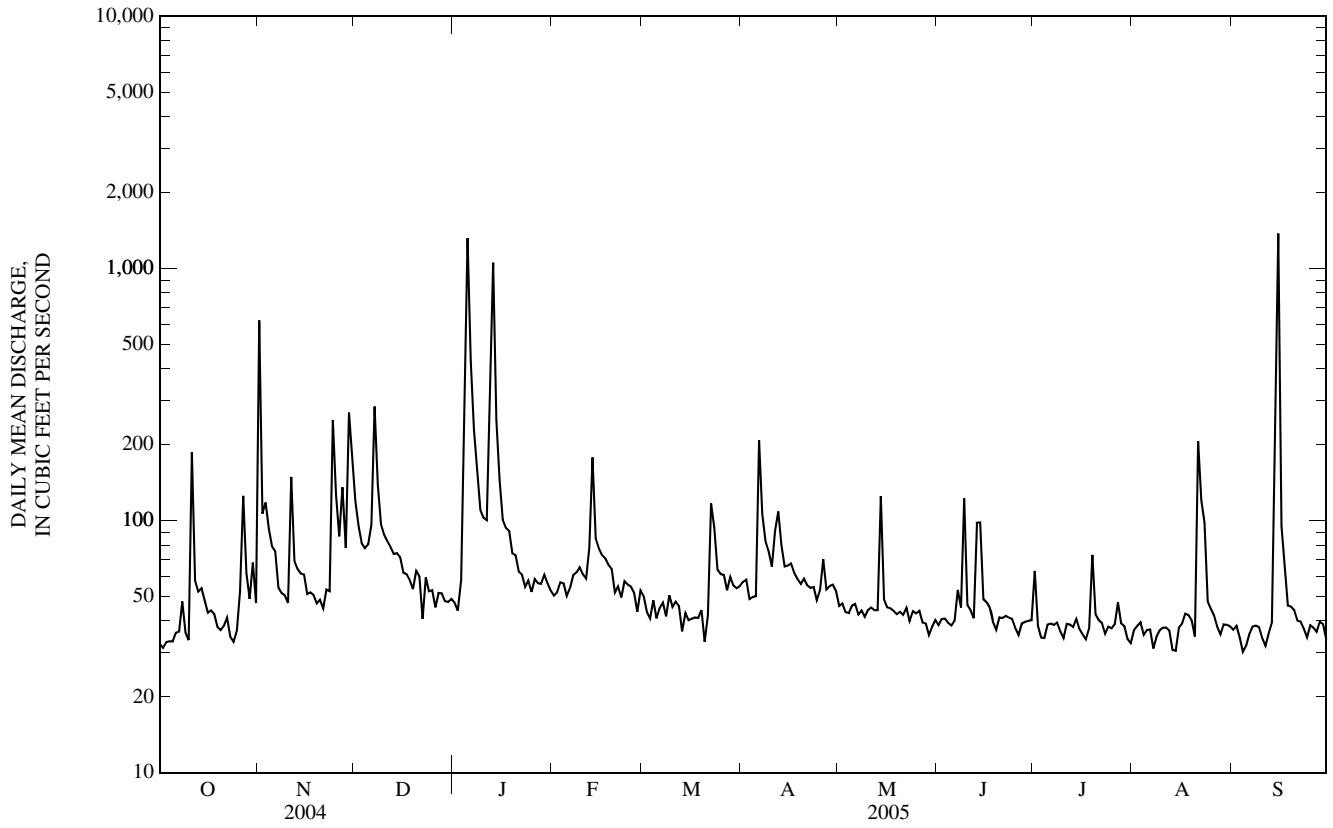
## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	43.1	58.1	61.4	87.4	55.6	68.3	66.4	102	54.0	49.0	46.1	49.6
MAX	50.1	107	77.2	189	64.1	97.8	73.6	230	74.3	63.7	59.5	92.5
(WY)	(2002)	(2005)	(2005)	(2005)	(2005)	(2004)	(2002)	(2002)	(2003)	(2004)	(2003)	(2005)
MIN	34.8	32.8	40.5	39.0	44.8	51.0	53.0	45.8	45.4	39.7	39.2	34.1
(WY)	(2004)	(2003)	(2003)	(2003)	(2004)	(2005)	(2003)	(2005)	(2002)	(2005)	(2002)	(2004)

## SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2001 - 2005
ANNUAL MEAN	63.1	73.4	62.0
HIGHEST ANNUAL MEAN			73.4
LOWEST ANNUAL MEAN			50.8
HIGHEST DAILY MEAN	621	1,370	2,750
LOWEST DAILY MEAN	29	30	25
ANNUAL SEVEN-DAY MINIMUM	33	33	28
MAXIMUM PEAK FLOW	---	4,160	Unknown
MAXIMUM PEAK STAGE	---	9.30	10.27
INSTANTANEOUS LOW FLOW	---	6.7	1.0
ANNUAL RUNOFF (INCHES)	21.75	25.23	21.31
10 PERCENT EXCEEDS	94	102	85
50 PERCENT EXCEEDS	47	48	44
90 PERCENT EXCEEDS	35	36	34

07052152 WILSON CREEK NEAR BROOKLINE, MO—Continued



07052152 WILSON CREEK NEAR BROOKLINE, MO—Continued  
(Ambient Water-Quality Monitoring Network)

## WATER-QUALITY RECORDS

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instan- taneous dis- charge, cfs (00061)	Dis- solved oxygen, mg/L (00300)	Dis- solved oxygen, percent of sat- uration (00301)	pH, water, unfltrd field, std units (00400)	Specif. conduc- tance, wat unfltrd, $\mu$ S/cm 25 degC (00095)	Temper- ature, water, deg C (00010)	Hard- ness, water, mg/L as CaCO <sub>3</sub> (00900)	Calcium water, fltrd, mg/L (00915)	Magnes- ium, water, fltrd, mg/L (00925)	Potas- sium, water, fltrd, mg/L (00935)
NOV 16...	1310	Environmental	56	13.0	147	7.3	1,050	19.9	230	78.4	9.04	11.1
JAN 19...	1515	Environmental	77	17.8	181	7.1	829	14.5	230	83.4	5.22	6.41
FEB 08...	0855	Environmental	63	13.1	134	7.3	950	14.6	--	--	--	--
MAR 29...	1040	Environmental	57	15.9	171	7.3	976	15.9	--	--	--	--
APR 11...	1340	Environmental	154	11.8	128	7.4	509	16.9	--	--	--	--
MAY 24...	1400	Environmental	48	13.7	163	7.1	1,070	21.3	190	61.8	8.92	13.4
JUN 14...	0830	Environmental	63	14.0	169	7.3	814	22.2	--	--	--	--
JUL 26...	1630	Environmental	45	12.4	166	7.2	1,060	27.8	--	--	--	--
AUG 30...	1515	Environmental	43	12.6	125	7.5	1,060	12.6	180	58.2	8.88	13.8
SEP 20...	0845	Blank	--	--	--	--	--	--	--	--	--	--
20...	0900	Environmental	38	13.8	167	7.8	853	24.7	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, incrm. titr., mg/L as CaCO <sub>3</sub> (00419)	Bicar- bonate, wat unfltrd, incrm. titr., mg/L (00450)	Carbon- ate, wat unfltrd, incrm. titr., mg/L (00447)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat fltrd mg/L (70300)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NOV 16...	121	208	208	254	<1	139	.5	77.0	643	<10	2.0	.88	1.63
JAN 19...	80.8	174	175	213	<1	81.4	.4	67.1	509	<10	1.6	.39	4.56
FEB 08...	--	--	--	--	--	--	--	--	--	20	1.2	E.03n	3.88
MAR 29...	--	--	--	--	--	--	--	--	--	<10	5.0	3.54d	10.1d
APR 11...	--	--	--	--	--	--	--	--	--	12	3.4	2.56d	4.47
MAY 24...	136	123	123	150	<1	138	.5	96.0	645	<10	1.3	E.03n	12.7d
JUN 14...	--	--	--	--	--	--	--	--	--	<10	2.0	.92	9.03d
JUL 26...	--	--	--	--	--	--	--	--	--	<10	1.1	E.03n	23.1d
AUG 30...	121	99	98	120	<1	132	.6	110	642	<10	.99	<.04	15.2d
SEP 20...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	<.06
20...	--	--	--	--	--	--	--	--	--	<10	1.4	.44	7.63d

07052152 WILSON CREEK NEAR BROOKLINE, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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 coliform, M-FC, col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 16...	.020	.58	.61	.68	12k	40k	21	72	<2o	.05	.06	1.3	40
JAN 19...	.185	E.01n	.04	.14	4,200k	3,400k	68	185	1.1	.06	.06	1.6	22
FEB 08...	.167	<.02	.07	.14	613k	1,125k	--	--	--	--	--	--	--
MAR 29...	.039	.11	.17	.23	4k	4k	--	--	--	--	--	--	--
APR 11...	.023	.07	.10	.24	1,800k	1,500k	--	--	--	--	--	--	--
MAY 24...	.012	<.02	.06	.13	18k	37k	59	175	3.7d	.14	.10	3.1	53
JUN 14...	.028	.35	.44	.51	8k	73k	--	--	--	--	--	--	--
JUL 26...	.009	.98	.98	1.02	18k	37	--	--	--	--	--	--	--
AUG 30...	.050	.03	.09	.13	65	88k	66	110	.4o	.07	.09	3.0	32
SEP 20...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
SEP 20...	.014	.05	.07	.09	<2b	<2b	--	--	--	--	--	--	--

Date	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 16...	.47	.65	78.3	<.01	<3o	29.6	28
JAN 19...	.66	.80	71.5	E.01n	3.2	25.9	29
FEB 08...	--	--	--	--	--	--	--
MAR 29...	--	--	--	--	--	--	--
APR 11...	--	--	--	--	--	--	--
MAY 24...	.50	.99	38.9	<.01	12.6d	39.6	45
JUN 14...	--	--	--	--	--	--	--
JUL 26...	--	--	--	--	--	--	--
AUG 30...	.36	.56	16.4	<.01	.2o	26.0	35
SEP 20...	--	--	--	--	--	--	--
SEP 20...	--	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

Value qualifier codes used in this table:

- b -- Value extrapolated at low end
- d -- Diluted sample: method hi range exceeded
- k -- Counts outside acceptable range
- n -- Below the LRL and above the LT-MDL
- o -- Result determined by alternate method

07052250 JAMES RIVER NEAR BOAZ, MO

LOCATION.--Lat 37°00'24", long 93°21'53", in NE 1/4 NE 1/4 NW 1/4 sec.32, T.27 N., R.22 W., Christian County, Hydrologic Unit 11010002, on left bank 150 ft downstream from Frazier Bridge, 0.2 mi upstream from Turkey Hollow, and 2.0 mi southeast of Boaz.

DRAINAGE AREA.--462 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PREIOD OF RECORD.--October 1972 to September 1980, October 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1035.35 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Water-discharge records good. U.S.G.S. satellite telemeter at station. Partially regulated at low flow by Lake Springfield and sewage effluent from Southwest Treatment Plant.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	1,470	2,270	197	351	420	441	258	99	129	51	70
2	54	1,620	1,630	193	339	397	437	247	94	153	55	66
3	49	1,070	1,270	235	339	365	387	236	91	115	54	63
4	55	931	1,040	995	330	365	362	222	92	93	55	55
5	54	762	885	9,990	314	351	342	216	86	86	53	50
6	53	622	895	10,200	317	334	707	209	85	84	195	52
7	53	506	2,500	3,420	335	325	1,060	198	90	80	120	54
8	86	425	2,590	2,340	371	310	1,300	193	148	75	80	58
9	94	369	1,710	1,820	391	319	1,020	191	221	72	69	58
10	72	329	1,320	1,490	405	324	818	178	171	65	64	55
11	280	539	1,070	1,260	404	305	782	171	125	67	62	50
12	422	887	902	1,340	421	292	1,150	159	134	72	58	48
13	237	892	758	8,520	969	274	1,080	153	212	67	54	53
14	212	675	641	4,510	1,680	260	829	331	369	64	49	502
15	249	556	568	2,460	1,340	252	697	276	232	65	56	1,830
16	208	469	508	1,820	1,090	243	618	223	173	60	75	832
17	183	416	462	1,460	903	234	539	205	150	55	77	462
18	168	380	426	1,190	773	213	475	197	131	56	87	301
19	152	351	391	1,030	681	203	429	186	114	125	79	239
20	149	321	359	918	607	190	393	163	105	97	65	247
21	139	298	338	812	571	191	365	146	100	81	57	214
22	132	303	308	740	514	216	354	140	93	72	344	169
23	128	288	289	670	506	740	339	134	90	63	244	138
24	108	807	273	609	527	853	321	131	85	60	213	116
25	110	1,890	256	560	494	726	311	129	79	60	240	108
26	132	1,350	244	518	481	650	359	119	71	58	196	106
27	234	1,240	231	480	460	593	324	116	74	80	144	98
28	368	1,330	220	436	446	574	306	109	75	81	110	96
29	232	1,840	218	429	---	549	302	103	70	65	93	106
30	264	3,960	205	406	---	513	280	100	71	57	86	103
31	233	---	199	378	---	481	---	100	---	52	80	---
MEAN	160	897	806	1,981	584	389	571	179	124	77.7	105	213
MAX	422	3,960	2,590	10,200	1,680	853	1,300	331	369	153	344	1,830
MIN	49	288	199	193	314	190	280	100	70	52	49	48
IN.	0.40	2.17	2.01	4.95	1.32	0.97	1.38	0.45	0.30	0.19	0.26	0.52

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

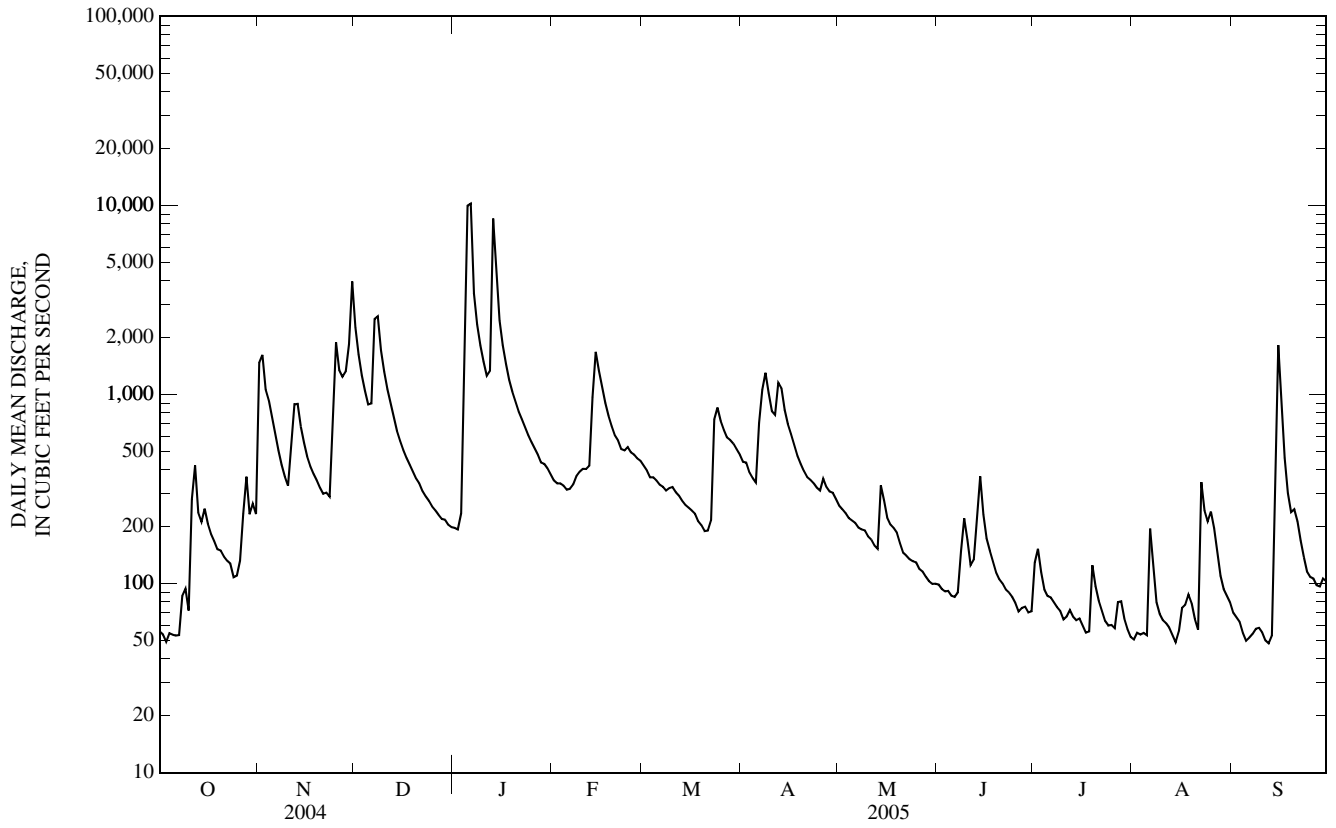
MEAN	197	630	463	525	529	1,064	820	809	396	274	143	246
MAX	444	2,292	1,122	1,981	1,465	2,106	1,755	2,353	1,294	990	359	1,222
(WY)	(1978)	(1973)	(1974)	(2005)	(1975)	(1978)	(1973)	(2002)	(1974)	(1979)	(1979)	(1977)
MIN	63.4	55.1	55.0	53.3	101	183	268	116	124	67.3	54.7	40.7
(WY)	(1977)	(1977)	(1977)	(1977)	(1977)	(1976)	(1977)	(1977)	(2005)	(1980)	(1980)	(1980)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	532	507	508
HIGHEST ANNUAL MEAN			879
LOWEST ANNUAL MEAN			242
HIGHEST DAILY MEAN	6,380	10,200	15,400
LOWEST DAILY MEAN	49	48	36
ANNUAL SEVEN-DAY MINIMUM	53	53	38
MAXIMUM PEAK FLOW	---	16,000	21,700
MAXIMUM PEAK STAGE	---	14.35	16.76
INSTANTANEOUS LOW FLOW	---	39	35
ANNUAL RUNOFF (INCHES)	15.69	14.91	14.93
10 PERCENT EXCEEDS	1,200	1,070	1,070
50 PERCENT EXCEEDS	306	244	238
90 PERCENT EXCEEDS	71	63	67



07052250 JAMES RIVER NEAR BOAZ, MO—Continued



07052250 JAMES RIVER NEAR BOAZ, MO—Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1967 to September 1982, November 1983 to June 1987, November 1992 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 16...	1530	Environmental	449	9.5	99	7.8	466	15.9	200	69.1	7.20	3.58	
NOV 16...	1531	Replicate	--	9.5	99	7.7	468	15.9	200	69.3	7.20	3.60	
MAR 29...	1300	Environmental	535	11.9	124	8.1	424	15.0	--	--	--	--	
APR 11...	1500	Environmental	785	8.4	95	8.1	391	18.7	--	--	--	--	
MAY 25...	0855	Environmental	134	6.4	73	7.4	584	19.5	210	70.5	7.21	5.13	
JUN 14...	1015	Environmental	524	6.2	74	7.4	498	21.9	--	--	--	--	
JUL 26...	1455	Environmental	57	7.8	108	7.9	831	30.0	--	--	--	--	
Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd 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)	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 16...	18.2	174	175	214	<1	26.1	.1	17.5	290	<10	.47	.13	2.54
NOV 16...	18.2	--	--	--	--	26.4	.1	17.5	284	<10	.44	.14	2.60
MAR 29...	--	--	--	--	--	--	--	--	--	10	.27	<.04	1.95
APR 11...	--	--	--	--	--	--	--	--	--	19	.38	<.04	1.72
MAY 25...	37.3	156	157	191	<1	41.8	.2	35.3	339	28	.56	<.04	5.52d
JUN 14...	--	--	--	--	--	--	--	--	--	26	.74	<.04	3.87
JUL 26...	--	--	--	--	--	--	--	--	--	<10	.72	<.04	4.28
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 col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 16...	.070	.06	.09	.12	280	260	5	163	.4	<.04	.04	1.4	E6n
NOV 16...	.070	.06	.09	.10	230	240	4	149	.5	E.02n	E.04n	1.2	E5n
MAR 29...	E.006n	E.02n	E.04n	.05	5k	23k	--	--	--	--	--	--	--
APR 11...	.011	.03	E.03n	.07	88	130	--	--	--	--	--	--	--
MAY 25...	.026	.05	.08	.10	58	76k	2	175	.6	.06	.07	2.1	8
JUN 14...	.013	.12	.18	.23	330	560	--	--	--	--	--	--	--
JUL 26...	.020	.24	.28	.30	12k	26	--	--	--	--	--	--	--

07052250 JAMES RIVER NEAR BOAZ, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover-able, µg/L (01051)	Mangan-ese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover-able, µg/L (71900)	Selen-ium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover-able, µg/L (01092)	2,6-Di-ethyl-aniline water fltrd 0.7µ GF (82660)	CIAT, water, fltrd, µg/L (04040)	Aceto-chlor, water, fltrd, µg/L (49260)	Ala-chlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)	Atra-zine, water, fltrd, µg/L (39632)
NOV 16...	.09	.91	11.3	<.01	E.3n	3.8	6	<.006	<.006	<.006	<.004	<.005	<.007
NOV 16...	E.07n	.84	10.6	<.01	.6	3.3	5	<.006	<.006	<.006	<.004	<.005	<.007
MAR 29...	--	--	--	--	--	--	--	<.006	<.006m	<.006	<.005	<.005	<.007
APR 11...	--	--	--	--	--	--	--	<.006	<.006m	<.006	<.005	<.005	<.007
MAY 25...	.16	1.19	14.6	<.01	35.0	8.6	13	<.006	<.006m	<.006	<.005	<.005	.014
JUN 14...	--	--	--	--	--	--	--	<.006	<.006m	<.006	<.005	<.005	<.010
JUL 26...	--	--	--	--	--	--	--	<.006	<.006m	<.006	<.005	<.005	<.007

Date	Azin-phos-methyl, water, fltrd 0.7µ GF (82686)	Ben-flur-alin, water, fltrd 0.7µ GF (82673)	Butyl-ate, water, fltrd, µg/L (04028)	Car-baryl, water, fltrd 0.7µ GF (82680)	Carbo-furan, water, fltrd 0.7µGF (82674)	Chlor-pyri-fos water, fltrd, µg/L (38933)	cis-Per-methrin water fltrd 0.7µ GF (82687)	Cyana-zine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µGF (82682)	Diazi-non, water, fltrd, µg/L (39572)	Diel-drin, water, fltrd, µg/L (39381)	Disul-foton, water, fltrd 0.7µ GF (82677)	EPTC, water, fltrd 0.7µ GF (82668)
NOV 16...	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.02	<.002
NOV 16...	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.02	<.002
MAR 29...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
APR 11...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
MAY 25...	<.070m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
JUN 14...	<.050m	<.010	<.004	E.070m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
JUL 26...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004

Date	Ethal-flur-alin, water, fltrd 0.7µ GF (82663)	Etho-prop, water, fltrd 0.7µ GF (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)	Linuron water fltrd 0.7µ GF (82666)	Malathion, water, fltrd, µg/L (39532)	Methyl para-thion, water, fltrd 0.7µ GF (82667)	Metola-chlor, water, fltrd, µg/L (39415)	Metri-buzin, water, fltrd, µg/L (82630)	Moli-nate, water, fltrd 0.7µ GF (82671)	Naprop-amide, water, fltrd 0.7µ GF (82684)	p,p'-DDE, water, fltrd, µg/L (34653)	Para-thion, water, fltrd, µg/L (39542)
NOV 16...	<.009	<.010	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
NOV 16...	<.009	<.010	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
MAR 29...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010
APR 11...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010
MAY 25...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010
JUN 14...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010
JUL 26...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Peb- ulate, water, fltrd 0.7µ GF (82669)	Pendi- meth- alin, water, fltrd 0.7µ GF (82683)	Phorate water fltrd 0.7µ GF (82664)	Prome- ton, water, fltrd, µg/L (04037)	Propy- zamide, water, fltrd 0.7µ GF (82676)	Propa- chlor, water, fltrd, µg/L (04024)	Pro- panil, water, fltrd 0.7µ GF (82679)	Propar- gite, water, fltrd 0.7µ GF (82685)	Sima- zine, water, fltrd, µg/L (04035)	Tebu- thiuron water fltrd 0.7µ GF (82670)	Terba- cil, water, fltrd 0.7µ GF (82665)	Terbu- fos, water, fltrd 0.7µ GF (82675)	Thio- bencarb water fltrd 0.7µ GF (82681)
NOV													
16...	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005
16...	<.004	<.022	<.011	<.01n	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005
MAR													
29...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010
APR													
11...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.20	<.005	<.02	<.034m	<.02	<.010
MAY													
25...	<.004	<.022	<.011	.04	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010
JUN													
14...	<.004	<.022	<.011	.15	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010
JUL													
26...	<.004	<.022	<.011	.09	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010

Date	Tri- allate, water, fltrd 0.7µ GF (82678)	Tri- flur- alin, water, fltrd 0.7µ GF (82661)
NOV		
16...	<.002	<.009
16...	<.002	<.009
MAR		
29...	<.006	<.009
APR		
11...	<.006	<.009
MAY		
25...	<.006	<.009
JUN		
14...	<.006	<.009
JUL		
26...	<.006	<.009

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

d -- Diluted sample: method hi range exceeded  
k -- Counts outside acceptable range  
m -- Value is highly variable by this method  
n -- Below the LRL and above the LT-MDL

07052345 FINLEY CREEK BELOW RIVERDALE, MO

LOCATION.--Lat 36°58'30", long 93°19'40", in SW 1/4 NW 1/4 NE 1/4 sec.10, T.26 N., R.22 W., Christian County, Hydrologic Unit 11010002, on downstream side of center pier of Aspen Road bridge, 12.4 mi southeast of junction of Highway 160 and 60.

DRAINAGE AREA.--261 mi<sup>2</sup>.

PREIOD OF RECORD.--October 2001 to May 2, 2005.

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

REMARKS.--Records fair Oct. 1 to Dec. 2, poor Dec. 2 to May 2. U.S.G.S. satellite telemeter at station.

EXTREMES FOR CURRENT YEAR.--For the period Oct. 1 to May 2, maximum discharge, 7,280 ft<sup>3</sup>/s, gage height 10.65 ft, Jan. 5; minimum 14 ft<sup>3</sup>/s, Oct. 2, 6, and 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

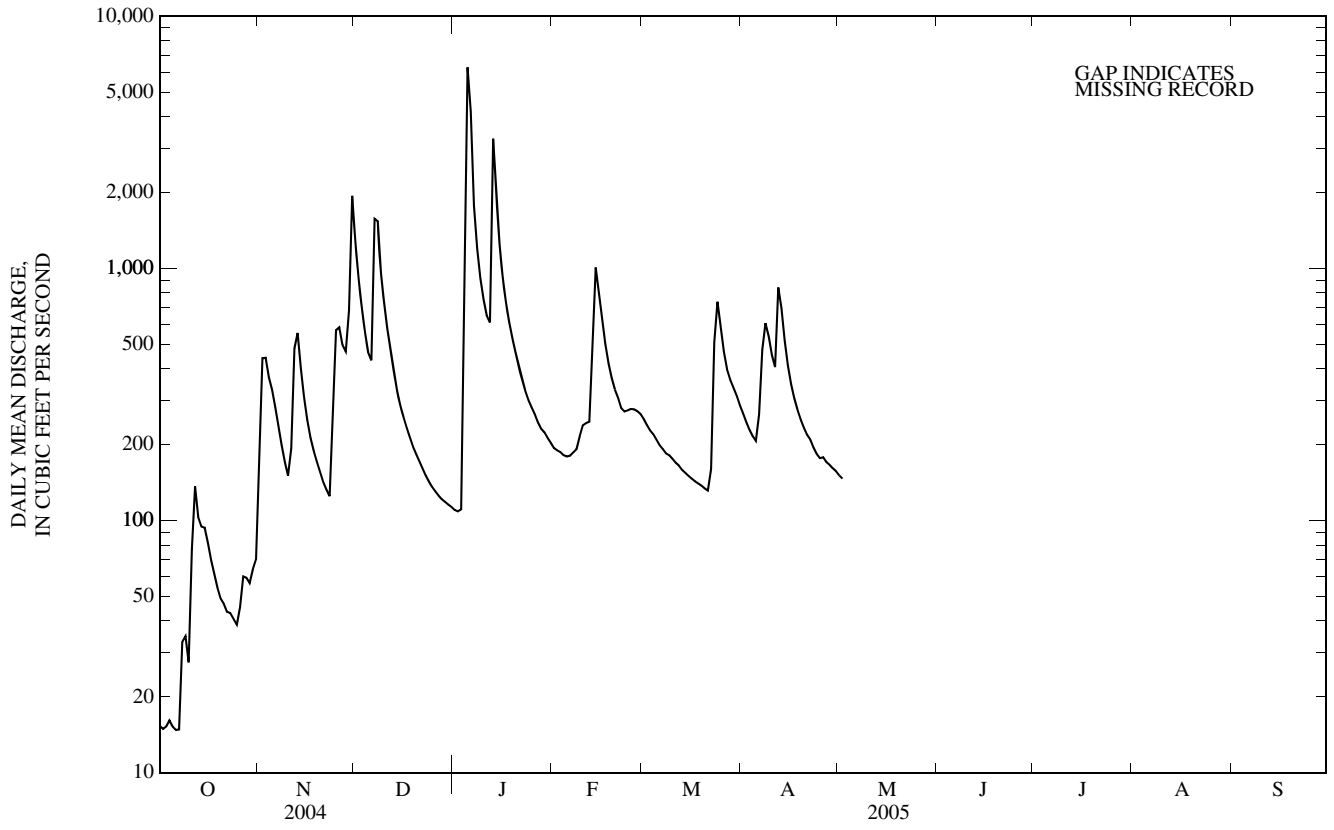
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	195	1,270	110	194	253	267	151	---	---	---	---
2	15	440	911	109	190	239	247	147	---	---	---	---
3	15	442	699	111	187	228	229	---	---	---	---	---
4	16	371	558	811	182	220	216	---	---	---	---	---
5	15	330	465	6,270	180	209	207	---	---	---	---	---
6	15	282	432	4,200	181	199	263	---	---	---	---	---
7	15	236	1,570	1,770	186	192	475	---	---	---	---	---
8	33	199	1,540	1,200	192	185	606	---	---	---	---	---
9	35	171	957	915	216	182	539	---	---	---	---	---
10	27	151	725	754	239	176	454	---	---	---	---	---
11	77	193	574	650	244	170	407	---	---	---	---	---
12	137	482	469	610	247	165	840	---	---	---	---	---
13	103	555	390	3,270	482	159	694	---	---	---	---	---
14	95	402	329	2,130	1,010	155	518	---	---	---	---	---
15	94	309	287	1,250	782	150	412	---	---	---	---	---
16	82	251	258	920	620	147	348	---	---	---	---	---
17	70	214	234	732	501	143	305	---	---	---	---	---
18	62	190	215	613	421	140	275	---	---	---	---	---
19	54	172	197	530	367	138	251	---	---	---	---	---
20	49	156	184	464	331	134	233	---	---	---	---	---
21	47	142	173	413	307	132	219	---	---	---	---	---
22	43	133	162	367	279	160	209	---	---	---	---	---
23	43	125	151	329	271	509	195	---	---	---	---	---
24	41	235	143	302	273	738	183	---	---	---	---	---
25	39	568	136	282	277	584	177	---	---	---	---	---
26	45	583	131	265	276	468	178	---	---	---	---	---
27	60	498	126	246	271	398	171	---	---	---	---	---
28	59	469	122	231	265	362	166	---	---	---	---	---
29	57	681	119	224	---	337	161	---	---	---	---	---
30	64	1,940	116	213	---	314	157	---	---	---	---	---
31	70	---	113	203	---	287	---	---	---	---	---	---
MEAN	51.4	370	444	984	328	254	320	---	---	---	---	---
MAX	137	1,940	1,570	6,270	1,010	738	840	---	---	---	---	---
MIN	15	125	113	109	180	132	157	---	---	---	---	---
IN.	0.23	1.58	1.96	4.35	1.31	1.12	1.37	---	---	---	---	---

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

MEAN	34.4	142	287	373	265	390	413	617	105	75.8	54.7	39.8
MAX	51.4	370	444	984	412	551	567	1,401	150	105	60.6	77.4
(WY)	(2005)	(2005)	(2005)	(2005)	(2002)	(2004)	(2002)	(2002)	(2002)	(2004)	(2002)	(2003)
MIN	23.9	35.4	71.0	95.9	153	224	249	128	68.3	45.3	46.6	18.9
(WY)	(2003)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)	(2003)	(2004)	(2003)	(2003)	(2004)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	248	210
HIGHEST ANNUAL MEAN		318
LOWEST ANNUAL MEAN		105
HIGHEST DAILY MEAN	4,130	10,500
LOWEST DAILY MEAN	15	11
ANNUAL SEVEN-DAY MINIMUM	15	12
MAXIMUM PEAK FLOW	---	21,400
MAXIMUM PEAK STAGE	---	16.31
INSTANTANEOUS LOW FLOW	---	9.6
ANNUAL RUNOFF (INCHES)	12.93	10.92
10 PERCENT EXCEEDS	556	433
50 PERCENT EXCEEDS	142	90
90 PERCENT EXCEEDS	28	24



07052500 JAMES RIVER AT GALENA, MO

LOCATION.--Lat 36°48'19", long 93°27'42", in SW 1/4 SE 1/4 SW 1/4 sec.6, T.24 N., R.23 W., Stone County, Hydrologic Unit 11010002, on downstream side of right pier of first arch span from left end of bridge on old State Highways 13 and 248 in Galena, 0.7 mi upstream from Railey Creek, and 42.3 mi above mouth.

DRAINAGE AREA.--987 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 977: 1935(M), 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 921.37 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 11, 1927, nonrecording gage at site 500 ft downstream at datum 1.48 ft higher; Dec. 11, 1927, to July 22, 1939, nonrecording gage, and July 23, 1939, to Sept. 30, 1953, water-stage recorder at present site and at datum 2.00 ft higher.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	1,070	6,210	283	981	1,320	1,150	544	219	171	131	146
2	106	2,950	4,100	277	930	1,220	1,070	501	215	208	128	137
3	101	2,310	3,070	286	897	1,120	962	475	210	218	129	131
4	99	1,960	2,480	2,790	870	1,060	860	449	206	195	127	129
5	99	1,620	2,100	17,900	835	986	795	432	205	183	130	122
6	99	1,320	1,980	25,200	831	906	1,120	419	197	174	161	115
7	99	1,030	4,320	10,300	862	849	2,210	409	198	171	279	114
8	109	769	7,500	6,670	937	794	2,920	394	210	166	203	115
9	117	601	4,500	5,000	1,030	764	2,720	388	260	162	165	117
10	125	485	3,270	4,040	1,140	773	2,320	375	326	161	150	117
11	129	559	2,610	3,460	1,170	727	2,160	362	265	159	143	112
12	321	1,480	2,170	3,170	1,190	689	2,880	351	235	158	137	107
13	273	2,090	1,820	13,700	1,820	658	3,190	334	252	161	131	104
14	207	1,640	1,540	14,000	3,670	619	2,520	613	329	160	131	128
15	198	1,250	1,310	6,970	3,530	592	2,090	943	427	161	130	1,040
16	199	964	1,130	4,970	2,950	568	1,800	578	301	156	134	2,670
17	180	753	967	3,900	2,520	547	1,580	475	268	149	213	876
18	168	632	839	3,240	2,190	521	1,390	421	250	146	216	508
19	157	546	728	2,850	1,950	492	1,230	383	229	148	186	371
20	148	469	633	2,580	1,780	473	1,100	342	211	188	168	308
21	145	408	580	2,350	1,660	455	1,000	314	200	175	153	319
22	140	367	519	2,120	1,520	481	1,010	299	192	163	203	273
23	138	361	458	1,930	1,430	983	878	295	185	154	335	230
24	133	759	425	1,770	1,520	2,310	796	286	180	147	320	200
25	126	3,000	395	1,660	1,530	2,100	725	281	175	141	267	193
26	132	2,960	373	1,540	1,520	1,830	734	266	170	139	299	181
27	149	2,410	349	1,410	1,480	1,650	761	256	167	148	255	176
28	230	2,490	331	1,280	1,410	1,540	667	248	184	156	212	169
29	213	2,890	316	1,210	---	1,480	630	239	173	160	183	162
30	194	8,070	306	1,150	---	1,390	592	228	165	146	164	167
31	209	---	293	1,070	---	1,250	---	222	---	138	154	---
MEAN	156	1,607	1,859	4,809	1,577	1,005	1,462	391	227	163	185	318
MAX	321	8,070	7,500	25,200	3,670	2,310	3,190	943	427	218	335	2,670
MIN	99	361	293	277	831	455	592	222	165	138	127	104
IN.	0.18	1.82	2.17	5.62	1.66	1.17	1.65	0.46	0.26	0.19	0.22	0.36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2005, BY WATER YEAR (WY)

MEAN	473	856	959	941	1,130	1,521	1,758	1,617	1,133	580	385	411
MAX	2,494	4,407	5,435	4,809	3,485	5,372	8,376	9,549	6,383	4,010	5,159	5,684
(WY)	(1942)	(1973)	(1983)	(2005)	(1966)	(1945)	(1927)	(1943)	(1935)	(1951)	(1927)	(1993)
MIN	58.0	65.3	79.2	68.8	87.4	129	145	179	87.6	46.0	22.6	45.8
(WY)	(1954)	(1954)	(1956)	(1956)	(1954)	(1954)	(1954)	(1936)	(1936)	(1954)	(1954)	(1953)

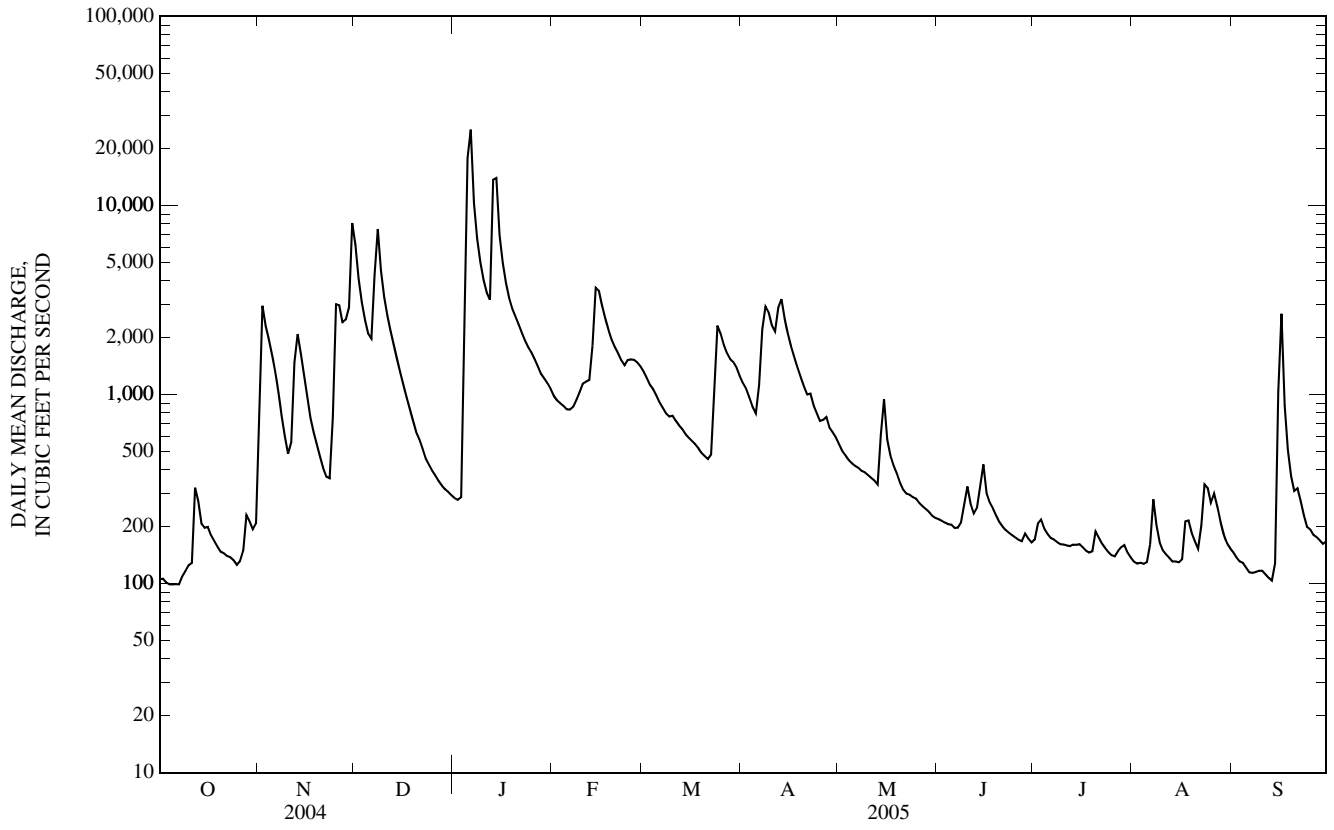
SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

WATER YEARS 1922 - 2005

ANNUAL MEAN	1,121	1,146	979
HIGHEST ANNUAL MEAN			2,499
LOWEST ANNUAL MEAN			119
HIGHEST DAILY MEAN	16,700	Apr 25	25,200
LOWEST DAILY MEAN	99	Oct 4-7	99
ANNUAL SEVEN-DAY MINIMUM	101	Oct 1	101
MAXIMUM PEAK FLOW	---		28,100
MAXIMUM PEAK STAGE	---		18.38
INSTANTANEOUS LOW FLOW	---		96
ANNUAL RUNOFF (INCHES)	15.46		15.76
10 PERCENT EXCEEDS	2,640		2,630
50 PERCENT EXCEEDS	554		421
90 PERCENT EXCEEDS	140		137
			73,200
			33.46
			10
			13.47
			2,130
			426
			121





07052500 JAMES RIVER AT GALENA, MO—Continued  
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 04...	1310	Environmental	99	11.3	126	7.9	599	19.3	--	--	--	--
NOV 03...	1515	Environmental	2,200	7.0	72	7.8	393	15.0	200	69.1	6.98	3.33
DEC 14...	0925	Environmental	1,560	10.2	86	7.9	383	7.5	--	--	--	--
JAN 04...	1030	Environmental	451	9.6	91	8.0	391	11.8	170	60.4	5.75	2.51
FEB 07...	1250	Environmental	878	12.5	120	8.2	415	11.1	--	--	--	--
MAR 29...	1230	Environmental	1,500	10.8	108	7.8	363	12.8	--	--	--	--
APR 25...	1410	Environmental	718	10.0	103	8.3	384	14.6	--	--	--	--
MAY 17...	1310	Environmental	474	10.0	114	7.6	383	19.8	170	58.6	5.77	2.60
JUN 13...	1400	Environmental	249	7.7	102	7.9	438	27.0	--	--	--	--
JUL 12...	1520	Environmental	155	9.1	116	7.7	488	26.0	180	62.9	6.70	4.37
AUG 09...	0905	Environmental	170	5.2	67	7.6	527	26.6	--	--	--	--
SEP 13...	1515	Environmental	106	10.0	130	7.7	574	26.9	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, 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 04...	--	--	--	--	--	--	--	--	--	<10	.28	<.04	.81
NOV 03...	10.7	162	162	197	<1	17.2	E.1n	11.7	234	<10	.33	E.03n	1.75
DEC 14...	--	--	--	--	--	--	--	--	--	<10	E.10n	<.04	2.91
JAN 04...	12.7	151	151	184	<1	18.4	E.1n	11.7	233	12	.18	<.04	2.85
FEB 07...	--	--	--	--	--	--	--	--	--	<10	.12	<.04	2.69
MAR 29...	--	--	--	--	--	--	--	--	--	<10	.16	<.04	1.95
APR 25...	--	--	--	--	--	--	--	--	--	<10	.21	<.04	1.40
MAY 17...	10.6	147	148	181	<1	16.0	E.1n	9.9	224	<10	.23	<.04	1.81
JUN 13...	--	--	--	--	--	--	--	--	--	<10	.24	<.04	1.79
JUL 12...	30.1	141	139	171	<1	38.3	.2	25.5	292	<10	.32	E.03n	2.19
AUG 09...	--	--	--	--	--	--	--	--	--	<10	.35	E.02n	2.60
SEP 13...	--	--	--	--	--	--	--	--	--	<10	.33	<.04	2.19

## 07052500 JAMES RIVER AT GALENA, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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 0.7 $\mu$ MF col/100 mL (31625)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Aluminum, water, unfltrd recover-able, $\mu$ 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)	Iron, water, fltrd, $\mu$ g/L (01046)
OCT 04...	<.008	.03	E.03n	.04	1k	3k	--	--	--	--	--	--	--
NOV 03...	.008	E.01n	.07	.09	840k	910k	E1n	139	.4	<.04	E.02n	.9	<6
DEC 14...	<.008	.04	.04	E.04n	30k	46	--	--	--	--	--	--	--
JAN 04...	<.008	E.01n	E.03n	.05	150	140	E1n	223	1.1	E.03n	E.03n	1.0	<6
FEB 07...	E.004n	E.01n	<.04	<.04	13k	3k	--	--	--	--	--	--	--
MAR 29...	.008	.02	<.04	E.03n	11k	9k	--	--	--	--	--	--	--
APR 25...	<.008	<.02	<.04	<.04	9k	32	--	--	--	--	--	--	--
MAY 17...	E.007n	<.02	.05	.06	3k	24	37	2	.5	E.03n	<.04	1.2	35
JUN 13...	E.004n	.07	.09	.09	48	64k	--	--	--	--	--	--	--
JUL 12...	.009	<.02	.08	.09	17k	24	E1n	51	<2o	E.03n	E.04n	1.2	<6
AUG 09...	.014	.09	.10	.11	13k	20	--	--	--	--	--	--	--
SEP 13...	.010	.04	.06	.07	2k	6k	--	--	--	--	--	--	--

Date	Lead, water, fltrd, $\mu$ g/L (01049)	Lead, water, unfltrd recover-able, $\mu$ g/L (01051)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recover-able, $\mu$ g/L (71900)	Selenium, water, fltrd, $\mu$ g/L (01145)	Zinc, water, fltrd, $\mu$ g/L (01090)	Zinc, water, unfltrd recover-able, $\mu$ g/L (01092)
OCT 04...	--	--	--	--	--	--	--
NOV 03...	E.04n	.57	2.8	<.01	1.5	1.7	3
DEC 14...	--	--	--	--	--	--	--
JAN 04...	E.07n	.84	1.9	<.01	2.5	3.5	5
FEB 07...	--	--	--	--	--	--	--
MAR 29...	--	--	--	--	--	--	--
APR 25...	--	--	--	--	--	--	--
MAY 17...	.22	.07	10.2	<.01	<.4	2.7	2
JUN 13...	--	--	--	--	--	--	--
JUL 12...	E.07n	.22	4.3	<.01	<3o	2.9	3
AUG 09...	--	--	--	--	--	--	--
SEP 13...	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than.

E -- Estimated.

Value qualifier codes used in this table:

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

o -- Result determined by alternate method

07052820 FLAT CREEK BELOW JENKINS, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 36°45'02", long 93°37'06", in SW ¼ SE ¼ NE ¼ sec.34, T.24 N., R.25 W., Barry County, Hydrologic Unit 11010002, at Lower Flat Creek Pulfic Access on HWY EE, approximately 4 mi southwest of Jenkins.

DRAINAGE AREA.--190 mi<sup>2</sup>.

PERIOD OF RECORD.--October 2003 to September 2004. October 1999 to September 2003 published as Flat Creek at Jenkins, MO (07052800) before moved to new location.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 04...	1220	Environmental	32	9.5	105	8.1	320	18.8	--	--	--	--
NOV 03...	1200	Environmental	520	9.6	97	7.5	299	14.1	150	50.6	6.49	2.30
DEC 14...	1110	Environmental	270	11.5	96	8.1	305	7.2	--	--	--	--
JAN 04...	0900	Environmental	147	12.3	114	7.9	299	10.9	150	49.0	6.49	1.68
FEB 07...	1420	Environmental	282	11.2	106	8.2	300	10.9	--	--	--	--
MAR 29...	1030	Environmental	231	10.8	103	7.6	314	11.0	--	--	--	--
APR 25...	1200	Environmental	148	10.9	109	8.2	311	13.5	--	--	--	--
MAY 17...	1110	Environmental	104	9.2	102	7.4	318	17.9	160	51.1	7.09	1.60
JUN 13...	1215	Environmental	65	9.0	114	8.1	321	25.0	--	--	--	--
JUL 12...	1325	Environmental	32	9.7	121	7.8	299	24.6	160	51.2	6.80	1.88
AUG 09...	1130	Environmental	27	8.7	111	7.7	297	25.9	--	--	--	--
SEP 13...	1250	Environmental	15	9.0	115	7.4	293	25.6	--	--	--	--

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 04...	--	--	--	--	--	--	--	--	--	<10	E.09n	<.04	1.00
NOV 03...	3.37	119	120	147	<1	6.16	<.1	5.3	175	<10	.16	<.04	2.38
DEC 14...	--	--	--	--	--	--	--	--	--	<10	E.05n	<.04	2.35
JAN 04...	3.41	128	129	157	<1	6.61	<.1	4.2	175	<10	.14	<.04	1.92
FEB 07...	--	--	--	--	--	--	--	--	--	<10	E.07n	<.04	1.90
MAR 29...	--	--	--	--	--	--	--	--	--	<10	.11	<.04	1.48
APR 25...	--	--	--	--	--	--	--	--	--	<10	E.09n	<.04	1.15
MAY 17...	3.41	142	142	174	<1	6.72	<.1	4.1	182	<10	.12	<.04	1.08
JUN 13...	--	--	--	--	--	--	--	--	--	<10	E.09n	<.04	1.03
JUL 12...	4.39	130	130	158	<1	8.14	E.1n	3.8	177	<10	E.09n	<.04	.54
AUG 09...	--	--	--	--	--	--	--	--	--	<10	E.10n	<.04	.39
SEP 13...	--	--	--	--	--	--	--	--	--	<10	.10	<.04	.27

## 07052820 FLAT CREEK BELOW JENKINS, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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 0.7 $\mu$ MF col/100 mL (31625)	Aluminum, water, fltrd, $\mu$ g/L (01106)	Aluminum, water, unfltrd recover-able, $\mu$ 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)	Iron, water, fltrd, $\mu$ g/L (01046)
OCT 04...	<.008	E.01n	<.04	<.04	4k	45	--	--	--	--	--	--	--
NOV 03...	<.008	.02	E.04n	.04	910k	780k	Mn	113	.2	<.04	E.02n	.5	<6
DEC 14...	<.008	E.01n	<.04	<.04	8k	28	--	--	--	--	--	--	--
JAN 04...	<.008	<.02	<.04	E.02n	820	960	Mn	71	.2	<.04	<.04	.6	<6
FEB 07...	<.008	<.02	<.04	<.04	23k	4k	--	--	--	--	--	--	--
MAR 29...	E.007n	E.01n	<.04	<.04	13k	6k	--	--	--	--	--	--	--
APR 25...	<.008	<.02	<.04	<.04	21	33	--	--	--	--	--	--	--
MAY 17...	<.008	<.02	<.04	<.04	16k	41	E1n	23	E.2n	<.04	.05	.4	<6
JUN 13...	<.008	<.02	<.04	<.04	13k	37	--	--	--	--	--	--	--
JUL 12...	<.008	<.02	<.04	<.04	18k	39	E1n	13	.3	<.04	<.04	E.4n	<6
AUG 09...	<.008	<.02	<.04	<.04	27	50	--	--	--	--	--	--	--
SEP 13...	<.008	E.01n	<.04	E.02n	13k	38	--	--	--	--	--	--	--

Date	Lead, water, fltrd, $\mu$ g/L (01049)	Lead, water, unfltrd recover-able, $\mu$ g/L (01051)	Manganese, water, fltrd, $\mu$ g/L (01056)	Mercury water, unfltrd recover-able, $\mu$ g/L (71900)	Selenium, water, fltrd, $\mu$ g/L (01145)	Zinc, water, fltrd, $\mu$ g/L (01090)	Zinc, water, unfltrd recover-able, $\mu$ g/L (01092)
OCT 04...	--	--	--	--	--	--	--
NOV 03...	<.08	.27	2.1	<.01	<.4	.8	E2n
DEC 14...	--	--	--	--	--	--	--
JAN 04...	<.08	.13	1.8	<.01	E.2n	4.5	E1n
FEB 07...	--	--	--	--	--	--	--
MAR 29...	--	--	--	--	--	--	--
APR 25...	--	--	--	--	--	--	--
MAY 17...	E.07n	.10	2.5	<.01	<.4	.7	<2
JUN 13...	--	--	--	--	--	--	--
JUL 12...	.22	<.06	3.5	<.01	E.2n	.7	<2
AUG 09...	--	--	--	--	--	--	--
SEP 13...	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

Value qualifier codes used in this table:

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

07053400 TABLE ROCK LAKE NEAR BRANSON, MO

LOCATION.--Lat 36°35'46", long 93°18'35", in NW 1/4 sec.22, T.22 N., R.22 W., Taney County, Hydrologic Unit 11010001, at dam on White River, 3.0 mi upstream from Fall Creek, and 6.1 mi southwest of Branson.

DRAINAGE AREA.--4,020 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers). Prior to July 18, 1958, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by combination concrete-gravity and embankment type dam. Storage began on Sept. 9, 1956. Storage for purpose of filling to power pool level at elevation 881.0 ft and capacity 1,520,500 ac-ft began Nov. 24, 1958, and was reached Dec. 19, 1959. Capacity is 3,567,500 ac-ft at top of spillway gates, elevation 933.0 ft. Capacity is 3,462,000 ac-ft at top of flood control pool, elevation 931.0 ft. Capacity between elevations 915.0 ft and 931.0 ft is reserved for flood control, 760,000 ac-ft. The capacity at the lowest outlet, elevation 721.96 ft, is 3,530 ac-ft. Lake is used for flood control, power, and recreational purposes. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,542,000 ac-ft, May 10, 1961, elevation, 932.52 ft; minimum, since initial filling to bottom of power pool level, 1,536,000 ac-ft, Feb. 8, 1965, elevation, 881.54 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,862,000 ac-ft, Jan. 15, elevation, 918.65 ft; minimum, 2,362,000 ac-ft, Sept. 30, elevation, 906.69 ft.

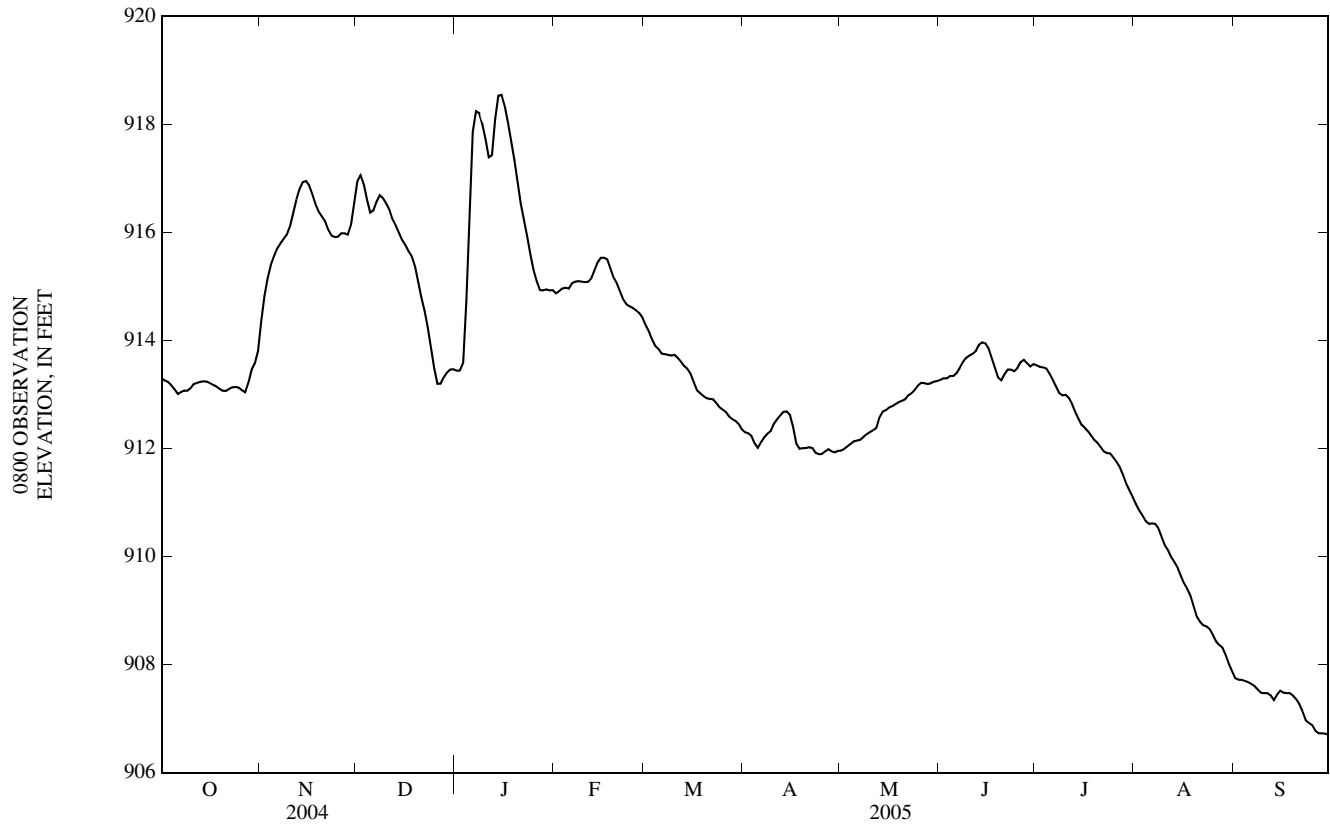
ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	913.35	913.91	916.73	913.46	914.94	914.39	912.32	911.97	913.25	913.59	911.06	907.84
2	913.27	914.58	917.06	913.43	914.84	914.23	912.29	911.96	913.28	913.51	910.93	907.70
3	913.25	914.94	917.06	913.45	914.95	914.14	912.28	912.01	913.31	913.51	910.82	907.73
4	913.22	915.26	916.81	913.65	914.97	913.96	912.21	912.06	913.29	913.50	910.73	907.71
5	913.14	915.46	916.51	915.27	914.98	913.87	912.04	912.10	913.37	913.47	910.62	907.69
6	913.07	915.61	916.30	917.22	914.95	913.83	912.00	912.15	913.33	913.34	910.60	907.67
7	912.98	915.75	916.46	918.18	915.11	913.72	912.18	912.15	913.43	913.24	910.62	907.63
8	913.08	915.82	916.62	918.27	915.08	913.76	912.22	912.17	913.53	913.11	910.60	907.59
9	913.07	915.91	916.72	918.18	915.11	913.72	912.30	912.24	913.64	912.99	910.48	907.51
10	913.07	915.98	916.59	917.91	915.08	913.72	912.33	912.28	913.70	912.98	910.31	907.46
11	913.14	916.18	916.51	917.63	915.08	913.74	912.52	912.32	913.73	913.00	910.16	907.48
12	913.22	916.45	916.38	917.27	915.09	913.65	912.55	912.35	913.76	912.91	910.09	907.47
13	913.21	916.69	916.17	917.51	915.18	913.59	912.64	912.40	913.82	912.79	909.94	907.41
14	913.25	916.86	916.11	918.39	915.36	913.50	912.70	912.67	913.97	912.63	909.87	907.31
15	913.24	916.97	915.94	918.60	915.49	913.46	912.68	912.69	913.96	912.52	909.75	907.51
16	913.24	916.94	915.82	918.52	915.55	913.34	912.60	912.72	913.94	912.40	909.59	907.52
17	913.20	916.83	915.74	918.25	915.52	913.17	912.30	912.78	913.81	912.38	909.46	907.46
18	913.17	916.64	915.61	917.93	915.49	913.03	911.99	912.79	913.60	912.29	909.37	907.48
19	913.14	916.46	915.53	917.57	915.26	913.02	912.00	912.84	913.44	912.21	909.23	907.47
20	913.09	916.34	915.30	917.23	915.11	912.95	912.01	912.87	913.25	912.13	909.01	907.40
21	913.06	916.27	914.98	916.76	915.03	912.92	912.01	912.89	913.27	912.09	908.82	907.34
22	913.07	916.17	914.70	916.42	914.85	912.92	912.03	912.92	913.43	911.99	908.78	907.23
23	913.12	915.98	914.47	916.12	914.71	912.91	912.00	913.02	913.48	911.92	908.70	907.08
24	913.14	915.92	914.12	915.83	914.65	912.81	911.88	913.03	913.45	911.91	908.71	906.91
25	913.14	915.91	913.74	915.48	914.62	912.74	911.90	913.12	913.42	911.91	908.63	906.92
26	913.12	915.93	913.36	915.22	914.59	912.71	911.90	913.19	913.52	911.79	908.51	906.86
27	913.06	916.01	913.12	915.04	914.54	912.66	911.97	913.23	913.64	911.73	908.39	906.73
28	913.03	915.97	913.24	914.88	914.49	912.56	912.00	913.20	913.64	911.61	908.35	906.73
29	913.31	915.95	913.36	914.95	---	912.54	911.92	913.19	913.55	911.46	908.30	906.73
30	913.53	916.23	913.43	914.94	---	912.50	911.93	913.22	913.50	911.29	908.12	906.72
31	913.60	---	913.48	914.92	---	912.43	---	913.25	---	911.19	907.96	---
MEAN	913.18	916.00	915.42	916.40	915.02	913.31	912.19	912.64	913.54	912.50	909.56	907.34
MAX	913.60	916.97	917.06	918.60	915.55	914.39	912.70	913.25	913.97	913.59	911.06	907.84
MIN	912.98	913.91	913.12	913.43	914.49	912.43	911.88	911.96	913.25	911.19	907.96	906.72
(-)	2,642,000	2,760,000	2,637,000	2,699,000	2,680,000	2,593,000	2,572,000	2,628,000	2,638,000	2,542,000	2,411,000	2,363,000
(=)	+10,000	+118,000	-123,000	+62,000	-19,000	-87,000	-21,000	+56,000	+10,000	-96,000	-131,000	-48,000

CAL YR 2004.... +164,000  
WTR YR 2005.... -269,000

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

07053400 TABLE ROCK LAKE NEAR BRANSON, MO—Continued



07053450 WHITE RIVER BELOW TABLE ROCK DAM NEAR BRANSON, MO

LOCATION.--Lat 36°35'42", long 93°18'32", sec.22, T.22 N., R.22 W., Taney County, Hydrologic Unit 11010003, on left bank in southwest corner of U.S. Army Corps of Engineers' carpentry building, 600 ft below Table Rock Dam.

DRAINAGE AREA.--4,020 mi<sup>2</sup>.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: June 1987 to current year. (Seasonally).

DISSOLVED OXYGEN: June 1987 to current year. (Seasonally).

INSTRUMENTATION.--Water-quality monitor operated seasonally since June 1987.

REMARKS.--The number of missing days exceeds 20 percent of the year. The monitor was not operated from Jan. 4 to June 14.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.4	11.9	12.2	12.6	12.1	12.3	13.3	12.8	13.1	9.9	9.8	9.9
2	13.2	11.8	12.3	12.6	12.1	12.3	13.3	13.0	13.1	10.0	9.8	9.8
3	13.1	11.5	12.2	12.6	11.9	12.2	13.2	13.0	13.1	10.1	9.8	9.8
4	12.8	11.8	12.2	12.7	12.0	12.4	13.2	13.0	13.1	---	---	---
5	13.0	11.6	12.2	13.3	11.9	12.5	13.1	13.0	13.0	---	---	---
6	12.8	11.5	12.2	13.2	11.9	12.5	13.1	13.0	13.0	---	---	---
7	12.8	11.9	12.2	13.1	12.0	12.5	13.1	13.0	13.1	---	---	---
8	12.9	12.0	12.3	12.9	11.7	12.3	13.0	12.9	13.0	---	---	---
9	12.7	12.0	12.3	12.7	11.6	12.2	13.0	12.9	12.9	---	---	---
10	12.5	11.9	12.1	12.8	11.5	12.2	13.0	12.9	13.0	---	---	---
11	12.4	11.9	12.1	12.6	12.1	12.3	12.9	12.7	12.8	---	---	---
12	12.5	12.0	12.2	12.9	12.1	12.5	12.8	12.6	12.7	---	---	---
13	13.1	12.0	12.4	12.9	11.5	12.2	12.7	12.4	12.6	---	---	---
14	12.6	11.8	12.2	12.5	11.8	12.1	12.4	12.2	12.3	---	---	---
15	13.1	11.8	12.4	12.6	11.9	12.4	12.2	12.1	12.1	---	---	---
16	13.0	11.7	12.4	12.7	12.3	12.5	12.1	12.0	12.0	---	---	---
17	12.5	11.6	12.2	12.8	12.4	12.7	12.0	11.9	11.9	---	---	---
18	13.8	11.8	12.6	12.8	12.7	12.7	11.9	11.8	11.8	---	---	---
19	12.9	11.9	12.3	12.9	12.7	12.8	11.8	11.6	11.6	---	---	---
20	12.6	12.1	12.4	13.0	12.6	12.8	11.6	11.4	11.5	---	---	---
21	12.4	11.9	12.2	12.9	12.6	12.8	11.5	11.3	11.4	---	---	---
22	12.6	12.0	12.3	12.9	12.7	12.9	11.5	11.0	11.2	---	---	---
23	13.1	12.1	12.5	12.9	12.7	12.9	11.0	10.8	10.9	---	---	---
24	12.8	11.7	12.2	13.1	12.8	13.0	10.8	10.5	10.7	---	---	---
25	12.6	11.9	12.3	13.3	13.1	13.2	10.5	10.3	10.4	---	---	---
26	12.8	12.3	12.4	13.3	13.1	13.2	10.4	10.2	10.3	---	---	---
27	12.6	12.3	12.5	13.5	13.1	13.3	10.9	10.2	10.4	---	---	---
28	13.1	12.2	12.5	13.4	13.2	13.3	11.2	10.2	10.5	---	---	---
29	13.0	12.1	12.5	13.3	13.1	13.2	11.3	9.9	10.4	---	---	---
30	13.0	11.9	12.3	13.4	13.1	13.2	11.0	10.0	10.3	---	---	---
31	12.6	11.9	12.2	---	---	---	10.2	9.8	10	---	---	---
MONTH	13.8	11.5	12.3	13.5	11.5	12.6	13.3	9.8	11.9	---	---	---

## 07053450 WHITE RIVER BELOW TABLE ROCK DAM NEAR BRANSON, MO—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	10.1	9.1	9.4	11.3	9.6	9.8	11.1	9.9	10.2			
2	---	---	---	10.5	9.2	9.7	---	---	---	11.7	10.0	10.5			
3	---	---	---	10.6	9.2	9.7	---	---	---	11.9	10.0	10.4			
4	---	---	---	10.6	9.2	9.6	---	---	---	11.4	9.9	10.3			
5	---	---	---	10.6	9.2	9.5	---	---	---	11.9	9.9	10.3			
6	---	---	---	10.5	9.1	9.6	---	---	---	11.2	9.9	10.2			
7	---	---	---	10.6	9.2	9.6	---	---	---	11.4	9.9	10.3			
8	---	---	---	10.9	9.2	9.6	10.1	9.6	9.8	11.1	9.9	10.2			
9	---	---	---	10.8	9.3	9.8	10.0	9.6	9.8	11.2	10.0	10.3			
10	---	---	---	10.5	9.2	9.7	10.2	9.7	9.8	11.0	9.9	10.4			
11	---	---	---	10.1	9.3	9.5	10.6	9.6	9.9	11.6	9.9	10.3			
12	---	---	---	10.0	9.3	9.5	11.0	9.7	10	11.2	9.9	10.3			
13	---	---	---	10.6	9.2	9.5	11.0	9.8	10.1	11.2	10.0	10.3			
14	---	---	---	10.0	9.3	9.4	10.3	9.8	9.9	11.2	10.2	10.5			
15	10.2	9.0	9.2	9.9	9.3	9.5	10.4	9.8	9.9	11.3	10.2	10.5			
16	9.1	9.0	9.0	10.6	9.3	9.7	10.5	9.8	10.0	11.1	10.2	10.4			
17	9.1	9.0	9.0	10.6	9.3	9.7	10.6	9.8	10.0	11.5	10.0	10.4			
18	9.1	9.0	9.0	11.0	9.4	9.8	11.0	9.9	10.2	11.2	9.9	10.3			
19	9.1	9.0	9.1	10.7	9.4	9.7	10.5	9.9	10.1	10.7	10.0	10.2			
20	9.2	9.0	9.1	10.6	9.3	9.6	11.3	9.9	10.1	11.0	10.2	10.4			
21	10.6	9.0	9.5	10.9	9.4	9.7	11.0	9.8	10.1	11.0	10.1	10.4			
22	10.6	9.1	9.4	11.1	9.4	9.8	10.8	9.9	10.1	11.0	10.2	10.3			
23	10.6	9.1	9.5	11.0	9.4	9.9	10.8	9.9	10.2	10.6	10.2	10.3			
24	10.6	9.1	9.5	10.9	9.4	9.8	11.0	9.9	10.1	10.9	10.2	10.4			
25	10.6	9.1	9.5	11.0	9.4	9.8	10.4	10.0	10.1	11.5	10.2	10.7			
26	10.5	9.1	9.6	11.3	9.6	9.9	11.0	10.0	10.2	10.7	10.2	10.4			
27	9.4	9.0	9.2	10.2	9.5	9.9	11.0	10.1	10.2	11.4	10.3	10.5			
28	9.5	9.0	9.1	10.8	9.5	9.7	11.2	10.0	10.2	11.5	10.2	10.5			
29	9.4	9.1	9.2	10.9	9.5	9.8	10.5	10.0	10.1	11.3	9.8	10.5			
30	9.3	9.2	9.2	11.0	9.5	9.7	11.3	10.0	10.3	11.2	9.8	10.4			
31	---	---	---	10.2	9.5	9.6	11.1	9.9	10.2	---	---	---			
MONTH	---	---	---	11.3	9.1	9.7	---	---	---	11.9	9.8	10.4			



## 07053450 WHITE RIVER BELOW TABLE ROCK DAM NEAR BRANSON, MO—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.2	3.1	5.3	5.1	0.7	2.2	7.9	2.7	6.2	12.1	10.0	11.3
2	6.8	2.0	4.6	6.3	0.9	2.8	8.4	5.2	6.3	12.2	10.4	11.7
3	6.2	1.5	3.8	6.6	1.4	3.0	8.3	4.9	5.8	12.0	10.1	11.1
4	6.9	2.1	5.0	5.8	2.0	3.6	7.4	4.8	5.7	---	---	---
5	6.0	2.2	4.5	6.8	1.6	3.9	6.8	4.7	5.5	---	---	---
6	7.4	2.3	4.6	6.3	1.6	3.4	6.8	5.0	5.5	---	---	---
7	6.5	1.6	4.0	6.3	1.4	3.4	6.0	5.2	5.7	---	---	---
8	6.3	1.9	3.5	5.5	1.5	3.2	5.9	5.3	5.5	---	---	---
9	5.8	1.1	3.3	6.6	1.4	3.8	7.1	5.5	6.0	---	---	---
10	6.4	1.2	2.7	6.3	1.3	3.4	9.6	5.8	7.5	---	---	---
11	6.7	1.1	3.4	6.6	1.0	2.7	9.6	6.6	8.0	---	---	---
12	7.1	1.3	3.7	7.6	1.6	3.9	9.0	6.7	7.9	---	---	---
13	6.0	1.2	3.2	5.7	1.3	3.5	9.9	7.2	8.8	---	---	---
14	6.8	1.6	3.6	6.3	1.1	2.9	10.4	7.7	8.9	---	---	---
15	4.9	1.5	3.4	6.4	0.9	3.7	10.0	7.5	8.7	---	---	---
16	5.5	1.7	3.7	6.2	0.9	3.5	9.4	7.4	8.2	---	---	---
17	5.6	1.2	3.6	6.6	2.7	4.5	9.4	7.6	8.3	---	---	---
18	6.5	0.7	3.9	6.6	4.5	4.8	9.0	7.4	8.4	---	---	---
19	6.4	0.6	3.3	8.1	4.3	5.2	9.2	7.8	8.5	---	---	---
20	6.0	1.6	4.2	8.1	1.4	5.0	9.2	7.6	8.2	---	---	---
21	6.2	1.1	3.5	7.6	1.4	4.9	11.1	7.8	8.4	---	---	---
22	6.5	0.9	3.3	6.5	3.1	4.7	11.1	8.4	9.0	---	---	---
23	5.3	0.9	2.9	8.8	4.0	5.2	10.2	8.4	9.0	---	---	---
24	5.1	1.1	2.6	6.5	4.2	5.2	10.1	8.7	9.2	---	---	---
25	6.5	1.1	3.9	7.1	4.4	5.6	10.3	8.7	9.5	---	---	---
26	6.2	2.4	4.2	6.6	4.6	5.5	11.2	8.9	10.1	---	---	---
27	6.1	3.5	4.8	7.3	5.6	6.3	13.1	9.2	10.3	---	---	---
28	6.1	1.1	3.9	7.0	5.4	5.9	10.9	9.2	9.9	---	---	---
29	6.2	0.8	3.1	6.7	4.9	5.8	11.1	9.1	9.8	---	---	---
30	6.0	1.0	2.6	8.5	5.1	6.3	10.9	9.0	9.8	---	---	---
31	5.9	0.8	2.3	---	---	---	12.0	9.1	10.7	---	---	---
MONTH	7.4	0.6	3.7	8.8	0.7	4.3	13.1	2.7	8.0	---	---	---
1	---	---	---	9.8	6.9	8.6	10.3	5.7	7.4	10.4	3.9	5.8
2	---	---	---	11.6	6.2	8.7	---	---	---	9.0	3.9	6.1
3	---	---	---	10.8	6.0	8.0	---	---	---	8.2	3.2	5.4
4	---	---	---	10.8	5.9	7.9	---	---	---	8.1	3.7	5.3
5	---	---	---	10.7	5.8	7.7	---	---	---	8.3	3.8	5.8
6	---	---	---	11.0	6.5	8.2	---	---	---	8.8	3.2	5.9
7	---	---	---	11.0	5.5	7.8	---	---	---	9.4	3.5	6.4
8	---	---	---	11.8	6.4	7.9	10.4	5.3	7.4	9.2	3.5	6.6
9	---	---	---	11.8	6.3	8.7	9.5	4.5	6.9	9.1	3.8	6.6
10	---	---	---	11.2	7.4	8.9	9.8	4.1	6.9	8.7	3.9	6.3
11	---	---	---	10.6	5.6	7.7	10.1	5.9	8.1	8.1	3.3	5.1
12	---	---	---	10.7	6.5	8.0	10.3	5.0	7.0	7.8	3.3	5.1
13	---	---	---	11.0	6.4	8.2	9.7	4.2	7.1	8.1	3.5	5.2
14	---	---	---	9.6	6.3	7.7	9.8	3.3	6.7	7.7	4.0	5.9
15	11.0	7.7	9.7	9.1	6.2	7.2	9.3	4.6	6.4	8.7	3.8	5.9
16	9.5	7.6	8.7	10.7	6.5	7.9	9.6	4.4	6.3	7.8	3.6	4.6
17	9.7	7.5	8.6	10.6	5.9	7.6	11.6	4.5	6.9	7.5	3.4	5.0
18	9.4	7.5	8.5	10.7	6.2	7.5	12.0	4.4	6.9	7.5	2.9	4.9
19	10.2	7.4	8.5	10.8	5.8	7.3	10.0	4.5	6.2	7.8	3.1	5.5
20	9.9	7.3	8.6	9.9	5.9	7.6	9.7	4.5	6.8	7.8	3.5	5.6
21	11.2	6.8	8.8	10.6	6.5	7.7	10.4	6.6	8.6	7.9	4.3	6.3
22	11.8	6.9	8.7	10.5	6.4	8.0	8.8	3.6	6.3	8.6	3.7	5.2
23	11.1	6.4	8.6	10.8	6.9	8.6	8.5	4.2	6.3	7.8	3.5	5.8
24	10.9	7.1	8.9	11.6	6.5	8.5	9.8	4.0	5.8	7.7	4.0	6.0
25	11.4	6.4	8.0	11.0	6.4	7.7	8.7	4.2	6.5	8.1	4.7	6.5
26	10.8	6.7	8.6	11.7	6.0	7.6	9.6	4.3	6.5	8.1	3.1	5.4
27	9.1	6.4	7.9	9.4	5.3	7.3	8.9	3.4	6.7	7.6	3.8	5.8
28	10.5	7.1	8.3	10.0	3.8	7.1	9.5	3.5	6.4	8.3	3.1	5.1
29	9.5	7.1	8.4	10.1	4.7	7.0	8.9	3.5	6.8	7.1	3.4	5.2
30	9.1	7.2	8.2	9.7	5.6	7.3	9.0	4.2	6.4	7.7	3.2	5.1
31	---	---	---	9.1	6.2	7.9	7.8	3.8	5.4	---	---	---
MONTH	---	---	---	11.8	3.8	7.9	---	---	---	10.4	2.9	5.6

## 07053450 WHITE RIVER BELOW TABLE ROCK DAM NEAR BRANSON, MO—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	230	210	219	230	220	226	240	220	229	240	240	240
2	230	210	224	290	220	236	260	220	233	240	240	240
3	240	220	232	250	220	232	230	230	230	250	240	240
4	240	220	224	240	220	228	230	230	230	---	---	---
5	240	220	229	250	220	235	230	220	230	---	---	---
6	230	220	224	250	220	234	230	230	230	---	---	---
7	260	210	231	240	220	229	230	230	230	---	---	---
8	220	220	220	240	220	229	230	220	228	---	---	---
9	230	220	226	250	220	232	230	220	223	---	---	---
10	250	220	233	270	220	234	230	220	224	---	---	---
11	240	220	231	270	220	230	230	220	230	---	---	---
12	230	220	226	240	220	232	230	230	230	---	---	---
13	250	220	226	240	220	233	230	230	230	---	---	---
14	240	220	237	250	220	233	230	230	230	---	---	---
15	260	240	246	240	220	225	230	230	230	---	---	---
16	270	230	250	230	210	223	230	230	230	---	---	---
17	280	230	255	230	220	222	230	230	230	---	---	---
18	260	220	234	220	210	219	230	220	230	---	---	---
19	240	220	228	230	210	215	230	230	230	---	---	---
20	260	220	226	240	210	226	230	230	230	---	---	---
21	230	220	223	250	220	231	250	230	230	---	---	---
22	230	220	223	230	220	222	250	230	230	---	---	---
23	240	220	224	220	210	218	230	230	230	---	---	---
24	250	220	232	240	210	222	230	230	230	---	---	---
25	250	220	226	240	220	227	230	230	230	---	---	---
26	230	220	225	240	220	224	240	230	230	---	---	---
27	240	220	227	230	220	226	250	230	239	---	---	---
28	260	220	228	230	220	228	260	250	255	---	---	---
29	230	220	221	230	220	225	260	240	250	---	---	---
30	240	220	228	230	220	227	250	240	244	---	---	---
31	230	220	227	---	---	---	260	240	246	---	---	---
MONTH	280	210	229	290	210	227	260	220	232	---	---	---
	JUNE			JULY			AUGUST			SEPTEMBER		
1	---	---	---	258	251	253	241	234	236	255	245	249
2	---	---	---	259	251	255	---	---	---	251	245	248
3	---	---	---	272	250	261	---	---	---	251	244	249
4	---	---	---	263	250	256	---	---	---	252	246	249
5	---	---	---	257	249	254	---	---	---	252	244	249
6	---	---	---	261	251	255	---	---	---	252	243	249
7	---	---	---	263	251	256	---	---	---	251	243	248
8	---	---	---	263	250	255	252	235	243	251	243	248
9	---	---	---	262	250	255	255	242	246	252	246	249
10	---	---	---	258	249	254	249	242	244	252	247	249
11	---	---	---	259	250	255	249	242	244	257	246	250
12	---	---	---	258	250	255	260	241	247	264	246	252
13	---	---	---	259	251	254	252	243	246	257	242	252
14	---	---	---	257	251	253	249	242	245	259	246	255
15	260	---	251	260	251	254	249	242	245	260	247	256
16	250	250	250	258	251	254	250	242	245	261	253	258
17	260	250	252	260	250	255	258	243	248	259	251	256
18	250	250	250	262	250	254	253	241	247	259	252	257
19	250	250	250	261	250	254	257	242	248	259	250	254
20	250	250	250	260	250	253	250	243	246	258	250	254
21	260	250	254	258	250	254	248	241	245	261	252	255
22	260	250	256	261	249	254	252	243	248	260	252	255
23	260	250	255	258	249	254	252	242	248	258	251	253
24	260	250	254	259	250	254	258	243	250	257	250	254
25	260	250	257	257	249	253	255	243	247	257	250	253
26	260	250	255	256	234	244	251	244	248	258	249	253
27	260	250	254	240	235	238	255	248	251	259	251	255
28	250	250	250	242	234	238	254	247	251	263	254	259
29	266	250	252	241	233	237	257	245	248	267	254	259
30	253	249	251	240	233	236	257	243	247	264	254	259
31	---	---	---	241	233	235	253	244	248	---	---	---
MONTH	---	---	---	272	233	251	---	---	---	267	242	253

## 07053600 LAKE TANEYCOMO AT COLLEGE OF THE OZARKS

LOCATION.--Lat 36°36'33", long 93°14'04", in sec.4, T.22 N., R.21 W., Taney County, Hydrologic Unit 11010003, on the right bank in the College of the Ozarks water intake pump house and 4.75 mi below Table Rock Dam.

DRAINAGE AREA.--4,040 mi<sup>2</sup>.

## WATER-ELEVATION RECORDS

PERIOD OF RECORD.--May 17, 1984 to current year (elevation only). Prior to Oct. 1, 2004 elevation records available from the Missouri Water Science Center.

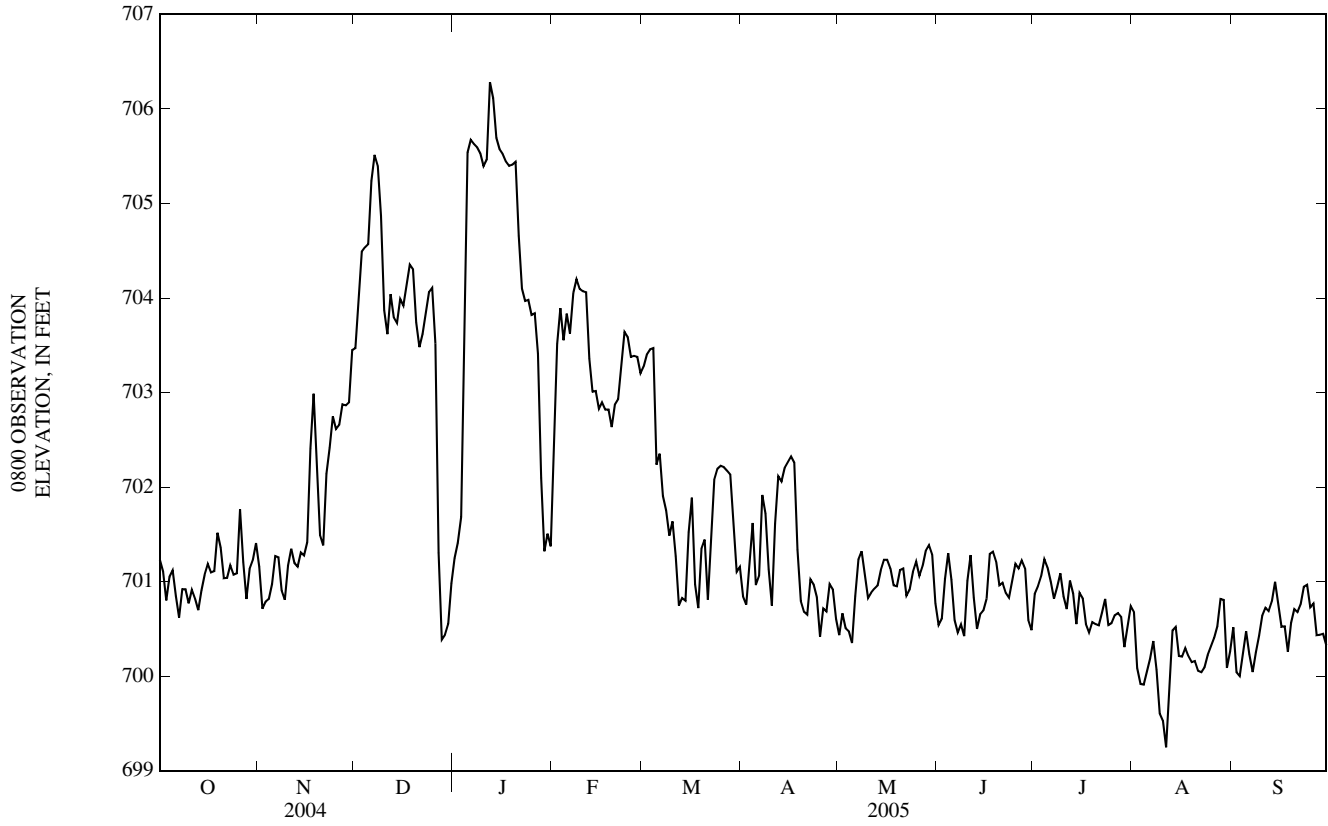
GAGE.--Water-stage recorder. Datum of gage is sea level.

REMARKS.--U.S. Army Corps of Engineers satellite telemeter at station.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	701.13	701.51	703.71	701.17	701.23	703.13	701.23	700.52	700.54	700.55	700.75	700.51
2	701.28	700.98	703.35	701.29	702.94	703.35	700.65	700.39	700.54	701.03	700.64	700.52
3	701.02	700.58	704.37	701.47	703.80	703.43	700.81	700.80	700.64	700.91	699.81	699.80
4	700.69	700.89	704.55	701.79	703.94	703.47	701.32	700.36	701.22	701.13	699.97	700.10
5	701.23	700.78	704.53	704.70	703.36	703.47	701.77	700.53	701.34	701.29	699.88	700.32
6	701.06	701.07	704.59	705.96	704.07	701.62	700.56	700.26	700.86	701.08	700.14	700.55
7	700.74	701.37	705.56	705.53	703.40	702.72	701.31	701.14	700.46	700.96	700.21	700.07
8	700.56	701.20	705.49	705.68	704.38	701.50	702.22	701.28	700.46	700.75	700.45	700.03
9	701.10	700.76	705.35	705.55	704.11	701.88	701.47	701.34	700.59	701.04	699.88	700.36
10	700.83	700.83	704.63	705.52	704.09	701.29	700.96	700.94	700.34	701.11	699.47	700.46
11	700.74	701.34	703.49	705.33	704.06	701.81	700.64	700.77	701.34	700.71	699.56	700.73
12	701.00	701.35	703.68	705.53	704.06	701.00	702.10	700.94	701.25	700.71	699.09	700.72
13	700.73	701.12	704.22	706.66	703.01	700.62	702.12	700.92	700.62	701.16	700.25	700.67
14	700.68	701.18	703.58	705.84	703.01	700.93	702.03	700.98	700.44	700.73	700.60	700.85
15	701.02	701.37	703.81	705.62	703.02	700.73	702.29	701.19	700.76	700.46	700.48	701.07
16	701.10	701.23	704.08	705.55	702.73	701.92	702.25	701.25	700.66	701.09	700.08	700.61
17	701.23	701.51	703.84	705.51	702.98	701.87	702.36	701.22	700.90	700.69	700.27	700.48
18	701.03	702.86	704.28	705.41	702.74	700.52	702.21	701.10	701.49	700.48	700.31	700.55
19	701.15	703.05	704.39	705.39	702.86	700.82	700.90	700.89	701.23	700.45	700.16	700.11
20	701.70	701.70	704.26	705.42	702.52	701.61	700.74	700.98	701.20	700.63	700.14	700.79
21	701.19	701.39	703.48	705.45	703.05	701.36	700.65	701.19	700.84	700.51	700.17	700.67
22	700.96	701.38	703.48	704.26	702.87	700.53	700.65	701.11	701.06	700.55	700.00	700.68
23	701.08	702.52	703.69	704.02	703.52	701.91	701.21	700.72	700.79	700.73	700.06	700.80
24	701.22	702.36	703.90	703.94	703.70	702.16	700.85	701.01	700.85	700.86	700.11	701.02
25	701.00	702.94	704.14	704.00	703.53	702.21	700.83	701.15	701.08	700.38	700.28	700.94
26	701.13	702.45	704.09	703.73	703.30	702.23	700.21	701.24	701.24	700.65	700.33	700.62
27	702.08	702.76	703.23	703.89	703.43	702.20	700.97	700.97	701.09	700.64	700.44	700.84
28	700.77	702.93	700.34	703.17	703.35	702.16	700.54	701.26	701.29	700.68	700.57	700.23
29	700.84	702.83	700.41	701.56	---	702.12	701.19	701.36	701.06	700.60	700.94	700.54
30	701.28	702.93	700.45	701.20	---	701.29	700.78	701.40	700.36	700.16	700.74	700.40
31	701.20	---	700.60	701.66	---	701.01	---	701.23	---	700.72	699.76	---
MEAN	701.06	701.71	703.66	704.25	703.32	701.83	701.26	700.98	700.88	700.76	700.18	700.53
MAX	702.08	703.05	705.56	706.66	704.38	703.47	702.36	701.40	701.49	701.29	700.94	701.07
MIN	700.56	700.58	700.34	701.17	701.23	700.52	700.21	700.26	700.34	700.16	699.09	699.80

07053600 LAKE TANEYCOMO AT COLLEGE OF THE OZARKS—Continued



07053600 LAKE TANEYCOMO AT COLLEGE OF THE OZARKS--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1984 to current year. (Seasonally).

DISSOLVED OXYGEN: May 1984 to current year. (Seasonally).

INSTRUMENTATION.--Water-quality monitor operated seasonally since May 1984.

REMARKS.--The number of missing days exceeds 20 percent of the year. The monitor was not operated from Jan. 3 to June 14.

TEMPERATURE, WATER, DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.3	12.4	12.7	14.7	13.5	14.0	13.4	12.3	13.0	10.8	9.8	10.2
2	13.6	12.3	12.9	15.1	12.8	14.5	13.4	12.4	12.9	10.5	10.0	10.2
3	15.1	13.0	13.7	12.9	12.2	12.6	13.2	12.9	13.0	10.4	10.0	10.1
4	14.3	12.4	13.6	12.7	12.3	12.4	13.2	12.9	12.9	---	---	---
5	13.5	12.1	12.6	13.1	12.0	12.4	---	---	---	---	---	---
6	13.7	11.8	12.4	13.3	12.2	12.7	13.1	12.9	13.0	---	---	---
7	13.4	12.3	12.6	13.4	12.4	12.8	13.2	12.9	13.0	---	---	---
8	14.5	12.6	13.3	13.5	12.3	12.8	13.0	12.8	12.9	---	---	---
9	14.4	12.8	13.4	12.8	11.9	12.3	13.1	12.8	12.9	---	---	---
10	14.4	13.3	13.9	12.6	11.7	12.1	12.9	12.7	12.8	---	---	---
11	13.5	13.0	13.2	12.9	12.4	12.7	13.0	12.5	12.7	---	---	---
12	13.1	12.6	12.9	12.6	12.1	12.3	12.9	12.3	12.6	---	---	---
13	13.9	12.5	13.0	12.4	11.7	12.0	12.6	12.1	12.4	---	---	---
14	13.8	12.0	13.4	11.8	11.4	11.6	12.3	11.7	12.0	---	---	---
15	12.8	11.9	12.3	12.9	11.6	12.2	12.3	11.8	11.9	---	---	---
16	13.2	12.3	12.7	13.0	12.6	12.7	12.1	11.7	11.9	---	---	---
17	13.1	12.1	12.6	13.1	12.4	12.7	12.1	11.7	11.8	---	---	---
18	14.6	12.6	13.2	12.8	12.7	12.7	12.0	11.6	11.7	---	---	---
19	13.6	12.7	13.0	13.0	12.6	12.8	11.6	11.3	11.5	---	---	---
20	13.3	12.7	12.8	13.2	12.8	12.9	11.6	11.2	11.3	---	---	---
21	13.3	13.0	13.2	13.0	12.5	12.8	11.5	11.1	11.2	---	---	---
22	14.4	13.1	13.6	13.0	12.8	12.9	11.2	10.7	10.9	---	---	---
23	14.1	13.0	13.5	13.0	12.9	12.9	10.9	10.4	10.6	---	---	---
24	15.0	13.4	14.0	12.9	12.7	12.9	10.7	10.1	10.4	---	---	---
25	14.0	12.8	13.5	13.5	12.4	12.9	10.6	10.2	10.4	---	---	---
26	13.4	12.7	12.9	13.3	12.6	13.0	10.6	9.9	10.2	---	---	---
27	12.9	12.6	12.7	13.4	13.0	13.2	10.3	9.8	10	---	---	---
28	13.9	12.6	13.1	13.4	12.8	13.1	10.1	9.4	9.8	---	---	---
29	13.9	12.8	13.1	13.1	12.9	13.0	10.3	9.5	9.8	---	---	---
30	14.0	13.4	13.7	13.1	12.7	13.0	10.5	9.6	10	---	---	---
31	13.6	13.2	13.4	---	---	---	11.2	10.5	10.8	---	---	---
MONTH	15.1	11.8	13.1	15.1	11.4	12.8	13.4	9.4	11.7	---	---	---

## 07053600 LAKE TANEYCOMO AT COLLEGE OF THE OZARKS—Continued

TEMPERATURE, WATER, DEGREES CELSIUS—CONTINUED  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	11.2	9.7	10.1	12.4	9.6	10.1	12.6	10.2	10.7			
2	---	---	---	12.1	9.7	10.7	12.1	9.7	10.1	13.0	10.3	11.2			
3	---	---	---	16.0	12.1	13.7	11.9	9.8	10.1	15.6	12.9	13.9			
4	---	---	---	15.8	10.2	13.1	11.9	9.8	10.1	15.8	13.2	13.9			
5	---	---	---	12.3	9.4	10.4	11.9	9.8	10.3	15.8	13.3	13.9			
6	---	---	---	11.7	9.4	9.8	13.1	10.0	10.8	14.8	10.7	13.2			
7	---	---	---	11.9	9.4	9.9	13.8	11.0	11.9	12.9	10.6	11.2			
8	---	---	---	12.3	9.4	9.9	11.8	9.8	11.0	12.6	10.3	10.9			
9	---	---	---	12.8	9.5	10.6	11.1	9.8	10.1	13.1	10.3	10.8			
10	---	---	---	15.9	10.2	12.8	11.5	9.8	10.1	12.9	10.4	11.3			
11	---	---	---	11.6	9.5	10.3	12.5	9.8	10.4	15.8	12.3	13.6			
12	---	---	---	11.1	9.4	9.8	11.8	10.0	10.3	16.8	10.6	14.3			
13	---	---	---	11.7	9.4	9.8	12.8	10.2	10.6	12.3	10.5	10.9			
14	---	---	---	10.6	9.5	9.7	11.2	10.2	10.4	12.6	10.5	11.3			
15	12.2	9.4	10.0	10.6	9.5	9.8	11.3	10.0	10.3	18.6	11.0	13.3			
16	10.2	9.2	9.6	11.7	9.4	9.8	11.7	10.1	10.4	14.6	10.5	13.3			
17	10.9	9.1	9.7	12.5	9.7	10.2	11.9	10.1	10.4	13.1	10.5	11.5			
18	10.9	9.1	9.6	12.8	9.7	10.2	12.7	10.1	10.5	15.3	12.6	13.6			
19	11.3	9.0	9.7	11.8	9.6	10.1	11.3	10.2	10.4	13.2	10.3	12.1			
20	11.1	9.0	9.6	11.6	9.6	9.9	12.5	10.1	10.4	12.0	10.3	10.7			
21	12.5	9.2	10.0	12.3	9.6	10.0	12.5	10.1	10.6	11.7	10.4	10.7			
22	12.2	9.3	9.8	12.7	9.6	10.1	12.0	10.2	10.7	12.1	10.4	10.7			
23	13.3	9.3	10.1	12.0	9.6	10.1	11.8	10.3	10.7	11.4	10.4	10.6			
24	12.6	9.4	10	13.0	9.7	10.3	13.3	10.1	11.0	11.6	10.3	10.6			
25	12.8	9.6	10.6	12.4	9.7	10.1	11.5	10.1	10.4	13.0	10.5	11.6			
26	13.1	10.2	11.5	12.2	9.7	10.1	12.5	10.2	10.6	12.9	10.5	12.0			
27	12.1	9.4	10.5	11.5	9.7	10.1	13.0	10.3	11.3	12.3	10.4	11.1			
28	11.3	9.2	9.8	12.6	9.6	10.1	13.2	10.4	11.4	14.1	11.2	12.4			
29	11.2	9.2	10	12.2	9.6	10.0	12.0	10.2	10.6	13.7	10.8	11.6			
30	11.3	9.3	10.2	12.7	9.6	10.2	12.0	10.2	10.5	14.3	11.6	12.4			
31	---	---	---	11.7	9.6	10.1	12.4	10.2	10.6	---	---	---			
MONTH	---	---	---	16.0	9.4	10.4	13.8	9.6	10.6	18.6	10.2	12.0			

## 07053600 LAKE TANEYCOMO AT COLLEGE OF THE OZARKS—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.6	4.2	5.8	4.7	0.8	2.6	7.8	5.3	6.7	11.3	9.1	10.1
2	7.6	4.4	5.9	4.7	2.2	3.3	7.8	4.3	5.8	11.0	9.0	10.1
3	9.5	5.8	7.5	2.8	0.4	1.6	5.0	4.8	4.9	10.8	9.6	10.0
4	9.1	5.5	7.7	5.3	0.6	2.0	7.0	4.8	6.0	---	---	---
5	7.6	3.8	5.6	4.9	1.1	2.2	---	---	---	---	---	---
6	8.0	4.2	5.5	6.6	0.8	2.8	6.7	4.3	5.7	---	---	---
7	6.6	3.6	4.7	6.2	1.4	3.4	6.5	6.0	6.3	---	---	---
8	8.4	3.9	5.5	7.6	2.2	3.9	6.4	6.1	6.3	---	---	---
9	7.6	3.9	5.3	5.3	1.5	3.3	7.4	6.2	6.6	---	---	---
10	7.1	2.9	5.4	6.2	2.1	3.7	9.2	6.4	7.6	---	---	---
11	6.0	2.0	4.7	4.5	1.3	2.7	9.7	7.1	8.5	---	---	---
12	6.0	3.1	4.6	4.6	0.9	2.9	9.1	7.6	8.2	---	---	---
13	7.9	2.6	5.2	8.3	1.0	4.8	10.3	7.9	8.9	---	---	---
14	8.0	4.8	6.2	6.2	1.2	3.9	9.8	8.0	9.0	---	---	---
15	6.5	3.2	4.8	5.8	1.6	3.9	9.8	7.8	8.9	---	---	---
16	7.2	3.4	5.3	5.5	2.8	3.9	9.0	8.0	8.6	---	---	---
17	6.7	2.3	5.2	5.9	3.0	4.6	9.6	7.8	8.8	---	---	---
18	7.0	1.7	5.0	5.4	4.5	4.9	9.4	7.9	8.6	---	---	---
19	6.5	3.6	5.3	5.8	4.6	5.1	9.5	8.1	8.6	---	---	---
20	5.9	3.5	4.7	6.9	3.7	5.0	9.3	7.4	8.2	---	---	---
21	5.7	2.5	4.3	6.6	3.7	5.0	8.7	7.4	8.1	---	---	---
22	7.5	3.4	5.5	5.7	4.3	4.7	9.1	8.4	8.7	---	---	---
23	7.5	4.1	5.4	6.3	4.1	4.8	9.6	8.0	8.7	---	---	---
24	9.5	4.0	5.9	6.6	4.1	5.1	9.6	8.4	9.1	---	---	---
25	6.9	3.5	5.0	6.8	4.8	5.7	9.7	8.0	8.7	---	---	---
26	5.7	2.4	4.3	6.9	5.1	5.8	10.3	8.3	9.4	---	---	---
27	5.4	3.1	4.5	7.7	5.0	6.4	9.7	8.2	9.1	---	---	---
28	7.2	1.4	4.2	7.0	6.1	6.5	10.2	6.3	9.0	---	---	---
29	5.7	1.5	4.2	6.8	4.8	5.8	10.3	7.4	9.2	---	---	---
30	6.6	1.3	3.9	6.5	4.7	5.6	10.5	7.8	9.7	---	---	---
31	4.5	1.1	2.3	---	---	---	10.7	9.2	9.6	---	---	---
MONTH	9.5	1.1	5.1	8.3	0.4	4.2	10.7	4.3	8.1	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	12.7	7.6	8.7	10.7	7.1	8.1	8.8	4.9	5.8
2	---	---	---	8.9	6.9	7.8	10.2	5.8	7.3	7.6	5.0	5.9
3	---	---	---	12.0	7.9	11.0	9.6	5.8	7.0	9.5	7.4	8.7
4	---	---	---	11.9	8.0	10.2	9.7	5.4	6.8	9.1	7.4	8.0
5	---	---	---	10.8	7.4	8.2	10.8	5.4	7.1	9.5	7.6	8.6
6	---	---	---	10.2	6.9	7.7	10.8	6.2	8.0	9.7	6.4	8.4
7	---	---	---	10.0	6.7	7.5	11.1	6.8	9.2	8.8	6.0	6.8
8	---	---	---	9.8	6.4	7.1	9.7	5.9	8.0	9.0	6.3	7.2
9	---	---	---	8.6	5.8	7.2	8.8	5.5	6.9	8.5	5.8	6.6
10	---	---	---	10.8	6.8	9.2	9.6	5.3	7.1	7.8	5.5	6.7
11	---	---	---	9.8	7.1	8.1	7.8	6.0	6.9	9.4	6.6	8.0
12	---	---	---	9.3	7.0	7.5	---	---	---	9.9	5.7	7.9
13	---	---	---	10.6	6.7	7.8	---	---	---	7.2	4.7	5.5
14	---	---	---	9.6	6.7	7.6	---	---	---	7.6	4.6	5.7
15	11.8	7.4	8.6	7.8	5.9	6.8	8.4	4.0	5.9	7.0	5.2	6.1
16	11.2	8.3	9.3	9.7	6.9	7.8	7.7	3.5	5.3	7.6	4.6	5.9
17	11.3	8.2	9.6	9.5	6.4	7.4	8.5	4.6	6.0	6.6	4.7	5.4
18	11.1	8.0	9.3	9.6	6.0	6.9	9.6	4.6	5.8	9.1	5.9	7.8
19	12.0	8.1	9.4	9.1	5.6	6.8	8.4	4.4	5.6	8.2	6.0	7.1
20	12.1	7.9	9.3	9.0	6.7	7.3	8.9	3.3	5.9	7.3	5.9	6.5
21	12.3	8.1	9.3	9.6	6.8	7.5	10.4	6.8	8.0	8.6	4.8	5.9
22	12.2	8.0	9.3	10.6	6.8	7.6	9.4	5.2	7.3	7.7	4.0	4.8
23	12.1	7.0	8.3	10.1	7.7	8.6	9.2	3.5	6.3	8.1	4.4	5.6
24	11.9	7.4	8.4	10.8	7.5	8.7	8.2	3.6	5.7	7.3	5.4	6.0
25	11.9	7.0	8.5	10.3	6.6	7.9	9.4	4.6	6.3	7.7	5.8	6.9
26	11.8	6.2	9.1	9.5	6.4	7.1	9.7	4.8	6.3	8.6	4.7	7.0
27	11.3	7.4	9.2	9.2	5.9	6.9	10.3	5.8	7.8	9.2	5.7	6.5
28	11.1	7.5	8.9	9.8	6.6	7.3	9.5	6.7	8.1	9.1	5.5	8.0
29	11.3	7.2	9.1	9.8	7.1	7.8	10.2	4.9	6.7	8.2	5.2	6.0
30	11.5	7.4	9.4	10.2	7.0	7.9	8.7	5.4	6.7	9.0	6.0	7.8
31	---	---	---	10.5	7.0	8.1	8.6	5.7	6.3	---	---	---
MONTH	---	---	---	12.7	5.6	7.9	---	---	---	9.9	4.0	6.8

## 07053600 LAKE TANEYCOMO AT COLLEGE OF THE OZARKS—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	233	228	231	328	278	317	250	237	241	246	236	239
2	231	227	229	328	251	306	242	238	240	239	236	238
3	233	227	229	328	258	279	240	238	239	239	237	238
4	240	232	237	318	254	266	239	238	239	---	---	---
5	240	234	236	280	244	256	---	---	---	---	---	---
6	237	231	234	267	243	253	240	224	233	---	---	---
7	234	229	232	272	245	254	228	222	224	---	---	---
8	231	224	228	290	248	265	225	221	223	---	---	---
9	237	229	232	270	240	250	221	219	220	---	---	---
10	238	233	235	248	239	243	223	219	221	---	---	---
11	243	234	237	328	241	276	225	220	222	---	---	---
12	253	243	247	287	236	247	229	224	226	---	---	---
13	247	234	240	287	248	259	231	222	226	---	---	---
14	246	238	240	276	248	257	232	228	230	---	---	---
15	247	239	242	253	233	244	233	230	232	---	---	---
16	249	244	247	255	230	236	233	229	231	---	---	---
17	249	246	247	237	225	230	232	230	231	---	---	---
18	247	237	245	229	224	226	233	229	231	---	---	---
19	241	233	236	229	223	225	231	227	230	---	---	---
20	237	234	236	233	223	228	235	229	232	---	---	---
21	251	237	240	237	232	234	238	230	233	---	---	---
22	248	234	238	240	230	233	237	229	233	---	---	---
23	236	232	234	234	225	229	235	229	232	---	---	---
24	243	231	236	242	223	229	237	230	233	---	---	---
25	241	233	236	246	233	239	232	230	231	---	---	---
26	245	234	238	236	231	235	236	230	232	---	---	---
27	242	232	238	241	227	236	240	233	235	---	---	---
28	264	232	241	245	237	240	241	234	238	---	---	---
29	252	231	239	250	236	242	246	238	241	---	---	---
30	256	231	240	245	239	243	252	246	249	---	---	---
31	320	236	250	---	---	---	253	242	248	---	---	---
MONTH	320	224	238	328	223	249	253	219	233	---	---	---
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	254	251	253	258	256	257	244	241	242
2	---	---	---	257	253	255	259	258	258	244	242	243
3	---	---	---	257	251	254	261	258	259	246	242	243
4	---	---	---	254	250	252	260	257	258	245	243	243
5	---	---	---	256	253	254	261	256	258	245	243	244
6	---	---	---	257	253	255	260	256	258	244	242	243
7	---	---	---	257	253	255	260	255	257	244	241	243
8	---	---	---	257	252	254	258	241	250	244	242	242
9	---	---	---	255	252	254	244	241	243	245	240	243
10	---	---	---	257	249	254	245	241	243	248	244	245
11	---	---	---	260	253	254	277	242	252	246	243	244
12	---	---	---	257	254	255	279	243	257	245	243	244
13	---	---	---	258	255	256	283	242	259	244	243	243
14	---	---	---	258	254	256	271	241	256	245	238	242
15	---	---	---	257	252	254	290	243	255	254	233	242
16	---	---	---	254	252	253	285	241	249	257	244	250
17	250	250	250	255	246	251	264	240	248	250	244	246
18	250	250	250	256	246	249	244	240	242	251	245	249
19	250	250	250	260	248	252	243	241	242	247	242	245
20	250	250	250	255	252	254	253	241	243	247	242	244
21	260	250	250	255	252	253	244	238	241	247	243	245
22	260	250	251	256	253	253	250	240	242	247	244	245
23	260	250	254	260	254	257	258	240	243	249	242	244
24	260	250	255	256	253	254	245	240	242	248	241	243
25	260	250	254	255	251	253	243	240	242	243	239	241
26	260	250	254	258	250	254	246	241	243	255	242	246
27	260	250	256	258	253	256	249	245	246	254	244	247
28	260	250	251	261	257	258	249	244	247	253	246	250
29	252	250	250	259	255	257	247	243	245	251	246	249
30	254	250	252	258	255	256	261	239	245	255	249	251
31	---	---	---	257	255	256	243	241	242	---	---	---
MONTH	---	---	---	261	246	254	290	238	249	257	233	245





## 07053700 LAKE TANEYCOMO AT BRANSON, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 02...	.29	21.8	<.01	E.3n	4.9	3
MAR 28...	--	--	--	--	--	--
APR 26...	--	--	--	--	--	--
MAY 17...	.13	30.9	<.01	<.4	1.6	E2n
JUN 15...	--	--	--	--	--	--
JUN 15...	--	--	--	--	--	--
JUL 13...	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

## 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

07053810 BULL CREEK NEAR WALNUT SHADE, MO

LOCATION.--Lat 36°43'04", long 93°12'24", in NW ¼ SE ¼ SE ¼ sec.4, T.23 N., R.21 W., Taney County, Hydrologic Unit 11010003, on downstream side of State Highway F bridge pier, 1.3 miles southwest of Walnut Shade and 3.9 miles upstream from Lake Taneycomo.

DRAINAGE AREA.--191 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1994 to September 1996, October 1997 to current year. Stage only station July 1991 to September 1994, and October 1996 to September 1997.

GAGE.--Water-stage recorder. Datum of gage is 712.45 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for discharges less than 10 ft<sup>3</sup>/s, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.92	2,250	1,080	44	121	180	159	98	26	22	5.4	4.1
2	1.4	1,020	676	44	128	163	152	90	25	21	4.2	4.1
3	2.1	503	460	53	170	152	141	84	23	18	3.6	4.0
4	2.1	451	339	6,040	167	152	131	80	22	15	2.9	3.8
5	2.5	304	315	6,880	155	147	125	75	21	14	3.1	3.1
6	2.5	218	552	2,660	154	137	427	72	19	12	4.4	2.6
7	2.8	164	2,640	978	196	133	1,750	69	40	11	6.7	2.1
8	16	123	1,220	631	193	130	699	68	61	10	4.6	1.8
9	17	97	731	456	193	129	441	67	41	9.1	3.3	1.4
10	17	108	500	366	181	132	330	64	34	12	3.2	1.1
11	87	949	359	318	169	127	374	61	32	14	2.9	0.74
12	136	723	282	522	170	122	413	56	32	11	2.5	0.53
13	103	402	224	5,300	858	115	323	53	36	11	2.2	0.40
14	85	264	179	1,290	706	109	269	90	48	10	2.1	3.4
15	75	193	152	641	464	105	230	107	40	9.7	2.6	12
16	68	152	133	441	345	e101	201	90	37	8.6	3.4	9.0
17	65	123	120	339	275	e97	179	77	34	7.7	3.8	6.2
18	61	106	110	283	233	92	163	68	29	7.1	4.5	5.0
19	56	97	99	255	205	88	151	62	25	8.3	4.3	4.3
20	51	90	91	231	188	86	139	56	21	7.6	3.8	3.6
21	48	79	86	208	192	83	129	50	19	7.0	3.5	3.4
22	46	70	79	186	182	262	274	47	17	6.3	3.6	3.0
23	48	65	73	164	200	686	184	46	15	6.2	4.1	2.8
24	42	867	68	152	286	449	150	43	14	5.6	4.8	2.5
25	39	1,020	63	144	259	363	133	44	13	5.2	4.8	4.9
26	44	545	57	136	234	305	128	40	12	4.3	4.8	5.7
27	56	582	53	126	214	259	118	38	13	6.1	5.1	4.6
28	67	581	52	119	199	234	114	35	32	8.0	5.3	4.7
29	79	1,340	50	120	---	209	112	33	23	7.4	5.1	6.2
30	364	2,000	48	125	---	189	106	30	19	6.9	4.9	5.5
31	202	---	46	126	---	170	---	28	---	6.4	4.6	---
MEAN	60.8	516	353	948	251	184	275	62.0	27.4	9.95	4.00	3.89
MAX	364	2,250	2,640	6,880	858	686	1,750	107	61	22	6.7	12
MIN	0.92	65	46	44	121	83	106	28	12	4.3	2.1	0.40
IN.	0.37	3.02	2.13	5.72	1.37	1.11	1.61	0.37	0.16	0.06	0.02	0.02

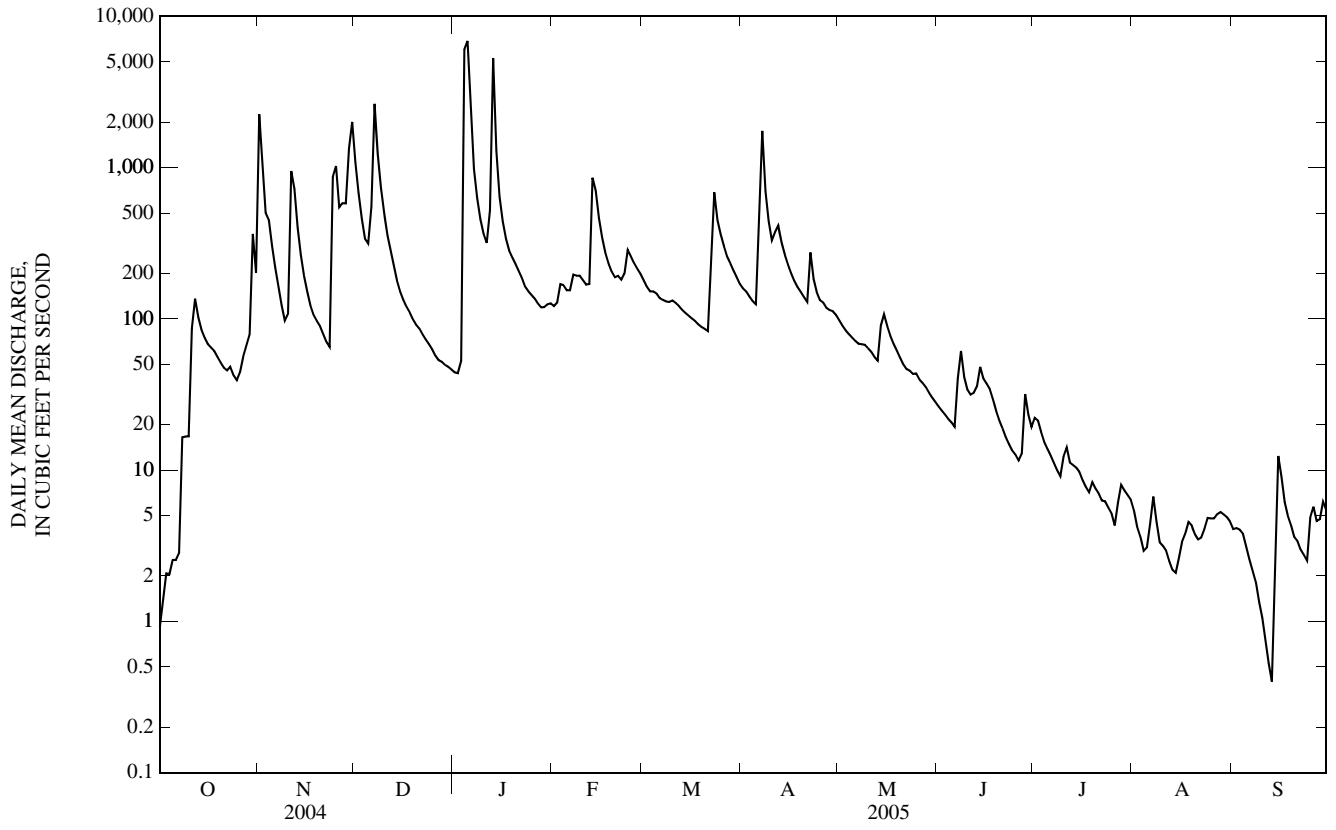
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

	2003	2003	2003	2003	1996	1996	2000	2000	2004	1996	1996	2004
MEAN	28.4	219	193	307	319	363	436	305	124	67.3	26.5	18.8
MAX	72.3	1,036	501	948	721	834	1,140	1,253	594	323	155	72.1
(WY)	(1999)	(1997)	(2002)	(2005)	(1997)	(1998)	(2004)	(2002)	(1995)	(2000)	(1997)	(1997)
MIN	4.12	5.49	66.4	58.5	44.0	68.0	63.9	31.4	15.7	8.35	3.02	0.54
(WY)	(2003)	(2003)	(2003)	(2003)	(1996)	(1996)	(2000)	(2000)	(2004)	(1996)	(1996)	(2004)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	275	225	209
HIGHEST ANNUAL MEAN			330
LOWEST ANNUAL MEAN			80.9
HIGHEST DAILY MEAN	18,300	Apr 24	18,300
LOWEST DAILY MEAN	0.14	Sep 14	0.14
ANNUAL SEVEN-DAY MINIMUM	0.21	Sep 11	0.21
MAXIMUM PEAK FLOW	---	10,700	Unknown
MAXIMUM PEAK STAGE	---	9.29	14.41
INSTANTANEOUS LOW FLOW	---	0.29	0.14
ANNUAL RUNOFF (INCHES)	19.63	15.96	14.86
10 PERCENT EXCEEDS	546	453	451
50 PERCENT EXCEEDS	79	75	67
90 PERCENT EXCEEDS	2.3	3.8	5.7

e Estimated



## 07053820 LAKE TANEYCOMO AT POWERSITE DAM AT FORSYTH, MO

LOCATION.--Lat 36°39'34", long 93°07'34", SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec. 8, T.23 N., R.20 W., Taney County, Hydrologic Unit 11010002, on left end of dam structure of Powersite Dam.

DRAINAGE AREA.--4,360 mi<sup>2</sup>.

PERIOD OF RECORD.--Oct. 3, 1984 to current year (gage height only). Prior to Oct. 1, 2004 records available from the Missouri Water Science Center.

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

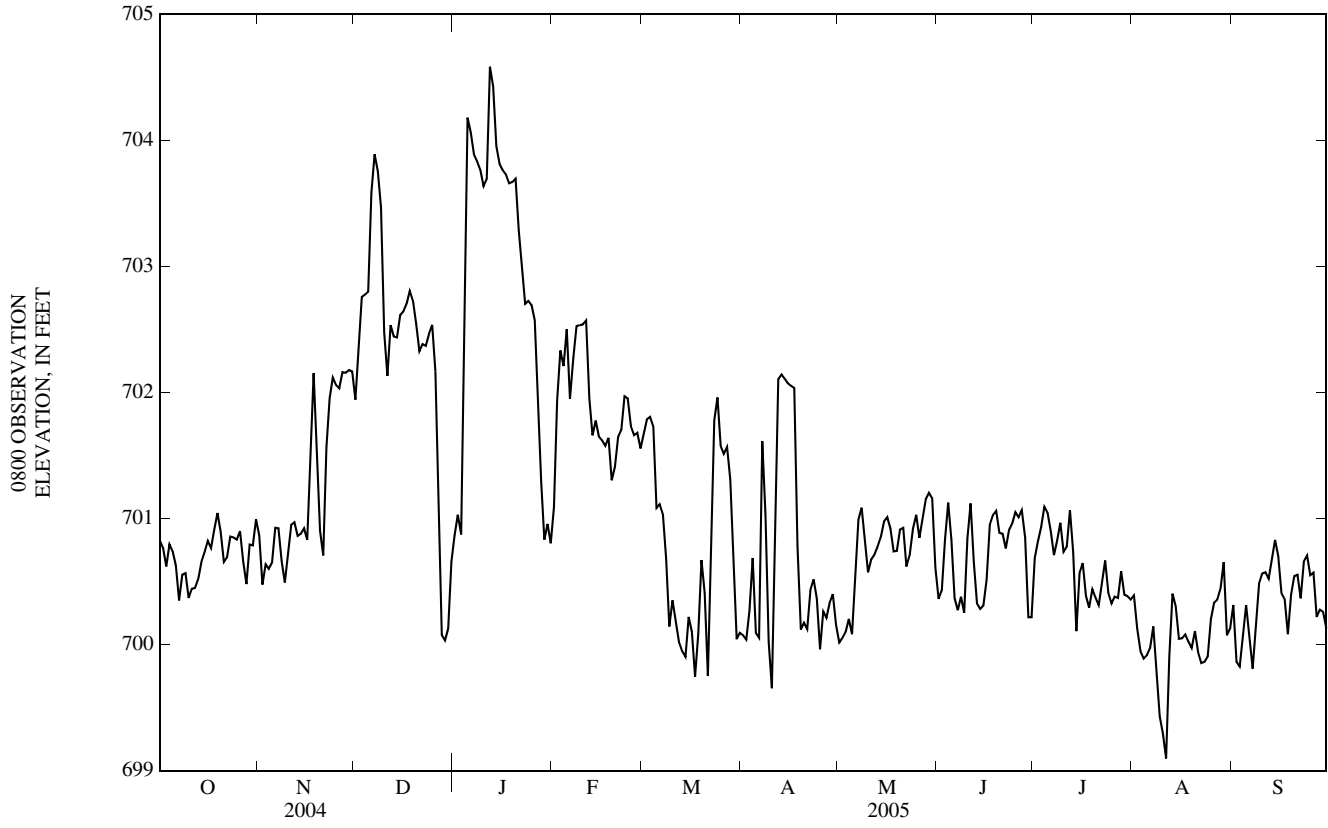
REMARKS.--Regulated by Table Rock Dam upstream and Powersite Dam at gage. U.S. Army Corps of Engineers satellite telemeter at station.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	700.60	701.14	702.15	700.90	700.67	701.49	700.18	700.05	700.35	700.34	700.31	700.32
2	700.94	700.73	701.84	700.85	701.30	701.76	700.02	700.00	700.37	700.86	700.43	700.31
3	700.68	700.35	702.65	701.12	702.26	701.80	700.05	700.08	700.46	700.80	699.98	699.64
4	700.59	700.78	702.81	700.75	702.37	701.81	e700.38	700.11	701.02	701.00	699.93	699.92
5	700.90	700.51	702.76	703.64	702.13	701.69	700.84	700.25	701.18	701.14	699.87	700.16
6	700.66	700.72	702.82	704.45	702.69	700.78	699.72	700.00	700.66	701.00	699.94	700.39
7	700.61	701.03	703.97	703.87	701.58	701.28	700.22	700.90	700.22	700.85	699.99	699.89
8	700.22	700.87	703.85	703.90	702.62	700.91	702.31	700.04	700.30	700.64	700.22	699.77
9	700.72	700.56	703.71	703.80	702.48	700.57	700.39	701.11	700.42	700.92	699.53	700.39
10	700.49	700.46	703.35	703.75	702.56	699.93	699.84	700.70	700.17	700.99	699.38	700.53
11	700.31	700.83	702.04	703.58	702.53	700.56	699.56	700.51	701.18	700.61	699.25	700.58
12	700.51	701.01	702.18	703.75	702.59	700.01	701.98	700.76	701.09	700.86	699.02	700.57
13	700.42	700.95	702.71	705.00	701.64	700.03	702.17	700.69	700.44	701.17	700.35	700.50
14	700.57	700.82	702.31	704.14	701.67	699.91	702.13	700.82	700.27	700.52	700.43	700.77
15	700.70	700.91	702.50	703.86	701.83	699.90	702.10	700.87	700.29	699.90	700.24	700.86
16	700.75	700.93	702.67	703.79	701.56	700.38	702.06	701.03	700.32	700.90	699.95	700.62
17	700.86	700.78	702.63	703.75	701.65	699.96	702.05	701.00	700.61	700.52	700.10	700.30
18	700.72	702.02	702.74	703.72	701.54	699.64	702.03	700.88	701.12	700.32	700.07	700.39
19	701.01	702.22	702.84	703.63	701.69	700.31	700.16	700.67	700.98	700.28	700.00	699.93
20	701.06	701.11	702.67	703.69	701.11	700.85	700.10	700.78	701.10	700.52	699.96	700.63
21	700.81	700.80	702.48	703.70	701.56	700.19	700.21	700.98	700.78	700.30	700.18	700.50
22	700.58	700.66	702.25	703.08	701.69	699.53	700.08	700.90	700.93	700.32	699.82	700.58
23	e700.75	702.02	702.45	702.95	701.71	701.14	700.61	700.48	700.68	700.58	699.87	700.26
24	e700.91	701.92	702.33	702.58	702.10	702.10	700.47	700.82	701.02	700.71	699.86	700.86
25	700.82	702.22	702.53	702.80	701.88	701.89	700.31	700.97	700.93	700.26	699.93	700.63
26	700.84	701.98	702.54	702.64	701.66	701.42	699.79	701.06	701.11	700.36	700.34	700.51
27	700.93	702.06	701.98	702.54	701.66	701.56	700.50	700.74	700.96	700.39	700.33	700.60
28	700.52	702.21	700.19	701.81	701.69	701.57	700.07	701.12	701.12	700.36	700.37	700.03
29	700.46	702.13	700.02	701.04	---	701.18	700.46	701.17	700.71	700.69	700.48	700.40
30	700.96	702.20	700.04	700.73	---	700.29	700.37	701.22	699.97	700.25	700.74	700.19
31	700.70	---	700.17	701.07	---	699.92	---	701.13	---	700.45	699.74	---
MEAN	700.70	701.23	702.33	702.93	701.87	700.79	700.71	700.74	700.69	700.61	700.02	700.37
MAX	701.06	702.22	703.97	705.00	702.69	702.10	702.31	701.22	701.18	701.17	700.74	700.86
MIN	700.22	700.35	700.02	700.73	700.67	699.53	699.56	700.00	699.97	699.90	699.02	699.64

e Estimated

07053820 LAKE TANEYCOMO AT POWERSITE DAM AT FORSYTH, MO—Continued



07053900 SWAN CREEK NEAR SWAN, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 36°47'02", long 93°05'04", in SW 1/4 SE 1/4 NE 1/4 sec.3, T.24 N., R.20 W., Taney County, Hydrologic Unit 11010003, 0.8 mi south of Swan, 4.0 mi northwest of Highway 76 on County Highway AA.

DRAINAGE AREA.--148 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 04...	1130	Environmental	270	8.1	81	7.9	404	14.2	220	50.7	23.5	1.56
NOV 04...	1131	Replicate	--	8.1	81	7.9	403	14.2	220	50.5	23.6	1.58
JAN 03...	1400	Environmental	56	11.9	116	8.2	389	12.9	--	--	--	--
MAR 28...	1335	Environmental	251	12.1	118	7.8	348	11.9	--	--	--	--
MAY 18...	0830	Environmental	39	7.7	83	7.7	431	16.9	240	51.7	26.8	1.39
JUL 13...	1015	Environmental	1.0	7.7	93	7.7	455	23.8	--	--	--	--
SEP 14...	0900	Environmental	1.0	5.4	66	7.6	415	23.5	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, fixed end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, incr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, incr., field, mg/L (00450)	Carbonate, wat unfltrd, incr., field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total at 105 deg. C, suspended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)
NOV 04...	1.83	215	215	262	<1	3.92	E.1n	5.8	222	<10	.12	<.04	.52
NOV 04...	1.85	--	--	--	--	3.94	E.1n	5.8	218	<10	.14	<.04	.53
JAN 03...	--	--	--	--	--	--	--	--	--	<10	E.08n	<.04	.24
MAR 28...	--	--	--	--	--	--	--	--	--	<10	E.05n	<.04	.17
MAY 18...	2.02	220	217	268	<1	3.75	E.1n	5.2	243	<10	E.08n	.09	.13
JUL 13...	--	--	--	--	--	--	--	--	--	<10	E.10n	<.04	.10
SEP 14...	--	--	--	--	--	--	--	--	--	<10	.21	E.02n	.10

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 col/100 mL (31625)	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)	Iron, water, fltrd, μg/L (01046)
NOV 04...	<.008	<.02	<.04	<.04	90	110	E1n	14	.3	<.04	<.04	.6	<6
NOV 04...	<.008	<.02	<.04	<.04	94	110	2	12	.2	<.04	<.04	.7	<6
JAN 03...	<.008	<.02	<.04	<.04	55	120	--	--	--	--	--	--	--
MAR 28...	<.008	<.02	<.04	<.04	<1b	5k	--	--	--	--	--	--	--
MAY 18...	<.008	--u	<.04	<.04	140	160	E1n	12	E.1n	<.04	<.04	E.3n	<6
JUL 13...	<.008	<.02	<.04	<.04	75	150	--	--	--	--	--	--	--
SEP 14...	<.008	<.02	<.04	<.04	160k	220k	--	--	--	--	--	--	--

07053900 SWAN CREEK NEAR SWAN, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover- able, µg/L (01051)	Mangan- ese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover- able, µg/L (71900)	Selen- ium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover- able, µg/L (01092)
NOV 04...	<.08	.06	1.3	<.01	<.4	.7	<2
04...	<.08	E.05n	1.5	<.01	<.4	1.0	E1n
JAN 03...	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--
MAY 18...	<.08	.07	4.9	<.01	<.4	1.0	<2
JUL 13...	--	--	--	--	--	--	--
SEP 14...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

b -- Value extrapolated at low end  
k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL

## Null value qualifier codes used in this table:

u -- Unable to determine-matrix interference



07054080 BEAVER CREEK AT BRADLEYVILLE, MO

LOCATION.--Lat 36°46'47", long 92°54'26", in NE 1/4 SW 1/4 NW 1/4 sec.11, T.24 N., R.18 W., Taney County, Hydrologic Unit 11010003, on downstream side of right bridge pier on State Highway 76 and 0.5 mi east of Bradleyville.

DRAINAGE AREA.--298 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 803.00 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

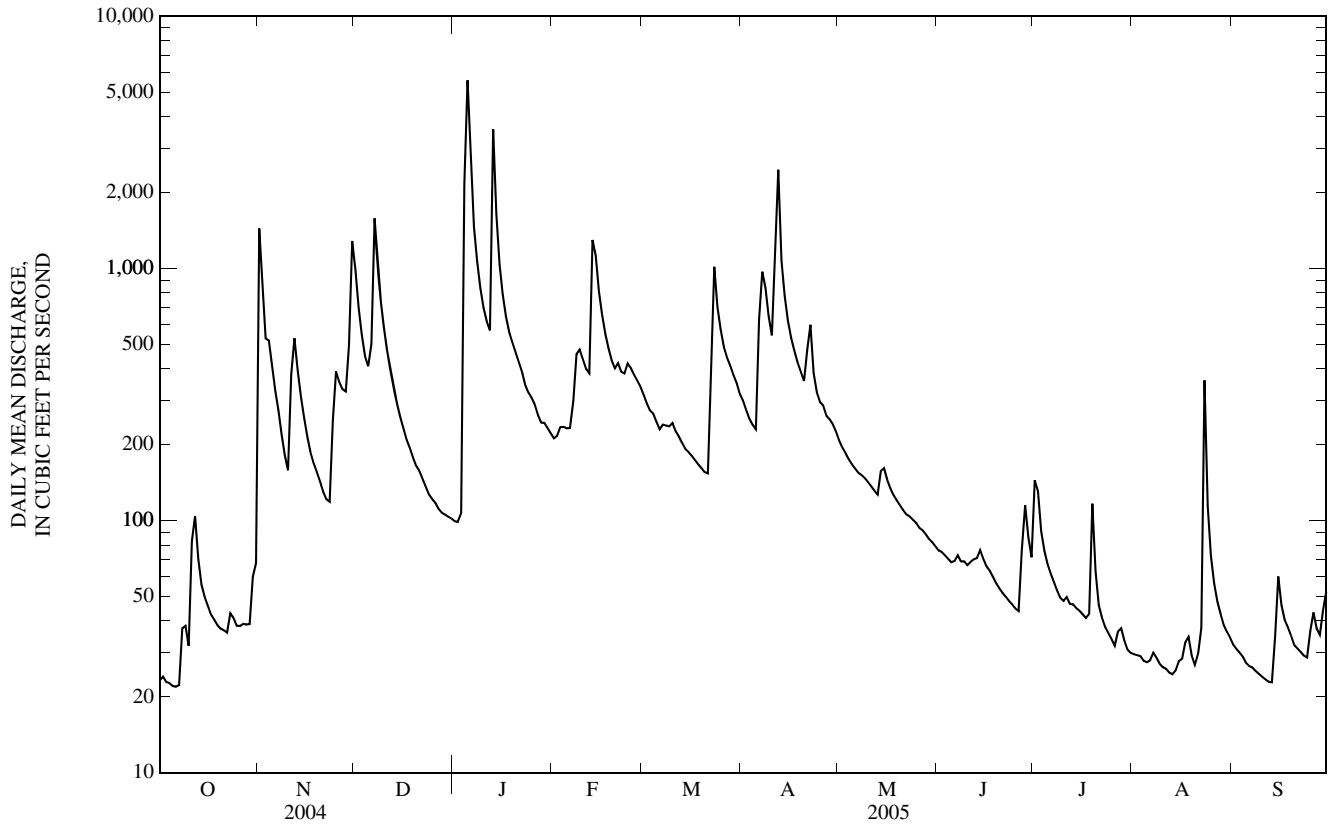
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	1,440	991	99	212	315	299	208	76	144	29	32
2	24	911	702	99	217	291	274	195	75	131	29	31
3	23	528	545	107	235	273	253	185	73	91	29	30
4	23	518	450	2,180	235	266	240	175	71	76	28	29
5	22	413	409	5,570	232	247	230	167	68	67	27	27
6	22	328	500	3,060	233	230	629	161	69	62	28	26
7	22	274	1,580	1,460	297	240	970	155	73	57	30	26
8	37	219	1,040	1,070	457	238	837	151	69	53	29	25
9	38	181	731	835	477	237	645	147	69	49	27	25
10	32	158	571	698	437	244	542	142	67	48	26	24
11	83	380	464	617	400	226	1,270	137	69	50	26	23
12	104	528	398	568	384	215	2,460	131	70	47	25	23
13	70	396	340	3,570	1,300	203	1,080	127	71	47	25	23
14	56	312	291	1,640	1,130	192	778	157	76	45	25	34
15	50	257	258	1,040	811	e187	622	161	70	44	28	60
16	46	216	232	787	654	e181	531	145	66	42	28	e46
17	42	187	210	645	551	e174	473	134	63	41	33	e40
18	40	169	195	561	482	167	426	126	60	43	35	e38
19	38	156	178	510	432	161	390	120	56	117	29	35
20	37	143	165	468	402	155	358	115	54	63	27	32
21	37	130	157	429	421	154	476	110	52	46	30	31
22	36	122	146	390	390	479	598	106	50	41	37	30
23	43	119	136	346	383	1,020	384	104	48	38	359	29
24	41	249	127	323	420	701	323	101	47	36	114	29
25	38	391	122	307	402	572	295	98	45	34	72	36
26	38	355	118	289	378	489	286	94	44	32	56	43
27	39	333	111	263	358	443	260	91	76	36	48	37
28	39	325	107	245	340	412	252	88	115	37	43	35
29	39	497	106	244	---	378	241	85	86	33	39	44
30	60	1,290	104	232	---	351	225	82	71	31	36	52
31	68	---	102	222	---	318	---	79	---	30	34	---
MEAN	42.3	384	374	931	452	315	555	132	66.6	55.2	46.2	33.2
MAX	104	1,440	1,580	5,570	1,300	1,020	2,460	208	115	144	359	60
MIN	22	119	102	99	212	154	225	79	44	30	25	23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2005, BY WATER YEAR (WY)

MEAN	49.9	241	233	354	468	494	542	452	164	84.8	59.1	69.1
MAX	134	1,074	725	931	991	1,349	935	1,540	593	200	168	309
(WY)	(1999)	(1997)	(2002)	(2005)	(1999)	(1998)	(1995)	(2002)	(1995)	(2004)	(1995)	(1996)
MIN	25.9	28.4	62.7	56.8	105	142	70.9	37.8	41.1	30.3	22.5	22.5
(WY)	(2001)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2001)	(2003)	(2001)	(2001)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1995 - 2005
ANNUAL MEAN	283	281	266
HIGHEST ANNUAL MEAN			464
LOWEST ANNUAL MEAN			62.5
HIGHEST DAILY MEAN	11,200	Apr 24	5,570
LOWEST DAILY MEAN	22	Oct 5-7	22
ANNUAL SEVEN-DAY MINIMUM	23	Oct 1	23
MAXIMUM PEAK FLOW	---		6,230
MAXIMUM PEAK STAGE	---		10.51
INSTANTANEOUS LOW FLOW	---		22
10 PERCENT EXCEEDS	536		606
50 PERCENT EXCEEDS	145		136
90 PERCENT EXCEEDS	34		30

e Estimated



07057500 NORTH FORK RIVER NEAR TECUMSEH, MO

LOCATION.--Lat 36°37'23", long 92°14'53", in NE ¼ SE ¼ sec.35, T.23 N., R.12 W., Ozark County, Hydrologic Unit 11010006, on right bank 3.2 mi downstream from Spring Creek, 3.5 mi northeast of Tecumseh.

DRAINAGE AREA.--561 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 584.67 ft above National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers). Prior to May 12, 1945, nonrecording gage at same site and datum 0.22 ft lower.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	283	408	1,680	465	670	835	788	652	444	395	306	285
2	285	1,180	1,320	467	670	792	749	630	439	406	305	284
3	281	870	1,080	559	672	766	716	616	433	392	305	280
4	279	717	939	1,080	672	751	698	603	428	379	302	275
5	279	657	857	2,410	672	736	689	590	423	370	306	274
6	279	594	868	4,130	676	706	696	582	415	367	311	273
7	279	549	1,170	2,610	697	714	696	574	413	362	313	273
8	313	508	1,470	1,880	756	712	702	569	435	356	320	272
9	330	474	1,200	1,490	849	709	694	564	428	351	309	270
10	331	450	1,060	1,290	840	714	689	561	453	350	303	269
11	354	509	934	1,170	805	722	827	555	458	349	301	268
12	383	585	847	1,100	795	722	3,140	546	461	357	296	268
13	381	642	782	3,530	1,070	717	2,280	537	442	364	291	268
14	358	580	721	4,040	1,800	687	1,640	561	437	360	297	324
15	349	532	677	2,370	1,520	668	1,320	563	429	351	306	417
16	346	506	649	1,830	1,300	648	1,140	546	419	348	306	459
17	331	486	626	1,500	1,120	644	1,030	528	410	345	309	422
18	327	473	612	1,320	1,020	641	962	519	405	343	310	373
19	319	464	592	1,220	951	630	915	517	399	419	302	371
20	315	452	578	1,150	915	610	871	511	390	398	299	367
21	311	443	569	1,080	915	597	e824	503	384	367	303	348
22	307	432	558	1,010	888	627	804	499	380	354	303	330
23	443	429	535	925	857	684	e770	495	377	345	327	318
24	443	498	516	875	871	721	e725	492	372	338	324	310
25	399	737	510	857	891	742	711	484	369	330	309	349
26	372	753	503	827	890	729	744	473	369	326	304	380
27	357	707	494	782	877	788	711	465	379	329	301	378
28	351	666	483	743	871	891	694	462	388	326	298	381
29	352	714	478	731	---	903	688	457	384	322	292	375
30	348	1,340	477	710	---	887	673	453	373	316	288	348
31	349	---	473	688	---	836	---	449	---	310	287	---
MEAN	337	612	783	1,446	912	727	953	534	411	356	304	327
MAX	443	1,340	1,680	4,130	1,800	903	3,140	652	461	419	327	459
MIN	279	408	473	465	670	597	673	449	369	310	287	268
IN.	0.69	1.22	1.61	2.97	1.69	1.49	1.90	1.10	0.82	0.73	0.63	0.65

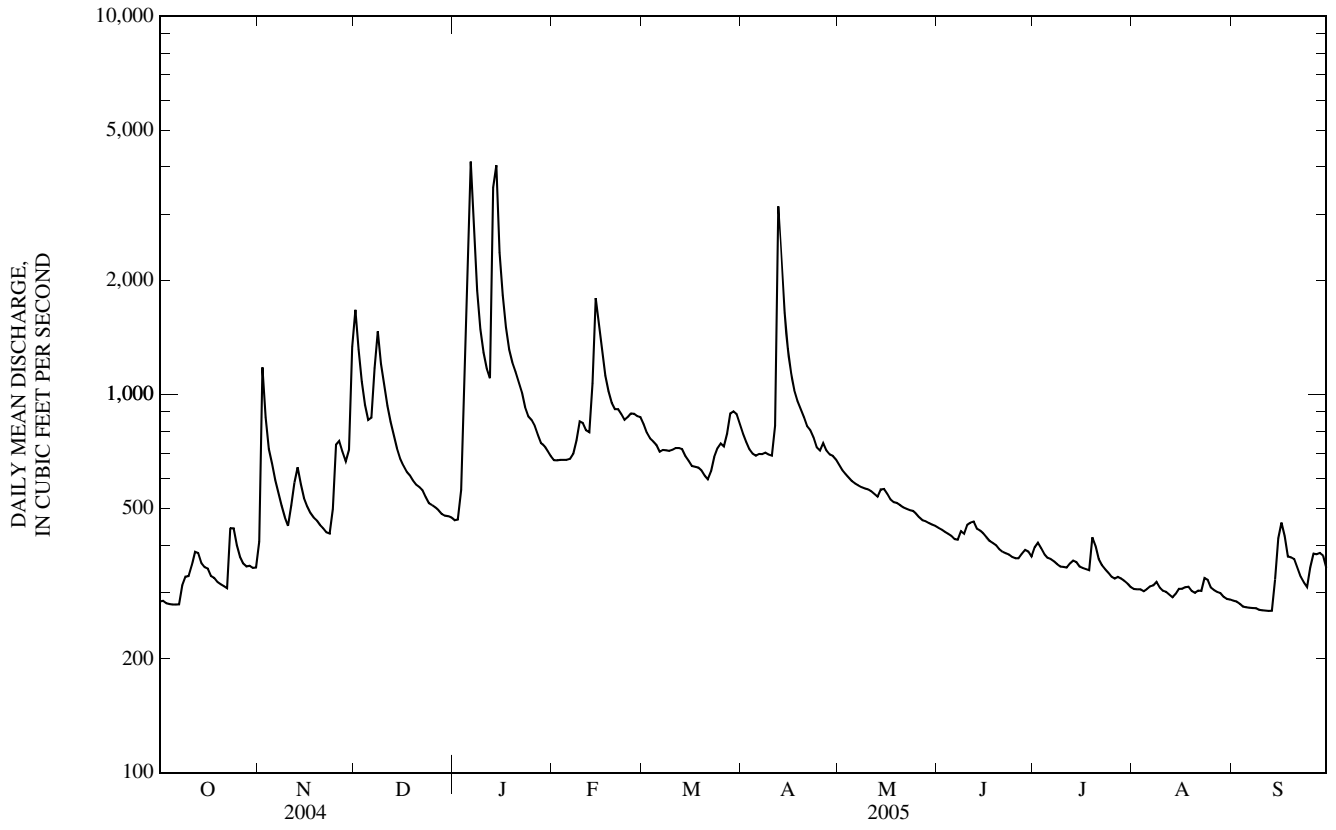
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 2005, BY WATER YEAR (WY)

MEAN	406	644	700	726	853	1,058	1,246	1,136	743	529	409	419
MAX	1,040	2,751	2,842	2,322	2,872	2,473	3,623	3,044	2,515	1,632	889	2,093
(WY)	(1985)	(1986)	(1983)	(1950)	(1985)	(1945)	(1945)	(2002)	(1945)	(1951)	(1958)	(1993)
MIN	214	224	223	201	261	290	359	343	276	239	204	193
(WY)	(1957)	(1955)	(1956)	(1956)	(1964)	(1981)	(2000)	(2001)	(1954)	(1954)	(1954)	(1954)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1945 - 2005
ANNUAL MEAN	728	640	738
HIGHEST ANNUAL MEAN			1,555
LOWEST ANNUAL MEAN			299
HIGHEST DAILY MEAN	15,500	4,130	45,100
LOWEST DAILY MEAN	279	268	187
ANNUAL SEVEN-DAY MINIMUM	281	270	188
MAXIMUM PEAK FLOW	---	6,590	133,000
MAXIMUM PEAK STAGE	---	7.57	28.10
INSTANTANEOUS LOW FLOW	---	265	187
ANNUAL RUNOFF (INCHES)	17.68	15.50	17.87
10 PERCENT EXCEEDS	1,020	1,060	1,320
50 PERCENT EXCEEDS	536	503	497
90 PERCENT EXCEEDS	316	305	292

e Estimated

07057500 NORTH FORK RIVER NEAR TECUMSEH, MO—Continued



07057500 NORTH FORK RIVER NEAR TECUMSEH, MO—Continued  
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1969 to June 1972, October 1978 to September 1979, November 1983 to June 1987, November 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 01...	1200	Environmental	385	9.2	96	7.6	395	16.0	220	46.8	25.6	1.49	
JAN 05...	1140	Blank	--	--	--	--	--	--	--	--	--	--	
JAN 05...	1145	Environmental	2,350	9.9	94	7.8	305	12.1	--	--	--	--	
MAR 28...	1120	Environmental	898	12.8	122	7.8	344	11.9	--	--	--	--	
MAY 18...	1320	Environmental	519	13.5	147	7.7	379	17.6	210	41.3	25.5	1.43	
JUL 13...	1345	Environmental	364	12.1	136	7.9	386	19.4	--	--	--	--	
SEP 14...	1300	Environmental	337	9.2	106	8.0	389	20.8	--	--	--	--	
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 01...	1.62	194	195	238	<1	2.85	E.1n	4.1	206	<10	E.09n	<.04	.58
JAN 05...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	<.06
JAN 05...	--	--	--	--	--	--	--	--	--	29	.42	<.04	.89
MAR 28...	--	--	--	--	--	--	--	--	--	<10	E.07n	<.04	.77
MAY 18...	1.79	193	195	236	<1	3.54	E.1n	3.6	214	<10	.20	<.04	.60
JUL 13...	--	--	--	--	--	--	--	--	--	<10	E.07n	<.04	.70
SEP 14...	--	--	--	--	--	--	--	--	--	<10	.11	<.04	.46
Date	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L (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 col/100 mL (31625)	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)	Iron, water, fltrd, $\mu$ g/L (01046)
NOV 01...	<.008	<.04d	<.04	<.04	96	110	2	16	.5	<.04	<.04	.4	E3n
JAN 05...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
JAN 05...	<.008	<.02	E.02n	.06	1,800k	1,900k	--	--	--	--	--	--	--
MAR 28...	<.008	<.02	<.04	<.04	6k	11k	--	--	--	--	--	--	--
MAY 18...	<.008	--u	<.04	<.04	<1b	8k	Mn	19	.3	<.04	.09	E.2n	E4n
JUL 13...	<.008	<.02	<.04	<.04	6k	20k	--	--	--	--	--	--	--
SEP 14...	<.008	<.02	<.04	<.04	37	88	--	--	--	--	--	--	--

## 07057500 NORTH FORK RIVER NEAR TECUMSEH, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 01...	.09	E.04n	2.2	<.01	<.4	1.7	E2n
JAN 05...	--	--	--	--	--	--	--
JAN 05...	--	--	--	--	--	--	--
MAR 28...	--	--	--	--	--	--	--
MAY 18...	<.08	.06	2.6	<.01	<.4	E.6n	E1n
JUL 13...	--	--	--	--	--	--	--
SEP 14...	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

## Value qualifier codes used in this table:

b -- Value extrapolated at low end

d -- Diluted sample: method hi range exceeded

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

## Null value qualifier codes used in this table:

u -- Unable to determine-matrix interference

07057750 BRYANT CREEK BELOW EVANS, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 36°52'16", long 92°28'18", in SE 1/4 NW 1/4 NW 1/4 sec.10, T.25 N., R.14 W., Douglas County, Hydrologic Unit 11010006, 13 mi south of Ava, 12 mi west of Highway 95 and Highway 14 intersection, on Highway 14.

DRAINAGE AREA.--214 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 01...	1400	Environmental	1,150	7.8	84	7.5	197	17.1	110	24.6	11.6	4.21
JAN 05...	1015	Environmental	1,200	9.6	87	7.5	224	9.4	--	--	--	--
MAR 21...	1100	Environmental	68	11.5	107	7.8	380	10.6	--	--	--	--
MAY 18...	1055	Blank	--	--	--	--	--	--	--	--	--	--
MAY 18...	1100	Environmental	61	8.9	95	7.7	401	16.6	210	44.1	25.2	1.36
JUL 14...	0910	Environmental	36	6.6	78	7.7	412	22.2	--	--	--	--
SEP 14...	1130	Environmental	41	7.9	93	7.6	409	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 01...	1.08	98	98	120	<1	2.37	<1	3.1	136	151	1.1	<.04	.33
JAN 05...	--	--	--	--	--	--	--	--	--	132	.78	<.04	.48
MAR 21...	--	--	--	--	--	--	--	--	--	<10	E.10n	<.04	.36
MAY 18...	--	--	--	--	--	--	--	--	--	--	.11	<.04	<.06
MAY 18...	3.12	199	197	243	<1	5.60	E.1n	4.1	229	<10	.12	<.04	.30
JUL 14...	--	--	--	--	--	--	--	--	--	<10	.10	<.04	.41
SEP 14...	--	--	--	--	--	--	--	--	--	<10	.16	<.04	.47

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, col/100 mL (31625)	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)	Iron, water, fltrd, μg/L (01046)
NOV 01...	E.005n	<.04d	.06	.23	8,500k	7,400k	9	2,120d	.7	E.02n	.25	1.2	26
JAN 05...	<.008	<.02	E.03n	.16	6,000	5,800	--	--	--	--	--	--	--
MAR 21...	E.004n	<.02	<.04	<.04	4k	10k	--	--	--	--	--	--	--
MAY 18...	<.008	--u	<.04	<.04	--	--	--	--	--	--	--	--	--
MAY 18...	E.005n	--u	<.04	<.04	22	48	Mn	22	.3	<.04	<.04	1.0	9
JUL 14...	E.004n	<.02	<.04	<.04	56	73k	--	--	--	--	--	--	--
SEP 14...	<.008	<.04d	<.04	<.04	180	250	--	--	--	--	--	--	--

## 07057750 BRYANT CREEK BELOW EVANS, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 01...	E.07n	13.0	2.4	.02	<.4	1.0	23
JAN 05...	--	--	--	--	--	--	--
MAR 21...	--	--	--	--	--	--	--
MAY 18...	--	--	--	<.01	--	--	--
18...	.15	.18	7.8	<.01	<.4	1.5	E1n
JUL 14...	--	--	--	--	--	--	--
SEP 14...	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

## Value qualifier codes used in this table:

d -- Diluted sample: method hi range exceeded

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

## Null value qualifier codes used in this table:

u -- Unable to determine-matrix interference



07058000 BRYANT CREEK NEAR TECUMSEH, MO

LOCATION.--Lat 36°37'38", long 92°18'22", in E 1/2 sec.32, T.23 N., R.12 W., Ozark County, Hydrologic Unit 11010006, on left bank 0.8 mi downstream from Pine Creek, 3 mi northwest of Tecumseh, and 5 mi upstream from mouth.

DRAINAGE AREA.--570 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1944 to September 1985, October 1994 to September 1996, October 1998 to current year.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1441: 1945, 1946-47(M), 1950. WSP 1731: 1945-47, 1950.

GAGE.--Water-stage recorder. Datum of gage 573.15 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to July 30, 1945, nonrecording gage at same site and datum.

REMARKS.--Records fair. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	1,100	1,570	260	417	613	552	454	267	240	168	149
2	151	1,950	1,150	263	418	569	522	434	267	279	166	148
3	149	890	898	342	432	547	499	421	264	253	163	151
4	148	714	741	963	429	549	479	408	258	227	161	149
5	146	597	674	2,980	425	527	468	397	251	214	166	147
6	146	508	749	4,710	430	498	493	388	245	204	170	146
7	148	444	1,190	2,390	460	513	581	383	245	196	166	145
8	183	388	1,320	1,630	497	512	643	379	258	188	159	145
9	240	344	1,050	1,250	528	520	603	373	254	183	154	144
10	202	319	883	1,060	538	565	567	368	261	181	152	141
11	256	395	740	933	516	565	1,170	361	264	183	151	139
12	414	554	644	854	516	549	3,090	351	266	189	148	139
13	388	495	569	4,790	1,120	515	1,770	345	271	198	146	140
14	307	428	498	3,710	1,550	475	1,320	347	247	192	149	170
15	277	385	454	2,100	1,240	e460	1,090	351	231	190	152	253
16	255	356	430	1,570	1,050	443	948	347	216	184	163	251
17	240	334	410	1,290	901	430	847	339	212	179	175	212
18	231	323	394	1,110	807	421	781	336	206	177	185	193
19	220	315	375	1,010	738	413	725	334	199	728	168	192
20	211	301	357	940	700	400	689	331	194	426	157	179
21	204	286	350	878	718	394	645	325	191	296	155	173
22	203	275	337	807	704	490	649	316	187	244	183	163
23	273	272	318	714	679	948	631	312	184	220	189	157
24	262	354	301	663	754	906	575	307	184	204	187	156
25	244	494	293	629	748	800	543	300	185	194	179	190
26	231	486	287	553	713	736	573	294	183	186	174	244
27	239	490	278	500	685	746	533	289	182	187	174	243
28	271	476	269	471	670	737	512	284	187	188	169	247
29	263	700	267	476	---	688	501	278	185	183	162	243
30	245	1,410	265	457	---	650	477	274	185	175	158	231
31	246	---	264	436	---	595	---	271	---	171	153	---
MEAN	230	546	591	1,314	692	573	783	345	224	228	165	179
MAX	414	1,950	1,570	4,790	1,550	948	3,090	454	271	728	189	253
MIN	146	272	264	260	417	394	468	271	182	171	146	139
IN.	0.47	1.07	1.20	2.66	1.26	1.16	1.53	0.70	0.44	0.46	0.33	0.35

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

MEAN	231	400	503	507	626	829	955	881	496	335	225	224
MAX	893	1,664	4,280	2,350	2,129	2,483	3,497	3,059	1,990	1,748	910	654
(WY)	(1971)	(1952)	(1983)	(1950)	(1985)	(1945)	(1945)	(2002)	(1945)	(1951)	(1950)	(1996)
MIN	112	127	119	112	141	138	178	175	118	110	105	103
(WY)	(1957)	(1955)	(1956)	(1956)	(1981)	(1981)	(1981)	(1954)	(1954)	(1954)	(1954)	(1954)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

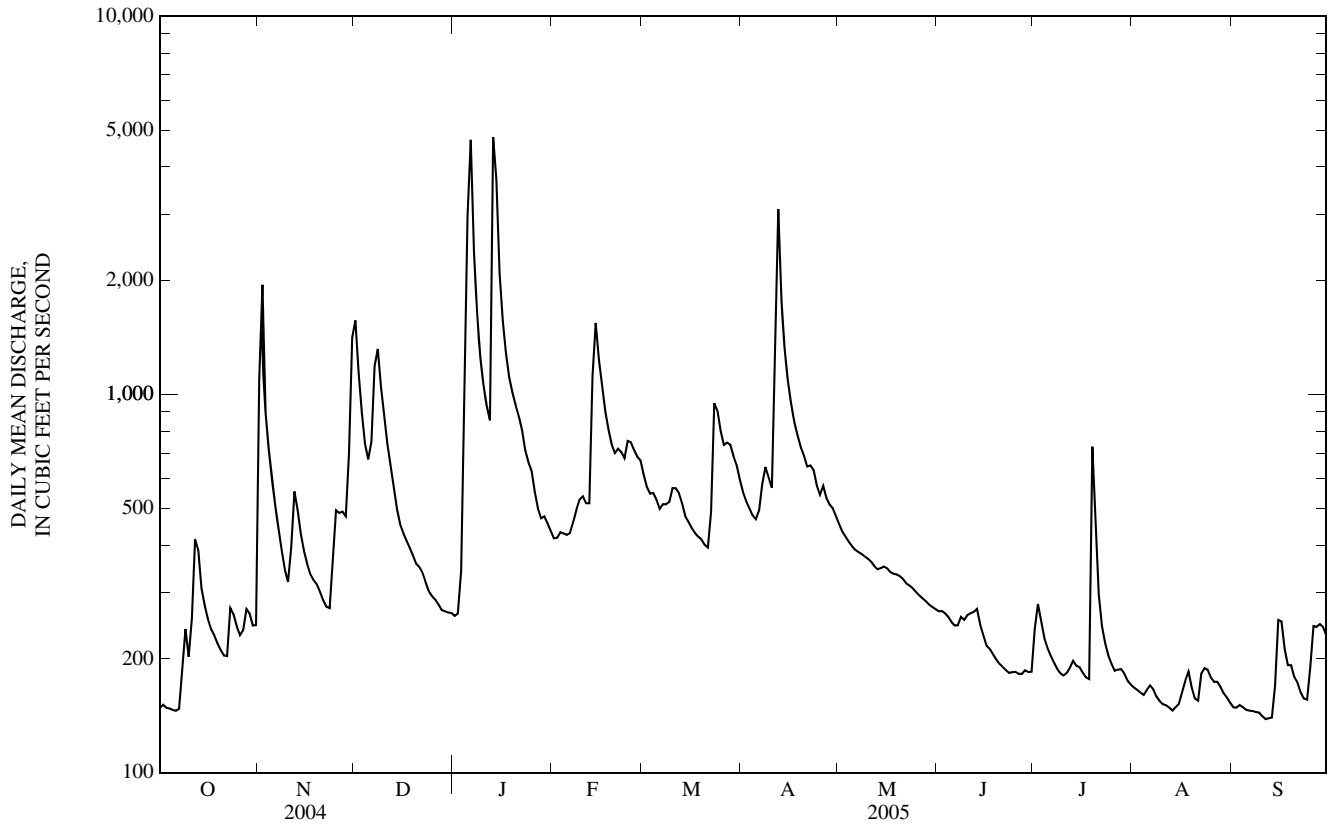
FOR 2005 WATER YEAR

FOR PERIOD OF RECORD

ANNUAL MEAN	543	488	517
HIGHEST ANNUAL MEAN			1,229
LOWEST ANNUAL MEAN			149
HIGHEST DAILY MEAN	15,700	4,790	52,000
LOWEST DAILY MEAN	143	139	97
ANNUAL SEVEN-DAY MINIMUM	146	142	99
MAXIMUM PEAK FLOW	---	8,380	71,100
MAXIMUM PEAK STAGE	---	12.05	26.74
INSTANTANEOUS LOW FLOW	---	135	96
ANNUAL RUNOFF (INCHES)	12.97	11.63	12.32
10 PERCENT EXCEEDS	757	903	1,020
50 PERCENT EXCEEDS	335	337	261
90 PERCENT EXCEEDS	164	163	141

e Estimated

07058000 BRYANT CREEK NEAR TECUMSEH, MO—Continued



07061270 EAST FORK BLACK RIVER NEAR LESTERVILLE, MO

LOCATION.--Lat 37°33'09", long 90°50'33", in SW 1/4 NW 1/4 SW 1/4 sec.9, T.33 N., R.2 E., Reynolds County, Hydrologic Unit 11010007, on downstream side of bridge on Highway N, approximately 5 miles north of junction of Highways 21 and N, 0.5 mi north of Johnson's Shut In Park entrance.

DRAINAGE AREA.--52.2 mi<sup>2</sup>.

PERIOD OF RECORD.--October 2001 to September 2002, October 2003 to current year.

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

REMARKS.--Records fair except for discharges above 5,000 ft<sup>3</sup>/s, which are poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	164	331	22	26	41	55	60	9.5	4.7	8.4	6.9
2	3.5	319	175	23	26	39	50	52	9.3	4.2	7.6	6.3
3	3.4	135	117	25	27	37	46	47	9.2	3.9	6.9	5.7
4	3.3	115	91	69	26	36	43	43	8.6	7.0	6.3	5.1
5	3.2	84	77	1,040	26	34	39	39	8.2	8.0	5.8	4.6
6	3.1	65	79	699	26	33	37	35	7.7	5.6	6.9	4.1
7	2.9	54	308	249	37	32	37	32	7.7	5.1	7.5	4.0
8	5.8	46	192	167	64	31	36	30	8.4	4.6	6.3	3.6
9	6.4	40	127	125	69	29	34	28	7.7	4.1	5.6	3.2
10	5.3	35	98	106	66	28	33	25	7.3	4.0	5.1	3.0
11	5.7	534	79	91	59	27	36	22	9.2	6.1	4.8	2.7
12	7.5	286	68	82	54	26	65	21	10	20	3.9	2.4
13	7.9	133	59	1,370	159	26	77	20	8.4	19	3.2	2.4
14	9.0	87	54	397	170	25	74	28	7.9	14	5.7	7.2
15	12	68	49	206	115	24	64	24	7.2	12	7.6	15
16	12	57	45	140	90	23	57	21	7.3	10	35	22
17	11	49	41	108	75	23	52	20	7.0	9.3	20	15
18	10	47	37	89	65	22	47	18	6.4	13	15	15
19	10	81	35	77	59	21	44	17	6.0	49	12	14
20	9.6	80	33	68	55	21	43	17	5.6	28	10	13
21	9.5	66	31	62	51	21	191	16	5.5	21	9.4	12
22	8.8	59	30	55	48	65	129	17	5.1	18	10	11
23	18	55	28	49	46	139	109	15	4.8	16	9.6	10
24	21	429	26	45	46	98	93	14	4.5	15	8.5	9.5
25	16	298	25	40	47	86	79	13	4.6	13	9.5	13
26	15	150	24	38	45	79	79	13	5.4	12	11	20
27	292	107	23	34	44	99	74	12	4.6	14	10	16
28	140	88	23	32	43	104	72	12	4.5	12	9.8	17
29	72	161	22	32	---	84	74	11	4.3	11	8.6	43
30	55	499	22	30	---	72	68	11	4.2	9.9	7.9	29
31	46	---	21	28	---	62	---	10	---	9.1	7.6	---
MEAN	26.7	146	76.5	181	59.4	48.0	64.6	24.0	6.87	12.3	9.21	11.2
MAX	292	534	331	1,370	170	139	191	60	10	49	35	43
MIN	2.9	35	21	22	26	21	33	10	4.2	3.9	3.2	2.4
IN.	0.59	3.13	1.69	3.99	1.19	1.06	1.38	0.53	0.15	0.27	0.20	0.24

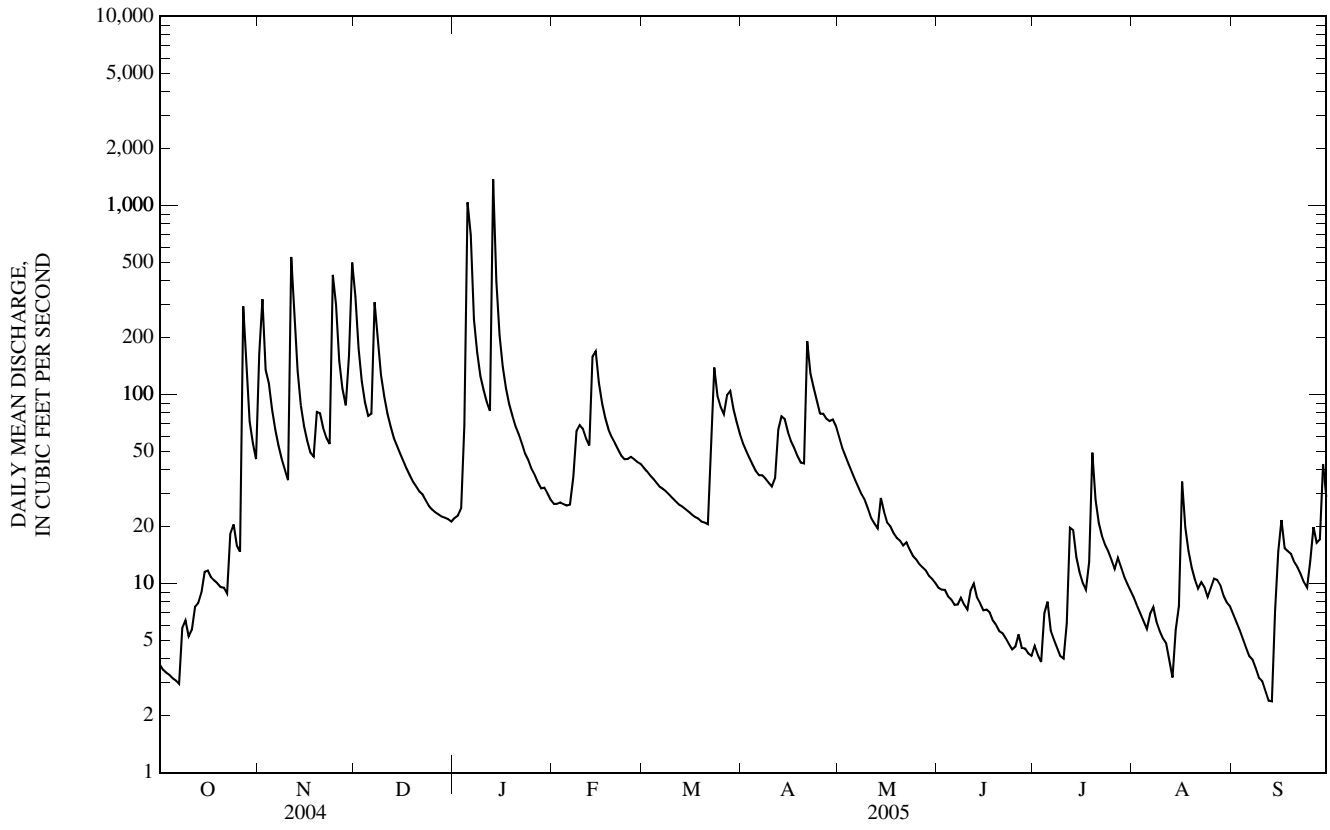
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	12.2	67.3	82.7	85.3	73.5	110	116	260	25.4	10.6	11.6	8.21
MAX	26.7	146	125	181	98.3	223	196	746	50.0	12.3	15.5	11.2
(WY)	(2005)	(2005)	(2002)	(2005)	(2002)	(2002)	(2002)	(2002)	(2003)	(2005)	(2002)	(2005)
MIN	5.72	9.67	57.7	39.3	47.6	48.0	64.6	24.0	6.87	8.63	9.21	5.75
(WY)	(2004)	(2003)	(2003)	(2002)	(2004)	(2005)	(2005)	(2005)	(2005)	(2004)	(2005)	(2004)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	62.7	55.4	79.4
HIGHEST ANNUAL MEAN			126
LOWEST ANNUAL MEAN			55.4
HIGHEST DAILY MEAN	861	1,370	6,080
LOWEST DAILY MEAN	2.2	2.4	2.2
ANNUAL SEVEN-DAY MINIMUM	2.8	3.0	2.8
MAXIMUM PEAK FLOW	---	2,600	35,500
MAXIMUM PEAK STAGE	---	4.04	13.32
INSTANTANEOUS LOW FLOW	---	1.8	1.8
ANNUAL RUNOFF (INCHES)	16.35	14.42	20.67
10 PERCENT EXCEEDS	135	108	135
50 PERCENT EXCEEDS	33	26	25
90 PERCENT EXCEEDS	5.3	5.2	5.5

07061270 EAST FORK BLACK RIVER NEAR LESTERVILLE, MO—Continued



07061500 BLACK RIVER NEAR ANNAPOLIS, MO

LOCATION.--Lat 37°20'17", long 90°47'19", in SW 1/4 NW 1/4 sec.25, T.31 N., R.2 E., Reynolds County, Hydrologic Unit 11010007, on right bank 0.4 mi downstream from Mayberry Branch, 7 mi southwest of Annapolis, 11 mi downstream from East Fork Black River, and at mile 278.5.

DRAINAGE AREA.--484 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 569.72 ft above National Geodetic Vertical Datum of 1929 (levels by the U.S. Army Corps of Engineers). Prior to Aug. 21, 1942, at site 415 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow slightly regulated by upstream reservoir since February 1963. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	441	2,850	305	364	422	521	489	161	111	130	147
2	126	1,340	1,890	311	350	422	511	477	186	111	125	139
3	126	1,230	1,330	318	350	400	474	472	191	110	121	131
4	124	936	1,050	364	343	381	455	393	162	127	117	127
5	124	787	879	1,670	334	373	434	386	147	130	113	123
6	124	665	866	5,860	333	363	389	355	140	130	113	120
7	124	574	1,200	2,910	367	337	428	323	137	128	118	116
8	136	508	1,640	1,650	472	337	409	305	138	123	120	113
9	154	457	1,230	1,290	508	341	361	311	142	119	117	112
10	164	421	1,040	1,200	482	324	349	319	143	115	113	110
11	167	907	817	937	539	309	380	285	149	122	110	108
12	177	2,270	756	832	546	295	422	271	156	184	108	106
13	181	1,390	772	4,650	579	286	536	253	153	238	104	105
14	186	980	520	5,570	1,160	308	614	275	144	231	108	125
15	193	779	432	2,820	1,210	309	509	305	139	199	122	195
16	194	658	513	1,530	1,020	291	491	290	135	177	372	407
17	187	556	464	1,230	802	291	470	267	131	164	562	421
18	183	475	406	989	768	272	490	250	128	158	340	339
19	177	504	378	896	719	274	469	240	126	358	262	307
20	172	547	438	755	614	270	394	240	123	472	219	284
21	168	545	482	692	523	269	880	232	121	344	197	250
22	165	557	354	646	507	311	1,660	229	118	284	208	228
23	189	562	261	584	482	545	1,160	224	114	241	203	211
24	222	712	246	565	515	696	952	218	112	217	193	199
25	230	2,070	300	491	483	589	826	208	110	199	182	216
26	219	1,420	292	456	436	601	736	186	108	185	173	276
27	324	951	289	442	409	698	671	174	107	184	175	329
28	815	803	343	422	420	770	574	167	106	184	184	281
29	600	974	328	392	---	711	618	161	106	162	175	312
30	496	1,920	303	378	---	635	504	157	106	147	168	332
31	441	---	303	381	---	579	---	154	---	138	157	---
MEAN	226	898	741	1,340	558	420	590	278	135	187	178	209
MAX	815	2,270	2,850	5,860	1,210	770	1,660	489	191	472	562	421
MIN	124	421	246	305	333	269	349	154	106	110	104	105
IN.	0.54	2.07	1.77	3.19	1.20	1.00	1.36	0.66	0.31	0.45	0.42	0.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2005, BY WATER YEAR (WY)

MEAN	259	649	671	611	739	985	1,136	915	499	289	209	225
MAX	1,151	3,619	3,913	2,509	2,091	2,903	3,467	4,801	4,263	1,800	1,289	1,061
(WY)	(1942)	(1986)	(1983)	(1950)	(1985)	(1945)	(1957)	(2002)	(1945)	(1951)	(1982)	(1993)
MIN	84.8	111	119	108	147	161	228	165	135	88.5	76.7	72.4
(WY)	(1957)	(1965)	(1956)	(1956)	(1963)	(1941)	(2000)	(2000)	(2005)	(1954)	(1965)	(1955)

SUMMARY STATISTICS

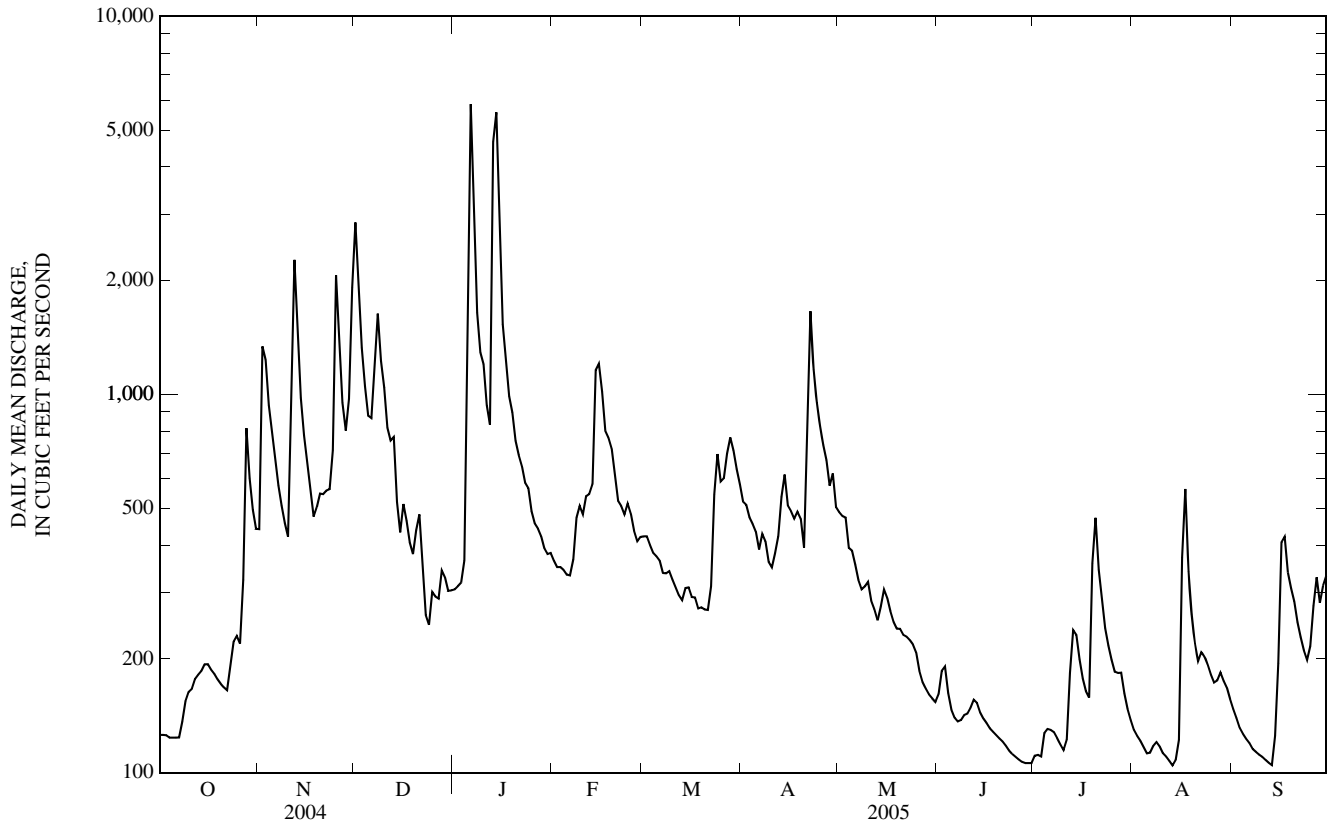
FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

WATER YEARS 1939 - 2005

ANNUAL MEAN	531	479	599
HIGHEST ANNUAL MEAN			1,420
LOWEST ANNUAL MEAN			235
HIGHEST DAILY MEAN	4,170	Apr 25	5,860
LOWEST DAILY MEAN	124	Oct 4-7	104
ANNUAL SEVEN-DAY MINIMUM	125	Oct 1	108
MAXIMUM PEAK FLOW	---		9,240
MAXIMUM PEAK STAGE	---		10.69
INSTANTANEOUS LOW FLOW	---		103
ANNUAL RUNOFF (INCHES)	14.95		13.45
10 PERCENT EXCEEDS	1,040		943
50 PERCENT EXCEEDS	368		319
90 PERCENT EXCEEDS	170		122

07061500 BLACK RIVER NEAR ANNAPOLIS, MO—Continued



07061600 BLACK RIVER BELOW ANNAPOLIS, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°19'30", long 90°45'50", in NW ¼ SE ¼ NW ¼ sec.31, T.31 N., R.3 E., Reynolds County, Hydrologic Unit 11010007, approximately 4.5 mi southwest of Annapolis at the bridge on County Highway K.

DRAINAGE AREA.--493 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1993 to September 1995, November 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 23...	1020	Environmental	374	9.7	95	7.5	252	13.2	130	26.1	15.9	1.12
JAN 25...	1115	Environmental	444	14.4	118	7.6	209	5.7	--	--	--	--
MAR 15...	1100	Blank	--	--	--	--	--	--	--	--	--	--
MAR 15...	1115	Environmental	136	11.7	101	7.8	230	8.5	--	--	--	--
MAY 16...	1230	Environmental	322	9.2	99	8.0	277	17.9	140	27.1	16.5	1.09
JUL 19...	1100	Environmental	371	7.6	95	7.6	287	25.0	--	--	--	--
SEP 06...	1030	Environmental	133	7.6	88	7.2	329	22.5	--	--	--	--

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 23...	3.04	104	104	126	<1	3.35	E.1n	19.8	140	13	E.07n	<.04	.19
JAN 25...	--	--	--	--	--	--	--	--	--	<10	E.06n	<.04	.28
MAR 15...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	<.06
MAR 15...	--	--	--	--	--	--	--	--	--	<10	E.08n	<.04	.12
MAY 16...	2.71	117	119	144	<1	2.59	E.1n	16.0	148	<10	E.06n	<.04	.07
JUL 19...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	.09
SEP 06...	--	--	--	--	--	--	--	--	--	<10	E.05n	<.04	.07

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, col/100 mL (31633)	Fecal coliform, M-FC col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 23...	<.008	<.02	<.04	<.04	22	13k	Mn	8	E.1n	<.04	<.04	.4	E4n
JAN 25...	<.008	<.02	<.04	<.04	1k	4k	--	--	--	--	--	--	--
MAR 15...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
MAR 15...	<.008	<.02	<.04	<.04	<1b	<1b	--	--	--	--	--	--	--
MAY 16...	<.008	<.02	<.04	<.04	<1b	1k	<2	11	E.1n	<.04	<.04	.5	<6
JUL 19...	<.008	<.02	<.04	<.04	9k	32	--	--	--	--	--	--	--
SEP 06...	<.008	<.09d	<.04	<.04	3k	12k	--	--	--	--	--	--	--

## 07061600 BLACK RIVER BELOW ANNAPOLIS, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 23...	<.08	E.05n	1.0	<.01	<.4	E.6n	<2
JAN 25...	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--
MAY 16...	<.08	E.06n	2.9	<.01	<.4	2.8	<2
JUL 19...	--	--	--	--	--	--	--
SEP 06...	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

## Value qualifier codes used in this table:

b -- Value extrapolated at low end

d -- Diluted sample: method hi range exceeded

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL



07061900 LOGAN CREEK AT ELLINGTON, MO

LOCATION.--Lat 37°14'51", long 90°57'56", in SE 1/4 NW 1/4 NE 1/4 sec.32, T.30 N., R.1 E., Reynolds County, Hydrologic Unit 11010007, on downstream end of center pier of bridge on State Route 21, 0.1 mi downstream from Dry Valley Creek, and about 10 mi upstream from Clearwater Lake.

DRAINAGE AREA.--139 mi<sup>2</sup>.

PERIOD OF RECORD.--July 21, 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 639.51 ft above National Geodetic Vertical Datum of 1929.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	6.3	27	6.6	15	10	14	10	5.6	4.1	2.3	2.0
2	3.0	6.8	20	6.6	14	10	13	10	5.6	3.7	2.2	1.9
3	3.0	6.6	16	6.9	14	9.9	13	9.7	5.5	3.5	2.2	1.9
4	2.9	6.2	13	11	12	9.8	13	9.3	5.3	4.1	2.1	1.8
5	2.9	6.0	13	18	12	9.5	e12	9.1	5.3	4.2	2.0	1.7
6	2.9	5.8	14	66	12	9.2	e12	8.9	5.3	3.8	2.4	1.5
7	2.9	5.7	25	28	14	9.4	e14	8.7	e5.2	3.7	2.4	1.5
8	3.9	5.5	20	20	13	9.2	e13	8.6	5.2	3.6	2.2	1.4
9	3.4	5.3	18	17	12	9.6	e12	8.6	5.4	3.4	2.1	1.4
10	3.3	5.2	16	15	11	8.8	e11	8.4	5.2	3.4	1.9	1.4
11	4.1	12	15	14	11	8.5	e12	8.2	5.4	4.2	1.9	1.4
12	4.4	8.5	13	15	11	8.5	13	8.0	5.4	6.5	1.8	1.3
13	3.7	7.3	12	378	17	8.2	13	7.8	5.2	4.4	1.8	1.3
14	4.5	6.9	11	211	16	8.0	12	9.7	5.0	4.0	2.4	2.4
15	4.4	6.6	11	93	15	8.0	12	8.2	4.9	3.7	2.8	4.4
16	4.1	6.4	10	60	14	8.0	11	8.0	4.9	3.6	3.2	2.3
17	4.0	6.2	9.9	46	14	7.9	11	7.5	4.8	3.4	2.6	1.9
18	4.0	7.0	9.5	39	13	7.8	11	7.1	4.7	3.6	2.5	2.1
19	4.0	8.7	8.8	36	13	7.8	11	7.1	4.7	5.0	2.2	2.1
20	4.0	7.5	8.3	32	13	7.7	11	6.9	4.7	4.4	3.1	2.0
21	4.0	7.0	8.2	30	13	7.7	18	6.8	4.5	4.3	3.1	1.8
22	3.9	7.0	8.2	26	13	12	14	6.9	4.2	3.7	4.1	1.8
23	5.1	6.8	7.7	24	13	12	13	6.5	4.0	3.6	3.7	1.7
24	4.5	14	7.2	22	12	11	12	5.9	3.8	3.4	3.2	1.7
25	4.4	11	7.0	21	12	11	12	5.7	3.8	3.0	3.0	4.3
26	4.3	10	6.9	20	11	11	13	5.7	3.7	2.9	2.8	3.3
27	4.1	10	6.7	18	11	19	12	5.7	3.7	3.0	2.8	2.4
28	4.4	9.7	6.7	18	11	17	12	5.6	3.9	2.8	2.7	2.3
29	4.2	21	6.7	17	---	16	12	5.5	3.8	2.6	2.5	2.1
30	4.5	33	6.8	16	---	15	11	5.4	3.9	2.5	2.3	1.9
31	4.7	---	6.7	15	---	14	---	e5.5	---	2.4	2.1	---
MEAN	3.89	8.87	11.9	43.4	12.9	10.4	12.4	7.58	4.75	3.69	2.53	2.03
MAX	5.1	33	27	378	17	19	18	10	5.6	6.5	4.1	4.4
MIN	2.9	5.2	6.7	6.6	11	7.7	11	5.4	3.7	2.4	1.8	1.3
IN.	0.03	0.07	0.10	0.36	0.10	0.09	0.10	0.06	0.04	0.03	0.02	0.02

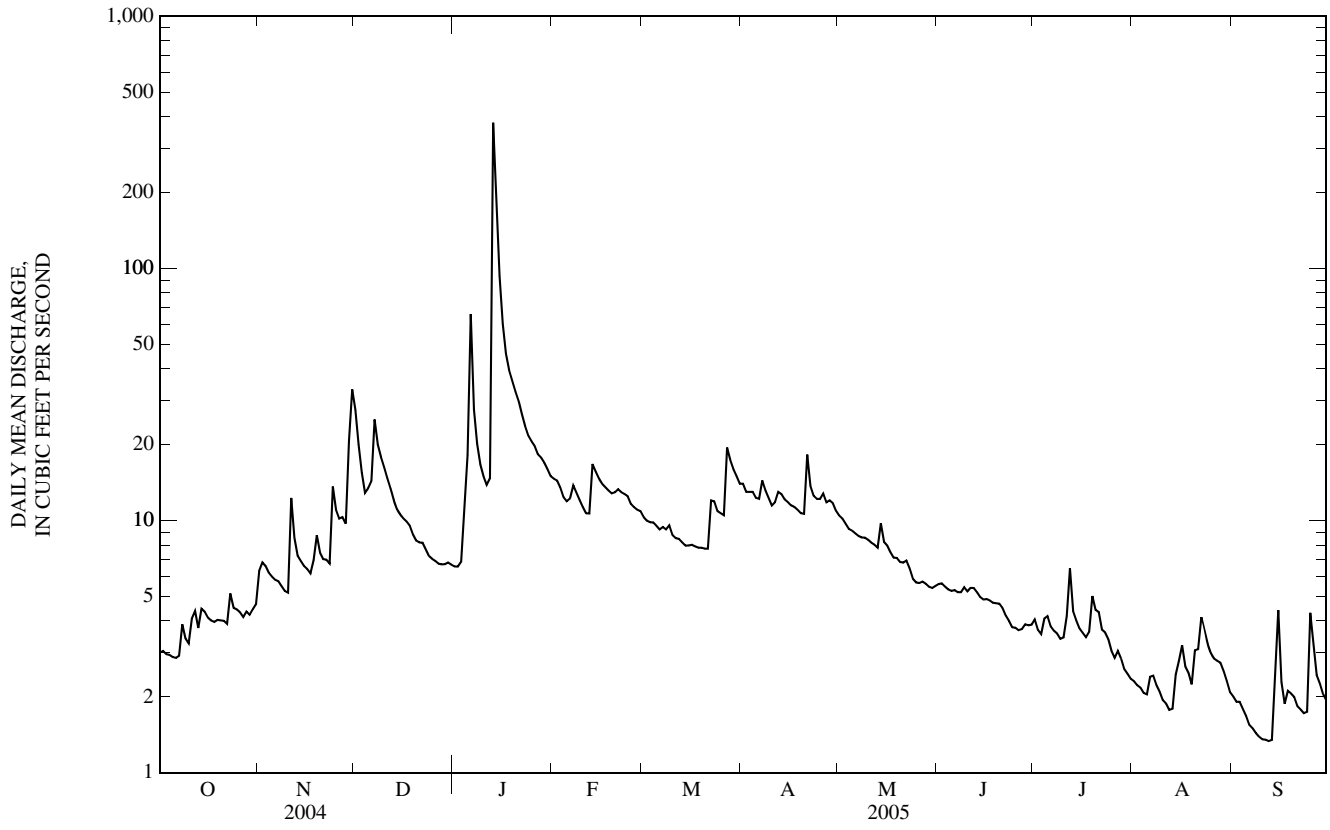
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2005, BY WATER YEAR (WY)

MEAN	4.40	22.3	14.1	14.5	36.7	31.4	53.4	115	23.8	7.66	5.52	5.47
MAX	14.6	95.9	50.2	43.4	201	85.1	225	833	138	28.3	23.2	27.9
(WY)	(1997)	(2004)	(2002)	(2005)	(1999)	(2002)	(1999)	(2002)	(1998)	(1998)	(1998)	(1996)
MIN	0.93	1.29	3.18	3.63	7.36	7.25	5.26	3.45	4.09	2.38	1.33	0.74
(WY)	(2001)	(2002)	(2001)	(2001)	(1996)	(2001)	(2000)	(2000)	(2001)	(2001)	(2001)	(2001)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1994 - 2005
ANNUAL MEAN	15.0	10.4	27.7
HIGHEST ANNUAL MEAN			92.7
LOWEST ANNUAL MEAN			4.94
HIGHEST DAILY MEAN	301	378	7,970
LOWEST DAILY MEAN	2.8	1.3	0.42
ANNUAL SEVEN-DAY MINIMUM	2.9	1.4	0.50
MAXIMUM PEAK FLOW	---	679	16,300
MAXIMUM PEAK STAGE	---	4.84	13.22
INSTANTANEOUS LOW FLOW	---	1.2	0.42
ANNUAL RUNOFF (INCHES)	1.47	1.01	2.71
10 PERCENT EXCEEDS	24	16	29
50 PERCENT EXCEEDS	10	6.8	7.1
90 PERCENT EXCEEDS	3.7	2.3	2.6

e Estimated

07061900 LOGAN CREEK AT ELLINGTON, MO—Continued



07062000 CLEARWATER LAKE NEAR PIEDMONT, MO

LOCATION.--Lat 37°08'00", long 90°46'31", NW ¼ sec.6, T.28 N., R.3 E., Wayne County, Hydrologic Unit 11010007, in intake tower at dam on Black River, 2.3 mi upstream from Brewer Bay, 4.5 mi west of Piedmont, and at mile 257.4.

DRAINAGE AREA.--898 mi<sup>2</sup>.

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

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

REMARKS.--Lake is formed by earthfill type dam. Storage began June 3, 1948; conservation pool level reached July 4, 1948. Capacity at crest of spillway 413,700 ac-ft at elevation 567.0 ft, of which 391,800 ac-ft is available for flood-control storage, and 21,920 ac-ft is permanent storage which under normal operating conditions will be maintained for purposes of conservation and recreation at elevation 494.0 ft. Lake is used for flood control and recreational purposes. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 409,700 ac-ft, May 20, 2002, elevation, 566.60 ft; minimum, since initial filling to conservation pool level, 15,800 ac-ft, Jan. 20, 23, 1972, elevation, 490.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 53,400 ac-ft, Jan. 15, elevation, 508.64 ft; minimum, 22,000 ac-ft, Feb. 22, elevation, 494.02 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	495.01	494.34	498.96	494.54	494.50	494.76	494.99	497.83	498.25	497.87	497.15	496.86
2	494.93	494.37	499.95	494.58	494.71	494.69	495.09	498.06	498.26	497.88	497.15	496.86
3	494.81	495.32	499.40	494.65	494.92	494.61	495.14	498.27	498.30	497.89	497.16	496.87
4	494.71	495.27	498.59	494.72	494.86	494.51	495.13	498.47	498.34	497.90	497.17	496.86
5	494.59	494.59	497.39	494.94	494.75	494.53	494.98	498.47	498.36	498.00	497.16	496.84
6	494.51	494.87	496.41	497.24	494.62	494.54	494.77	498.44	498.36	497.99	497.15	496.81
7	494.40	495.05	495.37	502.81	494.54	494.53	494.51	498.50	498.36	497.91	497.16	496.78
8	494.31	495.08	495.35	503.25	494.48	494.52	494.51	498.52	498.34	497.85	497.16	496.74
9	494.39	494.51	495.81	502.31	494.55	494.46	494.63	498.52	498.38	497.86	497.15	496.74
10	494.46	494.60	494.67	501.09	494.69	494.58	494.66	498.53	498.29	497.87	497.15	496.75
11	494.53	494.77	494.49	499.39	494.75	494.69	494.67	498.54	498.24	497.90	497.13	496.75
12	494.83	495.76	494.46	497.07	494.84	494.64	494.81	498.52	498.18	498.14	497.11	496.75
13	494.60	498.03	494.29	495.84	495.00	494.58	494.69	498.47	498.10	498.28	497.09	496.74
14	494.31	499.15	494.29	504.72	495.23	494.49	494.63	498.61	498.09	498.06	497.08	496.78
15	494.12	499.80	494.16	508.22	495.56	494.48	494.70	498.65	498.06	497.83	497.07	496.89
16	494.33	498.97	494.67	508.52	495.75	494.53	494.65	498.68	498.06	497.80	497.14	497.09
17	494.50	497.06	495.26	507.70	495.77	494.53	494.57	498.69	498.07	497.78	497.35	497.03
18	494.65	494.93	495.32	506.55	494.73	494.53	494.44	498.65	498.07	497.77	497.46	496.99
19	494.69	494.58	495.30	505.05	494.63	494.51	494.42	498.59	498.07	497.80	497.30	496.98
20	494.63	494.66	495.17	503.33	494.53	494.49	494.42	498.56	498.06	497.86	497.17	496.71
21	494.53	494.80	495.08	501.38	494.36	494.45	494.60	498.53	498.01	498.07	497.06	496.36
22	494.49	494.88	495.07	499.86	494.03	494.44	495.52	498.53	497.95	498.09	497.02	496.04
23	494.53	494.71	494.65	498.32	494.14	494.60	496.71	498.55	497.93	498.00	497.07	495.91
24	494.57	494.52	494.67	496.66	494.37	494.92	497.17	498.54	497.90	497.84	497.05	495.82
25	494.61	495.11	494.73	495.63	494.57	495.24	497.36	498.52	497.89	497.66	497.00	495.71
26	494.61	497.03	494.76	494.53	494.67	495.18	497.44	498.51	497.89	497.44	496.99	495.71
27	494.59	497.37	494.77	494.51	494.77	495.18	497.38	498.49	497.87	497.40	496.99	495.66
28	494.37	497.22	494.65	494.50	494.81	495.34	497.31	498.45	497.87	497.39	496.98	495.67
29	494.62	496.78	494.56	494.48	---	495.34	497.17	498.41	497.85	497.39	496.96	495.54
30	494.68	497.00	494.49	494.39	---	495.13	497.57	498.36	497.83	497.31	496.95	495.40
31	494.54	---	494.51	494.26	---	494.84	---	498.29	---	497.23	496.90	---
MEAN	494.56	495.84	495.52	499.19	494.75	494.71	495.42	498.48	498.11	497.81	497.11	496.49
MAX	495.01	499.80	499.95	508.52	495.77	495.34	497.57	498.69	498.38	498.28	497.46	497.09
MIN	494.12	494.34	494.16	494.26	494.03	494.44	494.42	497.83	497.83	497.23	496.90	495.40
(-)	22,800	27,000	22,800	22,300	23,200	23,300	28,100	29,400	28,600	27,400	26,800	24,200
(=)	-800	+4,200	-4,200	-500	+900	+100	+4,800	+1,300	-800	-1,200	-600	-2,600

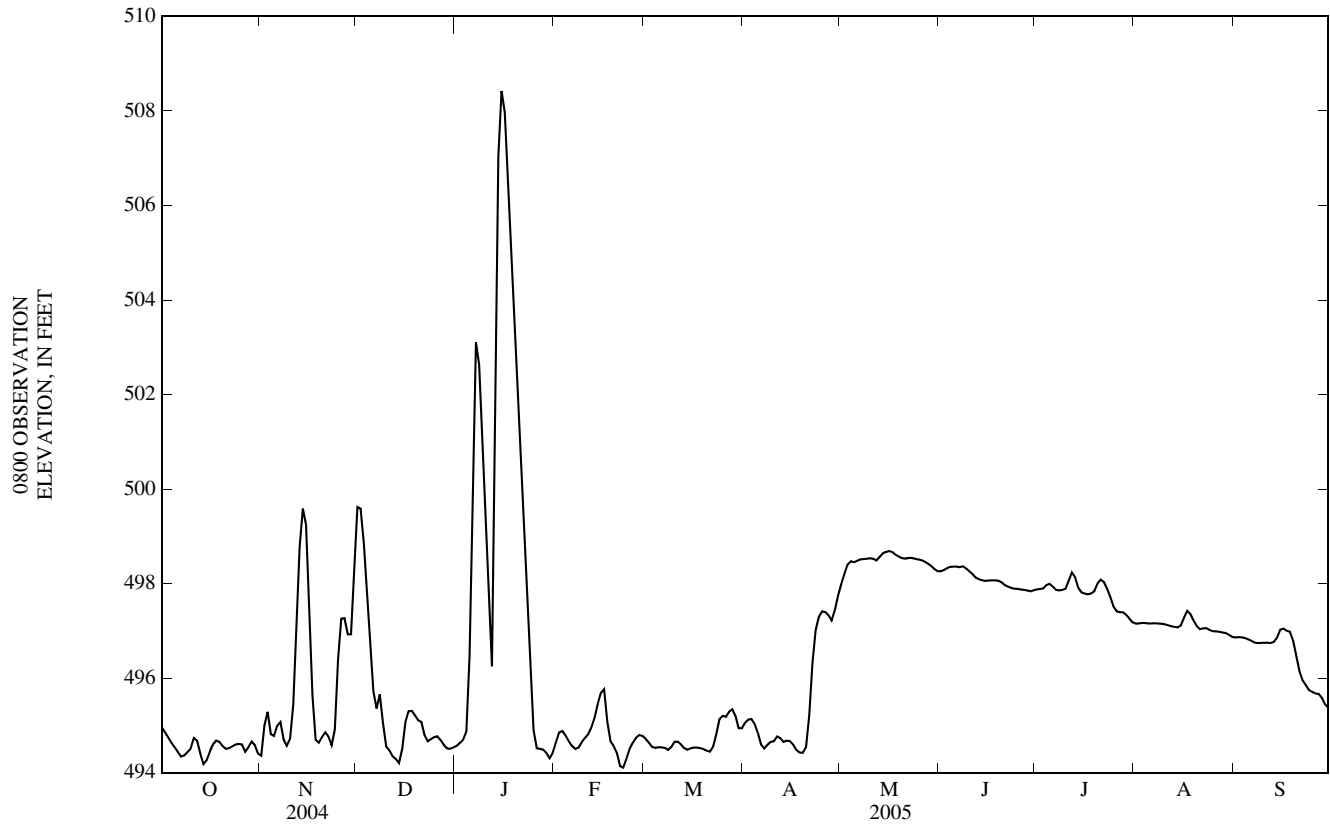
CAL YR 2004.... -3,700

WTR YR 2005.... +600

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

(=) Change in contents, in acre-feet.

07062000 CLEARWATER LAKE NEAR PIEDMONT, MO—Continued



## 07062050 CLEARWATER LAKE TAILWATER NEAR PIEDMONT, MO

LOCATION.--Lat 37°07'54", long 90°46'15", SW 1/4 SE 1/4 NW 1/4 sec. 6, T.28 N., R.3 E., Wayne County, Hydrologic Unit 11010007, on right bank 100 ft downstream of Clearwater Dam on the Black River, 2.3 mi upstream from Brewer Bay, 4.5 mi west of Piedmont, and at mile 257.4.

DRAINAGE AREA.--898 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1992 to current year (gage height only). Gage height records prior to Oct. 1, 2004 available from the Missouri Water Science Center.

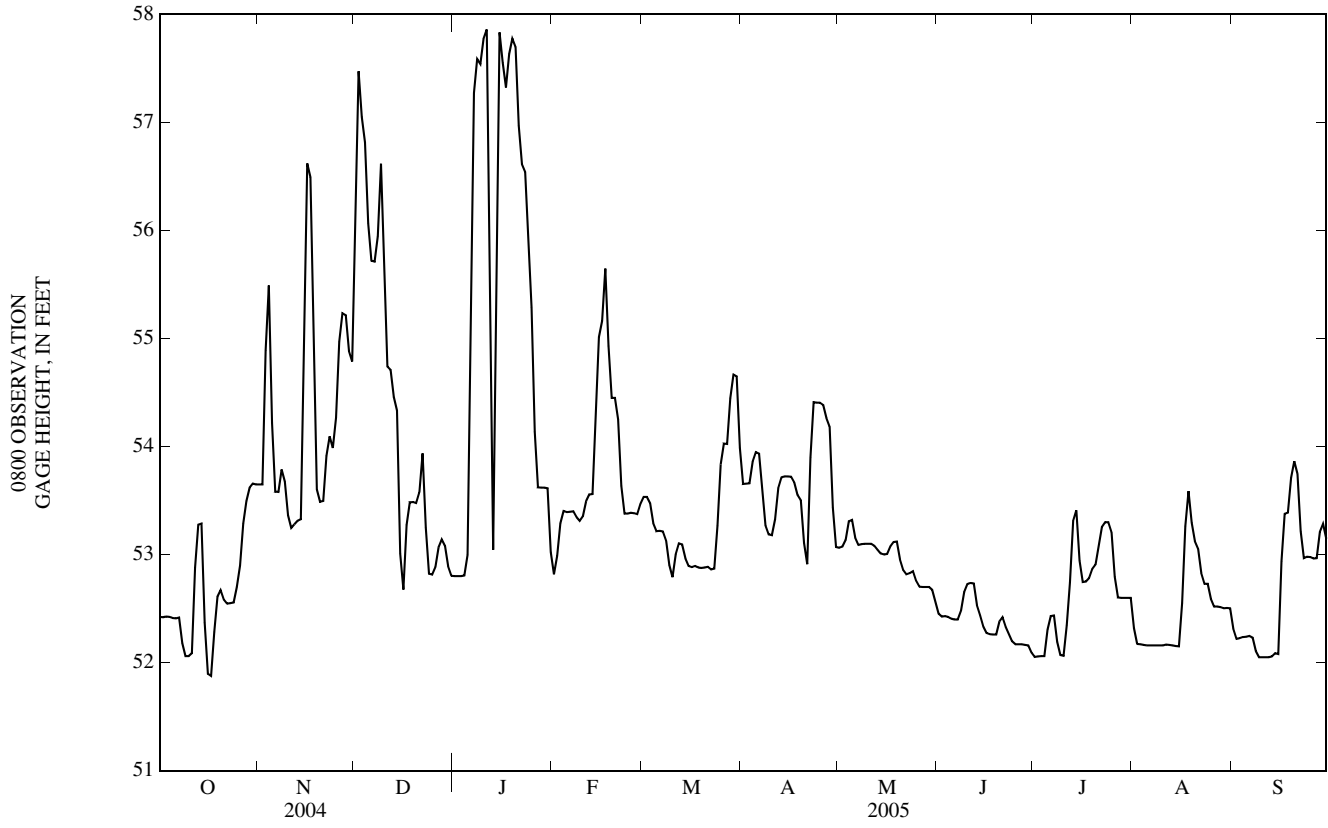
GAGE.--Water-stage recorder. Datum of gage is unknown

REMARKS.--Flow completely regulated by Clearwater Dam. U.S. Army Corps of Engineers satellite telemeter at station.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
OBSERVATION AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52.43	53.65	54.82	52.80	52.73	53.52	53.66	53.07	52.52	52.06	52.60	52.50
2	52.42	53.65	57.48	52.80	52.86	53.54	53.65	53.06	52.42	52.05	52.18	52.22
3	52.42	53.65	57.47	52.80	53.05	53.53	53.66	53.08	52.43	52.06	52.17	52.22
4	52.43	55.51	56.84	52.80	53.41	53.45	53.66	53.16	52.43	52.06	52.17	52.23
5	52.42	55.48	56.80	52.81	53.40	53.21	53.96	53.38	52.42	52.06	52.16	52.24
6	52.41	53.59	55.70	53.09	53.39	53.22	53.94	53.29	52.40	52.43	52.16	52.24
7	52.41	53.58	55.73	56.62	53.40	53.22	53.93	53.09	52.40	52.43	52.16	52.25
8	52.42	53.58	55.70	57.60	53.40	53.21	53.41	53.09	52.40	52.44	52.16	52.22
9	52.06	53.89	56.07	57.58	53.32	53.09	53.20	53.10	52.52	52.07	52.16	52.05
10	52.06	53.57	56.89	57.52	53.31	52.81	53.18	53.10	52.72	52.07	52.16	52.05
11	52.06	53.26	54.76	57.90	53.38	52.78	53.18	53.10	52.73	52.06	52.16	52.05
12	52.10	53.24	54.73	57.84	53.55	53.11	53.40	53.10	52.74	52.49	52.17	52.05
13	53.27	53.30	54.70	54.73	53.56	53.10	53.72	53.07	52.73	52.87	52.16	52.05
14	53.28	53.32	54.34	52.20	53.56	53.09	53.71	53.03	52.43	53.53	52.16	52.06
15	53.29	53.33	54.33	57.84	54.70	52.90	53.73	53.00	52.44	53.35	52.15	52.10
16	51.91	56.14	52.35	57.83	55.17	52.89	53.72	53.00	52.28	52.74	52.15	52.07
17	51.89	56.86	52.84	57.41	55.16	52.88	53.72	53.01	52.27	52.75	52.75	53.37
18	51.87	56.31	53.49	57.28	55.89	52.90	53.64	53.11	52.26	52.75	53.52	53.38
19	52.49	53.83	53.48	57.81	54.45	52.87	53.51	53.12	52.26	52.80	53.62	53.39
20	52.67	53.49	53.49	57.76	54.45	52.88	53.50	53.12	52.26	52.90	53.13	53.87
21	52.67	53.49	53.47	57.67	54.45	52.88	52.91	52.87	52.44	52.91	53.12	53.86
22	52.54	53.50	53.63	56.62	54.15	52.89	52.91	52.85	52.41	53.17	53.02	53.69
23	52.55	54.12	54.09	56.61	53.38	52.85	54.39	52.80	52.29	53.30	52.73	52.98
24	52.55	54.08	52.83	56.51	53.38	52.88	54.42	52.84	52.25	53.30	52.73	52.96
25	52.56	53.94	52.82	55.56	53.38	53.46	54.40	52.85	52.17	53.30	52.73	52.99
26	52.77	54.43	52.81	55.15	53.39	54.02	54.41	52.71	52.17	53.16	52.52	52.97
27	52.96	55.24	52.92	53.63	53.38	54.03	54.37	52.70	52.17	52.61	52.52	52.96
28	53.45	55.23	53.14	53.62	53.37	54.02	54.21	52.70	52.17	52.60	52.52	52.97
29	53.52	55.21	53.14	53.62	---	54.66	54.17	52.70	52.16	52.60	52.51	53.33
30	53.67	54.72	53.05	53.62	---	54.67	53.07	52.70	52.16	52.60	52.50	53.26
31	53.65	---	52.81	53.61	---	54.64	---	52.66	---	52.60	52.51	---
MEAN	52.62	54.24	54.41	55.52	53.75	53.33	53.71	52.98	52.38	52.65	52.50	52.69
MAX	53.67	56.86	57.48	57.90	55.89	54.67	54.42	53.38	52.74	53.53	53.62	53.87
MIN	51.87	53.24	52.35	52.20	52.73	52.78	52.91	52.66	52.16	52.05	52.15	52.05

07062050 CLEARWATER LAKE TAILWATER NEAR PIEDMONT, MO—Continued



07063000 BLACK RIVER AT POPLAR BLUFF, MO

LOCATION.--Lat 36°45'34", long 90°23'17", in SW ¼ NW ¼ sec.2, T.24 N., R.6 E., Butler County, Hydrologic Unit 11010007, on right bank at City Light and Water Plant in Poplar Bluff, 1,500 ft upstream from bridge on Business Route 60, 4.8 mi downstream from Indian Creek, and at mile 211.2.

DRAINAGE AREA.--1,245 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1936 to September 1937, October 1939 to current year. Gage-height records collected at site 1,800 ft downstream September 1923 to July 1935 and since July 1935 at site 1,500 ft downstream, in reports of the National Weather Service.

REVISED RECORDS.--WSP 927: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 317.48 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1940, nonrecording gage at site 1,500 ft downstream at datum 2.00 ft higher; Oct. 1, 1940, to June 7, 1955, at site 1,500 ft downstream at present datum. Prior to July 12, 1985, at datum 0.10 ft lower.

REMARKS.--No estimated daily discharges. Records good. Considerable regulation by Clearwater Lake (07062000), 46 mi upstream since June 3, 1948. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1904 reached a maximum discharge of 100,000 ft<sup>3</sup>/s, and flood of Mar. 12, 1935, reached a stage of 21.1 ft, present datum (affected by levees constructed since 1904).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	420	995	3,360	872	1,090	1,100	1,500	969	573	398	497	473
2	423	1,280	3,200	941	923	1,110	1,250	908	548	366	482	460
3	418	1,220	3,640	1,230	917	1,100	1,190	877	522	354	417	420
4	418	1,330	3,500	1,410	951	1,090	1,160	858	510	366	396	401
5	413	1,800	3,220	1,620	1,030	1,040	1,160	878	505	370	385	393
6	411	1,540	3,300	2,650	1,030	961	1,240	915	495	371	387	390
7	409	1,120	3,440	2,750	1,100	945	1,270	881	485	419	388	389
8	413	1,030	3,370	3,400	1,140	939	1,190	820	491	426	382	387
9	411	1,140	2,850	3,780	1,080	920	1,030	811	567	416	375	381
10	352	1,080	2,960	3,750	1,040	876	952	801	525	364	370	354
11	353	989	2,890	3,730	1,030	797	968	789	567	380	367	341
12	392	1,220	2,080	3,860	1,060	803	1,260	777	569	645	364	336
13	440	1,140	1,880	4,470	1,230	840	1,270	770	562	819	361	333
14	647	1,030	1,720	4,160	1,400	833	1,260	827	545	684	363	349
15	716	988	1,580	3,100	1,510	808	1,230	911	487	786	388	395
16	645	1,390	1,350	3,940	1,780	769	1,200	816	469	777	391	424
17	419	2,250	957	4,050	1,830	760	1,180	784	447	653	396	439
18	365	2,650	948	3,970	2,050	751	1,160	776	434	616	462	634
19	348	2,290	1,080	3,920	1,940	745	1,110	786	429	620	663	706
20	430	1,440	1,070	3,910	1,600	737	1,050	798	420	648	711	743
21	493	1,180	1,060	3,850	1,680	729	1,040	776	425	634	659	829
22	503	1,110	1,110	3,580	1,680	775	931	726	449	638	744	849
23	516	1,190	1,190	3,090	1,430	877	1,090	700	442	683	670	794
24	518	1,370	1,110	2,930	1,210	852	1,350	680	415	707	575	653
25	500	1,440	891	2,620	1,160	892	1,380	670	406	707	549	697
26	506	1,400	818	2,290	1,130	1,080	1,450	657	391	702	547	735
27	566	1,640	795	1,820	1,110	1,300	1,480	628	382	658	596	652
28	666	2,010	812	1,380	1,100	1,630	1,420	612	377	555	524	630
29	832	2,030	899	1,300	---	1,570	1,370	603	377	523	497	647
30	900	2,840	1,060	1,260	---	1,660	1,220	596	380	510	497	708
31	961	---	991	1,210	---	1,780	---	589	---	504	482	---
MEAN	510	1,471	1,907	2,801	1,294	1,002	1,212	774	473	558	480	531
MAX	961	2,840	3,640	4,470	2,050	1,780	1,500	969	573	819	744	849
MIN	348	988	795	872	917	729	931	589	377	354	361	333
IN.	0.47	1.32	1.77	2.59	1.08	0.93	1.09	0.72	0.42	0.52	0.44	0.48

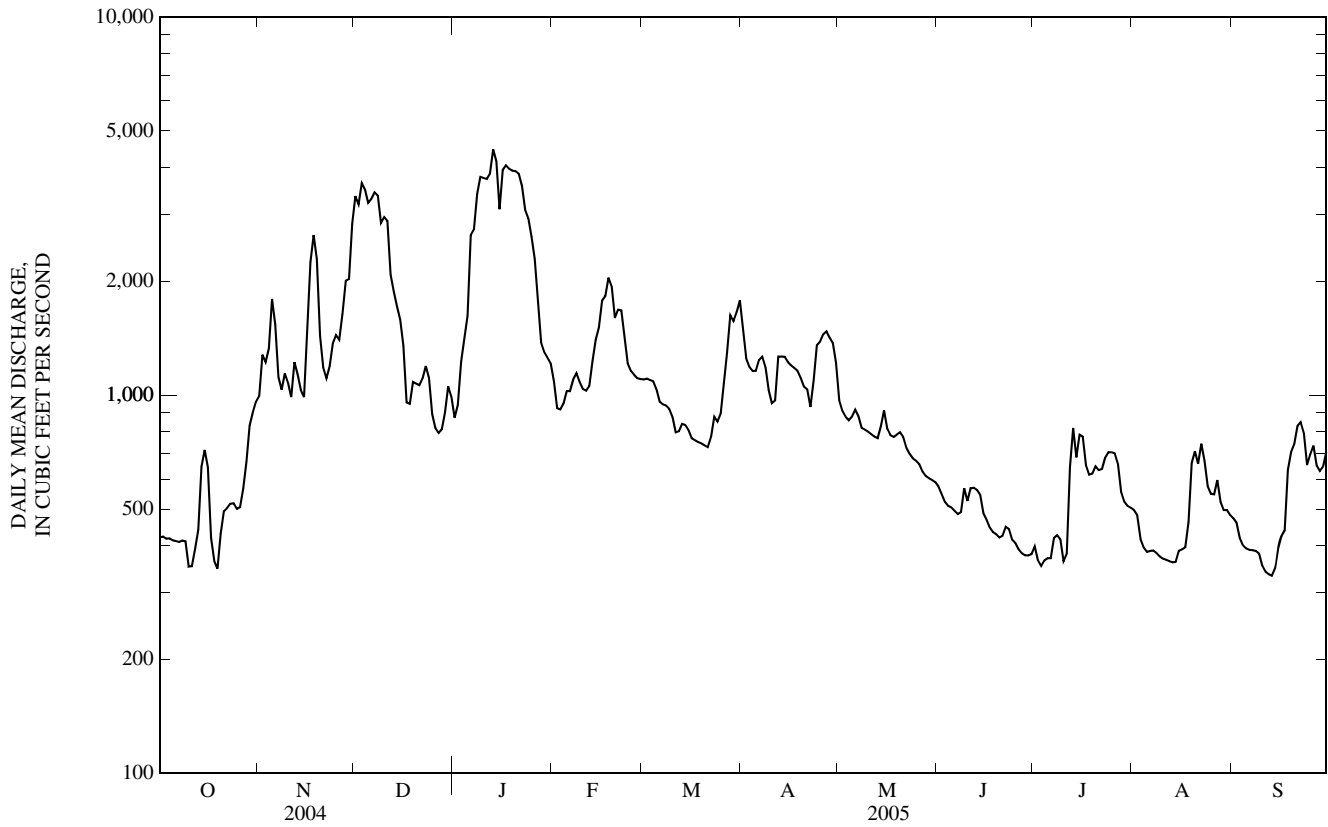
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2005<sup>a</sup>, BY WATER YEAR (WY)

MEAN	654	998	1,538	1,669	1,736	2,107	2,170	1,938	1,299	890	679	640
MAX	1,913	2,962	5,501	3,890	4,938	4,485	4,873	4,407	4,030	3,673	3,232	2,071
(WY)	(1983)	(1973)	(1983)	(1950)	(1949)	(1975)	(1973)	(2002)	(2002)	(2002)	(1957)	(1985)
MIN	259	315	335	309	376	564	676	375	434	321	288	268
(WY)	(1957)	(1954)	(1954)	(1956)	(1963)	(1981)	(2000)	(2001)	(2001)	(1954)	(1954)	(1954)

07063000 BLACK RIVER AT POPLAR BLUFF, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1949 - 2005 <sup>a</sup>	
ANNUAL MEAN	1,277		1,085		1,358	
HIGHEST ANNUAL MEAN					2,858	1985
LOWEST ANNUAL MEAN					564	1954
HIGHEST DAILY MEAN	5,370	Apr 25	4,470	Jan 13	41,200	Dec 4, 1982
LOWEST DAILY MEAN	348	Oct 19	333	Sep 13	186	Sep 25, 1966
ANNUAL SEVEN-DAY MINIMUM	392	Oct 6	354	Sep 8	245	Sep 21, 1966
MAXIMUM PEAK FLOW	---		5,010	Jan 13	65,600	Dec 4, 1982
MAXIMUM PEAK STAGE	---		12.45	Jan 13	21.68 <sup>b</sup>	Dec 4, 1982
INSTANTANEOUS LOW FLOW	---		331	Oct 19, Sep 13, 14	180	Sep 25, 1966
ANNUAL RUNOFF (INCHES)	13.96		11.83		14.82	
10 PERCENT EXCEEDS	2,910		2,150		3,290	
50 PERCENT EXCEEDS	990		820		834	
90 PERCENT EXCEEDS	457		391		386	

<sup>a</sup> Post-regulation period.  
<sup>b</sup> Former datum.





07064533 CURRENT RIVER ABOVE AKERS, MO

LOCATION.--Lat 37°22'32", long 91°33'10", in NE ¼ NW ¼ NW ¼ sec.24, T.31 N., R.6 W., Shannon County, Hydrologic Unit 11010008, on left bank 200 ft above ferry crossing at Akers on Highway K, approximately 20 mi north of Summersville, behind old icehouse behind Akers Ferry General Store.

DRAINAGE AREA.--295 mi<sup>2</sup>.

PERIOD OF RECORD.--July 19, 2001 to current year.

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

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

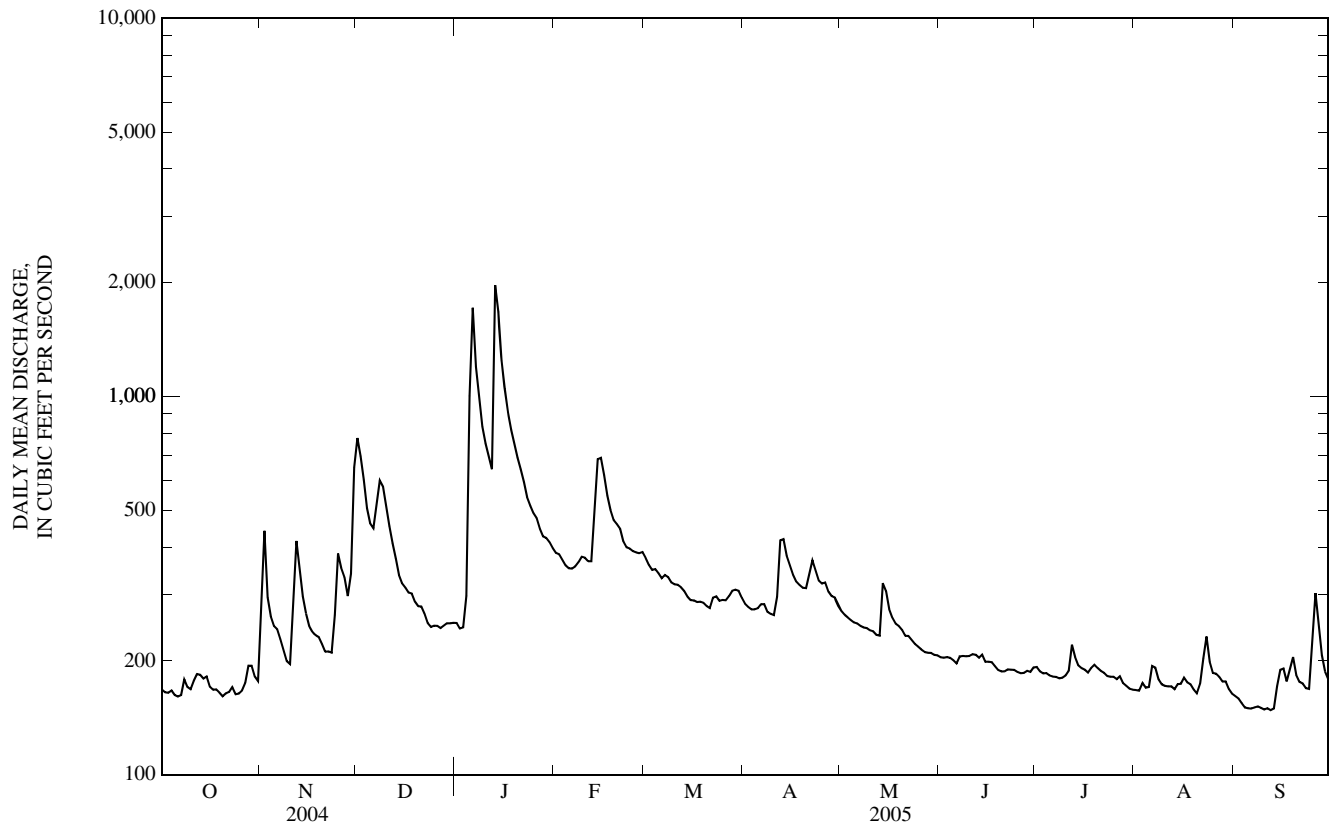
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	168	262	776	252	386	374	283	271	204	193	167	161
2	165	441	695	243	382	359	278	265	204	188	167	159
3	165	294	602	245	370	348	274	260	205	185	175	155
4	167	262	507	297	358	350	274	256	204	186	170	150
5	163	247	462	1,000	351	341	275	253	201	183	171	150
6	161	242	448	1,720	351	331	282	251	197	182	194	150
7	162	228	517	1,200	356	337	283	247	205	181	192	151
8	179	213	600	997	365	333	270	245	206	180	179	152
9	170	200	578	833	377	323	266	244	206	180	173	150
10	168	196	513	751	375	319	264	241	206	183	172	149
11	177	278	454	693	367	318	295	239	208	188	171	150
12	185	415	409	642	367	313	417	234	207	221	171	148
13	184	349	373	1,970	515	306	420	233	204	205	168	149
14	180	296	337	1,670	682	296	379	321	208	195	174	171
15	182	267	320	1,240	688	289	358	306	199	191	174	189
16	171	247	312	1,050	620	289	338	274	199	190	180	191
17	168	238	303	908	547	286	324	260	198	186	175	176
18	168	234	301	817	501	287	318	251	194	192	173	190
19	165	231	287	751	471	285	312	247	189	195	168	205
20	161	222	279	689	460	279	311	242	187	191	164	183
21	164	211	279	642	447	276	338	233	188	188	174	176
22	165	212	266	594	414	294	369	233	190	186	203	174
23	170	210	251	542	399	296	346	227	189	182	232	169
24	163	264	246	514	396	288	326	222	189	182	199	169
25	164	384	248	491	390	290	320	218	187	181	186	226
26	167	352	248	477	387	289	322	214	185	179	185	302
27	175	333	244	447	385	297	305	211	186	182	181	248
28	194	297	248	427	388	306	297	210	188	175	176	207
29	194	340	251	422	---	308	294	210	187	172	176	187
30	182	650	251	412	---	306	282	207	192	169	168	179
31	177	---	252	397	---	293	---	207	---	168	164	---
MEAN	172	287	382	753	432	310	314	243	197	186	178	177
MAX	194	650	776	1,970	688	374	420	321	208	221	232	302
MIN	161	196	244	243	351	276	264	207	185	168	164	148
IN.	0.67	1.09	1.50	2.94	1.53	1.21	1.19	0.95	0.75	0.73	0.70	0.67

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2005, BY WATER YEAR (WY)

MEAN	167	247	310	381	348	466	488	820	299	218	195	177
MAX	205	360	382	753	432	760	783	2,221	478	288	251	218
(WY)	(2003)	(2004)	(2005)	(2005)	(2005)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)	(2002)
MIN	136	142	215	196	272	310	314	243	197	186	166	138
(WY)	(2002)	(2002)	(2003)	(2002)	(2004)	(2005)	(2005)	(2005)	(2005)	(2005)	(2003)	(2001)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2001 - 2005
ANNUAL MEAN	309	302	344
HIGHEST ANNUAL MEAN			518
LOWEST ANNUAL MEAN			247
HIGHEST DAILY MEAN	2,100	Apr 25	12,700
LOWEST DAILY MEAN	155	Sep 22	130
ANNUAL SEVEN-DAY MINIMUM	159	Sep 20	132
MAXIMUM PEAK FLOW	---	2,960	Jan 13
MAXIMUM PEAK STAGE	---	4.95	Jan 13
INSTANTANEOUS LOW FLOW	---	143	Sep 11
ANNUAL RUNOFF (INCHES)	14.27	13.91	15.85
10 PERCENT EXCEEDS	484	483	562
50 PERCENT EXCEEDS	262	245	244
90 PERCENT EXCEEDS	173	168	161



07065200 JACKS FORK NEAR MOUNTAIN VIEW, MO

LOCATION.--Lat 37°03'22", long 91°40'05", in NW ¼ NE ¼ SW ¼ sec.36, T.28 N., R.7 W., Texas County, Hydrologic Unit 11010008, on downstream pier of State Highway 17 bridge, 3.8 mi north of junction with Highway 60 and 8.6 mi south of Summersville.

DRAINAGE AREA.--185 mi<sup>2</sup>.

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

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	870	758	73	100	167	167	78	40	34	22	25
2	29	813	420	73	102	155	154	74	40	34	22	24
3	28	321	293	80	111	147	143	71	39	32	22	22
4	28	314	228	379	115	147	136	68	39	29	21	22
5	28	227	193	2,050	112	149	130	67	37	29	25	22
6	28	173	221	2,010	111	141	139	67	36	27	24	21
7	29	142	627	683	148	140	152	66	36	26	23	21
8	37	117	465	434	244	134	150	65	38	25	23	21
9	57	102	325	319	250	128	142	64	38	25	22	21
10	48	92	253	260	220	126	138	63	36	24	21	22
11	56	276	203	226	192	122	375	61	35	25	27	20
12	110	471	176	205	177	119	1,200	59	39	39	23	19
13	83	263	148	3,170	635	115	496	56	37	40	21	19
14	68	187	131	1,270	729	109	326	71	41	32	21	e24
15	71	149	118	605	438	105	248	74	37	30	22	e40
16	67	128	110	409	330	103	204	64	35	28	22	e110
17	59	113	104	310	268	102	177	60	34	27	24	e82
18	53	105	101	254	233	100	162	58	33	27	31	e70
19	49	103	95	229	208	99	148	56	31	40	27	90
20	46	98	90	207	193	97	134	56	30	36	25	67
21	44	90	89	189	199	95	125	54	30	31	27	49
22	43	85	85	171	188	128	118	52	29	28	61	42
23	70	83	80	147	177	238	108	51	29	28	50	37
24	60	215	77	139	189	211	99	49	28	27	35	34
25	52	381	76	136	190	190	93	47	27	26	31	70
26	49	252	74	132	186	171	99	46	27	27	29	220
27	82	202	73	120	180	203	91	45	27	27	35	115
28	222	173	72	112	183	263	89	44	28	29	31	79
29	186	297	75	112	---	238	89	43	27	26	28	138
30	139	1,240	75	110	---	216	84	42	27	24	26	116
31	116	---	74	105	---	189	---	41	---	22	25	---
MEAN	66.7	269	191	475	229	150	197	58.5	33.7	29.2	27.3	55.4
MAX	222	1,240	758	3,170	729	263	1,200	78	41	40	61	220
MIN	28	83	72	73	100	95	84	41	27	22	21	19
IN.	0.42	1.63	1.19	2.96	1.29	0.93	1.19	0.36	0.20	0.18	0.17	0.33

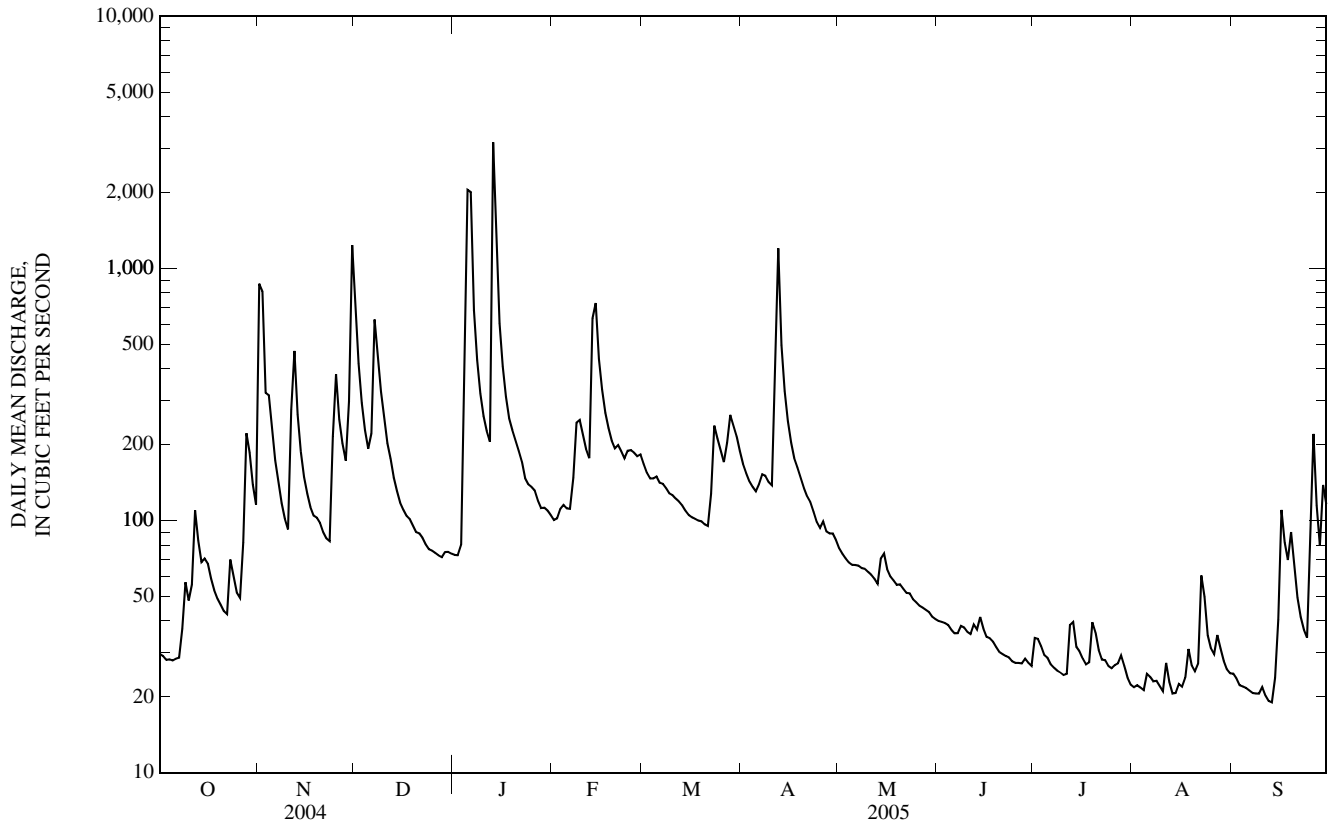
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	46.9	224	212	225	192	311	381	411	86.4	91.3	55.9	75.6
MAX	67.6	566	385	475	229	551	544	939	133	184	105	180
(WY)	(2004)	(2004)	(2004)	(2005)	(2005)	(2002)	(2004)	(2002)	(2003)	(2002)	(2003)	(2003)
MIN	22.9	26.5	82.3	89.5	168	150	197	58.5	33.7	29.2	27.3	29.7
(WY)	(2002)	(2002)	(2003)	(2003)	(2004)	(2005)	(2005)	(2005)	(2005)	(2005)	(2005)	(2004)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 2000 - 2005
ANNUAL MEAN	206	148	193
HIGHEST ANNUAL MEAN			247
LOWEST ANNUAL MEAN			135
HIGHEST DAILY MEAN	7,560	Apr 24	9,400
LOWEST DAILY MEAN	26	Sep 20-23	15
ANNUAL SEVEN-DAY MINIMUM	26	Sep 18	17
MAXIMUM PEAK FLOW	---	5,850	43,600
MAXIMUM PEAK STAGE	---	10.28	27.68
INSTANTANEOUS LOW FLOW	---	19	15
ANNUAL RUNOFF (INCHES)	15.15	10.85	14.15
10 PERCENT EXCEEDS	316	263	334
50 PERCENT EXCEEDS	112	82	80
90 PERCENT EXCEEDS	34	25	28

e Estimated

07065200 JACKS FORK NEAR MOUNTAIN VIEW, MO—Continued



370857091265901 JACKS FORK ABOVE ALLEY SPRING, MO  
(Jacks Fork Water-Quality Monitoring Network)

LOCATION.--Lat 37°08'57", long 91°26'59", in NE¼ SW¼ SW¼ sec.25, T.29 N., R.5 W., Shannon County, Hydrologic Unit 11010008, at Alley Spring Campground, 0.5 mi upstream of Highway 106 bridge, 1.0 mi upstream from Alley Spring Branch, and 5.5 mi west of Eminence.

DRAINAGE AREA.--302 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
OCT 05...	1330	Environmental	45	9.8	105	8.0	353	18.2	<.10	<.04	.06	<.008
JUN 14...	0845	Environmental	75	--e	--e	7.7	350	23.9	E.07n	<.04	.14	<.008
JUL 05...	1315	Environmental	59	8.3	108	7.9	336	27.7	E.07n	<.04	.10	<.008
AUG 09...	1245	Environmental	44	8.3	110	8.1	341	28.2	E.06n	<.04	.07	<.008

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/100 mL (31625)
OCT 05...	<.02	<.004	5k	12k
JUN 14...	<.02	E.003n	E23k	76
JUL 05...	<.02	<.004	E8k	E16k
AUG 09...	<.02	<.004	E46k	88

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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

07065495 JACKS FORK AT ALLEY SPRING, MO

LOCATION.--Lat 37°08'53", long 91°26'35", in SW ¼ SW ¼ SE ¼ sec.25, T.29 N., R.5 W., Shannon County, Hydrologic Unit 11010008, on downstream side of pier on State Highway 106 bridge, 0.5 mi upstream from Alley Spring Branch, and 5.5 mi west of Eminence.

DRAINAGE AREA.--298 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Datum of gage is 656.74 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1999, datum was 4.0 ft lower.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	164	1,220	98	163	216	301	132	78	80	43	44
2	48	1,120	756	98	159	199	281	124	77	69	41	43
3	47	441	531	104	159	189	264	120	77	66	41	42
4	46	318	420	129	162	186	254	117	76	62	40	40
5	45	283	362	1,170	163	184	249	115	74	59	40	38
6	45	220	339	2,650	162	182	256	113	73	56	55	37
7	45	184	486	995	171	178	266	112	72	54	54	37
8	58	158	630	593	228	178	273	112	74	53	45	36
9	70	136	430	432	288	169	267	112	75	51	44	35
10	77	121	339	355	276	165	260	111	83	50	41	34
11	90	145	276	310	252	161	246	109	80	52	40	35
12	108	450	236	284	233	158	924	106	75	74	43	34
13	129	344	210	2,450	341	156	637	102	74	81	42	34
14	115	244	184	2,480	845	150	411	114	74	74	40	42
15	108	197	164	908	560	145	317	117	74	66	40	59
16	103	169	153	594	416	142	269	114	72	60	42	92
17	96	151	145	445	331	139	238	107	70	57	43	113
18	89	138	138	368	287	137	219	103	69	54	47	92
19	82	135	133	330	258	136	206	100	66	69	49	80
20	76	128	125	306	239	135	195	98	63	73	49	95
21	73	122	122	286	238	132	188	96	61	68	52	83
22	70	113	119	263	233	146	180	96	59	60	80	69
23	109	108	113	238	221	223	172	94	59	56	88	61
24	122	131	106	220	220	282	160	92	58	53	100	55
25	104	394	102	214	224	275	150	90	57	51	70	82
26	90	331	99	211	224	269	153	88	55	49	60	151
27	97	262	97	198	221	288	150	86	57	51	64	177
28	230	224	95	186	221	377	144	85	63	52	66	124
29	240	243	94	181	---	388	142	83	59	52	58	102
30	201	1,170	97	177	---	364	139	82	65	50	51	140
31	169	---	97	169	---	334	---	80	---	46	48	---
MEAN	97.7	278	272	563	268	206	264	104	69.0	59.6	52.1	70.2
MAX	240	1,170	1,220	2,650	845	388	924	132	83	81	100	177
MIN	45	108	94	98	159	132	139	80	55	46	40	34
IN.	0.38	1.04	1.05	2.18	0.94	0.80	0.99	0.40	0.26	0.23	0.20	0.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2005, BY WATER YEAR (WY)

MEAN	107	331	217	236	384	423	485	465	167	110	85.8	166
MAX	298	1,426	478	563	976	767	1,121	1,554	381	217	145	1,007
(WY)	(1999)	(1994)	(2004)	(2005)	(1999)	(2002)	(1994)	(2002)	(1995)	(2002)	(1998)	(1993)
MIN	39.3	41.3	76.6	74.5	81.6	159	86.5	93.5	69.0	52.2	31.5	31.2
(WY)	(2002)	(2002)	(2001)	(2000)	(1996)	(2001)	(2000)	(2001)	(2005)	(2001)	(2001)	(2000)

SUMMARY STATISTICS

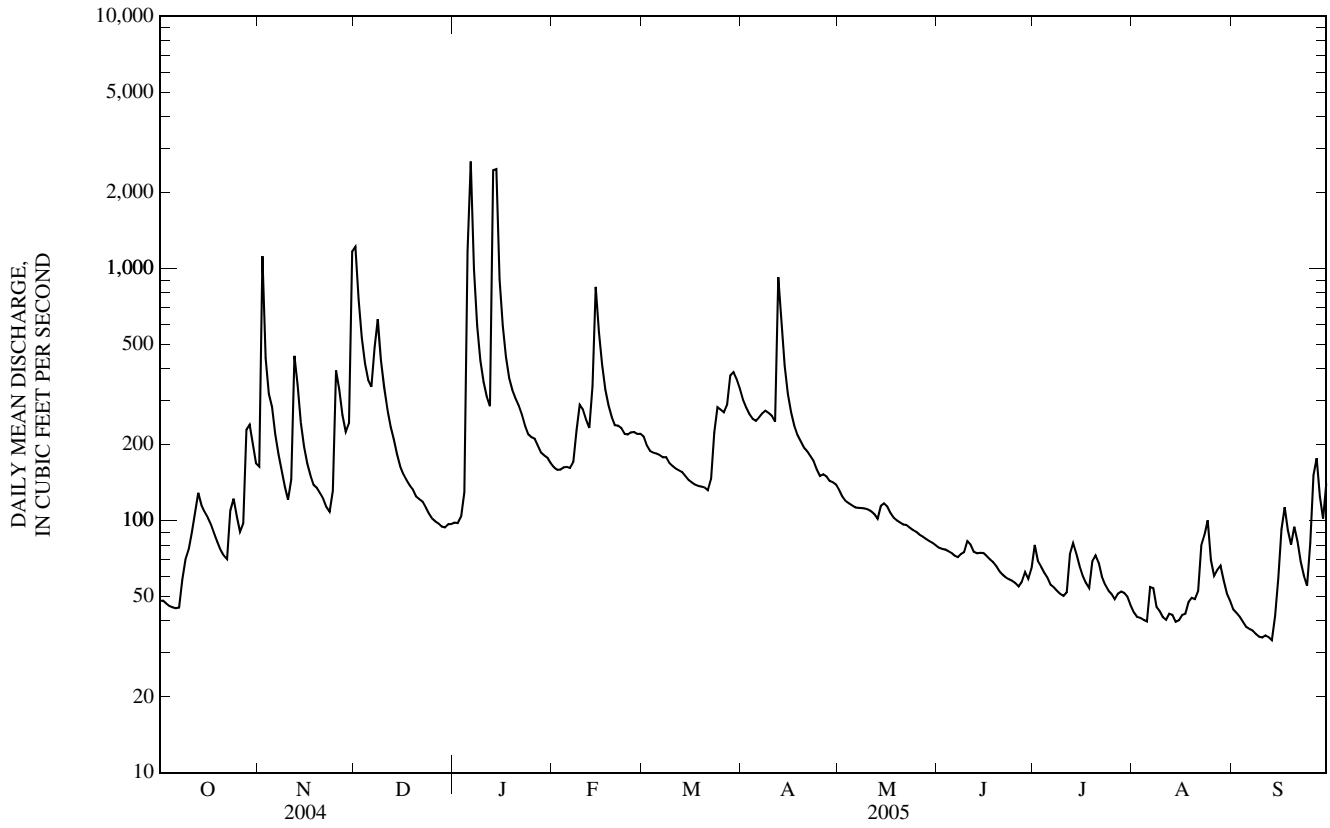
FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

WATER YEARS 1993 - 2005

ANNUAL MEAN	279	191	259
HIGHEST ANNUAL MEAN			469
LOWEST ANNUAL MEAN			95.9
HIGHEST DAILY MEAN	6,730	Apr 25	23,300
LOWEST DAILY MEAN	43	Sep 21-24	22
ANNUAL SEVEN-DAY MINIMUM	44	Sep 19	23
MAXIMUM PEAK FLOW	---	6,340	48,700
MAXIMUM PEAK STAGE	---	8.76	21.97
INSTANTANEOUS LOW FLOW	---	33	22
ANNUAL RUNOFF (INCHES)	12.76	8.72	11.83
10 PERCENT EXCEEDS	403	340	473
50 PERCENT EXCEEDS	164	115	122
90 PERCENT EXCEEDS	59	48	51

07065495 JACKS FORK AT ALLEY SPRING, MO—Continued



WHITE RIVER BASIN

370901091262001 ALLEY SPRING BELOW ALLEY, MO  
(Jacks Fork Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°09'20", long 91°26'20", in NE ¼ SW ¼ SE ¼ sec. 25, T.29 N., R.5 W., Shannon County, Hydrologic Unit 11010008, at Alley Spring Campground, 5.0 mi west of Eminence.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
OCT 05...	1430	Environmental	85	9.4	94	7.7	325	14.5	<.10	<.04	.65	<.008
JUN 14...	0930	Environmental	100	--e	--e	7.2	315	14.3	<.10	<.04	.67	<.008
JUL 05...	1400	Environmental	94	10.4	105	7.3	313	14.9	<.10	<.04	.66	<.008
AUG 09...	1315	Environmental	88	10.4	106	7.8	319	15.0	<.10	<.04	.62	<.008

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/100 mL (31625)
OCT 05...	E.01n	.010	4k	8k
JUN 14...	<.02	.011	12k	18k
JUL 05...	<.02	.010	12k	22k
AUG 09...	<.02	.009	29k	23k

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

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



07066000 JACKS FORK AT EMINENCE, MO

LOCATION.--Lat 37°09'15", long 91°21'29", in SW 1/4 NW 1/4 sec.26, T.29 N., R.4 W., Shannon County, Hydrologic Unit 11010008, on right downstream bridge abutment on State Highway 19, 1.5 mi downstream from Mahans Creek, and 8.0 mi upstream from mouth.

DRAINAGE AREA.--398 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 787: 1928(M), 1934. WSP 877: 1938. WSP 927: Drainage area. WSP 1281: 1929. WDR MO-85-1: 1935(M), 1943(M), 1949(M), 1950(M), 1956(M), 1966(M), 1969(M), 1974(M), 1983(M).

GAGE.--Water-stage recorder. Datum of gage is 615.87 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1995, datum of gage 2 ft higher. Prior to Jan. 27, 1934, nonrecording gage at site 1,350 ft upstream at datum 2.11 ft higher; Jan. 27, 1934, to Jan. 10, 1935, nonrecording gage at site 75 ft downstream at datum 0.04 ft lower; Jan. 11, 1935, to July 9, 1964, nonrecording gage at site 50 ft downstream at present datum.

REMARKS.--Water-discharge records good except for the period July 18 to Aug. 9, which is poor. National Weather Service gage-height and U.S.G.S. satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of 1895 and March 1904 reached a stage of about 27 ft, present site and datum, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

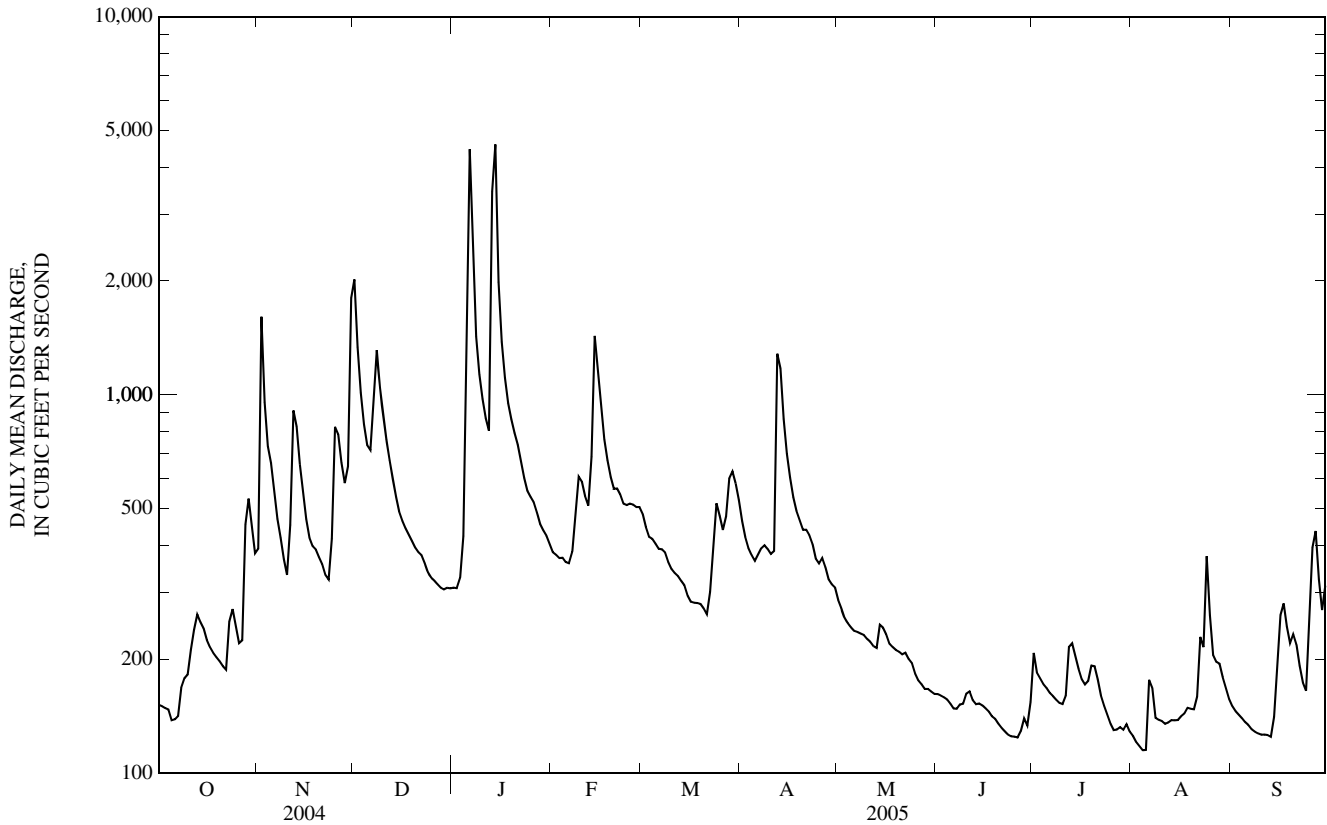
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	392	2,020	309	383	484	465	287	162	208	125	150
2	150	1,610	1,340	308	377	447	421	272	160	184	121	146
3	148	956	1,010	328	370	421	393	257	159	178	118	143
4	147	732	835	423	371	416	377	249	156	172	115	140
5	138	660	736	1,810	361	404	364	243	153	168	115	136
6	139	550	714	4,460	359	392	378	238	148	163	176	134
7	142	470	985	2,220	385	391	393	236	148	160	168	130
8	168	418	1,310	1,430	485	383	400	234	152	156	140	129
9	178	368	1,040	1,130	608	361	391	232	153	153	138	127
10	182	334	886	975	589	346	380	226	162	152	137	126
11	212	453	762	868	540	338	386	222	164	160	135	126
12	239	909	671	804	510	332	1,280	217	156	215	136	126
13	263	824	604	3,450	686	322	1,170	214	152	220	138	125
14	251	656	539	4,590	1,430	313	863	247	153	204	138	141
15	241	549	491	1,990	1,120	294	699	242	151	189	138	185
16	225	469	465	1,380	913	284	604	233	148	177	141	262
17	215	419	444	1,110	763	282	537	220	145	171	144	281
18	208	398	427	951	671	282	493	215	141	175	149	244
19	202	390	411	861	607	280	465	212	139	192	148	220
20	197	372	395	793	564	272	440	209	135	192	147	233
21	192	357	384	738	565	263	440	206	132	177	159	219
22	188	334	377	670	545	301	425	208	129	160	229	192
23	251	325	359	603	515	407	403	200	126	151	215	174
24	271	417	339	558	511	517	369	195	125	143	375	165
25	244	823	329	538	516	479	358	183	125	135	261	265
26	220	787	323	520	512	439	370	176	124	130	205	395
27	224	662	315	489	505	477	350	172	129	130	197	436
28	454	584	309	455	505	601	325	167	140	132	195	325
29	531	647	306	438	---	627	316	167	134	130	179	270
30	454	1,800	309	424	---	583	309	164	154	135	168	313
31	381	---	308	403	---	527	---	162	---	129	157	---
MEAN	232	622	637	1,162	581	396	485	216	145	166	165	202
MAX	531	1,800	2,020	4,590	1,430	627	1,280	287	164	220	375	436
MIN	138	325	306	308	359	263	309	162	124	129	115	125
IN.	0.67	1.74	1.85	3.37	1.52	1.15	1.36	0.63	0.41	0.48	0.48	0.57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2005, BY WATER YEAR (WY)

MEAN	225	421	453	476	559	714	839	746	454	258	206	209
MAX	1,092	2,057	2,462	2,065	1,906	1,944	2,920	2,541	2,745	1,682	984	1,439
(WY)	(1985)	(1994)	(1983)	(1949)	(1985)	(1945)	(1927)	(2002)	(1928)	(1951)	(1927)	(1993)
MIN	76.5	98.1	96.9	89.8	120	139	200	129	109	84.8	82.6	73.1
(WY)	(1957)	(1955)	(1956)	(1956)	(1934)	(1956)	(2000)	(1936)	(1936)	(1934)	(1954)	(1956)

07066000 JACKS FORK AT EMINENCE, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1922 - 2005	
ANNUAL MEAN	533		417		462	
HIGHEST ANNUAL MEAN					1,072	1985
LOWEST ANNUAL MEAN					154	1954
HIGHEST DAILY MEAN	10,200	Apr 25	4,590	Jan 14	31,800	Nov 15, 1993
LOWEST DAILY MEAN	138	Oct 5	115	Aug 4,5	67	Sep 16, 1956
ANNUAL SEVEN-DAY MINIMUM	145	Oct 1	123	Jul 30	70	Sep 16, 1956
MAXIMUM PEAK FLOW	---		7,620	Jan 14	58,500	Nov 15, 1993
MAXIMUM PEAK STAGE	---		9.10	Jan 14	17.82	Nov 15, 1993
INSTANTANEOUS LOW FLOW	---		114	Aug 4,5	64	Aug 28, 1936
ANNUAL RUNOFF (INCHES)	18.23		14.22		15.77	
10 PERCENT EXCEEDS	823		789		885	
50 PERCENT EXCEEDS	365		301		246	
90 PERCENT EXCEEDS	168		138		124	



07066000 JACKS FORK AT EMINENCE, MO—Continued  
(Jacks Fork Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	Time	Sample type	Instantaneous discharge, cfs (00061)	Dissolved oxygen, mg/L (00300)	Dissolved oxygen, percent of saturation (00301)	pH, water, unfltrd std units (00400)	Specific conductance, wat unfltrd μS/cm 25 degC (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
OCT 05...	0820	Environmental	135	8.3	81	7.6	338	13.7	<.10	<.04	.38	<.008
JUN 14...	1050	Environmental	156	--e	--e	7.6	337	20.0	<.10	<.04	.36	<.008
JUL 05...	1450	Environmental	164	10.3	123	7.8	328	22.8	E.06n	<.04	.32	<.008
AUG 09...	1440	Environmental	138	10.2	123	8.1	336	23.1	.14	<.04	.31	<.008

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 0.7μ MF col/100 mL (31625)
OCT 05...	<.02	E.004n	35	34
JUN 14...	<.02	.005	210	230k
JUL 05...	<.02	.005	<2b	10k
AUG 09...	<.02	.005	18k	9k

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

Value qualifier codes used in this table:

- b -- Value extrapolated at low end
- 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

370905091204001 JACKS FORK ABOVE 2ND UNNAMED HOLLOW (SOUTH) BELOW EMINENCE, MO  
(Jacks Fork Water-Quality Monitoring Network)

LOCATION.--Lat 37°09'05", long 91°20'40", in SW 1/4 NW 1/4 SW 1/4 sec.25, T.29 N., R4 W., Shannon County, Hydrologic Unit 11010008, at Jacks Fork Campground, 0.9 mi downstream of Eminence.

DRAINAGE AREA.--406 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
OCT 05...	0915	Environmental	135	8.3	82	7.6	339	13.9	<.10	<.04	.38	<.008
JUN 14...	1120	Environmental	156	--e	--e	7.7	340	20.7	E.08n	<.04	.37	<.008
JUL 06...	0815	Environmental	164	7.2	80	7.5	329	19.7	E.06n	<.04	.37	<.008
AUG 10...	0800	Environmental	138	7.0	79	--e	342	20.6	.11	<.04	.35	<.008

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 0.7μ MF col/100 mL (31625)
OCT 05...	<.02	.006	27k	28k
JUN 14...	<.02	.008	18k	78
JUL 06...	<.02	.005	18k	56
AUG 10...	<.02	.006	84	100

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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

371014091201301 JACKS FORK ABOVE LICK LOG HOLLOW BELOW EMINENCE, MO  
(Jacks Fork Water-Quality Monitoring Network)

LOCATION.--Lat 37°10'14", long 91°20'13", in SE ¼ SE ¼ NW ¼ sec.24, T.29 N., R.4 W., Shannon County, Hydrologic Unit 11010008, 2.4 mi downstream from Eminence.

DRAINAGE AREA.--409 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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 μS/cm (00095)	Temperature, water, deg C (00010)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho-phosphate, water, fltrd, mg/L as P (00671)
OCT													
05...	0945	Environmental	151	8.4	83	8.0	345	14.3	E.05n	<.04	.35	<.008	<.02
05...	1615	Environmental	151	10.7	112	7.9	343	16.7	--	--	--	--	--
JUN													
15...	1030	Environmental	179	--e	--e	7.8	343	20.3	E.09n	<.04	.37	<.008	<.02
15...	1045	Blank	--	--	--	--	--	--	<.10	<.04	<.06	<.008	<.02
JUL													
06...	1245	Environmental	164	9.3	108	7.8	339	21.9	E.09n	<.04	.35	<.008	<.02
AUG													
10...	1345	Environmental	144	9.2	112	8.0	326	23.8	E.10n	<.04	.33	<.008	<.02

Date	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)
OCT			
05...	.004	42	58
05...	--	20k	64
JUN			
15...	.011	150	290k
15...	<.004	--	--
JUL			
06...	.008	8k	29k
AUG			
10...	.012	150	450

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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



## 07066110 JACKS FORK ABOVE TWO RIVERS, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 22...	<.08	4.98	1.4	<.01	<.4	<.6	E1n
JAN 25...	--	--	--	--	--	--	--
MAR 15...	--	--	--	--	--	--	--
MAY 19...	<.08	<.06	3.4	<.01	<.4	.6	<2
JUL 18...	--	--	--	--	--	--	--
SEP 01...	--	--	--	--	--	--	--

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

## Value qualifier codes used in this table:

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

## Null value qualifier codes used in this table:

u -- Unable to determine-matrix interference

371026091183301 JACKS FORK ABOVE POWELL SPRING ABOVE TWO RIVERS, MO  
(Jacks Fork Water-Quality Monitoring Network)

LOCATION.--Lat 37°10'26", long 91°18'33", in SW 1/4 NE 1/4 NE 1/4 sec.19, T.29 N., R.3 W., Shannon County, Hydrologic Unit 11010008, 3.1 mi upstream from Two Rivers.

DRAINAGE AREA.--412 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
OCT												
05...	1030	Environmental	151	8.8	88	8.2	347	14.6	<.10	<.04	.31	<.008
05...	1031	Replicate	--	--	--	--	--	--	<.10	<.04	.30	<.008
05...	1645	Environmental	151	11.4	120	8.4	343	17.2	--	--	--	--
JUN												
15...	1130	Environmental	179	--e	--e	8.1	346	21.6	E.08n	<.04	.34	<.008
JUL												
06...	1325	Environmental	164	9.8	120	8.0	340	24.5	E.09n	<.04	.30	<.008
AUG												
10...	1545	Environmental	144	9.9	124	8.1	327	25.2	.11	<.04	.29	<.008

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	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)
OCT				
05...	<.02	E.004n	19k	70k
05...	<.02	E.004n	--	--
05...	--	--	12k	28k
JUN				
15...	<.02	.007	6k	54
JUL				
06...	<.02	.007	2k	11k
AUG				
10...	<.02	.008	86	200k

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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



371019091180101 SHAWNEE CREEK ABOVE TWO RIVERS, MO  
(Jacks Fork Water-Quality Monitoring Network)

LOCATION.--Lat 37°10'19", long 91°18'01", in SW 1/4 NE 1/4 NW 1/4 sec.20, T.29 N., R.3 W., Shannon County, Hydrologic Unit 11010008, at Shawnee Creek Campground and 2.4 mi upstream from Two Rivers.

DRAINAGE AREA.--20 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
OCT												
05...	1020	Blank	--	--	--	--	--	--	<.10	<.04	<.06	<.008
05...	1035	Environmental	3.6	7.6	75	7.9	526	13.9	<.10	<.04	.14	<.008
JUN												
14...	1410	Environmental	4.8	--e	--e	7.8	520	25.0	E.08n	<.04	.20	<.008
JUL												
06...	0845	Environmental	3.6	6.6	76	7.7	504	21.5	E.07n	<.04	.18	<.008
AUG												
10...	0850	Environmental	3.3	6.3	75	7.8	511	23.2	E.07n	<.04	.16	<.008

Date	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coliform, M-FC 0.7u MF col/ 100 mL (31625)
OCT				
05...	<.02	<.004	--	--
05...	<.02	.009	63	84
JUN				
14...	<.02	.009	58	130k
JUL				
06...	<.02	.007	27k	29k
AUG				
10...	<.02	.006	92	130

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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

## WHITE RIVER BASIN

371020091174101 JACKS FORK ABOVE LITTLE SHAWNEE CREEK ABOVE TWO RIVERS, MO  
(Jacks Fork Water-Quality Monitoring Network)

LOCATION.--Lat 37°10'20", long 91°17'41", in SW ¼ NW ¼ NE ¼ sec.20, T.29 N., R.3 W., Shannon County, Hydrologic Unit 11010008, just below Shawnee Creek Campground and 2.2 mi upstream from Two Rivers.

DRAINAGE AREA.--433 mi<sup>2</sup>.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
OCT 05...	1115	Environmental	146	8.3	84	7.8	344	14.9	E.06n	<.04	.30	<.008
JUN 14...	1530	Environmental	186	--e	--e	8.0	345	24.5	.10	<.04	.33	<.008
JUL 06...	0930	Environmental	120	7.5	88	7.7	338	21.9	E.08n	<.04	.31	<.008
AUG 10...	0920	Environmental	149	6.8	81	7.9	350	23.1	E.10n	<.04	.30	<.008
AUG 10...	1000	Blank	--	--	--	--	--	--	E.06n	<.04	<.06	<.008

Date	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 0.7µ MF col/100 mL (31625)
OCT 05...	<.02	.006	16k	28k
JUN 14...	<.02	.008	5k	32k
JUL 06...	<.02	.007	6k	29k
AUG 10...	<.02	.007	120	240
AUG 10...	<.02	<.004	--	--

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

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

371054091173501 JACKS FORK BELOW 3RD UNNAMED HOLLOW (NORTH) ABOVE TWO RIVERS, MO  
(Jacks Fork Water-Quality Monitoring Network)

LOCATION.--Lat 37°10'54", long 91°17'35", in NE ¼ NW ¼ SE ¼ sec.17, T.29 N., R.3 W., Shannon County, Hydrologic Unit 11010008, 1.4 mi upstream from Two Rivers.

DRAINAGE AREA.--444 mi<sup>2</sup>.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
OCT 05...	1350	Environmental	146	10.2	104	7.8	356	15.8	<.10	<.04	.29	<.008
JUN 14...	1715	Environmental	186	--e	--e	8.0	350	24.7	E.10n	<.04	.31	<.008
JUL 06...	1050	Environmental	120	8.1	95	7.7	341	22.4	E.08n	<.04	.30	<.008
AUG 10...	1050	Environmental	149	7.5	90	7.8	354	23.5	E.09n	<.04	.28	<.008

Date	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 0.7µMF col/100 mL (31625)
OCT 05...	<.02	E.004n	4k	14k
JUN 14...	<.02	.007	E4k	E25k
JUL 06...	<.02	.007	E5k	E12k
AUG 10...	<.02	.007	46	130

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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

## 07067000 CURRENT RIVER AT VAN BUREN, MO

LOCATION.--Lat 36°59'29", long 91°00'49", in NE ¼ NW ¼ sec.25, T.27 N., R.1 W., Carter County, Hydrologic Unit 11010008, near right bank on downstream side of bridge pier on U.S. Highway 60 in Van Buren, 0.4 mi downstream from Pike Creek, 4.7 mi upstream from Big Creek, and at mile 90.4.

DRAINAGE AREA.--1,667 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1912 to current year. Prior to July 1921 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 877: 1938. WSP 897: 1939. WSP 927: Drainage area. WSP 1281: 1929.

GAGE.--Water-stage recorder. Datum of gage is 442.78 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 1, 1926, nonrecording gage at site 100 ft downstream at datum 3.00 ft higher; Sept. 1, 1926, to Oct. 19, 1934, nonrecording gage and Oct. 20, 1934, to Sept. 30, 1939, water-stage recorder, at present site and datum 3.00 ft higher.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 26, 1904, reached a stage of 29.0 ft, present datum, from floodmarks.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	713	1,190	6,570	1,190	1,670	1,800	1,780	1,500	962	911	752	784
2	726	2,290	5,620	1,210	1,640	1,730	1,650	1,430	956	925	745	770
3	718	3,480	4,210	1,270	1,620	1,660	1,560	1,380	956	893	737	763
4	712	2,380	3,300	1,420	1,570	1,610	1,500	1,340	953	894	730	756
5	713	2,010	2,840	2,660	1,520	1,570	1,450	1,310	947	894	728	744
6	712	1,770	2,750	9,430	1,500	1,510	1,460	1,270	931	880	758	737
7	713	1,560	3,100	9,300	1,590	1,490	1,490	1,250	922	864	926	730
8	773	1,390	4,130	6,370	1,690	1,460	1,470	1,230	945	856	854	728
9	886	1,270	3,900	4,930	1,880	1,430	1,430	1,230	971	850	792	722
10	837	1,180	3,330	3,920	1,960	1,380	1,400	1,220	957	836	767	721
11	845	1,600	2,890	3,380	1,890	1,340	1,420	1,200	1,000	852	755	715
12	1,020	2,770	2,570	3,050	1,830	1,330	1,690	1,160	991	1,050	744	711
13	974	3,080	2,330	8,860	2,260	1,300	3,140	1,130	972	1,200	740	710
14	969	2,430	2,120	14,700	3,960	1,270	2,710	1,400	947	983	746	749
15	988	2,010	1,940	8,990	4,450	1,220	2,340	1,430	934	905	781	882
16	958	1,750	1,820	6,760	3,730	1,180	2,120	1,380	917	862	804	1,050
17	902	1,570	1,730	5,580	3,150	1,160	1,970	1,270	914	841	792	980
18	869	1,470	1,650	4,560	2,760	1,140	1,860	1,210	908	830	796	950
19	849	1,560	1,580	3,900	2,490	1,130	1,790	1,180	898	855	778	926
20	834	1,530	1,520	3,510	2,320	1,120	1,740	1,150	884	860	772	923
21	823	1,440	1,470	3,210	2,290	1,090	1,940	1,110	874	850	789	895
22	811	1,350	1,450	2,940	2,200	1,250	2,140	1,110	867	825	993	852
23	920	1,290	1,390	2,660	2,070	1,530	2,110	1,110	861	814	989	815
24	1,080	1,670	1,330	2,450	2,010	1,630	1,940	1,080	853	797	1,040	792
25	1,020	2,800	1,280	2,320	1,960	1,650	1,800	1,040	853	786	1,050	926
26	945	2,970	1,260	2,230	1,920	1,580	1,820	1,010	850	777	986	1,320
27	921	2,560	1,240	2,110	1,870	1,930	1,750	991	857	778	918	1,360
28	972	2,250	1,210	1,980	1,840	2,140	1,670	977	862	792	885	1,200
29	1,300	2,200	1,200	1,900	---	2,170	1,620	965	854	777	855	1,040
30	1,360	4,470	1,200	1,830	---	2,080	1,570	964	856	767	829	949
31	1,220	---	1,190	1,750	---	1,930	---	972	---	759	803	---
MEAN	906	2,043	2,391	4,205	2,201	1,510	1,811	1,194	915	863	827	873
MAX	1,360	4,470	6,570	14,700	4,450	2,170	3,140	1,500	1,000	1,200	1,050	1,360
MIN	712	1,180	1,190	1,190	1,500	1,090	1,400	964	850	759	728	710
IN.	0.63	1.37	1.65	2.91	1.38	1.04	1.21	0.83	0.61	0.60	0.57	0.58

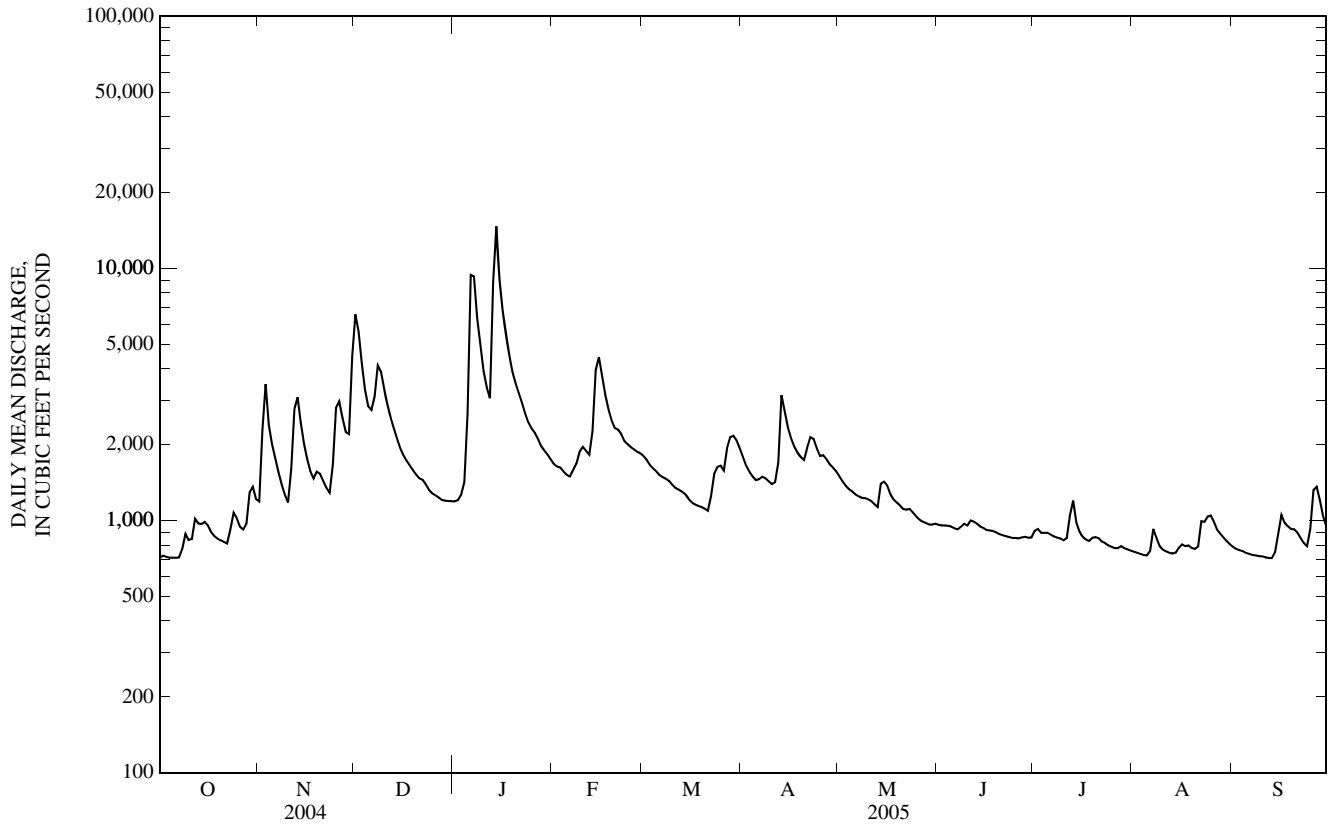
STATISTICS OF MONTHLY MEAN DATA FOR PERIOD OF RECORD, BY WATER YEAR (WY)

MEAN	1,082	1,724	1,911	2,014	2,251	2,813	3,382	3,091	2,085	1,310	1,083	1,023
MAX	4,087	7,171	10,740	7,357	6,764	7,148	11,730	11,150	9,761	6,465	3,581	3,860
(WY)	(1985)	(1994)	(1983)	(1950)	(1985)	(1945)	(1927)	(2002)	(1928)	(1951)	(1927)	(1993)
MIN	492	573	535	538	658	778	805	679	628	575	532	495
(WY)	(1957)	(1955)	(1956)	(1956)	(1934)	(1941)	(1956)	(1936)	(1936)	(1936)	(1954)	(1956)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	1,934	1,643	1,977
HIGHEST ANNUAL MEAN			4,811
LOWEST ANNUAL MEAN			799
HIGHEST DAILY MEAN	22,700	Apr 25	14,700
LOWEST DAILY MEAN	704	Sep 23	710
ANNUAL SEVEN-DAY MINIMUM	711	Sep 19	715
MAXIMUM PEAK FLOW	---		16,300
MAXIMUM PEAK STAGE	---		10.11
INSTANTANEOUS LOW FLOW	---		703
ANNUAL RUNOFF (INCHES)	15.80		13.38
10 PERCENT EXCEEDS	2,950		2,820
50 PERCENT EXCEEDS	1,550		1,230
90 PERCENT EXCEEDS	784		777

07067000 CURRENT RIVER AT VAN BUREN, MO—Continued



## 07067500 BIG SPRING NEAR VAN BUREN, MO

LOCATION.--Lat 36°57'03", long 90°59'31", in SW ¼ NE ¼ sec.6, T.26 N., R.1 E., Carter County, Hydrologic Unit 11010008, on bridge 600 ft downstream from spring outlet, 0.4 mi upstream from Current River, and 3.5 mi southeast of Van Buren.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1996, Feb. 8, 2000 to current year. Prior to Oct. 1, 1923, published as "near Chicopee". Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1311: 1922-23, 1928(M), 1929.

GAGE.--Water-stage recorder. Datum of gage is 429.08 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 19, 1971, nonrecording gage; prior to Oct. 1, 1934, at datum 1.0 ft higher. Water-stage recorder Feb. 19, 1971 to March 15, 1978, at present datum; March 1978 to September 1996, nonrecording gage.

REMARKS.--Water-discharge records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	320	313	e486	412	501	475	532	506	427	407	379	346
2	320	344	e491	415	497	472	526	503	428	407	377	344
3	320	421	e493	431	492	469	522	499	428	408	377	343
4	321	347	e487	456	484	466	518	493	427	406	375	343
5	321	330	468	e508	478	464	517	487	426	408	375	342
6	321	323	467	e574	475	461	518	485	426	408	374	340
7	320	318	505	e622	476	464	519	483	426	407	375	339
8	320	314	e506	e674	480	462	518	480	427	405	373	339
9	320	311	e499	e663	484	460	515	477	425	404	372	338
10	318	309	e492	e640	483	460	515	472	422	403	370	338
11	319	325	e479	626	477	458	517	470	425	406	370	336
12	321	372	465	593	475	459	532	467	423	415	369	337
13	319	392	445	e640	502	457	579	465	416	420	369	336
14	317	353	430	e822	e565	456	562	471	414	408	366	335
15	317	335	420	e923	e598	454	545	475	413	403	365	334
16	313	327	414	e854	e593	455	536	472	412	400	364	335
17	310	322	409	e745	e555	455	530	467	411	399	363	334
18	311	321	407	e696	535	454	526	461	410	398	365	332
19	308	325	405	e670	517	453	524	456	410	396	361	331
20	309	325	404	e656	509	451	521	454	409	395	360	326
21	309	323	403	654	505	452	523	448	408	394	359	324
22	308	321	402	624	501	463	529	442	406	393	363	320
23	311	320	402	595	496	492	525	440	405	390	363	318
24	313	345	399	576	492	492	518	436	406	389	360	317
25	312	399	401	561	487	490	517	434	406	387	357	318
26	311	406	401	550	483	485	520	432	406	386	355	323
27	310	382	400	539	480	534	518	432	403	385	352	319
28	311	370	403	527	480	566	515	432	403	385	351	317
29	311	374	405	520	---	559	514	430	404	382	348	315
30	312	e480	407	514	---	552	513	428	406	381	348	310
31	310	---	410	507	---	539	---	427	---	380	347	---
MEAN	315	348	439	606	504	478	525	462	415	399	365	331
MAX	321	480	506	923	598	566	579	506	428	420	379	346
MIN	308	309	399	412	475	451	513	427	403	380	347	310

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

MEAN	344	388	415	441	462	519	573	562	484	415	377	352
MAX	599	769	1,070	828	823	836	902	944	950	772	702	525
(WY)	(1950)	(1986)	(1983)	(1937)	(1949)	(1945)	(1973)	(1957)	(1927)	(1928)	(1927)	(1927)
MIN	243	248	252	247	279	279	279	261	253	249	252	250
(WY)	(1957)	(1957)	(1956)	(1956)	(1977)	(1936)	(1936)	(1936)	(1936)	(1936)	(1936)	(1956)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

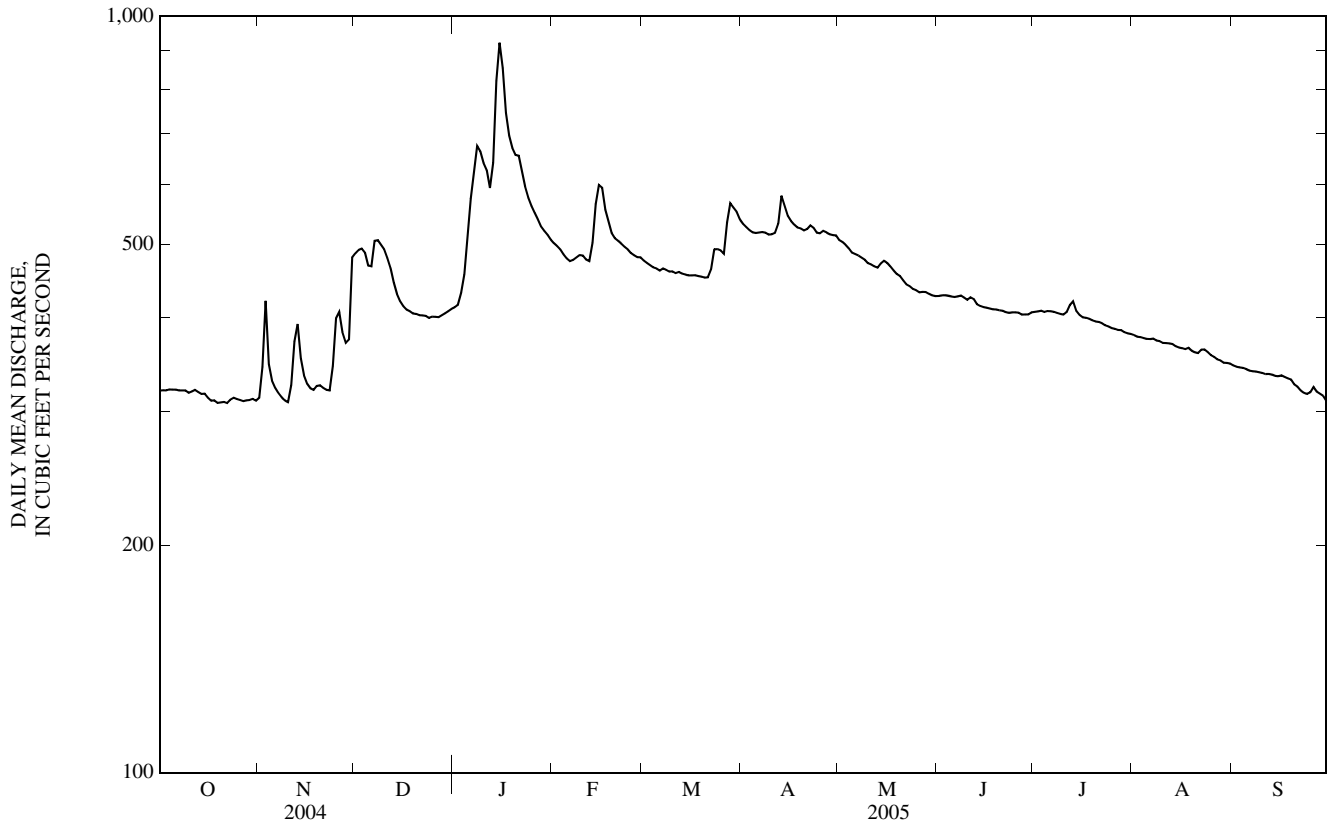
## FOR 2005 WATER YEAR

## FOR PERIOD OF RECORD

ANNUAL MEAN	447	432	445
HIGHEST ANNUAL MEAN			648
LOWEST ANNUAL MEAN			289
HIGHEST DAILY MEAN	925	Apr 26	2,000
LOWEST DAILY MEAN	308	Oct 19,22	236
ANNUAL SEVEN-DAY MINIMUM	309	Oct 17	238
10 PERCENT EXCEEDS	613	533	685
50 PERCENT EXCEEDS	424	414	395
90 PERCENT EXCEEDS	320	320	290

e Estimated

07067500 BIG SPRING NEAR VAN BUREN, MO—Continued



07067500 BIG SPRING NEAR VAN BUREN, MO—Continued  
(Ambient Water-Quality Monitoring Network)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1973 to current year.

REMARKS.--Ozark National Scenic Riverways station from April 1975 to 1996, Ambient Water-Quality Monitoring Network station since November 1993.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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)	
DEC 13...	1615	Environmental	439	8.7	86	7.1	260	14.1	--	--	--	--	
MAR 16...	1350	Environmental	453	8.7	86	7.2	315	14.1	180	36.6	21.3	.80	
MAY 18...	0850	Environmental	463	8.4	84	7.2	345	14.3	--	--	--	--	
AUG 15...	1515	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16	
15...	1520	Environmental	364	9.3	94	7.6	352	14.8	190	40.4	22.9	.70	
Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd end pt, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd titr., mg/L (00450)	Carbonate, wat unfltrd titr., 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)
DEC 13...	--	--	--	--	--	--	--	--	--	<10	E.06n	<.04	.70
MAR 16...	1.55	169	170	207	<1	2.22	<.1	2.1	199	<10	E.05n	<.04	.48
MAY 18...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	.38
AUG 15...	<.20	--	--	--	--	.33	<.1	<.2	<10	<10	<.10	.05	<.06
15...	1.61	182	182	222	<1	1.85	<.1	1.9	202	<10	<.10	<.04	.33
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 col/100 mL (31625)	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)	Iron, water, fltrd, $\mu$ g/L (01046)
DEC 13...	<.008	<.02	<.04	<.04	31	37	--	--	--	--	--	--	--
MAR 16...	<.008	<.02	<.04	<.04	1k	<1b	Mn	27	.3	<.04	<.04	E.3n	E5n
MAY 18...	<.008	<.02	<.04	<.04	2k	2k	--	--	--	--	--	--	--
AUG 15...	<.008	<.02	<.04	<.04	--	--	<2	<2	<.2	<.04	<.04	<.4	<6
15...	<.008	<.02	<.04	<.04	4k	3k	4	18	.2	<.04	<.04	<.4	<6



07067500 BIG SPRING NEAR VAN BUREN, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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)
DEC 13...	--	--	--	--	--	--	--
MAR 16...	E.04n	E.04n	<.6	<.01	E.4n	E.5n	<2
MAY 18...	--	--	--	--	--	--	--
AUG 15...	<.08	<.06	<.6	<.01	<.4	<.6	<2
15...	<.08	E.04n	<.6	<.01	E.2n	E.5n	<2

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

## Value qualifier codes used in this table:

b -- Value extrapolated at low end

k -- Counts outside acceptable range

n -- Below the LRL and above the LT-MDL

## 07068000 CURRENT RIVER AT DONIPHAN, MO

LOCATION.--Lat 36°37'19", long 90°50'51", in NW ¼ NW ¼ sec.27, T.23 N., R.2 E., Ripley County, Hydrologic Unit 11010008, on right bank 0.5 mi upstream from U.S. Highway 160, 1.0 mi west of Doniphan, 2.5 mi upstream from Briar Creek, and at mile 51.3.

DRAINAGE AREA.--2,038 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1918 to current year. Prior to July 1921 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 877: 1937-38(M). WSP 927: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 321.21 ft above National Geodetic Vertical Datum of 1929. Prior to July 3, 1936, nonrecording gages at several sites 0.5 mi downstream at various datums. July 1936 to Sept. 30, 1971, datum was 1.00 ft higher.

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 March 1904 reached a stage of 25.9 ft, from floodmarks, present site and datum, discharge, 130,000 ft<sup>3</sup>/s, from rating curve extended above 60,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

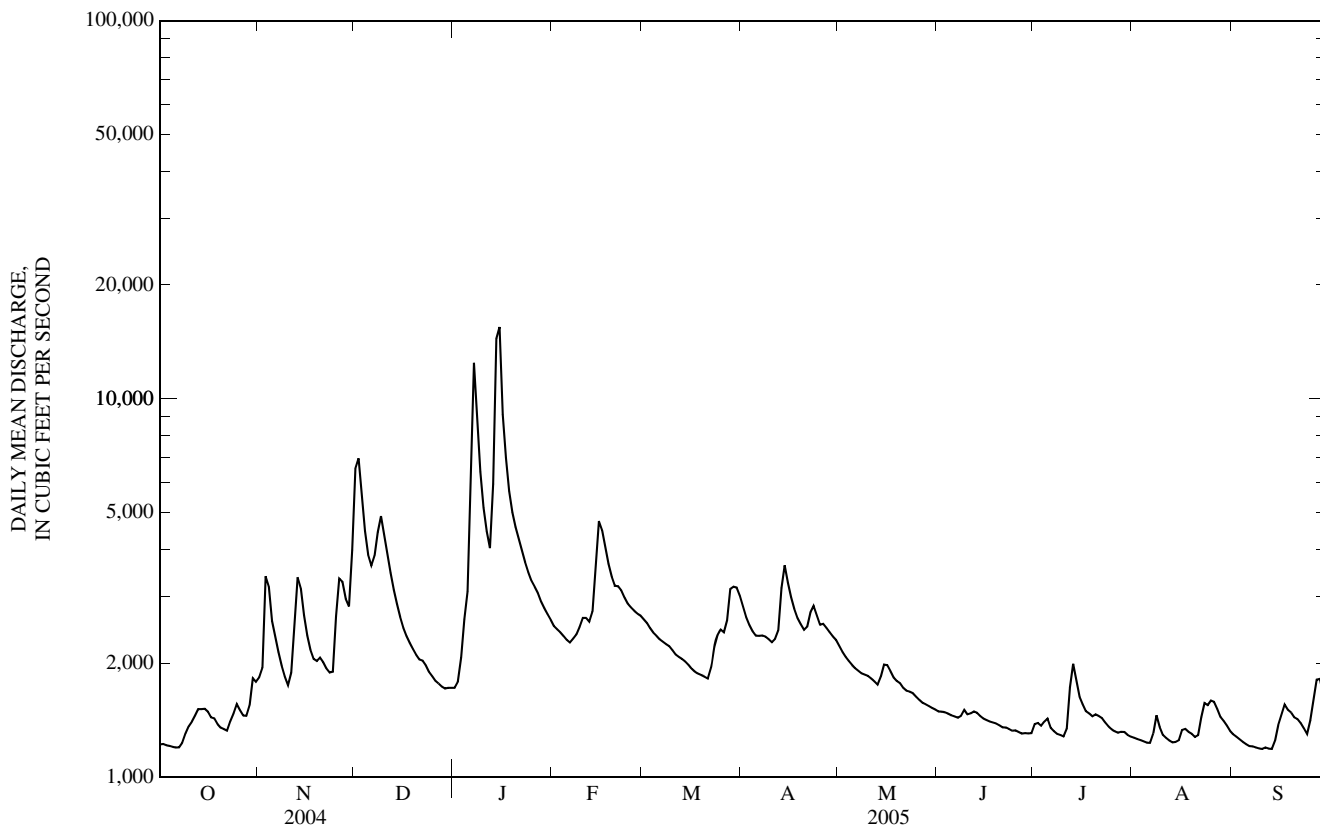
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1,220	1,830	6,540	1,720	2,510	2,610	2,830	2,220	1,490	1,380	1,270	1,300
2	1,220	1,940	6,960	1,780	2,460	2,560	2,650	2,140	1,490	1,390	1,260	1,280
3	1,210	3,390	5,510	2,070	2,410	2,480	2,520	2,080	1,480	1,370	1,250	1,260
4	1,210	3,190	4,470	2,620	2,360	2,410	2,430	2,030	1,470	1,400	1,240	1,240
5	1,200	2,590	3,870	3,090	2,310	2,360	2,370	1,980	1,460	1,430	1,230	1,220
6	1,200	2,340	3,620	6,720	2,270	2,310	2,360	1,940	1,450	1,350	1,230	1,210
7	1,200	2,140	3,850	12,500	2,320	2,280	2,370	1,910	1,430	1,320	1,300	1,200
8	1,230	1,970	4,450	8,840	2,380	2,250	2,350	1,880	1,450	1,300	1,460	1,200
9	1,300	1,840	4,900	6,410	2,490	2,220	2,310	1,860	1,500	1,290	1,360	1,190
10	1,360	1,750	4,380	5,150	2,640	2,160	2,270	1,850	1,460	1,280	1,290	1,190
11	1,400	1,890	3,880	4,460	2,640	2,110	2,320	1,820	1,470	1,340	1,270	1,200
12	1,450	2,530	3,470	4,030	2,570	2,080	2,440	1,790	1,490	1,730	1,250	1,190
13	1,510	3,370	3,130	5,950	2,740	2,050	3,160	1,750	1,480	1,990	1,230	1,190
14	1,510	3,150	2,870	14,400	3,600	2,020	3,630	1,840	1,450	1,800	1,240	1,250
15	1,510	2,680	2,650	15,500	4,750	1,980	3,270	1,980	1,430	1,630	1,250	1,370
16	1,490	2,370	2,480	9,090	4,490	1,930	2,990	1,980	1,410	1,560	1,330	1,460
17	1,440	2,170	2,360	6,980	4,040	1,900	2,780	1,910	1,400	1,490	1,340	1,550
18	1,430	2,050	2,260	5,700	3,660	1,870	2,640	1,830	1,390	1,470	1,320	1,510
19	1,380	2,030	2,180	5,010	3,390	1,860	2,540	1,790	1,380	1,450	1,300	1,480
20	1,350	2,070	2,100	4,580	3,200	1,840	2,450	1,770	1,370	1,460	1,280	1,440
21	1,340	2,010	2,050	4,270	3,190	1,820	2,500	1,720	1,350	1,450	1,290	1,420
22	1,330	1,940	2,030	3,970	3,120	1,950	2,720	1,690	1,350	1,430	1,440	1,390
23	1,400	1,890	1,970	3,700	2,990	2,210	2,840	1,680	1,340	1,390	1,570	1,350
24	1,470	1,900	1,900	3,480	2,880	2,370	2,680	1,660	1,330	1,360	1,550	1,300
25	1,560	2,660	1,850	3,300	2,810	2,450	2,530	1,630	1,330	1,340	1,590	1,410
26	1,500	3,350	1,800	3,180	2,760	2,410	2,540	1,600	1,320	1,320	1,580	1,590
27	1,450	3,280	1,770	3,060	2,710	2,600	2,480	1,570	1,300	1,310	1,510	1,810
28	1,450	2,960	1,740	2,910	2,670	3,140	2,420	1,560	1,310	1,320	1,440	1,820
29	1,550	2,830	1,720	2,790	---	3,180	2,360	1,540	1,300	1,320	1,410	1,660
30	1,820	3,980	1,720	2,690	---	3,170	2,310	1,520	1,310	1,290	1,370	1,520
31	1,790	---	1,720	2,600	---	3,020	---	1,510	---	1,280	1,320	---
MEAN	1,403	2,470	3,103	5,244	2,941	2,310	2,602	1,807	1,406	1,427	1,347	1,373
MAX	1,820	3,980	6,960	15,500	4,750	3,180	3,630	2,220	1,500	1,990	1,590	1,820
MIN	1,200	1,750	1,720	1,720	2,270	1,820	2,270	1,510	1,300	1,280	1,230	1,190
IN.	0.79	1.35	1.76	2.97	1.50	1.31	1.42	1.02	0.77	0.81	0.76	0.75

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2005, BY WATER YEAR (WY)

MEAN	1,629	2,395	2,688	2,873	3,106	3,837	4,562	4,182	2,928	1,965	1,671	1,573
MAX	4,596	8,514	16,210	9,054	7,971	9,260	16,140	14,160	12,610	7,676	5,001	4,547
(WY)	(1985)	(1994)	(1983)	(1949)	(1985)	(1935)	(1927)	(2002)	(1928)	(1951)	(1927)	(1993)
MIN	872	927	950	917	1,122	1,218	1,476	1,183	1,075	959	933	903
(WY)	(1957)	(1955)	(1956)	(1956)	(1934)	(1941)	(1956)	(1936)	(1936)	(1934)	(2001)	(1954)

07068000 CURRENT RIVER AT DONIPHAN, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1921 - 2005	
ANNUAL MEAN	2,679		2,284		2,780	
HIGHEST ANNUAL MEAN					5,856 1985	
LOWEST ANNUAL MEAN					1,326 1954	
HIGHEST DAILY MEAN	27,100	Apr 26	15,500	Jan 15	90,000	Mar 12, 1935
LOWEST DAILY MEAN	1,200	Oct 5-7	1,190	Sep 9,10,12,13	852	Oct 8, 1956
ANNUAL SEVEN-DAY MINIMUM	1,210	Oct 1	1,190	Sep 7	852	Oct 8, 1956
MAXIMUM PEAK FLOW	---		18,500	Jan 15	122,000	Dec 3, 1982
MAXIMUM PEAK STAGE	---		8.84	Jan 15	25.49	Dec 3, 1982
INSTANTANEOUS LOW FLOW	---		1,190	Sep 9,10,12-14	852	Oct 8, 1956
ANNUAL RUNOFF (INCHES)	17.90		15.22		18.53	
10 PERCENT EXCEEDS	3,930		3,530		4,940	
50 PERCENT EXCEEDS	2,080		1,840		1,920	
90 PERCENT EXCEEDS	1,350		1,290		1,180	



07068000 CURRENT RIVER AT DONIPHAN, MO—Continued  
(Ambient Water-Quality Monitoring Network)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1969 to July 1975, October 1979 to September 1980, October 1981 to September 1982, October 1983 to June 1989, November 1992 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 18...	1200	Blank	--	--	--	--	--	--	--	--	--	--			
18...	1215	Environmental	1,470	9.8	101	7.9	314	15.8	--	--	--	--			
NOV 01...	1410	Environmental	1,980	10.3	110	7.7	315	17.4	190	39.5	22.3	.96			
DEC 15...	0945	Environmental	2,650	11.9	97	7.6	272	6.9	--	--	--	--			
JAN 26...	1220	Environmental	3,190	11.7	104	7.3	248	9.4	130	26.8	15.7	.92			
FEB 16...	0950	Environmental	4,550	9.2	85	7.5	278	11.8	--	--	--	--			
MAR 16...	1115	Environmental	1,930	10.0	90	8.4	302	10.3	--	--	--	--			
APR 18...	1330	Environmental	2,630	9.7	103	8.3	312	17.9	--	--	--	--			
MAY 09...	1420	Environmental	1,860	10.5	118	8.3	305	20.1	170	35.0	21.2	.84			
JUN 13...	1240	Environmental	1,480	8.4	104	8.2	332	24.8	--	--	--	--			
JUL 20...	1000	Environmental	1,470	6.2	68	8.2	346	19.0	200	39.4	23.9	.85			
AUG 02...	1215	Environmental	1,260	7.5	92	7.8	342	25.3	--	--	--	--			
SEP 12...	1320	Environmental	1,190	9.0	109	7.6	341	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 18...	--	--	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	<.06
18...	--	--	--	--	--	--	--	--	--	--	--	<10	E.07n	<.04	.17
NOV 01...	1.69	171	175	213	<1	2.31	<.1	2.7	177	<10	E.07n	<.04	<.04	.17	
DEC 15...	--	--	--	--	--	--	--	--	--	--	<10	.10	<.04	.42	
JAN 26...	1.43	115	116	141	<1	2.51	E.1n	4.0	129	<10	E.07n	<.04	<.04	.50	
FEB 16...	--	--	--	--	--	--	--	--	--	--	<10	E.07n	<.04	.32	
MAR 16...	--	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	.28	
APR 18...	--	--	--	--	--	--	--	--	--	--	<10	E.06n	<.04	.21	
MAY 09...	1.67	158	159	193	<1	2.21	E.1n	3.2	177	<10	E.07n	<.04	<.04	.17	
JUN 13...	--	--	--	--	--	--	--	--	--	--	<10	E.09n	<.04	.16	
JUL 20...	1.67	171	171	209	<1	2.22	<.1	2.7	171	<10	.15	<.04	<.04	.15	
AUG 02...	--	--	--	--	--	--	--	--	--	--	<10	.12	<.04	.11	
SEP 12...	--	--	--	--	--	--	--	--	--	--	<10	E.07n	<.04	.14	

07068000 CURRENT RIVER AT DONIPHAN, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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)	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)	Iron, water, fltrd, µg/L (01046)
OCT 18...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
OCT 18...	<.008	<.02	<.04	<.04	110	160k	--	--	--	--	--	--	--
NOV 01...	<.008	<.02	<.04	<.04	50	72	<2	25	E.2n	<.04	<.04	E.4n	<6
DEC 15...	<.008	<.02	<.04	<.04	22	22	--	--	--	--	--	--	--
JAN 26...	<.008	<.02	<.04	<.04	13k	14k	E1n	61	E.2n	<.04	<.04	.4	<6
FEB 16...	<.008	<.02	<.04	<.04	17k	15k	--	--	--	--	--	--	--
MAR 16...	<.008	<.02	<.04	<.04	2k	1k	--	--	--	--	--	--	--
APR 18...	<.008	<.02	<.04	<.04	5k	3k	--	--	--	--	--	--	--
MAY 09...	<.008	<.09d	<.04	<.04	13k	11k	4	33	E.2n	<.04	<.04	E.3n	E5n
JUN 13...	<.008	<.02	<.04	<.04	2k	6k	--	--	--	--	--	--	--
JUL 20...	<.008	<.02	<.04	<.04	9k	24	Mn	26	.2	<.04	<.04	E.2n	E4n
AUG 02...	<.008	<.02	<.04	<.04	1k	7k	--	--	--	--	--	--	--
SEP 12...	<.008	<.02	<.04	<.04	1k	6k	--	--	--	--	--	--	--

Date	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 18...	--	--	--	--	--	--	--
OCT 18...	--	--	--	--	--	--	--
NOV 01...	<.08	.10	2.2	<.01	<.4	1.2	<2
DEC 15...	--	--	--	--	--	--	--
JAN 26...	<.08	.23	4.0	E.01n	E.2n	1.1	E1n
FEB 16...	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--	--
APR 18...	--	--	--	--	--	--	--
MAY 09...	<.08	.09	4.2	E.01n	<.4	.6	<2
JUN 13...	--	--	--	--	--	--	--
JUL 20...	<.08	.10	4.8	E.01n	<.4	1.6	<2
AUG 02...	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.
- M-- Presence verified but 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

07068510 LITTLE BLACK RIVER BELOW FAIRDEALING, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 36°37'54", long 90°34'31", in NE ¼ SW ¼ NE ¼ sec.24, T.23 N., R.4 W., Butler County, Hydrologic Unit 11010008, approximately 5.0 mi below Beaver Dam Creek and 3.1 mi southeast of Fairdealing on Ball Mill Bridge.

DRAINAGE AREA.--194 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1980 to September 1986, November 1999 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 1981 to September 1986.

SUSPENDED-SEDIMENT DISCHARGE: July 1980 to September 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum 30.0 °C several days in July 1980; minimum 0.0 °C on many days.

SUSPENDED-SEDIMENT CONCENTRATION: Maximum daily mean, 643 mg/L, Aug. 16, 1982; minimum daily mean, 1 mg/L on many days.

SUSPENDED-SEDIMENT LOAD: Maximum daily, 11,100 tons, Dec. 2, 1982; minimum daily, 0.12 tons, Dec. 19, 1982.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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)			
Date			Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, 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)	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 02...	0850	Environmental													
JAN 24...	1415	Environmental													
MAR 16...	1325	Environmental													
MAY 10...	0830	Environmental													
JUL 20...	0830	Environmental													
SEP 12...	1425	Blank													
SEP 12...	1430	Environmental													
NOV 02...	1.78		112	115	140	<1	3.22	<1	3.4	129	28	.35	<.04	.07	
JAN 24...	--		--	--	--	--	--	--	--	--	<10	E.10n	<.04	.20	
MAR 16...	--		--	--	--	--	--	--	--	--	<10	.12	<.04	<.06	
MAY 10...	1.81		100	99	122	<1	2.01	<1	3.0	119	19	.18	<.04	<.06	
JUL 20...	--		--	--	--	--	--	--	--	--	20	.28	E.04n	.08	
SEP 12...	--		--	--	--	--	--	--	--	--	<10	<.10	<.04	<.06	
SEP 12...	--		--	--	--	--	--	--	--	--	13	.17	E.02n	E.04n	

07068510 LITTLE BLACK RIVER BELOW FAIRDEALING, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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 0.7µMF col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
NOV 02...	E.006n	<.02	E.03n	.07	3,200	3,200	3	264	.6	<.04	.06	.5	34
JAN 24...	<.008	<.02	<.04	<.04	12k	24k	--	--	--	--	--	--	--
MAR 16...	<.008	<.02	<.04	<.04	4k	10k	--	--	--	--	--	--	--
MAY 10...	<.008	<.09d	<.04	E.03n	48	50	2	162	.5	<.04	.06	E.2n	29
JUL 20...	<.008	<.02	E.02n	E.04n	110	150k	--	--	--	--	--	--	--
SEP 12...	<.008	<.02	<.04	<.04	--	--	--	--	--	--	--	--	--
SEP 12...	<.008	E.01n	<.04	E.02n	65	75k	--	--	--	--	--	--	--

Date	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 02...	E.05n	.83	40.2	<.01	<.4	.9	3
JAN 24...	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--	--
MAY 10...	<.08	.50	65.2	<.01	<.4	<.6	<2
JUL 20...	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

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

## 07071000 GREER SPRING AT GREER, MO

LOCATION.--Lat 36°47'12", long 91°20'51", in SE 1/4 SW 1/4 sec.36, T.25 N., R.4 W., Oregon County, Hydrologic Unit 11010011, on right bank 300 ft downstream from lower outlet of spring, 1 mi north of Greer, and 1 mi upstream from Eleven Point River.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to December 1904, October 1921 to current year. August to December 1904, gage height and discharge measurements only. October to December 1921 monthly discharge only, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 564.00 ft above National Geodetic Vertical Datum of 1929. Aug. 10 to Dec. 31, 1904, nonrecording gage at site 250 ft downstream at different datum; Nov. 17, 1921, to June 25, 1934, nonrecording gage at site 250 ft downstream at datum 0.74 ft lower than present datum.

REMARKS.--No estimated daily discharges. Water-discharge records good. Occasional runoff from drainage area of 2.97 mi<sup>2</sup> included in record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	251	247	466	311	446	420	417	368	315	270	257	222
2	249	273	465	306	439	414	409	362	315	270	257	218
3	248	277	458	325	432	410	402	360	315	269	257	214
4	248	278	442	374	425	406	398	357	312	270	258	213
5	246	275	426	442	419	402	395	354	311	269	259	211
6	244	270	432	533	416	398	394	353	309	267	256	209
7	244	267	452	551	416	398	396	352	307	266	253	208
8	244	261	460	542	421	395	398	350	306	269	253	208
9	245	257	459	527	422	392	396	348	305	266	252	207
10	244	253	450	510	419	390	395	345	303	266	253	201
11	246	274	435	497	416	388	394	343	302	266	252	200
12	251	301	422	486	413	388	415	340	302	270	252	200
13	251	294	411	621	436	385	429	338	301	270	251	200
14	248	286	397	657	464	379	425	346	299	270	249	202
15	250	279	387	624	467	376	419	354	297	270	248	215
16	248	274	380	618	468	375	414	350	296	270	247	230
17	245	270	374	603	461	374	408	346	293	266	247	224
18	244	267	369	593	454	372	403	343	292	266	248	219
19	244	266	363	581	445	371	400	340	291	266	249	229
20	240	265	359	571	439	368	396	338	288	266	246	226
21	236	261	356	558	439	365	392	334	287	266	244	220
22	235	258	351	543	437	370	391	332	284	266	247	217
23	251	258	345	525	433	386	386	337	283	266	243	213
24	265	290	340	511	431	389	381	334	281	261	243	209
25	258	351	337	501	429	390	379	333	276	261	241	218
26	252	348	333	493	426	388	381	329	274	262	238	241
27	248	343	327	484	425	416	380	325	273	260	233	235
28	248	342	324	474	424	436	377	324	271	261	228	230
29	248	352	321	464	---	436	375	322	270	261	226	236
30	248	444	319	459	---	434	372	319	270	261	226	235
31	246	---	315	454	---	424	---	317	---	255	224	---
MEAN	247	289	390	508	434	395	397	342	294	266	246	217
MAX	265	444	466	657	468	436	429	368	315	270	259	241
MIN	235	247	315	306	413	365	372	317	270	255	224	200

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2005, BY WATER YEAR (WY)

MEAN	258	284	307	329	347	396	443	443	399	334	295	268
MAX	448	586	750	648	652	674	724	776	861	611	563	503
(WY)	(1985)	(1985)	(1928)	(1928)	(1949)	(1975)	(1927)	(1927)	(1927)	(1945)	(1927)	(1928)
MIN	111	111	113	108	144	152	180	143	140	127	122	120
(WY)	(1957)	(1955)	(1956)	(1956)	(1981)	(1981)	(1936)	(1936)	(1936)	(1936)	(1936)	(1955)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

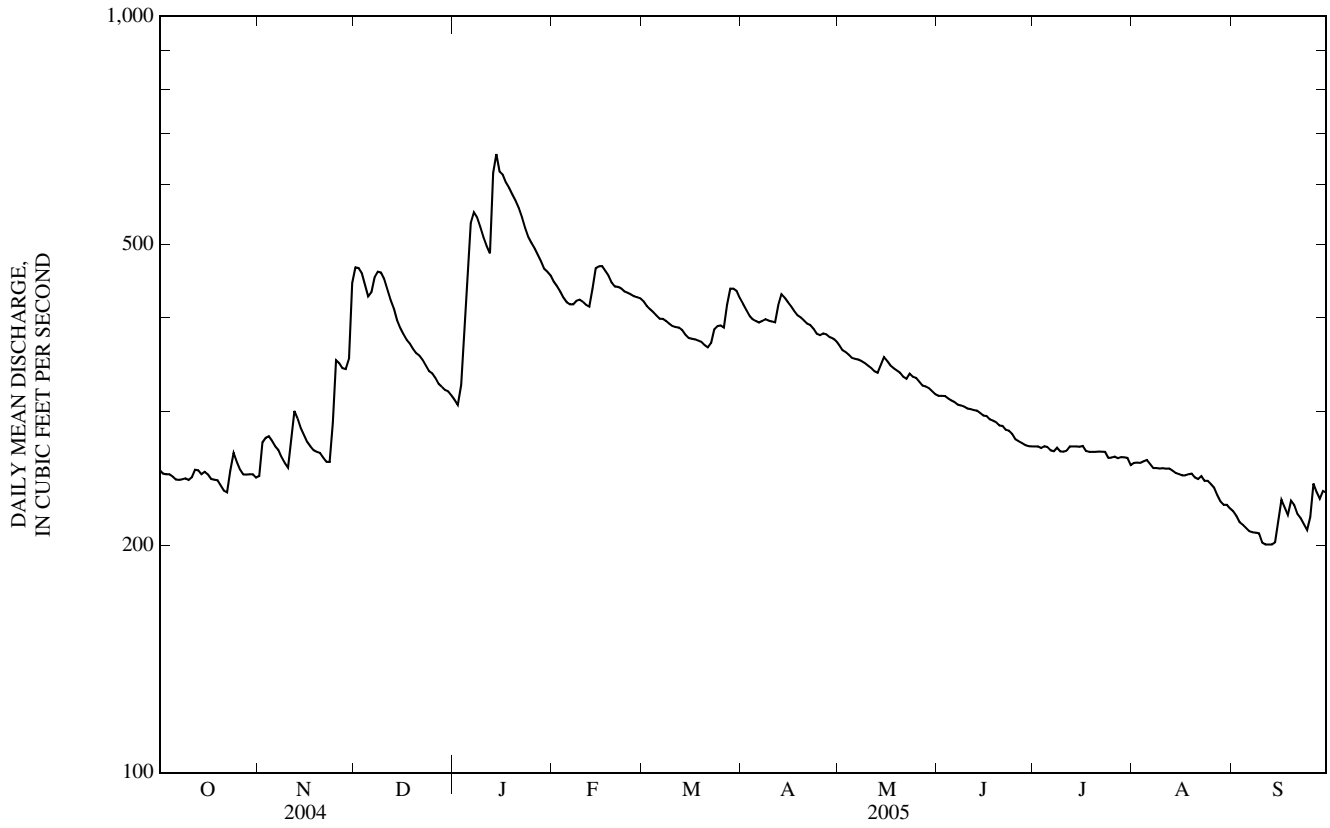
## FOR 2005 WATER YEAR

## WATER YEARS 1922 - 2005

ANNUAL MEAN	377	335	342
HIGHEST ANNUAL MEAN			566
LOWEST ANNUAL MEAN			174
HIGHEST DAILY MEAN	733	Apr 25	657
LOWEST DAILY MEAN	235	Oct 22	200
ANNUAL SEVEN-DAY MINIMUM	242	Oct 16	203
MAXIMUM PEAK FLOW	---		675
MAXIMUM PEAK STAGE	---		1.50
INSTANTANEOUS LOW FLOW	---		200
10 PERCENT EXCEEDS	540		453
50 PERCENT EXCEEDS	368		319
90 PERCENT EXCEEDS	252		237



07071000 GREER SPRING AT GREER, MO—Continued



07071000 GREER SPRING AT GREER, MO—Continued

## WATER-QUALITY RECORDS

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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)		
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)	
Date		Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, fltrd, mg/L (00666)	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/100 mL (31633)	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	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)	Iron, water, fltrd, $\mu$ g/L (01046)
DEC 13...	1300	Environmental	411	8.1	80	7.1	268	14.2	140	29.5	16.7	1.60		
MAR 16...	0950	Environmental	375	8.3	82	7.0	316	13.8	170	35.8	20.5	1.39		
MAY 18...	1210	Environmental	343	8.7	86	7.5	349	14.2	180	36.9	22.1	1.30		
18...	1211	Replicate	--	8.7	87	7.5	349	14.2	190	37.2	22.8	1.26		
AUG 15...	1155	Environmental	248	8.4	84	7.3	364	14.6	200	42.6	22.9	1.12		
DEC 13...	1.72	142	143	174	<1	2.94	<1	2.6	152	<10	E.06n	<.04	1.23	
MAR 16...	1.74	156	156	190	<1	5.73	<1	2.5	167	<10	<.10	<.04	1.03	
MAY 18...	1.56	170	169	206	<1	2.35	E.1n	2.2	191	<10	<.10	<.04	.82	
18...	1.60	--	--	--	--	2.34	E.1n	2.2	198	<10	<.10	<.04	.82	
AUG 15...	1.48	185	185	226	<1	2.01	<1	2.2	211	<10	E.06n	<.04	.63	
DEC 13...	<.008	<.02	<.04	<.04	120	140	<2	81	.3	<.04	<.04	E.3n	<6	
MAR 16...	<.008	<.02	<.04	<.04	3k	2k	Mn	60	.3	<.04	<.04	E.4n	<6	
MAY 18...	<.008	--u	<.04	<.04	2k	3k	<2	64	.2	<.04	<.04	<.4	<6	
18...	<.008	--u	<.04	<.04	2k	3k	Mn	60	.2	E.02n	E.02n	<.4	<6	
AUG 15...	<.008	<.02	<.04	<.04	3k	4k	Mn	19	.3	<.04	E.02n	E.3n	<6	

07071000 GREER SPRING AT GREER, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Lead, water, fltrd, µg/L (01049)	Lead, water, unfltrd recover-able, µg/L (01051)	Mangan-ese, water, fltrd, µg/L (01056)	Mercury water, unfltrd recover-able, µg/L (71900)	Selen-ium, water, fltrd, µg/L (01145)	Zinc, water, fltrd, µg/L (01090)	Zinc, water, unfltrd recover-able, µg/L (01092)	2,6-Di-ethyl-aniline water fltrd 0.7µ GF (82660)	CIAT, water, fltrd, µg/L (04040)	Aceto-chlor, water, fltrd, µg/L (49260)	Ala-chlor, water, fltrd, µg/L (46342)	alpha-HCH, water, fltrd, µg/L (34253)	Atra-zine, water, fltrd, µg/L (39632)
DEC 13...	<.08	.19	<.6	<.01	<.4	E.5n	<2	<.006	<.006	<.006	<.004	<.005	<.007
MAR 16...	.10	.17	<.6	E.01n	.4	13.3	12	<.006	<.006m	<.006	<.005	<.005	<.007
MAY 18...	<.08	.32	<.6	<.01	<.4	.9	<2	<.006	<.006m	<.006	<.005	<.005	<.007
MAY 18...	<.08	.11	<.6	<.01	<.4	E.6n	E1n	<.006	<.006m	<.006	<.005	<.005	<.007
AUG 15...	<.08	E.05n	<.6c	<.01	E.2n	.6	<2	<.006	<.006m	<.006	<.005	<.005	<.007
Date	Azin-phos-methyl, water, fltrd 0.7µ GF ug/L (82686)	Ben-flur-alin, water, fltrd 0.7µ GF ug/L (82673)	Butyl-ate, water, fltrd, µg/L (04028)	Car-baryl, water, fltrd 0.7µ GF ug/L (82680)	Carbo-furan, water, fltrd 0.7µ GF ug/L (82674)	Chlor-pyrifos water, fltrd, µg/L (38933)	cis-Per-methrin water fltrd 0.7µ GF ug/L (82687)	Cyana-zine, water, fltrd, µg/L (04041)	DCPA, water fltrd 0.7µ GF ug/L (82682)	Diazi-non, water, fltrd, µg/L (39572)	Diel-drin, water, fltrd, µg/L (39381)	Disul-foton, water, fltrd 0.7µ GF ug/L (82677)	EPTC, water, fltrd 0.7µ GF ug/L (82668)
DEC 13...	<.050	<.010	<.002	<.041	<.020	<.005	<.006	<.018	<.003	<.005	<.005	<.02	<.002
MAR 16...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
MAY 18...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
MAY 18...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.004
AUG 15...	<.050m	<.010	<.004	<.041m	<.020m	<.005	<.006	<.018	<.003	<.005	<.009	<.02m	<.037
Date	Ethal-flur-alin, water, fltrd 0.7µ GF ug/L (82663)	Etho-prop, water, fltrd 0.7µ GF ug/L (82672)	Fonofos water, fltrd, µg/L (04095)	Lindane water, fltrd, µg/L (39341)	Linuron water fltrd 0.7µ GF ug/L (82666)	Malathion, water, fltrd, µg/L (39532)	Methyl parathion, water, fltrd 0.7µ GF ug/L (82667)	Metola-chlor, water, fltrd, µg/L (39415)	Metri-buzin, water, fltrd, µg/L (82630)	Moli-nate, water, fltrd 0.7µ GF ug/L (82671)	Naprop-amide, water, fltrd 0.7µ GF ug/L (82684)	p,p'-DDE, water, fltrd, µg/L (34653)	Para-thion, water, fltrd, µg/L (39542)
DEC 13...	<.009	<.005	<.003	<.004	<.035	<.027	<.006	<.013	<.006	<.002	<.007	<.003	<.010
MAR 16...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010
MAY 18...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010
MAY 18...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010
AUG 15...	<.009	<.005	<.003	<.004	<.035	<.027	<.015	<.006	<.006	<.003	<.007	<.003	<.010
Date	Peb-ulate, water, fltrd 0.7µ GF ug/L (82669)	Pendi-meth-alin, water, fltrd 0.7µ GF ug/L (82683)	Phorate water fltrd 0.7µ GF ug/L (82664)	Prome-ton, water, fltrd, µg/L (04037)	Propy-zamide, water, fltrd 0.7µ GF ug/L (82676)	Propa-chlor, water, fltrd, µg/L (04024)	Pro-panil, water, fltrd 0.7µ GF ug/L (82679)	Propar-gite, water, fltrd 0.7µ GF ug/L (82685)	Sima-zine, water, fltrd, µg/L (04035)	Tebu-thiuron water fltrd 0.7µ GF ug/L (82670)	Terba-cil, water, fltrd 0.7µ GF ug/L (82665)	Terbu-fos, water, fltrd 0.7µ GF ug/L (82675)	Thio-bencarb water fltrd 0.7µ GF ug/L (82681)
DEC 13...	<.004	<.022	<.011	<.01	<.004	<.010	<.011	<.02	<.005	<.02	<.034	<.02	<.005
MAR 16...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010
MAY 18...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010
MAY 18...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010
AUG 15...	<.004	<.022	<.011	<.01	<.004	<.025	<.011	<.02	<.005	<.02	<.034m	<.02	<.010

## WHITE RIVER BASIN

07071000 GREER SPRING AT GREER, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Tri- allate, water, fltrd 0.7 $\mu$ GF ug/L (82678)	Tri- flur- alin, water, fltrd 0.7 $\mu$ GF ug/L (82661)
DEC 13...	<.002	<.009
MAR 16...	<.006	<.009
MAY 18...	<.006	<.009
18...	<.006	<.009
AUG 15...	<.006	<.009

## Remark codes used in this table:

&lt; -- Less than.

E -- Estimated.

M-- Presence verified but not quantified.

## Value qualifier codes used in this table:

k -- Counts outside acceptable range

m -- Value is highly variable by this method

n -- Below the LRL and above the LT-MDL

## Null value qualifier codes used in this table:

u -- Unable to determine-matrix interference

07071500 ELEVEN POINT RIVER NEAR BARDLEY, MO

LOCATION.--Lat 36°38'55", long 91°12'03", in NE ¼ SE ¼ sec.17, T.23 N., R.2 W., Oregon County, Hydrologic Unit 11010011, on downstream side of right pier of main truss of bridge on U.S. Highway 160, 7.0 mi southwest of Bardley, 7.5 mi upstream from Fredericks Fork, and at mile 53.7.

DRAINAGE AREA.--793 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 827: 1927-28, 1935. WSP 927: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 410.84 ft above National Geodetic Vertical Datum of 1929. Prior to June 26, 1934, nonrecording gage at site 100 ft upstream at datum 0.06 ft higher; June 26, 1934, to Oct. 19, 1939, nonrecording gage at present site and datum.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, 19.7 ft, August 1915, from floodmarks, discharge, 44,000 ft<sup>3</sup>/s, from rating curve extended above 25,000 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	352	391	1,140	490	831	854	927	688	505	445	348	304
2	353	448	1,010	497	825	824	885	668	503	440	346	301
3	348	468	907	721	808	802	849	656	500	420	341	298
4	346	444	837	919	787	793	825	646	495	427	339	296
5	342	430	798	1,220	773	776	804	636	488	416	337	294
6	341	417	858	1,620	768	757	808	629	484	410	339	290
7	341	406	985	1,600	793	757	840	624	481	406	342	289
8	358	392	1,030	1,350	837	749	869	621	536	403	341	288
9	355	381	979	1,200	856	734	853	620	517	400	338	288
10	355	375	933	1,120	838	722	834	613	508	398	334	287
11	388	463	865	1,060	816	712	848	605	553	405	331	285
12	378	571	815	1,010	807	707	935	595	528	460	328	283
13	376	519	768	3,100	926	700	991	587	505	443	326	282
14	381	477	720	3,380	1,130	684	965	607	493	418	331	305
15	375	451	683	2,060	1,110	665	917	607	482	408	339	341
16	368	435	659	1,690	1,080	657	879	596	473	402	341	341
17	357	422	637	1,500	1,020	651	848	595	469	400	332	329
18	358	420	621	1,380	973	645	826	589	464	394	331	328
19	354	420	601	1,320	929	643	806	585	453	394	327	323
20	348	416	585	1,260	911	633	792	579	446	392	323	321
21	345	406	579	1,210	960	628	779	569	440	386	327	311
22	343	399	576	1,150	971	683	768	562	437	380	347	304
23	369	400	558	1,090	932	788	749	553	434	375	350	300
24	387	448	537	1,050	923	793	725	547	430	371	341	293
25	385	602	527	1,020	904	787	714	539	427	368	334	327
26	373	599	522	996	890	769	752	532	423	367	326	339
27	366	585	511	950	878	952	744	527	420	366	321	333
28	365	581	501	913	879	1,160	728	522	420	359	319	322
29	365	609	499	900	---	1,100	722	519	416	356	317	320
30	377	985	497	877	---	1,060	710	516	418	351	316	316
31	370	---	492	854	---	994	---	511	---	349	311	---
MEAN	362	479	717	1,274	898	780	823	588	472	397	333	308
MAX	388	985	1,140	3,380	1,130	1,160	991	688	553	460	350	341
MIN	341	375	492	490	768	628	710	511	416	349	311	282
IN.	0.53	0.67	1.04	1.85	1.18	1.13	1.16	0.86	0.66	0.58	0.48	0.43

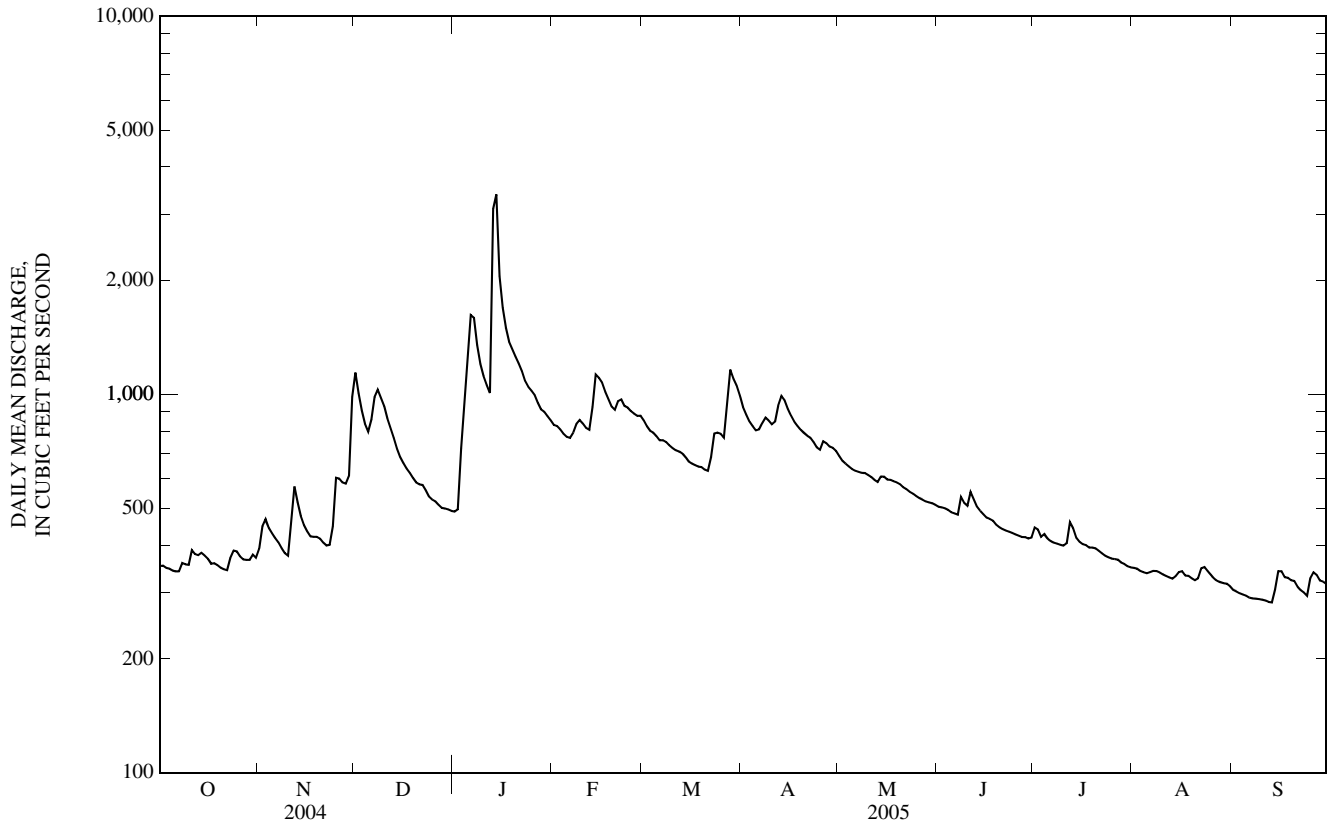
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2005, BY WATER YEAR (WY)

MEAN	420	593	707	787	830	1,059	1,297	1,162	871	601	483	430
MAX	1,291	2,082	4,048	3,007	2,223	3,556	5,037	3,346	3,107	1,559	1,354	1,183
(WY)	(1985)	(1994)	(1983)	(1985)	(1949)	(1945)	(1927)	(2002)	(1928)	(1951)	(1927)	(1975)
MIN	168	176	170	159	224	264	340	266	245	213	199	181
(WY)	(1957)	(1957)	(1956)	(1956)	(1963)	(1981)	(1981)	(1936)	(1936)	(1936)	(1936)	(1956)

SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	WATER YEARS 1922 - 2005
ANNUAL MEAN	720	618	769
HIGHEST ANNUAL MEAN			1,782
LOWEST ANNUAL MEAN			303
HIGHEST DAILY MEAN	12,900	Apr 25	26,800
LOWEST DAILY MEAN	341	Oct 6, 7	155
ANNUAL SEVEN-DAY MINIMUM	346	Oct 1	157
MAXIMUM PEAK FLOW	---	5,450	49,800
MAXIMUM PEAK STAGE	---	7.62	21.64
INSTANTANEOUS LOW FLOW	---	278	152
ANNUAL RUNOFF (INCHES)	12.37	10.58	13.18
10 PERCENT EXCEEDS	1,030	981	1,400
50 PERCENT EXCEEDS	620	519	550
90 PERCENT EXCEEDS	374	329	265

07071500 ELEVEN POINT RIVER NEAR BARDLEY, MO—Continued



07071500 ELEVEN POINT RIVER NEAR BARDLEY, MO—Continued  
(Ambient Water-Quality Monitoring Network)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 01...	1200	Environmental	382	9.1	95	7.6	343	15.9	200	43.1	23.6	1.28
JAN 24...	1200	Environmental	1,050	13.1	116	7.5	253	9.5	--	--	--	--
MAR 16...	0845	Environmental	661	9.9	92	8.1	319	11.0	--	--	--	--
MAY 09...	1140	Blank	--	--	--	--	--	--	--	E.01n	.009	<.16
MAY 09...	1215	Environmental	620	9.7	105	8.2	323	17.5	190	38.6	23.0	1.25
JUL 20...	1230	Environmental	389	9.1	106	8.2	371	22.3	--	--	--	--
SEP 12...	1150	Environmental	287	9.5	106	7.5	366	19.1	--	--	--	--

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 01...	1.50	185	186	227	<1	2.12	<1	2.2	186	<10	<10	<.04	.46
JAN 24...	--	--	--	--	--	--	--	--	--	<10	E.10n	<.04	.88
MAR 16...	--	--	--	--	--	--	--	--	--	<10	<10	<.04	.67
MAY 09...	<.20	--	--	--	--	<.20	<.1	<.2	<10	<10	<10	.04	<.06
MAY 09...	1.59	176	173	215	<1	2.31	E.1n	2.3	189	<10	E.07n	<.04	.52
JUL 20...	--	--	--	--	--	--	--	--	--	<10	.12	<.04	.45
SEP 12...	--	--	--	--	--	--	--	--	--	<10	E.07n	E.02n	.40

Date	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L (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)	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)	Iron, water, fltrd, μg/L (01046)
NOV 01...	<.008	<.02	<.04	<.04	40	48	<2	16	.4	<.04	<.04	E.2n	E3n
JAN 24...	<.008	<.02	<.04	E.02n	18k	94	--	--	--	--	--	--	--
MAR 16...	<.008	<.02	<.04	<.04	3k	3k	--	--	--	--	--	--	--
MAY 09...	<.008	<.09d	<.04	<.04	--	--	<2	5	<.2	<.04	<.04	<.4	<.6
MAY 09...	<.008	<.09d	<.04	<.04	3k	9k	E.1n	31	.2	<.04	<.04	E.3n	E5n
JUL 20...	<.008	<.02	<.04	<.04	4k	7k	--	--	--	--	--	--	--
SEP 12...	<.008	<.02	<.04	<.04	15k	20	--	--	--	--	--	--	--

## 07071500 ELEVEN POINT RIVER NEAR BARDLEY, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 01...	<.08	.07	2.9	<.01	<.4	E.5n	<2
JAN 24...	--	--	--	--	--	--	--
MAR 16...	--	--	--	--	--	--	--
MAY 09...	<.08	<.06	<.6	E.01n	<.4	<.6	<2
09...	<.08	.10	4.3	<.01	<.4	E.3n	<2
JUL 20...	--	--	--	--	--	--	--
SEP 12...	--	--	--	--	--	--	--

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## 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



07185765 SPRING RIVER AT CARTHAGE, MO

LOCATION.--Lat 31°11'11", long 94°19'56", in SW ¼ NW ¼ SW ¼ sec.33, T.29 N., R.31 W., Jasper County, Hydrologic Unit 11070207, on left downstream wingwall of St. Francis Street bridge 0.8 mi northwest of junction with Highway 96 in Carthage.

DRAINAGE AREA.--425 mi<sup>2</sup>.

PERIOD OF RECORDED.--October 1966 to Sept. 30, 1980, May 23, 2001 to current year. Occasional discharge measurements 1951-1954. Intermittent gage readings since Oct. 31, 1945, collected by Corps of Engineers.

GAGE.--Water-stage recorder. Datum of gage is unknown. Jan. 26, 1967 to September 1980, gage located approximately 0.75 mi upstream, at datum of 923.68 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 26, 1967, nonrecording gage at site 0.87 mi upstream of current site, at former datum.

REMARKS.--No estimated daily discharges. Records fair except for period Oct. 1-31, which is poor. U.S.G.S. satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 18, 1943, reached a stage of 22.0 ft by highwater mark 1 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

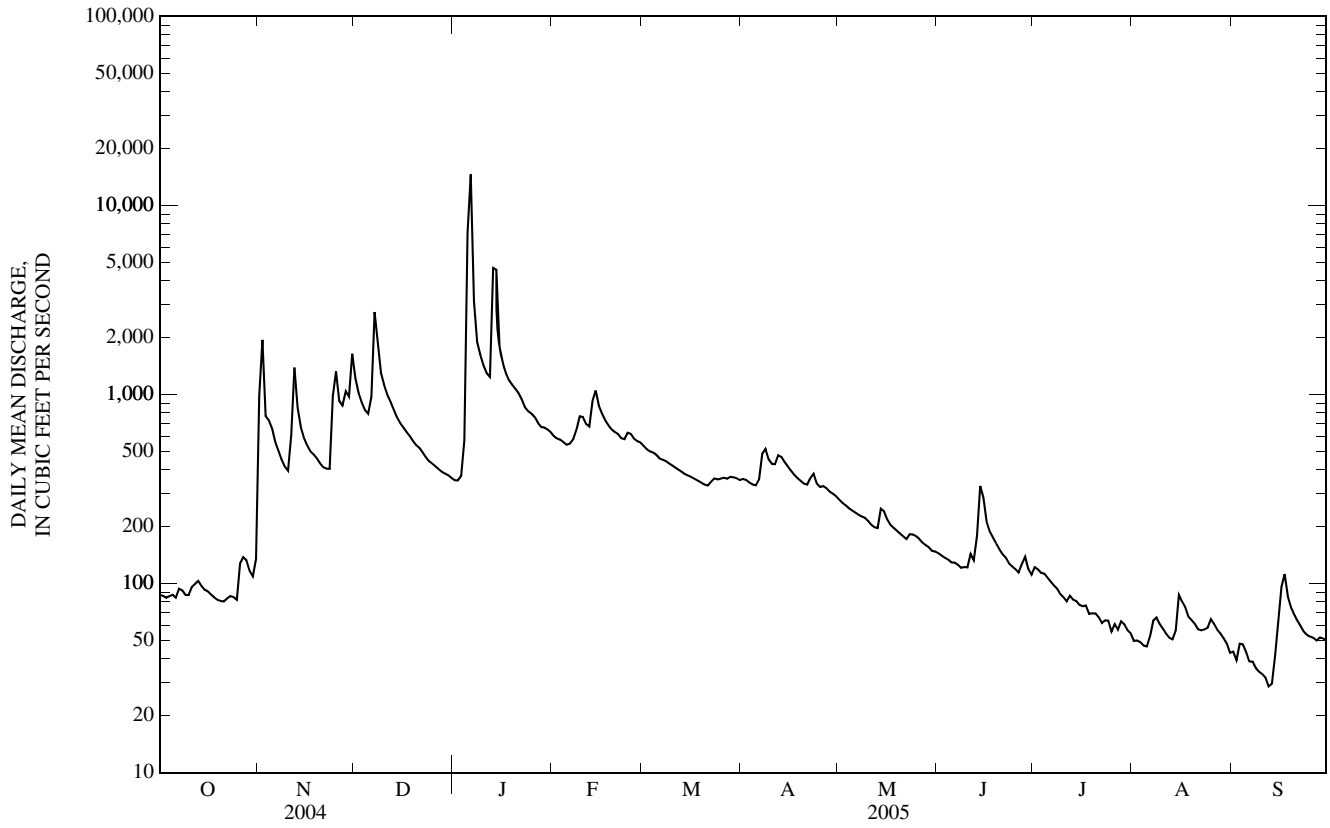
DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	988	1,220	353	602	535	357	278	145	122	50	44
2	86	1,950	1,020	351	584	513	353	267	140	119	50	39
3	84	768	908	371	577	500	342	259	137	114	49	48
4	86	731	828	574	559	493	334	251	134	113	47	48
5	87	663	792	7,190	542	479	331	244	129	107	47	44
6	84	562	973	14,600	549	458	356	238	129	102	53	39
7	94	504	2,730	3,120	580	451	487	232	126	98	64	39
8	92	454	1,940	1,890	652	443	516	226	121	94	66	36
9	87	416	1,300	1,620	766	431	454	223	122	88	61	34
10	87	395	1,120	1,430	760	420	430	215	122	85	58	33
11	96	611	998	1,300	699	410	428	205	144	81	54	32
12	100	1,390	916	1,240	677	399	478	199	133	86	52	29
13	103	850	833	4,680	922	389	468	197	179	82	51	29
14	97	673	757	4,580	1,050	378	439	249	328	81	56	41
15	93	589	706	1,790	872	372	415	241	285	77	87	66
16	91	537	670	1,480	793	365	395	218	213	76	80	96
17	88	500	633	1,300	730	357	376	204	189	77	75	112
18	85	482	603	1,190	685	350	361	197	175	69	67	85
19	82	460	567	1,120	653	342	349	190	163	70	64	75
20	81	433	540	1,070	633	333	337	184	152	70	61	69
21	80	412	523	1,010	617	330	334	178	143	66	57	64
22	83	405	494	938	587	346	361	172	137	62	56	60
23	86	405	467	853	580	360	381	182	128	64	57	56
24	85	982	444	814	627	356	338	182	123	64	58	53
25	82	1,320	431	793	618	359	325	178	119	56	65	52
26	127	923	417	759	584	362	328	172	114	61	61	52
27	138	875	403	707	567	359	319	164	126	57	57	50
28	133	1,040	391	674	557	367	307	160	138	63	54	52
29	117	975	382	669	---	365	299	155	119	61	51	51
30	109	1,640	374	653	---	361	290	149	111	57	48	50
31	135	---	363	632	---	353	---	148	---	55	43	---
MEAN	95.6	764	798	1,927	665	398	376	205	151	79.9	58.0	52.6
MAX	138	1,950	2,730	14,600	1,050	535	516	278	328	122	87	112
MIN	80	395	363	351	542	330	290	148	111	55	43	29
IN.	0.26	2.01	2.17	5.23	1.63	1.08	0.99	0.56	0.40	0.22	0.16	0.14

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

MEAN	206	449	386	414	422	660	531	571	411	276	130	191
MAX	561	1,785	1,475	1,927	1,567	1,854	1,701	2,123	1,343	1,038	296	625
(WY)	(1974)	(1973)	(1974)	(2005)	(1975)	(1973)	(1973)	(2002)	(1974)	(1976)	(1979)	(1971)
MIN	50.8	59.4	57.7	50.0	104	108	138	174	70.8	49.3	53.4	46.3
(WY)	(2004)	(2003)	(1977)	(1977)	(1977)	(1972)	(1977)	(1971)	(1972)	(1972)	(1972)	(1980)

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR	FOR 2005 WATER YEAR	FOR PERIOD OF RECORD
ANNUAL MEAN	586	464	390
HIGHEST ANNUAL MEAN			836
LOWEST ANNUAL MEAN			144
HIGHEST DAILY MEAN	4,400	Mar 5	14,600
LOWEST DAILY MEAN	80	Oct 21	29
ANNUAL SEVEN-DAY MINIMUM	83	Oct 19	33
MAXIMUM PEAK FLOW	---		18,900
MAXIMUM PEAK STAGE	---		14.73
INSTANTANEOUS LOW FLOW	---		28
ANNUAL RUNOFF (INCHES)	18.77		14.83
10 PERCENT EXCEEDS	1,110		922
50 PERCENT EXCEEDS	432		285
90 PERCENT EXCEEDS	119		56

<sup>a</sup> Former datum.



07186000 SPRING RIVER NEAR WACO, MO

LOCATION.--Lat 37°14'44", long 94°33'59", on line between SE 1/2 sec.7 and NE 1/2 sec.18, T.29 N., R.33 W., Jasper County, Hydrologic Unit 11070207, on downstream side of left pier of county highway bridge, 0.8 mi downstream from Blackberry Creek, 1.5 mi east of Waco, and 47.6 mi upstream from mouth.

DRAINAGE AREA.--1,164 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1924 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 833.23 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 23, 1935, nonrecording gage at same site and datum.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	4,850	3,520	487	939	881	476	520	187	168	42	64
2	89	6,590	2,050	474	903	831	480	478	182	135	36	56
3	86	3,750	1,620	537	903	792	485	432	176	128	38	50
4	87	2,770	1,410	2,130	891	771	461	400	172	136	39	64
5	88	1,870	1,400	16,100	851	749	445	371	165	128	46	61
6	86	1,230	3,660	23,900	931	713	806	353	159	121	42	65
7	89	935	10,500	20,000	2,180	671	2,790	336	162	109	50	72
8	116	778	7,980	8,980	2,400	644	2,080	325	168	101	62	56
9	97	670	4,680	2,990	2,850	609	1,230	314	183	94	62	47
10	93	606	2,230	2,640	2,350	587	910	303	170	86	56	41
11	103	2,710	1,680	2,430	1,650	563	812	290	173	82	51	37
12	119	5,880	1,470	2,340	1,390	544	1,340	274	217	77	46	34
13	118	3,640	1,320	8,580	3,440	517	1,510	264	1,980	85	44	33
14	128	1,790	1,170	9,500	4,070	494	957	2,570	1,590	79	57	40
15	128	1,150	1,060	5,080	2,500	488	786	2,850	938	79	86	93
16	119	970	987	2,370	1,590	473	683	1,200	480	70	120	184
17	111	864	934	1,920	1,330	452	621	531	344	73	91	297
18	106	821	887	1,720	1,180	442	580	402	278	71	84	215
19	98	867	833	1,620	1,090	425	546	341	239	64	77	142
20	93	839	783	1,560	1,040	413	520	304	214	65	71	111
21	92	767	741	1,500	1,010	403	500	275	197	64	66	94
22	94	835	698	1,410	952	421	1,490	254	181	63	62	82
23	101	1,010	643	1,280	968	489	925	377	169	55	62	74
24	95	5,780	592	1,170	1,360	534	708	342	155	53	62	68
25	94	7,830	570	1,130	1,370	552	568	330	144	54	62	62
26	106	4,790	549	1,090	1,150	640	590	271	133	55	70	58
27	275	4,090	533	1,030	1,010	632	643	241	128	67	69	57
28	714	3,730	520	975	940	569	559	224	138	56	67	56
29	441	2,910	512	965	---	542	527	214	137	53	65	56
30	264	4,630	508	983	---	514	512	203	121	49	79	54
31	203	---	498	981	---	481	---	196	---	45	76	---
MEAN	146	2,665	1,824	4,125	1,544	575	851	509	323	82.7	62.6	80.8
MAX	714	7,830	10,500	23,900	4,070	881	2,790	2,850	1,980	168	120	297
MIN	86	606	498	474	851	403	445	196	121	45	36	33
IN.	0.14	2.56	1.81	4.09	1.38	0.57	0.82	0.50	0.31	0.08	0.06	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2005, BY WATER YEAR (WY)

MEAN	645	947	722	754	937	1,218	1,454	1,587	1,367	704	418	540
MAX	6,997	6,726	4,704	4,125	6,372	5,809	7,542	11,640	5,521	4,323	7,812	10,260
(WY)	(1942)	(1986)	(1993)	(2005)	(1985)	(1973)	(1927)	(1943)	(1928)	(1976)	(1927)	(1993)
MIN	21.0	30.5	33.3	29.7	31.0	33.6	38.2	120	73.4	15.2	7.71	22.0
(WY)	(1957)	(1954)	(1964)	(1964)	(1964)	(1954)	(1956)	(1932)	(1954)	(1954)	(1954)	(1956)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

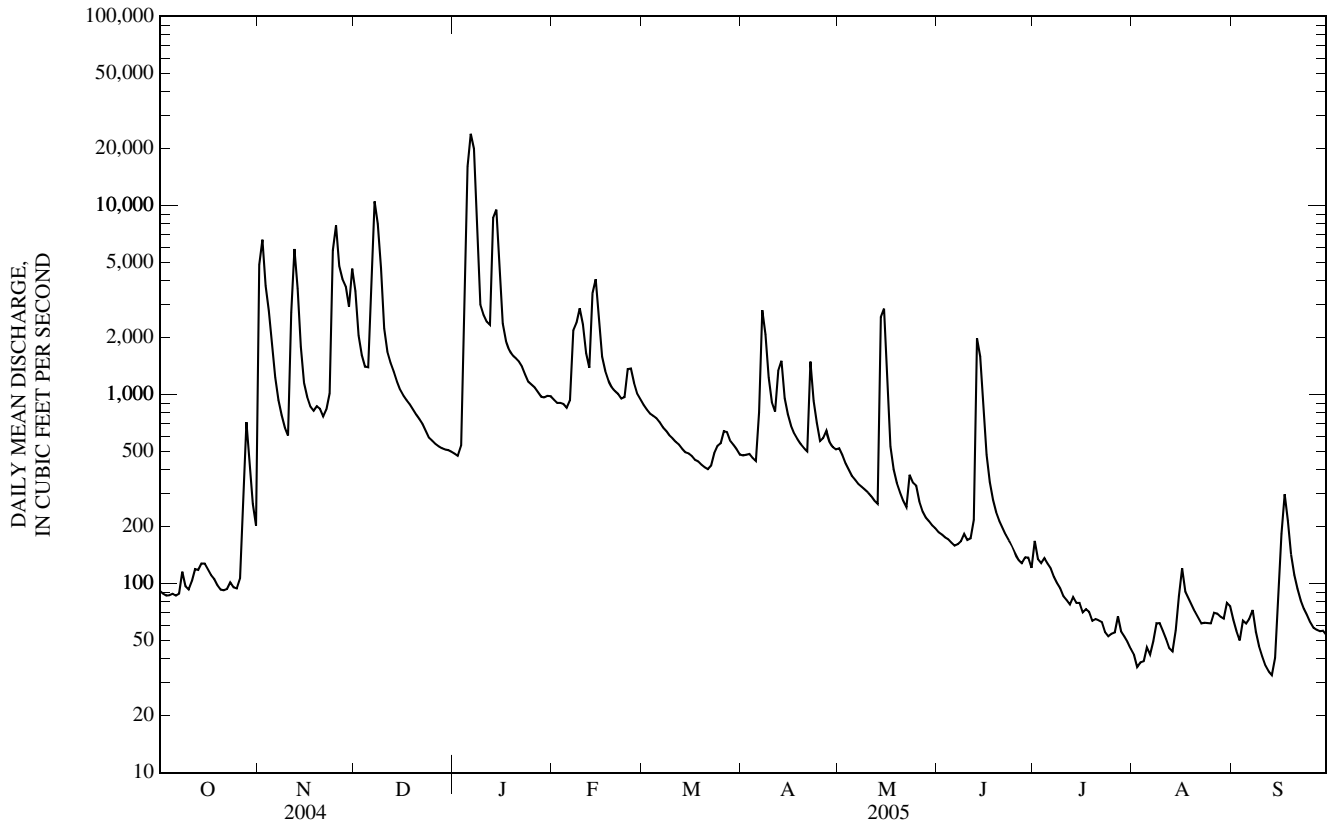
FOR 2005 WATER YEAR

WATER YEARS 1924 - 2005

ANNUAL MEAN	1,355	1,063	935
HIGHEST ANNUAL MEAN			3,093
LOWEST ANNUAL MEAN			61.4
HIGHEST DAILY MEAN	17,600	Mar 5	23,900
LOWEST DAILY MEAN	86	Oct 3,6	33
ANNUAL SEVEN-DAY MINIMUM	88	Oct 1	41
MAXIMUM PEAK FLOW	---		26,300
MAXIMUM PEAK STAGE	---		22.34
INSTANTANEOUS LOW FLOW	---		31
ANNUAL RUNOFF (INCHES)	15.85		12.40
10 PERCENT EXCEEDS	3,480		2,410
50 PERCENT EXCEEDS	658		474
90 PERCENT EXCEEDS	122		62
			65

<sup>a</sup> From rating extended above 85,000 ft<sup>3</sup>/s.

07186000 SPRING RIVER NEAR WACO, MO—Continued



07186480 CENTER CREEK NEAR SMITHFIELD, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°09'20", long 94°36'10", in NW ¼ SE ¼ NE ¼ sec.14, T.28 N., R.34 W., Jasper County, Hydrologic Unit 11070207. Sampling site is located approximately 1.0 mi above the mouth of Center Creek, 1.0 mi south of Smithfield on county road.

DRAINAGE AREA.--303 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1968 to July 1975, July 1977 to June 1989, April 1993 to August 1995, November 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 15...	1410	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16
NOV 15...	1510	Environmental	384	11.0	105	7.5	357	12.8	170	61.2	3.11	2.36
JAN 10...	1400	Environmental	998	14.2	131	7.5	287	10.4	--	--	--	--
FEB 08...	0855	Environmental	441	13.8	121	7.3	368	8.5	--	--	--	--
MAR 22...	0850	Environmental	179	9.6	90	7.5	362	10.9	--	--	--	--
APR 18...	1330	Environmental	208	9.9	109	8.1	370	18.6	--	--	--	--
MAY 24...	1500	Environmental	167	7.1	83	7.6	382	21.8	180	64.9	3.40	2.01
JUN 20...	1310	Environmental	123	9.7	121	8.2	376	25.3	--	--	--	--
JUL 25...	1250	Environmental	49	7.7	107	8.0	378	30.3	190	67.7	3.88	2.37
SEP 21...	1545	Environmental	47	8.5	111	7.7	360	27.3	--	--	--	--

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 + nitrate, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)
NOV 15...	<.20	--	--	--	--	<.20	<.1	E.1n	<10d	<10	<.10	E.04n	<.06
NOV 15...	5.50	127	126	154	<1	8.59	.1	26.8	213d	<10	.15	<.04	2.83
JAN 10...	--	--	--	--	--	--	--	--	--	17	.21	<.04	2.77
FEB 08...	--	--	--	--	--	--	--	--	--	20	.25	<.04	2.37
MAR 22...	--	--	--	--	--	--	--	--	--	<10	.17	<.04	2.53
APR 18...	--	--	--	--	--	--	--	--	--	<10	.20	<.04	1.86
MAY 24...	7.43	133	135	165	<1	9.44	.2	32.9	231	62	.52	.05	1.88
JUN 20...	--	--	--	--	--	--	--	--	--	22	.27	<.04	2.36
JUL 25...	9.05	147	147	179	<1	12.4	.2	29.7	240	15	.28	<.04	1.93
SEP 21...	--	--	--	--	--	--	--	--	--	14	.27	<.04	1.44

## 07186480 CENTER CREEK NEAR SMITHFIELD, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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)	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)	Iron, water, fltrd, μg/L (01046)
NOV 15...	<.008	<.02	<.04	<.04	--	--	<2	<2	<.2	<.04	<.04	<.4	<6
NOV 15...	<.008	.04	.05	.07	170	290	E1n	118	.3	1.34	1.51	.7	E3n
JAN 10...	<.008	.04	.06	.08	250	440	--	--	--	--	--	--	--
FEB 08...	E.005n	.02	E.04n	.05	94	150k	--	--	--	--	--	--	--
MAR 22...	.017	E.02n	E.03n	E.03n	84	110	--	--	--	--	--	--	--
APR 18...	.009	.04	.05	.07	17k	65k	--	--	--	--	--	--	--
MAY 24...	.012	.10	.11	.18	530	510	2	741	.8	.16	2.00	.7	E4n
JUN 20...	<.008	.10	.10	.14	72	140k	--	--	--	--	--	--	--
JUL 25...	E.007n	.13	.19	.22	18k	58	2	163	.7	.06	1.28	1.6	<6
SEP 21...	E.005n	.13	.15	.17	84	120	--	--	--	--	--	--	--

Date	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 15...	<.08	.08	<.6	E.01n	<.4	<.6	<2
NOV 15...	.12	3.43	25.8	E.01n	E.4n	284	296
JAN 10...	--	--	--	--	--	--	--
FEB 08...	--	--	--	--	--	--	--
MAR 22...	--	--	--	--	--	--	--
APR 18...	--	--	--	--	--	--	--
MAY 24...	.17	19.6	39.2	E.01n	1.8	77.8	314
JUN 20...	--	--	--	--	--	--	--
JUL 25...	.58	12.2	35.8	<.01	E.3n	50.3	168
SEP 21...	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

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

07186600 TURKEY CREEK NEAR JOPLIN, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 37°07'15", long 94°34'55", in SE ¼ NE ¼ SE ¼ sec.25, T.28 N., R.34 W., Jasper County, Hydrologic Unit 11070207, 3.0 mi northwest of Joplin on County Highway P, 2.5 mi upstream from the mouth.

DRAINAGE AREA.--41.8 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1963 to September 1977, November 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 16...	0840	Environmental	54	7.6	78	7.6	560	15.2	240	86.5	5.38	6.45
JAN 10...	1515	Environmental	104	9.6	91	7.7	465	11.2	--	--	--	--
FEB 07...	1555	Environmental	88	10.7	98	7.4	474	10.3	--	--	--	--
MAR 21...	1230	Environmental	30	11.6	112	7.8	601	12.0	--	--	--	--
APR 18...	1445	Environmental	37	10.7	119	8.0	612	19.2	--	--	--	--
APR 18...	1446	Replicate	--	10.8	120	8.1	614	19.2	--	--	--	--
MAY 23...	1345	Environmental	58	6.8	83	7.9	414	23.9	150	55.8	3.65	5.14
JUN 20...	1420	Environmental	24	9.4	119	7.8	646	26.2	--	--	--	--
JUL 25...	1415	Environmental	23	8.3	115	7.9	592	30.1	240	85.0	5.78	8.56
SEP 21...	1415	Environmental	21	7.0	92	7.8	692	27.2	--	--	--	--

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 + nitrate, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)
NOV 16...	20.9	160	162	198	<1	26.0	.2	73.0	345d	<10	.72	<.04	2.85
JAN 10...	--	--	--	--	--	--	--	--	--	<10	.53	<.04	1.31
FEB 07...	--	--	--	--	--	--	--	--	--	17	1.6	.24	3.11
MAR 21...	--	--	--	--	--	--	--	--	--	<10	1.4	<.04	5.08d
APR 18...	--	--	--	--	--	--	--	--	--	<10	1.6	<.04	4.66
APR 18...	--	--	--	--	--	--	--	--	--	<10	1.6	<.04	4.71
MAY 23...	19.1	113	112	137	<1	19.8	.2	41.9	252	<10	1.2	<.04	2.73
JUN 20...	--	--	--	--	--	--	--	--	--	<10	1.9	<.04	5.40d
JUL 25...	26.3	146	146	179	<1	33.2	.3	84.6	392	<10	2.1	<.04	6.00d
SEP 21...	--	--	--	--	--	--	--	--	--	<10	2.5	<.04	6.92d

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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)	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)	Iron, water, fltrd, µg/L (01046)
NOV 16...	<.008	.50	.60	.61	640	710k	3	12	.5	2.28	2.27	1.7	13
JAN 10...	<.008	.21	.26	.27	420	1,500k	--	--	--	--	--	--	--
FEB 07...	.009	.44	.47	.50	1,000	>1,200a	--	--	--	--	--	--	--
MAR 21...	.009	.98d	1.08	1.06	550	530k	--	--	--	--	--	--	--
APR 18...	E.004n	1.15d	1.19	1.22	200k	490	--	--	--	--	--	--	--
APR 18...	.009	1.15d	1.19	1.23	190k	410	--	--	--	--	--	--	--
MAY 23...	.023	.86	.87	.90	2,400	2,000	2	119	1.2	.64	1.38	2.6	13
JUN 20...	E.005n	1.33d	1.47	1.46	400	1,400k	--	--	--	--	--	--	--
JUL 25...	E.006n	1.22d	1.21	1.27	20k	400	3	15	.9	1.24	1.50	2.0	9
SEP 21...	E.007n	1.95d	2.08d	2.08d	900	1,500k	--	--	--	--	--	--	--

Date	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 16...	1.14	2.96	12.8	E.01n	.6	503	477
JAN 10...	--	--	--	--	--	--	--
FEB 07...	--	--	--	--	--	--	--
MAR 21...	--	--	--	--	--	--	--
APR 18...	--	--	--	--	--	--	--
APR 18...	--	--	--	--	--	--	--
MAY 23...	.79	10.6	23.9	E.01n	2.8	150	245
JUN 20...	--	--	--	--	--	--	--
JUL 25...	1.80	4.45	12.8	E.01n	.5	190	194
SEP 21...	--	--	--	--	--	--	--

Remark codes used in this table:

- < -- Less than.
- > -- Greater than.
- E -- Estimated.

Value qualifier codes used in this table:

- a -- Value extrapolated at high end
- d -- Diluted sample: method hi range exceeded
- k -- Counts outside acceptable range
- n -- Below the LRL and above the LT-MDL



07187000 SHOAL CREEK ABOVE JOPLIN, MO

LOCATION.--Lat 37°01'23", long 94°31'00", in SE ¼ NE ¼ NE ¼ sec.34, T.27 N., R.33 W., Newton County, Hydrologic Unit 11070207, on right bank 250 ft upstream from mouth of Spring Creek, 1,400 ft downstream from bridge on State Highway 86, 0.5 mi south of city limits of Joplin, and 13.2 mi above mouth.

DRAINAGE AREA.--427 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 886.87 ft above National Geodetic Vertical Datum of 1929. Apr. 21, 1924, to Nov. 6, 1941, records were collected at site about 3 mi downstream, datum unknown; Nov. 6, 1941 to July 21, 1966, water-stage recorder at site 1.8 mi upstream, at datum 15.5 ft higher.

REMARKS.--Records good. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	555	1,040	369	607	592	348	308	268	232	135	80
2	117	1,870	928	363	596	571	339	298	259	245	132	77
3	118	808	840	375	584	554	328	292	246	214	127	80
4	113	749	770	492	564	535	323	289	237	212	122	84
5	109	667	733	5,440	551	510	322	282	233	199	126	79
6	107	587	792	9,490	562	492	355	280	222	187	126	78
7	117	527	1,580	3,230	640	485	434	279	213	176	126	71
8	154	472	1,600	2,290	e715	473	468	274	208	168	120	74
9	134	428	1,280	1,870	702	463	447	270	210	159	117	74
10	130	401	1,130	1,590	670	452	436	266	212	156	114	72
11	139	479	998	1,410	662	438	434	e258	210	150	112	70
12	146	505	903	1,310	655	426	453	250	213	152	110	68
13	144	483	823	3,340	691	417	444	249	378	148	106	68
14	139	453	754	3,890	695	403	424	278	484	146	125	84
15	134	422	701	1,960	681	394	408	300	401	147	168	202
16	131	397	666	1,610	665	389	398	273	350	139	168	372
17	126	377	634	1,400	639	380	e384	260	316	137	149	209
18	122	377	603	1,260	615	373	370	250	290	128	135	161
19	119	365	572	1,160	595	367	362	243	263	676	129	140
20	118	347	542	1,080	579	358	350	237	237	380	119	126
21	118	337	525	1,020	573	355	356	229	224	251	117	117
22	120	338	498	944	549	361	395	223	216	217	112	110
23	126	341	475	868	569	376	370	362	208	194	112	104
24	113	488	456	827	634	366	355	538	200	178	110	98
25	101	778	444	798	636	370	347	481	190	168	105	96
26	139	740	431	768	636	357	360	442	184	161	97	94
27	137	752	414	724	633	352	345	387	177	181	94	92
28	129	759	402	693	620	344	326	352	171	167	90	92
29	137	791	395	684	---	340	322	325	167	158	85	99
30	155	1,090	387	657	---	336	315	300	162	150	82	92
31	162	---	380	633	---	328	---	282	---	142	80	---
MEAN	128	589	732	1,695	626	418	377	302	245	197	118	109
MAX	162	1,870	1,600	9,490	715	592	468	538	484	676	168	372
MIN	101	337	380	363	549	328	315	223	162	128	80	68
IN.	0.35	1.54	1.98	4.58	1.53	1.13	0.99	0.82	0.64	0.53	0.32	0.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2005, BY WATER YEAR (WY)

	283	396	358	347	391	561	646	709	567	349	212	244
MEAN	283	396	358	347	391	561	646	709	567	349	212	244
MAX	1,709	2,034	1,993	1,695	1,233	1,961	3,281	4,691	2,470	2,049	2,337	1,872
(WY)	(1960)	(1986)	(1993)	(2005)	(1968)	(1973)	(1945)	(1943)	(1995)	(1993)	(1950)	(1993)
MIN	48.3	55.4	57.3	54.9	61.7	57.9	56.0	121	81.4	47.0	37.1	47.0
(WY)	(1957)	(1964)	(1964)	(1964)	(1964)	(1954)	(1954)	(1963)	(1954)	(1954)	(1954)	(1953)

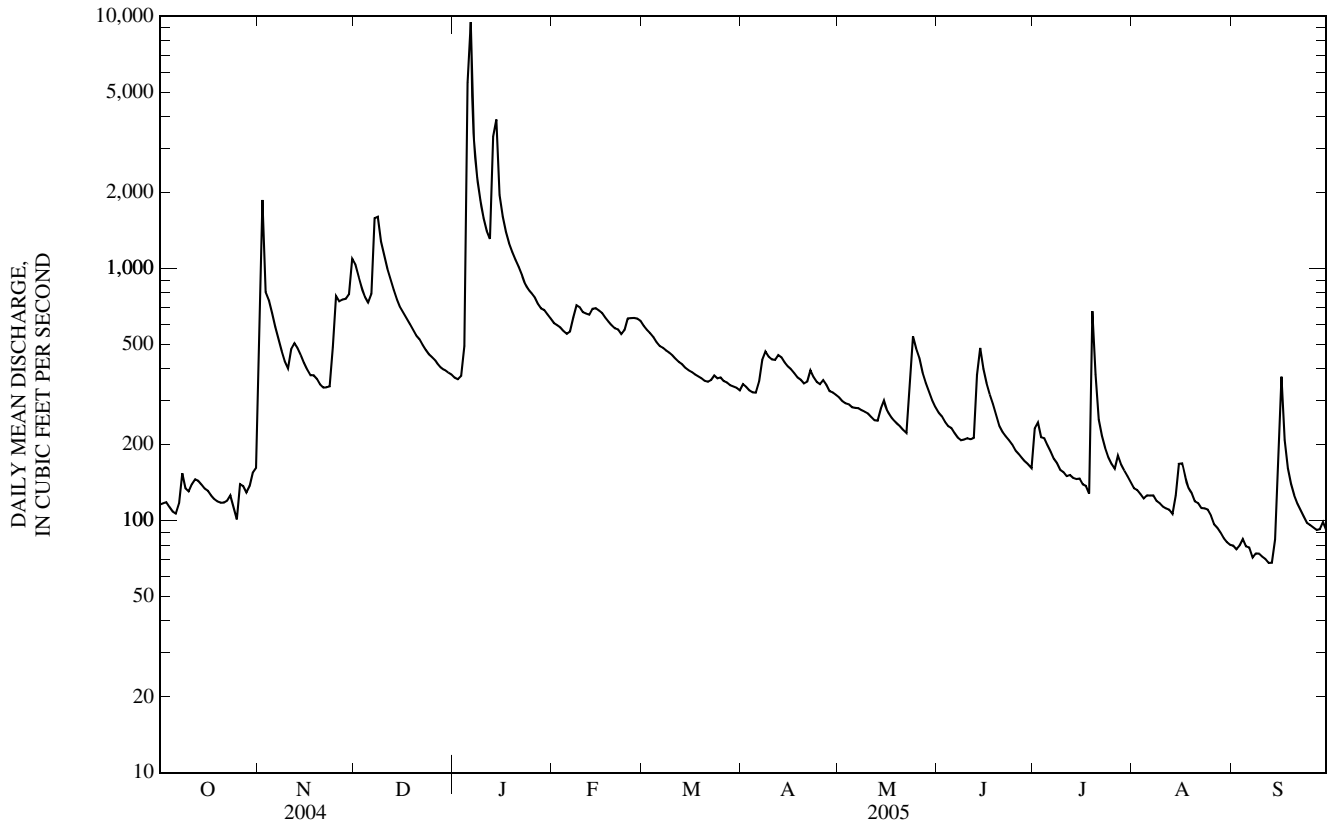
SUMMARY STATISTICS

	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1942 - 2005	
ANNUAL MEAN	511		461		421	
HIGHEST ANNUAL MEAN					1,221	
LOWEST ANNUAL MEAN					77.8	
HIGHEST DAILY MEAN	6,390		9,490		36,700	
LOWEST DAILY MEAN	101		68		15	
ANNUAL SEVEN-DAY MINIMUM	114		71		16	
MAXIMUM PEAK FLOW	---		11,500		62,100	
MAXIMUM PEAK STAGE	---		12.98		16.80 <sup>a</sup>	
INSTANTANEOUS LOW FLOW	---		63		12	
ANNUAL RUNOFF (INCHES)	16.31		14.67		13.41	
10 PERCENT EXCEEDS	928		783		860	
50 PERCENT EXCEEDS	380		340		237	
90 PERCENT EXCEEDS	139		111		89	

e Estimated

<sup>a</sup> Former site and datum.

07187000 SHOAL CREEK ABOVE JOPLIN, MO—Continued



07188653 BIG SUGAR CREEK NEAR POWELL, MO

LOCATION.--Lat 36°36'57", long 94°10'56", in NW ¼ NW ¼ NE ¼ sec. 36, T.22 N., R.33 W., McDonald County, Hydrologic Unit 11070208, on left bank of county road, 1.0 mi west of Powell.

DRAINAGE AREA.--141 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 25, 2000 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	1,230	396	66	94	155	135	73	90	46	11	5.6
2	9.5	387	301	66	92	142	140	69	81	36	11	5.5
3	8.5	249	246	82	89	133	138	66	74	32	9.6	5.2
4	8.3	244	211	3,120	86	125	134	63	68	33	9.4	5.5
5	7.6	200	199	4,070	83	117	132	61	64	29	10	10
6	7.0	168	226	1,610	85	110	182	59	55	25	26	7.8
7	7.8	144	647	750	94	117	233	58	49	23	22	6.7
8	10	123	512	509	100	126	218	57	45	21	16	6.5
9	10	108	369	387	107	122	195	56	43	18	13	5.6
10	9.6	97	289	317	111	118	177	54	42	16	12	4.7
11	11	109	238	276	113	114	298	51	40	15	10	4.1
12	13	107	208	498	117	110	380	48	37	13	8.6	4.2
13	12	97	183	2,940	140	106	300	46	59	11	7.4	4.1
14	11	89	163	823	153	100	237	69	493	10	12	6.8
15	11	83	150	508	155	95	198	59	234	9.8	18	16
16	10	79	140	373	149	92	172	52	165	8.9	26	16
17	10	74	132	297	141	88	154	48	131	7.7	28	12
18	10	81	125	252	133	85	139	44	107	7.1	21	9.3
19	9.6	85	117	225	126	82	128	42	89	87	16	8.3
20	9.9	84	111	202	122	78	120	39	77	59	14	7.3
21	10	84	107	184	121	77	113	37	69	38	18	6.7
22	11	94	100	167	113	83	107	35	64	27	17	6.2
23	12	101	94	150	142	87	99	214	57	24	16	5.6
24	13	193	88	141	210	87	92	351	50	29	14	5.3
25	12	263	84	134	217	110	88	408	45	25	12	6.1
26	21	212	81	127	202	128	92	236	41	19	11	6.3
27	25	228	77	117	185	140	84	183	38	24	10	5.6
28	21	236	74	112	171	147	85	154	36	19	9.1	5.8
29	24	422	73	108	---	146	82	130	33	16	7.8	5.6
30	40	633	71	102	---	142	78	114	30	14	6.7	4.4
31	49	---	68	98	---	132	---	102	---	12	6.0	---
MEAN	13.9	210	190	607	130	113	158	99.3	83.5	24.3	13.8	6.96
MAX	49	1,230	647	4,070	217	155	380	408	493	87	28	16
MIN	7.0	74	68	66	83	77	78	35	30	7.1	6.0	4.1
IN.	0.11	1.66	1.55	4.96	0.96	0.92	1.25	0.81	0.66	0.20	0.11	0.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	19.3	72.1	111	194	166	155	163	206	164	64.7	22.8	10.2
MAX	47.3	210	222	607	401	248	360	546	558	138	40.5	14.3
(WY)	(2002)	(2005)	(2002)	(2005)	(2001)	(2004)	(2004)	(2002)	(2000)	(2000)	(2000)	(2003)
MIN	9.98	10.8	19.0	33.5	60.7	107	37.8	42.8	38.7	24.3	9.52	6.96
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2001)	(2001)	(2004)	(2005)	(2001)	(2005)

SUMMARY STATISTICS

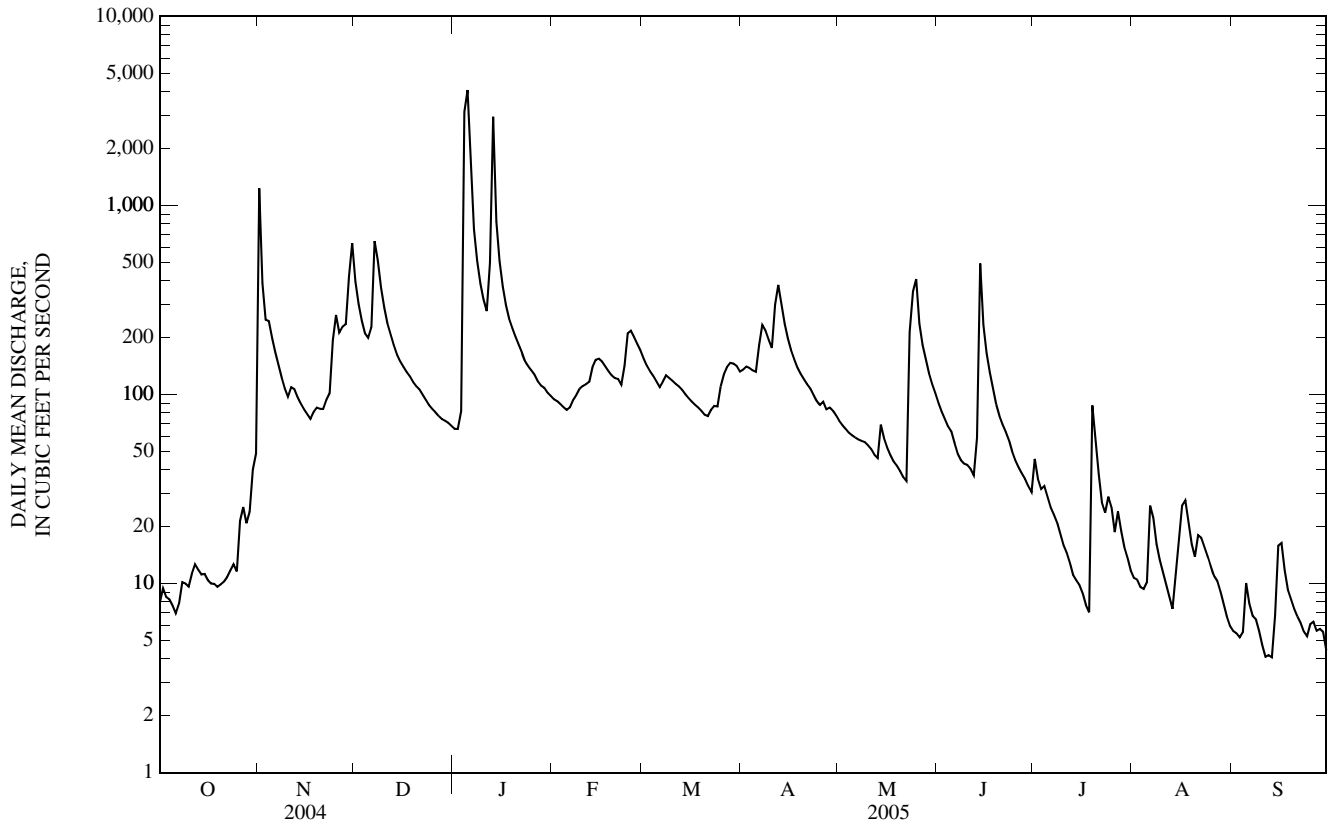
FOR 2004 CALENDAR YEAR

FOR 2005 WATER YEAR

WATER YEARS 2000 - 2005

ANNUAL MEAN	133	138	104
HIGHEST ANNUAL MEAN			149
LOWEST ANNUAL MEAN			51.3
HIGHEST DAILY MEAN	3,540	Apr 24	6,020
LOWEST DAILY MEAN	7.0	Oct 6	4.1
ANNUAL SEVEN-DAY MINIMUM	7.6	Sep 24	5.1
MAXIMUM PEAK FLOW	---		8,120
MAXIMUM PEAK STAGE	---		13.33
INSTANTANEOUS LOW FLOW	---		3.6
ANNUAL RUNOFF (INCHES)	12.87		13.26
10 PERCENT EXCEEDS	254		202
50 PERCENT EXCEEDS	84		50
90 PERCENT EXCEEDS	11		8.4

07188653 BIG SUGAR CREEK NEAR POWELL, MO—Continued



07188653 BIG SUGAR CREEK NEAR POWELL, MO—Continued  
(Ambient Water-Quality Monitoring Network)

PERIOD OF RECORD.--October 2004 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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												
20...	0900	Environmental	5.9	6.6	71	7.5	324	16.7	--	--	--	--
NOV												
01...	0138	Environmental	328	--	--	7.8	266	15.5	150	53.1	4.49	2.33
01...	0241	Environmental	1,220	--	--	7.7	219	15.5	--	--	--	--
01...	0441	Environmental	1,140	--	--	7.6	195	15.5	--	--	--	--
01...	0821	Environmental	2,360	--	--	7.6	195	15.5	--	--	--	--
01...	1221	Environmental	1,710	--	--	7.6	210	15.5	--	--	--	--
02...	0021	Environmental	590	--	--	7.7	263	15.5	--	--	--	--
17...	0900	Environmental	74	9.4	94	7.5	341	14.3	170	58.9	5.17	2.30
DEC												
07...	1015	Environmental	775	8.9	85	7.6	282	12.0	--	--	--	--
JAN												
12...	0920	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16
12...	0930	Environmental	248	9.4	92	7.9	280	12.2	150	53.7	3.25	2.08
FEB												
09...	1020	Environmental	108	12.0	103	7.6	295	7.6	--	--	--	--
MAR												
23...	0900	Environmental	88	10.4	96	7.4	297	9.7	--	--	--	--
APR												
19...	1345	Environmental	129	11.1	116	7.9	305	15.6	--	--	--	--
MAY												
24...	1308	Environmental	360	--	--	7.5	254	19.6	130	46.3	3.17	2.07
24...	1414	Environmental	492	--	--	7.6	241	20.9	--	--	--	--
24...	1654	Environmental	581	--	--	7.7	250	19.4	--	--	--	--
24...	2154	Environmental	472	--	--	7.7	264	19.1	--	--	--	--
24...	2354	Environmental	585	--	--	7.7	272	19.1	--	--	--	--
25...	0754	Environmental	442	--	--	7.7	277	19.0	--	--	--	--
26...	1230	Environmental	234	8.0	86	7.9	307	17.0	150	54.1	3.84	2.07
JUN												
29...	1040	Environmental	34	8.6	106	7.9	306	24.1	--	--	--	--
JUL												
27...	1315	Environmental	24	7.3	92	7.7	291	24.8	140	51.8	3.61	2.28
AUG												
23...	1405	Environmental	16	9.5	122	8.0	293	26.0	--	--	--	--
SEP												
21...	1210	Environmental	7.0	6.1	76	8.0	295	24.4	--	--	--	--
21...	1211	Replicate	--	6.3	78	8.0	296	24.4	--	--	--	--

## 07188653 BIG SUGAR CREEK NEAR POWELL, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unf incrm. titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicar- bonate, wat unf incrm. titr., field, mg/L (00450)	Carbon- ate, wat unf incrm. titr., field, mg/L (00447)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)
OCT 20...	--	--	--	--	--	--	--	--	<.10	<.04	1.35	<.008	E.01n
NOV 01...	2.97	--	--	--	--	5.25	<.1	6.0	.21	E.02n	1.64	E.006n	.05
01...	--	--	--	--	--	--	--	--	1.7	E.02n	1.56	.008	.19
01...	--	--	--	--	--	--	--	--	1.0	E.02n	1.62	.008	.14
01...	--	--	--	--	--	--	--	--	2.0	E.02n	2.82	.013	.21
01...	--	--	--	--	--	--	--	--	1.0	E.02n	3.52	.011	.19
02...	--	--	--	--	--	--	--	--	.47	E.02n	4.01	E.006n	.08
17...	3.38	147	148	181	<1	5.98	E.1n	6.9	<.10	<.04	2.78	<.008	E.01n
DEC 07...	--	--	--	--	--	--	--	--	.43	<.04	3.23	<.008	.03
JAN 12...	.25	--	--	--	--	E.18n	<.1	<.2	<.10	<.04	<.06	<.008	<.02
12...	3.09	119	121	148	<1	5.34	<.1	6.2	E.10n	<.04	3.63	<.008	.02
FEB 09...	--	--	--	--	--	--	--	--	E.08n	<.04	2.87	<.008	E.01n
MAR 23...	--	--	--	--	--	--	--	--	.12	<.04	2.37	E.005n	<.02
APR 19...	--	--	--	--	--	--	--	--	E.09n	<.04	1.97	<.008	<.02
MAY 24...	2.31	--	--	--	--	2.80	<.1	5.3	.74	<.04	1.34	E.004n	.03
24...	--	--	--	--	--	--	--	--	.58	<.04	1.16	<.008	.02
24...	--	--	--	--	--	--	--	--	.33	<.04	1.16	<.008	E.01n
24...	--	--	--	--	--	--	--	--	.31	<.04	1.34	<.008	.03
24...	--	--	--	--	--	--	--	--	.23	<.04	1.36	<.008	.03
25...	--	--	--	--	--	--	--	--	.20	<.04	1.34	<.008	.03
26...	2.89	143	143	174	<1	3.90	<.1	6.3	.11	<.04	1.57	<.008	<.02
JUN 29...	--	--	--	--	--	--	--	--	.11	<.04	1.21	<.008	E.01n
JUL 27...	3.08	126	128	156	<1	6.44	<.1	5.5	.11	<.04	1.10	<.008	<.02
AUG 23...	--	--	--	--	--	--	--	--	E.09n	<.04	.68	<.008	E.01n
SEP 21...	--	--	--	--	--	--	--	--	.10+	<.04	.53	<.008	E.01n
21...	--	--	--	--	--	--	--	--	.11	<.04	.54	<.008	E.01n

07188653 BIG SUGAR CREEK NEAR POWELL, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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)	Suspended sediment concentration mg/L (80154)
OCT				
20...	.018	67	78k	40
NOV				
01...	.063	1,600	5,200	41
01...	.49o	--	--	509
01...	.28o	--	--	196
01...	.53o	16,000	27,000	883
01...	.34o	--	--	265
02...	.128	--	--	82
17...	.021	69	74k	--
DEC				
07...	.106	3,200	2,800	87
JAN				
12...	<.004	--	--	--
12...	.040	250	270	1
FEB				
09...	.017	40	70	1
MAR				
23...	.010	40k	25k	2
APR				
19...	.018	5k	26	3
MAY				
24...	.176	7,000	22,000	172
24...	.141	--	--	135
24...	.078	--	--	47
24...	.080	--	--	27
24...	.069	--	--	33
25...	.060	--	--	18
26...	.032	120	160k	9
JUN				
29...	.023	39	58	3
JUL				
27...	.026	32	67k	3
AUG				
23...	.019	14k	24	4
SEP				
21...	.022+	140	210	3
21...	.020	160	220	--

Remark codes used in this table:

- < -- Less than.
- E -- Estimated.

Value qualifier codes used in this table:

- + -- Improper preservation
- d -- Diluted sample: method hi range exceeded
- k -- Counts outside acceptable range
- n -- Below the LRL and above the LT-MDL
- o -- Result determined by alternate method

07188760 BIG SUGAR CREEK NEAR PINEVILLE, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 36°36'57", long 94°10'56", in NW ¼, NW ¼, SE ¼, sec.34, T.22 N., R.32 W., McDonald County, Hydrologic Unit 11070208, East on state route W in Pineville to Eighth Street, south on Eighth Street to Sugar Beach Campground.

DRAINAGE AREA.-- 278 mi<sup>2</sup>.

PERIOD OF RECORD.--October 2004 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 20...	1245	Environmental	15	8.6	95	7.8	290	18.5	--	--	--	--
NOV 17...	1425	Environmental	111	10.3	108	7.7	297	16.4	150	52.8	3.84	1.88
NOV 17...	1426	Replicate	--	10.6	111	7.7	298	16.4	150	52.8	3.73	1.89
DEC 08...	1300	Environmental	e1,060	9.9	93	7.3	276	11.4	--	--	--	--
JAN 12...	1330	Environmental	577	10.7	103	7.7	245	11.7	130	48.6	2.80	1.69
FEB 08...	1430	Environmental	199	14.1	123	7.6	272	8.5	--	--	--	--
MAR 22...	1500	Environmental	133	11.0	106	7.5	202	11.9	--	--	--	--
APR 20...	1100	Environmental	250	11.5	121	7.8	274	16.1	--	--	--	--
MAY 25...	1445	Environmental	e1,100	8.7	96	7.9	256	18.2	120	45.4	2.55	1.69
JUN 28...	1500	Environmental	48	9.5	125	7.3	277	27.8	--	--	--	--
JUL 27...	0910	Environmental	34	4.6	57	7.5	276	24.5	140	50.8	3.16	2.09
AUG 22...	1640	Environmental	21	8.4	111	7.9	285	27.6	--	--	--	--
SEP 21...	0900	Environmental	13	4.0	50	7.2	293	24.2	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, titr., mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, titr., mg/L (00450)	Carbonate, wat unfltrd, titr., mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate, water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)
OCT 20...	--	--	--	--	--	--	--	--	<.10	<.04	.55	<.008	<.02
NOV 17...	2.79	132	132	161	<1	5.02	<.1	5.9	<.10	<.04	1.83	<.008	<.02
NOV 17...	2.84	--	--	--	--	5.05	<.1	5.9	<.10	<.04	1.77	<.008	<.02
DEC 08...	--	--	--	--	--	--	--	--	.12	<.04	2.35	<.008	E.01n
JAN 12...	2.62	108	108	132	<1	4.75	<.1	5.7	.11	<.04	2.63	<.008	<.02
FEB 08...	--	--	--	--	--	--	--	--	E.07n	<.04	2.12	<.008	<.02
MAR 22...	--	--	--	--	--	--	--	--	.11	<.04	1.43	<.008	<.02
APR 20...	--	--	--	--	--	--	--	--	E.08n	<.04	1.26	<.008	<.02
MAY 25...	2.31	117	117	142	<1	2.67	<.1	5.1	.18	<.04	1.00	<.008	<.02
JUN 28...	--	--	--	--	--	--	--	--	E.10n	<.04	.66	<.008	<.02
JUL 27...	2.75	129	130	159	<1	3.94	<.1	4.9	E.05+n	<.04	.42	<.008	<.02
AUG 22...	--	--	--	--	--	--	--	--	.12	<.04	.20	<.008	<.02
SEP 21...	--	--	--	--	--	--	--	--	E.09n	<.04	.15	<.008	<.02



07188760 BIG SUGAR CREEK NEAR PINEVILLE, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7 $\mu$ MF col/ 100 mL (31625)	Sus- pended sedi- ment concen- tration mg/L (80154)
OCT 20...	.005	7k	10k	36
NOV 17...	.010	5k	13k	--
17...	.011	11k	12k	--
DEC 08...	.027	250	160k	16
JAN 12...	.022	30k	110k	2
FEB 08...	.010	3k	20	3
MAR 22...	.006	10k	7k	3
APR 20...	.008	8k	16k	2
MAY 25...	.042	150	300	30
JUN 28...	.011	8k	8k	3
JUL 27...	.008+	140	380k	7
AUG 22...	.010	22	27	16
SEP 21...	.009	38	46	16

## Remark codes used in this table:

- e -- Estimated discharge value.
- < -- Less than.
- E -- Estimated.

## Value qualifier codes used in this table:

- + -- Improper preservation
- k -- Counts outside acceptable range
- n -- Below the LRL and above the LT-MDL

07188824 LITTLE SUGAR CREEK NEAR CAVERNA, MO  
(Ambient Water-Quality Monitoring Network)

LOCATION.--Lat 36°31'43", long 94°17'15", in NW ¼, NE ¼, SE ¼, sec.21, T.21 N., R.31 W., McDonald County, Hydrologic Unit 11070208, 2.7 miles north of Caverna on US highway 71, east on Little Missouri Road, 0.7 miles to bridge.

DRAINAGE AREA.-- 152 mi<sup>2</sup>.

PERIOD OF RECORD.--October 2004 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 20...	1030	Environmental	29	7.3	79	8.0	372	17.3	--	--	--	--
NOV 17...	1045	Environmental	76	9.8	102	7.7	349	15.7	160	59.3	2.58	3.08
DEC 07...	1350	Environmental	769	9.8	96	7.3	281	13.3	--	--	--	--
JAN 12...	1110	Environmental	336	10.4	103	7.8	268	12.8	140	52.1	1.93	2.22
FEB 09...	0910	Environmental	151	11.8	102	7.7	294	7.9	--	--	--	--
MAR 23...	1015	Environmental	117	10.4	95	7.8	302	9.9	--	--	--	--
APR 20...	0920	Environmental	163	8.9	93	7.9	304	15.7	--	--	--	--
MAY 26...	0930	Environmental	164	7.8	84	7.7	307	17.6	140	52.2	2.05	2.66
JUN 29...	0910	Environmental	48	6.8	82	7.9	335	23.2	--	--	--	--
JUL 27...	1050	Environmental	39	6.1	74	7.8	347	23.8	150	55.5	2.50	3.49
JUL 27...	1051	Replicate	--	6.0	74	7.8	354	23.6	150	55.5	2.49	3.48
AUG 23...	1030	Environmental	49	7.0	86	8.0	344	23.8	--	--	--	--
SEP 21...	1040	Environmental	25	7.4	90	7.6	358	23.4	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, 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)	Ammonia + org-N, water, unfltrd, mg/L as N (00625)	Ammonia, water, fltrd, mg/L as N (00608)	Nitrite + nitrate, water, fltrd, mg/L as N (00631)	Nitrite, water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)
OCT 20...	--	--	--	--	--	--	--	--	E.08n	<.04	1.80	<.008	.32
NOV 17...	7.96	144	144	176	<1	9.37	E.1n	10.0	E.06n	E.02n	2.23	E.006n	.23
DEC 07...	--	--	--	--	--	--	--	--	.31	<.04	2.18	E.006n	.06
JAN 12...	4.99	113	113	138	<1	6.43	<.1	7.7	.14	<.04	2.76	<.008	.03
FEB 09...	--	--	--	--	--	--	--	--	.16	<.04	2.23	<.008	.07
MAR 23...	--	--	--	--	--	--	--	--	.16	<.04	2.02	E.007n	.11
APR 20...	--	--	--	--	--	--	--	--	.12	<.04	1.93	<.008	.10
MAY 26...	6.77	126	126	154	<1	7.45	E.1n	7.7	.15	<.04	1.52	E.004n	.18
JUN 29...	--	--	--	--	--	--	--	--	.16	<.04	1.19	E.007n	.18
JUL 27...	11.5	134	136	164	<1	13.5	.1	12.1	.14	<.04	.89	E.006n	.25
JUL 27...	11.4	--	--	--	--	13.2	E.1n	12.2	.14	<.04	.90	E.005n	.26
AUG 23...	--	--	--	--	--	--	--	--	.15	<.04	1.09	<.008	.28
SEP 21...	--	--	--	--	--	--	--	--	.18	<.04	1.17	E.005n	.34

07188824 LITTLE SUGAR CREEK NEAR CAVERNA, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7u MF col/ 100 mL (31625)	Sus- pended sedi- ment concen- tration mg/L (80154)
OCT				
20...	.33o	41	63k	31
NOV				
17...	.27o	51	35	1
DEC				
07...	.159	900	1,500	44
JAN				
12...	.098	87k	160k	7
FEB				
09...	.089	41k	52	2
MAR				
23...	.158	72	200k	3
APR				
20...	.129	20k	74	4
MAY				
26...	.22o	400	480	11
JUN				
29...	.19o	59	71k	3
JUL				
27...	.29o	47	110	4
27...	.29o	52	220	4
AUG				
23...	.30o	110k	190	5
SEP				
21...	.34o	72	36	2

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

Value qualifier codes used in this table:

k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL  
o -- Result determined by alternate method

## 07188838 LITTLE SUGAR CREEK NEAR PINEVILLE, MO

LOCATION.--Lat 36°35'02", long 94°22'23", NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$  sec. 3, T.21 N., R.32 W., McDonald County, Hydrologic Unit 11070208, on right upstream bridge pier of State Highway K, 1.0 mi southeast of Pineville.

DRAINAGE AREA.--195 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Oct. 1, 2004 to current year.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	2,020	626	87	149	227	195	118	88	64	34	27
2	24	950	517	87	146	209	253	112	80	63	32	27
3	22	640	430	128	144	193	249	107	73	55	30	26
4	22	589	363	3,580	137	180	235	102	69	52	29	86
5	22	453	342	7,140	130	167	228	98	67	49	28	72
6	22	364	404	3,360	136	155	346	96	66	46	34	52
7	23	299	788	1,390	165	163	464	93	64	43	40	43
8	26	251	793	870	168	176	473	92	59	41	34	38
9	28	212	622	664	179	166	395	92	58	39	31	34
10	28	184	513	547	185	157	328	89	54	37	29	31
11	30	180	440	475	182	147	356	84	51	36	28	29
12	33	185	380	788	182	142	483	80	53	35	27	27
13	33	158	327	4,230	208	133	434	76	87	35	26	26
14	32	138	282	1,640	218	126	376	120	432	33	29	30
15	32	127	248	905	213	120	328	110	310	33	50	40
16	32	118	224	662	206	114	292	92	221	32	67	53
17	30	110	201	525	195	112	264	83	181	31	75	43
18	30	121	187	443	185	109	241	76	146	31	60	37
19	30	138	171	391	177	105	222	71	119	55	50	34
20	30	132	156	350	171	101	205	67	101	35	44	32
21	30	125	145	318	170	101	193	63	89	31	51	30
22	30	142	132	286	161	115	186	62	79	30	47	28
23	32	149	122	256	197	140	176	285	72	30	43	28
24	35	280	114	236	299	139	155	346	65	35	41	27
25	34	395	109	221	292	154	146	283	59	36	38	26
26	42	333	104	206	278	172	152	226	57	35	37	27
27	70	331	98	191	262	180	144	180	58	43	35	25
28	65	393	96	179	248	191	113	151	53	49	34	24
29	100	489	93	173	---	191	82	127	50	47	32	26
30	110	735	93	166	---	186	111	109	47	41	31	25
31	100	---	92	157	---	177	---	98	---	37	30	---
MEAN	38.7	358	297	989	192	153	261	122	100	40.6	38.6	35.1
MAX	110	2,020	793	7,140	299	227	483	346	432	64	75	86
MIN	22	110	92	87	130	101	82	62	47	30	26	24
IN.	0.23	2.05	1.76	5.85	1.03	0.91	1.49	0.72	0.57	0.24	0.23	0.20

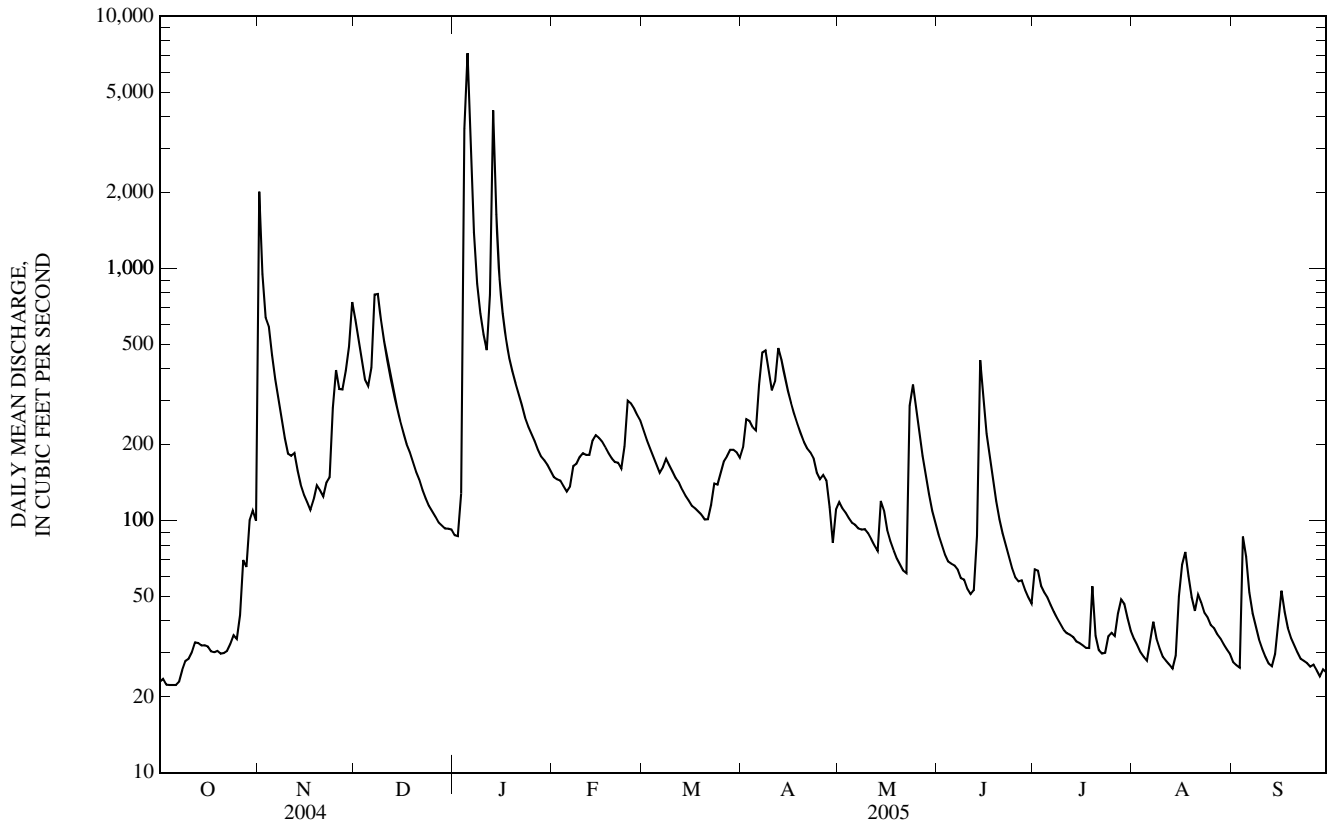
## SUMMARY STATISTICS

ANNUAL MEAN  
 HIGHEST DAILY MEAN  
 LOWEST DAILY MEAN  
 ANNUAL SEVEN-DAY MINIMUM  
 MAXIMUM PEAK FLOW  
 MAXIMUM PEAK STAGE  
 INSTANTANEOUS LOW FLOW  
 ANNUAL RUNOFF (INCHES)  
 10 PERCENT EXCEEDS  
 50 PERCENT EXCEEDS  
 90 PERCENT EXCEEDS

## FOR 2005 WATER YEAR

219  
 7,140 Jan 5  
 22 Oct 3-6  
 23 Oct 1  
 8,290 Jan 5  
 13.49 Jan 5  
 21 Oct 6  
 15.27  
 399  
 110  
 30

07188838 LITTLE SUGAR CREEK NEAR PINEVILLE, MO—Continued



07188838 LITTLE SUGAR CREEK NEAR PINEVILLE, MO--Continued  
(Ambient Water-Quality Monitoring Network)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 2004 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 20...	1425	Environmental	30	8.6	94	7.6	353	18.4	--	--	--	--
NOV 17...	1610	Environmental	100	9.6	100	7.9	346	16.6	160	57.5	3.74	2.85
DEC 08...	1100	Environmental	801	10.0	94	7.4	295	11.4	--	--	--	--
JAN 11...	1530	Environmental	470	9.7	93	7.7	279	12.0	140	50.3	2.94	2.12
FEB 08...	1330	Environmental	169	13.3	118	7.4	308	9.0	--	--	--	--
MAR 22...	1315	Environmental	118	10.6	106	7.7	293	12.9	--	--	--	--
MAR 22...	1316	Replicate	--	10.5	104	7.7	292	12.4	--	--	--	--
APR 20...	1300	Environmental	202	11.7	126	8.0	297	17.3	--	--	--	--
MAY 25...	1315	Environmental	293	9.1	102	8.1	304	19.5	140	50.1	3.28	2.64
JUN 28...	1425	Environmental	52	8.4	108	7.9	315	26.1	--	--	--	--
JUL 26...	1300	Environmental	35	7.8	103	7.8	313	27.6	150	52.9	3.45	3.10
AUG 23...	0915	Environmental	43	7.0	88	7.9	349	25.6	--	--	--	--
SEP 21...	1000	Environmental	30	7.1	89	8.0	335	24.8	--	--	--	--

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfltrd, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfltrd, field, mg/L as CaCO <sub>3</sub> (00419)	Bicarbonate, wat unfltrd, field, mg/L (00450)	Carbonate, wat unfltrd, field, mg/L (00447)	Chloride, water, fltrd, mg/L (00940)	Fluoride, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water, fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Orthophosphate, water, fltrd, mg/L as P (00671)
OCT 20...	--	--	--	--	--	--	--	--	E.09n	<.04	1.24	<.008	.10
NOV 17...	7.30	143	142	173	<1	8.65	E.1n	10.4	<.10	<.04	1.97	<.008	.13
DEC 08...	--	--	--	--	--	--	--	--	.16	<.04	2.31	<.008	.07
JAN 11...	4.58	108	110	132	<1	8.22	E.1n	8.0	.15	<.04	2.75	<.008	.07
FEB 08...	--	--	--	--	--	--	--	--	E.09n	<.04	2.20	<.008	.07
MAR 22...	--	--	--	--	--	--	--	--	.18	<.04	1.75	.008	.05
MAR 22...	--	--	--	--	--	--	--	--	.16	<.04	1.75	.008	.07
APR 20...	--	--	--	--	--	--	--	--	.10	<.04	1.56	<.008	.08
MAY 25...	6.47	128	128	156	<1	7.05	E.1n	8.7	.17	<.04	1.39	E.006n	.15
JUN 28...	--	--	--	--	--	--	--	--	.14	<.04	.66	.008	.09
JUL 26...	8.20	135	136	166	<1	11.0	E.1n	10.2	.19	<.04	.33	E.006n	.03
AUG 23...	--	--	--	--	--	--	--	--	.23	<.04	.47	E.005n	.10
SEP 21...	--	--	--	--	--	--	--	--	.15	<.04	.28	E.004n	.08

07188838 LITTLE SUGAR CREEK NEAR PINEVILLE, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7 $\mu$ MF col/ 100 mL (31625)	Sus- pended sedi- ment concen- tration mg/L (80154)
OCT 20...	.123	33	38	34
NOV 17...	.168	18k	26	--
DEC 08...	.100	570	370	17
JAN 11...	.097	120k	83k	14
FEB 08...	.082	29	58k	3
MAR 22...	.109	18k	38k	9
22...	.110	7k	40k	5
APR 20...	.103	23	31	4
MAY 25...	.194	460	790k	7
JUN 28...	.122	11k	15k	6
JUL 26...	.119	11k	83k	6
AUG 23...	.150	140	160	7
SEP 21...	.113	56	100	4

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

Value qualifier codes used in this table:

k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL

## 0718885 INDIAN CREEK NEAR LANAGAN, MO

LOCATION.--Lat 36°35'57", long 94°26'59", in NW 1/4 NW 1/4 NE 1/4 sec. 36, T. 22 N., R.33 W., McDonald County, Hydrologic Unit 11070208, on downstream side of Highway EE bridge, 0.5 mi southeast of Lanagan.

DRAINAGE AREA.--239 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 24, 2000 to current year.

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

REMARKS.--No estimated daily discharges. Water-discharge records good except for discharges over 1,000 ft<sup>3</sup>/s, which are fair. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	2,200	625	151	256	278	168	120	162	78	39	30
2	38	963	522	151	250	258	175	116	147	71	39	29
3	39	599	444	168	242	246	168	111	134	66	37	29
4	39	516	386	1,250	232	235	163	107	124	67	36	29
5	38	415	362	9,720	226	224	163	104	117	65	36	30
6	37	333	420	4,200	229	213	211	102	109	60	37	28
7	39	272	861	1,670	240	205	322	100	102	58	36	27
8	43	226	895	1,210	249	198	340	100	97	55	35	27
9	42	194	719	962	261	192	311	100	94	52	34	26
10	42	172	602	812	262	185	287	97	94	51	33	26
11	44	177	509	710	263	179	269	94	88	49	32	25
12	46	169	444	714	264	175	249	91	86	50	31	25
13	45	159	391	3,880	282	170	231	88	405	50	31	25
14	44	149	346	1,580	304	164	214	97	335	49	43	28
15	43	140	310	1,110	311	160	198	95	253	48	66	55
16	42	132	287	896	303	157	185	90	208	47	64	68
17	41	124	267	756	286	153	176	88	170	45	53	58
18	41	128	251	667	271	152	168	85	141	44	49	49
19	40	123	235	605	257	151	161	84	120	52	43	43
20	41	118	222	549	247	150	155	81	106	88	39	39
21	41	115	214	504	243	149	151	78	95	66	38	37
22	42	118	202	460	229	153	150	77	87	57	37	35
23	46	123	191	419	236	157	142	429	81	54	37	34
24	44	181	182	394	280	152	134	818	77	50	37	33
25	42	337	175	374	306	156	132	906	74	46	36	32
26	45	350	171	353	311	151	138	550	71	44	34	31
27	48	374	164	328	305	152	130	405	68	53	33	31
28	60	434	159	311	295	152	132	322	65	49	32	31
29	56	461	156	301	---	152	131	262	63	45	31	31
30	65	735	154	284	---	152	126	219	60	42	31	30
31	97	---	153	270	---	149	---	186	---	40	30	---
MEAN	45.5	351	355	1,154	266	178	189	200	128	54.5	38.4	34.0
MAX	97	2,200	895	9,720	311	278	340	906	405	88	66	68
MIN	37	115	153	151	226	149	126	77	60	40	30	25
IN.	0.22	1.64	1.72	5.57	1.16	0.86	0.88	0.97	0.60	0.26	0.19	0.16

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	43.7	110	135	315	265	239	261	412	239	138	49.4	39.4
MAX	52.5	351	355	1,154	679	392	668	1,174	519	316	70.0	47.2
(WY)	(2002)	(2005)	(2005)	(2005)	(2001)	(2004)	(2004)	(2002)	(2000)	(2004)	(2004)	(2002)
MIN	30.8	32.7	31.9	43.3	70.5	137	99.8	67.2	76.4	43.8	28.7	32.7
(WY)	(2004)	(2003)	(2003)	(2003)	(2003)	(2003)	(2001)	(2001)	(2003)	(2003)	(2003)	(2001)

## SUMMARY STATISTICS

## FOR 2004 CALENDAR YEAR

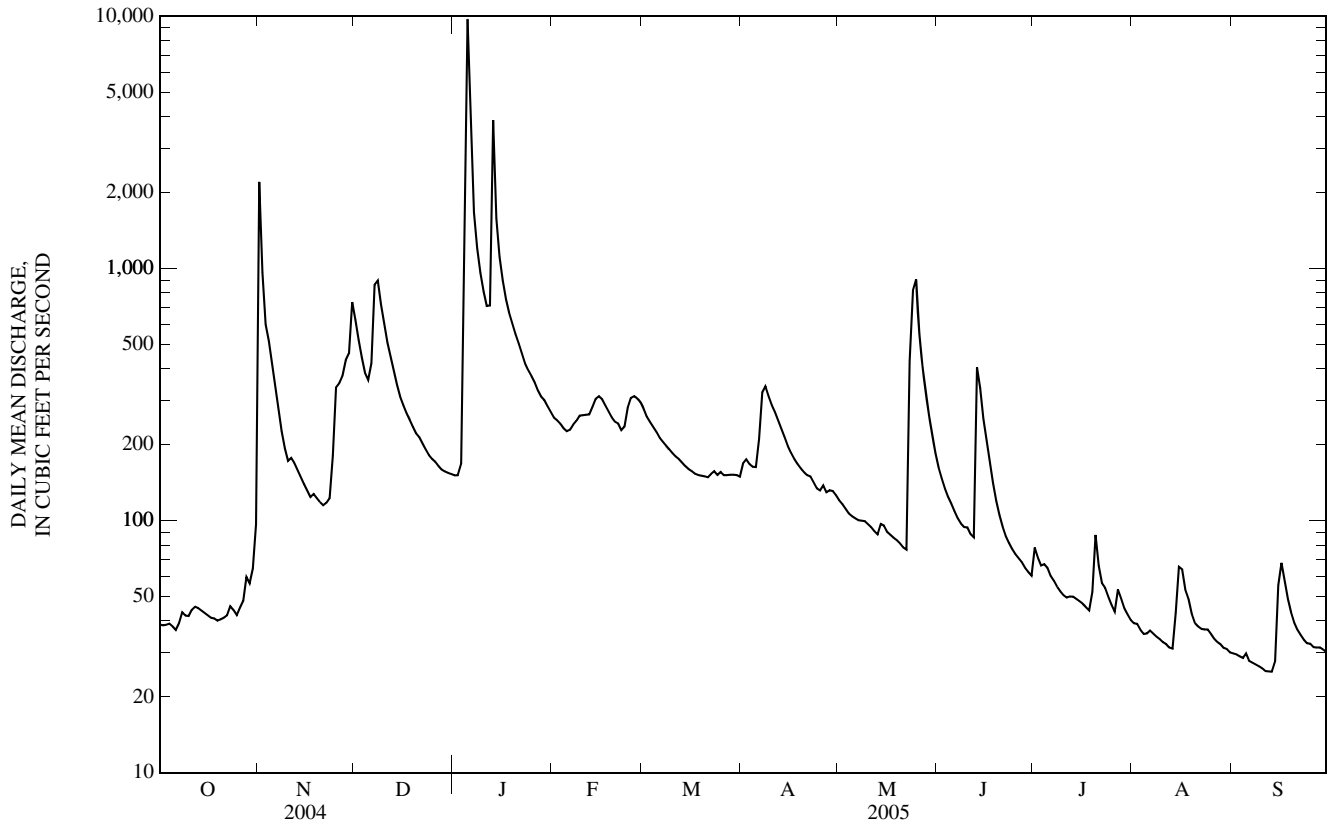
## FOR 2005 WATER YEAR

## WATER YEARS 2000 - 2005

ANNUAL MEAN	258	250	181
HIGHEST ANNUAL MEAN			250
LOWEST ANNUAL MEAN			74.9
HIGHEST DAILY MEAN	7,870	Apr 24	9,720
LOWEST DAILY MEAN	37	Oct 6	25
ANNUAL SEVEN-DAY MINIMUM	38	Sep 30	26
MAXIMUM PEAK FLOW	---		12,000
MAXIMUM PEAK STAGE	---		11.95
INSTANTANEOUS LOW FLOW	---		24
ANNUAL RUNOFF (INCHES)	14.72	14.21	10.27
10 PERCENT EXCEEDS	556	444	340
50 PERCENT EXCEEDS	146	140	82
90 PERCENT EXCEEDS	44	36	33



07188885 INDIAN CREEK NEAR LANAGAN, MO—Continued



0718885 INDIAN CREEK NEAR LANAGAN, MO—Continued  
(Ambient Water-Quality Monitoring Network)

PERIOD OF RECORD.--October 2004 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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												
19...	1545	Environmental	40	10.3	113	8.1	315	18.1	--	--	--	--
NOV												
01...	0115	Environmental	326	--	--	7.8	234	15.2	120	39.9	3.78	2.81
01...	0116	Replicate	342	--	--	7.8	234	15.2	120	40.0	3.78	2.83
01...	0218	Environmental	1,020	--	--	7.8	163	15.2	--	--	--	--
01...	0418	Environmental	1,520	--	--	7.7	178	15.2	--	--	--	--
01...	1158	Environmental	3,210	--	--	7.6	160	15.2	--	--	--	--
01...	2358	Environmental	1,560	--	--	7.6	198	15.2	--	--	--	--
16...	1600	Environmental	130	9.8	99	7.5	319	15.0	150	58.1	2.24	2.19
DEC												
06...	1520	Environmental	424	10.3	101	7.7	285	12.5	--	--	--	--
JAN												
11...	1300	Environmental	700	9.5	92	7.8	258	12.5	130	47.6	1.82	2.25
FEB												
08...	1220	Environmental	248	12.9	116	7.8	302	9.4	--	--	--	--
MAR												
22...	1200	Environmental	152	10.4	102	7.7	296	12.3	--	--	--	--
APR												
19...	1200	Environmental	160	9.1	96	7.9	284	16.2	--	--	--	--
MAY												
23...	1150	Environmental	437	--	--	7.4	255	22.0	120	46.0	1.77	2.04
23...	1335	Environmental	662	--	--	7.6	257	22.5	--	--	--	--
23...	1535	Environmental	613	--	--	7.6	255	22.5	--	--	--	--
23...	2035	Environmental	567	--	--	7.5	237	22.4	--	--	--	--
24...	0235	Environmental	495	--	--	7.5	256	21.3	--	--	--	--
25...	0845	Blank	--	--	--	--	--	--	--	<.02	<.008	<.16
25...	1030	Environmental	888	8.2	85	7.7	220	15.7	100	38.1	1.43	2.27
JUN												
28...	1340	Environmental	65	9.2	118	8.1	282	26.7	--	--	--	--
JUL												
26...	1200	Environmental	46	8.4	111	7.8	273	27.8	130	50.3	1.96	2.14
AUG												
22...	1530	Environmental	37	8.7	113	8.0	292	27.1	--	--	--	--
SEP												
21...	0815	Environmental	37	5.6	68	7.5	287	23.5	--	--	--	--

## 07188885 INDIAN CREEK NEAR LANAGAN, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sodium, water, fltrd, mg/L (00930)	ANC, wat unfiltered, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unfiltered, field, mg/L as CaCO <sub>3</sub> (00419)	Bicar- bonate, wat unfiltered, field, mg/L (00450)	Carbon- ate, wat unfiltered, field, mg/L (00447)	Chlor- ide, water, fltrd, mg/L (00940)	Fluor- ide, water, fltrd, mg/L (00950)	Sulfate water, fltrd, mg/L (00945)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Ortho- phos- phate, water, fltrd, mg/L as P (00671)
OCT 19...	--	--	--	--	--	--	--	--	E.07n	<.04	2.04	<.008	E.01n
NOV 01...	3.01	--	--	--	--	5.14	E.1n	28.3	1.0	E.02n	1.17	.021	.04
01...	3.03	--	--	--	--	5.13	E.1n	28.3	1.1+	<.04	1.17	.021	.04
01...	--	--	--	--	--	--	--	--	1.6	E.02n	1.08	.011	.06
01...	--	--	--	--	--	--	--	--	1.0	E.02n	1.33	E.007n	.08
01...	--	--	--	--	--	--	--	--	2.2	E.02n	1.60	.008	.21
01...	--	--	--	--	--	--	--	--	.82	E.02n	2.48	.010	.22
16...	4.43	134	133	162	<1	7.05	<.1	4.8	<.10	<.04	3.40	<.008	E.01n
DEC 06...	--	--	--	--	--	--	--	--	.14	<.04	4.17	<.008	.02
JAN 11...	3.96	96	96	117	<1	6.51	<.1	5.2	.18	<.04	4.55	<.008	.02
FEB 08...	--	--	--	--	--	--	--	--	E.06n	<.04	3.67	<.008	E.01n
MAR 22...	--	--	--	--	--	--	--	--	.13	<.04	3.21	.008	<.02
APR 19...	--	--	--	--	--	--	--	--	.12	<.04	2.14	<.008	<.02
MAY 23...	3.90	--	--	--	--	5.06	<.1	4.9	.42	<.04	1.99	E.006n	.04
23...	--	--	--	--	--	--	--	--	.40	E.02n	2.05	E.005n	.02
23...	--	--	--	--	--	--	--	--	.36	E.02n	2.06	E.005n	.04
23...	--	--	--	--	--	--	--	--	.65	E.02n	2.10	.009	.12
24...	--	--	--	--	--	--	--	--	.33	<.04	2.25	E.004n	.05
25...	<.20	--	--	--	--	<.20	<.1	<.2	<.10	<.04	<.06	<.008	<.02
25...	2.84	92	92	112	<1	3.64	<.1	4.6	.32	<.04	1.97	<.008	.04
JUN 28...	--	--	--	--	--	--	--	--	.12	<.04	1.70	E.004n	E.01n
JUL 26...	4.48	119	119	145	<1	8.29	<.1	3.8	E.10n	<.04	1.49	E.005n	<.02
AUG 22...	--	--	--	--	--	--	--	--	.11	<.04	1.24	<.008	E.01n
SEP 21...	--	--	--	--	--	--	--	--	.14	<.04	1.20	E.005n	E.02n

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Phosphorus, water, unfltrd mg/L (00665)	E coli, m-TEC MF, water, col/ 100 mL (31633)	Fecal coli- form, M-FC 0.7 $\mu$ MF col/ 100 mL (31625)	Sus- pended sedi- ment concen- tration mg/L (80154)
OCT				
19...	.026	38	39	23
NOV				
01...	1.03o	11,000k	25,000	2,700
01...	.69+o	--	--	--
01...	.55o	--	--	860
01...	.26o	--	--	339
01...	.61o	10,000k	27,000	656
01...	.35o	--	--	140
16...	.036	30	35	--
DEC				
06...	.034	120	110	4
JAN				
11...	.056	150	200	19
FEB				
08...	.021	50	98	2
MAR				
22...	.013	<4b	23k	3
APR				
19...	.013	23k	40	2
MAY				
23...	.101	1,500k	4,100	36
23...	.101	--	--	57
23...	.092	--	--	34
23...	.20o	--	--	43
24...	.115	--	--	24
25...	<.004	--	--	--
25...	.108	890k	1300k	39
JUN				
28...	.031	12k	31	4
JUL				
26...	.034	31	36	2
AUG				
22...	.034	40	53	1
SEP				
21...	.031	120	180	6

## Remark codes used in this table:

< -- Less than.  
E -- Estimated.

## Value qualifier codes used in this table:

+ -- Improper preservation  
b -- Value extrapolated at low end  
d -- Diluted sample: method hi range exceeded  
k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL  
o -- Result determined by alternate method

07189000 ELK RIVER NEAR TIFF CITY, MO

LOCATION.--Lat 36°37'53", long 94°35'12", in NE ¼ NE ¼ sec.22, T.22 N., R.34 W., McDonald County, Hydrologic Unit 11070208, near right abutment of bridge on State Highway 43, 0.8 mi downstream from Blackfoot Branch, 2.8 mi upstream from Buffalo Creek, 3.0 mi southeast of Tiff City, and at mile 15.8.

DRAINAGE AREA.--872 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 927: 1940. WSP 1117: Drainage area.

GAGE.--Water stage recorder. Datum of gage is 750.61 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Sept. 6, 1960 to Aug. 25, 1961, at site 100 ft downstream.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	6,110	2,710	430	765	1,030	688	533	479	266	117	83
2	83	5,240	1,960	419	748	944	748	515	445	268	110	81
3	81	2,240	1,510	460	735	886	774	501	413	256	104	79
4	80	1,670	1,230	4,650	713	837	766	487	387	236	101	77
5	78	1,350	1,090	28,700	697	792	753	476	368	230	96	96
6	79	1,050	1,180	18,800	693	748	986	465	359	223	93	100
7	86	851	2,410	7,160	723	719	1,480	454	349	214	94	89
8	90	720	3,760	4,350	764	716	1,640	448	334	206	96	84
9	92	629	2,720	3,160	805	709	1,510	441	327	201	94	78
10	93	575	2,040	2,540	833	690	1,320	430	321	192	88	75
11	99	553	1,610	2,170	851	668	1,210	419	313	181	82	73
12	102	536	1,340	2,060	850	642	1,480	407	307	176	79	73
13	104	516	1,150	14,000	882	621	1,530	396	440	171	76	69
14	105	491	1,000	8,580	939	595	1,330	410	699	166	97	73
15	103	463	893	4,370	980	574	1,160	447	1,090	160	121	88
16	101	445	825	3,060	974	558	1,030	458	761	153	160	94
17	100	426	769	2,450	936	542	932	437	588	146	164	102
18	97	426	716	2,090	894	526	859	418	486	136	155	92
19	94	428	672	1,860	853	510	807	402	416	139	143	86
20	95	426	628	1,670	828	496	765	388	375	162	129	81
21	94	419	599	1,520	816	485	723	372	348	172	122	79
22	98	422	575	1,390	790	492	696	356	328	163	122	76
23	102	430	542	1,250	789	511	665	735	317	150	119	73
24	102	492	517	1,150	952	522	628	1,640	302	147	116	72
25	101	883	501	1,080	1,170	543	598	2,980	287	135	111	71
26	105	1,060	490	1,030	1,200	569	596	1,740	269	128	104	68
27	116	1,090	474	963	1,170	611	584	1,150	264	146	98	66
28	133	1,200	459	910	1,110	641	570	876	261	144	94	65
29	146	1,330	448	874	---	660	543	698	252	140	90	62
30	228	2,860	443	834	---	671	528	599	245	133	88	61
31	260	---	435	803	---	659	---	529	---	124	85	---
MEAN	107	1,178	1,151	4,025	874	651	930	665	404	176	108	78.9
MAX	260	6,110	3,760	28,700	1,200	1,030	1,640	2,980	1,090	268	164	102
MIN	78	419	435	419	693	485	528	356	245	124	76	61
IN.	0.14	1.51	1.52	5.32	1.04	0.86	1.19	0.88	0.52	0.23	0.14	0.10

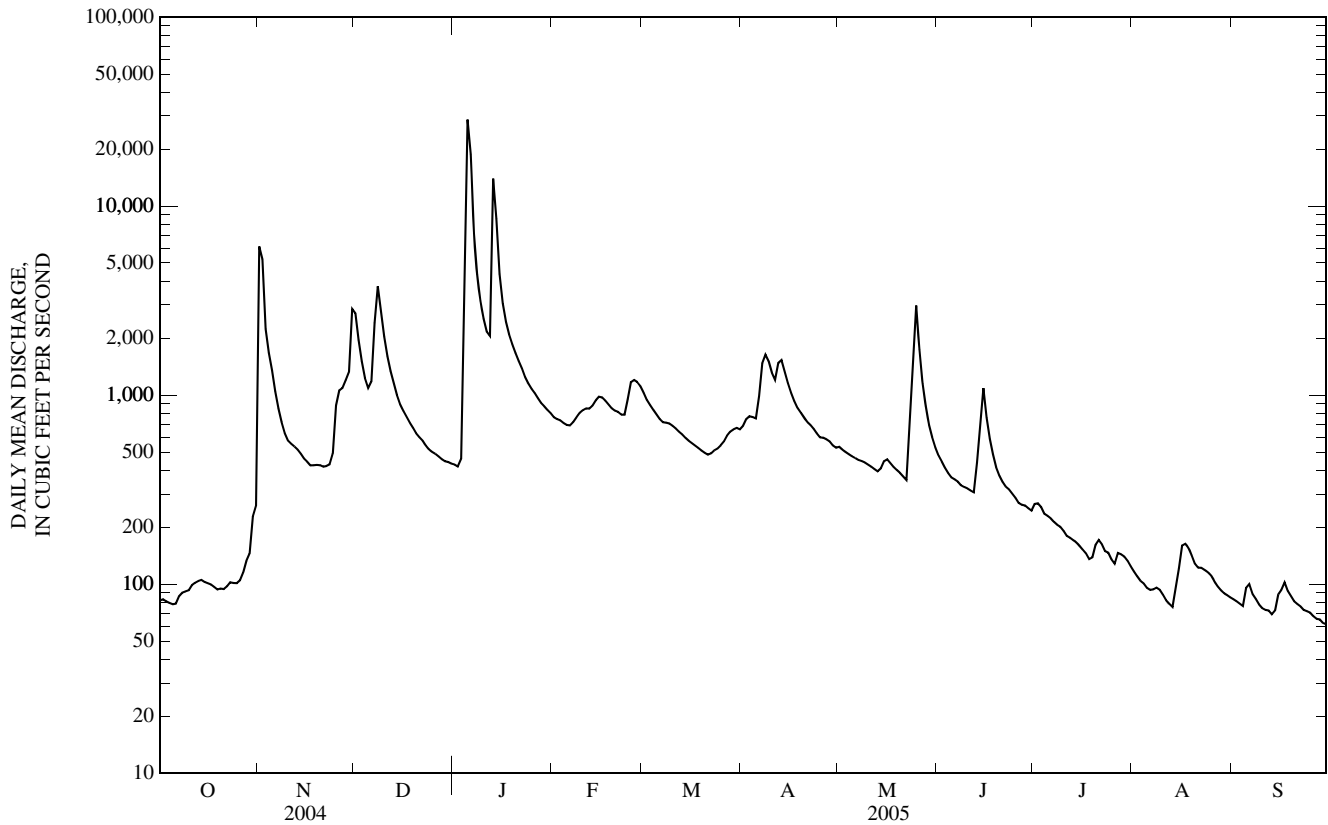
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2005, BY WATER YEAR (WY)

MEAN	403	712	763	730	881	1,326	1,574	1,503	959	486	256	283
MAX	2,938	4,094	3,651	4,025	2,971	5,020	6,119	8,964	4,245	2,565	2,418	2,164
(WY)	(1942)	(1975)	(1993)	(2005)	(1951)	(1945)	(1945)	(1943)	(1995)	(1976)	(1950)	(1993)
MIN	25.7	49.8	58.5	55.9	70.7	75.7	145	227	78.6	14.3	12.0	30.9
(WY)	(1957)	(1964)	(1964)	(1964)	(1954)	(1956)	(1956)	(1964)	(1954)	(1954)	(1954)	(1953)

ARKANSAS RIVER BASIN

07189000 ELK RIVER NEAR TIFF CITY, MO—Continued

SUMMARY STATISTICS	FOR 2004 CALENDAR YEAR		FOR 2005 WATER YEAR		WATER YEARS 1940 - 2005	
ANNUAL MEAN	905		865		822	
HIGHEST ANNUAL MEAN					1,881	1993
LOWEST ANNUAL MEAN					135	1954
HIGHEST DAILY MEAN	18,900	Apr 24	28,700	Jan 5	68,600	Apr 19, 1941
LOWEST DAILY MEAN	78	Oct 5	61	Sep 30	5.1	Sep 5, 1954
ANNUAL SEVEN-DAY MINIMUM	81	Sep 30	66	Sep 24	5.6	Sep 2, 1954
MAXIMUM PEAK FLOW	---		32,300	Jan 5	137,000	Apr 19, 1941
MAXIMUM PEAK STAGE	---		20.44	Jan 5	28.40	Apr 19, 1941
ANNUAL RUNOFF (INCHES)	14.13		13.46		12.81	
10 PERCENT EXCEEDS	1,950		1,510		1,720	
50 PERCENT EXCEEDS	480		479		344	
90 PERCENT EXCEEDS	102		88		88	



07189000 ELK RIVER NEAR TIFF CITY, MO—Continued  
(Ambient Water-Quality Monitoring Network)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1962 to June 1963, November 1965 to July 1975, October 1980 to September 1981, October 1982 to June 1990, November 1992 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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												
19...	1400	Environmental	94	9.4	103	7.7	331	18.4	--	--	--	--
NOV												
01...	0450	Environmental	740	--	--	7.7	297	15.2	140	51.1	3.84	3.21
01...	0713	Environmental	4,620	--	--	7.5	209	15.2	--	--	--	--
01...	1333	Environmental	8,180	--	--	7.6	190	15.2	--	--	--	--
01...	2133	Environmental	9,720	--	--	7.6	201	15.2	--	--	--	--
02...	0636	Environmental	6,260	--	--	7.6	228	15.2	--	--	--	--
02...	1636	Environmental	3,830	--	--	7.6	253	15.2	--	--	--	--
16...	1330	Environmental	442	10.6	108	7.5	329	15.3	150	55.3	3.76	2.52
DEC												
06...	1400	Environmental	1,180	10.4	101	7.6	299	11.9	--	--	--	--
JAN												
11...	0910	Environmental	2,200	13.1	123	7.9	263	11.3	130	48.3	2.60	2.15
FEB												
07...	1300	Environmental	721	13.6	123	7.7	281	9.9	--	--	--	--
MAR												
21...	1500	Environmental	483	10.5	104	7.8	289	12.8	--	--	--	--
APR												
19...	0900	Environmental	817	8.5	89	7.9	294	16.1	--	--	--	--
MAY												
23...	1906	Environmental	1,130	--	--	7.9	277	21.3	130	47.4	3.09	2.37
23...	2131	Environmental	1,490	--	--	7.6	270	22.3	--	--	--	--
24...	0611	Environmental	1,730	--	--	7.7	262	22.2	--	--	--	--
24...	0940	Environmental	1,720	6.5	74	7.5	270	20.5	130	46.1	2.75	2.41
24...	2211	Environmental	1,500	--	--	7.7	277	22.1	--	--	--	--
25...	0211	Environmental	2,880	--	--	7.7	275	22.0	--	--	--	--
25...	0756	Environmental	3,650	--	--	7.5	239	22.2	--	--	--	--
25...	1456	Environmental	2,880	--	--	7.6	239	22.2	--	--	--	--
JUN												
27...	1340	Environmental	264	10.7	142	8.1	299	28.1	--	--	--	--
JUL												
26...	1015	Environmental	128	6.0	80	7.7	288	28.4	130	47.9	3.56	3.06
AUG												
22...	1355	Environmental	122	8.3	111	8.1	326	28.5	--	--	--	--
SEP												
19...	1155	Environmental	88	7.9	101	7.4	320	25.6	--	--	--	--

## 07189000 ELK RIVER NEAR TIFF CITY, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	Sodium, water, ftrd, mg/L (00930)	ANC, wat unf fixed end pt, field, mg/L as CaCO <sub>3</sub> (00410)	ANC, wat unf incrm. titr., field, mg/L as CaCO <sub>3</sub> (00419)	Bicar- bonate, wat unf incrm. titr., field, mg/L (00450)	Carbon- ate, wat unf incrm. titr., field, mg/L (00447)	Chlor- ide, water, ftrd, mg/L (00940)	Fluor- ide, water, ftrd, mg/L (00950)	Sulfate water, ftrd, mg/L (00945)	Residue on evap. at 180degC wat ftr mg/L (70300)	Residue total at 105 deg. C, sus- pended, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, ftrd, mg/L as N (00608)	Nitrite + nitrate water ftrd, mg/L as N (00631)
OCT 19...	--	--	--	--	--	--	--	--	--	<10	E.09n	<.04	1.16
NOV 01...	7.37	--	--	--	--	10.0	E.1n	10.1	--	--	.31	<.04	1.41
01...	--	--	--	--	--	--	--	--	--	--	1.9	E.02n	1.26
01...	--	--	--	--	--	--	--	--	--	--	1.5	E.02n	1.62
01...	--	--	--	--	--	--	--	--	--	--	1.3	E.02n	1.87
02...	--	--	--	--	--	--	--	--	--	--	.78	E.02n	2.40
02...	--	--	--	--	--	--	--	--	--	--	.56	E.02n	2.47
16...	5.58	138	139	169	<1	7.93	<.1	8.2	190d	<10	<.10	<.04	2.54
DEC 06...	--	--	--	--	--	--	--	--	--	<10	E.10n	<.04	2.93
JAN 11...	3.89	102	102	124	<1	6.04	<.1	6.8	162d	<10	.16	<.04	3.37
FEB 07...	--	--	--	--	--	--	--	--	--	<10	E.10n	<.04	2.72
MAR 21...	--	--	--	--	--	--	--	--	--	<10	.15	<.04	1.93
APR 19...	--	--	--	--	--	--	--	--	--	<10	.12	<.04	1.44
MAY 23...	5.18	--	--	--	--	6.37	<.1	7.1	--	--	.74	E.02n	1.38
23...	--	--	--	--	--	--	--	--	--	--	.49	E.03n	1.44
24...	--	--	--	--	--	--	--	--	--	--	.40	<.04	1.41
24...	4.03	110	110	134	<1	5.08	<.1	6.4	160	<10	.29	<.04	1.44
24...	--	--	--	--	--	--	--	--	--	--	.27	<.04	1.43
25...	--	--	--	--	--	--	--	--	--	--	.49	<.04	1.62
25...	--	--	--	--	--	--	--	--	--	--	1.3	E.03n	1.31
25...	--	--	--	--	--	--	--	--	--	--	1.1	E.03n	1.26
JUN 27...	--	--	--	--	--	--	--	--	--	<10	.14	<.04	.81
JUL 26...	7.65	121	120	146	<1	10.0	<.1	9.2	180	<10	.21	<.04	.56
AUG 22...	--	--	--	--	--	--	--	--	--	<10	.15	<.04	.51
SEP 19...	--	--	--	--	--	--	--	--	--	<10	.14	<.04	.40



07189000 ELK RIVER NEAR TIFF CITY, MO—Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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)	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)	Iron, water, fltrd, µg/L (01046)
OCT 19...	<.008	.03	E.04n	E.04n	21	26	--	--	--	--	--	--	--
NOV 01...	E.005n	.10	--	.135	300k	5,000	--	--	--	--	--	--	--
01...	.008	.18	--	.50o	--	--	--	--	--	--	--	--	--
01...	E.007n	.12	--	.38o	--	--	--	--	--	--	--	--	--
01...	E.007n	.14	--	.36o	7,200	13,000k	--	--	--	--	--	--	--
02...	.009	.13	--	.26o	--	--	--	--	--	--	--	--	--
02...	E.006n	.09	--	.165	--	--	--	--	--	--	--	--	--
16...	<.008	.02	.05	.05	22	34	2	15	.3	<.04	<.04	.5	<6
DEC 06...	<.008	.04	.04	.04	130	160	--	--	--	--	--	--	--
JAN 11...	<.008	.03	E.04n	.05	120	290k	E1n	134	.2	<.04	E.03n	.5	<6
FEB 07...	<.008	E.02n	E.02n	E.02n	40	71k	--	--	--	--	--	--	--
MAR 21...	.011	<.02	E.02n	E.03n	<2b	4k	--	--	--	--	--	--	--
APR 19...	E.005n	<.02	E.03n	E.03n	23	29	--	--	--	--	--	--	--
MAY 23...	E.007n	.02	--	.19o	270k	700k	--	--	--	--	--	--	--
23...	.009	.04	--	.122	--	--	--	--	--	--	--	--	--
24...	.011	<.02	--	.126	--	--	--	--	--	--	--	--	--
24...	E.004n	.05	.08	.09	1,000	770k	E1n	119	.8	<.04	E.02n	.8	7
24...	.013	.04	--	.084	--	--	--	--	--	--	--	--	--
25...	.009	.03	--	.133	--	--	--	--	--	--	--	--	--
25...	.037	<.02	--	.32o	--	--	--	--	--	--	--	--	--
25...	E.004n	<.02	--	.34o	--	--	--	--	--	--	--	--	--
JUN 27...	<.008	.02	E.03n	E.02n	10k	24	--	--	--	--	--	--	--
JUL 26...	E.004n	<.02	E.04n	.05	14k	100k	E1n	18	.4	<.04	<.04	.5	<6
AUG 22...	<.008	E.01n	E.04n	.04	7k	21	--	--	--	--	--	--	--
SEP 19...	<.008	E.01n	E.03n	E.03n	38	42	--	--	--	--	--	--	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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)	Sus- pended sedi- ment concen- tration mg/L (80154)
OCT								
19...	--	--	--	--	--	--	--	26
NOV								
01...	--	--	--	--	--	--	--	63
01...	--	--	--	--	--	--	--	479
01...	--	--	--	--	--	--	--	470
01...	--	--	--	--	--	--	--	335
02...	--	--	--	--	--	--	--	167
02...	--	--	--	--	--	--	--	125
16...	<.08	E.04n	1.9	E.01n	E.2n	2.4	E2n	--
DEC								
06...	--	--	--	--	--	--	--	3
JAN								
11...	.14	1.49	1.2	<.01	E.4n	.8	3	13
FEB								
07...	--	--	--	--	--	--	--	2
MAR								
21...	--	--	--	--	--	--	--	2
APR								
19...	--	--	--	--	--	--	--	2
MAY								
23...	--	--	--	--	--	--	--	395
23...	--	--	--	--	--	--	--	231
24...	--	--	--	--	--	--	--	97
24...	<.08	.59	1.7	E.01n	1.9	E.6n	E2n	13
24...	--	--	--	--	--	--	--	64
25...	--	--	--	--	--	--	--	101
25...	--	--	--	--	--	--	--	888
25...	--	--	--	--	--	--	--	444
JUN								
27...	--	--	--	--	--	--	--	4
JUL								
26...	E.07n	.19	6.2	<.01	<.4	.7	<2	6
AUG								
22...	--	--	--	--	--	--	--	2
SEP								
19...	--	--	--	--	--	--	--	2

Remark codes used in this table:

< -- Less than.  
E -- Estimated.

Value qualifier codes used in this table:

b -- Value extrapolated at low end  
d -- Diluted sample: method hi range exceeded  
k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL  
o -- Result determined by alternate method

07189100 BUFFALO CREEK AT TIFF CITY, MO

LOCATION.--Lat 36°40'15", long 94°36'14", in NW ¼ NE ¼ SE ¼ sec. 4, T.22 N., R.34 W., McDonald County, Hydrologic Unit 11070208, on downstream side of Highway 76 bridge, 0.5 mi east of Tiff City.

DRAINAGE AREA.--60.8 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 24, 2000 to current year.

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

REMARKS.--Water-discharge records poor. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	79	181	18	49	97	30	34	49	13	3.7	0.89
2	2.5	98	134	18	48	87	30	32	43	13	3.4	0.82
3	2.4	78	105	19	46	80	31	29	38	12	3.1	0.75
4	2.2	76	83	553	45	74	31	28	33	13	2.7	0.71
5	2.2	65	72	3,800	44	67	32	26	30	12	2.5	0.66
6	e2.1	51	83	1,340	48	62	41	25	27	11	2.4	0.61
7	2.8	40	493	750	58	58	99	23	24	11	2.5	0.54
8	5.0	32	405	490	85	54	146	23	22	10	2.5	0.46
9	4.3	26	269	361	114	51	138	22	20	9.5	2.3	0.41
10	4.0	23	197	288	134	48	120	21	19	8.9	2.1	0.36
11	4.1	30	144	233	132	45	108	20	18	8.4	1.9	0.31
12	4.0	37	113	222	125	42	96	19	18	8.2	1.7	0.25
13	3.9	43	90	1,100	129	40	84	19	79	7.8	1.5	0.21
14	3.9	39	73	626	150	38	72	22	91	7.4	1.8	0.19
15	4.0	33	60	455	149	36	62	19	65	7.0	3.8	3.5
16	3.9	29	52	357	137	35	56	18	54	6.5	3.8	5.9
17	4.0	25	45	292	119	33	50	17	45	6.1	3.5	6.4
18	4.1	24	40	241	105	32	45	16	38	5.8	3.2	7.2
19	4.1	21	36	203	96	31	41	16	33	5.7	2.6	7.9
20	4.4	20	32	176	88	30	38	16	28	5.3	2.2	6.8
21	4.5	20	30	155	79	30	39	15	25	5.0	2.1	5.8
22	5.1	20	28	134	69	32	53	14	23	4.6	1.8	4.9
23	6.7	20	26	112	74	32	53	157	20	6.1	1.7	4.1
24	5.8	29	24	99	100	30	47	1,390	18	6.9	1.6	3.6
25	5.6	71	23	90	130	30	42	754	17	5.1	1.5	3.3
26	5.9	86	21	80	129	29	41	317	16	4.7	1.5	2.9
27	5.9	78	20	69	119	29	38	182	15	7.0	1.4	2.7
28	6.1	71	20	64	109	28	40	124	14	5.4	1.3	2.4
29	6.8	83	20	60	---	27	40	94	13	4.9	1.1	2.2
30	9.2	208	19	55	---	26	37	75	12	4.5	1.0	2.1
31	14	---	19	52	---	26	---	60	---	4.1	0.94	---
MEAN	4.71	51.8	95.4	404	96.8	43.8	59.3	117	31.6	7.74	2.23	2.63
MAX	14	208	493	3,800	150	97	146	1,390	91	13	3.8	7.9
MIN	2.1	20	19	18	44	26	30	14	12	4.1	0.94	0.19
IN.	0.09	0.95	1.81	7.66	1.66	0.83	1.09	2.22	0.58	0.15	0.04	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2005, BY WATER YEAR (WY)

MEAN	7.32	22.4	45.5	138	106	95.5	100	150	107	50.8	6.18	4.16
MAX	23.3	51.8	95.4	404	256	231	270	466	254	207	17.3	11.6
(WY)	(2002)	(2005)	(2005)	(2005)	(2001)	(2004)	(2004)	(2002)	(2000)	(2004)	(2004)	(2003)
MIN	1.77	3.63	8.00	12.4	28.1	43.8	26.3	12.2	31.6	7.60	2.23	0.66
(WY)	(2003)	(2003)	(2003)	(2003)	(2003)	(2005)	(2001)	(2001)	(2005)	(2003)	(2005)	(2002)

SUMMARY STATISTICS

FOR 2004 CALENDAR YEAR

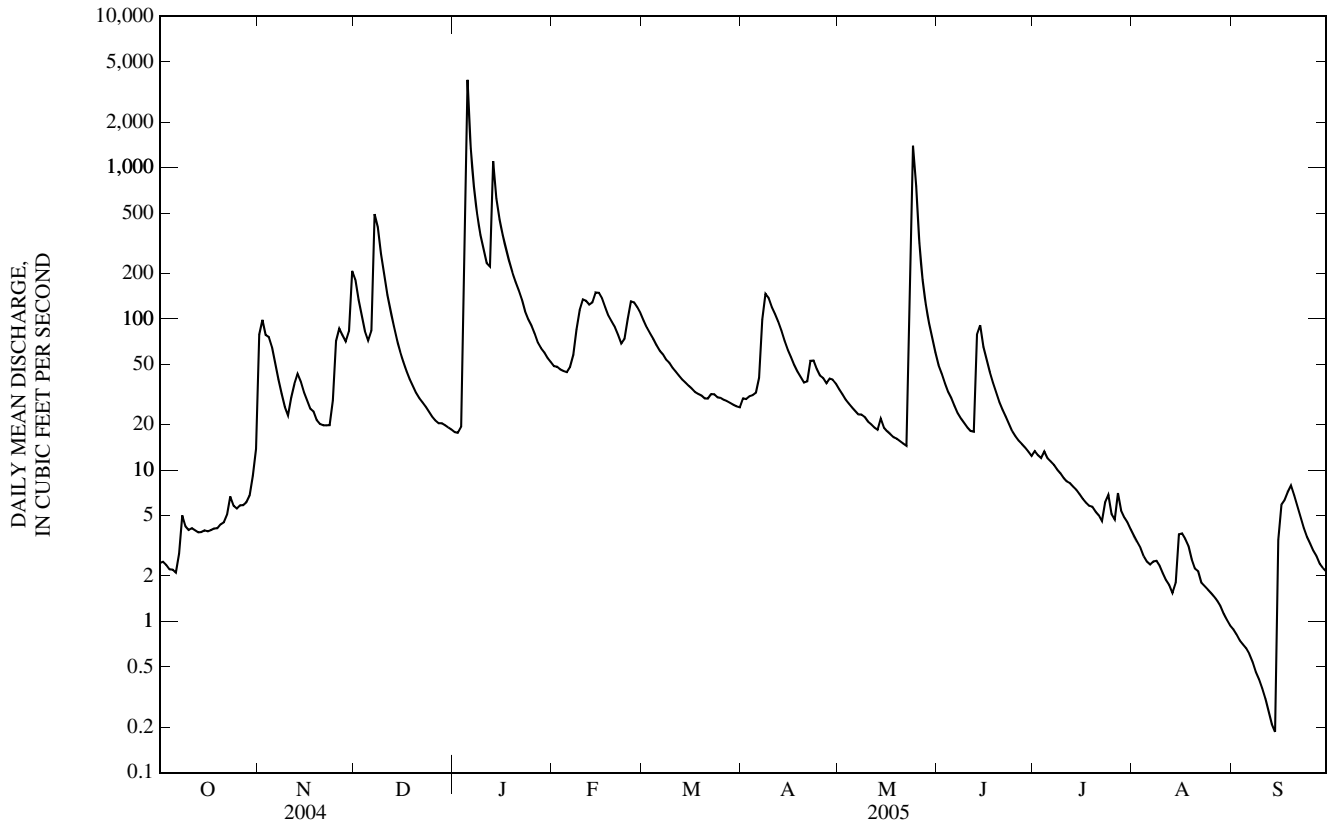
FOR 2005 WATER YEAR

WATER YEARS 2000 - 2005

ANNUAL MEAN	99.6	76.7	66.8
HIGHEST ANNUAL MEAN			92.3
LOWEST ANNUAL MEAN			31.7
HIGHEST DAILY MEAN	2,820	Apr 24	3,800
LOWEST DAILY MEAN	2.1	Oct 6	0.19
ANNUAL SEVEN-DAY MINIMUM	2.3	Sep 30	0.31
MAXIMUM PEAK FLOW	---		6,530
MAXIMUM PEAK STAGE	---		11.12
INSTANTANEOUS LOW FLOW	---		0.16
ANNUAL RUNOFF (INCHES)	22.30		17.12
10 PERCENT EXCEEDS	206		134
50 PERCENT EXCEEDS	38		28
90 PERCENT EXCEEDS	4.7		2.3

e Estimated

07189100 BUFFALO CREEK AT TIFF CITY, MO—Continued



07189100 BUFFALO CREEK AT TIFF CITY, MO—Continued  
(Ambient Water-Quality Monitoring Network)

PERIOD OF RECORD.--October 2004 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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, 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 19...	1300	Environmental	4.2	9.4	102	7.3	295	17.7	--	--	--	--
NOV 16...	1125	Environmental	29	10.5	108	7.5	299	15.8	140	51.8	1.88	2.33
DEC 06...	1240	Environmental	74	11.5	113	7.4	277	13.2	--	--	--	--
JAN 11...	1055	Environmental	230	9.6	90	7.5	233	11.3	110	42.3	1.45	2.07
FEB 07...	1340	Environmental	58	11.5	106	7.6	258	10.2	--	--	--	--
MAR 21...	1620	Environmental	29	10.4	100	7.5	272	12.0	--	--	--	--
APR 19...	1020	Environmental	42	9.8	100	7.7	282	14.9	--	--	--	--
MAY 24...	1115	Environmental	162	7.7	83	7.6	279	17.1	130	50.0	1.71	2.31
JUN 27...	1245	Environmental	15	8.9	109	7.8	281	23.6	--	--	--	--
JUL 26...	0845	Blank	--	--	--	--	--	--		.06	.008	<.16
JUL 26...	0850	Environmental	4.8	5.9	71	7.5	282	22.9	140	52.9	1.69	2.55
AUG 22...	1255	Environmental	1.9	8.2	100	7.3	302	23.8	--	--	--	--
SEP 19...	1240	Environmental	8.1	7.8	95	6.8	292	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 19...	--	--	--	--	--	--	--	--	--	<10	<.10	<.04	1.27
NOV 16...	5.42	124	124	151	<1	9.04	<.1	6.8	180d	<10	<.10	<.04	1.91
DEC 06...	--	--	--	--	--	--	--	--	--	<10	E.09n	<.04	2.54
JAN 11...	4.15	87	87	107	<1	7.03	<.1	6.5	150d	<10	E.09n	<.04	2.99
FEB 07...	--	--	--	--	--	--	--	--	--	15	E.08n	<.04	2.42
MAR 21...	--	--	--	--	--	--	--	--	--	<10	.10	<.04	1.93
APR 19...	--	--	--	--	--	--	--	--	--	<10	E.09n	<.04	1.62
MAY 24...	5.01	115	116	142	<1	6.53	<.1	6.7	165	<10	.18	<.04	1.67
JUN 27...	--	--	--	--	--	--	--	--	--	<10	.11	<.04	1.21
JUL 26...	<.20	--	--	--	--	2.44	<.1	.5	<10	<10	<.10	<.04	<.06
JUL 26...	5.16	122	124	151	<1	6.77	<.1	5.8	157	<10	E.08n	<.04	1.30
AUG 22...	--	--	--	--	--	--	--	--	--	<10	E.10n	<.04	1.09
SEP 19...	--	--	--	--	--	--	--	--	--	<10	E.06n	<.04	.84

## 07189100 BUFFALO CREEK AT TIFF CITY, MO—Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

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 coliform, M-FC, col/100 mL (31625)	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)	Iron, water, fltrd, µg/L (01046)
OCT 19...	<.008	E.02n	E.02n	E.03n	14k	10k	--	--	--	--	--	--	--
NOV 16...	<.008	<.02	E.02n	<.04	34	58	E1n	6	.2	<.04	<.04	E.3n	<6
DEC 06...	<.008	.02	E.02n	E.02n	46	52	--	--	--	--	--	--	--
JAN 11...	<.008	.02	E.03n	E.03n	76	110	Mn	40	.2	<.04	<.04	.4	<6
FEB 07...	<.008	E.01n	<.04	E.02n	42	33k	--	--	--	--	--	--	--
MAR 21...	<.008	E.01n	<.04	E.02n	10k	15k	--	--	--	--	--	--	--
APR 19...	<.008	E.01n	E.02n	<.04	11k	48	--	--	--	--	--	--	--
MAY 24...	<.008	E.02n	.04	E.04n	670	810k	<2	36	.4	<.04	<.04	.5	<6
JUN 27...	<.008	E.01n	E.03n	<.04	8k	10k	--	--	--	--	--	--	--
JUL 26...	<.008	<.02	<.04	<.04	--	--	Mn	E1n	<.2	<.04	<.04	.7	E3n
JUL 26...	<.008	.02	E.03n	E.03n	38	170	<2	11	.3	<.04	<.04	.4	<6
AUG 22...	<.008	E.01n	E.03n	E.03n	13k	20	--	--	--	--	--	--	--
SEP 19...	<.008	.02	E.03n	E.03n	69	93k	--	--	--	--	--	--	--

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005—CONTINUED

Date	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 19...	--	--	--	--	--	--	--
NOV 16...	<.08	<.06	E.4n	E.01n	E.3n	2.0	E1n
DEC 06...	--	--	--	--	--	--	--
JAN 11...	.28	.27	E.4n	<.01	E.3n	.9	E1n
FEB 07...	--	--	--	--	--	--	--
MAR 21...	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--
MAY 24...	<.08	.08	1.1	<.01	.8	.8	<2
JUN 27...	--	--	--	--	--	--	--
JUL 26...	.15	.12	<.6	<.01	<.4	3.1	3
JUL 26...	.09	.12	2.5	<.01	E.3n	.6	<2
AUG 22...	--	--	--	--	--	--	--
SEP 19...	--	--	--	--	--	--	--

Remark codes used in this table:

< -- Less than.

E -- Estimated.

M-- Presence verified but 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



Figure 15. Location of partial-record stations.

## DISCHARGE AT PARTIAL-RECORD STATIONS

The following table contains annual maximum discharges for crest-stage partial-record stations. A crest-stage gage is a device which will register the peak stage occurring at the station between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Maximum discharge at crest-stage partial-record stations

Station number and name	Location and basin characteristics	Period of record	Water year 2005 maximum			Period of record maximum		
			Probable date	Gage height (feet)	Dis-charge (ft <sup>3</sup> /s)	Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
<b>MISSISSIPPI RIVER BASIN ABOVE MISSOURI RIVER</b>								
<b>Fabius River Basin</b>								
05497485 Brushy Creek near Queen City, Mo.	Lat 40°24'01", long 92°25'31", in NE 1/4 sec.35, T.65 N., R.14 W., Hydrologic Unit 07110002, Schuyler County, on downstream side of bridge on State Highway E, about 7 miles east of Queen City. Drainage area 5.35 mi <sup>2</sup> , slope 23.1 ft/mi.	1997-2005	04-12-05	8.64	+	05-14-2002	12.32	2,020 <sup>a</sup>
05499200 Little Fabius River near Edina, Mo.	Lat 40°03'29", long 92°10'29", in SW 1/4 sec.30, T.61 N., R.11 W., Hydrologic Unit 07110003, Knox County, on downstream side of bridge on State Highway 15, about 7 miles south of Edina. Drainage area 23.8 mi <sup>2</sup> , slope 7.02 ft/mi.	1997-2005	02-14-05	13.20	1,080	05-14-2002	18.17	3,700 <sup>a</sup>
05499900 Troublesome Creek near Ewing, Mo.	Lat 39°59'52", long 91°50'37", in SE 1/4 sec.13, T.60 N., R.9 W., Hydrologic Unit 07110003, Lewis County, on downstream side of bridge on State Highway 156, about 7 miles south of Lewistown. Drainage area 92.3 mi <sup>2</sup> , slope 4.57 ft/mi.	1997-2005	02-14-05	17.23	1,090	05-14-2002	19.98	1,580
<b>Salt River Basin</b>								
05506193 Mud Creek near Moberly, Mo.	Lat 39°34'34", long 92°20'59", at center sec.10, T.55 N., R.13 W., Hydrologic Unit 07110006, Randolph County, on downstream side of bridge on State Highway J, about 16 miles northeast of Moberly. Drainage area 24.0 mi <sup>2</sup> , slope 11.6 ft/mi.	1997-2005	06-10-05	13.21	1,890	05-10-2002	15.07	6,500 <sup>a</sup>
05514170 Irvine Branch near Bowling Green, Mo.	Lat 39°17'23", long 91°16'07", in SW 1/4 sec.8, T.52 N., R.3 W., Hydrologic Unit 07110008, Pike County, on downstream side of bridge on State Highway Y, about 6 miles southwest of Bowling Green. Drainage area 12.9 mi <sup>2</sup> , slope 26.3 ft/mi.	1997-2005	01-05-05	12.09	1,140	06-26-03	18.66	6,180 <sup>a</sup>



## Maximum discharge at crest-stage partial-record stations--continued

Station number and name	Location and basin characteristics	Period of record	Water year 2005 maximum			Period of record maximum		
			Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)	Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
<b>MISSOURI RIVER BASIN</b>								
<b>Little Tarkio Creek Basin</b>								
06815530 Little Tarkio Creek near Tarkio, Mo.	Lat 40°24'38", long 95°16'23", in SE 1/4 sec.27, T.65 N., R.39 W., Hydrologic Unit 10240005, Atchison County, on downstream side of bridge on State Highway N, 7 miles east of Tarkio. Drainage area 16.1 mi <sup>2</sup> , slope 19.0 ft/mi.	1997-2005	07-26-05	12.18	1,450	06-14-2001	19.5± <sup>c</sup>	3,900 <sup>a</sup>
<b>Platte River Basin</b>								
06819025 Agee Creek near Savannah, Mo.	Lat 40°03'41", long 94°42'01", at center sec.26, T.61 N., R.34 W., Hydrologic Unit 10240012, Andrew County, on downstream side of bridge on State Highway 48, 14 miles northeast of Savannah. Drainage area 6.54 mi <sup>2</sup> , slope 24.5 ft/mi.	1997-2005	05-14-05	11.92	757	06-19-2001	18.85	+
<b>Fishing River Basin</b>								
06894250 New Hope Creek near Holt, Mo.	Lat 39°27'29", long 94°18'22", in SW 1/4 sec.30, T.54 N., R.30 W., Hydrologic Unit 10300101, Clinton County, on downstream side of bridge on State Highway PP, 2 miles east of Holt. Drainage area 6.79 mi <sup>2</sup> , slope 28.6 ft/mi.	1997-2005	02-13-05	7.85	+	10-05-1998	14.39	+
<b>Tabo Creek Basin</b>								
06895192 Tabo Creek near Higginsville, Mo.	Lat 39°04'40", long 93°46'12", in NW 1/4 sec.3, T.49 N., R.26 W., Hydrologic Unit 10300101, Lafayette County, on downstream side of bridge on State Highway FF, 2 miles west of Higginsville. Drainage area 24.0 mi <sup>2</sup> , slope 11.4 ft/mi.	1997-2005	06-06-05	17.87	2,390	02-12-1999	19.80	+
<b>Grand River Basin</b>								
06896370 Big Muddy Creek near Bethany, Mo.	Lat 40°25'38", long 94°10'31", in NW 1/4 sec.21, T.65 N., R.29 W., Hydrologic Unit 10280101, Harrison County, on downstream side of bridge on State Highway M, 18 miles northwest of Bethany. Drainage area 29.4 mi <sup>2</sup> , slope 14.2 ft/mi.	1997-2005	04-13-05	9.75	724	05-29-04	17.59	3,800
06897507 Marrowbone Creek near Gallatin, Mo.	Lat 39°49'02", long 94°05'34", in SW 1/4 sec.19, T.58 N., R.28 W., Hydrologic Unit 10280101, Daviess County, on downstream side of bridge on State Highway J, 12 miles southwest of Gallatin. Drainage area 17.7 mi <sup>2</sup> , slope 17.1 ft/mi.	1997-2005	02-14-05	14.43	1,220	06-14-04	20.44	6,400 <sup>a</sup>

## Maximum discharge at crest-stage partial-record stations--continued

Station number and name	Location and basin characteristics	Period of record	Water year 2005 maximum			Period of record maximum		
			Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)	Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
<b>MISSOURI RIVER BASIN--Continued</b>								
<b>Grand River Basin--Continued</b>								
06900690 Smokey Creek near Linneus, Mo.	Lat 39°52'51", long 93°19'39", in NE 1/4 sec.2, T.58 N., R.22 W., Hydrologic Unit 10280103, Linn County, on downstream side of bridge on State Highway B, about 7 miles west of Linneus. Drainage area 10.5 mi <sup>2</sup> , slope 13.5 ft/mi.	1997-2005	05-13-05	15.00	1,740	05-24-04	15.52	2,200 <sup>a</sup>
06901100 Locust Creek at Reger, Mo.	Lat 40°08'31", long 93°11'07", in NE 1/4 SW 1/4 SE 1/4 sec.30, T.62 N., R.20 W., Hydrologic Unit 10280201, Sullivan County, on downstream side of State Highway 6 and 0.3 mile east of Reger. Datum of gage is 774.67 ft above sea level. Drainage area 232 mi <sup>2</sup> .	1987-2005	04-12-05	18.95	2,420	07-07-1993	21.88	19,700
06903190 Rock Branch near Carrollton, Mo.	Lat 39°32'10", long 93°27'32", in SE 1/4 sec.34, T.55 N., R.23 W., Hydrologic Unit 10280103, Carroll County, on downstream side of bridge on State Highway WW, 12 miles north of Carrollton. Drainage area 4.45 mi <sup>2</sup> , slope 30.6 ft/mi.	1997-2005	08-20-05	11.27	287	11-02-1998	14.53	+
<b>Chariton River Basin</b>								
06904600 Spring Creek near Milan, Mo.	Lat 40°20'34", long 92°57'18", in SE 1/4 sec.18, T.64 N., R.18 W., Hydrologic Unit 10280202, Sullivan County, on downstream side of bridge on State Highway 129, 16 miles northeast of Milan or about 5.5 miles north of Green City. Drainage area 13.7 mi <sup>2</sup> , slope 17.8 ft/mi.	1997-2005	04-12-05	7.76	593	08-27-04	14.16	4,020 <sup>a</sup>
06904950 Walnut Creek near Novinger, Mo.	Lat 40°06'24", long 92°45'23", in NW 1/4 sec.12, T.61 N., R.17 W., Hydrologic Unit 10280202, Adair County, on downstream side of bridge on State Highways 11 and 149, 11 miles south of Novinger. Drainage area 13.5 mi <sup>2</sup> , slope 14.1 ft/mi.	1997-2005	06-13-05	15.43	2,730	05-12-2002	22.14	14,000 <sup>a</sup>
<b>Lamine River Basin</b>								
06906715 Lake Creek near Cole Camp, Mo.	Lat 38°30'37", long 93°08'25", in NW 1/4 sec.9, R.43 N., R.20 W., Hydrologic Unit 10300103, Benton County, on downstream side of bridge on State Highway JJ, 6 miles northeast of Cole Camp. Drainage area 12.2 mi <sup>2</sup> , slope 35.3 ft/mi.	1997-2005	11-01-04	10.79	4,300	04-13-2001	15.08	+

## Maximum discharge at crest-stage partial-record stations--continued

Station number and name	Location and basin characteristics	Period of record	Water year 2005 maximum			Period of record maximum		
			Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)	Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
<b>MISSOURI RIVER BASIN--Continued</b>								
<b>Lamine River Basin--Continued</b>								
06907710 Little Walnut Creek near Knob Noster, Mo.	Lat 38°50'40", long 93°32'50", in SW 1/4 sec.22, T.47 N., R.24 W., Hydrologic Unit 10300104, Johnson County, on downstream side of bridge on State Highway 23, 5 miles north of Knob Noster. Drainage area 8.20 mi <sup>2</sup> , slope 23.3 ft/mi.	1997-2005	01-08-05	10.36	801	07-30-1998	15.66	+
06908495 Camp Creek near Marshall, Mo.	Lat 39°06'12", long 93°03'21", in NW 1/4 sec.24, T.50 N., R.20 W., Hydrologic Unit 10300104, Saline County, on downstream side of bridge on State Highway 41, 7 miles east of Marshall. Drainage area 10.8 mi <sup>2</sup> , slope 16.9 ft/mi.	1997-2005	10-28-04	9.75	892	08-04-2004	15.02	3,900 <sup>a</sup>
<b>Bonne Femme Creek Basin</b>								
06909220 Ganaway Creek near Fayette, Mo.	Lat 39°15'54", long 92°39'51", in NW 1/4 sec.36, T.52 N., R.16 W., Hydrologic Unit 10300102, Howard County, on downstream side of culvert on State Highway U, 11 miles north of Fayette or 2.5 miles east of Armstrong. Drainage area 4.55 mi <sup>2</sup> , slope 57.9 ft/mi.	1997-2005	05-19-05	11.83	647	05-19-2003	15.17	1,530 <sup>a</sup>
<b>Moniteau Creek Basin</b>								
06910265 Moniteau Creek near California, Mo.	Lat 38°43'57", long 92°38'17", in E 1/2 sec.23, T.46 N., R.16 W., Hydrologic Unit 10300102, Cooper County, on downstream side of bridge on State Highway O, 9 miles northwest of California. Drainage area 67.6 mi <sup>2</sup> , slope 16.0 ft/mi.	1997-2005	01-05-05	12.64	7,060	07-30-1998	15.60	+
<b>Osage River Basin</b>								
06918270 Clear Creek near Nevada, Mo.	Lat 37°41'20", long 94°13'35", in SW 1/4 sec.16, T.34 N., R.30 W., Hydrologic Unit 10290105, Vernon County, on downstream side of bridge on State Highway DD, 16 miles southeast of Nevada. Drainage area 23.2 mi <sup>2</sup> , slope 13.5 ft/mi.	1997-2005	01-05-05	13.65	1,440	05-05-1999	16.29	+
06919004 Bear Creek near Bolivar, Mo.	Lat 37°35'00", long 93°28'02", in NW 1/4 sec.21, T.33 N., R.23 W., Hydrologic Unit 10290106, Polk County, on downstream side of bridge on State Highway T, 3.5 miles southwest of Bolivar. Drainage area 7.45 mi <sup>2</sup> , slope 26.0 ft/mi.	1997-2005	06-08-05	8.20	1,760	05-05-1999	8.35	1,850 <sup>b</sup>
06921712 Clear Creek near Harrisonville, Mo.	Lat 38°37'35", long 94°11'27", in NW 1/4 sec.12, T.44 N., R.30 W., Hydrologic Unit 10290108, Cass County, on downstream side of bridge on State Highway Z, 9 miles east of Harrisonville. Drainage area 11.4 mi <sup>2</sup> , slope 14.8 ft/mi.	1997-2005	06-06-05	13.47	+	05-09-2002	14.83	+

## Maximum discharge at crest-stage partial-record stations--continued

Station number and name	Location and basin characteristics	Period of record	Water year 2005 maximum			Period of record maximum		
			Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)	Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
<b>MISSOURI RIVER BASIN--Continued</b>								
<b>Osage River Basin--Continued</b>								
06925432 Barnett Hollow near Camdenton, Mo.	Lat 37°59'52", long 92°31'39", in SW 1/4 sec.25, T.38 N., R.15 W., Hydrologic Unit 10290109, Camden County, on downstream side of bridge on State Highway A, 14 miles east of Camdenton or 5 miles northeast of Montreal. Drainage area 6.98 mi <sup>2</sup> , slope 55.5 ft/mi.	1997-2005	01-06-05	4.18	321	04-19-2002	7.00	1,700 <sup>a</sup>
<b>Gasconade River Basin</b>								
06927746 Selvage Hollow near Lebanon, Mo.	Lat 37°33'13", long 92°40'52", in NW 1/4 sec.27, T.33 N., R.16 W., Hydrologic Unit 10290201, Laclede County, on downstream side of culvert on State Highway C, 5.5 miles east of Phillipsburg or 9 miles south of Lebanon. Drainage area 9.72 mi <sup>2</sup> slope 40.2 ft/mi.	1997-2005	01-06-05	6.73	+	01-06-05	6.73	+
06928850 Hamilton Creek near Cabool, Mo.	Lat 37°11'47", long 92°05'43", in N 1/2 sec.13, T.29 N., R.11 W., Hydrologic Unit 10290202, Texas County, on downstream side of bridge on State Highway PP, 5 miles north of Cabool. Drainage area 9.29 mi <sup>2</sup> , slope 42.9 ft/mi.	1997-2005	+	<4.71	+	05-20-2002	9.42	4,600 <sup>a</sup>
<b>Loutre River Basin</b>								
06934680 Dry Fork near Her- mann, Mo.	Lat 38°46'29", long 91°33'53", in SW 1/4 sec.2, T.46 N., R.6 W., Hydrologic Unit 10300200, Montgomery County, on downstream side of bridge on State Highway P, 11 miles northwest of Hermann or 20 miles south of Montgomery City. Drainage area 7.66 mi <sup>2</sup> , slope 68.7 ft/mi.	1997-2005	01-05-05	5.73	729	03-26-04	8.97	2,570
<b>Boeuf Creek Basin</b>								
06935175 Cedar Fork near Gerald, Mo.	Lat 38°27'44", long 91°18'29", in NW 1/4 sec.19, T.43 N., R.3 W., Hydrologic Unit 10300200, Franklin County, on downstream side of bridge on State Highway ZZ, 4.5 miles north of Gerald. Drainage area 8.53 mi <sup>2</sup> , slope 34.3 ft/mi.	1997-2005	01-07-05	10.59	1,390	05-07-2000	17.70	11,600 <sup>a</sup>

## Maximum discharge at crest-stage partial-record stations--continued

Station number and name	Location and basin characteristics	Period of record	Water year 2005 maximum			Period of record maximum		
			Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)	Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
<b>MISSISSIPPI RIVER BASIN BELOW MISSOURI RIVER</b>								
<b>Meramec River Basin</b>								
07015757 Upper Peavine Creek near Belle, Mo.	Lat 38°11'54", long 91°42'03", in SE 1/4 sec.16, T.40 N., R.7 W., Hydrologic Unit 07140103, Maries County, on downstream side of bridge on State Highway C, 7 miles south of Belle. Drainage area 6.79 mi <sup>2</sup> , slope 32.0 ft/mi	1997-2005	01-05-05	10.08	1,040	06-22-1997	12.19	2,150 <sup>b</sup>
07017733 Bates Creek at Potosi, Mo.	Lat 37°56'35", long 90°48'23", near sec.9, T.37 N., R.2 E., Hydrologic Unit 07140104, Washington County, on downstream side of bridge on State Highway 8, 0.5 mile west of Potosi. Drainage area 14.1 mi <sup>2</sup> , slope 39.8 ft/mi.	1997-2005	04-22-05	10.63	+	04-22-05	10.63	+
<b>Headwater Diversion Channel Basin</b>								
07020895 Castor River near Fredericktown, Mo.	Lat 37°34'40", long 90°09'50", in S 1/2 sec.4, T.33 N., R.8 E., Hydrologic Unit 07140107, Madison County, on downstream side of bridge on State Highway J, 7 miles east of Fredericktown. Drainage area 33.5 mi <sup>2</sup> , slope 28.6 ft/mi.	1997-2005	12-07-04	7.76	1,250	04-03-1999	15.58	11,500 <sup>a</sup>
07020965 Bear Creek near Patterson, Mo.	Lat 37°13'30", long 90°19'31", in SW 1/4 sec.31, T.30 N., R.7 E., Hydrologic Unit 07140107, Wayne County, on downstream side of bridge on State Highway 34, 10.5 miles east of Patterson or 20 miles west of Marble Hill. Drainage area 13.1 mi <sup>2</sup> , slope 33.5 ft/mi.	1997-2005	+	<6.28	+	05-19-2002	13.46	8,890 <sup>a</sup>
<b>White River Basin</b>								
07050545 North Carolina Creek near Marshfield, Mo.	Lat 37°14'53", long 93°00'30", in SE 1/4 sec.4, T.29 N., R.19 W., Hydrologic Unit 11010002, Webster County, on downstream side of culvert on State Highway B, 8 miles southwest of Marshfield. Drainage area 6.30 mi <sup>2</sup> , slope 57.0 ft/mi.	1997-2005	01-05-05	3.84	442	05-20-2002	5.51	+
07052370 Dry Crane Creek near Crane, Mo.	Lat 36°56'18", long 93°26'05", in SE 1/4 sec.22, T.26 N., R.23 W., Hydrologic Unit 11010002, Stone County, on downstream side of bridge on State Highway A, 10 miles east of Crane. Drainage area 10.9 mi <sup>2</sup> , slope 29.6 ft/mi.	1997-2005	01-06-05	9.24	630	01-06-05	9.24	630

## Maximum discharge at crest-stage partial-record stations--continued

Station number and name	Location and basin characteristics	Period of record	Water year 2005 maximum			Period of record maximum		
			Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)	Probable date	Gage height (feet)	Discharge (ft <sup>3</sup> /s)
<b>MISSISSIPPI RIVER BASIN BELOW MISSOURI RIVER--Continued</b>								
<b>White River Basin--Continued</b>								
07054047 Little Beaver Creek near Ava, Mo.	Lat 36°53'55", long 92°52'04", in SW 1/4 sec.36, T.26 N., R.18 W., Hydrologic Unit 11010003, Douglas County, on downstream side of bridge on State Highway T, 13 miles southwest of Ava. Drainage area 25.5 mi <sup>2</sup> , slope 47.4 ft/mi.	1997-2005	01-05-05	8.29	1,330	05-19-2002	10.72	3,380 <sup>b</sup>
07061260 East Fork Black River near Iron-ton, Mo.	Lat 37°36'14", long 90°47'19", in SE 1/4 sec.35, T.34 N., R.2 E., Hydrologic Unit 11010007, Iron County, on downstream side of bridge on State Highway N, 10 miles west of Ironton at Iron/Reynolds County line. Drainage area 16.2 mi <sup>2</sup> , slope 60.7 ft/mi.	1997-2005	01-06-05	8.67	1,200	05-19-2002	15.41	9,900 <sup>a</sup>
07063470 Tenmile Creek near Poplar Bluff, Mo.	Lat 36°46'59", long 90°33'35", in SE 1/4 sec.30, T.25 N., R.5 E., Hydrologic Unit 11010007, Butler County, on downstream side of bridge on State Highway TT, 8 miles west of Poplar Bluff. Drainage area 59.0 mi <sup>2</sup> , slope 17.0 ft/mi.	1997-2005	01-14-05	5.48	+	05-19-2002	13.81	12,000 <sup>b</sup>
07071750 Louse Creek near Alton, Mo.	Lat 36°34'37", long 91°19'06", near center sec.8, T.22 N., R.3 W., Hydrologic Unit 11010011, Oregon County, on downstream side of bridge on State Highway E, 10 miles southeast of Alton. Drainage area 5.69 mi <sup>2</sup> , slope 48.1 ft/mi.	1997-2005	+	<4.44	+	04-05-1997	7.20	738

+ Not determined.

<sup>a</sup> Discharge determined by indirect method.<sup>b</sup> Rating extrapolated beyond indirect peak discharge.<sup>c</sup> From floodmark.<sup>d</sup> Revised.

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

Water-quality partial-record stations are sites where chemical-quality, biological, and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected bi-annually rather than quarterly.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

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)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrite + nitrate water fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)
07064400 MONTAUK SPRINGS AT MONTAUK												
OCT 07...	1230	Environmental	46	8.2	82	7.7	320	14.1	<.10	<.04	.78	<.008
MAY 25...	1200	Environmental	92	8.4	84	7.4	300	14.1	<.10	<.04	.80	<.008
07064440 CURRENT RIVER BELOW MONTAUK STATE PARK												
OCT 07...	1100	Environmental	51	10.0	99	7.8	320	13.9	.11	E.03n	.71	.009
MAY 25...	1045	Environmental	80	10.3	105	7.5	306	14.7	.16	.04	.67	E.006n
07065000 ROUND SPRING AT ROUND SPRING												
OCT 06...	1500	Environmental	21	8.6	85	7.7	343	14.3	<.10	<.04	.33	<.008
OCT 06...	1501	Replicate	--	8.5	84	7.7	343	14.3	<.10	<.04	.33	<.008
MAY 25...	0830	Environmental	26	9.1	92	7.4	323	14.0	<.10	<.04	.28	<.008
07065500 ALLEY SPRING AT ALLEY												
OCT 06...	1330	Environmental	89	10.3	102	7.2	324	14.3	<.10	<.04	.66	<.008
MAY 24...	1530	Environmental	119	10.2	102	7.5	295	14.3	<.10	<.04	.66	<.008
07066510 CURRENT RIVER ABOVE POWDER MILL												
OCT 06...	1115	Environmental	522	9.9	98	7.8	348	14.5	<.10	<.04	.26	<.008
MAY 24...	1315	Environmental	713	9.3	107	8.0	331	20.9	E.07n	<.04	.25	<.008
07066550 BLUE SPRING NEAR EMINENCE												
OCT 06...	0945	Environmental	92	9.1	89	7.7	313	14.1	<.10	<.04	.37	<.008
MAY 24...	1130	Environmental	114	9.7	95	7.6	285	13.5	<.10	<.04	.37	<.008
MAY 24...	1145	Blank	--	--	--	--	--	--	<.10	<.04	<.06	<.008

## ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005

Date	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, col/100 mL (31633)	Fecal coliform, M-FC 0.7 $\mu$ MF col/100 mL (31625)	Cadmium water, unfltrd, $\mu$ g/L (01027)	Lead, water, unfltrd recoverable, $\mu$ g/L (01051)	Silver, water, unfltrd recoverable, $\mu$ g/L (01077)	Zinc, water, unfltrd recoverable, $\mu$ g/L (01092)
07064400 MONTAUK SPRINGS AT MONTAUK									
OCT 07...	<.02	<.04	<.04	2k	3k	<.04	<.06	<.16	<2
MAY 25...	<.02	<.04	<.04	2k	1k	<.04	<.06	<.16	<2
07064440 CURRENT RIVER BELOW MONTAUK STATE PARK									
OCT 07...	.02	E.02n	E.03n	31	33	<.04	E.05n	<.16	<2
MAY 25...	<.02	<.04	<.04	10k	25	<.04	E.06n	<.16	<2
07065000 ROUND SPRING AT ROUND SPRING									
OCT 06...	<.02	<.04	<.04	3k	2k	<.04	<.06	<.16	<2
OCT 06...	<.02	<.04	<.04	<1b	6k	<.04	<.06	<.16	E2n
MAY 25...	<.02	<.04	<.04	4k	5k	<.04	E.03n	<.16	<2
07065500 ALLEY SPRING AT ALLEY									
OCT 06...	<.02	<.04	<.04	<1b	1k	<.04	E.04n	<.16	<2
MAY 24...	<.02	<.04	<.04	3k	8k	<.04	.07	<.16	<2
07066510 CURRENT RIVER ABOVE POWDER MILL									
OCT 06...	<.02	<.04	<.04	9k	29	<.04	<.06	<.16	<2
MAY 24...	<.02	<.04	<.04	1k	1k	<.04	E.03n	<.16	<2
07066550 BLUE SPRING NEAR EMINENCE									
OCT 06...	<.02	<.04	<.04	<1b	<1b	<.04	.06	<.16	<2
MAY 24...	<.02	<.04	<.04	1k	1k	<.04	<.06	<.16	<2
MAY 24...	<.02	<.04	<.04	--	--	<.04	<.06	<.16	<2

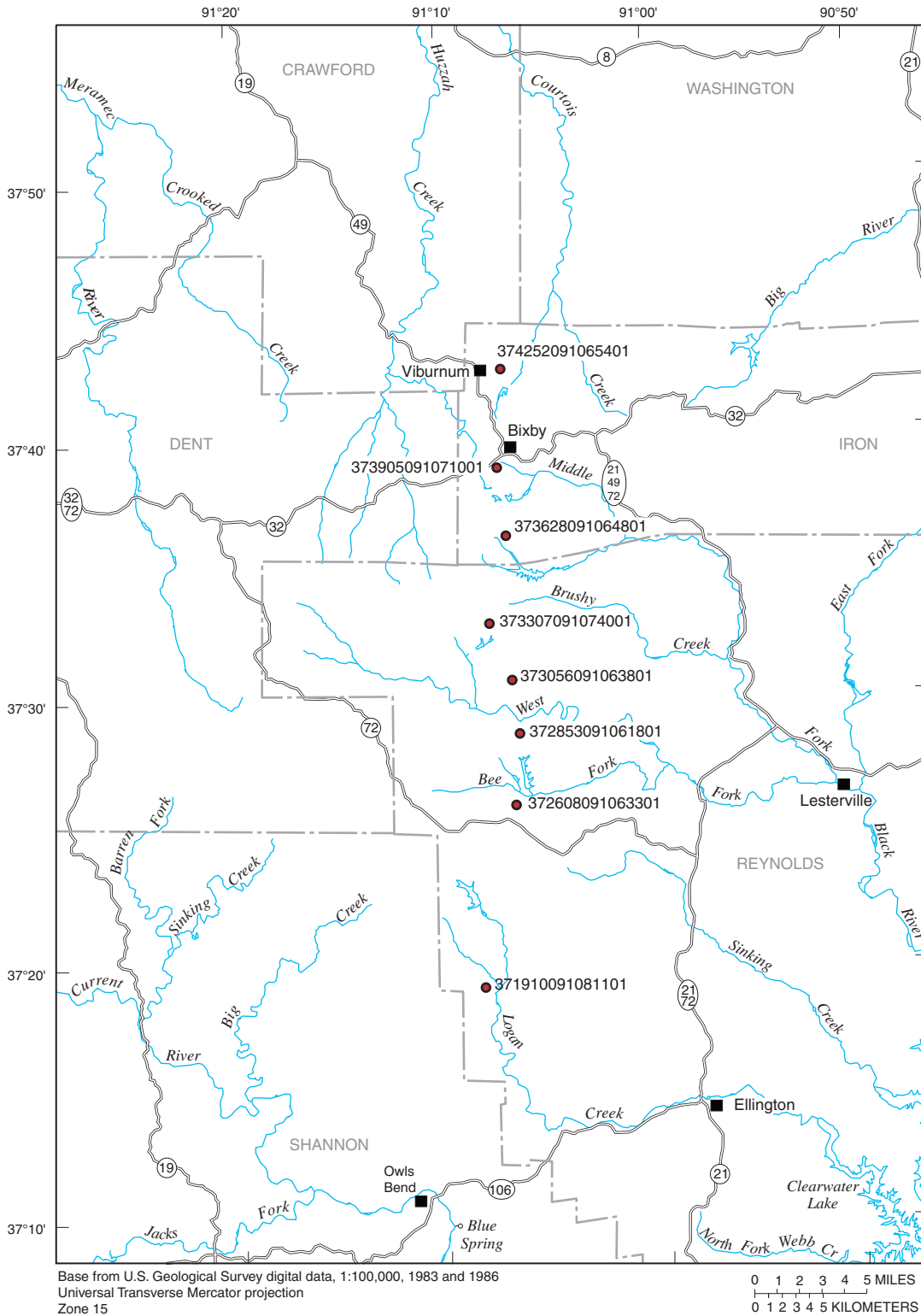
Remark codes used in this table:

< -- Less than.  
E -- Estimated.

Value qualifier codes used in this table:

b -- Value extrapolated at low end  
k -- Counts outside acceptable range  
n -- Below the LRL and above the LT-MDL





EXPLANATION

- 373056091063801 ● GROUND-WATER MONITORING WELL AND NUMBER



Figure 16. Location of ground-water monitoring wells.

## GROUND-WATER LEVELS

## IRON COUNTY

WELL IDENTIFICATION.--374252091065401; T35N R02W 26DBB; Viburnum Trend Well 1.

LOCATION.--Lat 37°42'52", long 91°06'54", NW ¼ NW ¼ SE ¼ sec.26, T.35 N., R.02 W., approximately 1 mile east of State Route Y in Viburnum.

FORMATIONS OPEN TO WELL.--Unconfined Ozark aquifer, Eminence Dolomite/Potosi Dolomite of Cambrian Age.

CONSTRUCTION DATA.--Drilled December 10, 2001, total depth of well, 110 feet, 80 feet of 6-inch steel casing, open hole.

INSTRUMENTATION.--Pressure transducer and data logger installed February 22, 2002. Water level recorded hourly.

DATUM.--Land surface altitude is 1,140 feet above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point is top of steel casing 2.4 feet above land surface.

REMARKS.--Records rated good.

PERIOD OF RECORD.--February 23, 2002 to current year.

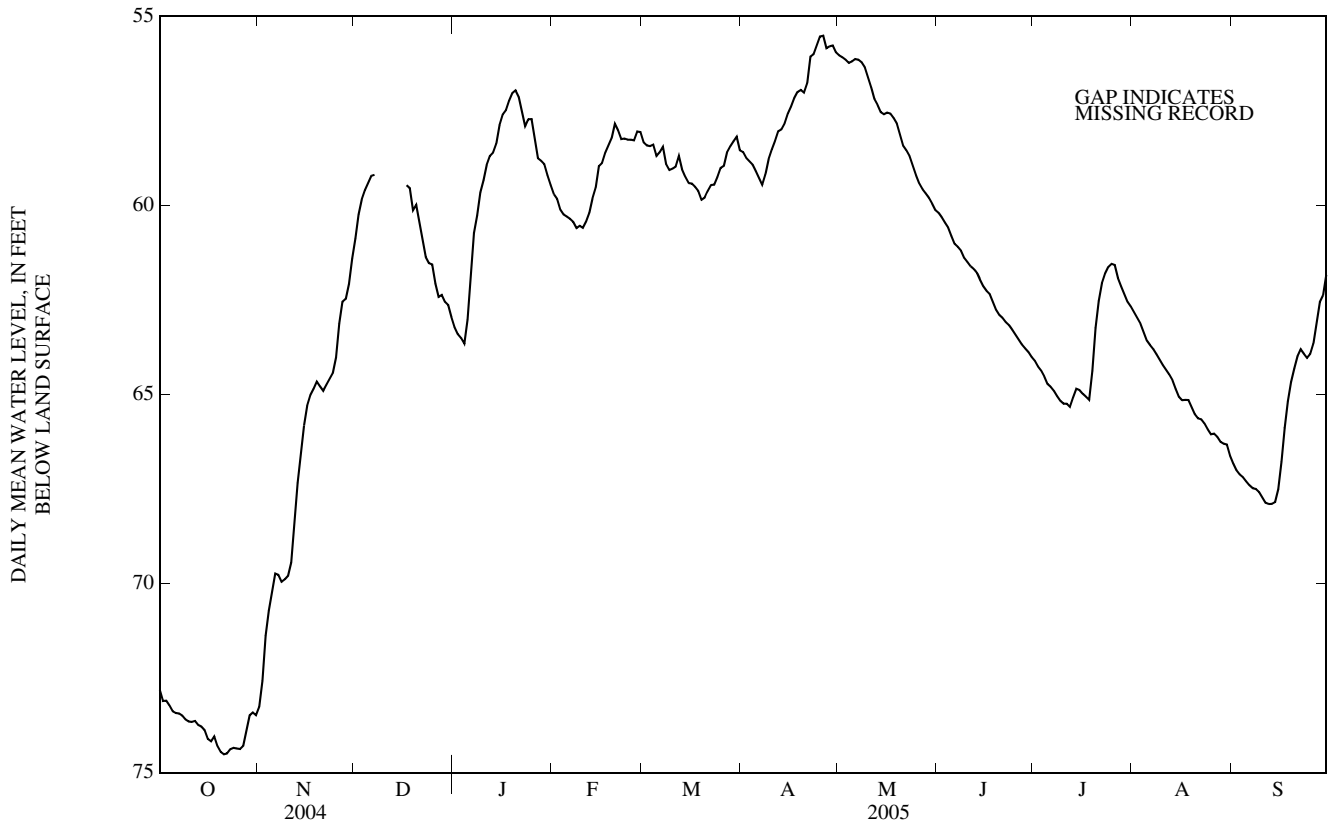
EXTREMES FOR CURRENT YEAR.--Maximum depth 74.55 ft, Oct. 22; minimum 55.38 ft, April 26.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72.81	73.26	60.88	63.22	59.70	58.33	58.59	56.03	60.20	64.11	62.82	66.82
2	73.10	72.57	60.24	63.40	59.83	58.41	58.75	56.08	60.31	64.26	62.97	67.00
3	73.10	71.38	59.84	63.51	60.11	58.43	58.83	56.15	60.46	64.37	63.13	67.11
4	73.22	70.71	59.59	63.66	60.24	58.39	58.92	56.23	60.58	64.52	63.36	67.18
5	73.37	70.25	59.40	63.02	60.29	58.69	59.09	56.19	60.81	64.72	63.58	67.30
6	73.42	69.74	59.22	61.74	60.35	58.59	59.27	56.13	61.01	64.80	63.69	67.40
7	73.43	69.77	59.19	60.73	60.44	58.45	59.46	56.15	61.09	64.90	63.80	67.48
8	73.49	69.95	59.21 <sup>a</sup>	60.27	60.60	58.91	59.18	56.21	61.19	65.04	63.94	67.50
9	73.59	69.89	---	59.65	60.54	59.06	58.77	56.34	61.39	65.17	64.08	67.58
10	73.65	69.79	---	59.33	60.59	59.03	58.52	56.62	61.50	65.24	64.22	67.72
11	73.66	69.44	---	58.93	60.43	58.97	58.29	56.88	61.61	65.24	64.35	67.86
12	73.63	68.32	---	58.69	60.20	58.69	58.04	57.19	61.68	65.33	64.47	67.90
13	73.74	67.34	---	58.60	59.81	59.05	57.99	57.34	61.78	65.08	64.62	67.89
14	73.78	66.53	---	58.37	59.53	59.25	57.83	57.53	61.97	64.85	64.85	67.84
15	73.87	65.82	---	57.88	58.96	59.41	57.57	57.59	62.14	64.88	65.06	67.50
16	74.11	65.30	59.27 <sup>a</sup>	57.60	58.87	59.42	57.38	57.55	62.26	64.98	65.15	66.78
17	74.17	65.01	59.47	57.48	58.60	59.51	57.16	57.57	62.34	65.06	65.14	65.89
18	74.04	64.85	59.54	57.23	58.41	59.62	57.00	57.69	62.55	65.14	65.14	65.18
19	74.30	64.66	60.13	57.03	58.22	59.85	56.95	57.83	62.76	64.37	65.33	64.67
20	74.45	64.79	59.98	56.96	57.84	59.79	57.02	58.13	62.90	63.24	65.52	64.31
21	74.51	64.91	60.47	57.13	58.01	59.61	56.77	58.42	62.97	62.53	65.63	63.99
22	74.49	64.74	60.93	57.53	58.24	59.46	56.07	58.55	63.08	62.06	65.66	63.80
23	74.38	64.59	61.37	57.90	58.23	59.45	56.00	58.70	63.17	61.80	65.77	63.92
24	74.34	64.43	61.53	57.72	58.26	59.25	55.77	58.96	63.28	61.62	65.92	64.03
25	74.36	64.02	61.56	57.71	58.26	59.00	55.53	59.21	63.41	61.54	66.05	63.93
26	74.38	63.13	62.07	58.24	58.28	58.95	55.51	59.43	63.54	61.58	66.03	63.65
27	74.29	62.55	62.42	58.75	58.05	58.59	55.84	59.57	63.67	61.92	66.12	63.11
28	73.89	62.47	62.37	58.82	58.06	58.43	55.79	59.68	63.78	62.14	66.25	62.56
29	73.48	62.07	62.55	58.91	---	58.30	55.77	59.80	63.87	62.34	66.30	62.38
30	73.41	61.40	62.63	59.20	---	58.18	55.95	59.95	64.01	62.55	66.32	61.84
31	73.48	---	62.95	59.46	---	58.54	---	60.13	---	62.67	66.62	---
MEAN	73.80	66.79	---	59.31	59.25	58.96	57.45	57.74	62.18	63.81	64.90	65.74
MAX	74.51	73.26	---	63.66	60.60	59.85	59.46	60.13	64.01	65.33	66.62	67.90
MIN	72.81	61.40	---	56.96	57.84	58.18	55.51	56.03	60.20	61.54	62.82	61.84

<sup>a</sup> Observed.

IRON COUNTY—Continued



## GROUND-WATER LEVELS

## IRON COUNTY

WELL IDENTIFICATION.--373905091071001; T34N R02W 11DAA; Viburnum Trend Well 2.

LOCATION.--Lat 37°39'05", long 91°07'10", NE ¼ NE ¼ SE ¼ sec.11, T.34 N., R.02 W., approximately 0.4 mile south of Highway 32 on road to Magmont Mine near Bixby.

FORMATIONS OPEN TO WELL.--Unconfined Ozark aquifer, Eminence Dolomite/Potosi Dolomite of Cambrian Age.

CONSTRUCTION DATA.--Drilled December 11, 2001, total depth of well, 310 feet, 120 feet of 6-inch steel casing, open hole.

INSTRUMENTATION.--Pressure transducer and data logger installed February 13, 2002. Water level recorded hourly.

DATUM.--Land surface altitude is 1,420 feet above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point is top of steel casing 2.1 feet above land surface.

REMARKS.--Records rated fair.

PERIOD OF RECORD.--February 14, 2002 to current year.

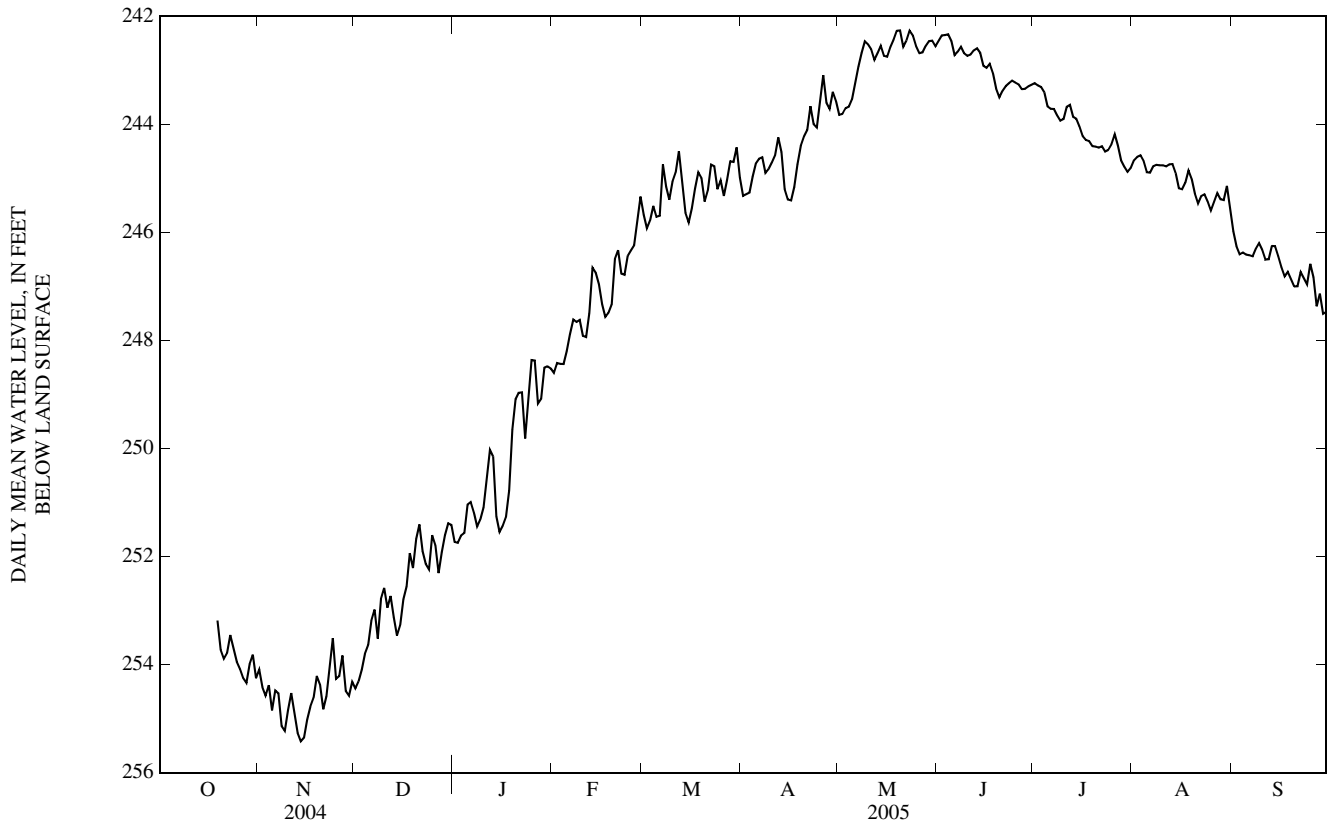
EXTREMES FOR CURRENT YEAR.--Maximum depth 255.45 ft, Nov. 14 and 15; minimum 242.13 ft, May 20.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	254.09	254.44	251.73	248.60	245.67	245.32	243.82	242.45	243.24	244.66	245.98
2	---	254.42	254.31	251.75	248.42	245.92	245.29	243.81	242.35	243.28	244.60	246.26
3	---	254.58	254.09	251.61	248.43	245.78	245.26	243.70	242.35	243.31	244.57	246.40
4	---	254.38	253.80	251.56	248.44	245.51	244.96	243.67	242.33	243.41	244.68	246.37
5	---	254.85	253.64	251.04	248.20	245.71	244.72	243.53	242.46	243.67	244.88	246.41
6	---	254.48	253.19	250.99	247.88	245.69	244.64	243.23	242.72	243.71	244.89	246.42
7	---	254.54	252.98	251.19	247.61	244.74	244.61	242.93	242.65	243.71	244.78	246.44
8	---	255.14	253.52	251.44	247.66	245.15	244.90	242.68	242.56	243.83	244.75	246.30
9	---	255.23	252.78	251.31	247.62	245.39	244.83	242.46	242.68	243.93	244.76	246.20
10	---	254.84	252.58	251.09	247.91	245.06	244.71	242.52	242.73	243.90	244.76	246.32
11	---	254.53	252.95	250.52	247.94	244.89	244.57	242.61	242.71	243.67	244.78	246.50
12	---	254.88	252.73	250.02	247.49	244.50	244.24	242.81	242.63	243.64	244.74	246.50
13	---	255.26	253.13	250.15	246.65	245.09	244.51	242.68	242.59	243.86	244.73	246.25
14	---	255.42	253.46	251.26	246.74	245.64	245.20	242.54	242.68	243.90	244.90	246.25
15	---	255.35	253.27	251.55	246.96	245.82	245.39	242.73	242.91	244.04	245.18	246.44
16	---	255.02	252.79	251.43	247.33	245.55	245.41	242.75	242.95	244.22	245.20	246.64
17	---	254.77	252.55	251.27	247.56	245.18	245.16	242.57	242.88	244.29	245.08	246.81
18	252.95 <sup>a</sup>	254.61	251.94	250.78	247.49	244.89	244.74	242.43	243.06	244.31	244.85	246.73
19	253.18	254.21	252.21	249.65	247.33	244.99	244.40	242.27	243.34	244.40	245.01	246.87
20	253.73	254.37	251.67	249.09	246.49	245.43	244.22	242.26	243.50	244.41	245.28	247.00
21	253.89	254.83	251.41	248.90	246.33	245.22	244.11	242.57	243.38	244.43	245.46	247.00
22	253.78	254.58	251.90	248.96	246.76	244.75	243.66	242.45	243.29	244.40	245.33	246.73
23	253.45	254.06	252.14	249.81	246.79	244.78	244.00	242.26	243.24	244.50	245.29	246.85
24	253.71	253.51	252.24	249.13	246.43	245.20	244.06	242.36	243.19	244.47	245.43	246.96
25	253.95	254.27	251.61	248.36	246.33	245.04	243.57	242.55	243.22	244.37	245.60	246.58
26	254.08	254.21	251.79	248.37	246.24	245.32	243.09	242.68	243.26	244.18	245.44	246.83
27	254.25	253.83	252.31	249.17	245.80	245.03	243.60	242.67	243.35	244.40	245.27	247.37
28	254.34	254.49	251.92	249.08	245.34	244.68	243.71	242.54	243.34	244.67	245.38	247.13
29	253.99	254.58	251.60	248.50	---	244.70	243.40	242.46	243.30	244.78	245.40	247.51
30	253.82	254.32	251.39	248.48	---	244.42	243.57	242.45	243.27	244.88	245.14	247.47
31	254.25	---	251.41	248.52	---	244.99	---	242.55	---	244.81	245.58	---
MEAN	---	254.59	252.64	250.22	247.24	245.18	244.46	242.76	242.91	244.08	245.05	246.65
MAX	---	255.42	254.44	251.75	248.60	245.92	245.41	243.82	243.50	244.88	245.60	247.51
MIN	---	253.51	251.39	248.36	245.34	244.42	243.09	242.26	242.33	243.24	244.57	245.98

<sup>a</sup> Observed

IRON COUNTY—Continued



## GROUND-WATER LEVELS

## IRON COUNTY

WELL IDENTIFICATION.--373628091064801; T34N R02W 25CAC; Viburnum Trend Well 3.

LOCATION.--Lat 37°36'28", long 91°06'48", SW ¼ NE ¼ SW ¼ sec.25, T.34 N., R.02 W., approximately 0.4 mile east of Buick Mine and 0.9 mile off Forest Service Road 2231 near Bixby.

FORMATIONS OPEN TO WELL.--Unconfined Ozark aquifer, Gasconade Dolomite of Ordovician age and Eminence Dolomite/Potosi Dolomite of Cambrian Age.

CONSTRUCTION DATA.--Drilled December 10, 2001, total depth of well, 190 feet, 80 feet of 6-inch steel casing, open hole.

INSTRUMENTATION.--Pressure transducer and data logger installed February 13, 2002. Water level recorded hourly.

DATUM.--Land surface altitude is 1,360 feet above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point is top of steel casing 2.0 feet above land surface.

REMARKS.--Records rated good.

PERIOD OF RECORD.--February 14, 2002 to current year.

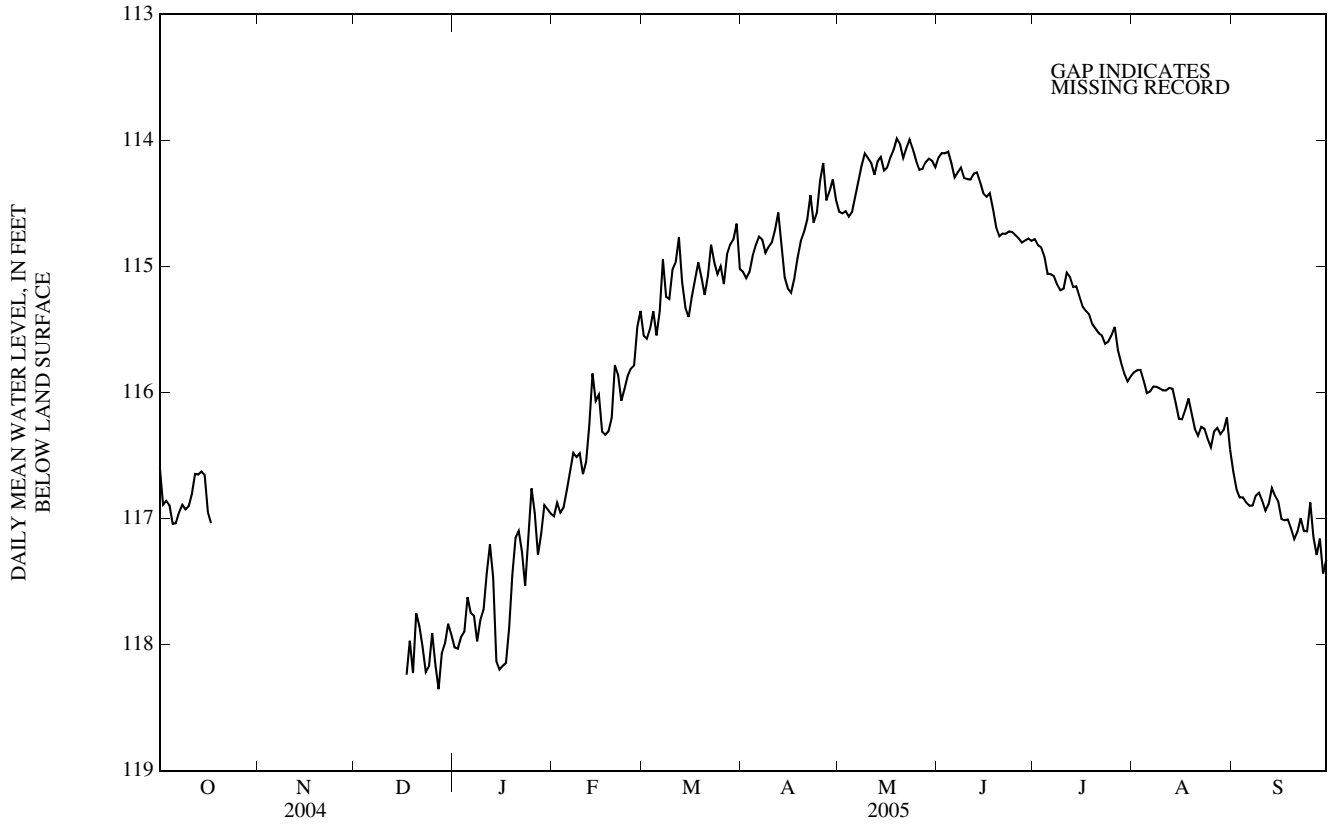
EXTREMES FOR CURRENT YEAR.--Maximum depth 118.45 ft, Dec. 27; minimum 113.91 ft, May 20.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116.60	---	---	118.02	116.98	115.55	115.04	114.57	114.14	114.78	115.84	116.63
2	116.89	---	---	118.03	116.87	115.57	115.09	114.58	114.10	114.83	115.82	116.77
3	116.86	---	---	117.94	116.95	115.49	115.05	114.56	114.10	114.85	115.82	116.83
4	116.89	---	---	117.90	116.91	115.36	114.92	114.60	114.09	114.92	115.91	116.83
5	117.04	---	---	117.62	116.78	115.55	114.83	114.57	114.18	115.06	116.01	116.87
6	117.04	---	---	117.75	116.63	115.36	114.76	114.44	114.29	115.06	115.99	116.90
7	116.95	---	---	117.77	116.48	114.94	114.79	114.32	114.25	115.08	115.95	116.90
8	116.89	---	118.24 <sup>a</sup>	117.97	116.51	115.24	114.89	114.20	114.22	115.14	115.95	116.82
9	116.93	---	---	117.81	116.48	115.26	114.84	114.10	114.30	115.19	115.97	116.80
10	116.90	---	---	117.72	116.65	115.02	114.81	114.14	114.31	115.18	115.98	116.86
11	116.80	---	---	117.43	116.55	114.97	114.71	114.18	114.31	115.05	115.98	116.94
12	116.65	---	---	117.21	116.26	114.77	114.57	114.27	114.26	115.08	115.96	116.89
13	116.65	---	---	117.47	115.85	115.12	114.81	114.17	114.25	115.16	115.97	116.76
14	116.63	---	---	118.13	116.07	115.33	115.09	114.13	114.33	115.16	116.08	116.82
15	116.65	---	---	118.20	116.02	115.40	115.18	114.24	114.42	115.24	116.21	116.87
16	116.95	---	118.34 <sup>a</sup>	118.17	116.31	115.24	115.21	114.21	114.45	115.32	116.21	117.00
17	117.04	---	118.24	118.15	116.34	115.11	115.10	114.14	114.42	115.35	116.14	117.01
18	116.71 <sup>a</sup>	---	117.97	117.87	116.31	114.97	114.94	114.08	114.54	115.38	116.05	117.01
19	---	---	118.23	117.45	116.20	115.09	114.80	113.98	114.69	115.46	116.16	117.08
20	---	---	117.75	117.15	115.78	115.23	114.73	114.03	114.76	115.49	116.29	117.16
21	---	---	117.85	117.10	115.86	115.08	114.63	114.14	114.74	115.53	116.34	117.10
22	---	---	118.02	117.26	116.06	114.83	114.44	114.06	114.74	115.55	116.27	117.00
23	---	---	118.22	117.53	115.97	114.97	114.65	113.99	114.72	115.61	116.29	117.10
24	---	---	118.17	117.11	115.87	115.06	114.58	114.07	114.73	115.60	116.37	117.10
25	---	---	117.91	116.76	115.81	115.00	114.32	114.16	114.75	115.55	116.43	116.87
26	---	---	118.16	116.96	115.78	115.14	114.18	114.23	114.78	115.48	116.31	117.15
27	---	---	118.35	117.29	115.48	114.90	114.48	114.23	114.81	115.67	116.28	117.29
28	---	---	118.07	117.12	115.35	114.83	114.40	114.17	114.79	115.76	116.33	117.16
29	---	---	117.99	116.89	---	114.78	114.31	114.14	114.78	115.85	116.30	117.44
30	---	---	117.83	116.93	---	114.66	114.47	114.16	114.80	115.91	116.20	117.33
31	---	---	117.92	116.96	---	115.02	---	114.21	---	115.87	116.45	---
MEAN	---	---	---	117.54	116.25	115.12	114.75	114.23	114.47	115.33	116.12	116.98
MAX	---	---	---	118.20	116.98	115.57	115.21	114.60	114.81	115.91	116.45	117.44
MIN	---	---	---	116.76	115.35	114.66	114.18	113.98	114.09	114.78	115.82	116.63

<sup>a</sup> Observed.

GROUND-WATER LEVELS  
IRON COUNTY—Continued



## GROUND-WATER LEVELS

## REYNOLDS COUNTY

WELL IDENTIFICATION.--373307091074001; T33N R02W 14ACC; Viburnum Trend Well 4.

LOCATION.--Lat 37°33'07", long 91°07'40", SW ¼ SW ¼ NE ¼ sec.14, T.33 N., R.02 W., approximately 1.0 mile north of Brushy Creek Mine, 1.5 mile west of Highway KK on Forest Service Road.

FORMATIONS OPEN TO WELL.--Unconfined Ozark aquifer, Gasconade Dolomite of Ordovician age and Eminence Dolomite/Potosi Dolomite of Cambrian Age.

CONSTRUCTION DATA.--Drilled December 4, 2001, total depth of well, 390 feet, 190 feet of 6-inch steel casing, open hole.

INSTRUMENTATION.--Pressure transducer and data logger installed February 13, 2002. Water level recorded hourly.

DATUM.--Land surface altitude is 1,410 feet above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point is top of steel casing 2.2 feet above land surface.

REMARKS.--Records rated fair.

PERIOD OF RECORD.--February 14, 2002 to current year.

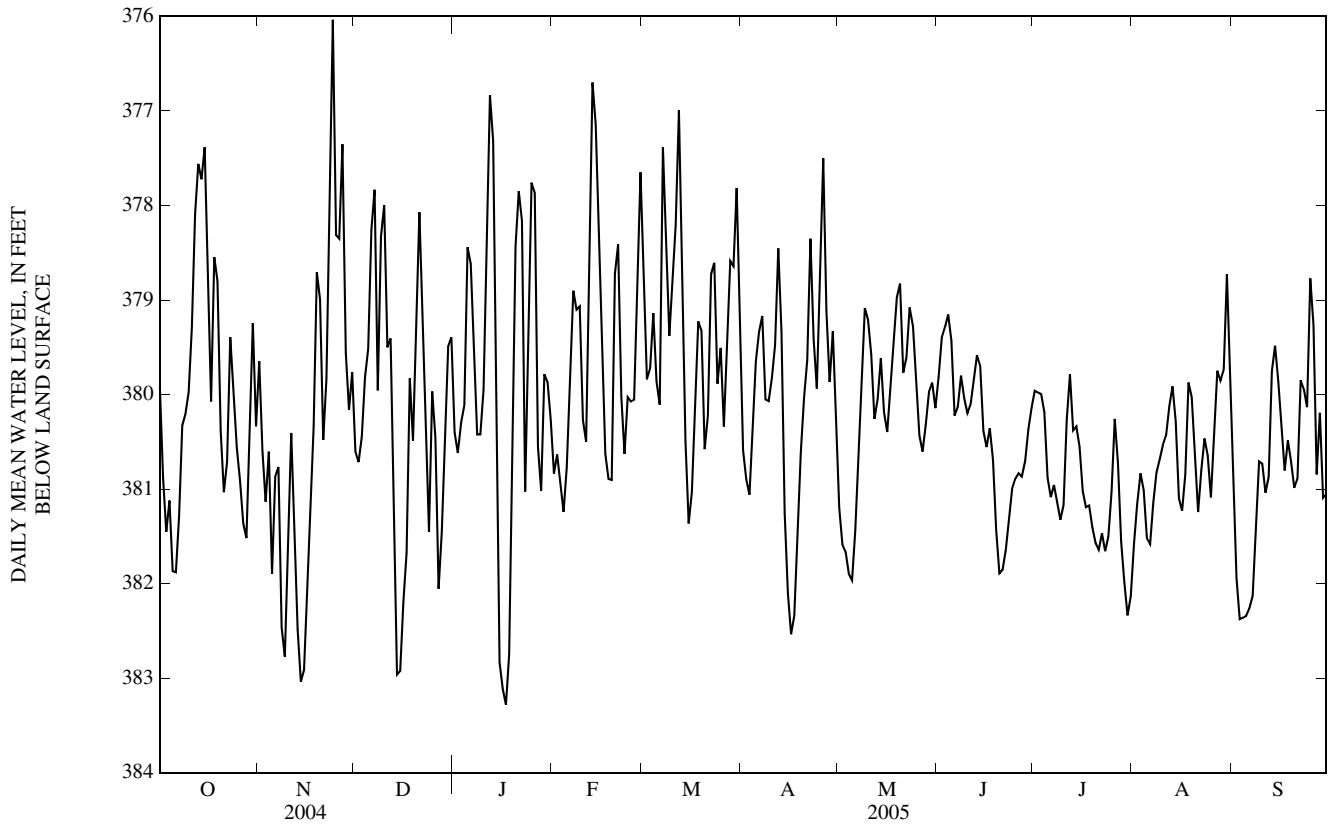
EXTREMES FOR CURRENT YEAR.--Maximum depth 383.33 ft, Jan. 17; minimum 375.34 ft, Nov. 24.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	379.92	379.65	380.60	380.40	380.84	378.82	380.59	381.20	379.82	379.96	381.58	381.10
2	380.88	380.59	380.72	380.62	380.64	379.84	380.90	381.59	379.40	379.98	381.16	381.94
3	381.45	381.13	380.45	380.30	380.94	379.73	381.06	381.66	379.29	380.00	380.84	382.38
4	381.12	380.60	379.82	380.11	381.24	379.14	380.38	381.90	379.15	380.19	381.01	382.36
5	381.87	381.90	379.52	378.44	380.77	379.86	379.65	381.96	379.43	380.88	381.52	382.34
6	381.88	380.87	378.26	378.62	379.78	380.11	379.34	381.45	380.22	381.08	381.58	382.26
7	381.29	380.77	377.83	379.42	378.90	377.39	379.17	380.59	380.13	380.96	381.14	382.13
8	380.33	382.46	379.96	380.42	379.10	378.48	380.05	379.75	379.80	381.14	380.82	381.40
9	380.20	382.77	378.33	380.42	379.07	379.38	380.07	379.09	380.04	381.32	380.68	380.71
10	379.97	381.77	378.00	379.95	380.27	378.70	379.83	379.21	380.20	381.17	380.53	380.73
11	379.29	380.41	379.50	378.30	380.50	378.20	379.48	379.58	380.11	380.26	380.43	381.04
12	378.10	381.27	379.41	376.83	379.16	376.99	378.45	380.26	379.84	379.79	380.12	380.87
13	377.56	382.49	381.14	377.32	376.70	378.66	379.33	380.05	379.59	380.38	379.91	379.75
14	377.72	383.04	382.96	381.25	377.15	380.49	381.25	379.62	379.70	380.34	380.28	379.49
15	377.38	382.91	382.92	382.83	377.98	381.36	382.10	380.19	380.39	380.55	381.10	379.86
16	378.93	382.14	382.19	383.12	379.42	381.03	382.54	380.40	380.56	381.02	381.23	380.35
17	380.07	381.23	381.67	383.28	380.63	380.18	382.34	379.96	380.36	381.19	380.84	380.80
18	378.55	380.34	379.83	382.75	380.90	379.23	381.57	379.50	380.69	381.18	379.87	380.49
19	378.80	378.71	380.49	380.23	380.90	379.32	380.61	378.97	381.44	381.41	380.03	380.71
20	380.38	379.00	379.08	378.43	378.72	380.58	380.04	378.83	381.89	381.57	380.72	380.99
21	381.03	380.48	378.07	377.85	378.41	380.22	379.64	379.77	381.85	381.64	381.24	380.89
22	380.71	379.84	379.61	378.16	380.02	378.73	378.35	379.61	381.64	381.47	380.80	379.85
23	379.39	378.02	380.70	381.03	380.63	378.61	379.42	379.08	381.33	381.66	380.47	379.95
24	379.93	376.04	381.45	379.97	380.03	379.89	379.94	379.28	380.99	381.50	380.65	380.13
25	380.57	378.31	379.97	377.76	380.07	379.51	378.80	379.91	380.89	381.03	381.09	378.77
26	380.91	378.35	380.46	377.87	380.05	380.34	377.50	380.43	380.83	380.26	380.51	379.26
27	381.36	377.35	382.05	380.55	378.95	379.63	379.12	380.60	380.87	380.73	379.75	380.84
28	381.52	379.56	381.45	381.02	377.65	378.59	379.87	380.32	380.70	381.56	379.85	380.19
29	380.24	380.16	380.43	379.79	---	378.64	379.33	379.97	380.37	381.99	379.74	381.09
30	379.24	379.77	379.49	379.87	---	377.82	380.08	379.88	380.14	382.34	378.73	381.05
31	380.34	---	379.40	380.27	---	379.52	---	380.14	---	382.14	379.87	---
MEAN	380.03	380.40	380.19	379.91	379.62	379.32	380.03	380.15	380.39	380.99	380.58	380.79
MAX	381.88	383.04	382.96	383.28	381.24	381.36	382.54	381.96	381.89	382.34	381.58	382.38
MIN	377.38	376.04	377.83	376.83	376.70	376.99	377.50	378.83	379.15	379.79	378.73	378.77



REYNOLDS COUNTY—Continued



## GROUND-WATER LEVELS

## REYNOLDS COUNTY

WELL IDENTIFICATION.--373056091063801; T33N R02W 25CDD; Viburnum Trend Well 5.

LOCATION.--Lat 37°30'56", long 91°06'38", SE ¼ SE ¼ SW ¼ sec.25, T.33 N., R.02 W., approximately 1.1 mile south of Highway KK near Brushy Creek Mine.

FORMATIONS OPEN TO WELL.--Unconfined Ozark aquifer, Eminence Dolomite/Potosi Dolomite of Cambrian Age.

CONSTRUCTION DATA.--Drilled December 3, 2001, total depth of well, 170 feet, 126 feet of 6-inch steel casing, open hole.

INSTRUMENTATION.--Pressure transducer and data logger installed February 22, 2002. Water level recorded hourly.

DATUM.--Land surface altitude is 1,160 feet above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point is top of steel casing 2.1 feet above land surface.

REMARKS.--Records rated good.

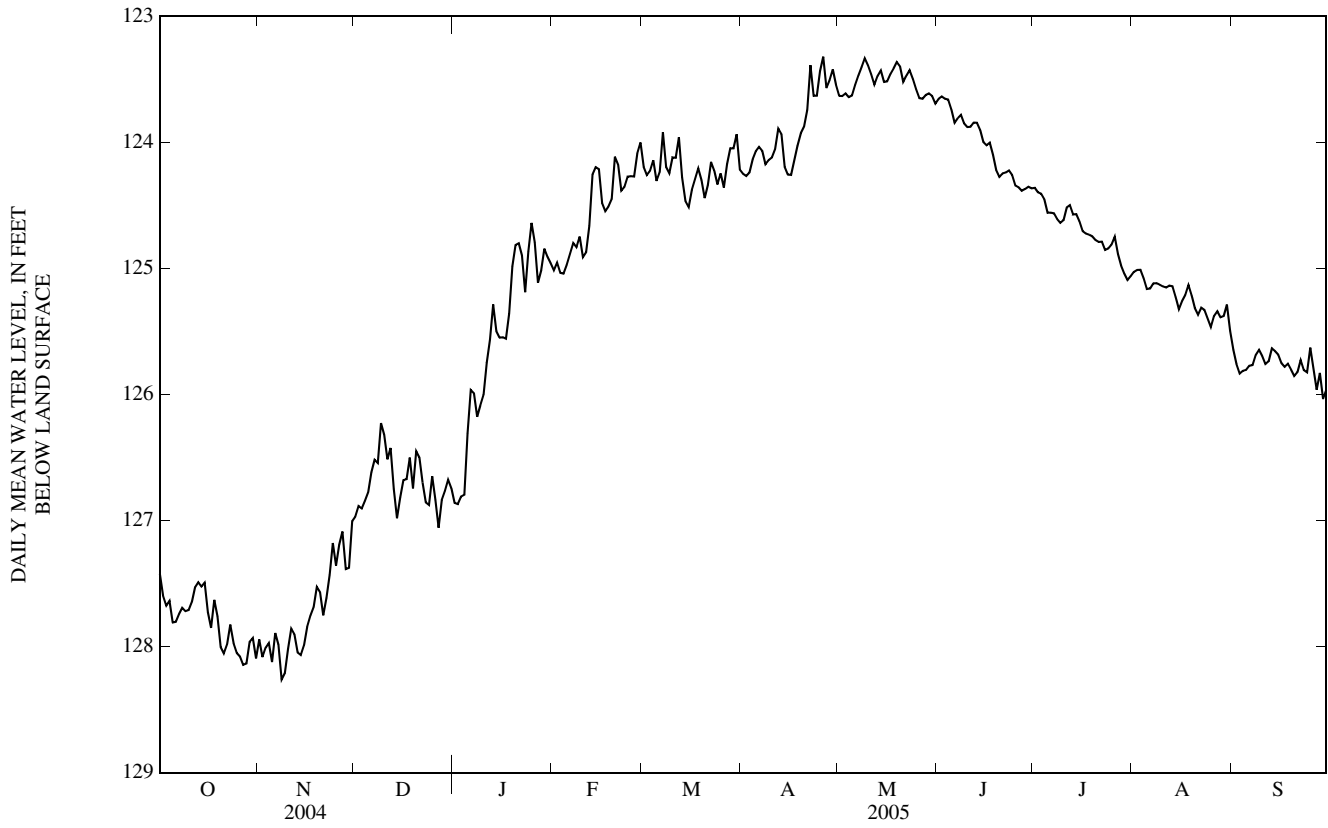
PERIOD OF RECORD.--February 23, 2002 to current year.

EXTREMES FOR CURRENT YEAR.--Maximum depth 128.33 ft, Nov. 8; minimum 123.23 ft, April 26.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	127.42	127.94	126.97	126.86	125.01	124.19	124.25	123.63	123.65	124.36	125.03	125.64
2	127.60	128.08	126.89	126.87	124.95	124.26	124.27	123.63	123.64	124.40	125.01	125.76
3	127.67	128.01	126.90	126.81	125.03	124.22	124.24	123.61	123.65	124.41	125.01	125.83
4	127.64	127.97	126.84	126.79	125.04	124.14	124.13	123.64	123.66	124.45	125.08	125.81
5	127.81	128.12	126.78	126.31	124.97	124.31	124.07	123.63	123.74	124.56	125.16	125.80
6	127.80	127.89	126.62	125.96	124.89	124.24	124.04	123.54	123.84	124.56	125.16	125.77
7	127.74	127.98	126.52	125.99	124.80	123.92	124.07	123.47	123.81	124.56	125.12	125.77
8	127.69	128.26	126.54	126.18	124.83	124.19	124.17	123.40	123.78	124.61	125.12	125.69
9	127.72	128.21	126.23	126.09	124.75	124.24	124.14	123.33	123.85	124.64	125.13	125.64
10	127.71	128.02	126.32	126.00	124.91	124.12	124.12	123.39	123.88	124.62	125.14	125.69
11	127.65	127.86	126.51	125.75	124.87	124.12	124.05	123.46	123.88	124.52	125.15	125.76
12	127.53	127.90	126.42	125.57	124.66	123.96	123.89	123.54	123.84	124.50	125.14	125.74
13	127.49	128.05	126.75	125.29	124.26	124.28	123.94	123.47	123.84	124.57	125.14	125.63
14	127.52	128.07	126.98	125.50	124.20	124.47	124.19	123.43	123.90	124.57	125.23	125.66
15	127.49	127.99	126.82	125.55	124.21	124.51	124.25	123.52	124.00	124.63	125.32	125.68
16	127.73	127.84	126.68	125.55	124.48	124.38	124.26	123.52	124.02	124.70	125.26	125.75
17	127.85	127.75	126.67	125.56	124.54	124.29	124.14	123.46	124.00	124.72	125.21	125.78
18	127.63	127.69	126.50	125.36	124.51	124.21	124.03	123.41	124.10	124.73	125.13	125.76
19	127.76	127.53	126.74	124.98	124.45	124.30	123.93	123.36	124.22	124.75	125.22	125.80
20	128.00	127.57	126.45	124.81	124.11	124.44	123.88	123.40	124.27	124.77	125.32	125.85
21	128.05	127.75	126.50	124.80	124.18	124.34	123.74	123.52	124.25	124.79	125.37	125.82
22	127.98	127.62	126.70	124.90	124.38	124.15	123.39	123.47	124.24	124.79	125.31	125.73
23	127.83	127.43	126.86	125.19	124.35	124.22	123.63	123.43	124.22	124.85	125.33	125.81
24	127.97	127.18	126.88	124.86	124.27	124.33	123.63	123.50	124.26	124.84	125.40	125.82
25	128.05	127.36	126.65	124.64	124.27	124.25	123.43	123.58	124.34	124.81	125.46	125.63
26	128.08	127.19	126.84	124.79	124.27	124.36	123.32	123.65	124.36	124.75	125.38	125.80
27	128.15	127.09	127.06	125.11	124.09	124.17	123.57	123.65	124.38	124.88	125.34	125.96
28	128.13	127.39	126.84	125.02	124.00	124.05	123.51	123.62	124.37	124.98	125.39	125.83
29	127.96	127.38	126.76	124.84	---	124.05	123.42	123.61	124.35	125.04	125.38	126.04
30	127.93	127.00	126.68	124.91	---	123.93	123.54	123.63	124.36	125.09	125.29	125.96
31	128.09	---	126.74	124.96	---	124.22	---	123.69	---	125.06	125.50	---
MEAN	127.80	127.74	126.70	125.54	124.55	124.22	123.91	123.52	124.02	124.69	125.23	125.77
MAX	128.15	128.26	127.06	126.87	125.04	124.51	124.27	123.69	124.38	125.09	125.50	126.04
MIN	127.42	127.00	126.23	124.64	124.00	123.92	123.32	123.33	123.64	124.36	125.01	125.63

REYNOLDS COUNTY—Continued



## GROUND-WATER LEVELS

## REYNOLDS COUNTY

WELL IDENTIFICATION.--372853091061801; T32N R02W 12ADB; Viburnum Trend Well 6.

LOCATION.--Lat 37°28'53", long 91°06'18", NW ¼ SE ¼ NE ¼ sec.12, T.32 N., R.02 W., approximately 1.0 mile north of Fletcher Mine.

FORMATIONS OPEN TO WELL.--Unconfined Ozark aquifer, Eminence Dolomite/Potosi Dolomite of Cambrian Age.

CONSTRUCTION DATA.--Drilled November 5, 2001, total depth of well, 250 feet, 210 feet of 6-inch steel casing, open hole.

INSTRUMENTATION.--Pressure transducer and data logger installed February 21, 2002. Water level recorded hourly.

DATUM.--Land surface altitude is 1,150 feet above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point is top of steel casing 3.2 feet above land surface.

REMARKS.--Records rated good except for the period April 2 to May 4, which is fair.

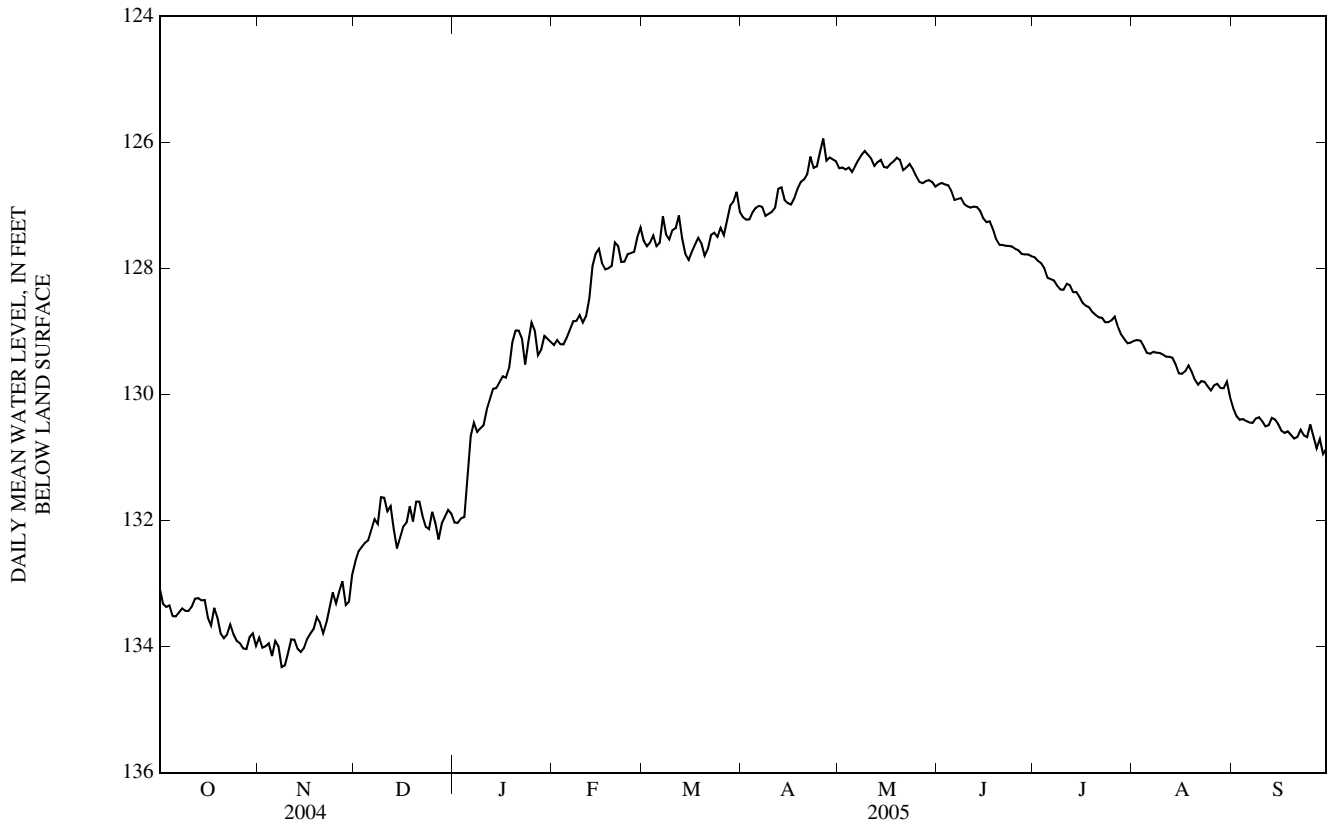
PERIOD OF RECORD.--February 22, 2002 to current year.

EXTREMES FOR CURRENT YEAR.--Maximum depth 134.37 ft, Nov. 8; minimum 125.98 ft, Apr. 26.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133.09	133.86	132.65	132.03	129.21	127.56	127.19	126.41	126.66	127.82	129.15	130.22
2	133.32	134.02	132.49	132.04	129.13	127.65	127.23	126.40	126.64	127.88	129.14	130.34
3	133.37	133.99	132.42	131.97	129.20	127.59	127.22	126.43	126.67	127.92	129.14	130.40
4	133.35	133.95	132.35	131.94	129.20	127.48	127.11	126.40	126.68	128.00	129.23	130.39
5	133.52	134.15	132.32	131.34	129.10	127.65	127.04	126.47	126.77	128.15	129.34	130.42
6	133.52	133.91	132.14	130.65	128.97	127.59	127.01	126.37	126.91	128.17	129.35	130.44
7	133.46	133.99	131.98	130.44	128.84	127.17	127.02	126.28	126.90	128.19	129.32	130.45
8	133.40	134.32	132.06	130.59	128.83	127.46	127.16	126.19	126.88	128.27	129.34	130.38
9	133.43	134.30	131.63	130.54	128.74	127.54	127.13	126.14	126.98	128.33	129.34	130.36
10	133.43	134.10	131.64	130.49	128.86	127.39	127.10	126.19	127.02	128.34	129.37	130.42
11	133.37	133.88	131.85	130.24	128.75	127.36	127.04	126.26	127.03	128.24	129.40	130.51
12	133.24	133.89	131.77	130.07	128.48	127.16	126.74	126.37	127.02	128.27	129.40	130.49
13	133.23	134.04	132.14	129.91	127.96	127.52	126.71	126.31	127.03	128.38	129.42	130.37
14	133.26	134.09	132.44	129.90	127.76	127.78	126.92	126.28	127.09	128.37	129.53	130.40
15	133.26	134.02	132.27	129.81	127.69	127.87	126.97	126.39	127.21	128.45	129.66	130.47
16	133.54	133.88	132.10	129.71	127.92	127.74	126.99	126.40	127.26	128.55	129.67	130.58
17	133.66	133.79	132.03	129.73	128.02	127.62	126.89	126.34	127.25	128.59	129.63	130.61
18	133.39	133.72	131.78	129.58	128.00	127.52	126.74	126.30	127.38	128.62	129.54	130.58
19	133.54	133.53	132.02	129.17	127.96	127.61	126.63	126.24	127.54	128.69	129.64	130.64
20	133.79	133.62	131.70	128.98	127.59	127.80	126.59	126.28	127.62	128.74	129.77	130.70
21	133.87	133.79	131.70	128.99	127.64	127.69	126.50	126.44	127.63	128.77	129.84	130.67
22	133.81	133.62	131.93	129.11	127.90	127.47	126.23	126.40	127.64	128.78	129.79	130.56
23	133.65	133.39	132.10	129.52	127.89	127.43	126.40	126.34	127.64	128.85	129.80	130.65
24	133.81	133.14	132.14	129.17	127.78	127.50	126.38	126.43	127.65	128.85	129.87	130.68
25	133.91	133.31	131.86	128.86	127.76	127.35	126.15	126.54	127.69	128.82	129.94	130.48
26	133.95	133.13	132.04	128.98	127.74	127.47	125.94	126.63	127.71	128.76	129.85	130.66
27	134.03	132.97	132.30	129.38	127.51	127.24	126.29	126.65	127.77	128.93	129.83	130.86
28	134.04	133.34	132.05	129.29	127.35	127.00	126.24	126.62	127.78	129.05	129.90	130.71
29	133.85	133.29	131.94	129.07	---	126.94	126.27	126.60	127.78	129.12	129.90	130.94
30	133.79	132.86	131.83	129.12	---	126.78	126.30	126.63	127.81	129.19	129.80	130.86
31	133.99	---	131.89	129.17	---	127.10	---	126.70	---	129.18	130.04	---
MEAN	133.58	133.73	132.05	129.99	128.28	127.45	126.74	126.40	127.25	128.52	129.58	130.54
MAX	134.04	134.32	132.65	132.04	129.21	127.87	127.23	126.70	127.81	129.19	130.04	130.94
MIN	133.09	132.86	131.63	128.86	127.35	126.78	125.94	126.14	126.64	127.82	129.14	130.22

REYNOLDS COUNTY—Continued



## GROUND-WATER LEVELS

## REYNOLDS COUNTY

WELL IDENTIFICATION.--372608091063301; T32N R02W 25ACD ; Viburnum Trend Well 7.

LOCATION.--Lat 37°26'08", long 91°06'33", SE ¼ SW ¼ NE ¼ sec.25, T.32 N., R.02 W., approximately 0.8 mile north of intersection of Highways 72 and TT.

FORMATIONS OPEN TO WELL.--Unconfined Ozark aquifer, Gasconade Dolomite of Ordovician age and Eminence Dolomite/Potosi Dolomite of Cambrian age.

CONSTRUCTION DATA.--Drilled October 31, 2001, total depth of well, 275 feet, 250 feet of 6-inch steel casing, open hole.

INSTRUMENTATION.--Pressure transducer and data logger installed March 19, 2002. Water level recorded hourly.

DATUM.--Land surface altitude is 1,165 feet above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point is top of steel casing 2.2 feet above land surface.

REMARKS.--Records rated good.

PERIOD OF RECORD.--March 20, 2002 to current year.

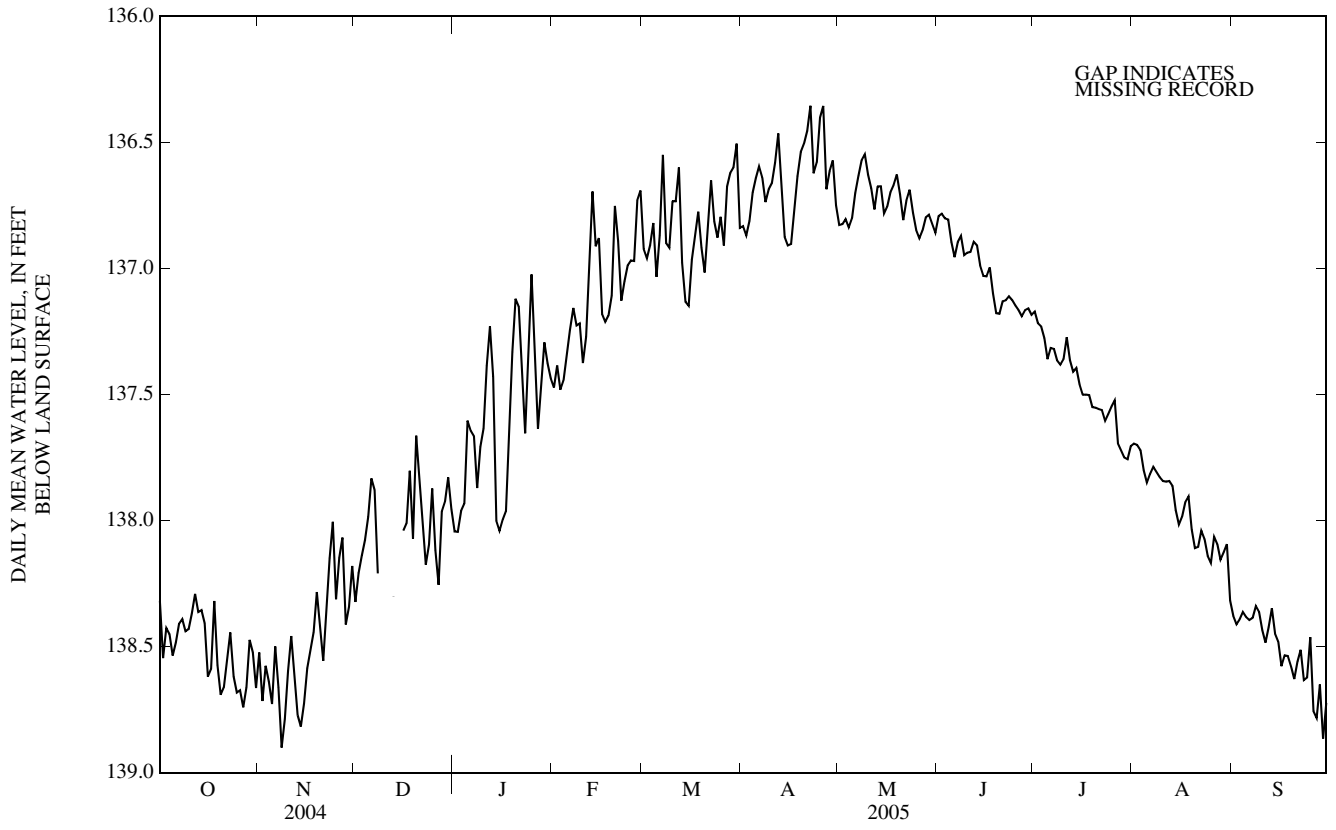
EXTREMES FOR CURRENT YEAR.--Maximum depth 138.98 ft, Nov. 8; minimum 136.22 ft, Apr. 26.

DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138.32	138.52	138.32	138.04	137.47	136.92	136.83	136.83	136.79	137.17	137.70	138.38
2	138.55	138.72	138.21	138.04	137.38	136.96	136.87	136.82	136.78	137.22	137.70	138.41
3	138.43	138.58	138.14	137.96	137.48	136.91	136.81	136.80	136.80	137.23	137.72	138.39
4	138.45	138.64	138.08	137.93	137.44	136.82	136.70	136.84	136.81	137.28	137.80	138.36
5	138.54	138.73	137.99	137.60	137.34	137.03	136.64	136.80	136.89	137.36	137.85	138.38
6	138.48	138.50	137.83	137.64	137.24	136.87	136.59	136.70	136.95	137.32	137.81	138.39
7	138.41	138.66	137.88	137.67	137.16	136.55	136.64	136.63	136.90	137.32	137.79	138.39
8	138.39	138.90	138.21 <sup>a</sup>	137.87	137.23	136.90	136.74	136.57	136.87	137.36	137.81	138.34
9	138.44	138.79	---	137.71	137.22	136.92	136.69	136.55	136.95	137.38	137.83	138.36
10	138.43	138.60	---	137.63	137.38	136.73	136.66	136.63	136.94	137.36	137.84	138.43
11	138.37	138.46	---	137.39	137.27	136.73	136.58	136.68	136.93	137.27	137.85	138.48
12	138.29	138.62	---	137.23	137.03	136.60	136.46	136.77	136.89	137.36	137.84	138.42
13	138.36	138.77	138.30 <sup>a</sup>	137.43	136.69	136.98	136.67	136.67	136.91	137.41	137.86	138.35
14	138.35	138.82	---	138.00	136.91	137.13	136.87	136.67	136.99	137.39	137.96	138.45
15	138.41	138.73	---	138.04	136.88	137.15	136.91	136.78	137.03	137.46	138.02	138.48
16	138.62	138.59	138.04	138.00	137.18	136.96	136.90	136.75	137.03	137.50	137.98	138.58
17	138.59	138.51	138.01	137.96	137.21	136.86	136.77	136.70	137.00	137.50	137.93	138.53
18	138.32	138.44	137.80	137.70	137.19	136.78	136.63	136.67	137.10	137.50	137.90	138.54
19	138.57	138.28	138.07	137.33	137.11	136.92	136.54	136.63	137.18	137.55	138.04	138.58
20	138.69	138.43	137.66	137.12	136.75	137.02	136.50	136.71	137.18	137.55	138.11	138.63
21	138.66	138.56	137.82	137.15	136.89	136.85	136.45	136.81	137.13	137.56	138.10	138.56
22	138.55	138.36	137.99	137.38	137.13	136.65	136.35	136.73	137.13	137.56	138.04	138.51
23	138.44	138.15	138.17	137.65	137.05	136.81	136.62	136.69	137.11	137.60	138.07	138.63
24	138.62	138.00	138.10	137.27	136.99	136.88	136.58	136.78	137.12	137.58	138.14	138.62
25	138.68	138.31	137.87	137.02	136.97	136.79	136.40	136.85	137.15	137.55	138.17	138.46
26	138.67	138.15	138.12	137.30	136.97	136.91	136.36	136.88	137.17	137.52	138.06	138.76
27	138.74	138.07	138.26	137.64	136.73	136.67	136.69	136.85	137.19	137.69	138.09	138.78
28	138.66	138.41	137.96	137.47	136.69	136.62	136.61	136.80	137.16	137.72	138.16	138.65
29	138.47	138.34	137.93	137.29	---	136.60	136.57	136.79	137.16	137.75	138.13	138.87
30	138.52	138.18	137.83	137.38	---	136.50	136.75	136.82	137.18	137.76	138.09	138.72
31	138.66	---	137.96	137.44	---	136.84	---	136.86	---	137.71	138.32	---
MEAN	138.51	138.49	---	137.59	137.11	136.83	136.65	136.74	137.01	137.47	137.96	138.51
MAX	138.74	138.90	---	138.04	137.48	137.15	136.91	136.88	137.19	137.76	138.32	138.87
MIN	138.29	138.00	---	137.02	136.69	136.50	136.35	136.55	136.78	137.17	137.70	138.34

<sup>a</sup> Observed.

REYNOLDS COUNTY—Continued



## GROUND-WATER LEVELS

## REYNOLDS COUNTY

WELL IDENTIFICATION.--371910091081101; T30N R02W 02CBA; Viburnum Trend Well 8

LOCATION.--Lat 37°19'10", long 91°08'11", NE ¼ NW ¼ SW ¼ sec.02, T.30 N., R.02 W., approximately 10 miles southeast of Bunker.

FORMATIONS OPEN TO WELL.--Unconfined Ozark aquifer, Eminence Dolomite/Potosi Dolomite of Cambrian age.

CONSTRUCTION DATA.--Drilled November 5, 2001, total depth of well, 110 feet, 80 feet of 6-inch steel casing, open hole.

INSTRUMENTATION.--Pressure transducer and data logger installed February 22, 2002. Water level recorded hourly.

DATUM.--Land surface altitude is 990 feet above National Geodetic Vertical Datum of 1929, from topographic map. Measuring point is top of steel casing 2.1 feet above land surface.

REMARKS.--Records rated good.

PERIOD OF RECORD.--February 23, 2002 to current year.

EXTREMES FOR CURRENT YEAR.--Maximum depth 61.26 ft, Oct. 27; minimum 40.51 ft, Jan. 13.

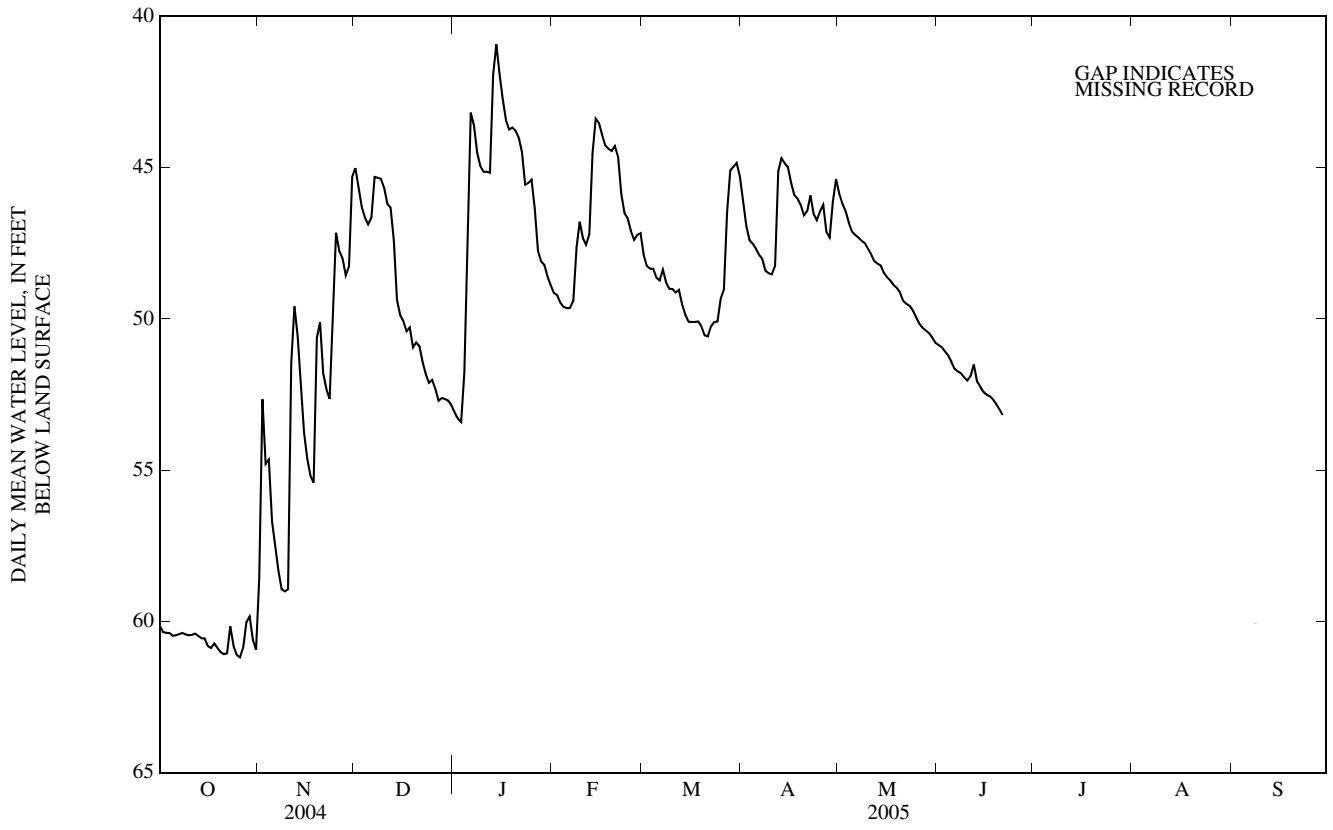
DEPTH TO WATER LEVEL, FEET BELOW LAND SURFACE, WATER YEAR OCTOBER 2004 TO SEPTEMBER 2005  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60.16	58.58	45.02	53.08	49.15	47.88	46.15	45.86	50.86	---	---	---
2	60.35	52.66	45.66	53.29	49.21	48.26	46.92	46.19	50.94	---	---	---
3	60.38	54.80	46.31	53.41	49.46	48.34	47.39	46.44	51.07	---	---	---
4	60.38	54.65	46.65	51.77	49.60	48.35	47.51	46.82	51.21	---	---	---
5	60.47	56.70	46.88	46.11	49.65	48.64	47.67	47.11	51.42	---	---	---
6	60.46	57.49	46.66	43.18	49.64	48.73	47.88	47.22	51.65	---	---	---
7	60.43	58.33	45.31	43.60	49.40	48.38	48.02	47.32	51.73	---	---	---
8	60.38	58.94	45.33	44.50	47.65	48.79	48.41	47.42	51.80	---	---	60.08 <sup>a</sup>
9	60.43	59.01	45.37	44.96	46.79	49.01	48.49	47.50	51.93	---	---	---
10	60.46	58.93	45.67	45.14	47.33	49.01	48.53	47.68	52.04	---	---	---
11	60.45	51.47	46.20	45.14	47.55	49.13	48.25	47.87	51.90	---	---	---
12	60.40	49.58	46.33	45.17	47.21	49.05	45.11	48.10	51.51	---	---	---
13	60.48	50.56	47.39	41.92	44.54	49.51	44.69	48.17	52.06	---	---	---
14	60.56	52.23	49.38	40.92	43.38	49.87	44.85	48.24	52.23	---	---	---
15	60.56	53.76	49.87	41.91	43.52	50.09	44.98	48.48	52.41	---	---	---
16	60.82	54.62	50.07	42.74	43.91	50.10	45.50	48.62	52.51	---	---	---
17	60.88	55.19	50.41	43.42	44.27	50.10	45.91	48.74	52.56	---	---	---
18	60.73	55.41	50.29	43.74	44.38	50.08	46.02	48.89	52.66	---	---	---
19	60.88	50.62	50.94	43.68	44.45	50.25	46.24	48.98	52.81	---	---	---
20	61.02	50.12	50.78	43.77	44.29	50.54	46.58	49.13	52.99	---	---	---
21	61.08	51.81	50.90	44.01	44.65	50.58	46.43	49.40	53.18 <sup>a</sup>	---	---	---
22	61.06	52.32	51.42	44.49	45.88	50.25	45.92	49.50	---	---	---	---
23	60.17	52.64	51.82	45.56	46.50	50.10	46.53	49.57	---	---	---	---
24	60.82	49.50	52.11	45.50	46.68	50.09	46.74	49.72	---	---	---	---
25	61.11	47.16	52.02	45.40	47.09	49.34	46.45	49.95	---	---	---	---
26	61.19	47.75	52.32	46.36	47.39	49.04	46.23	50.16	---	---	---	---
27	60.86	47.99	52.71	47.74	47.22	46.48	47.13	50.30	---	---	---	---
28	60.02	48.57	52.62	48.10	47.17	45.09	47.31	50.38	---	---	---	---
29	59.84	48.27	52.65	48.22	---	44.98	46.14	50.47	---	---	---	---
30	60.60	45.31	52.70	48.60	---	44.85	45.38	50.61	---	---	---	---
31	60.94	---	52.85	48.89	---	45.29	---	50.79	---	---	---	---
MEAN	60.59	52.83	49.18	45.95	46.71	48.72	46.65	48.57	---	---	---	---
MAX	61.19	59.01	52.85	53.41	49.65	50.58	48.53	50.79	---	---	---	---
MIN	59.84	45.31	45.02	40.92	43.38	44.85	44.69	45.86	---	---	---	---

<sup>a</sup> Observed.



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Viburnum Trend Well 1 .....	678	Zalma	
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Viburnum Trend Well 3 .....	682		
Viburnum Trend Well 4 .....	684		
Viburnum Trend Well 5 .....	686		
Viburnum Trend Well 6 .....	688		
Viburnum Trend Well 7 .....	690		
Viburnum Trend Well 8 .....	692		
W			
Waco			
Spring River near .....	631		
Walnut Creek near Novinger .....	670		

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# Conversion Factors

Multiply	By	To obtain
Length		
inch (in.)	$2.54 \times 10^1$	millimeter (mm)
	$2.54 \times 10^{-2}$	meter (m)
foot (ft)	$3.048 \times 10^{-1}$	meter (m)
mile (mi)	$1.609 \times 10^0$	kilometer (km)
Area		
acre	$4.047 \times 10^3$	square meter (m <sup>2</sup> )
	$4.047 \times 10^{-1}$	square hectometer (hm <sup>2</sup> )
	$4.047 \times 10^{-3}$	square kilometer (km <sup>2</sup> )
square mile (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometer (km <sup>2</sup> )
Volume		
gallon (gal)	$3.785 \times 10^0$	liter (L)
	$3.785 \times 10^{-3}$	cubic meter (m <sup>3</sup> )
	$3.785 \times 10^0$	cubic decimeter (dm <sup>3</sup> )
million gallons (Mgal)	$3.785 \times 10^3$	cubic meter (m <sup>3</sup> )
	$3.785 \times 10^{-3}$	cubic hectometer (hm <sup>3</sup> )
cubic foot (ft <sup>3</sup> )	$2.832 \times 10^{-2}$	cubic meter (m <sup>3</sup> )
	$2.832 \times 10^1$	cubic decimeter (dm <sup>3</sup> )
cubic foot per second per day [(ft <sup>3</sup> /s)/d]	$2.447 \times 10^3$	cubic meter (m <sup>3</sup> )
	$2.447 \times 10^{-3}$	cubic hectometer (hm <sup>3</sup> )
acre-foot (acre-ft)	$1.233 \times 10^3$	cubic meter (m <sup>3</sup> )
	$1.233 \times 10^{-3}$	cubic hectometer (hm <sup>3</sup> )
	$1.233 \times 10^{-6}$	cubic kilometer (km <sup>3</sup> )
Flow		
cubic foot per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liter per second (L/s)
	$2.832 \times 10^{-2}$	cubic meter per second (m <sup>3</sup> /s)
	$2.832 \times 10^1$	cubic decimeter per second (dm <sup>3</sup> /s)
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second (L/s)
	$6.309 \times 10^{-5}$	cubic meter per second (m <sup>3</sup> /s)
	$6.309 \times 10^{-2}$	cubic decimeter per second (dm <sup>3</sup> /s)
million gallons per day (Mgal/d)	$4.381 \times 10^{-2}$	cubic meter per second (m <sup>3</sup> /s)
	$4.381 \times 10^1$	cubic decimeter per second (dm <sup>3</sup> /s)
Mass		
ton (short)	$9.072 \times 10^{-1}$	megagram (Mg) or metric ton

Temperature in degrees Celsius (°C) may be converted to degrees Fahrenheit (°F) as follows:

$$^{\circ}\text{F} = (1.8 \times ^{\circ}\text{C}) + 32$$

