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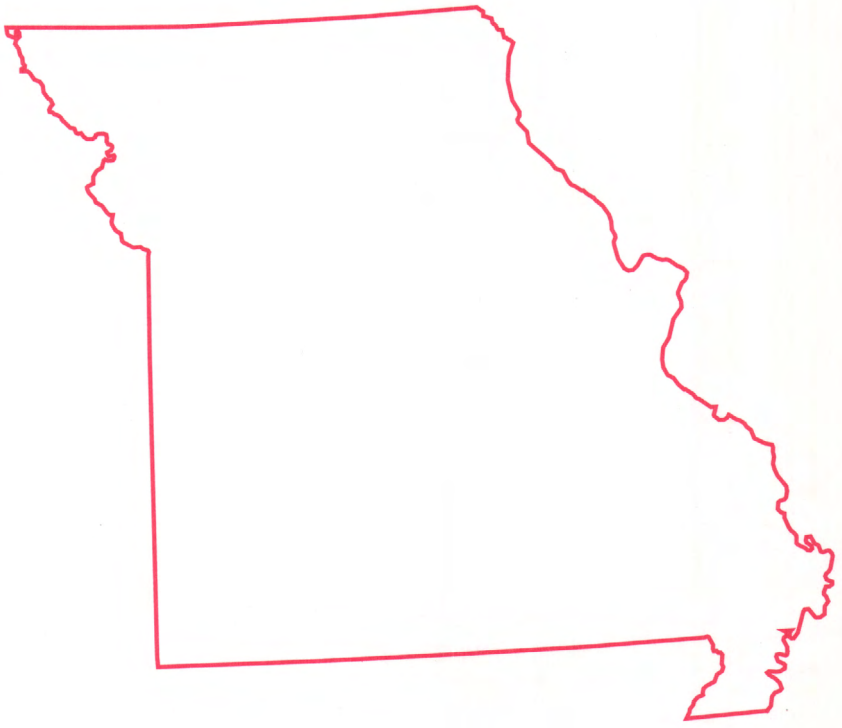
Water Resources Data Missouri Water Year 1997



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MO-97-1

Prepared in cooperation with the State of Missouri and other agencies

CALENDAR FOR WATER YEAR 1997

1996

OCTOBER

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1997

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SEPTEMBER

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Water Resources Data Missouri Water Year 1997

by H.S. Hauck, L.G. Huber, and C.D. Nagel

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT MO-97 -1
Prepared in cooperation with the State of Missouri
and other agencies

U.S. DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U.S. GEOLOGICAL SURVEY

Thomas Casadevall, Acting Director

For information on the water program in Missouri write to:
District Chief, Water Resources Division
U.S. Geological Survey
1400 Independence Road - Mail Stop 100
Rolla, Missouri 65401

1998

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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Kelly R. Brady	David C. Heimann	Sherry A. Ternes
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Jerri V. Davis	Kathy M. Love	Robert E. Whitaker
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Willie E. Easterling	John W. Melton	Emitt C. Witt
Hugh O. Edwards	Michael C. Moody	Lori D. Wood
Suzanne R. Femmer	L. Carlene Shoemate	

Sherry A. Ternes and Lori D. Wood assembled the text of the report and Gary L. Wilson modified the illustrations in the report.

This report was prepared in cooperation with the State of Missouri and with other agencies under the general supervision of Loyd A. Waite, Hydrologic Surveillance Section Chief and James H. Barks, District Chief, Missouri.

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1. AGENCY USE ONLY *(Leave blank)*	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	March 1998	Annual--Oct. 1, 1996 to Sept. 30, 1997

4. TITLE AND SUBTITLE
Water Resources Data--Missouri, Water Year 1997

5. FUNDING NUMBERS

6. AUTHOR(S)
H.S. Hauck, L.G. Huber, and C.D. Nagel

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)
U.S. Geological Survey, Water Resources Division
Missouri District
1400 Independence Road, Mail Stop 100
Rolla, MO 65401

8. PERFORMING ORGANIZATION REPORT NUMBER
USGS-WDR-MO-97-1

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)
U.S. Geological Survey, Water Resources Division
Missouri District
1400 Independence Road, Mail Stop 100
Rolla, MO 65401

10. SPONSORING / MONITORING AGENCY REPORT NUMBER
USGS-WDR-MO-97-1

11. SUPPLEMENTARY NOTES
Prepared in cooperation with Federal, State, and local agencies

12a. DISTRIBUTION / AVAILABILITY STATEMENT
No restriction on distribution. This report may be purchased from National Technical Information Service, Springfield, Virginia 22161.

12b. DISTRIBUTION CODE

13. ABSTRACT *(Maximum 200 words)*

The U.S. Geological Survey, Water Resources Division, 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 the water years, constitute a valuable data base for developing an improved understanding of the water resources of Missouri.

Water-resources data for the 1997 water year for Missouri consist of records of stage, discharge, and water quality of streams; elevation, contents, and water quality of lakes and reservoirs. This volume contains discharge records for 106 gaging stations; elevation at 11 lakes and reservoirs; and water quality at 77 sampling stations (including 1 lake).

14. SUBJECT TERMS
*Missouri, *Hydrologic data, *Surface water, *Quality water, Gaging stations, Streamflow, Flow rates, Lakes, Reservoirs, Chemical analysis, Sediment, Water temperature, Water analysis, Water levels, Data collection

15. NUMBER OF PAGES
337

16. PRICE CODE

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
Unclassified	Unclassified		

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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]

SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER,
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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 District Office 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	Type of record	Station number	Drainage area (mi^2)	Period of record
Middle Fabius River near Baring	(d)	05497500	185	1930-61
North River at Bethel	(d)	05500500	58.0	1930-73
Oak Dale Branch near Emden	(d)	05503000	2.64	1955-75
North Fork Salt River near Hunnewell	(d)	05503500	626	1931-40, 1979-88
Youngs Creek near Mexico	(d)	05506000	67.4	1930-82
Middle Fork Salt River at Duncan's Bridge	(d)	05506190	200	1980-82
Elk Fork Salt River near Paris	(d)	05507000	262	1930-54, 1980-82
Salt River near Monroe City	(d)	05507500	2,230	1939-81
Calumet Creek near Clarksville	(d)	05509700	15.7	1965-72
Tarkio River at Fairfax	(d)	06813000	508	1922-90
Mill Creek at Oregon	(d)	06816000	4.90	1950-76
Nodaway River near Burlington Junction	(d)	06817500	1,240	1922-83
Platte River at Ravenwood	(d)	06818900	486	1921-23, 1924-25, 1928-32, 1958-71
One Hundred Two River at Maryville	(d)	06819500	515	1932-90
White Cloud Creek near Maryville	(d)	06820000	6.06	1948-70
Jenkins Branch at Gower	(d)	06821000	2.72	1950-76
Line Creek at Riverside	(d)	06821280	19.2	1975-81
Brush Creek at Main Street in Kansas City	(d)	06893560	14.8	1970-79
Rock Creek at Independence	(d)	06893600	5.20	1967-74
Shoal Creek at Claycomo	(d)	06893670	29.8	1975-81
East Fork Fishing River at Excelsior Spring	(d)	06894500	20.0	1950-72
Sni-A-Bar Creek near Tarsney	(d)	06894680	29.1	1970-79
Crooked River near Richmond	(d)	06895000	159	1948-70
Wakenda Creek at Carrollton	(d)	06896000	248	1948-70
Thompson Branch near Albany	(d)	06896500	5.58	1955-72
Thompson River at Mount Moriah	(d)	06898100	891	1960-77
Weldon River near Mercer	(d)	06898500	246	1939-59
Weldon River at Mill Grove	(d)	06899000	494	1929-72
Shoal Creek near Braymer	(d)	06899700	391	1957-77
Medicine Creek near Galt	(d)	06900000	225	1921-75, 1977-90
Locust Creek near Linneus	(d)	06901500	550	1928-72
West Yellow Creek near Brookfield	(d)	06902200	135	1959-77
Hamilton Branch near New Boston	(d)	06902500	2.51	1955-72
Mussell Fork near Musselfork	(d)	06906000	267	1948-51, 1962-90
Thomas Hill Lake near Thomas Hill	(e)	06906350	147	1966-74
Middle Fork Chariton River below Salisbury	(d)	06906470	201	1964-70
Burge Branch near Arrow Rock	(d)	06906600	0.33	1959-73
Flat Creek near Sedalia	(d)	06906700	148	1958-67
Lamine River at Clifton City	(d)	06907000	598	1922-71
South Fork Blackwater near Elm	(d)	06907500	16.6	1954-79
Blackwater River at Valley City	(d)	06907700	547	1958-73
Shiloh Branch near Marshall	(d)	06908500	2.87	1952-65
Moniteau Creek near Fayette	(d)	06909500	81	1948-69
Petite Saline Creek near Boonville	(d)	06910000	182	1948-67
Hinkson Creek at Columbia	(d)	06910230	44.8	1964-76, 1986-91

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

Station name	Type of record	Station number	Drainage area (mi^2)	Period of record
Cedar Creek near Columbia	(d)	06910410	70.2	1966-82, 1987-91
Moreau River near Jefferson City	(d)	06910500	561	1947-74
Chesapeake Spring at Chesapeake	(d)	06918444	--	1926, 1932, 1936, 1954, 1963-68
Oak Grove Branch near Brighton	(d)	06918700	1.30	1956-75
Little Sac River at Aldrich	(d)	06918800	304	1967-68
Pomme de Terre River near Bolivar	(d)	06921000	225	1950-69
Pomme de Terre River at Hermitage	(d)	06921500	655	1921-65
South Grand River at Archie	(d)	06921590	356	1969-86
South Grand River at Urich	(d)	06921600	670	1960-69
Big Creek at Blairstown	(d)	06921720	414	1960-74
Brushy Creek near Blairstown	(d)	06921740	1.15	1960-75
South Grand River near Brownington	(d)	06922000	1,660	1921-71
Big Buffalo Creek near Stover	(d)	06922800	24.2	1965-77
Niangua River near Windyville	(d)	06923250	338	1991-96
Bennett Spring at Bennett Springs	(d)	06923500	--	1916-20, 1928-41, 1965-95
Niangua River near Decaturville	(d)	06924000	627	1929-69
Starks Creek at Preston	(d)	06925200	4.18	1956-76
Van Cleve Branch near Meta	(d)	06926200	0.75	1956-72
Osage River near St. Thomas	(d)	06926500	14,500	1931-96
Maries River at Westphalia	(d)	06927000	257	1947-70
Big Hollow near Fulton	(d)	06927200	4.05	1957-72
Osage Fork Gasconade River at Drynob	(d)	06927800	404	1962-81
Gasconade River near Hazlegreen	(d)	06928000	1,250	1928-71
Laquey Branch near Hazlegreen	(d)	06928200	1.58	1958-72
Gasconade River near Waynesville	(d)	06928500	1,680	1914-71
Beeler Branch near Cabool	(d)	06928700	7.78	1967-76
Big Piney near Big Piney	(d)	06930000	560	1922-82, 1988-96
Little Beaver Creek near Rolla	(d)	06931500	6.45	1947-75
Loutre River at Mineola	(d)	06935500	202	1947-67
Coldwater Creek near St. Louis	(d)	06936500	43.6	1959-65
Meramec River at Cook Station	(d)	07010350	199	1965-81
Maramec Spring near St. James	(d)	07010500	--	1903-06, 1921-29, 1965-86
Green Acre Branch near Rolla	(d)	07011500	0.62	1947-75
Bourbeuse River near St. James	(d)	07015000	21.3	1947-81
Lanes Fork near Rolla	(d)	07015500	0.225	1952-71
Bourbeuse River near Spring Bluff	(d)	07016000	608	1943-81
Dry Branch near Bonne Terre	(d)	07017500	3.35	1955-75
Sandy Creek near Pevely	(d)	07019690	32.5	1966-68, 1969-72
Plattin Creek at Plattin	(d)	07019790	65.8	1965-72
Saline Creek near Minnith	(d)	07020270	82.6	1968-81
Castor River at Zalma	(d)	07021000	423	1920-91
Brewers Creek near Ironton	(d)	07033800	2.19	1964-66
Barnes Creek near Fredericktown	(d)	07035500	3.35	1955-75
Clark Creek near Piedmont	(d)	07037700	4.39	1956-76
Little River Ditch 81 near Kennett	(d)	07041000	111	1926-79
Little River Ditch 1 near Kennett	(d)	07042000	235	1926-79
Little River Ditch 251 near Lilbourn	(d)	07042500	235	1945-91
Castor River at Aquilla	(d)	07043000	175	1945-81
Little River Ditch 251 near Kennett	(d)	07044000	883	1926-79
Little River Ditch 66 near Kennett	(d)	07045000	--	1926-79

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

Station name	Type of record	Station number	Drainage area (mi^2)	Period of record
Little River Ditch 66-A near Kennett	(d)	07045500	--	1927-65
Little River Ditch 259 near Kennett	(d)	07046000	89.0	1926-79
Roaring River Spring near Cassville	(d)	07050150	--	1965-68
James River near Strafford	(d)	07050580	165	1973-86
Wilsons Creek near Springfield	(d)	07052100	31.4	1972-82
Wilsons Creek below Springfield	(d)	07052150	47.2	1967-72
Wilsons Creek near Battlefield	(d)	07052160	55.0	1968-70, 1972-82
James River near Boaz	(d)	07052250	462	1972-80
Bull Creek near Walnut Shade	(d)	07053810	191	1994-96
Hodgson Mill Spring at Sycamore	(d)	07057800	--	1965-68
Bryant Creek near Tecumseh	(d)	07058000	570	1945-85, 1994-96
East Fork L. Black River near Lesterville	(d)	07061300	94.5	1960-90
Black River near Leeper	(d)	07062500	987	1921-94
Fudge Hollow near Licking	(d)	07064300	1.72	1956-76
Montauk Springs at Montauk	(d)	07064400	--	1964-68
Big Creek near Yukon	(d)	07064500	8.36	1949-75, 1960-90
Round Spring at Round Spring	(d)	07065000	--	1928-39, 1965-79
Alley Spring at Alley	(d)	07065500	--	1928-39, 1965-79
Current River near Eminence	(d)	07066500	1,272	1921-75
Big Spring near Van Buren	(d)	07067500	--	1922-96
Middle Fork Little Black River at Grandin	(d)	07068250	6.85	1980-84
North Prong Little Black River near Grandin	(d)	07068300	39.4	1980-84
Little Black River near Grandin	(d)	07068380	79.5	1980-84
Little Black River below Fairdealing	(d)	07068510	194	1980-86
Logan Creek at Oxly	(d)	07068540	37.5	1980-84
Little Black River at Success, AR	(d)	07068600	386	1980-86
Fourche River near Poynor	(d)	07068863	87.2	1976-83
Eleven Point River near Thomasville	(d)	07070500	361	1950-76
Stahl Creek near Miller	(d)	07185500	3.86	1950-76
Spring River at La Russell	(d)	07185700	306	1947-81
Spring River at Carthage	(d)	07185765	425	1966-80
Center Creek near Carterville	(d)	07186400	232	1962-91
Center Creek below Carl Junction	(d)	07186475	299	1993-95
Turkey Creek near Joplin	(d)	07186600	41.8	1963-72

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 District Chief 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^2)	Type of record	Period of record
Des Moines River at St. Francisville	05490600	14,300	C,M,S	1967-92
Fox River at Wayland	05495000	400	C	1967-72
Mississippi River at Canton	05495150	--	C,T	1969-75
Middle Fabius River near Monticello	05498000	393	S	1980-86
North River at Palmyra	05501000	373	C	1972-75
Mississippi River at Hannibal	05501600	--	C,M	1982-89
North Fork Salt River near Shelbina	05502500	481	S	1988-94
North Fork Salt River near Hunnewell	05503500	626	S	1980-88
Salt River near New London	05508000	2,480	C,M,T	1967-75, 1977-90
Mississippi River at Alton, IL	05587500	171,500	S	1980-85, 1986-89
Mississippi River below Alton, IL	05587550	171,500	C,M	1975-89
Nodaway River near Oregon	06817800	--	C,M	1968-75, 1977-89
Platte River at Sharps Station	06821190	2,380	C,M	1979-95
Platte River at Platte City	06821200	--	C	1967-75
Missouri River at Sibley	06894100	--	C,T	1972-75
Thompson River near Chillicothe	06899620	--	C,M	1968-75, 1983-87
East Fork Little Chariton River near Macon	06906200	112	C	1971-74
East Fork Chariton River near Huntsville	06906300	220	C,M	1963-69, 1973-75, 1979-91
East Fork Chariton R. near Clifton Hill	06906320	--	C	1963-73
Middle Fork L. Chariton R. below Salisbury	06906470	201	C,M	1983-86
Burge Branch near Arrow Rock	06906600	0.33	S	1961-64
Lamine River near Blackwater	06908800	2,610	B,C,M,T	1979-86
Missouri River at Boonville	06909000	505,700	T	1953-59, 1960-64
Hinkson Creek at Columbia	06910230	70.2	T	1987-91
Cedar Creek near Columbia	06910410	44.8	C,M	1987-91
Cedar Creek near Ashland	06910414	--	C,M	1983-89
Marais Des Cygnes River near Worland	06916650	3,230	C,M	1962-63, 1972-75, 1977-81
Sac River near Dadeville	06918440	257	C,M,T	1974-78, 1980-82, 1983-87
Little Sac River at Walnut Grove	06918600	119	C,M	1974-78, 1984-86, 1988-90, 1994-96
Stockton Lake near Stockton	06918990	1,160	T	1974-77
Pomme de Terre River near Hermitage	06921350	615	T	1974-77
Pomme de Terre River at Hermitage	06921500	615	T	1970-78
South Grand River at Urich	06921600	670	C,M	1983-87
West Fork Tebo Creek near Lewis	06922190		C,M	1983-91
Trib. to Middle Fork Tebo Creek nr Leeton	06922075	--	C	1989-92
Tebo Creek at Leesville	06922200	--	B,C,M,T	1978-83
Osage River at Warsaw	06922500	11,500	T	1969-78
Big Buffalo Creek near Stover	06922800	24.2	T	1965-77
Niangua River near Windyville	06923250	338	C,M	1991-95
Bennett Spring at Bennett Springs	06923500	--	C,M	1991-93

DISCONTINUED SURFACE-WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (mi^2)	Tye of record	Period of record
Ha Ha Tonka Spring at Ha Ha Tonka State Park	06924500	--	C,M	1994-96
Coakley Hollow Spr. Br. at Lake of the Ozarks	06925445	--	C,M	1994-96
Gasconade River near Hooker	06928600	--	C,M	1977-86
Missouri River near St. Louis	06935840	--	C,T	1969-74
Mississippi River at East St. Louis, IL	07001000	--	C	1969-73
Crooked Creek near Dillard	07013050	--	C	1982-88
Meramec River near Eureka	07019000	3,788	C, M	1978-94
Mississippi River at Cape Girardeau	07020850	--	C,T	1969-74
Headwater Diversion Channel near Allenville	07021800	--	C	1969-75
St. Francis River near Saco	07036100	664	C,M	1983-87, 1988-89
Big Creek at Chloride	07036940	--	C	1969-75, 1983-90
St. Francis River at St. Francis, AR	07040100	--	C	1969-75
Little River Ditches near Kennett	07046001	--	C,M	1969-70, 1972-73, 1977-89, 1992-93
Roaring River at Roaring River State Park	07050152	--	C,M	1991-93
James River near Nixa	07050750	273	T	1966-75, 1977-80
James River near Wilsons Creek	07051600	--	C,M	1967-82, 1983-87
Wilsons Creek near Springfield	07052100	31.4	C,T	1972-82
Wilsons Creek below Springfield	07052150	47.2	C,T	1967-70, 1970-72
Wilsons Creek near Battlefield	07052160	55.0	C,T	1972-82
James River west of Nixa	07052200	440	C	1962-63, 1965-67
Finley Creek at Riverdale	07052340	--	C	1967-75
North Fork River near Tecumseh	07057500	561	C,M	1969-72, 1978-79, 1983-87
Black River below Annapolis	07061600	493	C,M	1996-95
Black River at Poplar Bluff	07063000	1,245	C,M	1983-87
Black River below Poplar Bluff	07063050	--	C	1969-75
Main Ditch near Neelyville	07063300	--	C	1969-75
Middle Fork Little Black River at Grandin	07068250	6.85	T	1980-84
North Prong Little Black River near Grandin	07068300	39.4	C,M	1980-84
Little Black River near Grandin	07068380	79.5	C,M,S,T	1980-84
Little Black River below Fairdealing	07068510	194	C,M,S,T	1980-86
Logan Creek at Oxly	07068540	37.5	C,M,S,T	1980-84
Little Black River near Naylor	07068550	--	C	1969-75
Little Black River at Success, AR	07068600	386	C,M,S,T	1980-86
Fourche River near Poynor	07068863	87.2	T	1976-83
Fourche River near Middlebrook, AR	07068867	--	C	1969-75
Spring River near Thayer	07069170	--	C	1969-75
Mammoth Spring at Mammoth Spring, AR	07069200	--	C,M	1994-96
Eleven Point River below Bardley	07071900	--	C	1969-75
Spring River near Waco	07186000	1,164	C	1965-75, 1977-78, 1980-81
Center Creek near Carterville	07186400	232	C,M	1980-89
Center Creek near Smithfield	07186480	303	C,M	1968-75, 1977-89, 1993-95
Turkey Creek near Joplin	07186600	41.8	C,M	1963-77
Shoal Creek above Joplin	07187000	427	C,M	1968-68, 1979-82
Shoal Creek near Galena, KS	07187560	--	C	1968-75
Lost Creek at Seneca	07188500	42	C	1967-75
Little Sugar Creek at Caverna	07188820	--	C	1967-75
Elk River near Tiff City	07189000	872	C	1939-95
Buffalo Creek at Tiff City	07189100	--	C	1967-75

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WATER RESOURCES DATA - MISSOURI 1997

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, 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." This volume contains records for water discharge at 109 gaging stations; stage at 12 lakes and reservoirs; and water quality at 58 sampling stations (including 2 lakes).

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-97-1." 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 District Chief 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 Utilities of Springfield
Harrison County Soil and Water Conservation District
Metropolitan St. Louis Sewer District
Missouri Department of Conservation
Missouri Department of Natural Resources
    Division of Geology and Land Survey
    Division of Environmental Quality
    Land Reclamation Commission
Missouri Department of Transportation
Watershed Committee of the Ozarks

The following Federal, State, and local agencies and organizations assisted in the collection of data published in this report by providing funds or services:

Missouri Park Board
National Park Service, Midwest Region
Sho-Me Power Electric Cooperative
Union Electric Company of Missouri
U.S. Army Corps of Engineers
U.S. Department of Agriculture, U.S. Forest Service
U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service

WATER USE--1995

Listed below are general water-use facts for the state of Missouri. The major water uses and percentage of offstream surface water and ground water for 1995 are shown in Figure 1.

MISSOURI WATER-USE FACT SHEET

1. Total offstream water use was 7,030 million gallons per day (Mgal/d).

2. Offstream surface-water use was 6,140 Mgal/d, about 87 percent of total offstream use. The largest use was in the St. Louis and Kansas City metropolitan areas.

3. Ground-water use was 890 Mgal/d, about 13 percent of total offstream use. The largest ground-water use was for irrigation in southeastern Missouri.

4. Consumptive use of freshwater was 692 Mgal/d, which was about 10 percent of total use. Irrigation consumptive use was about 61 percent of total consumptive use.

5. The largest offstream use of water was for thermoelectric power generation, about 5,550 Mgal/d (mostly surface water) to produce 63,600 gigawatt-hours of electricity.

6. An additional 161 Mgal/d of surface water was used for offstream hydroelectric power generation to produce 9.81 gigawatt-hours of electricity.

7. Total population was 5.32 million, an increase of 3.9 percent from 1990.

8. Per capita water use for all offstream use was 1,320 gallons per day.

9. Public water supplied was 699 Mgal/d; 68 percent surface water and 32 percent ground water.

10. Domestic water use was 433 Mgal/d; 13 percent self-supplied and 87 percent public-supplied.

11. Commercial water use was 73.2 Mgal/d; 19 percent self-supplied and 81 percent public-supplied.

12. Industrial water use was 179 Mgal/d; 22 percent self-supplied and 78 percent public-supplied.

13. Public use and losses were 125 Mgal/d, calculated from the total water withdrawals for public supply minus deliveries to domestic, commercial, industrial, and thermoelectric uses.

14. Mining water use was 24.0 Mgal/d, with about 10.8 Mgal/d being reclaimed/recycled wastewater.

15. The largest use of ground water was 535 Mgal/d for irrigation. Total irrigation water use was 567 Mgal/d.

16. Non-irrigation agriculture water use was 76.5 Mgal/d for aquaculture and livestock use.

17. About 2,448 municipal and other wastewater-treatment facilities released 1,030 Mgal/d of effluent.

18. The largest use of water in Missouri was for instream hydroelectric power generation, about 17,000 Mgal/d to produce 1,910 gigawatt-hours of electricity.

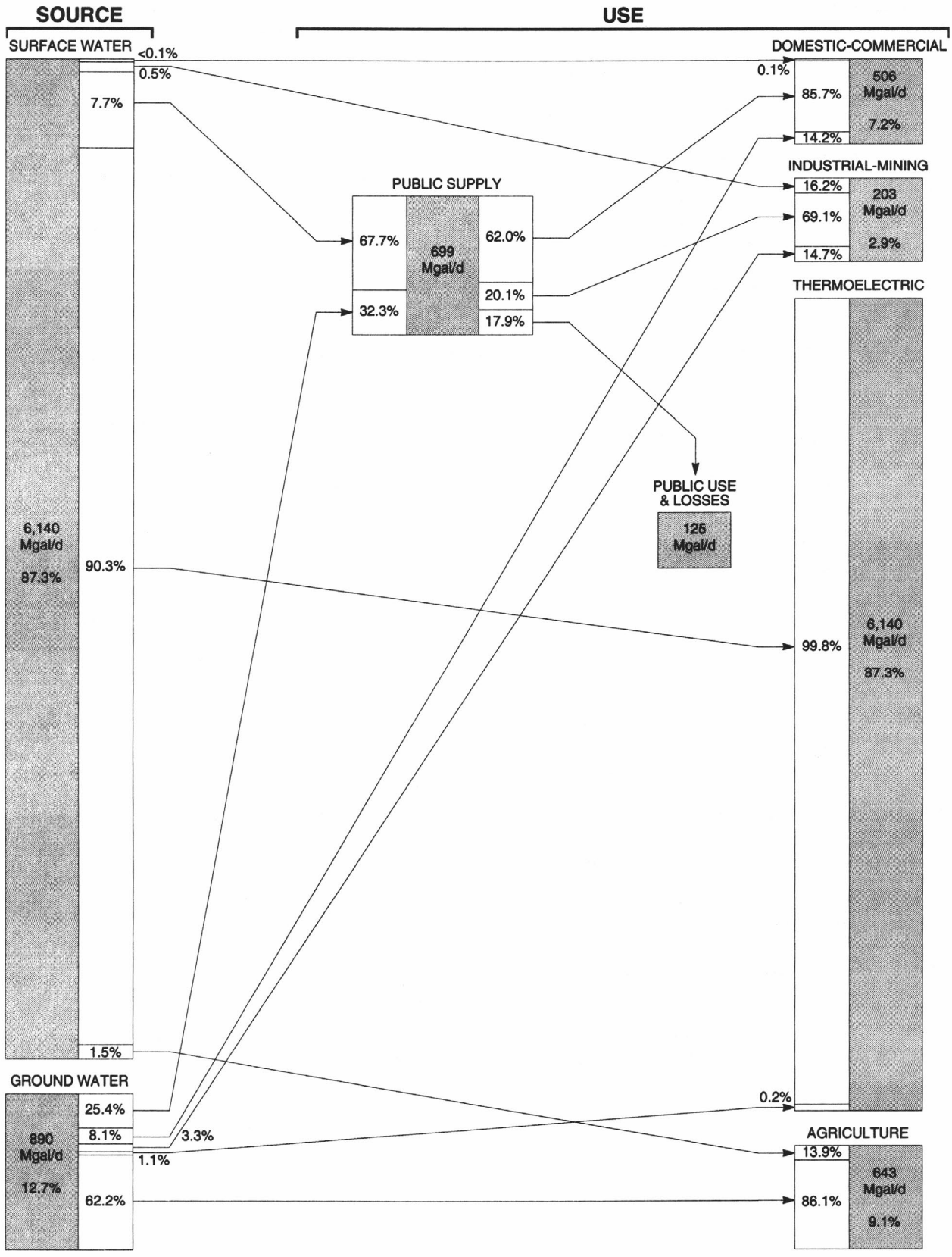

Figure 1. Source and use values and percentages for major offstream water-use categories in Missouri during 1995.

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 sea level. 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 sea level.

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 sea level. The area is well drained and contains excellent farmland.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water--Streamflow

Streamflow varies seasonably in Missouri and generally reflects precipitation patterns unless a stream is regulated. Rainfall was below normal in the Northwest Prairie and above normal elsewhere in the State during October through March and below normal throughout the State except for the Eastern Ozarks and Bootheel during April through September. Annual rainfall was above normal throughout the State except for the Northwest and Northeast Prairie which were below normal.

Monthly discharge during the 1997 water year and long-term monthly discharges at representative stations are shown in Figure 3. In general, streamflows during 1997 were less than long-term mean monthly flows in northeastern and north central Missouri and greater than long-term mean monthly flows along the Missouri River main stem and elsewhere in the State.

Peak discharges for the 1997 water year are compared to the peak discharges for the period of record at 15 selected gaging stations in Table 1. The 7-day average low flow for the 1997 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 average minimum flow with a recurrence interval of 2 years.

Table 1.--*Comparisons of peak discharge for the 1997 water year with those for period of record for selected stations*

Station identification	Peak discharge during 1997 water year: Cubic feet per second	Date	Peak discharge for period of record: Cubic feet per second	Date
05495000 Fox River at Wayland	5,990	Feb. 21	26,400	Apr. 22, 1973
05587450 Mississippi River at Grafton, Ill.	305,000	Mar. 1	598,000	Aug. 1, 1993
06893000 Missouri River at Kansas City	190,000	Apr. 12	573,000	July 14, 1951
06894000 Little Blue River near Lake City	5,300	Apr. 11	42,300	Aug. 13, 1982
06897500 Grand River near Gallatin	34,100	Feb. 21	89,800	July 7, 1993
06905500 Chariton River near Prairie Hill	21,800	Apr. 11	31,900	Apr. 23, 1973
06933500 Gasconade River at Jerome	33,100	Nov. 8,9	136,000	Dec. 5, 1982
06934500 Missouri River at Hermann	303,000	Apr. 15	750,000	July 31, 1993
07010000 Mississippi River at St. Louis	544,000	Mar. 1	1,080,000	Aug. 1, 1993
07019000 Meramec River near Eureka	40,800	Mar. 1	145,000	Dec. 6, 1982
07022000 Mississippi River at Thebes, Ill.	635,000	Mar. 3	975,000	Aug. 7, 1993
07037500 St. Francis River near Patterson	37,500	May 31	155,000	Dec. 3, 1982
07057500 North Fork River near Tecumseh	12,300	Feb. 27	133,000	Nov. 19, 1985
07068000 Current River at Doniphan	23,500	Feb. 28	122,000	Dec. 3, 1982
07018600 Spring River near Waco	18,600	July 9	151,000	Sept. 26, 1993

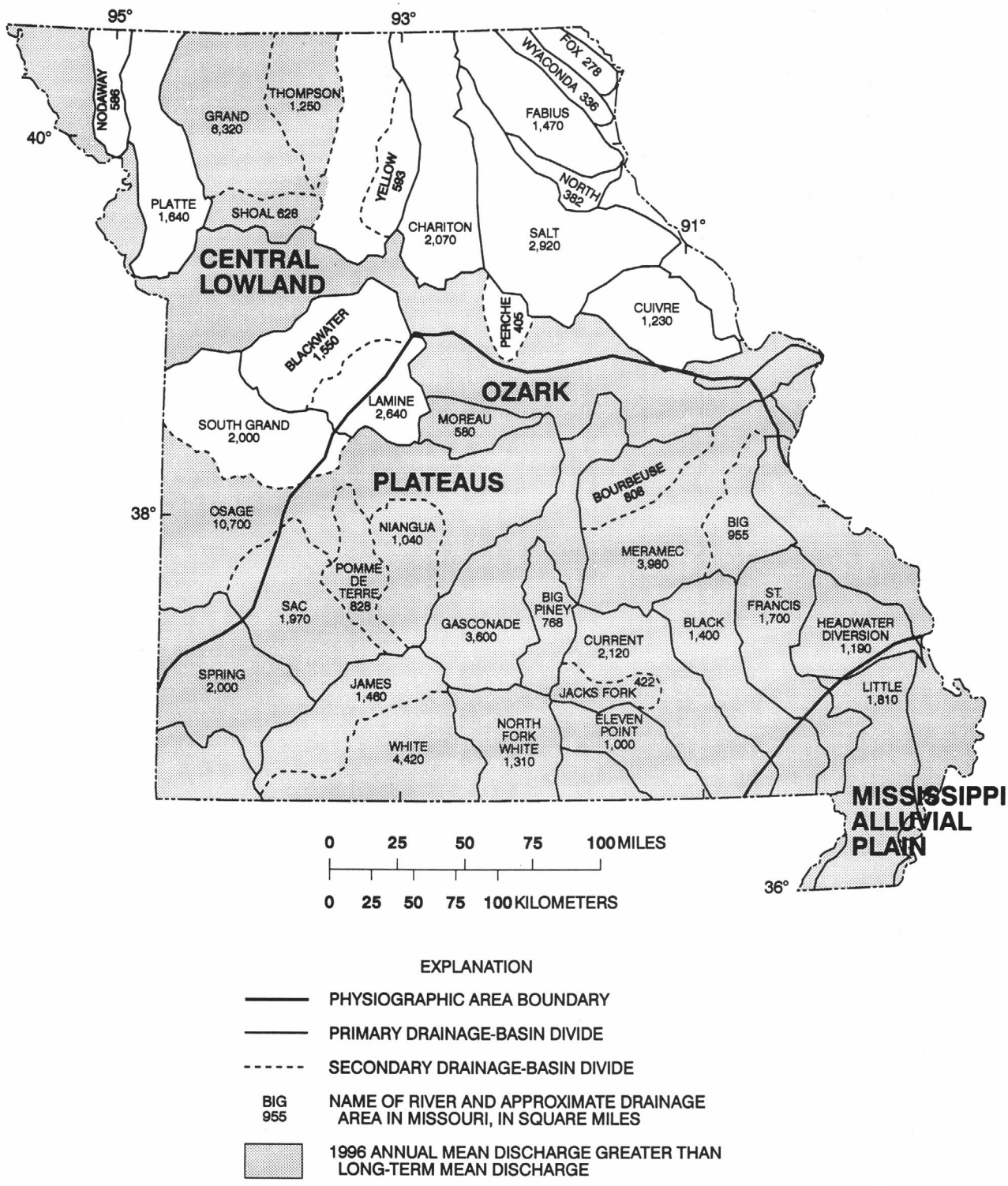

Figure 2. Major drainage basins, physiographic areas, and area of greater than mean long-term discharge during 1997.

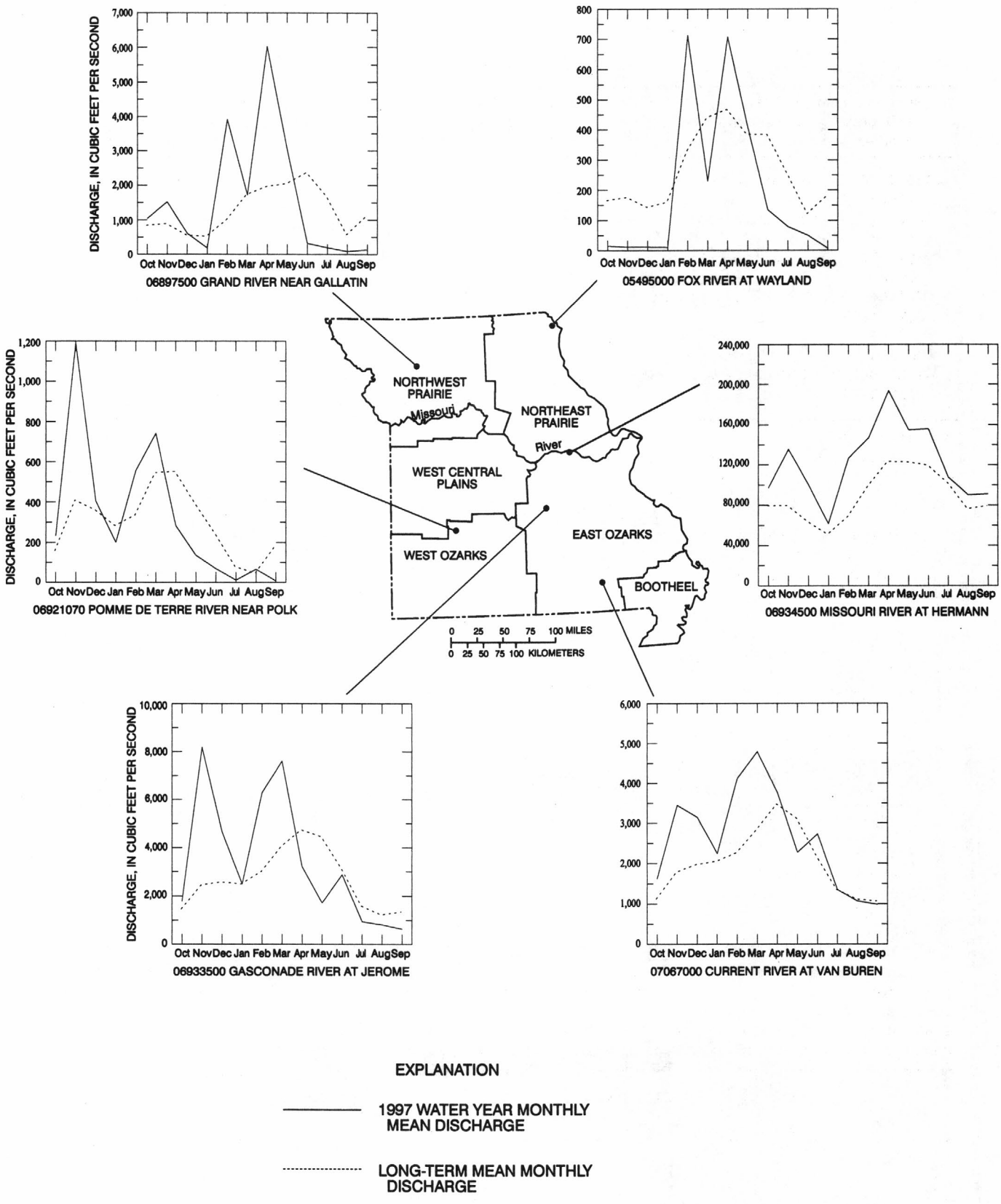

Figure 3. Comparison of 1997 water-year mean discharge to long-term mean discharge.

Table 2.--*Comparisons of 1997 7-day low flows to 7-day, 2-year low flows and minimum flows for the period of record at selected stations*

[Flows in cubic feet per second]

Station identification and period of record (water years) used	Average 7-day low flows		Minimum flows for period of record used	
	1997	2-year[1]	Discharge	Years of occurrence
05549500 Fox River at Wayland (1922-97)	2.6	1.3	0	Several years
06820500 Platte River near Agency (1933-97)	42	17	0	Several years
06921070 Pomme de Terre River near Polk (1969-97)	5.6	3.0	0.3	1980
07016500 Bourbeuse River at Union (1921-97)	51	32	11	1956
07067000 Current River at Van Buren (1912-97)	934	700	473	1956
07187000 Shoal Creek above Joplin (1942-97)	124	92	12	1954

[1] Skelton, John, 1976, Missouri stream and springflow characteristics--Low-flow frequency and flow duration: Rolla, Missouri Division of Geology and Land Survey Water Resources Report 32, 76 p.

Water Quality--Streamflow

Samples for determining the chemical quality of streamflow were collected at 51 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, inorganic constituents, 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. The range of dissolved-solids concentrations in selected streams during water year 1997 is given in the following table.

Station identification	Dissolved-solids concentration (milligrams per liter)	
	Minimum	Maximum
Cuivre River near Troy	184	235
Missouri River at St. Joseph	448	534
Grand River near Sumner	118	333
Osage River below St. Thomas	158	181
Gasconade River above Jerome	84	184
Missouri River at Hermann	301	535
Meramec River at Paulina Hills	142	224

Daily suspended-sediment samples and data on the particle size of suspended sediment were collected at eight stations in Missouri. At three Missouri River stations, point suspended-sediment samples and particle-size data were collected periodically. The following table lists one selected station in the Central Lowland and the Mississippi River at Thebes, Ill. and their minimum and maximum daily mean suspended-sediment concentrations during water year 1997.

Station identification	Daily mean suspended-sediment concentration (milligrams per liter)	
	Minimum	Maximum
Middle Fork Salt River at Paris	26	116
Mississippi River at Thebes, Ill.	100	1630

SPECIAL NETWORKS AND PROGRAMS

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within four of the Nation's largest river basins--the Mississippi, Columbia, Colorado, and Rio Grande. The network consists of 39 stations. 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 heavy metals, 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 Program (NAWQA); (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.

The Ambient Water-Quality Network (AWQN) 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 37 member stations within this network. Each station has been assigned a U.S. Geological Survey downstream station number under which all data are stored in NWIS (the U.S. Geological Survey national water-quality data base). The objectives of AWQN 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.

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey 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; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 53 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 will be 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 decision making by water-resources managers 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 to collaborate efforts among the agencies.

Additional information about the NAWQA Program is available through the World Wide Web at:

http://wwwrvares.er.usgs.gov/nawqa/nawqa_home.html

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 1997 water year that began October 1, 1996, and ended September 30, 1997. 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, the order of listing hydrologic-station records in U.S. Geological Survey reports is in a downstream direction along the mainstream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. 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 situated is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. The downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, 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 made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 06909000, which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream-order number "909000".

Numbering System for Wells and Miscellaneous Sites

The 8-digit downstream-order station numbers are not assigned to miscellaneous sites where only random water-quality samples or discharge measurements are taken. The miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the miscellaneous sites 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, and the last 2 digits (assigned sequentially) identify the sites within a 1-second grid (Figure 4).

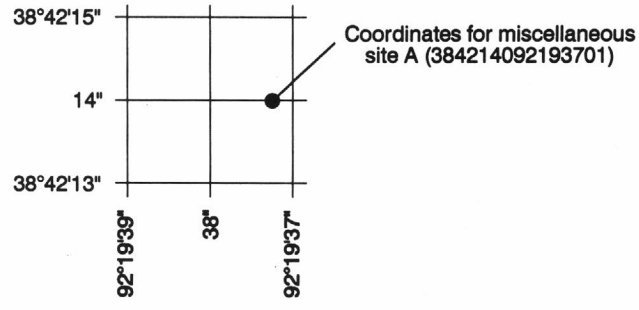

Figure 4. System for numbering miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharge may be computed for any time, or any period of time, during the period of record. Complete records of lake or reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or any period of time. They may be obtained using a continuous stage-recording device, but need not be. Locations of surface-water stations are shown in Figure 5.

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Data Collection and Computation

The data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents 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 electronic retrieval of data via satellite from a data-collection platform at the gaging station, direct readings on a nonrecording gage, or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the U.S. Geological Survey. These methods are described in standard textbooks, U.S. Geological Survey Water-Supply Paper 2175, and the U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI's) Book 3, Chapter 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, rating tables giving the discharge for any stage are prepared from stage-discharge-relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements; computation of flow over dams or 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 figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in 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 control, the daily mean discharge is computed by what is basically the shifting-control method.

At some gaging stations, acoustic velocity meter (AVM) systems are used to compute discharge. The AVM system measures the stream's velocity at one or more paths in the cross section. Coefficients are developed to relate this path velocity to the mean velocity in the cross section. Because the AVM sensors are fixed in position, the adjustment coefficients generally vary with stage. Cross-sectional area curves are developed to relate stage, recorded as noted above, to cross-section area. Discharge is computed by multiplying path velocity by the appropriate stage related coefficient and area.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This 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 set at some distance from the base gage. 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, the stage-discharge relation is affected by ice in the winter and it becomes impossible to compute the discharge in the usual manner. Discharge for period 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 for other stations in the same or nearby basins.

For a lake or reservoir, capacity tables giving the 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 change in contents is 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 gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, 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 for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts: the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and 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.

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 to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations 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 indicates the 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 flow at it can reasonably be considered equivalent to flow at the present station.

REVISED RECORDS.--Because of new information, published records occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to sea level (see "DEFINITION OF TERMS" section), 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 will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily discharge table. (See next section, "IDENTIFYING ESTIMATED DAILY DISCHARGE.") If a "REMARKS" paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph also is used to present information 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, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the U.S. Geological Survey by a cooperating organization are identified here.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning 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 U.S. Geological Survey.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published 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 District Office (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. Of course, if the data for a discontinued station were obtained by computer retrieval, the data would be current and there would be no need to check because 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 skeleton stage-capacity table when daily contents are given.

Headings for "AVERAGE DISCHARGE", "EXTREMES FOR PERIOD OF RECORD", and "EXTREMES FOR CURRENT YEAR" have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the "EXTREMES FOR CURRENT YEAR" paragraph, is now presented in the tabular summaries following the discharge table or in the "REMARKS" paragraph, as appropriate. No changes have been made to the data presentation of lake contents.

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 "MEAN" gives the 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 also is usually expressed in cubic feet per second per square mile (line headed "CFSM"); or in inches (line headed "IN."). The figure for cubic feet per second per square mile and runoff in inches may be omitted if there is extensive regulation or diversion 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 contents are given. These figures are identified by a symbol and 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, "FOR PERIOD OF RECORD," will consist of all of the stations 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. 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 this occurs, it will be noted in the "REMARKS" paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, 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 of 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.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ, 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 quality 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) indicates the depth to which the drainage area would be covered if all 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 is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of 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 generally are made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some 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 either by flagging individual daily value with the letter symbol "e" and printing a table footnote, "e Estimated", or by listing the dates of the estimated record in the "REMARKS" paragraph of the station description.

Accuracy of 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 station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair", within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharge of less than 1cubic foot per second; to tenths between 1.0 and 10 cubic feet per second; to whole numbers between 10 and 1,000 cubic feet per second; and to three significant figures above 1,000 cubic feet per second. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures 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, figures 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 Available

Information of a more detailed nature than that published for most of the gaging stations, such as observations of water temperatures, discharge measurements, gage-height records, and rating tables, is on file in the District Office. Also most 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 District Office.

The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of all discharge measurement sites in the State as well as an index of records of discharge collected by other agencies but not published by the U.S. Geological Survey. Information on records available at specific sites can be obtained upon request.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always require corresponding discharge data. Records of surface-water quality in this report may 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 continuing-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 continuing or partial-record station, where random 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 "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. 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 surface-water-quality stations are shown in Figure 6.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency or 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 records are published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-records stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be ensuring that the data obtained represents the in-situ quality of water. To ensure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To ensure that measurements made in the laboratory also represent the in-situ water, carefully prescribed procedures need to 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 detailed in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, and A4. These references are listed in the "PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS" section of this report. These methods are consistent with the ASTM standards and generally follow ISO standards.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogenous. 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 through several vertical sections 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.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon bi-hourly readings beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the District Office.

Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once daily, the water temperatures are taken at about the same time each day. Large streams have a small daily 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, maximum, minimum, and mean temperatures for each day are published.

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 sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were 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 loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations measured immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge. Methods used in the computation of sediment records are described in the TWRI Book 3, Chapters C1 and C3. These methods are consistent with ASTM standards and generally follow ISO standards.

The daily suspended-sediment concentrations for the Mississippi River at St. Louis are derived from turbidity readings from the Chain of Rocks Water-Treatment Plant and the Chouteau Island Water-Treatment Plant. Approximately once a week, two depth-integrated verticals are taken to adjust the relation between suspended sediment and turbidity.

Laboratory Measurements

Samples for indicator bacteria and specific conductance are analyzed locally. All other samples are analyzed in the U.S. Geological Survey laboratories in Arvada, CO, Ocala, FL, and Rolla, MO. Methods used to analyze sediment samples and to compute sediment records are described in the TWRI Book 5, Chapter C1. Methods used by the U.S. Geological Survey laboratories are given in TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

Quality Assurance of Water-Quality Data

Quality assurance is a system of activities whose purpose is to produce a product with the assurance that it meets defined standards of quality with a stated level of confidence. A quality assurance program became an integral part of the ambient water-quality monitoring network in fiscal year 1993. The program involved collecting additional samples to measure sampling repeatability, container cleanliness, and equipment cleanliness during regular site visits when environmental samples were being collected. The results of these additional samples are used by the District Water-Quality Specialist to define problem areas and eliminate further contamination of samples and/or improper sampling procedures. A data base of quality-assurance data has been created and contains all quality-assurance data collected within the District. These data can be retrieved by written request through the District Water-Quality Specialist.

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, and biological data obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither "LOCATION" not the "DRAINAGE AREA" statements are repeated. The following information, when appropriate, 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 under "Records of Stage and Water Discharge"; same comments apply.

DRAINAGE AREA.--See Data Presentation under "RECORDS OF STAGE AND WATER DISCHARGE"; same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods 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 recorder, sediment pumping samples, 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 U.S. Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transaction to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

Remark Codes

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

PRINTED OUTPUT	REMARK
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
K	Results based on colony count outside the acceptable range (non-ideal colony count).
E	Laboratory estimated value.
V	Estimated discharge value due to icy conditions.
M	Results compromised due to contaminated bacteria media.
LA	Laboratory Accident.
L	Laboratory value.
e	Estimated discharge value.

*NOTE.--The National Water Quality Laboratory uses the E remark code in two cases. First, the code is used for reporting values less than the method detection limit (MDL) when the analyte has been conclusively identified. Second, the code is used for reporting values greater than the MDL when the value is substantially more uncertain than for other analytes

Dissolved Trace-Element Concentrations

*NOTE.--Traditionally, dissolved trace-element concentrations have been reported at the microgram per liter (µg/L) level. Recent evidence, mostly from large rivers, indicates that actual dissolved-phase concentrations for a number of trace elements are within the range of 10's to 100's of nanograms per liter (ng/L). Data above the µg/L level should be viewed with caution. Such data may actually represent elevated environmental concentrations from natural or human causes; however, these data could reflect contamination introduced during sampling, processing, or analysis. To confidently produce dissolved trace-element data with insignificant contamination, the U.S. Geological Survey began using new trace-element protocols at some stations in water year 1994.

Water Quality-Control Data

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 district 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 by 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. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collect in this district 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 sampler preservatives used for an environmental sample.

Reference Samples

Reference material is a solution or material prepared by a laboratory whose 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 incomposition. Replicate is the general case for which 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. There are many types of replicate samples 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 this district are:

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 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.

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 at

http://water.usgs.gov

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (See address on the back of the title page.)

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting Inch-Pound Units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Escherichia coli (E. Coli) bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. E. Coli is strictly an inhabitant of the gastrointestinal tract of warm-blooded animals, and its presence in water is direct evidence of fecal contamination from warm-blooded animals and the possible presence of pathogens. In the laboratory they are defined as all the organisms that produce yellow or yellow-brown colonies and remain so when placed on a filter pad saturated with urea substrate broth after rescusitation at 35.0°C ± 0.5°C for 2 hours and incubation for 24 hours at 44.5°C ± 0.2°C on m-TEC medium (nutrient medium for E. Coli growth). Their concentrations are expressed as number of colonies per 100 milliliters (cols./ 100 ML) of sample.

Fecal coliform bacteria are bacteria that also are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water and are characterized as gram-negative, rod-shaped bacteria that ferment lactose with gas formation. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for fecal coliform bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliter (cols./100 mL) of sample.

Fecal streptococci bacteria are bacteria that also are present in the intestines or feces of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms that produce red or pink colonies within 48 hours at 35.0°C ± 0.5°C on KF medium (nutrient medium for fecal streptococci bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliter (cols./100 ML) of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Cubic foot per second-day (Cfs-day) is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,445 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream.

Cubic foot per second (FT^3/s, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calender 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.)

Dissolved refers to the amount of substance present in true chemical solution. In practice, however, the term includes all forms of substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (colloidal) suspended particles. Analysis are performed on filtered samples.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by drainage system, which consists of a surface stream or body of impounded surface water together with all tributary surface streams and bodies of impounded water.

Gage height (GH) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earth (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part of all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Micrograms per gram (µg/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (µG/L, µg/L) is a unit for expressing the concentration of chemical constituents in solution. Micrograms per liter represent the mass of solute per unit volume (liter) of water.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "mean sea level."

Partial-record station is a particular site where limited streamflow and (or) water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawn tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	0.00024 - 0.004	Sedimentation
Silt	0.004 - 0.062	Sedimentation
Sand	0.062 - 2.0	Sedimentation or sieve
Gravel	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Recurrence interval as applied to floods, is the average number of years within which a given flood peak will be equaled or exceeded once. For example, a 100-year flood discharge will be exceeded on the average of once in 100 years. In terms of probability, there is a 1 percent chance that such a flood will occur in any year.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sea level in this report refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)-a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in stream are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is the quantity of suspended sediment passing a section in a specified period.

Total-sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during the given time.

Mean concentration is the time weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter (µS/cm) at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Surface area of a lake is that area outlined on the latest USGS topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations if individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the water year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total (as used in tables of chemical analyses) refers to the amount of a substance that is present both in solution and in suspension. Analyses are performed on representative samples of water-suspended sediment mixtures.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Total recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980, is called "1980 water year."

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the "REVISED RECORDS" paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals 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.

The reports listed below are for sale by the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (authorized agent of the Superintendent of Documents, Government Printing Office). Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations."

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L.M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

2-E2. *Borehole geophysics applied to ground-water investigations*, by W. S. Keys: USGS--TWRI Book 2, Chapter E2. 1990. 150 pages.

2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W. E. Teasdale: USGS--TWRI Book 2, Chapter F1. 1989. 97 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS-TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3. Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurement at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel in streams by dye tracing*, by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1989. 27 pages.

3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.

3-A11. *Measurement of discharge by the moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A12. *Fluorometric procedures for dye tracing*, Revised, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 34 pages.

3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.

3-A14. *Use of flumes in measuring discharge,* by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.

3-A15. *Computation of water-surface profiles in open channels,* by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.

3-A16. *Measurement of discharge using tracers,* by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.

3-A17. *Acoustic velocity meter systems,* by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 pages.

3-A18. *Determination of stream reaeration coefficients by use of tracers,* by F. A. Kilpatrick, R. E. Rathbun, Nobuhiro Yotsukura, G. W. Parker, and L. L. DeLong: USGS--TWRI Book 3, Chapter A18. 1989. 52 pages.

3-A19. *Levels at streamflow gaging stations,* by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 31 pages.

3-A20. *Simulation of soluable waste transport and buildup in surface waters using tracers,* by F. A. Kilpatrick: USGS--TWRI Book 3, Chapter A20. 1993. 38 pages.

3-A21 *Stream-gaging cableways,* by C. Russell Wagner: USGS--TWRI Book 3, Chapter A21. 1995. 56 pages.

3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction,* by G. D. Bennett: USGS-- TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers,* by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

3-B4. *Regression modeling of ground-water flow,* by R. L. Cooley and R. L. Naff: USGS--TWRI Book 3, Chapter B4. 1990. 232 pages.

3-B4. *Supplement 1. Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems,* by R. L. Cooley: USGS--TWRI Book 3, Chapter B4. 1993. 8 pages.

3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction,* by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.

3-B6. *The principle of superposition and its application in ground-water hydraulics,* by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 pages.

3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow,* by E. J. Wexler: USGS--TWRI Book 3, Chapter B7. 1992. 190 pages.

3-C1. *Fluvial sediment concepts,* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment,* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge,* by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves,* by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells,* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M.J. Fishman and L. C. Friedman, editors: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy,* by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L. J. Britton and P. E. Greeson, editors: USGS--TWRI Book 5, Chapter A4. 1989. 363 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages

6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages.

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L. J. Torak: USGS--TWRI Book 6, Chapter A5, 1993. 243 pages.

6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler. 1995. 125 pages.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, by D. N. Myers and F. D. Wilde: USGS--TWRI Book 9, Chapter A7. 1997. 49 pages.

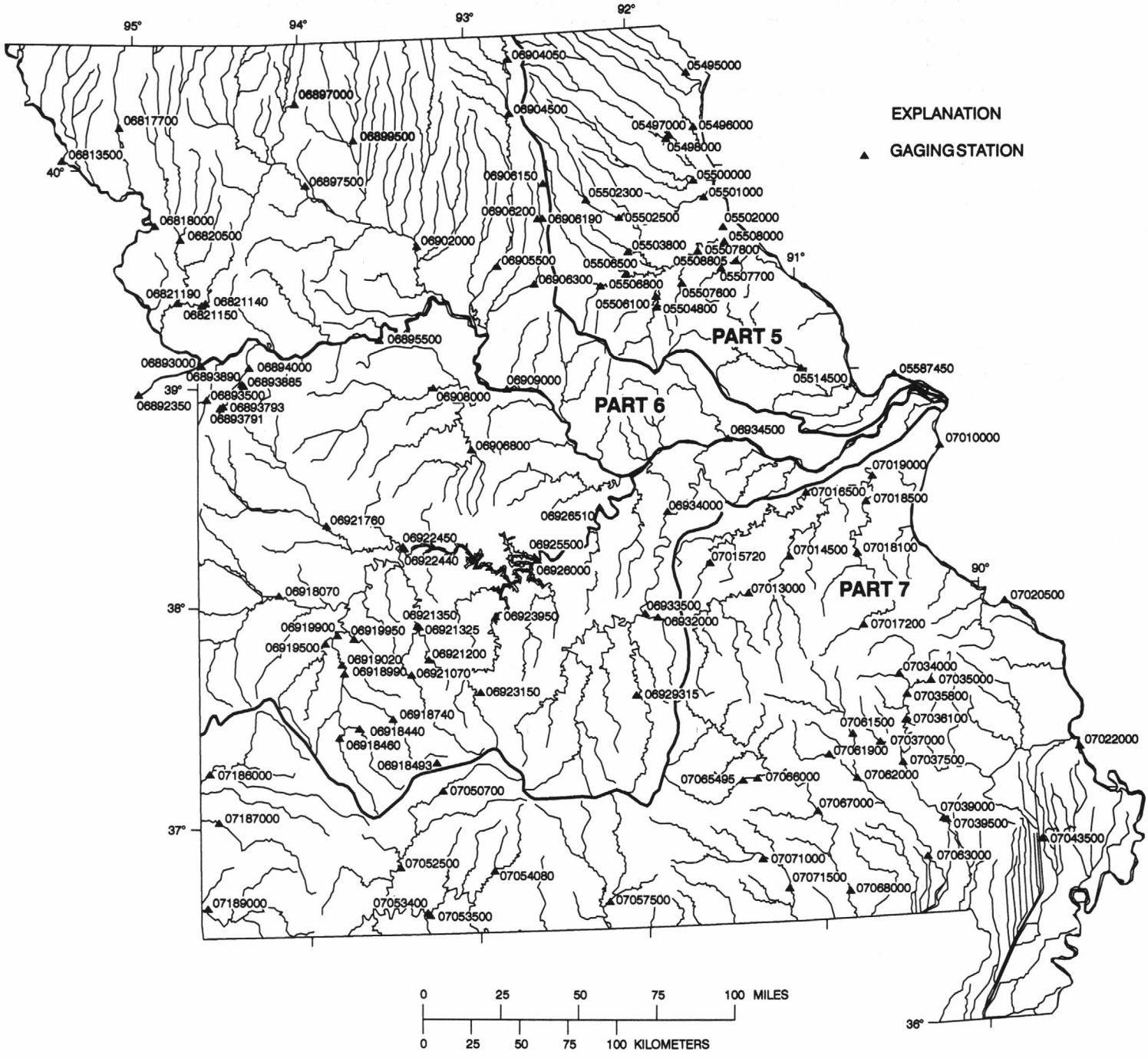

Figure 5. Location of surface-water stations.

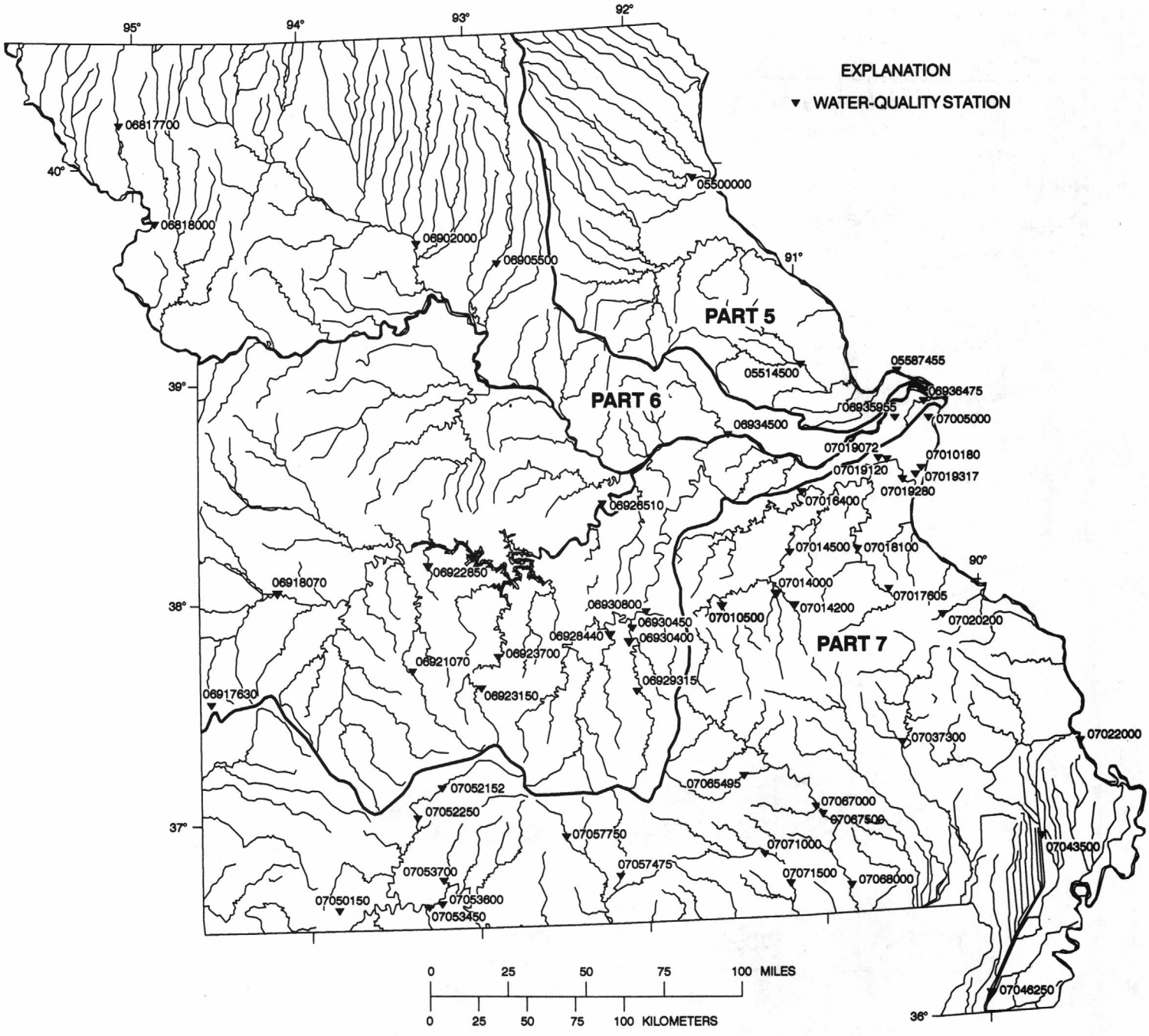

Figure 6. Location of surface-water-quality stations.

05495000 FOX RIVER AT WAYLAND, MO

LOCATION.--Lat 40°23'33", long 91°35'50", in NW 1/4 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^2, approximately.

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: 1978.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 501.52 ft above sea level. 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 upstream 300 ft at present datum.

REMARKS.--Estimated daily discharges: Dec. 29 to Feb. 19. Records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	5.0	15	3.6	7.2	641	63	373	169	55	28	12
2	14	17	20	4.2	19	756	58	739	124	26	21	11
3	7.1	17	20	5.2	251	452	55	811	98	18	17	8.3
4	5.1	9.9	25	7.4	502	300	53	702	83	17	16	6.8
5	4.4	12	27	11	795	226	60	350	71	17	13	5.6
6	3.6	11	27	7.7	444	177	87	221	64	17	11	5.0
7	3.0	9.4	22	9.8	193	152	88	164	65	14	10	4.8
8	2.9	7.4	22	10	88	134	70	1890	66	14	9.4	4.9
9	3.7	6.9	17	7.4	60	294	70	1290	55	14	8.7	4.9
10	7.3	6.7	14	5.0	47	832	61	473	48	14	8.5	4.6
11	8.3	6.5	12	4.1	33	553	635	256	42	13	15	4.3
12	6.1	6.7	12	3.3	25	303	1480	179	96	12	22	3.9
13	7.0	7.6	14	2.7	21	210	1140	139	290	11	29	4.1
14	8.6	6.4	15	2.5	16	170	1850	117	304	11	32	3.9
15	9.1	5.8	15	2.6	15	139	2720	100	170	17	20	3.9
16	9.3	5.4	13	2.8	11	114	3520	86	959	24	14	4.0
17	9.9	8.1	10	2.6	13	111	3550	85	566	25	154	7.4
18	13	10	6.9	2.5	28	114	2240	91	191	17	607	10
19	15	13	6.2	2.9	720	110	795	103	108	13	195	7.5
20	15	20	4.7	2.5	449	101	450	112	71	26	93	7.3
21	16	38	3.9	2.9	4010	96	331	70	54	42	52	7.6
22	29	28	4.0	8.5	4950	88	319	55	53	712	38	8.0
23	30	22	4.5	67	2540	79	333	48	48	418	29	8.3
24	47	17	4.0	46	622	73	282	45	43	128	21	7.7
25	52	11	4.1	33	357	230	234	43	32	69	16	8.8
26	39	7.9	3.6	19	627	179	174	121	29	47	15	10
27	26	6.3	3.3	18	2100	126	143	226	26	37	12	12
28	22	6.8	3.6	13	1020	112	128	2060	23	261	16	9.8
29	16	6.9	3.9	7.8	---	98	116	1050	22	242	14	6.4
30	9.2	8.9	3.8	7.8	---	82	112	461	68	81	12	5.3
31	6.7	---	3.8	7.5	---	71	---	262	---	41	12	---
MEAN	15.2	11.5	11.6	10.7	713	230	707	410	135	79.1	50.3	6.94
MAX	52	38	27	67	4950	832	3550	2060	959	712	607	12
MIN	2.9	5.0	3.3	2.5	7.2	71	53	43	22	11	8.5	3.9
IN.	.04	.03	.03	.03	1.86	.66	1.97	1.18	.38	.23	.15	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

MEAN	163	173	141	157	327	437	465	381	382	252	119	179
MAX	1313	1375	1330	1133	1433	2264	2750	2795	2223	3387	1509	1999
(WY)	1987	1929	1983	1969	1982	1979	1973	1996	1947	1993	1970	1970
MIN	.000	.007	.019	.19	.42	8.56	2.35	1.39	.060	.21	.019	.17
(WY)	1957	1957	1957	1957	1957	1956	1956	1956	1956	1936	1936	1937

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1922 - 1997	
ANNUAL MEAN	354		194		265	
HIGHEST ANNUAL MEAN					927	1993
LOWEST ANNUAL MEAN					17.6	1956
HIGHEST DAILY MEAN	11700	May 27	4950	Feb 22	19900	Apr 22 1973
LOWEST DAILY MEAN	2.8	Sep 19	2.5	Jan 14,18,20	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	3.0	Sep 16	2.6	Jan 14	.00	Several Years
INSTANTANEOUS PEAK FLOW	---		5990	Feb 21	26400	Apr 22 1973
INSTANTANEOUS PEAK STAGE	---		14.77	Feb 21	21.71	Apr 22 1973
INSTANTANEOUS LOW FLOW	---		2.4	Jan 14	.00	Several Years
ANNUAL RUNOFF (INCHES)	12.05		6.58		8.99	
10 PERCENT EXCEEDS	541		456		543	
50 PERCENT EXCEEDS	38		23		38	
90 PERCENT EXCEEDS	5.3		4.7		2.2	

05496000 WYACONDA RIVER ABOVE CANTON, MO

LOCATION.--Lat 40°08'32", long 91°33'55", in SW 1/4 SW 1/4 NE 1/4 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^2.

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 sea level. 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.--Estimated daily discharges: Oct. 5, 6, and Dec. 17 to Feb. 5. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	7.5	14	4.0	6.0	897	71	177	182	27	12	14
2	16	6.5	21	4.5	10	730	61	568	138	26	11	10
3	13	7.0	21	5.4	75	432	53	1210	118	21	10	6.8
4	11	9.1	19	8.0	450	297	51	1090	103	20	8.7	5.5
5	9.2	8.4	16	10	989	233	56	449	90	20	7.9	5.1
6	8.3	9.2	15	9.5	752	179	75	257	80	20	6.8	4.2
7	7.0	9.3	16	9.0	416	141	90	189	77	29	6.2	4.0
8	6.5	8.3	14	8.5	235	119	73	276	75	19	5.5	3.7
9	6.3	7.4	20	8.0	163	568	52	1360	65	15	5.2	3.7
10	5.5	7.0	11	7.0	143	1420	50	475	59	13	5.1	3.2
11	5.3	6.7	10	5.0	138	648	1580	252	51	11	6.4	2.8
12	5.5	6.7	12	3.0	93	310	4330	177	49	10	11	2.7
13	5.1	6.4	11	2.5	88	206	3060	142	60	9.5	16	2.3
14	4.8	5.8	10	2.3	94	170	2340	124	123	8.8	13	2.2
15	5.2	5.8	9.8	1.8	94	140	2350	110	171	7.8	10	2.3
16	4.9	5.9	9.1	1.3	59	113	2490	97	498	7.1	7.6	2.5
17	5.1	8.3	8.0	1.2	27	102	2550	91	677	7.9	45	3.0
18	6.0	9.5	6.4	1.0	49	104	1580	89	324	7.5	296	3.8
19	5.8	11	5.6	1.1	345	101	798	152	149	7.3	220	4.5
20	5.2	14	4.5	1.0	552	96	429	199	99	9.6	100	3.5
21	4.9	13	4.2	1.8	4470	90	373	106	73	38	56	3.0
22	6.1	11	3.8	7.5	5700	81	342	75	57	122	35	2.4
23	11	11	3.6	8.3	5160	70	312	62	47	275	24	2.8
24	46	10	3.5	7.8	1000	65	270	57	42	106	17	4.0
25	37	8.6	3.4	7.0	431	202	216	52	36	55	13	4.5
26	26	9.2	3.4	6.5	898	312	162	57	32	36	11	4.8
27	18	6.4	3.3	6.0	3050	162	138	204	29	28	10	4.1
28	12	5.9	3.3	5.5	1680	123	126	1960	27	25	9.1	3.9
29	9.3	7.4	3.4	5.3	---	104	123	1380	25	30	7.7	2.6
30	6.2	11	3.5	5.5	---	93	119	558	26	20	7.0	1.6
31	6.7	---	3.7	5.8	---	78	---	282	---	15	7.2	---
MEAN	11.0	8.44	9.44	5.20	970	271	811	396	119	33.8	32.3	4.12
MAX	46	14	21	10	5700	1420	4330	1960	677	275	296	14
MIN	4.8	5.8	3.3	1.0	6.0	65	50	52	25	7.1	5.1	1.6
IN.	.03	.02	.03	.02	2.57	.79	2.30	1.16	.34	.10	.09	.01

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

MEAN	131	162	157	151	346	407	426	448	356	289	134	166
MAX	1677	1463	1399	946	1389	1346	1809	3196	2594	2792	2242	2510
(WY)	1987	1986	1983	1946	1985	1985	1983	1996	1947	1993	1970	1986
MIN	.000	.000	.47	.10	2.05	7.53	3.38	1.69	.66	.016	.000	.017
(WY)	1954	1954	1954	1954	1989	1957	1956	1934	1956	1934	1934	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	371		216		264	
HIGHEST ANNUAL MEAN					861	1993
LOWEST ANNUAL MEAN					14.2	1989
HIGHEST DAILY MEAN	13200	May 29	5700	Feb 22	16500	Sep 22 1986
LOWEST DAILY MEAN	3.3	Dec 27,28	1.0	Jan 18,20	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	3.4	Dec 24	1.3	Jan 15	.00	Many Years
INSTANTANEOUS PEAK FLOW	---		6460	Feb 23	17700	Jun 30 1933
INSTANTANEOUS PEAK STAGE	---		20.67	Feb 23	31.33	Sep 22 1986
INSTANTANEOUS LOW FLOW	---		1.0	Jan 18-20	.00	Many Years
ANNUAL RUNOFF (INCHES)	12.84		7.47		9.12	
10 PERCENT EXCEEDS	516		439		543	
50 PERCENT EXCEEDS	33		17		31	
90 PERCENT EXCEEDS	6.5		3.8		2.0	

05497000 NORTH FABIUS RIVER AT MONTICELLO, MO

LOCATION.--Lat 40°06'30", long 91°42'51", in SW 1/4 SE 1/4 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^2.

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 sea level. 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.--Estimated daily discharges: Jan. 6 to Feb. 5. Records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	16	32	11	13	715	77	346	182	31	11	20
2	22	23	41	13	14	710	70	761	134	31	10	17
3	18	21	44	14	275	411	67	1590	108	26	9.8	13
4	16	18	37	15	538	312	64	1350	94	28	9.3	11
5	15	18	35	19	1140	235	75	468	83	26	8.6	10
6	15	19	31	11	811	186	101	294	76	24	8.0	9.8
7	14	20	28	8.6	428	153	103	213	77	29	7.8	9.8
8	14	19	27	7.7	295	137	87	322	75	20	7.8	9.8
9	13	18	21	6.7	226	548	68	1040	64	18	7.8	9.3
10	14	17	23	6.4	188	1490	65	361	56	17	7.8	9.1
11	13	16	23	4.7	161	598	1870	210	50	16	8.9	8.9
12	13	15	22	2.9	133	331	3550	161	50	15	13	8.4
13	13	15	22	2.5	114	241	1850	133	52	15	16	8.1
14	13	14	20	1.7	109	199	2120	117	71	14	15	8.4
15	13	14	20	2.1	89	162	2370	104	84	16	11	9.3
16	12	15	18	2.4	105	136	4210	91	283	18	9.3	10
17	26	21	15	2.3	98	126	3230	89	481	18	22	11
18	18	23	14	2.2	106	131	1330	90	268	18	307	11
19	13	35	13	2.1	420	130	762	340	132	18	160	10
20	12	29	9.6	2.5	611	124	469	180	93	22	75	9.9
21	12	26	9.1	3.5	2300	115	478	95	78	51	49	9.7
22	19	24	9.6	5.7	6620	104	546	72	70	94	34	9.4
23	81	22	12	4.9	3050	94	393	62	64	79	25	11
24	156	20	13	14	925	86	327	57	58	82	21	12
25	78	20	10	14	536	226	271	55	49	58	18	15
26	42	14	10	12	890	274	213	82	44	39	16	23
27	29	14	9.9	13	2850	165	177	241	41	35	14	17
28	22	15	10	12	1240	129	155	1940	38	24	14	12
29	19	20	10	11	---	112	139	1090	34	19	13	10
30	18	27	10	9.9	---	98	135	472	34	12	13	9.1
31	17	---	11	11	---	84	---	276	---	12	13	---
MEAN	26.1	19.6	19.7	8.03	867	276	846	410	101	29.8	30.8	11.4
MAX	156	35	44	19	6620	1490	4210	1940	481	94	307	23
MIN	12	14	9.1	1.7	13	84	64	55	34	12	7.8	8.1
IN.	.07	.05	.05	.02	2.00	.70	2.09	1.05	.25	.08	.08	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

MEAN	180	194	174	188	353	456	520	450	411	309	135	187
MAX	1496	1347	1521	1679	1346	2336	3171	2941	3148	3320	2149	1966
(WY)	1987	1929	1983	1974	1937	1979	1973	1996	1947	1993	1970	1970
MIN	.013	1.06	.73	.14	2.42	7.91	7.15	1.71	.070	.000	.000	.51
(WY)	1957	1957	1957	1940	1989	1956	1956	1934	1934	1934	1934	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1922 - 1997	
ANNUAL MEAN	390		215		296	
HIGHEST ANNUAL MEAN					923	1993
LOWEST ANNUAL MEAN					18.0	1989
HIGHEST DAILY MEAN	15900	May 28	6620	Feb 22	17900	Apr 23 1973
LOWEST DAILY MEAN	7.3	Jan 10	1.7	Jan 14	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	10	Dec 25	2.2	Jan 13	.00	Many Years
INSTANTANEOUS PEAK FLOW	---		7480	Feb 22	20700	Apr 22 1973
INSTANTANEOUS PEAK STAGE	---		22.21	Feb 22	33.03	Apr 22 1973
INSTANTANEOUS LOW FLOW	---		1.4	Jan 14	.00	Many Years
ANNUAL RUNOFF (INCHES)	11.76		6.45		8.91	
10 PERCENT EXCEEDS	668		470		572	
50 PERCENT EXCEEDS	53		26		46	
90 PERCENT EXCEEDS	14		9.5		4.0	

05498000 MIDDLE FABIUS RIVER NEAR MONTICELLO, MO

LOCATION.--Lat 40°05'37", long 91°44'08", in SE 1/4 sec.12, T.61 N., R.8 W., Lewis County, Hydrologic Unit 07110002, on left bank on downstream end 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^2.

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

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

REMARKS.--Estimated daily discharges: Jan. 6 to Feb. 5. Records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	16	24	13	24	772	85	139	201	18	12	5.0
2	37	15	59	15	26	652	76	347	136	36	9.7	5.0
3	27	15	70	17	154	460	71	823	100	27	8.4	4.6
4	21	14	58	20	654	342	67	1750	82	21	7.1	4.3
5	17	15	55	34	1490	271	75	531	68	17	6.2	3.9
6	16	16	50	34	1560	216	110	292	62	16	5.7	4.0
7	14	17	44	27	791	180	127	203	57	15	5.4	5.0
8	14	16	40	22	522	154	112	163	58	16	5.2	5.1
9	13	16	37	18	363	735	83	337	52	14	5.0	4.6
10	13	16	31	14	256	1820	74	239	43	13	5.1	4.3
11	12	17	30	13	197	815	2610	144	38	12	5.7	3.9
12	12	17	26	10	155	401	5330	110	38	11	5.7	3.7
13	12	16	26	9.0	146	286	4340	95	75	11	5.9	3.6
14	11	15	26	7.5	120	226	2290	85	66	10	6.4	3.6
15	11	15	26	6.5	117	184	2570	73	75	10	8.7	3.6
16	12	15	25	4.5	84	147	2780	66	858	9.1	11	3.7
17	42	17	21	4.0	97	120	2750	63	575	8.6	18	4.7
18	33	18	17	3.5	156	123	1110	65	192	8.1	14	4.3
19	15	35	16	3.0	574	134	482	1940	85	11	39	4.5
20	13	57	15	5.0	568	134	384	719	54	13	49	4.8
21	14	42	15	7.1	4370	130	653	221	41	36	24	4.3
22	17	35	15	15	5050	112	728	110	34	168	16	4.1
23	93	29	14	32	5460	100	439	79	30	85	13	4.9
24	324	26	14	120	1360	89	367	65	29	35	11	5.8
25	128	24	12	70	472	246	274	57	31	20	9.3	5.3
26	66	19	12	41	1060	442	209	73	28	16	7.8	5.2
27	43	17	12	36	2890	268	168	393	22	30	6.5	5.1
28	31	18	12	31	2130	182	141	2070	19	22	5.7	5.0
29	25	18	12	27	---	143	122	1770	17	16	5.3	4.8
30	19	20	12	27	---	122	120	575	18	13	5.1	4.9
31	17	---	12	25	---	100	---	319	---	14	5.0	---
MEAN	38.0	20.9	27.0	22.9	1102	326	958	449	106	24.3	11.0	4.52
MAX	324	57	70	120	5460	1820	5330	2070	858	168	49	5.8
MIN	11	14	12	3.0	24	89	67	57	17	8.1	5.0	3.6
IN.	.11	.06	.08	.07	2.92	.96	2.72	1.32	.30	.07	.03	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1946 - 1997, BY WATER YEAR (WY)

MEAN	158	174	164	195	329	455	490	465	306	326	124	161
MAX	1368	1481	1418	1179	1359	1521	2719	2776	2582	3038	1758	1815
(WY)	1987	1986	1983	1969	1969	1979	1973	1996	1947	1993	1970	1970
MIN	.000	.000	.11	.31	1.23	6.32	3.83	1.48	1.04	.78	.56	.087
(WY)	1954	1954	1957	1957	1957	1957	1956	1989	1956	1988	1988	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1946 - 1997	
ANNUAL MEAN	342		250		278	
HIGHEST ANNUAL MEAN					837	1993
LOWEST ANNUAL MEAN					18.7	1989
HIGHEST DAILY MEAN	12600	May 29	5460	Feb 23	15100	Apr 23 1973
LOWEST DAILY MEAN	9.6	Sep 21,22	3.0	Jan 19	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	10	Sep 17	3.8	Sep 10	.00	Several Years
INSTANTANEOUS PEAK FLOW	---		5590	Feb 23	17700	Apr 23 1973
INSTANTANEOUS PEAK STAGE	---		17.70	Feb 23	27.14	Apr 23 1973
INSTANTANEOUS LOW FLOW	---		3.0[a]	Jan 19	.00	Several Years
ANNUAL RUNOFF (INCHES)	11.86		8.65		9.63	
10 PERCENT EXCEEDS	445		570		583	
50 PERCENT EXCEEDS	44		29		40	
90 PERCENT EXCEEDS	13		5.2		2.7	

[a]Estimated, may have been less during period of estimated daily discharges.

05500000 SOUTH FABIUS RIVER NEAR TAYLOR, MO

LOCATION.--Lat 39°53'49", 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^2.

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 sea level (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.--Estimated daily discharges: Jan. 2 to Feb. 8, Mar. 5-8, 18-24, and Mar. 27 to Apr. 2. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	22	30	17	63	2190	223	236	407	663	30	9.3
2	48	21	38	19	59	1170	134	359	291	232	28	12
3	36	18	52	20	158	805	108	504	225	106	20	9.5
4	28	17	76	23	285	633	103	1430	181	92	16	9.2
5	23	16	60	24	1330	540	108	866	155	129	13	8.8
6	20	16	57	21	3350	480	126	484	136	104	11	8.3
7	18	19	57	22	2650	440	149	332	125	71	9.6	7.7
8	17	18	49	20	1600	410	179	272	129	57	8.9	7.1
9	16	18	44	18	1070	1110	154	238	129	45	8.7	6.5
10	14	20	41	37	743	3090	134	217	126	39	8.2	5.9
11	14	18	38	23	586	2550	3490	214	117	37	9.6	5.6
12	13	17	35	15	459	1410	8760	198	106	42	11	5.9
13	13	16	32	15	384	636	9390	180	106	42	14	6.2
14	12	16	29	13	300	552	7470	151	195	40	23	6.0
15	12	16	28	11	294	472	3930	146	255	37	20	6.2
16	11	16	29	11	173	368	1940	141	216	32	15	6.4
17	10	18	29	11	164	343	1300	118	1840	29	45	8.3
18	10	20	32	12	174	346	868	122	1030	26	98	8.4
19	11	20	37	13	422	346	542	1480	331	23	64	7.3
20	11	26	22	14	819	326	575	4870	186	25	48	6.8
21	10	27	21	13	8470	312	3290	6140	130	32	48	7.3
22	12	43	18	12	8460	294	2450	3100	192	23	46	7.0
23	23	36	19	21	7390	273	1200	576	944	24	36	7.9
24	65	33	34	47	5300	262	828	374	2470	46	28	13
25	261	30	28	178	1460	2060	645	286	706	35	23	13
26	118	26	17	284	2300	2160	462	242	272	28	18	11
27	68	24	16	180	5310	2090	370	405	167	31	14	9.6
28	50	21	16	125	4650	1320	312	2800	124	68	13	8.3
29	39	23	16	100	---	1010	267	3850	101	53	12	7.4
30	29	28	16	80	---	596	241	1820	89	31	10	6.3
31	22	---	17	75	---	373	---	639	---	22	9.5	---
MEAN	35.6	22.0	33.3	47.5	2087	934	1658	1058	383	73.0	24.5	8.07
MAX	261	43	76	284	8470	3090	9390	6140	2470	663	98	13
MIN	10	16	16	11	59	262	103	118	89	22	8.2	5.6
IN.	.07	.04	.06	.09	3.51	1.74	2.98	1.97	.69	.14	.05	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1997, BY WATER YEAR (WY)

MEAN	258	288	258	285	524	706	758	731	483	395	179	204
MAX	2690	3103	2137	2000	2340	2659	3989	4078	3891	3647	2335	2841
(WY)	1987	1986	1983	1965	1982	1973	1973	1995	1947	1993	1970	1970
MIN	.000	.000	1.52	2.12	4.78	15.0	13.4	7.56	5.68	.71	.000	.39
(WY)	1957	1957	1957	1954	1989	1956	1989	1989	1977	1988	1936	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1935 - 1997	
ANNUAL MEAN	413		519		414	
HIGHEST ANNUAL MEAN					1147	1993
LOWEST ANNUAL MEAN					27.4	1989
HIGHEST DAILY MEAN	10800	May 29	9390	Apr 13	18800	Jun 8 1947
LOWEST DAILY MEAN	10	Oct 17,18,21	5.6	Sep 11	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	11	Oct 15	6.0	Sep 10	.00	Several Years
INSTANTANEOUS PEAK FLOW	---		10100	Feb 21	19700	Jun 8 1947
INSTANTANEOUS PEAK STAGE	---		12.89	Feb 21	19.50	Jun 8 1947
INSTANTANEOUS LOW FLOW	---		5.4	Sep 11,30	.00	Several Years
ANNUAL RUNOFF (INCHES)	9.07		11.34		9.08	
10 PERCENT EXCEEDS	623		1360		995	
50 PERCENT EXCEEDS	76		48		62	
90 PERCENT EXCEEDS	16		11		4.2	

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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
OCT											
08...	0930	17	14.0	309	8.02	8.7	84	--	400	280	111
NOV											
12...	1220	16	3.0	399	8.09	12.5	100	49	42	46	160
DEC											
03...	1420	45	3.0	475	7.98	13.7	100	--	K15	58	170
JAN											
07...	1455	25	1.0	571	8.13	14.8	103	15	K9	K5	182
FEB											
04...	1120	423	0.5	431	7.30	11.7	81	--	236	680	112
MAR											
11...	1600	2260	9.0	196	7.26	10.9	94	--	1950	9200	61
APR											
08...	1130	213	10.0	472	8.19	10.4	89	--	72	77	156
MAY											
06...	1445	444	17.5	259	7.21	9.3	97	--	900	7400	81
JUN											
18...	1030	1020	21.0	151	7.60	7.5	83	52	6000	6800	54
JUL											
09...	0840	49	25.0	262	7.80	7.1	86	--	255	155	98
AUG											
05...	1510	12	28.5	440	8.17	8.0	102	--	29	90	165
SEP											
03...	1000	9.5	23.5	378	7.52	6.5	75	--	107	160	144

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)
OCT											
08...	135	0	0.32	0.010	0.02	0.75	0.10	0.06	--	--	--
NOV											
12...	200	0	<0.02	<0.010	<0.01	0.64	0.06	0.04	170	51	11
DEC											
03...	207	0	<0.02	<0.010	0.01	0.43	0.02	0.02	--	--	--
JAN											
07...	223	0	<0.02	<0.010	0.02	0.60	<0.02	<0.01	250	74	17
FEB											
04...	136	0	1.30	0.030	0.26	1.4	0.11	0.07	--	--	--
MAR											
11...	74	0	0.87	0.050	0.12	3.1	0.48	0.13	--	--	--
APR											
08...	190	0	<0.02	<0.010	0.05	0.62	0.05	0.02	--	--	--
MAY											
06...	99	0	0.78	0.040	0.08	1.4	0.22	0.11	--	--	--
JUN											
18...	66	0	1.00	0.058	0.05	3.1	0.62	0.20	64	20	3.4
JUL											
09...	119	0	0.89	0.013	0.03	0.88	0.11	0.07	--	--	--
AUG											
05...	202	0	<0.02	<0.010	0.02	0.86	0.10	0.02	190	56	11
SEP											
03...	175	0	0.02	<0.010	0.04	0.65	0.02	0.02	--	--	--

K--Results based on colony count outside the acceptable range (non-ideal colony count).

05500000 SOUTH FABIUS RIVER NEAR TAYLOR, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)
NOV											
12...	11	7.0	39	10	0.2	248	10	220	150	<1	<1
JAN											
07...	19	5.0	86	15	0.2	344	2	40	6.6	<1	<1
JUN											
18...	3.4	3.8	11	4.4	0.2	110	890	15000	290	<1	<1
AUG											
05...	14	4.8	43	12	0.2	250	52	880	17	<1	<1

DATE	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)	PROP-CHLOR, WATER, DISS, REC (µg/L) (04024)	BUTYL-ATE, WATER, DISS, REC (µg/L) (04028)	SI-MAZINE, WATER, DISS, REC (µg/L) (04035)
NOV											
12...	1.6	270	1	<1	80	<0.1	1	<1.0	<0.007	<0.002	<0.005
JAN											
07...	<1.0	80	<1	<1	89	<0.1	2	1.4	--	--	--
MAR											
11...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.005
APR											
08...	--	--	--	--	--	--	--	--	<0.007	<0.002	0.008
MAY											
06...	--	--	--	--	--	--	--	--	<0.007	<0.002	0.050
JUN											
18...	2.2	260	15	<1	7.8	<0.1	60	1.0	<0.007	<0.002	0.196
JUL											
09...	--	--	--	--	--	--	--	--	<0.007	<0.001	0.078
AUG											
05...	1.5	20	3	<1	6.2	<0.1	7	<1.0	--	--	--

DATE	PRO-METON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (µg/L) (04040)	CYANA-ZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	ALPHA BHC DIS-SOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	METO-LACHLOR WATER DISSOLV (µg/L) (39415)	LINDANE DIS-SOLVED (µg/L) (39341)	DI-ELDRIN DIS-SOLVED (µg/L) (39381)	ATRA-ZINE, WATER, DISS, REC (µg/L) (39632)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)
NOV											
12...	<0.018	E0.053	0.050	<0.003	<0.002	<0.006	0.023	<0.004	<0.001	0.143	<0.004
MAR											
11...	<0.018	E0.013	0.033	<0.003	<0.002	<0.006	0.034	<0.004	<0.001	0.176	0.007
APR											
08...	<0.018	E0.017	0.036	<0.003	<0.002	<0.006	0.020	<0.004	<0.001	0.134	<0.004
MAY											
06...	E0.002	E0.013	0.240	<0.003	<0.002	<0.006	2.89	<0.004	<0.001	5.37	0.025
JUN											
18...	<0.018	E0.592	2.03	<0.003	<0.002	<0.006	3.78	<0.004	<0.001	9.43	0.502
JUL											
09...	<0.018	E0.190	0.874	<0.003	<0.002	<0.006	1.37	<0.004	<0.001	6.28	0.040

E--Laboratory estimated value.

05500000 SOUTH FABIUS RIVER NEAR TAYLOR, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	FONOFOS WATER DISS REC (µg/L) (04095)	CHLOR-PYRIFOS DIS-SOLVED (µg/L) (38933)	MALA-THION, DIS-SOLVED (µg/L) (39532)	PARA-THION, DIS-SOLVED (µg/L) (39542)	DI-AZINON, DIS-SOLVED (µg/L) (39572)	ALA-CHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (µg/L) (49260)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)
NOV											
12...	<0.003	<0.004	<0.005	<0.004	<0.002	0.021	<0.002	<0.003	<0.004	<0.002	<0.007
MAR											
11...	<0.003	<0.004	<0.005	<0.004	<0.002	0.008	0.007	<0.003	<0.004	<0.002	<0.007
APR											
08...	<0.003	<0.004	<0.005	<0.004	<0.002	E0.004	<0.002	<0.003	<0.004	<0.002	<0.007
MAY											
06...	<0.003	<0.004	<0.005	<0.004	<0.002	0.009	0.200	<0.003	<0.004	<0.002	<0.007
JUN											
18...	<0.003	<0.004	<0.005	<0.004	<0.002	0.058	0.120	<0.003	<0.004	<0.002	<0.007

DATE	LIN-URON WATER FLTRD 0.7 µ GF, REC (µg/L) (82666)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
NOV											
12...	<0.002	<0.006	<0.002	<0.004	0.024	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAR											
11...	<0.002	<0.006	<0.002	<0.004	0.022	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR											
08...	<0.002	<0.006	<0.002	<0.004	0.018	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAY											
06...	<0.002	<0.006	E0.001	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUN											
18...	<0.002	<0.006	<0.002	<0.004	0.023	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUL											
09...	<0.002	<0.006	<0.002	<0.004	0.052	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
NOV											
12...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR											
11...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
APR											
08...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
MAY											
06...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
JUN											
18...	<0.017	<0.001	<0.004	E0.056	<0.002	<0.002	0.107	<0.003	<0.013	<0.001	<0.005
JUL											
09...	<0.017	<0.001	<0.004	E0.021	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

05501000 NORTH RIVER AT PALMYRA, MO

LOCATION.--Lat 39°49'06", long 91°31'13", in SE 1/4 SW 1/4 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^2.

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

GAGE.--Water-stage recorder. Datum of gage is 464.81 ft above sea level (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.--No estimated daily discharges. Records good. Several observations of water temperature were made during the year. 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, present datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	6.2	31	12	30	882	76	115	112	109	6.6	14
2	22	5.1	38	14	37	544	70	143	91	49	5.6	8.3
3	17	3.9	34	18	72	340	65	319	78	27	4.8	5.3
4	13	3.4	30	20	102	251	63	401	71	20	4.2	4.5
5	10	3.9	28	20	102	197	70	228	62	16	4.7	5.3
6	9.2	6.0	26	15	94	163	90	148	57	16	4.4	6.1
7	8.4	14	25	13	92	142	82	123	53	16	4.0	6.0
8	8.2	17	22	12	73	129	77	110	56	14	3.7	5.8
9	6.9	19	20	12	56	1110	69	98	50	15	4.0	5.7
10	6.5	18	18	9.4	47	860	70	88	45	14	4.4	5.1
11	6.6	13	17	7.4	41	466	5080	80	40	12	5.5	4.5
12	5.9	11	17	6.2	38	248	10800	75	38	10	10	3.6
13	5.0	9.1	26	5.5	30	186	2720	72	40	9.2	9.8	3.3
14	4.5	8.2	21	5.5	34	156	802	68	41	7.9	7.6	3.2
15	4.1	7.4	18	6.5	27	132	424	63	39	7.0	7.4	3.2
16	4.6	6.9	17	6.3	33	117	401	58	37	6.4	3.1	2.9
17	3.3	8.4	16	5.7	31	110	766	56	39	5.9	9.7	6.4
18	2.8	11	11	5.2	46	111	794	58	38	5.8	22	7.1
19	3.3	14	13	5.2	122	110	596	87	30	8.8	32	6.1
20	3.2	17	10	7.3	127	104	639	243	24	9.7	47	5.8
21	2.8	16	9.6	11	10900	98	4030	287	22	19	29	6.1
22	3.7	14	10	30	10600	93	1720	111	29	170	18	5.4
23	16	13	12	54	1840	86	1020	78	33	133	12	5.6
24	19	13	8.3	61	489	83	717	64	45	57	8.1	5.8
25	26	12	10	45	291	278	509	60	108	30	6.5	5.4
26	18	11	9.6	55	3070	300	446	65	57	18	5.7	5.2
27	13	9.3	9.0	46	4430	172	372	188	36	13	5.3	4.4
28	10	10	9.2	32	1480	132	243	1030	29	10	5.7	3.6
29	8.7	10	9.6	32	---	116	154	658	22	22	5.3	3.2
30	7.7	16	9.7	30	---	98	128	273	165	17	5.0	1.7
31	7.6	---	11	29	---	85	---	151	---	9.3	4.7	---
MEAN	9.61	10.9	17.6	20.4	1226	255	1103	181	52.9	28.3	9.86	5.29
MAX	26	19	38	61	10900	1110	10800	1030	165	170	47	14
MIN	2.8	3.4	8.3	5.2	27	83	63	56	22	5.8	3.1	1.7
IN.	.03	.03	.05	.06	3.42	.79	3.30	.56	.16	.09	.03	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1997, BY WATER YEAR (WY)

MEAN	153	175	173	179	323	443	485	478	312	250	111	130
MAX	1742	2639	1832	991	1720	2783	2691	2249	2296	2100	1357	1351
(WY)	1987	1986	1983	1969	1982	1973	1973	1935	1947	1993	1970	1970
MIN	.000	.000	.23	.66	.92	6.54	31.7	15.5	4.77	.52	.000	.17
(WY)	1957	1957	1957	1954	1954	1956	1936	1989	1936	1936	1936	1940

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1935 - 1997	
ANNUAL MEAN	198		235		264	
HIGHEST ANNUAL MEAN					748	1973
LOWEST ANNUAL MEAN					22.1	1989
HIGHEST DAILY MEAN	13900	May 27	10900	Feb 21	32600	Apr 21 1973
LOWEST DAILY MEAN	2.8	Oct 18,21	1.7	Sep 30	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	3.4	Oct 16	3.4	Oct 16	.00	Several Years
INSTANTANEOUS PEAK FLOW	---		23700	Feb 21	57400	Apr 21 1973
INSTANTANEOUS PEAK STAGE	---		23.80	Feb 21	29.70	Apr 21 1973
INSTANTANEOUS LOW FLOW	---		1.3	Sep 30	.00	Several Years
ANNUAL RUNOFF (INCHES)	7.22		8.54		9.62	
10 PERCENT EXCEEDS	229		289		474	
50 PERCENT EXCEEDS	37		22		40	
90 PERCENT EXCEEDS	7.8		5.1		3.5	

05502000 BEAR CREEK AT HANNIBAL, MO

LOCATION.--Lat 39°40'43", long 91°24'41", in SE 1/4 NW 1/4 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^2.

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 Geological Survey.

REVISED RECORDS.--WSP 1115: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 508.91 ft above sea level. 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.--Estimated daily discharges: Feb. 9-24 and Mar. 16 to Apr. 6. Records fair except for estimated daily discharges, which are poor. High flow regulated by Bear Creek flood control reservoir, 1.0 mi upstream, since Aug. 7, 1961. Several observations of water temperature were made during the year.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	1.8	4.5	2.1	6.8	205	6.6	9.3	7.7	1.7	.39	.58
2	.44	1.9	3.1	2.5	14	277	6.1	11	6.3	1.5	.40	.55
3	.37	1.9	2.9	2.6	24	60	5.8	22	5.9	1.3	.43	.55
4	.40	2.3	2.6	2.4	13	19	5.6	13	5.4	1.3	.34	.39
5	.48	2.8	3.0	2.0	13	15	6.2	11	4.4	1.3	.23	.36
6	.54	4.6	3.3	1.4	8.6	13	7.2	9.3	4.4	1.9	.16	.32
7	.57	3.4	2.4	1.2	6.8	12	6.3	8.4	5.9	1.5	.16	.24
8	1.0	3.0	2.1	1.2	6.3	11	5.7	8.6	4.9	1.2	.15	.23
9	.96	2.0	1.9	1.5	5.0	36	5.6	7.6	4.2	1.1	.18	.28
10	.91	1.6	2.2	1.5	4.2	43	7.6	7.0	3.6	1.1	.34	.28
11	.72	1.5	2.2	1.3	3.7	37	53	6.9	6.0	.98	.85	.18
12	.76	1.3	2.3	.97	3.4	15	34	6.4	22	.96	.84	.18
13	.63	1.3	1.9	1.0	2.7	13	31	6.1	8.0	.94	.75	.13
14	.64	1.3	1.9	1.0	2.6	12	161	5.8	7.5	.86	.61	.16
15	.53	1.3	2.0	1.7	2.4	10	145	5.4	5.0	.79	2.2	.20
16	.57	1.6	1.9	1.9	3.0	9.4	16	5.0	7.4	.75	1.2	.36
17	.68	2.8	1.8	2.4	2.8	8.8	12	5.1	4.7	.72	26	1.7
18	.59	2.1	1.4	2.6	4.1	8.9	11	5.3	3.8	.71	11	.78
19	.58	2.0	1.1	2.6	11	8.9	11	10	3.2	2.3	6.0	.61
20	.80	1.9	1.1	2.6	11	8.4	27	6.1	2.7	2.4	7.2	.53
21	1.1	1.9	1.3	4.5	825	8.0	129	4.8	2.5	1.5	2.0	.26
22	5.5	1.6	1.8	18	750	7.6	139	4.2	2.4	.96	1.2	.20
23	5.3	2.2	2.8	9.5	650	7.0	46	3.9	2.4	.82	.95	.50
24	2.9	2.1	2.4	6.4	450	6.8	17	3.8	2.1	.80	.93	.67
25	1.8	2.2	1.5	4.8	365	23	13	5.9	2.0	.76	.84	.57
26	1.5	1.8	1.4	3.1	80	18	12	7.5	2.0	.69	.81	.43
27	1.2	1.8	1.6	3.4	264	13	11	25	1.8	.60	.73	.30
28	1.1	1.8	1.9	3.2	287	11	11	83	1.8	.77	.70	.24
29	2.2	2.8	2.0	3.4	---	9.6	9.8	17	1.7	.68	.64	.17
30	1.6	5.0	2.0	3.8	---	8.2	10	11	1.6	.54	.58	.13
31	1.4	---	1.9	4.6	---	7.3	---	12	---	.48	.61	---
MEAN	1.24	2.19	2.14	3.26	136	30.4	32.0	11.2	4.78	1.09	2.24	.40
MAX	5.5	5.0	4.5	18	825	277	161	83	22	2.4	26	1.7
MIN	.37	1.3	1.1	.97	2.4	6.8	5.6	3.8	1.6	.48	.15	.13
IN.	.05	.08	.08	.12	4.58	1.13	1.15	.42	.17	.04	.08	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1997[a], BY WATER YEAR (WY)

MEAN	14.9	20.1	19.8	15.2	31.1	37.7	38.5	39.0	21.1	18.9	15.9	15.5
MAX	116	225	155	84.0	136	125	193	146	76.5	193	141	190
(WY)	1970	1986	1983	1969	1997	1973	1973	1991	1982	1981	1993	1970
MIN	.016	.15	.11	.27	.85	2.86	3.11	2.72	.58	.026	.15	.006
(WY)	1964	1964	1964	1977	1964	1981	1977	1988	1963	1977	1962	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1962 - 1997[a]	
ANNUAL MEAN	14.2		18.1		23.9	
HIGHEST ANNUAL MEAN					57.9	1993
LOWEST ANNUAL MEAN					5.33	1989
HIGHEST DAILY MEAN	321	May 30	825	Feb 21	1470	Sep 25 1970
LOWEST DAILY MEAN	.12	Sep 14	.13	Sep 13,30	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	.18	Sep 9	.20	Sep 9	.00	Several Years
INSTANTANEOUS PEAK FLOW	---		1170	Feb 21	3120	Sep 23 1970
INSTANTANEOUS PEAK STAGE	---		7.56[b]	Feb 21	9.24	May 14 1970
INSTANTANEOUS LOW FLOW	---		.10	Sep 30	.00	Several Years
ANNUAL RUNOFF (INCHES)	6.24		7.92		10.49	
10 PERCENT EXCEEDS	32		15		50	
50 PERCENT EXCEEDS	4.8		2.4		4.7	
90 PERCENT EXCEEDS	.57		.52		.53	

[a]Post-regulation period.
[b]From highwater mark on crest stage gage.

05502300 NORTH FORK SALT RIVER AT HAGERS GROVE, MO

LOCATION.--Lat 39°49'40", long 92°14'10", in NE 1/4 SW 1/4 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^2.

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.--Estimated daily discharges: Dec. 17 to Feb. 16. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. 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^3/s, according to information furnished by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	9.5	52	18	20	654	62	145	127	14	7.5	8.8
2	18	8.9	48	26	58	463	57	161	94	12	6.7	9.8
3	15	8.8	79	31	677	271	50	1030	76	11	6.1	8.8
4	14	8.3	75	30	1350	193	88	770	67	27	5.8	7.9
5	12	8.7	58	15	1210	155	163	211	61	18	5.2	7.5
6	11	8.9	46	13	341	128	357	121	59	36	4.3	7.0
7	12	8.6	37	17	136	111	309	88	57	43	4.3	6.9
8	10	12	28	13	85	102	161	84	57	32	4.2	7.6
9	9.5	11	19	7.7	69	949	112	93	48	22	4.6	7.5
10	6.9	9.1	16	7.8	50	1320	113	76	43	15	5.5	7.7
11	5.9	8.3	14	8.7	42	405	5470	63	40	12	23	7.4
12	5.9	8.1	14	9.5	34	217	10500	57	43	9.7	9.8	7.1
13	5.3	7.9	12	9.0	44	164	4200	54	37	8.2	11	7.8
14	5.1	7.7	11	3.6	34	143	2260	51	92	7.5	14	7.5
15	4.9	7.8	11	3.8	37	82	1050	49	52	6.8	14	8.1
16	4.9	12	11	4.1	100	68	692	46	848	6.3	11	11
17	5.2	22	10	4.1	160	67	424	44	377	5.9	15	20
18	12	44	9.0	5.0	639	71	248	42	111	5.7	32	12
19	7.6	45	9.0	5.6	721	81	201	4830	65	5.4	39	8.4
20	6.6	43	15	8.4	457	81	504	1980	49	5.8	36	8.1
21	6.4	44	8.0	33	8810	72	2480	335	40	16	28	8.0
22	13	35	8.0	183	7060	60	856	168	1420	33	22	7.2
23	96	27	8.0	117	2050	49	1810	123	489	22	16	11
24	67	28	7.5	47	580	100	762	118	97	12	12	10
25	41	14	7.5	32	372	739	393	101	53	28	10	8.8
26	26	27	7.0	28	1950	576	196	83	37	13	10	18
27	19	24	7.0	22	3400	266	184	481	29	12	9.5	11
28	14	23	7.0	30	1070	182	126	3060	33	119	9.3	8.2
29	11	22	8.4	34	---	120	105	999	20	45	9.3	7.2
30	11	23	9.8	27	---	100	126	332	16	16	8.6	6.3
31	10	---	11	15	---	80	---	187	---	8.6	8.4	---
MEAN	16.8	18.9	21.4	26.1	1127	260	1135	516	155	20.3	13.0	9.09
MAX	96	45	79	183	8810	1320	10500	4830	1420	119	39	20
MIN	4.9	7.7	7.0	3.6	20	49	50	42	16	5.4	4.2	6.3
IN.	.05	.06	.07	.08	3.22	.82	3.47	1.63	.47	.06	.04	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, BY WATER YEAR (WY)

MEAN	163	297	215	95.8	345	426	458	606	256	400	102	121
MAX	1201	1426	1319	457	1599	1177	2036	2631	1075	3033	441	937
(WY)	1987	1986	1983	1993	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1974 - 1997	
ANNUAL MEAN	264		269		290	
HIGHEST ANNUAL MEAN					767	1993
LOWEST ANNUAL MEAN					35.4	1989
HIGHEST DAILY MEAN	14700	May 28	10500	Apr 12	18800	Apr 3 1983
LOWEST DAILY MEAN	3.0	Feb 4,5	3.6	Jan 14	.18	Aug 7 1988
ANNUAL SEVEN-DAY MINIMUM	4.4	Jan 31	4.8	Aug 4	.44	Oct 20 1991
INSTANTANEOUS PEAK FLOW	---		13200	Apr 12	22000	Apr 3 1983
INSTANTANEOUS PEAK STAGE	---		18.20	Apr 12	18.80	Apr 3 1983
INSTANTANEOUS LOW FLOW	---		3.3[a]	Jan 13	.17	Oct 23 1991
ANNUAL RUNOFF (INCHES)	9.87		10.00		10.81	
10 PERCENT EXCEEDS	352		495		532	
50 PERCENT EXCEEDS	26		28		31	
90 PERCENT EXCEEDS	7.9		7.0		4.0	

[a]Estimated, may have been less during period of estimated daily discharge.

05502500 NORTH FORK SALT RIVER NEAR SHELBINA, MO

LOCATION.--Lat 39°44'29", long 92°02'26", in SW 1/4 NE 1/4 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^2.

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 sea level. 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 St. Louis U.S. Army Corps of Engineers 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.--Estimated daily discharge: Nov. 6. Records good except for estimated daily discharge and those below 50 ft^3/s, which are poor. Several observations of water temperature were made during the year. 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^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	13	113	16	21	968	79	157	160	26	13	13
2	25	11	91	25	28	669	72	157	112	23	11	9.6
3	18	15	71	25	217	399	69	647	88	20	9.6	9.2
4	15	14	81	44	848	260	66	1070	74	27	9.0	8.7
5	16	13	61	32	2340	188	98	339	63	36	6.6	8.3
6	18	12	50	21	840	141	262	185	59	40	6.0	8.4
7	16	12	42	19	319	114	319	131	56	87	6.6	9.0
8	11	11	35	24	177	99	161	118	61	43	6.4	9.7
9	8.4	19	24	19	132	747	104	113	55	33	6.6	11
10	9.3	27	23	11	109	1910	90	113	45	24	7.5	10
11	9.9	18	22	9.2	87	601	3180	94	41	19	16	10
12	11	14	20	6.9	78	300	8740	80	42	19	31	10
13	16	13	19	4.7	63	203	9740	80	42	16	17	11
14	20	13	18	4.7	61	160	5630	73	60	14	15	12
15	10	12	18	5.1	58	124	1920	67	100	14	17	8.5
16	18	13	15	5.5	90	100	1020	62	481	12	15	12
17	14	33	14	5.5	145	96	699	56	751	13	20	30
18	5.5	51	9.8	5.9	512	99	369	51	187	12	21	31
19	25	60	14	7.1	891	103	249	2170	91	11	51	21
20	12	61	10	8.0	576	106	315	4800	60	9.7	52	16
21	8.4	57	9.4	12	5360	100	3480	971	46	12	34	13
22	24	56	12	47	9280	87	1830	256	1270	37	20	11
23	62	50	15	261	7420	77	1950	139	1560	56	16	13
24	122	44	9.1	167	1500	70	1200	104	254	38	14	20
25	63	40	11	67	482	596	465	85	96	28	11	21
26	40	27	8.8	45	1590	747	285	86	59	51	10	20
27	24	28	8.0	40	5050	305	205	130	43	25	10	32
28	19	37	9.2	32	3020	188	163	3090	37	75	11	20
29	17	38	11	43	---	145	137	2060	36	95	10	10
30	16	49	12	48	---	122	117	521	30	34	10	8.4
31	14	---	14	39	---	96	---	259	---	18	13	---
MEAN	23.4	28.7	28.1	35.5	1475	320	1434	589	202	31.2	16.0	14.2
MAX	122	61	113	261	9280	1910	9740	4800	1560	95	52	32
MIN	5.5	11	8.0	4.7	21	70	66	51	30	9.7	6.0	8.3
IN.	.06	.07	.07	.09	3.19	.77	3.33	1.41	.47	.07	.04	.03

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

MEAN	130	165	147	196	367	447	520	509	426	338	128	169
MAX	809	1327	835	1319	1475	1417	1944	3460	4171	4119	1214	1831
(WY)	1958	1993	1972	1965	1997	1948	1944	1995	1947	1993	1970	1970
MIN	.000	.000	.000	.013	1.80	6.41	7.24	14.7	2.93	.000	.000	.000
(WY)	1953	1954	1954	1954	1934	1956	1989	1941	1988	1934	1936	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	339		340		297	
HIGHEST ANNUAL MEAN					1037	1993
LOWEST ANNUAL MEAN					36.2	1989
HIGHEST DAILY MEAN	11100	May 29	9740	Apr 13	18600	Jun 7 1947
LOWEST DAILY MEAN	5.3	Feb 4	4.7	Jan 13,14	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	7.4	Jan 31	5.5	Jan 12	.00	Many Years
INSTANTANEOUS PEAK FLOW	---		11000	Apr 13	23000	Jun 7 1947
INSTANTANEOUS PEAK STAGE	---		20.64	Apr 13	27.40	Jun 7 1947
INSTANTANEOUS LOW FLOW	---		4.7	Oct 17,18,Jan 13-16	.00	Many years
ANNUAL RUNOFF (INCHES)	9.59		9.59		8.40	
10 PERCENT EXCEEDS	562		656		690	
50 PERCENT EXCEEDS	45		40		32	
90 PERCENT EXCEEDS	11		9.7		1.8	

05503800 CROOKED CREEK NEAR PARIS, MO

LOCATION.--Lat 39°35'06", long 91°59'36", near NW corner S 1/2 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^2.

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

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

REMARKS.--Estimated daily discharges: Dec. 31, Jan. 5, Mar. 14, 15, 18, 22, and 23. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of April 1973 reached a stage of 15.53 ft; discharge, 12,100 ft^3/s, according to information furnished by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.19	25	.08	2.4	196	7.5	9.4	6.1	18	.26	.27
2	.61	.15	12	.06	43	119	7.9	13	4.0	5.3	.24	.21
3	.42	.10	7.0	.06	100	54	6.6	13	3.1	2.2	.22	.11
4	.35	.11	2.9	.06	90	34	6.7	12	2.6	1.4	.15	.07
5	.28	.14	1.8	.09	82	24	12	16	2.2	.96	.12	.05
6	.17	.25	1.1	.12	60	16	30	9.3	1.9	.75	.10	.04
7	.14	.70	.68	.08	34	11	30	6.9	1.7	.76	.08	.03
8	.10	1.2	.46	.05	21	8.1	15	6.2	1.9	.49	.06	.02
9	.07	.76	.34	.09	13	204	7.3	4.9	1.6	.52	.05	.02
10	.06	.54	.31	.09	8.9	390	8.4	3.9	1.6	.44	.04	.02
11	.07	.49	.26	.08	5.9	71	1740	3.6	1.5	.32	.04	.01
12	.08	.46	.18	.06	4.6	23	3080	3.1	1.3	.30	.04	.00
13	.07	.35	.19	.05	3.4	15	304	3.1	1.3	.26	.03	.00
14	.05	.34	.17	.04	2.9	12	103	2.5	.94	.26	.02	.00
15	.05	.31	.16	.05	3.4	9.5	65	2.2	.94	.31	.03	.00
16	.04	.42	.12	.06	15	8.9	50	2.1	1.5	.22	.02	.01
17	.03	8.0	.14	.02	66	8.9	43	2.1	1.6	.16	.09	.05
18	.02	9.3	.15	.02	104	8.0	38	2.0	1.4	.17	.09	.02
19	.01	9.9	.09	.01	94	7.0	32	2.5	1.3	.20	2.7	.02
20	.01	15	.07	.02	151	10	94	2.2	1.2	.26	4.4	.01
21	.01	17	.11	.03	3460	11	600	1.9	1.4	.37	6.9	.00
22	.14	17	.17	8.4	1890	10	161	1.6	148	1.3	3.3	.00
23	3.9	16	.11	19	129	8.0	68	1.4	118	.32	1.8	.01
24	2.7	16	.08	20	58	6.3	57	1.4	29	.22	1.1	.02
25	1.1	15	.06	8.0	37	40	40	13	45	.16	.56	.01
26	.42	14	.05	4.2	595	79	30	33	48	.15	.39	.01
27	.19	13	.05	1.8	1040	35	23	70	9.7	.86	.26	.00
28	.14	11	.07	1.8	232	24	20	118	4.4	.84	.20	.00
29	.17	12	.09	1.7	---	18	17	48	2.8	.68	.12	.00
30	.30	23	.09	1.8	---	13	14	22	2.2	.51	.08	.00
31	.27	---	.08	1.8	---	8.3	---	10	---	.32	.20	---
MEAN	.42	6.76	1.74	2.25	298	47.8	224	14.2	14.9	1.26	.76	.034
MAX	3.9	23	25	20	3460	390	3080	118	148	18	6.9	.27
MIN	.01	.10	.05	.01	2.4	6.3	6.6	1.4	.94	.15	.02	.00
IN.	.01	.09	.03	.03	3.88	.69	3.12	.20	.21	.02	.01	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1997, BY WATER YEAR (WY)

MEAN	27.4	66.5	60.0	23.7	82.4	77.5	90.7	153	62.9	77.6	27.4	44.4
MAX	321	550	247	86.4	359	214	319	669	230	554	223	510
(WY)	1987	1986	1983	1982	1985	1993	1983	1995	1990	1993	1993	1993
MIN	.000	.000	.000	.000	.000	.066	.16	1.53	.031	.000	.000	.000
(WY)	1980	1981	1989	1989	1989	1989	1989	1988	1988	1988	1988	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL MEAN	72.6		48.8		66.0	
HIGHEST ANNUAL MEAN					179	1993
LOWEST ANNUAL MEAN					7.38	1989
HIGHEST DAILY MEAN	7150	May 7	3460	Feb 21	7150	May 7 1996
LOWEST DAILY MEAN	.01	Oct 19-21	.00	Sep 12-15,21,22,27-30	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	.02	Oct 15	.01	Sep 10	.00	Many Years
INSTANTANEOUS PEAK FLOW	---		4490	Apr 12	9460	May 7 1996
INSTANTANEOUS PEAK STAGE	---		10.70	Apr 12	13.62	May 7 1996
INSTANTANEOUS LOW FLOW	---		.00	Sep 12-16,20-23,26-30	.00	Many Years
ANNUAL RUNOFF (INCHES)	12.36		8.29		11.21	
10 PERCENT EXCEEDS	53		52		90	
50 PERCENT EXCEEDS	1.1		1.4		3.5	
90 PERCENT EXCEEDS	.13		.03		.00	

05504800 SOUTH FORK SALT RIVER ABOVE SANTA FE, MO

LOCATION.--Lat 39°19'34", long 91°50'02", in SE 1/4 SE 1/4 sec.31, T.53 N., R.8 W., Audrain County, Hydrologic Unit 07110006, on left bank near downstream side of bridge on county road, 4.0 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^2.

PERIOD OF RECORD.--February 1940 to current year. Published as "near Santa Fe" October 1969 to September 1975 and as "at Santa Fe" February 1940 to September 1968 and October 1975 to September 1986.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 644.87 ft above sea level. 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 good. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	3.7	70	11	95	395	36	30	289	31	3.7	4.6
2	5.1	3.1	102	12	537	426	32	29	125	25	3.2	3.9
3	3.7	3.9	115	12	838	265	30	32	76	20	2.9	4.3
4	2.8	3.6	109	13	912	158	29	30	58	16	2.7	4.2
5	2.3	3.9	68	13	584	109	34	27	45	14	2.9	3.2
6	1.9	6.6	47	11	226	84	45	25	36	13	3.7	3.1
7	1.7	55	34	10	119	71	54	22	30	12	3.8	4.0
8	1.7	46	27	9.7	81	62	38	24	30	12	2.5	3.7
9	1.7	40	23	10	63	304	28	31	36	11	2.1	5.2
10	3.7	34	20	9.5	53	1330	26	30	27	9.3	3.4	4.8
11	2.1	21	17	8.8	44	283	502	24	24	8.7	2.5	4.7
12	1.8	14	16	7.7	39	158	1350	20	23	8.4	2.6	4.8
13	1.4	11	15	6.8	34	111	354	17	47	7.7	3.0	4.8
14	1.3	8.4	14	6.4	30	201	159	16	435	7.1	4.7	5.0
15	1.3	7.0	14	6.9	29	183	96	14	309	6.6	8.7	4.8
16	1.8	6.5	14	7.2	30	93	72	13	145	5.8	36	4.7
17	1.8	25	14	6.9	33	73	58	14	95	5.9	31	7.6
18	1.9	49	11	6.7	38	69	47	13	72	6.6	25	11
19	2.4	45	8.7	7.0	47	67	40	27	44	8.1	31	8.8
20	1.9	38	7.7	7.4	166	62	42	52	31	8.3	60	6.1
21	1.7	26	7.5	10	7160	56	543	53	25	7.1	45	4.9
22	5.9	18	8.3	405	7080	51	344	31	1380	6.4	20	4.4
23	68	14	9.9	389	971	43	142	23	4140	5.9	12	5.3
24	80	13	11	171	306	43	88	18	357	9.1	8.4	7.6
25	31	22	14	196	193	507	63	51	128	6.8	7.0	11
26	21	26	15	207	1500	356	49	940	859	5.6	6.6	7.4
27	13	32	13	96	3440	129	39	900	246	5.3	5.8	6.0
28	9.3	25	12	53	941	80	34	653	91	5.6	5.5	5.6
29	7.6	21	12	49	---	62	32	317	58	4.7	4.8	4.9
30	6.6	44	11	32	---	49	33	241	40	4.3	3.9	4.8
31	3.9	---	11	31	---	41	---	1290	---	4.1	4.0	---
MEAN	9.58	22.2	28.1	58.8	914	191	148	162	310	9.72	11.6	5.51
MAX	80	55	115	405	7160	1330	1350	1290	4140	31	60	11
MIN	1.3	3.1	7.5	6.4	29	41	26	13	23	4.1	2.1	3.1
IN.	.05	.11	.14	.29	4.09	.95	.71	.80	1.48	.05	.06	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

MEAN	125	133	136	133	219	306	331	308	240	200	53.0	136
MAX	1646	1378	1447	792	1031	1715	1734	2238	1307	2415	544	1830
(WY)	1942	1986	1983	1974	1985	1973	1944	1943	1942	1969	1982	1993
MIN	.006	.36	.58	1.18	1.91	2.74	4.43	5.92	3.28	1.31	.46	.22
(WY)	1954	1954	1964	1963	1954	1954	1963	1980	1988	1944	1964	1960

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL MEAN	93.8		150		193	
HIGHEST ANNUAL MEAN					509	1969
LOWEST ANNUAL MEAN					10.7	1954
HIGHEST DAILY MEAN	2850	Apr 29	7160	Feb 21	24000	Oct 13 1969
LOWEST DAILY MEAN	1.3	Oct 14,15	1.3	Oct 14,15	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	1.6	Oct 12	1.6	Oct 12	.00	Many Years
INSTANTANEOUS PEAK FLOW	---		8800	Feb 22	31800	Sep 23 1993
INSTANTANEOUS PEAK STAGE	---		20.51	Feb 22	28.66	Sep 23 1993
INSTANTANEOUS LOW FLOW	---		.83	Oct 13,14	.00	Many Years
ANNUAL RUNOFF (INCHES)	5.48		8.74		11.25	
10 PERCENT EXCEEDS	144		285		315	
50 PERCENT EXCEEDS	14		23		16	
90 PERCENT EXCEEDS	3.2		3.7		1.5	

05506100 LONG BRANCH NEAR SANTA FE, MO

LOCATION.--Lat 39°21'21", long 91°50'03", in SE 1/4 SE 1/4 sec. 19, T.53 N., R.8 W., Monroe County, Hydrologic Unit 07110006, on left bank on west side of concrete ford on Monroe County Road 26.

DRAINAGE AREA.--180 mi^2.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 625.00 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	2.5	81	1.2	37	628	22	18	191	15	.60	.81
2	4.5	2.0	71	1.3	337	526	20	19	72	13	.53	.71
3	2.5	1.7	62	1.4	1080	232	19	83	40	10	.41	.70
4	2.4	1.7	45	1.5	1180	108	19	32	29	9.0	.29	.65
5	1.6	1.8	31	1.7	625	68	22	25	24	6.8	.22	.59
6	1.1	3.8	26	1.5	204	47	24	21	20	6.1	.16	.55
7	1.0	91	20	1.3	95	36	21	19	18	5.6	.14	.47
8	1.1	83	16	1.2	58	32	22	24	20	4.4	.06	.57
9	1.2	32	14	1.7	45	531	19	20	19	3.8	.06	.57
10	1.1	19	13	1.3	37	627	20	18	17	3.3	.06	.54
11	1.1	12	10	1.6	32	278	1160	18	16	3.0	.08	.48
12	1.2	7.3	7.7	1.1	29	99	1940	16	15	2.6	.33	.37
13	1.1	11	5.0	.94	26	64	849	14	22	2.5	.75	.48
14	.94	9.8	4.3	.82	25	53	180	14	146	2.1	.58	.41
15	1.0	7.2	4.3	.84	23	41	84	13	116	1.8	.67	.27
16	.96	4.4	3.8	1.0	27	35	56	13	62	1.6	.56	.26
17	.90	76	3.4	1.1	35	32	41	12	61	1.5	5.0	.94
18	.85	149	2.6	1.1	44	32	34	11	46	1.4	1.4	.74
19	.79	63	2.0	1.0	56	31	31	232	29	28	25	.70
20	.74	43	1.9	1.1	87	30	38	198	20	15	19	.61
21	.81	28	1.5	2.2	12400	28	353	107	17	7.6	17	.34
22	5.2	20	1.5	621	6870	27	251	41	227	6.8	15	.35
23	72	15	1.7	222	1180	24	115	26	1170	2.2	11	.56
24	52	14	1.4	108	216	23	75	19	835	1.7	7.2	.63
25	27	13	1.2	76	103	179	75	28	133	1.4	4.2	.48
26	24	11	1.2	83	1460	226	45	431	42	1.1	2.9	.47
27	17	9.1	1.2	50	2210	94	32	1040	27	.93	2.1	.45
28	11	7.6	1.2	34	974	59	27	1240	20	1.0	1.7	.41
29	6.0	8.9	1.2	24	---	39	23	505	18	1.1	1.3	.35
30	3.6	52	1.2	13	---	32	20	198	17	.78	1.1	.31
31	3.6	---	1.2	13	---	27	---	328	---	.67	.91	---
MEAN	8.36	26.7	14.1	41.0	1053	138	188	154	116	5.22	3.88	.53
MAX	72	149	81	621	12400	628	1940	1240	1170	28	25	.94
MIN	.74	1.7	1.2	.82	23	23	19	11	15	.67	.06	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1997, BY WATER YEAR (WY)

MEAN	4.32	16.1	7.57	113	439	83.4	154	586	112	15.1	68.8	8.72
MAX	8.36	26.7	14.1	263	1053	138	218	1062	198	30.6	161	24.8
(WY)	1997	1997	1997	1995	1997	1997	1995	1995	1995	1995	1995	1996
MIN	.28	5.48	.99	34.4	17.6	48.3	55.8	154	23.2	5.22	3.88	.53
(WY)	1996	1996	1996	1996	1996	1995	1996	1997	1996	1997	1997	1997

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1995 - 1997	
ANNUAL MEAN	72.5		139		104	
HIGHEST ANNUAL MEAN					139	1997
LOWEST ANNUAL MEAN					69.0	1996
HIGHEST DAILY MEAN	3640	May 7	12400	Feb 21	12400	Feb 21 1997
LOWEST DAILY MEAN	.64	Sep 15	.06	Aug 8-10	.06	Aug 8-10 1997
ANNUAL SEVEN-DAY MINIMUM	.73	Sep 12	.10	Aug 5	.10	Aug 5 1997
INSTANTANEOUS PEAK FLOW	---		14900	Feb 21	14900	Feb 21 1997
INSTANTANEOUS PEAK STAGE	---		21.16	Feb 21	21.16	Feb 21 1997
INSTANTANEOUS LOW FLOW	---		.04	Aug 11	.04	Aug 11 1997
10 PERCENT EXCEEDS	92		198		230	
50 PERCENT EXCEEDS	9.5		15		12	
90 PERCENT EXCEEDS	.99		.62		.72	

05506500 MIDDLE FORK SALT RIVER AT PARIS, MO

LOCATION.--Lat 39°29'01", long 92°00'49", in NE 1/4 NE 1/4 NW 1/4 sec.10, T.54 N., R.10 W., Monroe County, Hydrologic Unit 07110006, on left bank downstream side of bridge on State Highway 24 at Paris, about 1.0 mile upstream from Wabash Railroad Bridge, 14.0 mi upstream from Elk Fork Salt River, and at mile 106 above mouth of Salt River.

DRAINAGE AREA.--356 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 630.00 ft above sea level. Prior to Jan. 22, 1940, nonrecording gage at present site; Jan. 22, 1940 to July 22, 1958, a water-stage recorder 1.4 mi downstream; July 22, 1958 to July 22, 1968, 1.5 mi downstream; July 22, 1968 to Apr. 20, 1973, 1.5 mi downstream at datum 8.29 ft lower.

REMARKS.--No estimated daily discharges. Water-discharge records good except those below 10 ft^3/s, which are fair. City of Paris water intakes are in the same pool as gage. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	11	77	3.5	21	1860	60	65	62	11	4.9	4.6
2	18	8.6	52	6.4	86	629	53	71	44	9.5	4.5	3.5
3	12	7.1	92	8.2	180	320	47	100	37	8.5	4.3	2.7
4	9.7	6.6	57	11	274	200	46	79	31	7.4	4.3	2.2
5	8.7	6.3	34	11	302	149	58	155	26	6.7	4.5	1.2
6	6.6	11	28	9.9	398	120	191	105	24	7.1	4.7	.94
7	4.7	14	36	8.3	252	99	372	67	23	5.7	4.9	1.4
8	3.3	7.6	29	11	138	92	226	58	24	5.7	4.7	1.7
9	3.5	5.6	20	12	90	154	120	50	21	6.0	4.5	1.1
10	2.6	4.5	16	7.7	66	858	87	45	20	6.4	4.4	.65
11	1.6	4.3	15	6.2	50	696	2130	44	20	5.0	4.3	.55
12	3.5	5.6	13	4.4	37	236	5580	38	19	4.6	4.1	.55
13	5.1	6.6	12	3.5	25	143	7560	34	19	5.4	4.2	.55
14	5.1	6.3	11	2.8	23	124	4560	33	20	5.3	9.8	.55
15	3.8	5.6	12	3.2	21	104	1050	32	19	4.9	8.3	.55
16	3.3	7.2	12	3.3	26	87	268	29	31	4.1	6.8	.57
17	2.5	26	12	3.3	38	76	213	30	28	4.2	9.5	6.0
18	1.1	51	9.2	2.9	88	72	217	29	26	4.2	8.3	7.0
19	.41	38	5.8	2.3	203	75	144	34	40	5.9	14	8.9
20	.20	25	6.1	4.9	486	75	138	31	30	5.1	17	7.5
21	.83	34	7.9	8.7	4600	72	1090	29	21	4.5	19	6.4
22	9.1	31	6.6	15	5430	68	1510	26	20	3.8	21	4.7
23	24	27	6.5	21	6280	60	916	32	17	3.4	24	6.2
24	29	23	5.1	59	3160	54	774	31	240	3.0	19	8.3
25	16	18	4.9	114	392	166	383	34	143	3.1	13	7.7
26	44	14	4.7	67	1070	874	175	496	62	3.1	12	7.1
27	39	12	4.4	46	2820	341	124	215	35	3.1	11	6.1
28	28	11	4.2	31	2450	154	104	474	22	3.3	10	4.6
29	22	16	3.8	40	---	112	85	194	17	3.6	8.6	3.3
30	16	40	3.7	28	---	91	73	210	14	4.0	6.6	2.4
31	12	---	3.7	16	---	91	---	102	---	4.7	5.5	---
MEAN	11.8	16.1	19.5	18.4	1036	266	945	95.9	38.5	5.24	9.09	3.65
MAX	44	51	92	114	6280	1860	7560	496	240	11	24	8.9
MIN	.20	4.3	3.7	2.3	21	54	46	26	14	3.0	4.1	.55
IN.	.04	.05	.06	.06	3.03	.86	2.96	.31	.12	.02	.03	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

MEAN	162	178	169	165	283	426	479	416	304	266	105	141
MAX	1815	2083	1255	829	1634	1837	3164	2071	1747	2100	1195	1496
(WY)	1987	1986	1983	1946	1985	1973	1973	1995	1947	1981	1958	1993
MIN	.000	.000	.37	1.08	2.61	3.26	13.3	12.6	2.31	.37	1.13	.18
(WY)	1957	1954	1954	1954	1989	1956	1989	1941	1988	1954	1953	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL MEAN	241		198		257	
HIGHEST ANNUAL MEAN					743	1973
LOWEST ANNUAL MEAN					53.1	1956
HIGHEST DAILY MEAN	13400	May 8	7560	Apr 13	24800	Apr 22 1973
LOWEST DAILY MEAN	.20	Oct 20	.20	Oct 20	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	1.7	Oct 15	.57	Sep 10	.00	Many Years
INSTANTANEOUS PEAK FLOW	---		8000	Apr 13	45000	Apr 21 1973
INSTANTANEOUS PEAK STAGE	---		14.63	Apr 13	33.50[a]	Apr 21 1973
INSTANTANEOUS LOW FLOW	---		.20	Oct 20	.00	Many Years
ANNUAL RUNOFF (INCHES)	9.22		7.56		9.82	
10 PERCENT EXCEEDS	312		230		570	
50 PERCENT EXCEEDS	28		19		31	
90 PERCENT EXCEEDS	6.2		3.4		1.9	

[a]Former site and datum.

05506500 MIDDLE FORK SALT RIVER AT PARIS, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT: August 1980 to current year.

REMARKS.--Sediment records fair except for estimated periods Dec. 19 to Feb. 26, Feb. 28 to Mar. 10, and Mar. 12 to Apr. 4, which are poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,320 mg/L, Feb. 3, 1995; minimum daily mean, 2 mg/L, Oct. 23, 1989 and Aug. 1, 1991.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 40,200 tons, Mar. 5, 1985; minimum daily, 0.00 tons, many years.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 116 mg/L, Feb. 27 (may have been higher during period of estimated record, Feb. 21-23); minimum daily mean, 26 mg/L, Nov. 27.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 38,500 tons, Feb. 23; minimum daily, 0.03 ton, Oct. 20.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	29	122	7.6	11	73	2.2	77	60	13
2	18	119	5.7	8.6	81	1.9	52	50	7.1
3	12	116	3.9	7.1	74	1.4	92	59	15
4	9.7	111	2.9	6.6	73	1.3	57	58	8.8
5	8.7	103	2.5	6.3	72	1.2	34	70	6.5
6	6.6	100	1.8	11	83	2.7	28	64	4.8
7	4.7	99	1.2	14	93	3.4	36	41	4.0
8	3.3	90	.81	7.6	72	1.5	29	37	2.9
9	3.5	74	.70	5.6	70	1.1	20	42	2.2
10	2.6	69	.49	4.5	70	.85	16	40	1.7
11	1.6	63	.28	4.3	55	.64	15	42	1.7
12	3.5	52	.49	5.6	52	.79	13	43	1.5
13	5.1	48	.67	6.6	49	.87	12	36	1.2
14	5.1	50	.69	6.3	59	1.0	11	42	1.3
15	3.8	50	.50	5.6	66	.99	12	58	2.0
16	3.3	44	.39	7.2	72	1.5	12	56	1.9
17	2.5	42	.29	26	68	4.9	12	52	1.7
18	1.1	43	.13	51	62	8.7	9.2	50	1.2
19	.41	46	.08	38	50	5.2	5.8	---	.77
20	.20	50	.03	25	54	3.7	6.1	---	.80
21	.83	47	.09	34	56	5.2	7.9	---	1.0
22	9.1	60	1.6	31	51	4.2	6.6	---	.85
23	24	75	5.1	27	46	3.4	6.5	---	.83
24	29	74	5.6	23	42	2.6	5.1	---	.64
25	16	66	2.8	18	44	2.1	4.9	---	.70
26	44	78	10	14	31	1.2	4.7	---	.69
27	39	75	7.8	12	26	.87	4.4	---	.69
28	28	88	6.7	11	53	1.6	4.2	---	.69
29	22	86	5.2	16	59	2.5	3.8	---	.68
30	16	76	3.3	40	52	5.7	3.7	---	.68
31	12	77	2.5	---	---	---	3.7	---	.57

05506500 MIDDLE FORK SALT RIVER AT PARIS, MO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	3.5	---	.42	21	---	4.2	1860	---	3550
2	6.4	---	.78	86	---	27	629	---	949
3	8.2	---	.98	180	---	62	320	---	370
4	11	---	1.2	274	---	171	200	---	177
5	11	---	1.3	302	---	189	149	---	102
6	9.9	---	1.2	398	---	400	120	---	71
7	8.3	---	.97	252	---	152	99	---	51
8	11	---	1.2	138	---	48	92	---	42
9	12	---	1.3	90	---	26	154	---	97
10	7.7	---	.86	66	---	17	858	---	1750
11	6.2	---	.71	50	---	11	696	---	1090
12	4.4	---	.50	37	---	7.6	236	364	237
13	3.5	---	.39	25	---	4.6	143	---	112
14	2.8	---	.31	23	---	3.7	124	---	82
15	3.2	---	.36	21	---	3.1	104	---	59
16	3.3	---	.37	26	---	3.8	87	---	42
17	3.3	---	.37	38	---	6.4	76	---	31
18	2.9	---	.31	88	---	20	72	---	27
19	2.3	---	.25	203	---	94	75	---	26
20	4.9	---	.54	486	---	1050	75	---	23
21	8.7	---	.99	4600	---	34100	72	---	21
22	15	---	2.0	5430	---	35600	68	---	18
23	21	---	3.7	6280	---	38500	60	---	15
24	59	---	34	3160	---	9960	54	---	12
25	114	---	44	392	---	351	166	---	110
26	67	---	18	1070	---	4420	874	---	1130
27	46	---	10	2820	1160	8900	341	---	189
28	31	---	6.1	2450	---	5400	154	---	53
29	40	---	9.3	---	---	---	112	---	33
30	28	---	6.0	---	---	---	91	---	24
31	16	---	3.0	---	---	---	91	---	18
		APRIL			MAY			JUNE	
1	60	---	13	65	54	9.5	62	95	16
2	53	---	9.9	71	52	9.9	44	108	13
3	47	---	7.8	100	46	13	37	94	9.3
4	46	---	6.6	79	42	8.8	31	79	6.7
5	58	65	10	155	47	20	26	72	5.1
6	191	99	62	105	42	12	24	79	5.1
7	372	141	142	67	45	8.1	23	68	4.2
8	226	132	80	58	48	7.4	24	70	4.5
9	120	120	39	50	38	5.2	21	61	3.5
10	87	107	25	45	39	4.7	20	57	3.0
11	2130	1130	9470	44	40	4.4	20	61	3.2
12	5580	758	11100	38	46	4.7	19	48	2.5
13	7560	399	8130	34	48	4.5	19	59	3.1
14	4560	284	3610	33	40	3.6	20	60	3.2
15	1050	214	619	32	43	3.6	19	63	3.2
16	268	138	102	29	44	3.5	31	67	5.6
17	213	96	56	30	39	3.1	28	49	3.7
18	217	95	56	29	43	3.4	26	58	4.1
19	144	75	29	34	57	5.4	40	70	7.6
20	138	73	30	31	58	4.9	30	101	8.3
21	1090	611	2040	29	51	4.0	21	87	5.0
22	1510	541	2230	26	45	3.1	20	80	4.3
23	916	299	787	32	40	3.4	17	72	3.2
24	774	281	590	31	48	4.0	240	566	470
25	383	168	181	34	52	5.5	143	453	181
26	175	124	59	496	575	872	62	289	49
27	124	102	34	215	204	137	35	214	20
28	104	80	23	474	314	441	22	193	11
29	85	76	17	194	127	67	17	125	5.7
30	73	70	14	210	91	53	14	121	4.5
31	---	---	---	102	77	21	---	---	---

05506500 MIDDLE FORK SALT RIVER AT PARIS, MO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	11	119	3.7	4.9	60	.79	4.6	71	.89
2	9.5	113	2.9	4.5	57	.76	3.5	63	.59
3	8.5	98	2.2	4.3	61	.81	2.7	61	.44
4	7.4	98	2.0	4.3	50	.66	2.2	69	.40
5	6.7	83	1.5	4.5	63	.84	1.2	62	.21
6	7.1	58	1.1	4.7	76	1.0	.94	47	.12
7	5.7	42	.64	4.9	68	.90	1.4	49	.19
8	5.7	50	.76	4.7	60	.80	1.7	58	.26
9	6.0	42	.68	4.5	59	.78	1.1	62	.18
10	6.4	44	.77	4.4	64	.85	.65	69	.12
11	5.0	45	.61	4.3	62	.82	.55	76	.11
12	4.6	41	.52	4.1	66	.71	.55	62	.09
13	5.4	52	.75	4.2	67	.77	.55	55	.08
14	5.3	49	.69	9.8	63	1.7	.55	55	.08
15	4.9	59	.78	8.3	60	1.2	.55	48	.07
16	4.1	59	.66	6.8	71	1.3	.57	44	.07
17	4.2	66	.75	9.5	69	1.8	6.0	42	.68
18	4.2	66	.76	8.3	58	1.3	7.0	55	1.0
19	5.9	67	1.1	14	56	2.2	8.9	50	1.2
20	5.1	62	.86	17	75	3.5	7.5	45	.92
21	4.5	58	.76	19	78	3.9	6.4	59	1.0
22	3.8	65	.84	21	56	3.1	4.7	61	.76
23	3.4	83	.58	24	56	3.6	6.2	63	1.1
24	3.0	69	.54	19	49	2.5	8.3	58	1.3
25	3.1	65	.55	13	46	1.7	7.7	62	1.3
26	3.1	55	.46	12	49	1.5	7.1	65	1.2
27	3.1	54	.45	11	41	1.3	6.1	59	.96
28	3.3	65	.58	10	51	1.4	4.6	68	.84
29	3.6	80	.78	8.6	56	1.3	3.3	76	.67
30	4.0	62	.68	6.6	53	.95	2.4	73	.52
31	4.7	73	.93	5.5	64	.94	---	---	---

05506800 ELK FORK SALT RIVER NEAR MADISON, MO

LOCATION.--Lat 39°26'05", long 92°10'04", in SE 1/4 NE 1/4 SW 1/4 sec.29, T.54 N., R.11 W., Monroe County, Hydrologic Unit 07110006, on downstream side of highway, 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^2.

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

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

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

REMARKS.--No estimated daily discharges. Records good. Several observations of water temperature were made during the year. 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 31,200 ft^3/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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	2.5	27	2.0	18	556	17	28	103	20	2.6	2.4
2	.38	2.6	32	2.6	119	356	15	33	57	15	2.6	2.6
3	.30	3.0	21	2.9	304	179	13	63	37	8.9	2.6	2.8
4	.26	2.9	15	2.9	389	115	13	80	28	7.4	2.4	2.7
5	.24	4.6	11	2.7	248	80	24	50	19	6.1	2.5	3.0
6	.20	6.4	8.7	2.1	105	59	62	35	15	6.2	2.7	2.7
7	.26	7.0	6.7	1.7	51	47	73	26	11	5.6	3.1	2.6
8	.34	2.7	4.9	1.3	35	39	39	28	12	6.0	2.7	2.7
9	.73	1.5	3.5	1.7	28	264	24	34	8.2	5.9	2.5	2.4
10	1.1	2.1	3.0	2.1	23	641	22	42	7.1	4.9	2.5	2.4
11	2.2	1.6	2.5	1.7	20	179	2850	29	6.9	4.9	2.7	2.3
12	1.4	.92	2.1	1.2	18	100	5270	21	5.8	4.9	3.8	2.4
13	2.4	.81	2.1	.91	16	68	581	19	27	4.8	3.8	2.6
14	1.9	.54	1.8	.76	15	52	228	17	148	4.7	10	2.5
15	1.7	.41	2.7	.97	15	38	145	14	123	3.9	7.1	2.6
16	1.7	.44	4.0	1.3	17	29	119	13	60	3.9	4.8	3.1
17	2.2	21	6.9	1.3	18	26	104	12	56	3.7	7.7	4.5
18	3.1	102	4.0	1.3	25	26	77	9.7	38	3.5	5.8	7.4
19	2.1	39	2.5	1.3	31	26	62	168	19	3.4	12	7.6
20	1.6	18	1.8	1.4	251	23	71	221	9.9	3.9	15	4.7
21	2.2	10	1.4	3.8	9220	20	543	78	6.6	3.8	12	3.7
22	8.8	6.4	1.7	29	5870	17	284	35	1690	3.5	6.9	3.3
23	16	3.8	2.1	34	411	16	374	21	3400	3.4	4.8	4.6
24	29	2.8	2.0	51	177	14	314	15	237	3.3	4.0	7.0
25	15	2.2	1.4	32	113	93	137	278	112	3.3	3.3	13
26	6.7	2.0	1.2	19	1450	191	87	1110	136	3.1	2.7	8.7
27	2.5	1.6	.97	15	3050	90	64	726	78	3.1	2.5	5.8
28	1.4	1.6	1.1	12	548	55	54	878	45	2.9	2.7	4.7
29	.55	2.9	1.3	9.3	---	38	46	299	46	2.8	2.7	3.9
30	3.4	22	1.5	8.1	---	29	35	147	27	2.6	2.4	3.4
31	3.1	---	1.8	7.9	---	22	---	158	---	2.6	2.4	---
MEAN	3.66	9.18	5.80	8.23	807	113	392	151	219	5.23	4.69	4.14
MAX	29	102	32	51	9220	641	5270	1110	3400	20	15	13
MIN	.20	.41	.97	.76	15	14	13	9.7	5.8	2.6	2.4	2.3
IN.	.02	.05	.03	.05	4.20	.65	2.18	.87	1.22	.03	.03	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1997, BY WATER YEAR (WY)

MEAN	102	138	145	110	196	259	333	278	171	146	45.0	119
MAX	1077	1248	750	533	935	1154	1651	1554	1005	1409	256	1381
(WY)	1987	1986	1983	1974	1985	1973	1973	1995	1969	1981	1985	1993
MIN	.25	1.24	.94	.95	2.07	3.02	10.8	10.0	1.61	1.06	.82	.63
(WY)	1981	1981	1989	1977	1989	1981	1989	1992	1988	1988	1980	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1969 - 1997	
ANNUAL MEAN	81.5		138		170	
HIGHEST ANNUAL MEAN					380	1993
LOWEST ANNUAL MEAN					23.6	1976
HIGHEST DAILY MEAN	4070	May 27	9220	Feb 21	24100	Apr 21 1973
LOWEST DAILY MEAN	.20	Oct 6	.20	Oct 6	.00	Aug 4-10 1976
ANNUAL SEVEN-DAY MINIMUM	.28	Oct 2	.28	Oct 2	.00	Aug 4 1976
INSTANTANEOUS PEAK FLOW	---		12000	Feb 21	42300	Apr 21 1973
INSTANTANEOUS PEAK STAGE	---		23.47	Feb 21	33.40	Apr 21 1973
INSTANTANEOUS LOW FLOW	---		.16	Oct 7	.00	Aug 4-10 1970
ANNUAL RUNOFF (INCHES)	5.55		9.36		11.53	
10 PERCENT EXCEEDS	69		162		267	
50 PERCENT EXCEEDS	7.4		7.6		14	
90 PERCENT EXCEEDS	1.1		1.6		1.2	

05507600 LICK CREEK AT PERRY, MO

LOCATION.--Lat 39°25'53", long 91°40'34", near center of NW 1/4 SW 1/4 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^2.

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 sea level. Prior to November 1967, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 20-26, Aug. 1-10, and Aug. 25 to Sept. 1. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	2.3	47	2.4	29	187	10	7.8	78	9.8	.13	.20
2	.50	2.5	56	2.6	161	194	9.6	7.6	32	4.7	.12	.17
3	.47	2.6	36	2.8	191	72	8.7	58	20	3.2	.11	.16
4	.36	2.8	22	3.0	191	36	8.4	18	15	2.9	.10	.13
5	.23	3.1	15	2.8	113	25	13	11	12	2.7	.09	.11
6	.23	6.0	10	2.9	63	18	30	8.6	9.9	2.7	.08	.10
7	.27	79	6.7	2.5	37	15	21	7.2	8.0	5.5	.07	.10
8	.32	52	4.9	2.3	25	13	13	16	9.2	5.0	.06	.13
9	.36	20	4.1	2.4	18	402	9.7	10	7.9	3.4	.05	.10
10	.44	10	3.3	2.5	15	258	11	7.4	6.6	2.7	.04	.08
11	.42	6.7	2.9	2.0	14	65	518	6.4	5.9	2.2	.03	.08
12	.35	4.8	2.5	1.8	13	31	441	5.6	5.5	2.1	.05	.07
13	.31	3.4	2.1	1.6	13	26	111	5.1	29	1.9	.04	.07
14	.30	2.7	1.9	1.6	10	208	45	5.1	63	1.8	.04	.07
15	.31	2.3	2.0	1.8	12	64	27	4.5	18	1.6	6.8	.06
16	.31	2.3	1.9	2.0	23	26	21	4.0	32	1.5	6.1	.06
17	.33	4.9	1.9	2.1	38	19	16	3.9	23	1.1	25	.30
18	.38	15	1.7	2.1	94	17	14	3.6	10	.67	13	.19
19	.40	17	1.5	1.9	83	15	13	32	5.9	.67	63	.14
20	.40	11	1.6	1.9	270	14	43	38	4.4	.64	48	.13
21	.59	7.3	1.7	3.8	6420	13	267	15	3.6	.60	20	.11
22	2.3	4.8	1.7	467	1150	11	94	7.9	67	55	8.2	.10
23	11	3.6	2.5	116	167	8.6	37	5.8	22	4.4	3.7	.11
24	8.0	3.7	7.0	56	66	8.2	23	4.8	6.9	2.0	2.1	.12
25	4.4	11	10	56	36	254	16	573	25	1.3	1.3	.10
26	3.0	29	7.0	44	1620	95	13	1230	31	.81	.87	.10
27	1.9	15	3.0	18	1300	32	12	569	9.6	.48	.70	.09
28	1.2	7.8	2.5	15	188	20	11	514	5.8	.40	.60	.09
29	1.3	5.5	2.4	6.7	---	15	9.6	128	4.2	.30	.50	.08
30	3.3	18	2.3	5.9	---	12	8.8	166	3.9	.22	.40	.08
31	2.3	---	2.3	6.6	---	11	---	366	---	.15	.30	---
MEAN	1.50	11.9	8.63	27.1	441	70.5	62.5	124	19.1	3.95	6.50	.11
MAX	11	79	56	467	6420	402	518	1230	78	55	63	.30
MIN	.23	2.3	1.5	1.6	10	8.2	8.4	3.6	3.6	.15	.03	.06
IN.	.02	.13	.10	.30	4.42	.78	.67	1.37	.21	.04	.07	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1997, BY WATER YEAR (WY)

MEAN	12.5	93.5	85.5	42.1	107	82.7	107	132	50.3	80.7	29.6	52.7
MAX	95.9	652	442	151	441	340	541	473	221	482	143	748
(WY)	1987	1986	1983	1982	1997	1984	1994	1995	1982	1981	1982	1993
MIN	.000	.048	.047	.003	1.67	.41	2.49	1.27	.035	.031	.000	.011
(WY)	1989	1981	1980	1980	1981	1981	1981	1988	1988	1994	1994	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL MEAN	60.1		62.1		72.7	
HIGHEST ANNUAL MEAN					188	1993
LOWEST ANNUAL MEAN					15.1	1980
HIGHEST DAILY MEAN	6950	May 7	6420	Feb 21	7880	Sep 23 1993
LOWEST DAILY MEAN	.09	Aug 3	.03	Aug 11	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	.14	Jul 10	.04	Aug 8	.00	Many Years
INSTANTANEOUS PEAK FLOW	---		9670	Feb 21	11800	May 7 1996
INSTANTANEOUS PEAK STAGE	---		20.91	Feb 21	22.25	May 7 1996
INSTANTANEOUS LOW FLOW	---		.03	Aug 11-14	.00	Many Years
ANNUAL RUNOFF (INCHES)	7.87		8.11		9.50	
10 PERCENT EXCEEDS	66		74		87	
50 PERCENT EXCEEDS	3.3		5.8		3.8	
90 PERCENT EXCEEDS	.36		.13		.03	

05507700 MARK TWAIN LAKE NEAR CENTER, MO

LOCATION.--Lat 39°31'29", long 91°38'37", 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^2.

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 sea level.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,360,000 ac-ft, May 28-30, 1995, elevation, 636.22 ft, May 29; minimum, 386,000 ac-ft, Oct. 10, 1984, elevation, 596.60 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 937,000 ac-ft, Mar. 2, elevation, 622.82 ft; minimum, 419,000 ac-ft, Sept. 29, 30, elevation, 598.59 ft, Sept. 30.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 08:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	605.92	601.83	601.24	600.61	600.51	622.66	605.87	611.64	609.31	608.55	601.76	600.23
2	605.85	601.69	600.94	600.63	600.61	622.82	605.52	611.15	609.38	608.19	601.76	600.22
3	605.83	601.57	600.99	600.63	600.88	622.42	605.26	610.91	609.45	607.79	601.70	599.92
4	605.81	601.56	601.00	600.66	601.19	621.91	605.01	610.69	609.46	607.46	601.66	599.89
5	605.81	601.57	601.11	600.70	601.70	621.33	604.94	610.48	609.51	607.09	601.58	599.88
6	605.82	601.57	601.09	600.67	602.02	620.74	605.04	610.31	609.54	607.07	601.57	599.88
7	605.81	601.65	601.13	600.63	602.31	620.09	604.57	609.91	609.43	606.97	601.55	599.69
8	605.83	601.64	601.16	600.59	602.37	619.43	604.25	609.62	609.48	606.67	601.53	599.55
9	605.81	601.67	601.14	600.62	602.46	618.81	603.97	609.15	609.49	606.45	601.52	599.23
10	605.72	601.68	601.11	600.58	602.53	618.65	603.91	608.97	609.50	606.24	601.51	599.13
11	605.71	601.57	601.19	600.35	602.57	618.43	604.11	608.78	609.44	606.13	601.49	599.12
12	605.71	601.52	601.17	600.27	602.33	617.87	607.37	608.58	609.43	606.13	601.53	599.10
13	605.71	601.51	601.16	600.27	602.13	617.19	610.36	608.37	609.33	606.04	601.54	599.09
14	605.63	601.49	601.17	600.26	602.18	616.59	612.45	608.15	609.16	605.72	601.33	599.09
15	605.28	601.40	601.24	600.29	602.20	615.79	613.54	607.83	609.13	605.48	601.39	599.08
16	605.08	601.40	601.19	600.26	602.25	614.99	613.58	607.44	609.26	605.15	601.11	599.05
17	604.91	601.55	601.10	600.07	602.29	614.20	613.31	607.31	609.07	604.74	600.90	598.88
18	604.82	601.37	601.07	600.07	602.33	613.35	613.03	606.88	608.97	604.55	600.91	598.80
19	604.63	601.34	600.99	600.03	602.47	612.51	612.77	606.88	608.69	604.26	600.97	598.82
20	604.60	601.12	600.89	600.03	602.69	611.63	612.45	607.04	608.41	604.27	601.10	598.70
21	604.57	601.09	600.85	600.03	607.15	610.70	612.48	607.17	608.18	604.28	601.11	598.69
22	604.27	601.11	600.85	600.15	613.55	609.81	612.86	607.23	608.22	603.95	601.11	598.68
23	603.99	601.12	600.85	600.42	616.68	608.99	613.30	607.19	608.67	603.58	601.10	598.67
24	603.47	601.12	600.93	600.51	618.21	608.27	613.43	607.15	609.41	603.13	601.12	598.70
25	603.19	601.08	600.87	600.56	618.63	607.75	613.53	607.18	609.38	602.73	600.94	598.72
26	603.09	601.11	600.88	600.49	618.65	607.42	613.42	607.58	609.29	602.35	600.66	598.62
27	603.13	601.11	600.60	600.58	620.62	607.26	613.36	608.04	609.14	602.07	600.56	598.61
28	603.07	601.12	600.62	600.58	621.97	606.90	613.15	608.81	608.87	602.07	600.56	598.62
29	602.87	601.12	600.62	600.52	---	606.64	612.64	609.04	608.91	601.78	600.40	598.61
30	602.55	601.16	600.62	600.46	---	606.38	612.07	608.95	608.94	601.78	600.25	598.59
31	602.25	---	600.60	600.48	---	606.09	---	609.06	---	601.77	600.24	---
MEAN	604.73	601.39	600.98	600.42	606.27	614.44	609.72	608.63	609.15	604.98	601.18	599.13
MAX	605.92	601.83	601.24	600.70	621.97	622.82	613.58	611.64	609.54	608.55	601.76	600.23
MIN	602.25	601.08	600.60	600.03	600.51	606.09	603.91	606.88	608.18	601.77	600.24	598.59

05507700 MARK TWAIN LAKE NEAR CENTER, MO--Continued

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 08:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	544000	471000	461000	450000	448000	932000	542000	658000	609000	594000	470000	443000
2	542000	468000	456000	450000	450000	937000	536000	648000	611000	587000	470000	443000
3	542000	466000	456000	450000	454000	925000	531000	642000	612000	579000	469000	438000
4	541000	466000	457000	451000	460000	910000	527000	638000	612000	572000	468000	438000
5	541000	466000	458000	451000	469000	894000	525000	634000	613000	566000	466000	438000
6	541000	466000	458000	451000	474000	876000	527000	630000	614000	565000	466000	438000
7	541000	468000	459000	450000	479000	858000	519000	622000	612000	563000	466000	435000
8	542000	468000	459000	450000	480000	842000	513000	616000	613000	557000	466000	433000
9	541000	468000	459000	450000	482000	827000	507000	606000	613000	553000	465000	428000
10	539000	468000	458000	449000	483000	823000	506000	603000	613000	549000	465000	427000
11	539000	466000	460000	445000	483000	818000	510000	599000	612000	547000	465000	427000
12	539000	465000	459000	444000	479000	805000	571000	594000	612000	547000	466000	426000
13	539000	465000	459000	444000	476000	789000	631000	590000	610000	546000	466000	426000
14	538000	465000	459000	444000	477000	775000	677000	586000	606000	539000	462000	426000
15	532000	463000	461000	444000	477000	756000	703000	580000	606000	535000	463000	426000
16	528000	463000	460000	444000	478000	737000	704000	572000	608000	529000	458000	426000
17	525000	466000	458000	441000	479000	718000	697000	570000	605000	522000	455000	423000
18	523000	463000	458000	441000	479000	698000	691000	562000	603000	518000	455000	422000
19	520000	462000	456000	440000	482000	678000	685000	562000	597000	513000	456000	422000
20	519000	459000	455000	440000	486000	658000	677000	565000	591000	513000	458000	421000
21	519000	458000	454000	440000	567000	638000	678000	567000	587000	513000	458000	421000
22	513000	458000	454000	442000	703000	620000	687000	568000	587000	507000	458000	420000
23	508000	459000	454000	447000	777000	603000	697000	567000	596000	501000	458000	420000
24	499000	459000	455000	448000	813000	588000	700000	567000	611000	493000	459000	421000
25	494000	458000	454000	449000	823000	578000	703000	567000	611000	486000	456000	421000
26	492000	458000	454000	448000	823000	572000	700000	575000	609000	480000	451000	420000
27	493000	458000	450000	449000	873000	569000	699000	584000	606000	475000	449000	419000
28	492000	459000	450000	449000	912000	562000	694000	599000	601000	475000	449000	420000
29	489000	459000	450000	448000	---	557000	682000	604000	601000	470000	446000	419000
30	483000	459000	450000	447000	---	552000	668000	602000	602000	470000	444000	419000
31	478000	---	450000	448000	---	547000	---	605000	---	470000	444000	---
MEAN	522000	463000	456000	447000	563000	730000	623000	596000	606000	527000	460000	427000
MAX	544000	471000	461000	451000	912000	937000	704000	658000	614000	594000	470000	443000
MIN	478000	458000	450000	440000	448000	547000	506000	562000	587000	470000	444000	419000

05507800 SALT RIVER NEAR CENTER, MO

LOCATION.--Lat 39°34'26", long 91°34'15", near SE corner 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^2, 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 sea level. Prior to October 1979 nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 1, 2, and Feb. 5. Records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2450	1390	1130	57	50	3340	3190	5450	85	4200	56	52
2	300	1060	1750	52	38	5580	2240	4310	83	3610	46	1900
3	64	74	89	49	37	8220	2810	2540	75	3350	78	198
4	59	56	61	44	55	8280	1700	3450	71	2900	338	59
5	54	52	54	40	412	8840	1180	2760	64	810	89	54
6	50	48	53	38	49	8630	1900	2550	773	1130	79	797
7	48	57	48	59	757	8370	3100	4880	91	2570	76	1030
8	46	553	46	72	41	8550	3160	4070	65	2380	71	1750
9	284	64	222	66	32	8760	1550	3740	49	1910	63	1350
10	226	59	69	2120	29	8650	500	1620	196	1240	57	120
11	63	1080	59	684	1030	8650	508	1280	649	105	54	62
12	57	67	55	71	2400	8700	316	1880	56	661	55	49
13	55	58	50	56	565	8020	1720	1960	2580	2280	1230	43
14	2330	540	46	45	27	8650	2930	2050	577	2440	254	39
15	2250	113	44	82	24	9070	1680	3530	742	1650	1570	34
16	1530	52	470	321	21	9090	4430	3230	1460	4000	2430	1720
17	1120	703	509	1210	21	9230	3970	2580	2210	1780	337	563
18	1270	734	252	435	32	9490	4100	1890	2550	2140	77	58
19	440	1650	779	76	28	9370	3750	188	2650	358	77	615
20	57	874	317	39	47	9610	4450	2760	3480	77	71	58
21	2020	160	59	34	3590	9630	4170	1390	288	2720	68	42
22	3860	56	55	40	2200	8390	2970	675	1550	3300	62	35
23	3610	55	52	473	1660	7250	483	574	3660	3380	57	32
24	3030	71	49	605	1890	6870	2420	54	2450	3460	628	30
25	200	85	44	1310	1320	6180	1960	55	1350	3330	1620	62
26	286	74	1690	116	2540	4520	2050	949	2590	1890	1200	272
27	63	68	94	293	2000	4780	2030	57	4380	451	364	48
28	2170	61	55	783	1890	3900	4590	3860	455	2070	959	36
29	2540	108	52	726	---	2770	5710	4470	64	138	1370	32
30	1820	90	49	124	---	2090	5940	1760	2560	72	65	64
31	3740	---	64	45	---	2640	---	95	---	64	58	---
MEAN	1164	337	270	328	814	7294	2717	2279	1262	1951	437	373
MAX	3860	1650	1750	2120	3590	9630	5940	5450	4380	4200	2430	1900
MIN	46	48	44	34	21	2090	316	54	49	64	46	30
IN.	.57	.16	.13	.16	.36	3.58	1.29	1.12	.60	.96	.21	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1997, BY WATER YEAR (WY)

MEAN	1151	1458	2055	1076	1582	2813	2355	2591	2877	2521	1270	1134
MAX	9085	6038	10360	3703	8098	10530	10310	6741	10560	10810	7895	7902
(WY)	1994	1987	1983	1986	1982	1985	1983	1981	1995	1981	1993	1993
MIN	4.62	14.8	31.4	30.5	81.6	87.0	126	67.5	126	75.2	13.9	25.3
(WY)	1980	1981	1980	1980	1989	1989	1989	1989	1988	1983	1980	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL MEAN	1441		1613		1909	
HIGHEST ANNUAL MEAN					3462	1993
LOWEST ANNUAL MEAN					283	1989
HIGHEST DAILY MEAN	9570	Jun 26	9630	Mar 21	65600	Jul 29 1981
LOWEST DAILY MEAN	32	Jan 17	21	Feb 16,17	.44	Oct 14 1979
ANNUAL SEVEN-DAY MINIMUM	37	Jan 11	29	Feb 14	.65	Oct 11 1979
INSTANTANEOUS PEAK FLOW	---		10400	Mar 17	72800	Jul 29 1981
INSTANTANEOUS PEAK STAGE	---		13.82	Mar 17	32.62	Jul 29 1981
INSTANTANEOUS LOW FLOW	---		11	Apr 23	.44	Oct 14 1979
ANNUAL RUNOFF (INCHES)	8.35		9.32		11.04	
10 PERCENT EXCEEDS	4270		4240		5550	
50 PERCENT EXCEEDS	227		565		413	
90 PERCENT EXCEEDS	41		48		40	

05508000 SALT RIVER NEAR NEW LONDON, MO

LOCATION.--Lat 39°36'44", long 91°24'30", in NE 1/4 NW 1/4 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^2, approximately.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 477.03 ft above sea level. 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.--Estimated daily discharges: Jan. 17 to Feb. 12. Water-discharge records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. 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^2, is natural drainage not regulated.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 107,000 ft^3/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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3270	3360	94	77	58	3340	3050	5580	138	4090	81	99
2	399	1160	2320	72	64	5380	2900	4960	123	3410	71	772
3	92	898	687	67	49	8200	3290	3480	116	3250	73	1320
4	79	101	94	63	49	8250	2140	3400	106	2590	92	106
5	71	74	77	58	74	8550	1520	3280	93	2370	347	79
6	64	67	68	53	494	8900	1580	2570	491	117	103	72
7	60	76	62	51	56	8380	3330	4640	403	1720	94	939
8	58	87	58	72	838	8550	3520	4000	111	2730	89	1200
9	53	578	55	87	45	8990	2160	4270	95	2110	83	2380
10	445	90	222	1930	40	8870	1050	1590	87	1680	75	618
11	104	186	79	2290	200	8760	1150	1620	704	659	68	99
12	71	983	66	727	3500	8790	1300	2150	290	104	73	78
13	64	95	61	183	1730	8210	1810	2110	1590	1310	240	71
14	950	72	58	111	127	8580	2490	2320	1320	3090	1250	67
15	2560	539	56	96	81	9130	1400	3520	1110	1280	283	62
16	1810	144	52	123	76	9110	4560	4020	292	3990	2660	554
17	1590	75	902	420	70	9250	4380	1780	2190	3220	1510	1450
18	977	929	104	1460	74	9440	4390	2800	2360	1150	131	469
19	1270	600	936	560	89	9420	4220	1120	2840	1790	116	212
20	129	1780	2600	100	162	9570	4420	1800	3670	133	113	526
21	691	570	883	75	9070	9620	5280	2260	1340	1080	92	82
22	3050	92	234	70	3410	8830	4050	942	429	3450	82	68
23	4040	68	133	75	2840	7420	948	930	3360	3380	76	65
24	3530	70	77	583	2110	7020	2050	131	3110	3620	68	61
25	2820	83	63	728	1010	6380	2330	115	772	3500	855	54
26	1150	88	1790	1570	3750	4980	2240	536	2480	1960	2250	258
27	135	83	899	136	3200	4950	2340	798	4230	1900	768	117
28	537	78	92	364	2530	4420	3890	2620	1810	1120	188	69
29	2130	75	74	986	---	3220	5760	4670	100	1230	1700	63
30	2900	134	66	644	---	2530	6010	3510	728	118	659	60
31	2220	---	66	124	---	3170	---	501	---	95	95	---
MEAN	1204	441	420	450	1278	7426	2985	2517	1216	2008	464	402
MAX	4040	3360	2600	2290	9070	9620	6010	5580	4230	4090	2660	2380
MIN	53	67	52	51	40	2530	948	115	87	95	68	54
IN.	.56	.20	.20	.21	.54	3.45	1.34	1.17	.55	.93	.22	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1997, BY WATER YEAR (WY)

MEAN	1180	1603	2196	1162	1712	2976	2524	2734	2967	2651	1348	1189
MAX	9165	6406	11100	4001	8787	10810	10660	6651	10950	11900	7961	8300
(WY)	1994	1986	1983	1985	1982	1985	1983	1981	1995	1981	1993	1993
MIN	16.9	18.4	48.6	37.1	84.9	90.2	150	93.4	128	88.4	42.8	28.5
(WY)	1980	1981	1980	1981	1989	1989	1989	1989	1988	1983	1983	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL MEAN	1535		1743		2022	
HIGHEST ANNUAL MEAN					3577	1993
LOWEST ANNUAL MEAN					307	1989
HIGHEST DAILY MEAN	9330	Jun 26	9620	Mar 21	62100	Jul 30 1981
LOWEST DAILY MEAN	49	Jan 7	40	Feb 10	9.5	Nov 21-26 1980
ANNUAL SEVEN-DAY MINIMUM	50	Jan 2	62	Jan 2	9.6	Nov 20 1980
INSTANTANEOUS PEAK FLOW	---		14500	Feb 21	74200	Jul 29 1981
INSTANTANEOUS PEAK STAGE	---		14.36	Feb 21	31.09	Jul 29 1981
INSTANTANEOUS LOW FLOW	---		40[a]	Feb 10	9.5	Nov 21-26 1980
ANNUAL RUNOFF (INCHES)	8.43		9.54		11.08	
10 PERCENT EXCEEDS	4710		4420		5810	
50 PERCENT EXCEEDS	287		772		499	
90 PERCENT EXCEEDS	63		68		52	

aEstimated, may have been less during period of estimated daily discharges.

05508000 SALT RIVER NEAR NEW LONDON, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1967 to July 1975, July 1977 to current year.

REMARKS.--Discontinued as National stream-quality accounting network station September 1986. Discontinued as daily sediment station September 1989. October 1989 to September 1990, partial water-quality data site. October 1989 to present, partial sediment data site.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1979 to September 1981.
WATER TEMPERATURE: March 1979 to September 1981.
SUSPENDED-SEDIMENT: July 1980 to September 1989.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 733 microsiemens per centimeter, Jan. 12, 1981; minimum daily, 86 microsiemens per centimeter, Dec. 3, 1979.
WATER TEMPERATURE: Maximum daily, 36.0°C, July 18, 19, 21, and Aug. 23, 24, 1980; minimum daily, 0.0°C, Mar. 1, 1980.

DATE	TIME	WATER TEMPER-ATURE	DIS-CHARGE INST. CUBIC FEET PER SECOND	SEDI-MENT SUS-PENDED, (mg/L)	INST. SEDI-MENT LOAD (TONS)
Oct. 7	1645	10.0°	58	43	6.73
Feb. 28	1130	3.0°	1240	74	248
Mar. 13	1300	4.0°	7540	87	1770
Apr. 11	1210	4.0°	275	92	68.3
June 2	1605	18.0°	119	64	20.6
July 7	1615	26.0°	435	41	48.2
Aug. 29	1215	24.0°	409	36	39.8

05508805 SPENCER CREEK BELOW PLUM CREEK NEAR FRANKFORD, MO

LOCATION.--Lat 39°31'13", long 91°20'32", in NW 1/4 NW 1/4 NW 1/4 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^2.

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 sea level. 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.--Estimated daily discharges: Nov. 26, 27, and Sept. 26-30. Records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	18	43	9.3	33	377	50	47	147	21	.93	3.5
2	4.4	17	51	10	190	406	46	44	82	15	.85	2.3
3	3.7	20	42	9.6	465	250	43	81	66	11	.84	1.7
4	3.3	22	30	9.2	252	252	40	77	55	8.4	.76	1.1
5	3.8	23	25	8.2	207	207	56	54	44	7.8	.57	.87
6	5.3	28	21	7.3	115	114	94	43	39	7.6	.60	.82
7	5.5	151	18	6.5	77	102	67	39	36	7.6	.56	1.1
8	5.7	81	16	7.1	54	88	49	46	34	7.3	.40	.76
9	7.9	33	14	7.8	42	723	41	47	32	6.0	.27	.70
10	9.5	20	13	7.0	37	559	43	36	30	5.4	.20	.65
11	11	16	12	5.8	32	224	827	33	28	4.9	.22	.55
12	10	14	11	4.8	30	147	697	29	37	4.7	1.6	.50
13	9.4	14	9.9	4.1	25	147	239	28	51	4.7	4.6	.42
14	9.0	14	9.4	4.2	24	487	144	26	217	4.2	1.3	.36
15	8.6	14	9.4	5.0	25	216	112	24	71	3.5	7.6	.38
16	8.4	13	9.1	5.3	31	134	97	23	52	3.2	8.6	.43
17	8.2	16	8.6	4.4	45	114	85	22	63	2.9	142	1.5
18	9.0	18	7.8	4.2	88	99	76	22	38	2.5	141	1.3
19	10	18	6.6	4.8	134	88	84	35	27	2.1	78	.85
20	11	17	5.8	6.4	127	83	137	54	23	1.9	180	.90
21	12	16	6.0	10	8580	78	1050	33	19	1.7	66	1.1
22	17	14	6.8	824	1840	64	264	26	76	8.9	25	1.2
23	40	13	9.0	249	374	57	153	23	52	13	14	1.0
24	29	14	33	127	198	55	117	21	25	6.3	9.7	.99
25	16	19	17	147	135	284	95	92	23	4.8	7.2	.89
26	9.7	30	12	58	2540	209	83	910	148	3.7	6.8	.90
27	7.3	27	11	48	2030	120	73	676	40	2.8	5.3	.88
28	6.2	22	10	26	459	90	66	906	56	1.9	3.6	.85
29	10	20	9.8	24	---	75	61	232	31	1.5	3.9	.80
30	14	24	9.1	20	---	63	54	153	34	1.3	4.0	.77
31	14	---	9.0	21	---	54	---	384	---	1.3	2.9	---
MEAN	10.5	25.5	16.0	54.4	650	192	168	138	55.9	5.77	23.2	1.00
MAX	40	151	51	824	8580	723	1050	910	217	21	180	3.5
MIN	3.3	13	5.8	4.1	24	54	40	21	19	1.3	.20	.36
IN.	.06	.14	.09	.30	3.28	1.08	.91	.77	.30	.03	.13	.01

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1997, BY WATER YEAR (WY)

MEAN	43.4	206	202	94.7	208	203	252	305	114	183	73.4	106
MAX	376	1310	985	274	766	738	919	942	451	1788	290	1402
(WY)	1987	1986	1983	1982	1985	1984	1994	1995	1982	1981	1995	1993
MIN	.22	.48	1.67	2.58	3.40	9.23	26.6	15.1	2.23	.84	.96	.32
(WY)	1989	1990	1990	1980	1980	1981	1986	1988	1988	1988	1994	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1980 - 1997	
ANNUAL MEAN	143		108		166	
HIGHEST ANNUAL MEAN					355	1993
LOWEST ANNUAL MEAN					36.5	1989
HIGHEST DAILY MEAN	9280	May 7	8580	Feb 21	15600	Jul 28 1981
LOWEST DAILY MEAN	3.3	Oct 4	.20	Aug 10	.08	Aug 14 1989
ANNUAL SEVEN-DAY MINIMUM	4.2	Aug 10	.40	Aug 5	.10	Sep 7 1990
INSTANTANEOUS PEAK FLOW	---		11900	Feb 21	20300	Sep 22 1993
INSTANTANEOUS PEAK STAGE	---		15.40	Feb 21	18.54	Sep 22 1993
INSTANTANEOUS LOW FLOW	---		.10	Aug 10	.00	Many Days 1989
ANNUAL RUNOFF (INCHES)	9.44		7.10		10.92	
10 PERCENT EXCEEDS	227		184		232	
50 PERCENT EXCEEDS	20		21		24	
90 PERCENT EXCEEDS	6.3		1.3		1.1	

05514500 CUIVRE RIVER NEAR TROY, MO

LOCATION.--Lat 39°00'59", long 90°59'00", in SE 1/4 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 and West Forks Cuivre River, and 2.0 mi north of Troy.

DRAINAGE AREA.--903 mi^2.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1895 was 5 to 6 ft lower at Frenchmens Bluff, 3.0 mi downstream, than the October 1941 flood, which is the highest flood since 1888.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	21	671	90	1180	2050	177	167	1310	70	9.3	16
2	33	18	759	91	2060	1780	169	159	517	58	9.0	14
3	25	16	759	89	2230	1210	163	279	296	49	8.7	12
4	21	16	472	88	1950	836	155	294	225	42	8.1	9.6
5	17	18	302	84	1270	624	171	200	185	38	6.8	8.9
6	16	28	268	79	720	485	371	169	157	34	5.5	8.3
7	14	998	220	75	474	394	419	148	137	32	4.9	7.9
8	13	1200	177	74	366	348	262	148	125	30	4.7	7.6
9	14	473	145	77	300	2120	207	134	114	42	5.4	10
10	16	249	129	75	264	4640	192	125	105	37	6.3	9.2
11	17	163	117	68	239	1550	217	119	97	30	7.1	7.0
12	14	124	107	62	224	825	909	105	93	28	9.1	6.0
13	13	101	99	56	210	875	880	96	95	26	10	5.9
14	12	89	93	52	201	5140	495	90	228	23	11	6.0
15	11	80	88	55	187	1730	330	83	209	19	14	6.4
16	11	74	85	58	175	956	270	78	141	17	14	6.4
17	13	129	81	56	175	700	227	76	148	16	42	14
18	26	287	75	56	191	576	203	75	110	15	31	16
19	28	217	68	57	214	493	195	85	94	15	185	13
20	25	170	66	59	321	427	193	162	79	32	315	9.6
21	43	132	64	87	6950	381	2520	181	73	46	192	7.0
22	57	108	65	3020	9220	352	1540	122	68	35	116	6.1
23	106	94	184	1740	3330	314	793	97	74	52	78	9.4
24	75	96	450	905	858	283	490	83	117	52	56	11
25	55	401	262	1130	538	263	352	77	200	37	41	13
26	51	433	172	542	5420	304	286	1350	159	31	33	12
27	48	302	127	421	15500	324	242	1920	251	23	25	10
28	42	202	110	340	4090	273	219	1430	291	18	21	9.7
29	38	159	101	375	---	232	201	964	132	14	17	9.3
30	31	712	96	292	---	210	187	840	86	12	16	7.7
31	24	---	92	295	---	192	---	3110	---	10	18	---
MEAN	30.5	237	210	340	2102	996	435	418	197	31.7	42.6	9.63
MAX	106	1200	759	3020	15500	5140	2520	3110	1310	70	315	16
MIN	11	16	64	52	175	192	155	75	68	10	4.7	5.9
IN.	.04	.29	.27	.43	2.42	1.27	.54	.53	.24	.04	.05	.01

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

MEAN	411	519	526	518	829	988	1228	1062	681	555	294	475
MAX	6704	4503	5924	2465	4250	3596	6126	6311	4735	4366	1994	9098
(WY)	1942	1986	1983	1949	1962	1922	1994	1929	1970	1981	1923	1993
MIN	.10	1.30	1.11	1.63	1.80	2.51	25.8	17.1	11.0	.44	.23	.24
(WY)	1965	1954	1964	1954	1954	1954	1954	1934	1936	1934	1936	1964

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	610		409		673	
HIGHEST ANNUAL MEAN					2186	1993
LOWEST ANNUAL MEAN					27.3	1954
HIGHEST DAILY MEAN	21300	Apr 29	15500	Feb 27	76400	Oct 5 1941
LOWEST DAILY MEAN	11	Jan 8,10,Oct 15,16	4.7	Aug 8	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	12	Jan 6	5.8	Aug 5	.00	At Times
INSTANTANEOUS PEAK FLOW	---		21300	Feb 27	120000	Oct 5 1941
INSTANTANEOUS PEAK STAGE	---		24.64	Feb 27	33.40	Oct 5 1941
INSTANTANEOUS LOW FLOW	---		4.0	Aug 7,8	.00	Several Years
ANNUAL RUNOFF (INCHES)	9.20		6.15		10.12	
10 PERCENT EXCEEDS	1320		877		1230	
50 PERCENT EXCEEDS	118		101		90	
90 PERCENT EXCEEDS	18		11		5.9	

05514500 CUIVRE RIVER NEAR TROY, MO--Continued
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1983 water year 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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE, WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	HARD-NESS, TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM, DIS-SOLVED (mg/L as Ca) (00915)
NOV												
12...	1500	117	319	7.68	6.0	22	10.6	92	K247	184	130	39
JAN												
08...	0720	76	451	7.75	1.5	9.5	13.9	97	K6	62	170	55
MAR												
12...	0815	855	241	7.60	8.5	120	13.3	113	600	9600	100	32
MAY												
07...	0645	151	372	7.45	16.5	20	9.50	97	124	140	170	54
JUL												
08...	1605	30	357	7.79	27.5	8.5	7.00	89	150	52	130	43
SEP												
03...	1245	12	386	7.10	25.5	6.1	7.20	87	255	380	160	50

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SILICA, DIS-SOLVED (mg/L as SiO_2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)
NOV											
12...	6.9	8.5	8.5	132	0	161	16	15	0.2	10	184
JAN											
08...	9.0	11	4.0	157	0	191	28	18	0.2	2.8	235
MAR											
12...	5.2	12	5.4	99	0	121	18	11	0.2	12	184
MAY											
07...	8.1	10	4.2	138	0	168	27	14	0.1	2.6	214
JUL											
08...	6.4	9.0	4.8	122	0	149	15	13	0.2	8.1	195
SEP											
03...	8.2	12	5.0	151	0	184	16	15	0.2	5.3	222

K--Results based on colony count outside the acceptable range (non-ideal colony count).

05514500 CUIVRE RIVER NEAR TROY, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (mg/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L as N) (00613)	NITRO-GEN, NO_2+NO_3 DIS-SOLVED (mg/L as N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L as N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS, TOTAL (mg/L as P) (00665)	PHOS-PHORUS, DIS-SOLVED (mg/L as P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (mg/L as P) (00671)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
NOV											
12...	189	0.25	58.1	0.012	0.89	0.080	1.1	0.26	0.13	0.13	428
JAN											
08...	382	0.32	48.2	<0.010	0.55	<0.010	0.42	0.02	<0.02	<0.01	38
MAR											
12...	162	0.25	425	0.022	1.10	0.078	1.6	0.38	0.15	0.16	748
MAY											
07...	205	0.29	87.2	0.020	0.40	0.088	0.84	0.06	0.14	0.02	34.5
JUL											
08...	173	0.27	15.8	<0.010	<0.02	0.024	0.75	0.07	<0.02	0.01	19.6
SEP											
03...	202	0.30	7.19	<0.010	<0.02	0.024	0.75	0.05	<0.02	<0.01	7.1

DATE	BARIUM, DIS-SOLVED (µg/L as Ba) (01005)	COBALT, DIS-SOLVED (µg/L as Co) (01035)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LITHIUM, DIS-SOLVED (µg/L as Li) (01130)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MOLYB-DENUM, DIS-SOLVED (µg/L as Mo) (01060)	NICKEL, DIS-SOLVED (µg/L as Ni) (01065)	SELE-NIUM, DIS-SOLVED (µg/L as Se) (01145)	SILVER, DIS-SOLVED (µg/L as Ag) (01075)	STRON-TIUM, DIS-SOLVED (µg/L as Sr) (01080)	VANA-DIUM, DIS-SOLVED (µg/L as V) (01085)
NOV											
12...	86	<3	440	<4	160	<10	3	<1	<1	95	<6
JAN											
08...	93	<3	88	<4	350	<10	1	<1	<1	110	<6
MAR											
12...	190	6	450	<4	61	<10	2	<1	<1	82	<6
MAY											
07...	94	<3	50	5	250	<10	2	<1	<1	100	<6
JUL											
08...	100	<3	24	<4	230	<10	2	<1	<1	100	<6
SEP											
03...	120	<3	150	<4	550	<10	2	<1	<1	120	<6

384304090441801 BURGERMEISTER SPRING NEAR WELDON SPRING, MO

LOCATION.--Lat 38°43'04", long 90°44'18", NW 1/4 NW 1/4 sec.30, T.46 N., R.03 E., St. Charles County, Hydrologic Unit 07110009, on right bank, 70 ft downstream of spring orifice, 0.1 mi upstream of August A. Busch Wildlife Area Lake 34 and 2.5 mi west of Weldon Spring.

RECHARGE AREA.--1.0 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1986 to current year. Record from May 1986 to September 1989 published in U.S. Geological Survey Open-File Report 90-552 and record from October 1989 to September 1995 published in U.S. Geological Survey Open-File Report 95-463.

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 528 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Water-discharge records fair except for Jan. 5-11, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.07	.52	.05	.43	.47	.47	.47	.43	.37	.40	.04
2	.13	.07	.49	.06	.43	.46	.47	.50	.42	.38	.40	.03
3	.21	.08	.45	.33	.43	.42	.47	.56	.40	.39	.40	.03
4	.19	.08	.42	.30	.53	.40	.47	.50	.40	.39	.40	.03
5	.15	.07	.45	.15	.46	.39	.58	.44	.38	.38	.40	.03
6	.13	.21	.45	.10	.41	.38	.59	.43	.38	.38	.29	.03
7	.12	.70	.42	.07	.40	.38	.53	.43	.38	.39	.12	.03
8	.08	.54	.40	.05	.40	.38	.50	.44	.38	.38	.08	.03
9	.07	.46	.39	.06	.38	.40	.49	.43	.38	.38	.06	.03
10	.07	.42	.38	.06	.38	.42	.51	.43	.38	.38	.04	.03
11	.07	.39	.38	.17	.38	.40	.55	.43	.38	.42	.04	.03
12	.07	.37	.38	.26	.38	.40	.54	.43	.38	.39	.04	.03
13	.07	.36	.36	.17	.38	.44	.50	.43	.39	.38	.04	.03
14	.07	.35	.27	.13	.38	.52	.47	.43	.40	.38	.03	.03
15	.06	.29	.22	.08	.37	.46	.49	.43	.39	.38	.04	.03
16	.06	.25	.18	.06	.37	.44	.51	.41	.39	.38	.05	.03
17	.07	.22	.17	.05	.37	.43	.48	.40	.39	.38	.06	.05
18	.06	.31	.15	.05	.38	.44	.43	.49	.40	.38	.06	.13
19	.06	.29	.12	.05	.38	.47	.45	.48	.38	.39	.17	.07
20	.06	.24	.10	.04	.46	.45	.42	.43	.38	.39	.43	.06
21	.21	.19	.12	.19	.55	.45	.45	.41	.37	.39	.41	.04
22	.44	.13	.11	.65	.51	.45	.43	.40	.37	.38	.38	.04
23	.43	.10	.10	.49	.44	.43	.43	.38	.37	.38	.29	.03
24	.39	.25	.10	.49	.40	.43	.43	.38	.37	.38	.14	.04
25	.38	.56	.08	.52	.40	.44	.43	.39	.38	.38	.08	.05
26	.32	.51	.06	.43	.54	.45	.43	.49	.39	.38	.06	.05
27	.16	.45	.06	.46	.63	.45	.43	.44	.37	.39	.06	.04
28	.12	.43	.05	.51	.48	.45	.43	.43	.37	.40	.05	.04
29	.12	.44	.04	.41	---	.45	.43	.41	.37	.40	.04	.03
30	.10	.54	.04	.40	---	.47	.44	.44	.37	.40	.04	.03
31	.09	---	.05	.40	---	.47	---	.44	---	.40	.04	---
MEAN	.15	.31	.24	.23	.43	.44	.47	.44	.38	.39	.17	.040
MAX	.44	.70	.52	.65	.63	.52	.59	.56	.43	.42	.43	.13
MIN	.06	.07	.04	.04	.37	.38	.42	.38	.37	.37	.03	.03
AC-FT	9.3	19	15	14	24	27	28	27	23	24	10	2.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1997, BY WATER YEAR (WY)

MEAN	.14	.25	.30	.30	.33	.36	.39	.32	.23	.17	.12	.12
MAX	.33	.44	.48	.42	.43	.44	.58	.52	.42	.39	.25	.34
(WY)	1994	1995	1994	1994	1997	1989	1994	1995	1985	1997	1993	1993
MIN	.061	.088	.062	.055	.10	.17	.17	.12	.089	.090	.059	.040
(WY)	1993	1996	1990	1990	1996	1996	1986	1986	1991	1995	1996	1997

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1986 - 1997	
ANNUAL MEAN	.23		.31		.25	
HIGHEST ANNUAL MEAN					.33	1994
LOWEST ANNUAL MEAN					.19	1990
HIGHEST DAILY MEAN	.81	Apr 29	.70	Nov 7	.92	Apr 11 1994
LOWEST DAILY MEAN	.04	Aug 9	.03	Several Days	.03	Several Days 1997
INSTANTANEOUS PEAK FLOW	---		.83	Feb 26	.92[a]	Apr 11 1994
INSTANTANEOUS PEAK STAGE	---		2.08	Feb 26	2.44[b]	Apr 11 1994
INSTANTANEOUS LOW FLOW	---		.03	Several Days	.03	Several Days 1997
ANNUAL SEVEN-DAY MINIMUM	.04	Aug 9	.03	Sep 2	.03	Sep 2 1997
ANNUAL RUNOFF (AC-FT)	166		222		182	
10 PERCENT EXCEEDS	.48		.48		.47	
50 PERCENT EXCEEDS	.14		.38		.21	
90 PERCENT EXCEEDS	.06		.05		.06	

[a]Estimated due to backwater from tributary stream.
[b]During period of backwater.

384304090441801 BURGERMEISTER SPRING NEAR WELDON SPRING, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- July 1987 to current year. Record from July 1987 to September 1989 published in U.S. Geological Survey Open-File Report 90-552 and record from October 1989 to September 1995 published in U.S. Geological Survey Open-File Report 95-463.

REMARKS.--Records good except for period Dec. 11 to Jan. 29, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily mean 1,130 microseimens per centimeter, many days in Aug. and Sept. 1991; minimum daily mean, 70 microseimens per centimeter, Jan. 21 and 22, 1997.

EXTREMES FOR CURRENT YEAR.--Maximum daily mean, 881 microseimens per centimeter, Oct. 20; minimum daily mean, 70 microseimens per centimeter, Jan. 21 and 22.

SPECIFIC CONDUCTANCE, µS/cm @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	520	460	486	632	611	621	269	229	247	670	630	635
2	570	520	545	653	613	626	309	229	236	650	630	650
3	630	560	595	696	614	648	349	309	341	710	390	584
4	640	530	590	718	696	710	370	330	349	390	330	351
5	570	530	550	718	698	700	370	290	329	370	330	336
6	600	570	586	700	140	608	330	290	309	450	350	398
7	640	600	620	280	220	246	350	330	342	510	430	452
8	680	640	660	261	221	236	370	350	361	530	450	508
9	720	680	696	301	221	269	390	370	376	570	530	540
10	760	720	735	342	301	319	430	390	398	630	530	586
11	780	750	770	362	322	344	470	410	438	710	630	648
12	820	780	800	402	322	359	470	430	451	730	430	531
13	840	820	826	423	342	393	470	430	434	450	430	431
14	840	800	810	423	403	412	450	430	435	430	430	430
15	800	800	800	423	403	420	450	430	447	450	430	432
16	820	800	806	444	423	437	450	450	450	510	430	470
17	820	800	820	464	424	444	490	450	453	510	110	523
18	880	820	838	464	424	436	510	450	487	170	130	544
19	880	820	874	425	404	417	530	510	517	210	130	557
20	900	880	881	465	425	435	550	530	533	250	210	625
21	900	280	792	465	425	435	570	530	552	390	110	623
22	840	360	533	506	445	465	570	530	535	410	230	260
23	420	360	374	546	506	524	550	490	523	310	230	278
24	400	380	384	546	186	448	550	510	536	330	270	311
25	420	400	400	326	247	257	570	550	551	270	230	249
26	442	400	419	287	247	258	550	530	545	310	250	283
27	483	402	427	307	267	295	570	530	551	310	270	302
28	525	483	509	348	307	322	570	530	540	270	230	243
29	546	506	530	348	328	331	610	530	580	310	230	260
30	589	507	560	328	248	256	630	610	623	310	310	310
31	611	589	595	---	---	---	670	630	648	330	310	327

384304090441801 BURGERMEISTER SPRING NEAR WELDON SPRING, MO--Continued

SPECIFIC CONDUCTANCE, µS/cm @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	330	310	314	250	244	247	380	360	370	430	420	424
2	310	230	244	258	244	250	394	380	386	440	430	437
3	230	230	230	280	254	270	398	394	394	444	440	440
4	230	230	230	308	280	295	404	398	400	444	440	442
5	230	230	230	320	308	315	404	274	325	450	444	449
6	310	230	279	334	318	325	300	274	284	458	450	453
7	310	310	310	360	334	341	340	300	323	460	454	458
8	330	310	321	454	360	415	374	340	363	484	454	459
9	330	330	330	454	330	431	390	370	379	458	450	454
10	330	330	330	330	298	304	394	330	379	460	458	459
11	330	330	330	344	314	335	334	294	321	464	460	460
12	370	330	339	364	340	351	304	290	295	464	460	464
13	370	330	363	374	260	351	324	304	314	464	464	464
14	370	354	362	260	240	250	344	324	337	470	464	464
15	360	354	358	284	260	274	374	300	340	468	464	465
16	368	360	363	304	284	295	318	298	302	468	464	468
17	368	360	363	318	300	309	---	---	297	470	464	468
18	398	368	381	324	304	318	394	330	371	470	330	390
19	400	394	396	304	284	291	404	384	392	364	334	346
20	400	150	334	318	300	312	408	384	396	394	364	378
21	264	240	255	338	318	329	408	324	350	420	394	407
22	270	254	262	348	324	333	378	340	360	438	420	429
23	300	270	288	368	344	357	404	378	394	448	438	443
24	310	300	306	378	364	371	404	394	398	454	448	451
25	320	304	312	380	340	360	400	394	396	460	380	455
26	340	208	301	344	338	340	414	400	408	460	274	323
27	234	200	216	370	344	358	414	414	414	290	274	281
28	244	234	241	370	364	368	414	408	410	308	290	302
29	---	---	---	378	354	364	414	404	410	334	308	322
30	---	---	---	388	354	379	420	414	417	378	290	329
31	---	---	---	360	348	352	---	---	---	294	280	286
		JUNE			JULY			AUGUST			SEPTEMBER	
1	320	294	307	494	494	494	478	474	475	610	590	603
2	344	320	333	494	494	494	478	474	474	620	610	617
3	368	344	356	498	494	496	474	474	474	638	620	630
4	380	364	373	498	494	497	474	474	474	648	638	640
5	398	380	387	494	490	493	474	474	474	658	640	650
6	414	398	406	494	494	494	474	474	474	670	658	661
7	428	414	421	494	490	492	498	474	486	680	670	675
8	438	428	431	490	480	486	514	498	505	700	680	691
9	444	438	441	490	490	490	528	510	519	710	700	705
10	450	444	447	490	490	490	544	528	535	720	710	717
11	454	448	451	490	324	421	564	544	554	730	720	727
12	460	454	457	410	328	369	584	564	575	730	728	730
13	464	450	461	464	410	442	610	580	596	730	728	730
14	450	390	409	480	464	474	620	608	615	730	730	730
15	410	390	400	488	480	483	648	620	634	730	728	729
16	440	410	427	490	484	488	680	648	661	728	720	721
17	464	368	439	490	490	490	690	680	688	720	718	720
18	444	354	380	490	488	490	688	680	682	740	700	726
19	418	370	395	490	488	490	680	600	660	700	528	583
20	450	418	435	490	484	488	600	370	392	530	518	523
21	468	450	460	484	480	484	410	380	394	550	530	544
22	478	468	473	484	480	483	430	410	425	570	550	560
23	484	478	480	484	480	480	460	430	446	580	570	574
24	490	484	486	484	480	480	470	450	456	600	580	590
25	490	484	488	480	480	480	490	470	481	620	600	610
26	484	460	472	480	478	480	510	490	503	650	620	636
27	478	460	469	484	480	482	540	510	523	670	650	665
28	484	478	482	484	484	484	578	540	555	678	670	677
29	490	484	488	484	480	480	590	578	587	678	670	670
30	494	488	491	480	480	480	590	580	582	670	668	670
31	---	---	---	480	474	478	590	580	586	---	---	---

05587450 MISSISSIPPI RIVER AT GRAFTON, IL

LOCATION.--Lat 38°58'05", long 90°25'42", in NE 1/4 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^2, 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, Illinois" for 1927 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 sea level. Auxiliary water-stage recorder 15.3 mi downstream.

REMARKS.--Estimated daily discharges: Jan. 10 to Feb. 10. Records fair. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58800	70300	76600	77300	79500	304000	173000	258000	156000	130000	102000	81500
2	56000	75400	80200	75900	77500	296000	174000	252000	146000	127000	97500	83800
3	52900	93200	74800	78800	78000	277000	172000	243000	139000	125000	100000	79700
4	64200	85500	83900	73600	79000	262000	153000	235000	136000	124000	104000	80300
5	65600	79400	85000	68100	80000	261000	152000	230000	128000	125000	105000	76500
6	58300	73500	90600	67700	83000	256000	157000	227000	121000	121000	104000	71800
7	50100	84000	94600	72400	85000	246000	154000	225000	113000	111000	105000	71300
8	41700	79700	84600	68100	86000	230000	167000	227000	115000	106000	102000	72900
9	48700	74600	85000	63200	85000	223000	186000	228000	121000	102000	96800	73300
10	46700	80500	93700	60500	84000	224000	192000	226000	124000	107000	92200	73200
11	50700	79900	85500	60000	83100	221000	198000	226000	127000	108000	87700	71000
12	48000	83000	85000	59500	81300	216000	216000	223000	123000	103000	89400	72200
13	46000	86700	86700	59500	82000	219000	223000	222000	120000	105000	92300	68400
14	43500	79300	85800	59000	80900	225000	223000	217000	138000	102000	89000	61300
15	41900	80000	86100	59500	77900	223000	234000	208000	138000	105000	85600	60300
16	44400	71900	89400	60000	72900	219000	246000	198000	110000	102000	72500	58800
17	43100	67800	88000	60000	75200	218000	255000	185000	106000	102000	78100	61700
18	45300	59000	84600	60500	67500	216000	264000	167000	126000	102000	82900	63800
19	47900	68700	71700	61000	69800	208000	272000	166000	113000	98200	94700	63700
20	54400	80600	60600	62000	89300	194000	278000	172000	116000	98500	98000	68900
21	63100	91000	66300	62000	152000	199000	282000	179000	115000	97900	88800	70200
22	63300	99400	57600	62500	226000	203000	288000	185000	96100	104000	83000	69600
23	43000	103000	56300	64000	229000	197000	289000	169000	92600	121000	81900	70000
24	47200	103000	56000	67000	231000	184000	284000	148000	103000	130000	76000	77600
25	61600	105000	55700	68000	240000	182000	278000	140000	115000	117000	75600	72400
26	75000	108000	63600	67000	250000	186000	273000	148000	128000	103000	80100	71000
27	68000	107000	62900	70000	268000	172000	270000	154000	135000	101000	77400	71700
28	59900	108000	66700	76000	292000	160000	272000	161000	140000	105000	77400	70500
29	55300	102000	65100	79000	---	168000	271000	172000	141000	113000	77000	62400
30	52800	89300	73600	80000	---	176000	265000	173000	136000	114000	85800	56400
31	57500	---	78800	80000	---	175000	---	175000	---	106000	81300	---
MEAN	53380	85620	76610	67160	124500	217400	228700	198000	123900	110200	89130	70210
MAX	75000	108000	94600	80000	292000	304000	289000	258000	156000	130000	105000	83800
MIN	41700	59000	55700	59000	67500	160000	152000	140000	92600	97900	72500	56400
IN.	.36	.56	.52	.45	.76	1.46	1.49	1.33	.81	.74	.60	.46

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1997, BY WATER YEAR (WY)

MEAN	97920	100500	97880	81990	92230	145400	181300	191100	155500	142200	113000	93430
MAX	334900	171300	169900	161000	124500	217400	342100	333300	263900	469300	416900	309900
(WY)	1987	1987	1993	1993	1997	1997	1993	1993	1996	1993	1993	1993
MIN	28050	33270	31810	34800	40940	72220	82570	69140	36310	30420	37230	37850
(WY)	1989	1990	1990	1990	1989	1989	1990	1988	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1987 - 1997	
ANNUAL MEAN	120300		120300		124500	
HIGHEST ANNUAL MEAN					250700	1993
LOWEST ANNUAL MEAN					53860	1989
HIGHEST DAILY MEAN	334000	Jun 1	304000	Mar 1	596000	Aug 3 1993
LOWEST DAILY MEAN	40500	Jan 8	41700	Oct 8	20100	Dec 14 1988
ANNUAL SEVEN-DAY MINIMUM	44600	Oct 13	44600	Oct 13	23600	Dec 12 1988
INSTANTANEOUS PEAK FLOW	---		305000	Mar 1	598000	Aug 1 1993
INSTANTANEOUS PEAK STAGE	---		427.65	Mar 1	441.96	Aug 1 1993
INSTANTANEOUS LOW FLOW	---		41700	Oct 8	20100	Dec 14 1988
ANNUAL RUNOFF (INCHES)	9.56		9.54		9.88	
10 PERCENT EXCEEDS	244000		227000		241000	
50 PERCENT EXCEEDS	92400		92600		98100	
90 PERCENT EXCEEDS	53500		60000		42900	

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL

WATER-QUALITY RECORDS

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^2, approximately.

PERIOD OF RECORD.--March 1989 to current year. National stream-quality accounting network station 1989 to 1994.

REMARKS.--Established ambient water-quality monitoring network station November 1992. Sediment records fair.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT: October 1989 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,910 mg/L, May 23, 1990; minimum daily mean, 1 mg/L, Sept. 10, 1991.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 1,090,000 tons, May 23, 1990; minimum daily, 186 tons, Sept. 10, 1991.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,000 mg/L, Feb. 22; minimum daily mean, 31 mg/L, Jan. 20.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 619,000 tons, Feb. 22; minimum daily, 5,190 tons, Jan. 20.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TURBIDITY (NTU) (00076)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT DIS FIX END FIELD $CaCO_3$ (mg/L) (39036)	ALKALINITY WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)
OCT												
23...	1340	11.5	33700	501	9.9	92	8.44	8.9	110	110	--	--
NOV												
27...	1420	3.0	108000	568	13.7	99	7.93	17	K106	54	--	--
DEC												
03...	1015	2.5	68500	561	13.6	98	8.19	12	K131	126	--	--
JAN												
07...	1040	1.0	74000	650	14.0	96	7.96	7.2	K16	K10	179	181
FEB												
26...	1255	2.0	250000	366	12.1	88	7.32	200	720	2600	108	112
MAR												
11...	1105	6.5	220000	547	9.2	74	7.72	80	110	308	121	123
APR												
03...	1330	10.0	172000	428	12.4	108	7.44	32	K100	--	159	162
23...	1410	9.0	288000	299	10.8	92	7.89	26	K625	K96	117	117
MAY												
06...	1040	14.5	227000	420	9.3	91	7.63	0.5	208	92	130	133
JUN												
02...	1455	17.0	142000	469	8.7	89	7.74	38	54	K43	146	146
27...	1245	27.5	136000	439	7.4	91	7.56	38	K43	310	150	144
JUL												
08...	1100	27.5	106000	494	7.3	92	8.15	19	108	K56	148	150
AUG												
05...	1115	27.5	104000	453	9.0	113	8.12	14	15	32	303	313
SEP												
11...	1135	23.0	69200	466	7.3	85	7.66	10	K17	K10	150	155

K--Results based on colony count outside the acceptable range (non-ideal colony count).

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	CARBONATE WATER DIS IT FIELD (mg/L as CO_3) (00452)	BICARBONATE WATER DIS IT FIELD (mg/L as HCO_3) (00453)	NITROGEN, TOTAL (mg/L as N) (00600)	NITROGEN DISSOLVED (mg/L as N) (00602)	NITROGEN, ORGANIC TOTAL (mg/L as N) (00605)	NITROGEN, ORGANIC DISSOLVED (mg/L as N) (00607)	NITROGEN, AMMONIA DISSOLVED (mg/L as N) (00608)	NITROGEN, NITRITE DISSOLVED (mg/L as N) (00613)	NITROGEN, NITRATE DISSOLVED (mg/L as N) (00618)	NITROGEN,AMMONIA + ORGANIC DIS. (mg/L as N) (00623)
OCT										
23...	--	--	2.0	--	0.85	--	0.053	0.022	1.08	--
NOV										
27...	--	--	3.2	--	0.80	--	0.056	<0.010	--	--
DEC										
03...	--	--	3.2	--	0.64	--	0.120	0.010	2.39	--
JAN										
07...	0	221	4.8	4.7	0.60	0.50	0.120	0.030	4.09	0.6
FEB										
26...	0	136	6.1	4.0	2.8	0.72	0.480	0.030	2.77	1.2
MAR										
11...	0	150	4.9	4.2	1.3	0.59	0.410	0.030	3.17	1.0
APR										
03...	0	189	3.8	3.2	0.89	0.30	0.080	0.030	2.79	0.4
23...	0	143	3.5	3.0	0.80	--	<0.010	0.030	2.63	0.4
MAY										
06...	0	162	3.4	2.7	1.1	--	<0.010	0.020	2.28	0.4
JUN										
02...	0	178	4.4	4.0	0.92	0.48	0.060	0.070	3.38	0.5
27...	0	179	4.1	3.5	0.92	0.34	0.020	0.080	3.03	0.4
JUL										
08...	0	183	5.3	5.0	0.66	--	<0.010	0.140	4.51	0.4
AUG										
05...	0	382	3.5	3.2	0.85	--	<0.010	0.030	2.64	0.5
SEP										
11...	0	190	1.8	1.6	0.58	--	<0.010	0.040	1.20	0.4

DATE	NITROGEN,AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITROGEN, NO_2+NO_3 DISSOLVED (mg/L as N) (00631)	PHOSPHATE, ORTHO, DISSOLVED (mg/L as PO_4) (00660)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS DISSOLVED (mg/L as P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (mg/L as P) (00671)	CARBON, ORGANIC DISSOLVED (mg/L as C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (mg/L as C) (00689)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	HARDNESS NONCARB DISSOLVFLD. as $CaCO_3$ (mg/L) (00904)
OCT										
23...	0.9	1.1	0.31	0.17	0.09	0.100	--	--	190	--
NOV										
27...	0.9	2.3	0.28	0.18	0.10	0.090	--	--	200	--
DEC										
03...	0.8	2.4	0.34	0.18	0.11	0.110	--	--	200	--
JAN										
07...	0.7	4.1	0.36	0.15	0.15	0.120	5.5	1.9	240	58
FEB										
26...	3.3	2.8	0.43	0.94	0.11	0.140	33	7.0	140	26
MAR										
11...	1.7	3.2	0.43	0.47	0.12	0.140	5.2	1.9	160	36
APR										
03...	1.0	2.8	0.36	0.30	0.10	0.120	5.5	1.8	190	31
23...	0.8	2.7	0.17	0.21	0.04	0.054	6.1	4.1	150	35
MAY										
06...	1.1	2.3	0.16	0.24	0.08	0.053	6.0	0.4	190	59
JUN										
02...	1.0	3.4	0.23	0.22	0.08	0.074	5.2	2.2	200	57
27...	0.9	3.1	0.32	0.23	0.08	0.100	5.0	2.1	200	53
JUL										
08...	0.7	4.7	0.53	0.25	0.17	0.170	4.7	1.5	210	62
AUG										
05...	0.8	2.7	0.16	0.18	0.04	0.052	6.0	0.9	160	42
SEP										
11...	0.6	1.2	0.35	0.17	0.12	0.110	5.7	0.3	200	47

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	HARDNESS NONCARB DISSOLV LAB as $CaCO_3$ (mg/L) (00905)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM PERCENT (00932)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SILICA, DIS-SOLVED (mg/L as SiO_2) (00955)
OCT											
23...	--	42	21	24	0.8	21	3.1	32	44	0.2	0.96
NOV											
27...	--	48	19	16	0.5	15	2.8	23	32	0.3	8.3
DEC											
03...	--	48	19	15	0.5	14	2.9	22	34	0.2	9.4
JAN											
07...	--	59	22	21	0.6	16	2.7	34	42	0.3	10
FEB											
26...	--	35	12	12	0.4	15	5.6	21	23	0.2	8.2
MAR											
11...	--	39	15	19	0.7	20	4.9	32	28	0.2	7.8
APR											
03...	--	47	17	11	0.4	11	3.4	19	27	0.2	10
23...	--	38	14	10	0.4	12	3.1	17	28	0.2	9.8
MAY											
06...	--	48	17	10	0.3	10	3.4	15	47	0.2	7.4
JUN											
02...	--	49	20	13	0.4	12	3.2	22	45	0.2	4.0
27...	50	45	21	15	0.5	14	3.0	24	43	0.3	2.8
JUL											
08...	--	52	20	11	0.3	10	3.2	20	31	0.2	8.8
AUG											
05...	--	40	14	10	0.4	12	3.4	17	29	0.2	10
SEP											
11...	--	46	21	15	0.5	14	3.1	22	39	0.2	9.7

DATE	MOLYB-DENUM, DIS-SOLVED (mg/L as Mo) (01060)	NICKEL, DIS-SOLVED (mg/L as Ni) (01065)	SILVER, DIS-SOLVED (mg/L as Ag) (01075)	STRON-TIUM, DIS-SOLVED (mg/L as Sr) (01080)	VANA-DIUM, DIS-SOLVED (mg/L as V) (01085)	ZINC, DIS-SOLVED (mg/L as Zn) (01090)	ANTI-MONY, DIS-SOLVED (mg/L as Sb) (01095)	ALUM-INUM, DIS-SOLVED (mg/L as Al) (01106)	LITHIUM DIS-SOLVED (mg/L as Li) (01130)	SELE-NIUM, DIS-SOLVED (mg/L as Se) (01145)	PROP-CHLOR, WATER, DISS, REC (mg/L) (04024)
OCT											
23...	<10	2	<1	120	<6	--	--	15	5	<1	--
NOV											
27...	<10	1	<1	120	<6	--	--	12	5	<1	--
DEC											
03...	--	--	--	--	--	--	--	--	--	--	--
JAN											
07...	<10	1	<1	140	<6	--	--	13.8	5	<1	<0.007
FEB											
26...	<10	2	<1	83	<6	--	--	<5.0	<4	<1	<0.007
MAR											
11...	<10	2	<1	93	<6	--	--	<5.0	<4	<1	<0.007
APR											
03...	<10	1	<1	100	<6	--	--	26.1	5	<1	<0.007
23...	<10	<1	<1	90	<6	--	--	107	<4	<1	<0.007
MAY											
06...	--	--	--	--	--	--	--	--	--	--	<0.007
JUN											
02...	<10	1	<1	130	<6	--	--	35.2	8	<1	E0.004
27...	3	2	<1	130	<6	1	<1	16	6	<1	<0.007
JUL											
08...	<10	1	<1	130	<6	--	--	<5.0	8	<1	<0.007
AUG											
05...	<10	<1	<1	95	<6	--	--	86.2	4	<1	<0.007
SEP											
11...	<10	2	<1	130	<10	--	--	<5.0	6	<1	<0.007

E--Laboratory estimated value.

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	BUTYLATE, WATER, DISS, REC (µg/L) (04028)	SIMAZINE, WATER, DISS, REC (µg/L) (04035)	PROMETON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRAZINE, WATER, DISS, REC (µg/L) (04040)	CYANAZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	URANIUM NATURAL DISSOLVED (mg/L as U) (22703)	ALPHA BHC DISSOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	CHLORPYRIFOS DISSOLVED (µg/L) (38933)	LINDANE DISSOLVED (µg/L) (39341)
JAN											
07...	<0.002	E0.004	E0.010	E0.006	<0.004	<0.003	--	<0.002	<0.006	<0.004	<0.004
FEB											
26...	<0.002	0.010	E0.006	E0.043	0.085	<0.003	--	<0.002	<0.006	<0.004	<0.004
MAR											
11...	<0.002	0.008	E0.010	E0.091	0.072	<0.003	--	<0.002	<0.006	<0.004	<0.004
APR											
03...	<0.002	0.005	E0.002	E0.021	0.013	<0.003	--	<0.002	<0.006	<0.004	<0.004
23...	<0.002	0.006	E0.003	E0.015	0.038	<0.003	--	<0.002	<0.006	<0.004	<0.004
MAY											
06...	<0.002	0.008	E0.004	E0.004	0.052	<0.003	--	<0.002	<0.006	<0.004	<0.004
JUN											
02...	<0.002	0.048	E0.010	E0.141	1.26	<0.003	--	<0.002	<0.006	--	<0.004
27...	<0.002	0.048	0.019	E0.061	0.285	<0.003	2	<0.002	<0.006	E0.004	<0.004
JUL											
08...	<0.002	0.036	E0.015	E0.108	0.330	<0.003	--	<0.002	<0.006	<0.004	<0.004
AUG											
05...	<0.002	0.009	E0.016	E0.020	0.039	<0.003	--	<0.002	<0.006	<0.004	<0.004
SEP											
11...	<0.002	0.008	E0.017	E0.025	0.036	<0.003	--	<0.002	<0.006	<0.004	<0.004

DATE	DIELDRIN DISSOLVED (µg/L) (39381)	METOLACHLOR WATER DISSOLV (µg/L) (39415)	MALATHION, DISSOLVED (µg/L) (39532)	PARATHION, DISSOLVED (µg/L) (39542)	DIAZINON, DISSOLVED (µg/L) (39572)	ATRAZINE, WATER, DISS, REC (µg/L) (39632)	ALACHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETOCHLOR, WATER FLTRD REC (µg/L) (49260)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (mg/L) (70301)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)
OCT											
23...	--	--	--	--	--	--	--	--	284	258	25800
NOV											
27...	--	--	--	--	--	--	--	--	273	284	79600
DEC											
03...	--	--	--	--	--	--	--	--	267	266	49400
JAN											
07...	<0.001	0.086	<0.005	<0.004	0.005	0.093	0.015	0.013	338	319	67500
FEB											
26...	<0.001	0.328	<0.005	<0.004	<0.002	0.238	0.019	0.100	217	197	146000
MAR											
11...	<0.001	0.460	<0.005	<0.004	<0.002	0.296	0.022	0.158	238	235	141000
APR											
03...	<0.001	0.537	<0.005	<0.004	<0.002	0.108	0.007	0.017	254	240	118000
23...	<0.001	0.192	<0.005	<0.004	<0.002	0.140	0.005	0.031	223	203	173000
MAY											
06...	<0.001	0.514	<0.005	<0.004	<0.002	0.626	0.019	0.163	259	239	159000
JUN											
02...	<0.001	2.08	<0.005	<0.004	0.005	5.07	0.122	0.870	286	260	110000
27...	<0.001	0.664	<0.005	<0.004	0.006	2.31	0.034	0.251	263	257	137000
JUL											
08...	<0.001	0.825	<0.005	<0.004	<0.002	2.67	0.025	0.143	321	257	91900
AUG											
05...	<0.001	0.094	<0.005	<0.004	<0.002	0.345	0.009	0.086	221	324	171000
SEP											
11...	<0.001	0.067	<0.005	<0.004	0.005	0.207	0.007	0.011	269	255	50300

E--Laboratory estimated value.

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 mm (70331)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L as NH_4) (71846)	NITRO-GEN, NITRATE DIS-SOLVED (mg/L as NO_3) (71851)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L as NO_2) (71856)	SEDI-MENT, SUS-PENDED (mg/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	TRI-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82661)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)
OCT											
23...	--	0.07	4.8	0.07	--	--	--	--	--	--	--
NOV											
27...	90	0.07	--	--	132	38500	--	--	--	--	--
DEC											
03...	88	0.15	11	0.03	98	18100	--	--	--	--	--
JAN											
07...	99	0.16	18	0.09	74	14800	<0.004	<0.003	<0.002	<0.004	<0.002
FEB											
26...	93	0.62	12	0.10	590	398000	<0.010	<0.003	<0.002	<0.004	<0.002
MAR											
11...	87	0.53	14	0.10	291	173000	<0.010	<0.003	<0.002	<0.004	<0.002
APR											
03...	88	0.10	12	0.11	152	70600	<0.004	<0.003	<0.002	<0.004	<0.002
23...	82	--	12	0.09	139	108000	0.008	<0.003	<0.002	<0.004	<0.002
MAY											
06...	78	--	10	0.07	235	144000	0.006	<0.003	<0.002	<0.004	<0.002
JUN											
02...	98	0.08	15	0.22	155	59400	0.073	<0.003	0.005	<0.004	<0.002
27...	70	0.02	13	0.27	631	329000	<0.004	<0.003	<0.002	<0.004	<0.002
JUL											
08...	--	--	20	0.47	--	--	<0.004	<0.003	<0.002	<0.004	<0.002
AUG											
05...	91	--	12	0.09	109	84200	<0.004	<0.003	<0.002	<0.004	<0.002
SEP											
11...	91	--	5.3	0.14	99	18500	<0.004	<0.003	<0.002	<0.004	<0.002

DATE	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
JAN											
07...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
FEB											
26...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.010	<0.013	<0.003
MAR											
11...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR											
03...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
23...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAY											
06...	<0.007	<0.006	E0.003	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUN											
02...	<0.007	<0.006	0.005	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
27...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUL											
08...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.010	<0.013	<0.003
AUG											
05...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
SEP											
11...	<0.007	<0.006	<0.002	<0.004	E0.005	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

E--Laboratory estimated value.

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
JAN											
07...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
FEB											
26...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR											
11...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
APR											
03...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
23...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAY											
06...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
JUN											
02...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
27...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	0.022	<0.013	<0.001	<0.005
JUL											
08...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
SEP											
11...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

DATE	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)
OCT			
23...	164	173	0
NOV			
27...	204	252	0
DEC			
03...	169	212	0

E--Laboratory estimated value.

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	58800	111	18400	70300	108	20600	76600	76	15800
2	56000	107	16200	75400	90	18300	80200	86	18600
3	52900	100	14300	93200	96	24200	74800	92	18500
4	64200	105	18300	85500	71	16400	83900	74	16800
5	65600	99	17500	79400	68	14700	85000	58	13400
6	58300	92	14400	73500	69	13700	90600	48	11700
7	50100	86	11600	84000	73	16600	94600	52	13200
8	41700	73	8230	79700	81	17400	84600	56	12700
9	48700	100	13200	74600	92	18600	85000	53	12300
10	46700	91	11400	80500	95	20500	93700	47	11900
11	50700	83	11300	79900	82	17600	85500	38	8810
12	48000	66	8510	83000	75	16900	85000	38	8690
13	46000	90	11200	86700	68	15900	86700	42	9900
14	43500	69	8120	79300	62	13300	85800	42	9680
15	41900	69	7740	80000	87	18800	86100	44	10200
16	44400	61	7310	71900	85	16400	89400	48	11500
17	43100	60	6980	67800	71	13000	88000	52	12300
18	45300	76	9300	59000	59	9440	84600	51	11600
19	47900	142	18700	68700	53	9770	71700	54	10400
20	54400	135	19700	80600	46	10100	60600	61	10000
21	63100	88	15000	91000	65	16200	66300	48	8540
22	63300	98	16800	99400	75	20300	57600	48	7560
23	43000	86	9980	103000	78	21600	56300	49	7450
24	47200	73	9280	103000	89	24500	56000	51	7710
25	61600	63	10600	105000	119	34000	55700	49	7300
26	75000	68	13600	108000	111	32400	63600	45	7790
27	68000	93	17200	107000	117	33600	62900	43	7290
28	59900	86	14000	108000	106	31100	66700	44	7840
29	55300	70	10500	102000	95	26300	65100	44	7690
30	52800	67	9550	89300	82	19700	73600	42	8340
31	57500	98	15400	---	---	---	78800	43	9260
		JANUARY			FEBRUARY			MARCH	
1	77300	45	9450	79500	57	12200	304000	472	387000
2	75900	36	7400	77500	---	11100	296000	440	351000
3	78800	40	8530	78000	---	11600	277000	585	436000
4	73600	55	10900	79000	---	15100	262000	536	380000
5	68100	53	9740	80000	---	20500	261000	429	303000
6	67700	45	8170	83000	---	28200	256000	413	285000
7	72400	63	12100	85000	166	38100	246000	426	282000
8	68100	73	13600	86000	196	45500	230000	456	283000
9	63200	---	12400	85000	197	45200	223000	485	292000
10	60500	---	11600	84000	181	41100	224000	468	283000
11	60000	---	11300	83100	161	36100	221000	295	176000
12	59500	---	11200	81300	104	22800	216000	301	176000
13	59500	---	11100	82000	105	23400	219000	299	177000
14	59000	---	10000	80900	141	30800	225000	303	184000
15	59500	---	9000	77900	138	29000	223000	270	163000
16	60000	51	8260	72900	121	23900	219000	249	147000
17	60000	44	7120	75200	125	25300	218000	234	138000
18	60500	39	6370	67500	105	19200	216000	207	121000
19	61000	34	5600	69800	97	18200	208000	189	106000
20	62000	31	5190	89300	75	18000	194000	199	104000
21	62000	40	6700	152000	414	204000	199000	218	118000
22	62500	41	6920	226000	1000	619000	203000	236	129000
23	64000	48	8290	229000	947	585000	197000	230	122000
24	67000	46	8320	231000	782	487000	184000	195	96700
25	68000	43	7890	240000	679	440000	182000	175	86300
26	67000	48	8680	250000	610	412000	186000	197	98700
27	70000	56	10600	268000	619	448000	172000	204	94700
28	76000	63	12900	292000	558	440000	160000	169	72800
29	79000	41	8750	---	---	---	168000	158	72000
30	80000	55	11900	---	---	---	176000	175	83200
31	80000	83	17900	---	---	---	175000	172	79500

05587455 MISSISSIPPI RIVER BELOW GRAFTON, IL--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	173000	162	70300	258000	138	96400	156000	177	74500
2	174000	147	69300	252000	145	98600	146000	165	65300
3	172000	154	71200	243000	184	121000	139000	155	58300
4	153000	170	70100	235000	218	138000	136000	177	65000
5	152000	169	69400	230000	226	140000	128000	153	53000
6	157000	165	69700	227000	205	126000	121000	119	38700
7	154000	192	80200	225000	198	120000	113000	136	41400
8	167000	206	93000	227000	184	113000	115000	155	48200
9	186000	212	106000	228000	170	105000	121000	150	49200
10	192000	232	120000	226000	180	110000	124000	123	41100
11	198000	265	142000	226000	204	124000	127000	123	42000
12	216000	319	186000	223000	254	152000	123000	129	42700
13	223000	270	163000	222000	283	170000	120000	141	45800
14	223000	224	135000	217000	245	144000	138000	185	69500
15	234000	235	148000	208000	212	119000	138000	171	63600
16	246000	231	154000	198000	190	102000	110000	194	56700
17	255000	235	161000	185000	187	93300	106000	216	62300
18	264000	239	170000	167000	209	93900	126000	218	74300
19	272000	239	176000	166000	157	70600	113000	212	64600
20	278000	211	158000	172000	148	68900	116000	210	66000
21	282000	170	130000	179000	150	72600	115000	212	66000
22	288000	183	142000	185000	165	82400	96100	169	43800
23	289000	165	129000	169000	175	79700	92600	150	37600
24	284000	167	128000	148000	181	72400	103000	121	33700
25	278000	174	131000	140000	135	51000	115000	187	58400
26	273000	148	109000	148000	121	48300	128000	209	72400
27	270000	146	106000	154000	128	53400	135000	192	70200
28	272000	138	101000	161000	193	84700	140000	141	53300
29	271000	137	100000	172000	249	116000	141000	154	58400
30	265000	131	93700	173000	245	114000	136000	162	59100
31	---	---	---	175000	231	109000	---	---	---
		JULY			AUGUST			SEPTEMBER	
1	130000	149	52100	102000	71	19700	81500	179	39500
2	127000	120	41200	97500	94	24700	83800	145	32700
3	125000	160	53800	100000	114	30700	79700	123	26300
4	124000	149	49900	104000	117	32800	80300	165	35700
5	125000	151	51000	105000	114	32200	76500	141	29100
6	121000	136	44200	104000	116	32700	71800	120	23300
7	111000	154	46000	105000	114	32500	71300	139	26600
8	106000	115	32800	102000	94	25900	72900	128	25200
9	102000	103	28400	96800	77	20200	73300	133	26400
10	107000	102	29500	92200	75	18700	73200	124	24500
11	108000	118	34500	87700	74	17500	71000	101	21500
12	103000	120	33300	89400	77	18500	72200	113	21900
13	105000	140	39500	92300	64	16000	68400	84	15500
14	102000	142	39200	89000	82	19500	61300	65	10700
15	105000	88	25000	85600	104	23900	60300	68	11000
16	102000	91	25000	72500	101	19600	58800	75	11900
17	102000	83	22800	78100	103	21700	61700	84	14100
18	102000	77	21200	82900	109	24500	63800	87	15000
19	98200	71	18800	94700	152	39100	63700	100	17100
20	98500	80	21400	98000	183	48600	68900	113	21100
21	97900	72	19200	88800	132	31900	70200	100	18900
22	104000	90	25100	83000	96	21600	69600	90	17000
23	121000	81	26800	81900	130	28700	70000	94	17800
24	130000	103	36100	76000	138	28400	77600	101	21300
25	117000	136	42700	75600	127	25900	72400	90	17600
26	103000	138	38500	80100	161	34900	71000	88	16700
27	101000	88	24000	77400	162	33800	71700	78	15100
28	105000	74	20900	77400	141	29500	70500	77	14700
29	113000	76	23200	77000	125	25900	62400	72	12100
30	114000	128	39200	85800	124	28700	56400	76	8990
31	106000	120	34400	81300	136	29600	---	---	---

06813500 MISSOURI RIVER AT RULO, NE

LOCATION.--Lat 40°03'13", long 95°25'19", in NW 1/4 NW 1/4 sec.17, T.1 N., R.18 E., Richardson County, Hydrologic Unit 10240005, on right bank at downstream side of bridge on U.S. Highway 159 at Rulo, 3.2 mi upstream from Big Nemaha River, and at mile 498.0.

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

PERIOD OF RECORD.--October 1949 to current year 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 the Missouri River Commission; September 1929 to September 1950 in files the U.S. Army Corps of Engineers, Kansas City District.

GAGE.--Water-stage recorder. Datum of gage is 837.23 ft above sea level. October 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.--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. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70300	68900	70000	33600	40800	61200	80800	106000	92200	93200	71500	74000
2	69100	68600	69400	33400	42500	63100	84800	107000	89800	94100	71500	80400
3	69200	68500	69600	33500	46000	63300	88900	108000	87500	91200	72000	92300
4	68900	68200	68900	35100	48300	63300	91500	106000	85800	89000	71600	86100
5	68900	68000	65500	39100	47300	62500	94500	106000	85300	88300	71400	78900
6	68300	67800	62100	41400	45100	60700	95600	104000	84400	87100	71600	75600
7	67400	69000	59700	40400	43500	57300	98500	104000	83200	84300	70900	75000
8	67600	68100	57600	38100	43700	57400	103000	112000	81900	81800	70900	74400
9	68100	68900	54800	37300	43500	57200	107000	109000	81100	80000	71000	74200
10	67400	69000	50600	38000	42900	61000	109000	105000	81100	78900	71300	74700
11	66200	69400	48400	37800	42300	68400	112000	102000	79900	81600	72400	74400
12	65600	69400	47100	36600	42000	72300	113000	100000	79300	80300	74700	73900
13	65900	69400	44900	35400	41700	73100	112000	100000	79800	79700	75000	73500
14	65200	68900	43800	33800	41700	71600	115000	99700	79600	78800	75000	73800
15	64600	68700	43900	35400	41800	71600	121000	98500	81100	78100	76100	73400
16	64200	75200	43800	36300	42400	68800	118000	96100	81600	77600	76600	73400
17	65300	103000	43000	36300	43100	65500	116000	94200	80400	76400	76800	73800
18	66200	93000	40500	35500	47300	63600	115000	92200	78100	76000	77200	73900
19	67400	87400	37600	35200	66400	64700	114000	89800	77600	74300	77800	73400
20	67600	78600	33000	35700	80200	65900	113000	87100	77500	73700	78300	73300
21	67200	76000	30900	37100	77400	64500	112000	86400	77500	73200	77400	73600
22	67300	75700	28300	38400	81200	62700	113000	85600	85200	75100	76700	74600
23	68700	75200	28100	40200	77900	64200	112000	84600	95800	74100	76100	76500
24	72000	74700	31500	42400	70700	63800	111000	84600	95400	74800	75900	77100
25	70200	73500	32900	42100	62900	63400	109000	87200	105000	73100	75800	77500
26	68600	69900	31100	41100	61500	65500	108000	92400	112000	73400	75400	77200
27	67000	67000	29700	40300	62100	67000	106000	91700	107000	74100	75500	79700
28	67800	65700	30300	39900	61600	69500	104000	93100	98900	73700	75100	78300
29	68400	66900	32400	40000	---	72900	102000	94400	94200	72600	74900	77800
30	69900	70800	33300	39900	---	74300	102000	95000	93100	73200	74900	77500
31	69000	---	33700	39800	---	77400	---	94100	---	72100	74800	---
MEAN	67730	72780	45050	37710	53140	65730	106100	97280	87040	79150	74390	76410
MAX	72000	103000	70000	42400	81200	77400	121000	112000	112000	94100	78300	92300
MIN	64200	65700	28100	33400	40800	57200	80800	84600	77500	72100	70900	73300
IN.	.19	.19	.12	.10	.13	.18	.28	.27	.23	.22	.20	.20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1997[a], BY WATER YEAR (WY)

MEAN	44010	39440	26060	21970	28000	41220	51040	51480	56210	50710	45040	45430
MAX	77770	72780	55240	42280	53140	79590	106100	97280	130600	164800	78730	76410
(WY)	1987	1997	1987	1973	1997	1979	1997	1997	1984	1993	1996	1997
MIN	25580	17000	9953	10800	13230	15380	21820	33790	33710	33860	29820	34140
(WY)	1962	1962	1956	1957	1957	1957	1957	1956	1956	1963	1955	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1953 - 1997[a]	
ANNUAL MEAN	62920		71880		41750	
HIGHEST ANNUAL MEAN					71880	1997
LOWEST ANNUAL MEAN					26340	1957
HIGHEST DAILY MEAN	146000	Jun 26	121000	Apr 15	289000	Jul 24 1993
LOWEST DAILY MEAN	21200	Jan 22	28100	Dec 23	4420	Jan 13 1957
ANNUAL SEVEN-DAY MINIMUM	28200	Jan 21	30300	Dec 22	5560	Nov 30 1955
INSTANTANEOUS PEAK FLOW	---		123000	Apr 15	307000	Jul 24 1993
INSTANTANEOUS PEAK STAGE	---		20.95	Jun 26	25.37	Jul 24 1993
INSTANTANEOUS LOW FLOW	---		27500	Dec 22	---	
ANNUAL RUNOFF (INCHES)	2.05		2.33		1.35	
10 PERCENT EXCEEDS	83400		102000		66400	
50 PERCENT EXCEEDS	66600		73300		38400	
90 PERCENT EXCEEDS	33100		40000		18200	

[a]Post regulation, revised.

06817700 NODAWAY RIVER NEAR GRAHAM, MO

LOCATION.--Lat 40°12'08", long 95°04'07", NE 1/4 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^2, approximately.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 852.09 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 26, Dec. 18 to Feb. 19, June 26, Aug. 5-11, 15, 16, and 22-27. Water-discharge records fair except for periods of estimated daily discharges, which are poor. U.S. Army Corps of Engineers satellite telemeter at station.

REVISIONS.--The maximum discharge for calendar and water year 1993 has been revised to 78,300 ft^3/s, July 23, 1993; gage height, 26.16 ft. Revised daily discharges, in cubic feet per second, for September 1993, are given below. These figures supersede those published in the report for 1993.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245	740	2710	400	520	1290	414	7100	1030	694	172	83
2	210	612	1660	425	810	2090	402	4520	951	753	247	659
3	184	569	1250	470	1430	1560	399	6080	876	535	177	477
4	166	605	1070	510	1240	951	423	4120	828	496	156	243
5	162	1370	970	420	1150	810	644	3040	773	445	144	160
6	157	946	949	430	1000	687	1290	2500	743	422	133	130
7	152	820	886	370	900	639	2060	2400	728	399	130	117
8	148	699	808	290	870	637	1440	6040	658	376	130	109
9	143	622	719	290	760	758	977	4130	614	358	125	100
10	142	580	678	290	710	1970	885	2720	582	332	118	89
11	136	552	692	290	660	2140	922	2180	571	328	133	88
12	130	530	690	290	620	1110	943	1910	595	409	184	84
13	128	513	651	290	586	860	1020	1700	688	420	182	110
14	129	500	628	290	586	774	2210	1540	664	343	156	113
15	125	503	637	300	581	680	3670	1370	844	299	142	102
16	122	2080	657	300	572	607	3200	1240	728	271	142	94
17	123	7880	616	300	686	602	2270	1570	584	255	285	94
18	120	4190	280	290	3130	620	1740	1270	543	239	376	89
19	115	2660	250	290	5760	618	1450	1130	518	222	254	79
20	114	2010	330	290	3020	592	1310	1010	505	212	216	74
21	116	1710	470	330	3770	579	1360	924	497	207	202	72
22	139	1500	460	440	2580	555	2900	866	490	208	152	73
23	1640	1350	440	470	1230	540	3610	836	506	311	136	147
24	3380	1250	430	550	886	526	4020	819	535	583	123	210
25	1550	1080	410	600	750	542	2770	845	929	318	113	157
26	867	924	390	450	750	569	2170	1130	2200	228	109	130
27	658	756	385	370	930	576	1860	1380	1290	226	95	110
28	557	889	390	340	850	521	1690	1510	919	339	89	97
29	870	1230	400	320	---	504	1510	1520	753	406	86	85
30	1100	3100	410	310	---	485	3310	1320	788	244	87	76
31	855	---	400	315	---	453	---	1160	---	194	86	---
MEAN	474	1426	701	365	1333	834	1762	2254	764	357	157	142
MAX	3380	7880	2710	600	5760	2140	4020	7100	2200	753	376	659
MIN	114	500	250	290	520	453	399	819	490	194	86	72
IN.	.40	1.15	.59	.31	1.01	.70	1.43	1.88	.62	.30	.13	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1997, BY WATER YEAR (WY)

MEAN	492	560	599	398	788	952	1485	2050	1704	1753	623	826
MAX	2313	1735	2026	1199	1839	2205	3614	4606	4936	12460	2758	3364
(WY)	1987	1993	1993	1983	1983	1993	1984	1995	1984	1993	1987	1993
MIN	47.2	77.1	69.7	67.4	82.3	250	58.8	48.6	68.5	75.1	46.2	50.1
(WY)	1989	1989	1989	1989	1989	1996	1989	1989	1988	1988	1988	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1983 - 1997	
ANNUAL MEAN	1126		875		1002	
HIGHEST ANNUAL MEAN					2870	1993
LOWEST ANNUAL MEAN					320	1985
HIGHEST DAILY MEAN	15400	May 27	7880	Nov 17	52000	Jul 23 1993
LOWEST DAILY MEAN	40	Jan 7	72	Sep 21	28	Jun 9 1989
ANNUAL SEVEN-DAY MINIMUM	51	Jan 5	82	Sep 16	33	May 24 1989
INSTANTANEOUS PEAK FLOW	---		9270	Nov 17	78300	Jul 23 1993
INSTANTANEOUS PEAK STAGE	---		12.59	Nov 17	26.16	Jul 23 1993
INSTANTANEOUS LOW FLOW	---		70	Sep 22	23	Sep 9 1985
ANNUAL RUNOFF (INCHES)	11.10		8.61		9.86	
10 PERCENT EXCEEDS	2860		2070		2350	
50 PERCENT EXCEEDS	482		571		437	
90 PERCENT EXCEEDS	115		124		77	

06817700 NODAWAY RIVER NEAR GRAHAM, MO--Continued
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

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

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
OCT											
08...	1145	147	13.5	430	8.50	12.0	119	--	210	230	180
NOV											
19...	1310	2660	5.5	300	7.90	10.5	86	29	13000	68000	98
DEC											
04...	1230	1050	1.0	360	8.10	13.4	97	--	910	3600	137
JAN											
21...	1315	330	0.5	410	7.60	10.4	76	13	150	K170	158
FEB											
13...	1510	586	0.5	405	7.80	12.2	86	--	58	72	154
MAR											
18...	1245	609	6.5	410	8.27	11.5	96	--	270	350	161
APR											
22...	1230	3110	11.0	330	8.10	9.7	92	--	12000	7000	118
MAY											
28...	1300	1450	13.0	340	8.00	9.8	96	--	39000	19000	121
JUN											
18...	1240	537	27.0	390	8.40	9.2	120	10	1500	420	141
JUL											
30...	1345	253	26.5	322	9.20	14.0	178	--	200	260	150
AUG											
20...	1310	218	25.0	316	9.40	15.4	192	20	K260	K420	132
SEP											
10...	1215	88	22.0	410	8.60	9.7	115	--	140	260	178

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)
OCT											
08...	213	4	1.10	<0.010	0.06	0.43	0.17	0.12	--	--	--
NOV											
19...	119	0	1.40	0.090	<0.01	2.7	0.70	0.02	130	37	9.0
DEC											
04...	169	0	4.30	0.020	0.09	0.87	0.40	0.11	--	--	--
JAN											
21...	193	0	4.10	0.030	0.12	0.56	0.10	0.05	200	56	14
FEB											
13...	188	0	3.30	0.040	0.26	0.63	0.15	0.13	--	--	--
MAR											
18...	200	0	3.30	0.040	0.03	1.2	0.37	0.11	--	--	--
APR											
22...	144	0	3.70	0.040	0.03	3.3	1.30	0.11	--	--	--
MAY											
28...	150	0	E5.20	0.074	0.05	E4.5	1.00	0.16	--	--	--
JUN											
18...	172	2	3.40	0.100	0.18	2.5	0.27	0.02	190	54	14
JUL											
30...	131	0	<0.02	<0.010	0.05	1.7	0.28	0.08	--	--	--
AUG											
20...	108	26	<0.02	<0.010	0.02	1.6	0.25	0.04	150	40	11
SEP											
10...	203	7	<0.02	<0.010	0.02	0.84	0.16	0.08	--	--	--

K--Results based on colony count outside the acceptable range (non-ideal colony count).
E--Laboratory estimated value.

06817700 NODAWAY RIVER NEAR GRAHAM, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)
NOV											
19...	6.6	5.2	19	9.0	0.20	200	1600	16000	<3.0	<1	<1
JAN											
21...	10	1.8	28	10	0.20	254	45	580	<3.0	<1	<1
JUN											
18...	9.8	2.0	25	9.1	0.40	252	290	5400	<3.0	<1	<1
AUG											
20...	10	3.0	29	9.1	0.30	168	90	830	6.8	<1	<1

DATE	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)	PROP-CHLOR, WATER, DISS, REC (µg/L) (04024)	BUTYL-ATE, WATER, DISS, REC (µg/L) (04028)	SI-MAZINE, WATER, DISS, REC (µg/L) (04035)
NOV											
19...	<1.0	9	26	<1	22	<0.1	120	<1.0	<0.007	<0.002	<0.005
JAN											
21...	<1.0	3	1	<1	130	<0.1	6	5.6	--	--	--
MAR											
18...	--	--	--	--	--	--	--	--	0.010	<0.002	<0.005
APR											
22...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.005
JUN											
18...	<1.0	<1	7	<1	1.9	<0.1	30	<1.0	<0.007	<0.002	0.017
AUG											
20...	1.5	7	1	1	3.5	<0.1	5	<1.0	<0.007	<0.002	E0.003

DATE	PRO-METON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (µg/L) (04040)	CYANA-ZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER, DISS, REC (µg/L) (04095)	ALPHA BHC DIS-SOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	METO-LACHLOR WATER DISSOLV (µg/L) (39415)	LINDANE DIS-SOLVED (µg/L) (39341)	DI-ELDRIN DIS-SOLVED (µg/L) (39381)	ATRA-ZINE, WATER, DISS, REC (µg/L) (39632)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)
NOV											
19...	<0.018	E0.081	0.099	<0.003	<0.002	<0.006	0.074	<0.004	<0.001	0.228	<0.004
MAR											
18...	<0.018	E0.013	0.032	<0.003	<0.002	<0.006	0.030	<0.004	<0.001	0.105	<0.004
APR											
22...	<0.018	E0.016	0.051	<0.003	<0.002	<0.006	0.248	<0.004	<0.001	0.199	<0.004
JUN											
18...	<0.018	E0.306	2.03	<0.003	<0.002	<0.006	1.14	<0.004	<0.001	5.17	0.066
AUG											
20...	E0.008	E0.019	0.087	<0.003	<0.002	<0.006	0.356	<0.004	<0.001	0.367	0.013

E--Laboratory estimated value.

06817700 NODAWAY RIVER NEAR GRAHAM, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	FONOFOS WATER DISS REC (µg/L) (04095)	CHLOR-PYRIFOS DIS-SOLVED (µg/L) (38933)	MALA-THION, DIS-SOLVED (µg/L) (39532)	PARA-THION, DIS-SOLVED (µg/L) (39542)	DI-AZINON, DIS-SOLVED (µg/L) (39572)	ALA-CHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (µg/L) (49260)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)
NOV											
19...	<0.003	<0.004	<0.005	<0.004	<0.002	0.004	0.018	<0.003	<0.004	<0.002	<0.007
MAR											
18...	<0.003	<0.004	<0.005	<0.004	<0.002	E0.003	0.004	<0.003	<0.004	<0.002	<0.007
APR											
22...	<0.003	<0.004	<0.005	<0.004	<0.002	0.006	<0.002	<0.003	<0.004	<0.002	<0.007
JUN											
18...	<0.003	<0.004	<0.005	<0.004	<0.002	0.021	0.179	<0.003	<0.004	<0.002	<0.007
AUG											
20...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	0.015	<0.003	<0.004	<0.002	<0.007

DATE	LIN-URON WATER FLTRD 0.7 µ GF, REC (µg/L) (82666)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
NOV											
19...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAR											
18...	<0.002	<0.006	0.005	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR											
22...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUN											
18...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
AUG											
20...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
NOV											
19...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR											
18...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
APR											
22...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JUN											
18...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.010	<0.003	<0.013	<0.001	<0.005
AUG											
20...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

06818000 MISSOURI RIVER AT ST. JOSEPH, MO

LOCATION.--Lat 39°45'12", long 94°51'28", in NW 1/4 SW 1/4 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.--420,300 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 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 sea level. Prior to Oct. 21, 1931, nonrecording gage and from Oct. 21, 1931, to Dec. 31, 1933, water-stage recorder at same site at datum 5.50 ft higher.

REMARKS.--Estimated daily discharges: Dec. 17-22, June 23 to July 1, July 15-17, 21-23, and Aug. 13,14. Water-discharge records good except for estimated daily discharges, which are poor. Some regulation from many upstream reservoirs. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70500	71700	77200	36400	40900	63600	79900	122000	98700	96600	77500	76900
2	69500	71800	76000	36300	42400	64600	85000	121000	97000	98100	76600	78700
3	69400	72000	75700	36300	45400	65400	89200	121000	96000	95900	76300	96600
4	69300	72400	75800	36900	49800	64600	91800	120000	94200	93300	75500	93200
5	69100	72600	73500	39700	49800	63900	95300	116000	92800	91800	74800	85100
6	68700	72900	69300	42900	47800	62500	97900	115000	91600	90700	74600	79700
7	68300	73200	66800	43300	45600	59900	97900	113000	89600	88800	74300	78300
8	67800	73000	64600	41100	45400	59300	101000	129000	87600	86200	73800	77800
9	67800	72000	62500	39700	46100	60600	103000	122000	86300	84100	73900	76700
10	67700	72000	59000	39600	46200	62800	109000	115000	86200	82400	74000	77700
11	66700	71900	56000	39600	45600	70300	121000	112000	85100	84500	75100	77500
12	65900	71900	54600	39000	45100	73500	117000	111000	83900	84400	77500	77100
13	66100	72000	52200	38500	45100	76200	117000	109000	84100	83600	78700	77500
14	65500	71600	50000	37000	45300	74300	121000	109000	83700	82700	78900	77000
15	65200	70500	49300	37300	45400	73300	132000	107000	85800	81400	79100	76700
16	65100	73500	49200	37700	46000	72800	132000	104000	87600	79800	79900	76100
17	66300	118000	48500	38100	46600	69100	126000	101000	85900	78800	81300	75900
18	66700	105000	45700	37500	53100	67500	124000	101000	83400	79100	80600	76000
19	67800	97800	43300	36700	70700	67000	123000	98500	82200	78200	82100	75700
20	68100	88100	40000	36500	91300	68900	120000	95300	81500	77500	82300	75200
21	68400	82200	36000	38000	89200	69200	117000	93900	81200	77400	81600	74900
22	68600	80900	33000	40200	90100	67500	117000	93500	84200	77800	80700	75500
23	69400	79400	31000	41300	85100	67800	119000	92900	96100	79700	79200	77700
24	77200	78600	31800	43400	79300	68700	118000	92100	102000	81300	78800	79200
25	74600	77500	35000	44000	69000	68000	116000	92800	109000	80000	78100	79900
26	71400	73700	35000	42600	65100	69000	114000	101000	120000	79500	78100	79400
27	68800	71400	33000	41600	65400	70300	112000	97900	115000	79100	77800	81100
28	69300	70000	32200	40600	65000	71100	110000	98000	106000	82500	77600	81800
29	71900	70700	33700	40600	---	74200	109000	98900	100000	79400	77400	80300
30	74700	77400	35700	40700	---	76200	112000	101000	98800	79400	77700	79700
31	72300	---	36200	40400	---	77300	---	100000	---	79400	77800	---
MEAN	68970	77520	50380	39470	57210	68370	110900	106600	92520	83660	77790	79160
MAX	77200	118000	77200	44000	91300	77300	132000	129000	120000	98100	82300	96600
MIN	65100	70000	31000	36300	40900	59300	79900	92100	81200	77400	73800	74900
IN.	.19	.21	.14	.11	.14	.19	.29	.29	.25	.23	.21	.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1997[a], BY WATER YEAR (WY)

MEAN	47740	43920	29790	24850	31770	46280	56930	58390	61550	57120	49010	49930
MAX	87650	77520	61820	45740	60570	96800	113600	106600	144700	195400	83050	79160
(WY)	1987	1997	1987	1973	1983	1979	1984	1997	1984	1993	1996	1997
MIN	30290	18510	11560	12210	15790	19490	32920	36390	35620	34230	33520	34260
(WY)	1962	1991	1964	1959	1964	1964	1990	1958	1958	1963	1991	1963

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1958 - 1997[a]	
ANNUAL MEAN	66600		76050		46480	
HIGHEST ANNUAL MEAN					76050	1997
LOWEST ANNUAL MEAN					30960	1963
HIGHEST DAILY MEAN	155000	Jun 24	132000	Apr 15,16	328000	Jul 26 1993
LOWEST DAILY MEAN	25000	Jan 23	31000	Dec 23	4000	Jan 17 1963
ANNUAL SEVEN-DAY MINIMUM	29800	Jan 31	33000	Dec 22	5030	Dec 15 1963
INSTANTANEOUS PEAK FLOW	---		134000	Apr 15	335000	Jul 26 1993
INSTANTANEOUS PEAK STAGE	---		22.05	May 8	32.07	Jul 26 1993
INSTANTANEOUS LOW FLOW	---		30600	Dec 23	4000	Jan 17 1963
ANNUAL RUNOFF (INCHES)	2.16		2.46		1.50	
10 PERCENT EXCEEDS	93300		109000		72600	
50 PERCENT EXCEEDS	68400		76700		41800	
90 PERCENT EXCEEDS	35100		41000		21300	

[a]Post-regulation period.

06818000 MISSOURI RIVER AT ST. JOSEPH, MO--Continued
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May 1984 to December 1984, July 1985 through September 1985, April 1986 to September 1986.
DISSOLVED OXYGEN: May 1984 to November 1984, July 1985 through 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.--Discontinued as national stream-quality accounting network station, September 1986. Ambient water-quality monitoring network station since November 1992.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
OCT											
08...	0845	67700	15.5	785	8.4	8.9	92	--	K160	K57	178
NOV											
19...	0830	98800	5.0	680	8.3	11.2	91	16	12000	19000	160
DEC											
04...	0830	75800	1.0	740	8.2	12.7	92	--	1400	2900	186
JAN											
21...	0815	35700	1.0	830	8.1	12.6	92	16	240	170	201
FEB											
13...	0915	44900	0.5	740	8.2	12.7	90	--	K267	200	176
MAR											
18...	0830	67800	3.0	650	8.0	11.2	85	--	600	1500	160
APR											
22...	0745	116000	10.5	715	8.1	9.6	89	--	K11000	1100	169
MAY											
28...	0815	97900	14.5	685	8.2	8.2	83	--	K6200	1300	167
JUN											
18...	0830	83800	22.5	745	8.2	7.0	84	14	K440	120	168
JUL											
30...	0830	79000	27.5	777	8.2	6.2	80	--	140	•130	160
AUG											
20...	0900	82500	23.5	745	8.2	6.6	80	13	K230	550	159
SEP											
10...	0815	77500	23.0	699	8.3	7.6	91	--	100	92	155

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
OCT										
08...	208	6	0.67	<0.01	0.02	0.77	0.11	0.05	--	--
NOV										
19...	197	0	1.40	0.02	0.08	1.5	0.45	0.09	220	57
DEC										
04...	228	0	1.50	<0.01	0.10	0.74	0.14	0.05	--	--
JAN										
21...	246	0	1.70	0.02	0.20	0.92	0.12	0.07	280	72
FEB										
13...	216	0	1.50	0.02	0.20	0.65	0.14	0.10	--	--
MAR										
18...	197	0	1.60	0.03	0.21	2.5	0.57	0.11	--	--
APR										
22...	206	0	1.70	0.02	0.07	1.3	0.26	0.05	--	--
MAY										
28...	204	0	1.30	0.03	0.09	E1.2	0.26	0.07	--	--
JUN										
18...	204	0	1.10	<0.01	0.09	1.8	0.16	0.03	280	70
JUL										
30...	196	0	0.84	0.01	0.04	1.0	0.14	0.07	--	--
AUG										
20...	194	0	0.46	<0.01	0.06	1.4	0.14	0.05	230	57
SEP										
10...	189	0	0.32	<0.01	0.03	0.97	0.10	0.04	--	--

K--Results based on colony count outside the acceptable range (non-ideal colony count).
E--Laboratory estimated value.

06818000 MISSOURI RIVER AT ST. JOSEPH, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)
NOV 19...	20	54	5.8	150	19	0.4	448	380	10	<3
JAN 21...	24	62	5.8	190	20	0.4	534	33	440	<3
JUN 18...	26	65	6.0	210	15	0.4	506	70	2600	<3
AUG 20...	21	68	6.0	220	15	0.4	526	100	1700	<3

DATE	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)	COPPER, DISSOLVED (µg/L as Cu) (01040)	IRON, DISSOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	LEAD, DISSOLVED (µg/L as Pb) (01049)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOVERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)	ZINC, DISSOLVED (µg/L as Zn) (01090)
NOV 19...	<1	<1	<1.0	5	<1	<1	3.9	0.2	4	1.8
JAN 21...	<1	<1	1.8	3	2	<1	11	<0.1	10	5.5
JUN 18...	<1	<1	1.2	3	5	<1	0.30	<0.1	30	2.0
AUG 20...	<1	<1	5.0	1	4	2	0.30	<0.1	20	<1.0

06820500 PLATTE RIVER NEAR AGENCY, MO

LOCATION.--Lat 39°41'20", long 94°42'15", in NE 1/4 NW 1/4 sec.10, T.56 N., R.34 W., Buchanan County, Hydrologic Unit 10240012, on left bank 10 ft downstream from bridge of U.S. Highway 169, 1.5 mi downstream from Third Fork, 3.5 mi northeast of Agency, and at mile 66.8.

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

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 sea level. 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.--Estimated daily discharges: Oct. 24, 25, Nov. 6, 18-23, Dec. 1-3, Dec. 18 to Feb. 18, Feb. 20, Feb. 28 to Mar. 2, Apr. 3, and Apr. 5-15. Records fair except for November 1-30 and estimated daily discharges, which are poor. Several observations of water temperature were made during the year. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	328	1240	4300	130	250	2470	354	11300	735	1640	77	41
2	265	830	2120	160	640	3550	341	10900	622	1080	87	55
3	223	686	1390	200	1550	2450	356	7110	541	706	155	141
4	201	682	1130	240	1960	1600	370	7870	487	479	116	287
5	184	1940	952	220	1400	1290	490	3550	444	343	74	148
6	174	3040	884	170	960	1060	830	2440	412	289	61	118
7	185	1410	853	150	750	921	1500	1990	377	254	56	80
8	163	974	780	140	630	834	1200	4840	347	231	52	63
9	154	788	705	130	550	1100	1300	9270	326	212	53	53
10	148	656	652	100	520	2690	4000	3710	305	392	48	45
11	141	586	636	70	480	2870	11000	2180	293	259	51	41
12	140	562	656	50	460	1610	18000	1720	294	563	64	38
13	136	559	636	45	420	1250	13000	1560	276	395	67	140
14	131	541	597	40	400	1080	8800	1350	267	256	73	59
15	128	535	579	40	400	928	9900	1180	297	183	72	64
16	132	637	560	40	470	789	8040	1060	425	149	63	68
17	135	6220	534	40	500	710	3780	1140	430	128	76	56
18	132	8900	310	40	1700	709	2430	1320	299	115	105	67
19	147	4370	230	50	8050	688	1900	1040	238	107	512	67
20	151	3140	220	60	5500	659	1630	841	216	100	242	49
21	136	2540	220	90	10500	641	1620	709	215	99	118	40
22	275	1540	190	140	7640	596	2160	621	206	94	93	36
23	1880	1190	150	180	4510	553	5590	572	204	90	79	74
24	4180	1020	150	240	2270	517	6020	538	195	92	64	95
25	1980	918	130	250	1630	510	3200	523	205	92	55	135
26	938	714	120	230	1850	483	2200	1510	963	95	50	113
27	623	592	110	190	3120	481	1750	898	2240	83	46	80
28	499	655	100	150	2940	449	1510	1060	1060	265	44	62
29	719	882	110	150	---	412	1340	1420	762	242	43	51
30	5120	4090	120	120	---	418	1910	1180	1250	115	42	44
31	2770	---	120	140	---	382	---	904	---	93	41	---
MEAN	726	1748	653	129	2216	1119	3884	2784	498	298	89.6	80.3
MAX	5120	8900	4300	250	10500	3550	18000	11300	2240	1640	512	287
MIN	128	535	100	40	250	382	341	523	195	83	41	36
IN.	.48	1.11	.43	.08	1.31	.73	2.46	1.82	.32	.20	.06	.05

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

MEAN	649	547	379	379	834	1349	1472	1674	1981	1204	452	915
MAX	8584	4620	3248	3714	4912	6345	6835	10020	13640	21280	2935	7853
(WY)	1974	1962	1983	1974	1973	1979	1973	1995	1947	1993	1987	1926
MIN	.016	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	1502		1173		986	
HIGHEST ANNUAL MEAN					4108	1993
LOWEST ANNUAL MEAN					67.4	1934
HIGHEST DAILY MEAN	21100	May 28	18000	Apr 12	57500	Jul 25 1993
LOWEST DAILY MEAN	25	Jan 7	36	Sep 22	.00	At Times
ANNUAL SEVEN-DAY MINIMUM	31	Jan 3	42	Jan 12	.00	At Times
INSTANTANEOUS PEAK FLOW	---		26800	Apr 12	60800	Jul 25 1993
INSTANTANEOUS PEAK STAGE	---		29.80	Apr 12	36.07	Jul 25 1993
INSTANTANEOUS LOW FLOW	---		35	Sep 22	.00	At Times
ANNUAL RUNOFF (INCHES)	11.62		9.05		7.62	
10 PERCENT EXCEEDS	3750		2900		2100	
50 PERCENT EXCEEDS	381		425		192	
90 PERCENT EXCEEDS	109		63		22	

06821140 SMITHVILLE RESERVOIR NEAR SMITHVILLE, MO

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

DRAINAGE AREA.--213 mi^2.

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

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

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.

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

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, 168,000 ac-ft, Apr. 17, elevation, 867.75 ft; minimum, 134,000 ac-ft, Mar. 20, elevation, 863.14.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 08:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	864.22	864.48	865.29	864.15	864.31	866.50	863.38	866.65	866.07	864.28	863.81	863.49
2	864.23	864.48	865.31	864.21	864.33	866.28	863.39	866.63	866.01	864.25	863.80	863.50
3	864.20	864.46	865.34	864.23	864.35	866.11	863.41	866.65	865.94	864.20	863.79	863.50
4	864.18	864.43	865.31	864.23	864.42	865.85	863.42	866.65	865.87	864.15	863.79	863.45
5	864.17	864.50	865.23	864.23	864.51	865.60	863.44	866.65	865.81	864.12	863.78	863.40
6	864.16	864.54	865.21	864.22	864.52	865.37	863.45	866.68	865.71	864.10	863.76	863.38
7	864.20	864.57	865.13	864.21	864.54	865.13	863.46	866.64	865.62	864.10	863.78	863.38
8	864.23	864.56	865.04	864.21	864.55	864.88	863.48	866.65	865.56	864.11	863.69	863.37
9	864.21	864.55	864.97	864.21	864.55	864.67	863.42	866.47	865.46	864.07	863.65	863.35
10	864.21	864.54	864.93	864.20	864.57	864.40	863.44	866.42	865.36	864.08	863.62	863.32
11	864.19	864.52	864.85	864.17	864.58	864.20	865.53	866.41	865.29	864.06	863.62	863.29
12	864.16	864.51	864.79	864.17	864.59	863.92	867.03	866.37	865.23	864.04	863.61	863.27
13	864.12	864.51	864.70	864.17	864.59	863.80	867.29	866.30	865.16	864.07	863.63	863.33
14	864.15	864.50	864.68	864.20	864.59	863.65	867.50	866.23	865.07	864.08	863.62	863.33
15	864.17	864.49	864.55	864.20	864.60	863.47	867.60	866.21	865.00	864.08	863.62	863.33
16	864.17	864.49	864.47	864.27	864.63	863.36	867.68	866.20	865.02	864.04	863.61	863.32
17	864.16	864.79	864.41	864.17	864.63	863.21	867.75	866.20	865.02	864.03	863.66	863.33
18	864.12	864.97	864.30	864.16	864.69	863.18	867.74	866.19	864.95	864.00	863.65	863.31
19	864.10	865.01	864.22	864.16	864.71	863.16	867.74	866.29	864.87	863.99	863.64	863.30
20	864.07	865.02	864.14	864.18	864.72	863.14	867.74	866.27	864.77	863.96	863.62	863.29
21	864.07	865.02	864.14	864.21	865.58	863.17	867.66	866.26	864.70	864.01	863.67	863.23
22	864.14	865.03	864.14	864.24	866.11	863.21	867.63	866.25	864.63	864.03	863.62	863.20
23	864.28	865.03	864.17	864.24	866.28	863.20	867.64	866.24	864.55	864.01	863.60	863.25
24	864.43	865.07	864.15	864.23	866.38	863.19	867.61	866.22	864.42	863.99	863.58	863.27
25	864.49	865.05	864.15	864.23	866.40	863.32	867.64	866.25	864.37	863.99	863.59	863.26
26	864.51	865.03	864.14	864.23	866.39	863.34	867.64	866.31	864.40	863.97	863.56	863.26
27	864.52	865.02	864.14	864.24	866.59	863.35	867.50	866.30	864.36	863.94	863.54	863.26
28	864.51	865.02	864.14	864.26	866.67	863.37	867.38	866.29	864.31	863.92	863.54	863.24
29	864.51	865.02	864.14	864.25	---	863.35	867.16	866.23	864.33	863.92	863.52	863.22
30	864.51	865.21	864.14	864.25	---	863.38	866.92	866.20	864.32	863.89	863.52	863.20
31	864.50	---	864.15	864.29	---	863.39	---	866.14	---	863.84	863.49	---
MEAN	864.25	864.75	864.60	864.21	865.05	864.07	866.09	866.37	865.07	864.04	863.64	863.32
MAX	864.52	865.21	865.34	864.29	866.67	866.50	867.75	866.68	866.07	864.28	863.81	863.50
MIN	864.07	864.43	864.14	864.15	864.31	863.14	863.38	866.14	864.31	863.84	863.49	863.20
(-)	144000	149000	141000	142000	160000	136000	162000	156000	142000	139000	137000	135000
(=)	+2000	+5000	-8000	+1000	+18000	-24000	+26000	-6000	-14000	-3000	-2000	-2000

CAL YR 1996...+7000
WTR YR 1997...-7000

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

06821150 LITTLE PLATTE RIVER AT SMITHVILLE, MO

LOCATION.--Lat 39°23'17", long 94°34'44", in NW 1/4 SW 1/4 sec.23, T.53 N., R.33 W., Clay County, Hydrologic Unit 10240012, on left bank behind city equipment shelter on old bridge abutment, 500 ft upstream from town bridge in Smithville, 1,500 ft upstream from bridge on U.S. Highway 169, 0.5 mi downstream from Wilkerson Creek, 2.4 mi downstream from Smithville Lake, and at mile 11.1.

DRAINAGE AREA.--234 mi^2.

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

REVISED RECORDS.--WDR MO 1970: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 778.18 ft above sea level (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.--Estimated daily discharges: Jan. 6, 10, 12-19, 25-30, Feb. 20-24, and Apr. 10-17. Records good except for period October 1 to November 30, which is fair and estimated daily discharges, which are poor. Construction of dam for Smithville Lake (station 06821140) began in June 1974 and partial regulation began Aug. 6, 1977. Several observations of water temperature were made during the year. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 76,600 ft^3/s, July 20, 1965, gage height, 44.8 ft, from floodmark.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	14	23	13	33	1010	21	503	265	175	12	9.8
2	15	15	21	13	39	987	37	23	264	121	22	10
3	15	16	159	13	32	978	79	16	262	67	9.6	9.6
4	15	26	308	12	46	968	80	15	262	14	9.6	8.4
5	16	37	307	13	18	961	100	14	262	13	9.8	8.1
6	18	20	306	13	14	955	94	158	262	13	9.8	8.1
7	21	16	304	12	13	949	79	632	259	13	9.8	9.0
8	19	16	300	11	12	944	76	890	258	13	11	9.0
9	16	15	297	11	12	950	74	444	257	13	10	9.3
10	14	14	298	11	12	943	202	16	256	13	10	9.2
11	14	13	298	11	11	937	884	148	256	16	11	9.1
12	13	13	296	11	11	740	162	255	262	20	12	8.7
13	13	13	294	11	11	467	94	254	260	14	11	12
14	12	13	294	11	10	465	62	138	258	13	10	10
15	11	15	293	11	11	460	47	19	262	13	9.8	9.6
16	11	94	292	11	12	460	38	18	309	13	9.8	9.6
17	12	256	292	11	12	345	32	18	262	12	11	9.4
18	12	40	289	12	16	154	146	20	257	12	11	9.4
19	11	27	203	16	13	21	275	36	254	12	11	9.7
20	11	21	54	19	51	21	275	20	252	12	11	9.7
21	11	18	14	19	396	20	274	18	252	12	10	8.7
22	131	15	14	15	124	23	273	17	252	12	9.9	9.9
23	284	14	15	12	96	19	264	17	193	12	9.8	17
24	79	13	19	13	59	80	23	17	106	12	9.6	12
25	20	12	13	12	348	166	185	149	103	12	9.6	9.6
26	13	11	13	11	826	35	516	211	112	12	9.6	8.9
27	10	11	13	11	499	28	515	53	112	12	9.6	9.0
28	9.8	11	13	11	721	26	748	143	125	14	9.8	9.1
29	12	114	13	11	---	23	966	270	203	14	9.8	9.0
30	13	80	13	11	---	22	963	277	123	12	9.7	8.9
31	13	---	13	16	---	21	---	271	---	12	9.6	---
MEAN	28.4	33.1	164	12.5	124	457	253	164	227	23.5	10.6	9.66
MAX	284	256	308	19	826	1010	966	890	309	175	22	17
MIN	9.8	11	13	11	10	19	21	14	103	12	9.6	8.1
IN.	.14	.16	.81	.06	.55	2.25	1.21	.81	1.08	.12	.05	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1997[a], BY WATER YEAR (WY)

MEAN	178	152	96.1	85.5	74.2	160	215	278	245	239	201	161
MAX	960	755	466	563	257	585	640	850	809	813	1206	1006
(WY)	1986	1978	1993	1993	1985	1985	1978	1993	1995	1996	1993	1977
MIN	1.01	2.06	.052	.074	10.3	4.73	9.85	11.4	13.3	10.6	7.65	7.79
(WY)	1977	1977	1977	1977	1977	1981	1981	1988	1988	1980	1980	1980

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1977 - 1997[a]	
ANNUAL MEAN	144		126		174	
HIGHEST ANNUAL MEAN					476	1993
LOWEST ANNUAL MEAN					35.4	1988
HIGHEST DAILY MEAN	1560	Jul 2	1010	Mar 1	7810	Jul 27 1981
LOWEST DAILY MEAN	4.3	Jul 14	8.1	Sep 5,6	.05	Dec 1-25 1976
ANNUAL SEVEN-DAY MINIMUM	9.2	Jan 30	8.7	Sep 4	.05	Dec 1 1976
INSTANTANEOUS PEAK FLOW	---		1420	Apr 11	21000	Aug 13 1982
INSTANTANEOUS PEAK STAGE	---		25.98	Apr 11	36.44	Aug 13 1982
INSTANTANEOUS LOW FLOW	---		7.1	Sep 21	.00	Many Years
ANNUAL RUNOFF (INCHES)	8.35		7.28		10.12	
10 PERCENT EXCEEDS	478		305		539	
50 PERCENT EXCEEDS	14		16		20	
90 PERCENT EXCEEDS	10		9.8		8.6	

[a]Post-regulation period.

06821190 PLATTE RIVER AT SHARPS STATION, MO

LOCATION.--Lat 39°24'03", long 94°43'36", in NW 1/4 SE 1/4 SW 1/4 sec.16, T.53 N., R.34 W., Platte County, Hydrologic Unit 10240012, on downstream side of center pier at Sharps Bridge, 0.2 mi upstream from Jowler Creek, 3.3 mi downstream from Little Platte River, 3.6 mi south of Camden Point, and at mile 25.1.

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

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

GAGE.--Water-stage recorder. Datum of gage is 754.23 ft above sea level (levels by the U.S. Army Corps of Engineers).

REMARKS.--Estimated daily discharges: Dec. 20 to Feb. 18, Feb. 25-27, and June 11-13. Water-discharge records fair except estimated daily discharges, which are poor. Several observations of water temperature were made during the year. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	578	2550	5080	210	180	4210	653	5360	1260	1470	188	67
2	451	1330	4140	230	300	4150	627	9480	1120	1980	162	64
3	375	934	2370	280	620	4640	708	10300	1020	1200	165	68
4	323	800	1890	350	1700	3470	728	9760	952	807	225	150
5	291	953	1640	420	2050	2750	816	7570	901	611	232	372
6	272	2660	1460	390	1500	2430	1030	3640	861	494	165	231
7	440	2870	1390	300	1000	2220	2110	2930	826	428	148	198
8	414	1660	1340	260	800	2090	2660	4140	792	391	137	147
9	317	1170	1250	250	690	2030	1680	7700	762	369	128	113
10	268	931	1190	230	630	2620	1870	8320	740	357	110	99
11	247	803	1130	180	600	3860	10200	3850	730	535	104	81
12	236	719	1110	120	550	3530	13800	2480	720	478	125	64
13	226	664	1130	90	510	2220	15300	2070	720	690	161	98
14	222	624	1100	92	470	1860	12200	1900	701	535	140	169
15	216	601	1060	92	450	1670	8930	1460	682	402	142	198
16	210	665	1030	92	450	1540	9490	1270	896	322	145	120
17	208	3270	1000	94	500	1410	8470	1160	944	280	149	129
18	208	8210	852	96	680	1160	4290	1280	857	251	147	106
19	212	8480	649	96	4160	959	2960	1440	731	230	167	97
20	208	4000	440	98	8560	909	2440	1140	657	216	512	119
21	237	2180	390	110	8920	885	2230	953	624	211	397	96
22	584	1670	350	150	11500	853	2340	847	614	214	223	75
23	1670	1450	340	170	12900	810	3790	783	596	212	171	138
24	4870	1310	260	200	10400	787	6640	742	448	206	146	146
25	5050	1180	260	240	3400	1180	5650	836	420	201	124	173
26	2460	1040	230	260	2170	859	3740	1470	437	196	103	189
27	1240	805	210	240	4240	807	2890	1610	1500	197	88	209
28	878	745	190	200	4380	777	2530	1120	2030	206	79	151
29	722	888	180	180	---	734	2660	1450	1380	359	74	112
30	1700	2210	190	180	---	697	2510	1820	998	403	72	87
31	4730	---	210	160	---	677	---	1540	---	246	73	---
MEAN	970	1912	1099	195	3011	1897	4531	3239	864	474	161	136
MAX	5050	8480	5080	420	12900	4640	15300	10300	2030	1980	512	372
MIN	208	601	180	90	180	677	627	742	420	196	72	64
IN.	.47	.90	.53	.09	1.32	.92	2.12	1.57	.41	.23	.08	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1997, BY WATER YEAR (WY)

MEAN	1223	942	1183	613	1363	2123	2607	3738	2941	3222	1123	1487
MAX	6847	3759	5005	2153	3980	8745	6946	12710	10790	21600	3535	7206
(WY)	1986	1993	1993	1983	1982	1979	1993	1995	1984	1993	1987	1993
MIN	25.1	61.9	46.1	50.1	37.6	110	93.0	157	75.2	52.5	47.7	56.7
(WY)	1989	1989	1989	1989	1989	1989	1989	1989	1988	1988	1988	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1979 - 1997	
ANNUAL MEAN	1966		1525		1888	
HIGHEST ANNUAL MEAN					5697	1993
LOWEST ANNUAL MEAN					464	1989
HIGHEST DAILY MEAN	17700	May 30	15300	Apr 13	37300	Jul 26 1993
LOWEST DAILY MEAN	55	Jan 7	64	Sep 2,12	12	Aug 7,8,13,14 1989
ANNUAL SEVEN-DAY MINIMUM	67	Jan 5	71	Aug 28	14	Aug 7 1989
INSTANTANEOUS PEAK FLOW	---		15800	Apr 13	37800	Jul 26 1993
INSTANTANEOUS PEAK STAGE	---		30.75	Apr 13	36.43	Jul 26 1993
INSTANTANEOUS LOW FLOW	---		60	Sep 12	12	Aug 7,8,13,14 1989
ANNUAL RUNOFF (INCHES)	11.25		8.70		10.78	
10 PERCENT EXCEEDS	6150		4060		4610	
50 PERCENT EXCEEDS	601		697		649	
90 PERCENT EXCEEDS	186		127		75	

06892350 KANSAS RIVER AT DESOTO, KS

LOCATION.--Lat 38°59'00", long 94°57'52", in SE 1/4 NE 1/4 NE 1/4 sec.27, T.12 S., R.22 E., Leavenworth County, Hydrologic Unit 10270104, on left bank at downstream side of bridge on county highway, north edge of DeSoto, 0.4 mi upstream from Kill Creek, and at mile 31.0.

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

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

REVISED RECORDS.--WSP 806: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 758.87 ft above sea level. 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.

REMARKS.--Estimated daily discharges: Jan. 11 to Feb. 10 and Feb. 14. Records good 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7120	10300	23600	8170	4000	15300	2340	8870	11700	13100	3470	3620
2	6230	8510	18800	8400	4200	14600	2160	9390	10800	12300	3790	3390
3	5630	7800	17600	8020	4000	14100	1890	8870	10100	11400	3080	3370
4	4830	7220	12900	7120	3800	13700	2820	8590	9840	9590	2760	3190
5	4570	6890	10500	6940	3900	13200	4670	8040	8880	8100	3040	2730
6	4300	6260	12000	5300	4000	12900	7650	7400	7840	6170	2820	3240
7	5030	6030	11600	4640	3800	11200	7370	7400	7310	5590	2820	2530
8	5720	5130	11200	4330	3500	9230	5510	7980	6110	5600	2660	1940
9	6250	4410	10900	4160	3700	7830	6030	7260	5570	5890	2670	2060
10	5220	4110	10700	3610	3800	6880	6330	6900	5350	5830	2620	2100
11	4460	3920	10600	3400	3350	6590	38000	6390	4730	5230	2690	1770
12	4370	3610	9440	3500	3400	6020	58900	5970	4670	3790	2790	1730
13	4450	2960	8620	3300	3210	5240	34200	5930	4290	3310	2980	2040
14	4380	2670	8640	3000	3000	4930	19200	5320	4410	4800	3050	1980
15	4290	2570	8720	2800	3210	4640	12600	5000	4030	6600	3480	1840
16	4180	2970	8840	2600	3150	4400	10300	5280	8320	6570	3620	1830
17	4150	14100	9010	2600	3090	4310	10000	5160	6250	6340	3470	1750
18	3950	27700	9010	2800	3370	4320	12500	5140	4780	4570	3630	1660
19	3940	20100	8580	3000	3360	4270	16200	6480	4550	3810	3300	1430
20	3880	19200	9050	3300	3550	4130	17600	5660	4330	3670	6500	1470
21	3660	16100	9210	4000	13600	4080	18600	5220	4770	3830	9700	1300
22	5270	19700	8240	4700	29700	4090	18400	4820	4930	3700	8120	1350
23	9410	23200	7390	4500	22600	4040	18400	4590	5170	3540	7330	3080
24	14100	26800	6410	4000	15700	3870	18100	4440	5300	3380	5850	3130
25	16000	26100	4780	3700	11700	4300	15400	4700	5240	3620	5030	2090
26	13400	24800	5450	3900	11800	4000	13300	7010	4660	4260	5710	1490
27	12000	23900	9800	3400	15100	3720	11900	8610	5670	3820	5210	1820
28	10800	22800	9480	3200	16300	3680	11900	13400	12400	3230	4610	3760
29	10400	21500	10200	3600	---	3420	11700	10700	13400	3300	4400	4370
30	12000	23700	9010	3500	---	3050	10000	12900	13700	2990	4030	3650
31	14700	---	8120	4000	---	2650	---	13700	---	2490	3720	---
MEAN	7055	13170	10270	4306	7425	6732	14130	7326	6970	5497	4160	2390
MAX	16000	27700	23600	8400	29700	15300	58900	13700	13700	13100	9700	4370
MIN	3660	2570	4780	2600	3000	2650	1890	4440	4030	2490	2620	1300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1997, BY WATER YEAR (WY)

MEAN	5745	4366	3536	2859	4464	7058	9416	11090	15130	11870	6976	6745
MAX	51630	42320	21940	15990	20800	36560	43570	43270	78870	133200	66680	44660
(WY)	1974	1974	1974	1973	1949	1973	1973	1993	1951	1951	1993	1951
MIN	365	504	465	364	635	632	845	953	1188	1106	455	525
(WY)	1957	1957	1957	1957	1957	1967	1956	1989	1989	1936	1934	1956

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1918 - 1997	
ANNUAL MEAN	8532		7434		7444	
HIGHEST ANNUAL MEAN					30570	1993
LOWEST ANNUAL MEAN					1326	1956
HIGHEST DAILY MEAN	60400	Jun 6	58900	Apr 12	486000	Jul 14 1951
LOWEST DAILY MEAN	1100	Mar 9	1300	Sep 21	160	Oct 11 1956
ANNUAL SEVEN-DAY MINIMUM	1410	Apr 19	1540	Sep 16	195	Oct 9 1956
INSTANTANEOUS PEAK FLOW	---		68700	Apr 12	510000	Jul 13 1951
INSTANTANEOUS PEAK STAGE	---		20.09	Apr 12	37.30	Jul 13 1951
INSTANTANEOUS LOW FLOW	---		1150	Sep 19	160	Oct 11 1956
10 PERCENT EXCEEDS	22100		14300		17700	
50 PERCENT EXCEEDS	5250		5170		3330	
90 PERCENT EXCEEDS	2000		2800		1100	

06893000 MISSOURI RIVER AT KANSAS CITY, MO

LOCATION.--Lat 39°06'43", long 94°35'16", 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.--485,200 mi^2, approximately.

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.--Estimated daily discharges: Aug. 22 to Sept. 2. Records fair except for estimated daily discharges, which are poor. Some regulation from many upstream reservoirs. Several observations of water temperature were made during the year. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

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

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77700	87000	97700	45100	43600	78600	79100	129000	110000	111000	78300	78500
2	75600	82600	94000	45800	45200	77400	81900	136000	108000	109000	78000	77700
3	73800	80700	91300	45500	47600	79000	84700	134000	105000	108000	77500	83200
4	72900	80300	87800	45000	52300	78700	88700	134000	103000	105000	76600	90700
5	71600	79700	84000	45400	55900	77200	93500	131000	100000	101000	76100	86500
6	71200	79000	81300	48000	55000	76000	99600	125000	98100	98600	75700	81900
7	71800	79100	78600	50400	52100	73400	103000	122000	96500	95900	75800	79100
8	72000	78000	75900	50000	49600	69700	105000	129000	93600	93900	75400	78000
9	70800	75900	73700	47200	49600	68400	109000	135000	91300	92100	75300	77000
10	70200	75300	71000	44700	49600	68200	115000	130000	90700	90700	75200	76600
11	68900	74900	67400	43000	49200	72700	157000	123000	90200	89900	75900	77000
12	67800	74200	64800	42400	48600	79100	186000	117000	89900	89400	77100	76700
13	67600	73700	62700	40200	48200	80400	165000	114000	89300	87200	78800	77500
14	67700	73100	60500	39000	48000	80000	152000	112000	89100	86000	79400	77400
15	67400	72300	58900	38600	48200	78300	144000	110000	89000	86100	79600	76900
16	67300	72800	58700	38700	48500	78200	143000	108000	96800	85400	79900	76700
17	66900	101000	58900	40600	48800	76000	139000	106000	96000	84800	81300	76300
18	67600	130000	57700	41200	49900	74000	136000	105000	91400	83000	81200	76300
19	67800	120000	54600	40500	59900	72200	136000	106000	89100	81500	81600	76100
20	68600	113000	49900	39600	85000	72700	136000	104000	87700	80500	82300	75800
21	68700	102000	46300	40100	99300	73600	135000	101000	87100	80100	87400	75400
22	72700	99200	43800	42500	109000	73000	134000	99500	87700	80100	86200	75800
23	80800	99700	41600	44300	106000	72200	136000	98500	92000	81000	85000	78700
24	89600	99500	37200	46100	98100	73500	138000	97900	99800	81000	82700	80700
25	96400	99400	36600	47900	85100	74900	135000	97900	102000	81200	81500	80100
26	91000	96700	38600	47800	77100	73600	131000	104000	111000	80500	81200	79100
27	86000	92200	41800	45900	78900	74200	128000	107000	113000	80300	80800	78900
28	83500	88000	43700	43200	79900	74600	126000	109000	115000	81300	79800	80400
29	83400	87900	42400	42100	---	76000	125000	108000	114000	81100	79400	80600
30	86900	90400	43700	42400	---	77800	124000	111000	111000	79600	79500	79900
31	91000	---	45000	43100	---	78100	---	113000	---	79000	79000	---
MEAN	75330	88590	60970	43750	63150	75220	125500	114700	97910	88520	79470	78850
MAX	96400	130000	97700	50400	109000	80400	186000	136000	115000	111000	87400	90700
MIN	66900	72300	36600	38600	43600	68200	79100	97900	87100	79000	75200	75400
IN.	.18	.20	.14	.10	.14	.18	.29	.27	.23	.21	.19	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1997[a], BY WATER YEAR (WY)

MEAN	56360	51100	35630	28770	38270	56780	70650	72890	77760	71130	57460	59010
MAX	135200	93340	75370	60980	77690	133700	148900	145800	173900	288300	144300	115600
(WY)	1974	1974	1987	1973	1973	1979	1984	1995	1984	1993	1993	1993
MIN	34650	20560	12970	13800	16610	20190	36370	37230	40410	39230	33850	34510
(WY)	1992	1991	1964	1963	1964	1964	1990	1989	1989	1991	1991	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1958 - 1997[a]	
ANNUAL MEAN	74420		82660		56360	
HIGHEST ANNUAL MEAN					102100	1993
LOWEST ANNUAL MEAN					35600	1991
HIGHEST DAILY MEAN	164000	May 28	186000	Apr 12	529000	Jul 27 1993
LOWEST DAILY MEAN	26400	Jan 24	36600	Dec 25	4730	Dec 18 1963
ANNUAL SEVEN-DAY MINIMUM	31200	Jan 22	39700	Jan 14	5480	Dec 17 1963
INSTANTANEOUS PEAK FLOW	---		190000	Apr 12	541000	Jul 27 1993
INSTANTANEOUS PEAK STAGE	---		29.56	Apr 12	48.87	Jul 27 1993
INSTANTANEOUS LOW FLOW	---		36200	Dec 25	7480	Jan 18 1963
ANNUAL RUNOFF (INCHES)	2.09		2.31		1.58	
10 PERCENT EXCEEDS	111000		114000		94300	
50 PERCENT EXCEEDS	72600		79800		48500	
90 PERCENT EXCEEDS	38400		46000		24300	

[a]Post-regulation period.

06893500 BLUE RIVER NEAR KANSAS CITY, MO

LOCATION.--Lat 38°57'26", long 94°33'31", in SE 1/4 NE 1/4 sec.28, T.48 N., R.33 W., Jackson County, Hydrologic Unit 10300101, on downstream side of right pier of bridge on Bannister Road, 0.4 mi downstream from Indian Creek, in Kansas City, and at mile 23.2.

DRAINAGE AREA.--188 mi^2.

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 sea level (levels by the U.S. Army Corps of Engineers). Prior to July 1, 1939, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Dec. 19, 24, 25, Jan. 9-11, 16, 17, and 25-29. Records fair except estimated daily discharges, which are poor. Low flow regulated by commercial plants above station. Several observations of water temperature were made during the year. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	83	265	55	203	319	97	99	256	46	18	66
2	46	77	237	62	207	264	203	266	203	37	25	84
3	39	72	284	64	189	230	193	163	168	32	32	54
4	35	269	201	64	193	211	212	112	151	29	25	43
5	32	252	177	61	152	189	275	98	128	27	24	35
6	29	164	159	55	128	170	235	93	111	25	26	34
7	357	131	144	51	125	160	159	89	94	21	27	36
8	200	109	127	48	129	149	129	315	86	126	26	33
9	89	95	115	45	112	153	113	157	77	59	26	26
10	54	85	112	45	105	141	211	114	69	49	28	22
11	44	79	106	40	98	129	4970	98	70	194	32	20
12	40	77	98	38	93	122	864	90	349	131	86	21
13	44	73	89	38	87	117	371	82	313	68	68	381
14	43	69	86	39	87	114	290	73	247	54	73	84
15	30	73	87	40	86	107	243	66	166	43	207	59
16	27	558	83	40	87	100	214	64	4970	34	57	48
17	25	2080	78	40	86	99	185	93	456	33	306	54
18	21	317	71	43	84	104	169	148	264	33	95	50
19	22	231	70	45	83	100	156	477	196	35	470	40
20	24	190	62	62	307	92	156	200	154	32	187	33
21	27	165	60	85	6140	87	143	128	230	56	94	32
22	441	145	66	100	1130	87	158	102	138	50	71	73
23	1220	132	66	84	467	83	331	91	104	34	61	656
24	583	125	60	99	331	138	211	82	82	30	48	203
25	247	112	55	65	266	347	161	446	64	27	41	127
26	177	101	48	55	1880	146	142	1730	60	26	39	88
27	168	92	51	55	918	122	126	1360	88	26	33	72
28	142	87	52	55	401	119	119	374	58	50	28	60
29	130	420	54	60	---	114	111	272	51	54	27	52
30	115	400	51	61	---	116	104	1990	74	34	345	44
31	94	---	54	129	---	106	---	399	---	19	98	---
MEAN	148	229	105	58.8	506	146	368	318	316	48.8	87.8	87.7
MAX	1220	2080	284	129	6140	347	4970	1990	4970	194	470	656
MIN	21	69	48	38	83	83	97	64	51	19	18	20
IN.	.91	1.36	.65	.36	2.80	.90	2.19	1.95	1.88	.30	.54	.52

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1997, BY WATER YEAR (WY)

MEAN	126	101	92.5	93.5	125	186	270	260	274	168	84.0	165
MAX	790	771	726	445	740	1407	1279	1457	1285	1616	431	1395
(WY)	1987	1962	1993	1941	1985	1973	1944	1990	1967	1951	1982	1986
MIN	.000	.000	.000	.000	2.66	4.36	6.41	17.8	7.44	1.72	.94	.047
(WY)	1940	1940	1940	1940	1940	1957	1954	1956	1953	1946	1947	1939

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1939 - 1997	
ANNUAL MEAN	153		199		163	
HIGHEST ANNUAL MEAN					437	1993
LOWEST ANNUAL MEAN					12.8	1956
HIGHEST DAILY MEAN	4260	May 27	6140	Feb 21	20000	Sep 13 1961
LOWEST DAILY MEAN	10	Apr 27	18	Aug 1	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	15	Apr 7	24	Jul 31	.00	At Times
INSTANTANEOUS PEAK FLOW	---		8950	Apr 11	41000	Sep 13 1961
INSTANTANEOUS PEAK STAGE	---		23.95	Apr 11	44.46	Sep 13 1961
INSTANTANEOUS LOW FLOW	---		6.5	Sep 12	.00	Several Years
ANNUAL RUNOFF (INCHES)	11.06		14.35		11.76	
10 PERCENT EXCEEDS	268		316		272	
50 PERCENT EXCEEDS	53		92		44	
90 PERCENT EXCEEDS	22		32		5.9	

06893791 LONGVIEW RESERVOIR AT KANSAS CITY, MO

LOCATION.--Lat 38°55'29", long 94°27'35", SE 1/4 NE 1/4 NW 1/4 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, 3.1 mi upstream from Cedar Creek.

DRAINAGE AREA.--50.3 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is sea level (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.

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

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, 25,000 ac-ft, Apr. 12, elevation, 893.89 ft; minimum, 21,700 ac-ft, Sept. 22, elevation, 890.41 ft, Aug. 16.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 08:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	891.37	891.26	891.80	891.12	891.26	892.38	891.22	891.25	892.10	891.21	890.72	890.87
2	891.33	891.22	891.75	891.13	891.33	892.14	891.20	891.33	891.92	891.21	890.70	890.90
3	891.26	891.19	891.83	891.15	891.41	891.99	891.29	891.37	891.78	891.17	890.70	890.80
4	891.22	891.18	891.75	891.16	891.46	891.85	891.30	891.35	891.64	891.14	890.70	891.04
5	891.19	891.45	891.67	891.16	891.48	891.74	891.41	891.32	891.54	891.10	890.64	891.01
6	891.17	891.45	891.60	891.14	891.46	891.66	891.57	891.28	891.46	891.09	890.60	890.97
7	891.17	891.41	891.56	891.12	891.42	891.59	891.51	891.26	891.41	891.08	890.58	890.96
8	891.28	891.38	891.50	891.12	891.41	891.54	891.44	891.30	891.35	891.07	890.69	890.93
9	891.28	891.33	891.45	891.12	891.40	891.49	891.42	891.29	891.29	891.06	890.70	890.91
10	891.24	891.29	891.42	891.13	891.38	891.46	891.38	891.27	891.26	891.05	890.57	890.88
11	891.20	891.25	891.39	891.10	891.36	891.43	892.03	891.23	891.20	891.04	890.57	890.84
12	891.17	891.22	891.38	891.08	891.34	891.39	893.89	891.21	891.30	891.05	890.57	890.60
13	891.15	891.20	891.35	891.08	891.32	891.37	893.18	891.19	891.20	891.04	890.54	890.63
14	891.12	891.18	891.34	891.06	891.31	891.36	892.60	891.16	891.20	891.03	890.64	890.68
15	891.10	891.16	891.32	891.04	891.30	891.31	892.25	891.14	891.20	891.03	890.69	890.68
16	891.09	891.16	891.30	891.07	891.28	891.28	892.04	891.11	891.90	891.02	890.41	890.65
17	891.09	892.19	891.27	891.06	891.28	891.26	891.90	891.10	891.92	891.01	890.57	890.64
18	891.05	892.10	891.24	891.05	891.29	891.26	891.77	891.08	891.80	891.00	890.80	890.63
19	891.02	891.94	891.22	891.04	891.28	891.20	891.66	891.22	891.82	891.00	890.90	890.61
20	891.00	891.81	891.19	891.04	891.28	891.20	891.58	891.39	891.78	891.00	891.00	890.58
21	890.97	891.69	891.15	891.06	892.60	891.25	891.54	891.35	891.76	891.00	891.10	890.54
22	890.98	891.61	891.15	891.14	893.85	891.23	891.50	891.31	891.73	890.99	891.00	890.51
23	891.23	891.52	891.16	891.16	893.11	891.23	891.49	891.27	891.30	890.99	891.00	890.67
24	891.58	891.47	891.16	891.17	892.62	891.20	891.48	891.23	891.30	890.97	891.00	890.85
25	891.54	891.42	891.14	891.18	892.28	891.30	891.44	891.22	891.30	890.95	890.90	890.86
26	891.50	891.37	891.12	891.19	892.15	891.27	891.39	891.62	891.20	890.91	890.90	890.86
27	891.44	891.34	891.12	891.20	893.10	891.25	891.36	891.89	891.20	890.87	890.88	890.85
28	891.42	891.31	891.12	891.23	892.74	891.26	891.33	892.09	891.20	890.83	890.86	890.81
29	891.37	891.29	891.12	891.21	---	891.26	891.31	891.90	891.20	890.80	890.75	890.80
30	891.34	891.81	891.12	891.20	---	891.25	891.27	892.12	891.20	890.78	890.80	890.77
31	891.29	---	891.12	891.19	---	891.24	---	892.36	---	890.75	890.85	---
MEAN	891.23	891.44	891.35	891.13	891.77	891.44	891.69	891.39	891.48	891.01	890.75	890.78
MAX	891.58	892.19	891.83	891.23	893.85	892.38	893.89	892.36	892.10	891.21	891.10	891.04
MIN	890.97	891.16	891.12	891.04	891.26	891.20	891.20	891.08	891.20	890.75	890.41	890.51
(-)	22400	22900	22200	22300	23800	22400	22400	23400	22300	21900	22000	21900
(=)	-100	+500	-700	+100	+1500	-1400	0	+1000	-1100	-400	+100	-100

CAL YR 1996...+1500
WTR YR 1997...- 600

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

06893793 LITTLE BLUE RIVER BELOW LONGVIEW DAM AT KANSAS CITY, MO

LOCATION.--Lat 38°55'26", long 94°28'05", in NE 1/4 SW 1/4 NW 1/4 sec.4, T.47 N., R.32 W., Jackson County, Hydrologic Unit 10300101, on right bank 300 ft downstream from Longview Dam.

DRAINAGE AREA.--50.3 mi^2.

PERIOD OF RECORD.--August 1966 to current year.

REVISED RECORDS.--WDR MO-77-1: 1975-76. WDR MO-86-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 793.55 ft above sea level. Aug. 1, 1966, to Oct. 24, 1974, at site 0.7 mi upstream at datum 24.90 ft higher; Oct. 25, 1974, to Sept. 30, 1985, at site 0.5 mi downstream at present datum; Oct. 1, 1985, to July 24, 1990, at present site at datum 5.05 ft higher.

REMARKS.--Estimated daily discharges: June 10 to Aug. 5. Records fair except for estimated daily discharges, which are poor. Construction of dam began in October 1982 and storage began Sept. 16, 1985. Several observations of water temperature were made during the year. Complete regulation by Longview Reservoir (station 06893791), 300 ft upstream.

EXTREMES FOR PERIOD FOR RECORD.--Maximum discharge, 18,700 ft^3/s, July 13, 1982; gage height, 21.24 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	9.6	90	9.7	19	200	15	18	128	6.0	.12	7.5
2	20	7.6	86	11	25	145	16	29	93	3.5	.16	7.5
3	15	6.5	94	11	31	111	21	28	71	2.5	.16	7.5
4	11	14	80	11	36	87	24	25	56	2.0	.15	7.2
5	9.2	32	66	11	36	70	38	23	45	1.7	1.3	7.2
6	7.5	30	55	9.5	33	58	45	20	37	1.6	2.9	7.3
7	9.9	25	47	8.9	31	50	39	20	31	1.5	2.9	7.5
8	16	20	40	8.7	30	43	33	22	26	2.3	2.9	7.5
9	14	15	34	9.3	28	39	29	20	24	2.0	2.9	7.5
10	11	12	31	9.0	26	35	34	18	22	1.7	2.8	7.5
11	9.0	9.7	28	7.8	24	31	566	16	20	2.2	2.9	7.6
12	6.9	7.9	26	7.0	23	29	543	14	23	3.5	3.3	7.7
13	5.6	6.6	24	6.5	21	27	329	12	30	2.9	3.2	8.0
14	4.8	5.9	23	6.4	21	24	224	11	25	1.7	3.2	7.8
15	4.2	6.5	22	6.7	20	22	156	9.1	23	1.2	3.6	8.0
16	4.4	22	20	6.9	20	21	113	9.3	125	.73	3.5	8.0
17	3.5	179	18	6.7	20	19	86	8.0	90	.41	3.8	7.8
18	2.3	149	17	6.5	21	18	70	8.3	70	.24	3.5	7.7
19	3.1	115	15	6.4	20	17	56	24	60	.21	4.4	7.7
20	3.2	87	14	6.6	31	17	48	28	48	.15	4.5	7.7
21	2.3	68	14	7.8	617	16	42	25	42	.15	4.5	7.8
22	3.3	55	13	11	589	15	38	22	35	.15	5.2	8.2
23	27	45	12	12	368	14	38	20	22	.15	5.8	9.7
24	52	37	11	13	247	15	35	18	18	.16	6.1	8.9
25	46	31	10	13	175	18	32	18	15	.22	5.6	8.4
26	37	27	9.3	12	290	18	29	57	13	.18	6.5	8.3
27	28	24	9.7	15	369	17	26	125	18	.17	7.0	8.3
28	26	22	8.8	15	271	18	25	119	20	.13	6.9	8.3
29	24	45	8.9	14	---	17	23	91	20	.14	7.0	8.3
30	16	94	9.0	14	---	17	20	180	16	.12	7.3	8.3
31	12	---	8.9	15	---	16	---	177	---	.11	7.2	---
MEAN	14.9	40.3	30.5	9.95	123	40.1	93.1	39.2	42.2	1.28	3.91	7.89
MAX	52	179	94	15	617	200	566	180	128	6.0	7.3	9.7
MIN	2.3	5.9	8.8	6.4	19	14	15	8.0	13	.11	.12	7.2
IN.	.34	.89	.70	.23	2.55	.92	2.07	.90	.94	.03	.09	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1997[a], BY WATER YEAR (WY)

MEAN	42.7	31.5	25.7	14.7	27.6	38.9	60.9	111	36.5	35.2	15.1	43.5
MAX	283	99.5	144	74.3	123	149	194	378	94.7	312	71.7	225
(WY)	1987	1993	1993	1993	1997	1987	1994	1990	1996	1993	1995	1986
MIN	4.98	5.26	5.01	5.46	4.31	3.86	3.97	5.56	4.85	1.28	3.75	4.76
(WY)	1996	1996	1996	1996	1996	1996	1996	1986	1986	1997	1986	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1986 - 1997[a]	
ANNUAL MEAN	23.8		36.4		40.4	
HIGHEST ANNUAL MEAN					104	1993
LOWEST ANNUAL MEAN					13.9	1988
HIGHEST DAILY MEAN	481	Jun 1	617	Feb 21	1160	May 16 1990
LOWEST DAILY MEAN	2.3	Oct 18,21	.11	Jul 31	.00	At Times
ANNUAL SEVEN-DAY MINIMUM	3.2	Oct 16	.13	Jul 28	.13	Jul 28 1997
INSTANTANEOUS PEAK FLOW	---		793	Feb 21	2870	May 15 1990
INSTANTANEOUS PEAK STAGE	---		12.11	Feb 21	12.96	Jul 6 1993
INSTANTANEOUS LOW FLOW	---		.11	Jul 27,28,31,Aug 1	.00	At Times
ANNUAL RUNOFF (INCHES)	6.45		9.82		10.90	
10 PERCENT EXCEEDS	62		82		80	
50 PERCENT EXCEEDS	5.6		16		8.7	
90 PERCENT EXCEEDS	3.8		2.9		5.1	

[a]Post-regulation period.

06893885 BLUE SPRINGS RESERVOIR NEAR BLUE SPRINGS, MO

LOCATION.--Lat 39°01'03", long 94°20'06", sec.33, T.49 N., R.31 W., Jackson County, Hydrologic Unit 10300101, in maintenance building at right end of dam on East Fork Little Blue River, 2.2 mi west of Blue Springs, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--32.8 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is sea level (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, 1,590 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, 12,500 ac-ft, Feb. 22, elevation, 804.35 ft; minimum, 10,600 ac-ft, Aug. 12, elevation, 801.81 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 08:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	802.78	802.47	802.69	802.29	802.34	803.67	802.42	802.58	802.82	802.40	802.00	802.16
2	802.75	802.45	802.71	802.32	802.37	803.47	802.42	802.61	802.84	802.44	801.98	802.16
3	802.70	802.42	802.73	802.32	802.39	803.35	802.43	802.59	802.82	802.41	801.98	802.16
4	802.67	802.42	802.74	802.32	802.41	803.22	802.45	802.59	802.79	802.33	801.97	802.12
5	802.63	802.52	802.74	802.29	802.42	803.10	802.50	802.58	802.77	802.30	801.96	802.10
6	802.61	802.55	802.74	802.26	802.44	803.04	802.52	802.57	802.73	802.28	801.92	802.08
7	802.58	802.54	802.73	802.25	802.45	802.97	802.52	802.55	802.70	802.28	801.89	802.08
8	802.58	802.53	802.70	802.25	802.46	802.93	802.52	802.56	802.66	802.26	801.88	802.06
9	802.55	802.52	802.68	802.25	802.47	802.89	802.50	802.53	802.61	802.26	801.86	802.06
10	802.53	802.49	802.66	802.22	802.47	802.83	802.50	802.50	802.57	802.26	801.84	802.03
11	802.48	802.46	802.65	802.21	802.47	802.80	802.76	802.49	802.54	802.25	801.82	802.00
12	802.46	802.44	802.62	802.20	802.46	802.77	804.10	802.45	802.58	802.26	801.81	801.98
13	802.45	802.43	802.60	802.20	802.46	802.73	804.13	802.44	802.54	802.26	801.90	802.08
14	802.44	802.41	802.58	802.19	802.45	802.65	803.85	802.42	802.55	802.25	801.89	802.07
15	802.42	802.41	802.54	802.20	802.45	802.61	803.64	802.40	802.54	802.25	801.98	802.07
16	802.40	802.42	802.52	802.20	802.45	802.58	803.45	802.37	802.64	802.24	801.98	802.07
17	802.40	802.64	802.49	802.19	802.45	802.57	803.30	802.34	802.64	802.22	802.04	802.08
18	802.34	802.67	802.43	802.18	802.47	802.56	803.18	802.36	802.63	802.21	802.02	802.06
19	802.30	802.70	802.41	802.18	802.46	802.53	803.18	802.42	802.62	802.20	802.04	802.05
20	802.29	802.71	802.39	802.21	802.46	802.52	803.00	802.44	802.59	802.18	802.09	802.04
21	802.29	802.70	802.39	802.22	803.01	802.53	802.93	802.44	802.58	802.21	802.10	802.01
22	802.26	802.69	802.38	802.26	804.35	802.50	802.88	802.43	802.57	802.20	802.12	801.98
23	802.43	802.68	802.36	802.24	804.25	802.47	802.85	802.41	802.56	802.19	802.16	802.07
24	802.49	802.64	802.33	802.25	803.92	802.46	802.82	802.41	802.53	802.17	802.17	802.10
25	802.52	802.61	802.32	802.24	803.67	802.50	802.78	802.41	802.48	802.16	802.17	802.10
26	802.54	802.57	802.31	802.24	803.51	802.46	802.74	802.48	802.45	802.13	802.18	802.10
27	802.54	802.55	802.29	802.24	803.84	802.46	802.70	802.53	802.43	802.10	802.18	802.10
28	802.54	802.54	802.29	802.30	803.83	802.46	802.67	802.57	802.43	802.09	802.18	802.10
29	802.55	802.54	802.30	802.30	---	802.43	802.66	802.57	802.41	802.07	802.17	802.09
30	802.52	802.66	802.28	802.30	---	802.42	802.63	802.72	802.41	802.04	802.16	802.08
31	802.50	---	802.29	802.32	---	802.42	---	802.79	---	802.01	802.17	---
MEAN	802.50	802.55	802.51	802.25	802.83	802.74	802.90	802.50	802.60	802.22	802.02	802.07
MAX	802.78	802.71	802.74	802.32	804.35	803.67	804.13	802.79	802.84	802.44	802.18	802.16
MIN	802.26	802.41	802.28	802.18	802.34	802.42	802.42	802.34	802.41	802.01	801.81	801.98
(-)	11100	11200	11000	11000	12100	11000	11200	11300	11000	10800	10900	10800
(=)	-200	+100	-200	0	+1100	-1100	+200	+100	-300	-200	+100	-100

CAL YR 1996...+800
WTR YR 1997...-500

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

06893890 EAST FORK LITTLE BLUE RIVER NEAR BLUE SPRINGS, MO

LOCATION.--Lat 39°01'32", long 94°20'37", in NE 1/4 NE 1/4 NW 1/4 sec.33, T.49 N., R.31 W., Jackson County, Hydrologic Unit 10300101, on left downstream side of bridge on east bound lane of U.S. Highway 40, 2.6 mi west of Blue Springs, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--34.4 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 753.09 ft above sea level (levels by the U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records fair. Several observations of water temperature were made during the year. Flow impounded or detained in Jackson County Lake at times and by Blue Springs Reservoir subsequent to July 1986.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s, Aug. 13, 1982; gage height, 22.14 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	14	47	10	15	188	20	29	61	16	.21	2.8
2	52	12	50	11	18	159	17	36	60	16	.24	2.7
3	48	11	52	11	20	139	22	35	58	13	.28	2.4
4	43	17	54	10	26	121	25	32	54	11	.32	1.5
5	39	20	55	9.2	27	105	25	31	49	9.1	.24	1.3
6	38	21	55	8.1	28	93	26	28	45	7.6	.21	.92
7	40	25	50	7.2	30	84	26	28	41	6.5	.18	.66
8	37	22	47	6.7	32	77	24	36	34	6.0	.18	.47
9	33	21	44	7.1	32	71	24	25	34	5.5	.18	.25
10	29	20	42	7.3	33	65	26	19	27	5.1	.18	.10
11	28	18	41	6.4	33	59	176	18	26	5.3	.14	.03
12	23	17	39	6.1	32	56	276	18	29	6.8	.21	.05
13	18	16	37	5.7	31	51	260	16	29	6.5	.21	1.2
14	17	15	36	5.3	30	45	214	13	29	5.8	.21	.53
15	16	16	34	6.1	29	40	177	11	26	4.8	.52	.63
16	17	26	32	6.1	29	36	146	10	40	6.0	.57	.90
17	17	43	29	5.8	28	32	122	8.7	36	5.1	.57	.69
18	14	44	26	6.0	29	30	106	9.9	32	3.7	.44	1.0
19	15	46	23	4.9	28	27	95	15	31	2.8	.62	1.4
20	13	47	22	3.9	38	26	84	15	29	3.7	1.3	.42
21	10	47	21	3.8	209	24	77	15	28	4.7	1.4	.15
22	16	45	20	4.4	326	22	71	14	27	3.8	1.6	.14
23	31	43	21	4.2	287	20	66	13	25	3.0	2.2	1.5
24	29	39	19	4.8	226	19	61	11	22	2.4	2.5	1.5
25	20	36	15	5.6	179	21	55	12	20	2.0	2.4	1.3
26	21	32	13	5.7	193	23	52	18	18	1.8	2.4	1.2
27	19	30	12	17	230	22	47	29	17	1.5	2.2	1.3
28	16	27	12	14	220	22	44	31	15	.79	2.4	.82
29	16	35	11	12	---	19	39	33	12	.52	2.2	.50
30	17	42	11	12	---	17	35	52	12	.35	2.6	.40
31	17	---	10	13	---	16	---	58	---	.24	2.6	---
MEAN	25.9	28.2	31.6	7.75	87.1	55.8	81.3	23.2	32.2	5.40	1.02	.96
MAX	54	47	55	17	326	188	276	58	61	16	2.6	2.8
MIN	10	11	10	3.8	15	16	17	8.7	12	.24	.14	.03
IN.	.87	.92	1.06	.26	2.64	1.87	2.64	.78	1.04	.18	.03	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1997[a], BY WATER YEAR (WY)

MEAN	33.7	19.8	22.3	11.1	19.6	28.7	44.4	73.6	37.8	25.0	8.38	20.5
MAX	276	65.9	102	54.4	87.1	88.5	114	273	103	141	32.8	136
(WY)	1987	1993	1993	1993	1997	1987	1994	1990	1995	1993	1996	1986
MIN	.007	.058	.072	.056	.037	.085	.083	.20	.17	.049	.000	.22
(WY)	1989	1996	1996	1989	1989	1996	1996	1989	1989	1989	1988	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1986 - 1997[a]	
ANNUAL MEAN	24.8		31.2		28.8	
HIGHEST ANNUAL MEAN					64.6	1993
LOWEST ANNUAL MEAN					.31	1989
HIGHEST DAILY MEAN	311	Jun 1	326	Feb 22	583	May 16 1990
LOWEST DAILY MEAN	.00	Several Days	.03	Sep 11	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	.01	Jan 30	.18	Aug 6	.00	Many Years
INSTANTANEOUS PEAK FLOW	---		335	Feb 22	755	May 15 1990
INSTANTANEOUS PEAK STAGE	---		8.66	Feb 22	13.67	May 15 1990
INSTANTANEOUS LOW FLOW	---		.00	Sep 10-12	.00	Many Years
ANNUAL RUNOFF (INCHES)	9.80		12.32		11.38	
10 PERCENT EXCEEDS	55		58		67	
50 PERCENT EXCEEDS	16		19		9.9	
90 PERCENT EXCEEDS	.04		.75		.05	

[a]Post-regulation period.

06894000 LITTLE BLUE RIVER NEAR LAKE CITY, MO

LOCATION.--Lat 39°06'02", long 94°18'01", in SW 1/4 SE 1/4 sec.35, T.50 N., R.31 W., Jackson County, Hydrologic Unit 10300101, on right bank 50 ft downstream from bridge on west bound lane of State Highway 78, 3.0 mi southwest of Lake City, and 10.5 mi upstream from mouth.

DRAINAGE AREA.--184 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 719.15 ft above sea level. 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.--Estimated daily discharges: Dec. 18-30, Jan. 10-18, Jan. 24 to Feb. 1, and Aug. 18-20. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	54	259	61	170	573	65	89	287	116	5.5	24
2	95	45	249	59	182	428	78	162	225	45	5.0	47
3	79	39	263	55	186	344	104	136	185	35	6.9	25
4	70	164	225	55	185	286	106	103	159	30	6.5	15
5	60	224	201	51	167	243	183	94	131	27	5.0	13
6	53	121	179	48	149	211	176	86	115	24	4.7	12
7	63	100	160	46	143	190	128	79	101	21	4.8	13
8	90	84	143	45	141	172	115	98	89	43	8.5	12
9	63	72	133	45	132	167	103	84	78	36	13	12
10	50	62	127	45	124	148	138	75	69	28	15	12
11	42	54	120	40	119	135	3500	71	63	60	18	11
12	38	47	110	40	113	127	1650	66	124	50	48	10
13	35	45	103	35	107	121	920	63	126	33	38	66
14	31	39	97	35	105	112	645	60	111	28	26	35
15	28	36	95	35	103	101	481	54	109	23	105	18
16	25	87	88	40	107	95	376	49	422	20	36	13
17	24	977	85	40	103	92	307	47	223	19	76	12
18	23	352	75	45	101	89	266	50	166	17	40	12
19	20	268	70	47	98	83	229	174	127	16	163	14
20	17	219	60	55	175	80	215	113	106	19	60	13
21	22	187	60	74	3820	77	191	77	105	28	29	12
22	110	159	55	79	1790	72	204	67	94	16	23	13
23	424	143	50	60	988	68	214	61	72	14	20	149
24	288	132	50	50	645	78	164	57	70	15	19	63
25	151	120	50	30	471	203	142	61	63	13	18	31
26	114	108	50	30	1560	96	128	252	53	9.1	19	22
27	97	99	50	30	1260	81	121	360	94	7.6	17	16
28	93	92	55	35	781	79	111	263	90	6.3	17	14
29	78	258	55	35	---	76	102	201	84	9.4	16	12
30	75	371	55	37	---	73	96	677	69	9.0	20	11
31	62	---	60	60	---	68	---	407	---	8.4	27	---
MEAN	81.6	159	111	46.5	501	154	375	137	127	26.6	29.4	24.4
MAX	424	977	263	79	3820	573	3500	677	422	116	163	149
MIN	17	36	50	30	98	68	65	47	53	6.3	4.7	10
IN.	.51	.96	.69	.29	2.84	.96	2.28	.86	.77	.17	.18	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1997, BY WATER YEAR (WY)

MEAN	130	104	87.0	88.3	127	192	243	271	258	139	94.3	152
MAX	983	854	495	357	576	1153	1069	1534	1216	1103	1455	1018
(WY)	1987	1962	1993	1993	1985	1973	1983	1995	1967	1993	1982	1961
MIN	.13	.49	1.36	1.36	3.09	4.15	11.3	27.9	10.3	.26	.016	.20
(WY)	1954	1957	1956	1957	1957	1956	1954	1988	1953	1954	1953	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1948 - 1997	
ANNUAL MEAN	134		144		158	
HIGHEST ANNUAL MEAN					440	1993
LOWEST ANNUAL MEAN					11.5	1956
HIGHEST DAILY MEAN	3310	May 27	3820	Feb 21	27700	Aug 13 1982
LOWEST DAILY MEAN	7.5	Apr 27	4.7	Aug 6	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	8.6	Apr 21	5.5	Aug 1	.00	Several Years
INSTANTANEOUS PEAK FLOW	---		5300	Apr 11	42300	Aug 13 1982
INSTANTANEOUS PEAK STAGE	---		15.16	Apr 11	27.94	Sep 14 1961
INSTANTANEOUS LOW FLOW	---		4.4	Aug 2,3,5-8	.00	Several Years
ANNUAL RUNOFF (INCHES)	9.94		10.66		11.63	
10 PERCENT EXCEEDS	270		250		302	
50 PERCENT EXCEEDS	50		75		47	
90 PERCENT EXCEEDS	12		15		7.6	

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.--487,200 mi^2, approximately.

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 sea level. 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.--Estimated daily discharges: Nov. 25-27, Dec. 18-20, Jan. 29, 30, and Apr. 12-14. Records good except for estimated daily discharges, which are fair. Some regulation from many upstream reservoirs. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80800	91400	102000	45400	44500	91900	82600	135000	119000	114000	81000	81300
2	78600	86000	104000	45700	45400	88300	85000	145000	115000	113000	80700	80700
3	76700	83400	99300	46100	47700	87000	89000	149000	112000	113000	80500	81100
4	75400	82600	96300	45800	51000	87800	91600	147000	110000	110000	79600	92900
5	75300	83800	92700	45000	56200	85900	95300	145000	108000	106000	78400	94600
6	74800	82600	89000	46200	58500	83800	101000	138000	105000	104000	77700	87400
7	75100	81700	85600	48700	56100	82200	104000	134000	103000	101000	77200	83000
8	77300	81700	82600	50900	53400	78100	105000	133000	101000	98900	76700	80400
9	76400	80600	80400	49700	51700	75200	108000	142000	97900	96900	76300	79400
10	75000	78900	78500	46700	51900	74300	111000	141000	96600	94900	76500	78200
11	73900	78500	75600	44300	51500	74900	141000	135000	96200	94400	76400	78300
12	72800	78300	72200	43200	51100	81300	203000	127000	96100	95000	77500	78500
13	72200	77700	69600	41800	50800	86000	185000	124000	95800	92600	79200	79400
14	71900	76800	67200	39400	50300	85900	170000	122000	95700	90700	80700	79800
15	71200	76900	64800	39300	49800	83800	155000	120000	94500	90300	81900	79100
16	71600	76500	63300	39600	49900	82800	152000	119000	98700	90300	81800	78900
17	72100	88600	63400	39300	50200	82400	149000	116000	109000	89300	82600	78800
18	72800	132000	63000	41200	50800	79100	146000	115000	100000	88600	83400	79000
19	73600	134000	59000	41600	55200	77000	144000	113000	96000	86500	83200	79400
20	74900	124000	57000	40800	78400	75500	144000	115000	93800	84400	85200	79000
21	76200	113000	52500	40300	121000	76600	144000	110000	92400	83400	87300	78800
22	77900	104000	48800	41100	140000	76800	143000	107000	92800	83000	89000	78500
23	84000	103000	46400	43000	134000	75500	144000	105000	94300	83400	86700	80800
24	92100	104000	43300	45000	119000	75700	146000	104000	102000	84300	85200	83900
25	97800	103000	39300	46700	107000	79900	147000	104000	108000	84600	83300	84500
26	95400	102000	39200	48400	94500	79700	143000	109000	112000	84000	82500	83900
27	88500	100000	40900	48500	97300	78800	139000	118000	120000	83400	82800	83000
28	84800	94000	44100	46300	94500	79900	137000	120000	120000	83000	81900	84000
29	84000	92800	44600	43800	---	80300	136000	119000	119000	84500	81100	85700
30	85200	96400	43600	43000	---	82100	135000	118000	116000	82700	81200	85000
31	90500	---	44700	43600	---	82900	---	123000	---	81800	81700	---
MEAN	78990	92940	66220	44210	70060	81010	132500	124300	104000	92640	81260	81910
MAX	97800	134000	104000	50900	140000	91900	203000	149000	120000	114000	89000	94600
MIN	71200	76500	39200	39300	44500	74300	82600	104000	92400	81800	76300	78200
IN.	.19	.21	.16	.10	.15	.19	.30	.29	.24	.22	.19	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1997[a], BY WATER YEAR (WY)

MEAN	57020	51450	37020	29810	39580	56490	73440	75940	80900	74090	58090	58670
MAX	141900	96020	74470	65720	79780	133500	145500	168400	176600	306500	155700	121700
(WY)	1974	1974	1987	1973	1973	1979	1984	1995	1984	1993	1993	1993
MIN	35340	21620	13010	14770	16830	19250	37920	39350	41340	39120	34420	35380
(WY)	1992	1992	1964	1963	1964	1964	1989	1989	1988	1991	1991	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1958 - 1997[a]	
ANNUAL MEAN	78650		87480		57840	
HIGHEST ANNUAL MEAN					109900	1993
LOWEST ANNUAL MEAN					35950	1963
HIGHEST DAILY MEAN	189000	May 29	203000	Apr 12	611000	Jul 28 1993
LOWEST DAILY MEAN	25600	Jan 25	39200	Dec 26	5000	Dec 20 1963
ANNUAL SEVEN-DAY MINIMUM	30600	Jan 23	40200	Jan 14	5540	Dec 17 1963
INSTANTANEOUS PEAK FLOW	---		222000	Apr 12	633000	Jul 27 1993
INSTANTANEOUS PEAK STAGE	---		26.76	Apr 12	31.15	Jul 27 1993
INSTANTANEOUS LOW FLOW	---		38500	Jan 14	5000	Dec 20 1963
ANNUAL RUNOFF (INCHES)	2.20		2.44		1.61	
10 PERCENT EXCEEDS	120000		125000		97300	
50 PERCENT EXCEEDS	76200		83400		49000	
90 PERCENT EXCEEDS	39200		46700		24900	

[a]Post-regulation period.

06897000 EAST FORK BIG CREEK NEAR BETHANY, MO

LOCATION.--Lat 40°17'50", long 94°01'36", in SE 1/4 sec.34, T.64 N., R.28 W., Harrison County, on right bank 50 ft downstream from bridge on old U.S. Highway 69, 2 mi north of Bethany, and 4 mi upstream from confluence with West Fork.

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

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

GAGE.--Water-stage recorder. Datum of gage is 854.74 ft above sea level.

REMARKS.--Estimated daily discharges: Oct. 1-3, 10-21, Oct. 23 to Nov. 28, Dec. 11 to Mar. 19, June 19-24, June 30 to July 2, July 7-14, 16-29, and July 31 to Aug. 8. Records poor. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	70	370	7.0	6.5	100	15	696	17	5.0	.40	.94
2	5.4	45	173	7.5	7.0	110	13	398	13	3.5	.35	89
3	4.7	30	105	8.5	13	80	13	546	10	2.9	.30	16
4	4.1	20	76	11	36	55	14	205	6.4	2.9	.20	3.6
5	3.5	18	53	14	40	45	69	117	5.1	2.6	.18	2.3
6	3.1	90	63	12	30	35	279	82	6.0	2.4	.16	1.7
7	2.5	180	55	9.0	22	30	139	155	7.0	2.2	.12	1.4
8	2.8	110	48	6.5	15	23	82	545	5.8	2.0	.12	1.2
9	2.6	70	36	5.5	12	45	56	183	4.8	1.8	.10	.92
10	2.8	50	21	5.2	9.5	85	77	102	4.1	1.8	.21	.84
11	2.4	35	20	5.4	8.0	80	164	75	3.7	2.0	1.0	.57
12	2.3	30	21	5.2	7.2	65	179	62	3.4	2.2	1.2	.66
13	2.4	25	20	4.7	6.5	50	123	51	3.3	2.3	.90	43
14	2.4	20	18	4.2	5.8	43	325	42	3.0	2.3	1.9	9.4
15	2.5	18	16	3.5	5.4	38	1150	35	5.1	2.2	1.7	3.8
16	2.5	15	13	3.0	5.0	35	1040	30	16	1.6	1.5	4.9
17	2.6	80	8.5	2.8	4.8	32	447	29	4.2	1.3	16	12
18	2.7	55	5.5	2.8	4.7	30	240	26	3.1	1.1	16	6.1
19	3.5	45	3.5	2.8	4.5	26	164	23	2.5	1.0	16	6.2
20	3.2	33	5.0	2.8	4.2	24	180	21	2.2	1.0	3.4	3.3
21	3.4	28	13	3.5	60	22	384	19	2.0	.90	2.0	1.8
22	206	24	9.0	5.0	500	19	372	17	1.9	1.2	1.4	1.5
23	630	21	8.0	8.5	450	17	589	17	1.8	1.7	1.1	66
24	200	18	5.5	11	150	16	235	11	1.8	1.7	1.1	19
25	80	16	5.0	15	110	25	136	6.7	17	1.5	1.4	14
26	40	12	4.8	14	180	26	97	14	20	1.1	.89	5.3
27	18	13	4.5	11	250	20	70	59	8.6	.85	.95	2.9
28	35	15	4.2	8.5	150	17	54	99	4.3	1.0	.81	2.0
29	70	16	5.0	8.0	---	16	41	64	3.2	1.2	.72	1.8
30	200	59	5.7	7.2	---	16	363	38	3.0	1.1	.75	1.6
31	130	---	6.2	6.5	---	15	---	24	---	.60	.70	---
MEAN	54.1	42.0	38.8	7.15	74.9	40.0	237	122	6.31	1.84	2.37	10.8
MAX	630	180	370	15	500	110	1150	696	20	5.0	16	89
MIN	2.3	12	3.5	2.8	4.2	15	13	6.7	1.8	.60	.10	.57
IN.	.66	.49	.47	.09	.82	.49	2.78	1.48	.07	.02	.03	.13

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

MEAN	25.6	25.4	14.9	24.0	60.6	81.5	73.2	75.5	112	31.3	16.7	35.9
MAX	140	313	78.1	240	349	341	305	332	932	284	94.1	425
(WY)	1960	1962	1945	1946	1937	1960	1944	1945	1947	1969	1959	1961
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1938	1938	1938	1939	1938	1956	1956	1956	1956	1936	1936	1937

SUMMARY STATISTICS	FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	52.7		48.4	
HIGHEST ANNUAL MEAN			111	1947
LOWEST ANNUAL MEAN			2.27	1938
HIGHEST DAILY MEAN	1150	Apr 15	6200	Jun 6 1947
LOWEST DAILY MEAN	.10	Aug 9	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	.16	Aug 4	.00	Several Years
INSTANTANEOUS PEAK FLOW	1790	Apr 15	1790	Apr 15 1997
INSTANTANEOUS PEAK STAGE	10.91	Apr 15	10.91	Apr 15 1997
INSTANTANEOUS LOW FLOW	.10[a]	Aug 9	.00	Several Years
ANNUAL RUNOFF (INCHES)	7.54		6.92	
10 PERCENT EXCEEDS	137		80	
50 PERCENT EXCEEDS	11		3.6	
90 PERCENT EXCEEDS	1.2		.00	

[a]Lowest recorded, may have been less during period of estimated daily discharges.

06897500 GRAND RIVER NEAR GALLATIN, MO

LOCATION.--Lat 39°55'37", long 93°56'33", in SW 1/4 NW 1/4 sec.16, T.59 N., R.27 W., Daviess County, Hydrologic Unit 10280101, on left bank 100 ft upstream from bridge on State Highway 6, 50 ft downstream from Chicago, Rock Island and Pacific Railroad Company Bridge, 1.0 mi northeast of Gallatin, 6.0 mi upstream from Honey Creek, and at mile 90.0.

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

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

REVISED RECORDS.--WSP 786: 1933-34. WSP 1280: 1922. WDR MO-81-1: 1981. WDR MO-92-1: 1992(M).

GAGE.--Water-stage recorder. Datum of gage published in error from 1982 to 1992. The correct datum of gage is 707.56 ft above sea level. This figure supersedes 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.--Estimated daily discharges: Oct. 23, 30, Nov. 5, 6, 17, 27-30, Dec. 18 to Feb. 18, Sept. 18, and 19. Records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	411	1520	5040	120	200	5870	402	16800	626	493	73	62
2	301	923	2430	130	450	7440	379	10100	522	470	74	82
3	237	687	1460	150	900	4240	376	10800	453	327	74	190
4	199	596	1120	350	1000	2740	377	9480	389	242	74	521
5	175	3240	857	430	900	2080	462	4550	351	212	73	262
6	163	4430	800	310	700	1660	2840	2930	332	189	65	132
7	151	2060	740	260	500	1370	4910	2220	316	170	61	90
8	145	1250	645	240	400	1220	2500	4520	289	161	58	74
9	140	898	562	240	350	1880	1430	8190	266	157	57	65
10	134	711	483	190	300	5410	1220	3650	244	155	56	58
11	129	601	499	180	280	3270	12500	2290	234	164	113	54
12	126	526	511	170	270	2060	13300	1740	238	191	187	51
13	120	464	475	160	250	1540	7930	1460	216	205	94	64
14	117	431	434	120	250	1300	9710	1270	207	189	88	71
15	116	417	410	120	230	1100	21900	1090	337	172	78	148
16	115	424	396	120	350	899	22900	962	744	156	75	115
17	111	3970	308	120	600	819	11700	918	708	144	77	94
18	109	6510	150	110	1800	828	5870	958	405	140	94	116
19	122	2930	140	110	6360	812	3920	886	271	134	128	173
20	156	1640	140	110	3580	764	2960	749	206	132	137	108
21	130	1170	130	120	22000	732	3770	633	184	163	112	82
22	208	954	130	140	27000	687	5730	560	171	210	96	69
23	7020	815	120	170	10200	623	17200	520	169	203	86	84
24	7690	724	120	230	5180	571	10000	485	163	161	69	184
25	2760	638	110	230	3350	564	5170	471	165	118	62	464
26	1440	482	110	180	3990	589	3370	504	169	107	57	225
27	932	330	100	170	10900	559	2520	814	201	94	54	130
28	675	320	100	160	7350	523	2050	1090	345	272	85	99
29	554	450	100	160	---	485	1730	1410	307	224	102	80
30	4030	5520	100	150	---	441	1640	1120	420	124	79	68
31	3480	---	110	150	---	421	---	794	---	82	70	---
MEAN	1039	1521	607	181	3916	1726	6026	3031	322	192	84.1	134
MAX	7690	6510	5040	430	27000	7440	22900	16800	744	493	187	521
MIN	109	320	100	110	200	421	376	471	163	82	54	51
IN.	.53	.75	.31	.09	1.81	.88	2.99	1.55	.16	.10	.04	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1997, BY WATER YEAR (WY)

MEAN	810	859	533	489	980	1707	1937	2022	2342	1654	545	1091
MAX	8965	8613	5463	4212	6196	8760	7906	14820	22670	33930	4136	11610
(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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1921 - 1997	
ANNUAL MEAN	2073		1541		1246	
HIGHEST ANNUAL MEAN					5740	1993
LOWEST ANNUAL MEAN					129	1938
HIGHEST DAILY MEAN	39000	May 28	27000	Feb 22	85500	Jul 24 1993
LOWEST DAILY MEAN	40	Jan 7	51	Sep 12	2.0	Aug 30 1980
ANNUAL SEVEN-DAY MINIMUM	46	Jan 3	62	Sep 8	2.6	Oct 23 1956
INSTANTANEOUS PEAK FLOW	---		34100	Feb 21	89800	Jul 7 1993
INSTANTANEOUS PEAK STAGE	---		28.55	Feb 21	41.50	Jul 7 1993
INSTANTANEOUS LOW FLOW	---		49	Sep 12	49	Sep 12 1997
ANNUAL RUNOFF (INCHES)	12.55		9.30		7.52	
10 PERCENT EXCEEDS	5220		4320		2500	
50 PERCENT EXCEEDS	413		345		220	
90 PERCENT EXCEEDS	106		87		27	

06899500 THOMPSON RIVER AT TRENTON, MO

LOCATION.--Lat 40°04'45", long 93°38'39" in NE 1/4 SW 1/4 sec.18, T.61 N., R.24 W., Grundy County, Hydrologic Unit 10280102, at downstream side of center pier of bridge in Trenton, 1.8 mi downstream from Weldon River, and at mile 26.0.

DRAINAGE AREA.--1,670 mi^2, approximately.

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

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

GAGE.--Water-stage recorder and nonrecording gage. Datum of gage is 721.87 ft above sea level. June 25, 1921, to Aug. 26, 1923, nonrecording gage at two sites 12 mi downstream (by old channel route) at different datums; Aug. 1, 1928, to Sept. 15, 1930, nonrecording gage at present site and datum; Sept. 16, 1930, to May 31 1945, nonrecording gage at site 1.5 mi downstream at datum 3.46 ft lower; June 1, 1945, to Dec. 7, 1959, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 26-30, Dec. 16 to Feb. 19, May 10-13, and Sept. 25-30. Records poor. Several observations of water temperature were made during the year. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	248	767	2510	100	270	7030	234	10600	596	399	106	74
2	173	503	1510	110	600	5350	246	7170	500	297	110	71
3	134	397	1110	140	530	2470	237	9730	407	290	97	79
4	118	350	907	190	450	1520	231	6140	411	262	85	86
5	106	2560	720	230	380	1150	288	3240	391	219	78	99
6	97	1810	727	250	280	850	1340	2150	492	181	73	93
7	90	1060	636	240	240	682	1850	1890	670	165	79	99
8	85	723	554	240	210	593	1110	7410	452	162	75	92
9	84	563	456	240	190	2610	701	6480	381	162	75	71
10	80	444	437	180	170	3220	543	4320	343	146	75	71
11	75	371	471	180	160	1690	3600	2520	331	173	131	69
12	74	318	473	170	140	1290	2960	1740	313	206	140	65
13	73	285	459	140	130	904	2760	1520	295	225	124	145
14	73	258	437	120	130	712	5920	1320	359	172	103	177
15	73	262	405	120	130	562	13600	1070	388	158	94	100
16	79	303	360	120	170	473	13800	917	2060	145	88	96
17	87	2110	280	110	190	429	7010	857	640	151	182	188
18	168	2090	150	110	1200	421	3430	827	343	139	363	270
19	112	1300	140	110	6030	398	2190	790	267	127	284	184
20	94	1210	140	110	4120	376	1670	728	234	127	186	134
21	83	912	130	120	20100	348	6420	611	211	133	126	103
22	344	927	130	170	10900	315	6960	583	837	137	113	88
23	7100	796	120	190	5290	285	12000	517	599	137	94	97
24	2640	584	110	190	2920	266	5950	504	432	128	78	315
25	1390	471	90	180	1890	381	3250	480	367	132	86	280
26	870	380	85	160	3870	399	2100	536	1410	96	311	160
27	625	320	85	160	9160	324	1570	1020	1520	100	190	130
28	461	260	90	160	4070	274	1260	1520	700	124	144	105
29	588	520	90	140	---	237	1050	1310	436	167	106	95
30	2400	1400	95	130	---	229	2210	864	570	192	92	85
31	1260	---	95	130	---	224	---	703	---	121	81	---
MEAN	641	808	452	159	2640	1162	3550	2583	565	173	128	124
MAX	7100	2560	2510	250	20100	7030	13800	10600	2060	399	363	315
MIN	73	258	85	100	130	224	231	480	211	96	73	65
IN.	.44	.54	.31	.11	1.65	.80	2.37	1.78	.38	.12	.09	.08

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

MEAN	589	667	486	462	926	1576	1698	1772	1804	1108	538	720
MAX	4678	6280	4209	3682	4378	5765	5580	8757	16460	18860	3990	8443
(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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	1386		1067		1027	
HIGHEST ANNUAL MEAN					3576	1993
LOWEST ANNUAL MEAN					117	1934
HIGHEST DAILY MEAN	29900	May 27	20100	Feb 21	73800	Jun 6 1947
LOWEST DAILY MEAN	37	Jan 7	65	Sep 12	1.0	Jun 17 1956
ANNUAL SEVEN-DAY MINIMUM	43	Jan 3	75	Oct 10	1.7	Aug 4 1934
INSTANTANEOUS PEAK FLOW	---		28000	Feb 21	95000	Jun 6 1947
INSTANTANEOUS PEAK STAGE	---		14.37	Feb 21	25.70	Jun 6 1947
INSTANTANEOUS LOW FLOW	---		60	Sep 12	1.0	Jun 17 1956
ANNUAL RUNOFF (INCHES)	11.30		8.68		8.36	
10 PERCENT EXCEEDS	3010		2580		2340	
50 PERCENT EXCEEDS	392		285		218	
90 PERCENT EXCEEDS	85		90		29	

06902000 GRAND RIVER NEAR SUMNER, MO

LOCATION.--Lat 39°38'25", long 93°16'25", in NE 1/4 sec.29, T.56 N., R.21 W., Livingston County, Hydrologic Unit 10280103, near right bank on downstream side of pier of bridge on State Highway 139, 240 ft downstream from Chicago, Burlington and Quincy Railroad Bridge, 2.0 mi southwest of Sumner, 2.5 mi downstream from Locust Creek, and at mile 41.0.

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

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 sea level. 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 sea level; 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.--No estimated daily discharges. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1760	4250	9900	471	530	19300	1630	5430	2480	1900	437	268
2	1340	2590	8110	517	609	20900	1590	18600	2250	1740	360	260
3	1060	2030	4870	607	3690	14500	1540	11800	1920	1350	352	421
4	859	1650	3470	743	5660	8770	1510	14700	1710	1250	326	435
5	725	1540	2800	946	5600	6430	1530	9240	1540	1080	302	608
6	643	5350	2330	1050	5100	4970	3120	7140	2190	904	283	640
7	582	5120	2170	1000	3780	3800	6830	5360	3020	786	269	451
8	539	2880	1970	1000	2740	3280	6470	6900	2340	700	254	345
9	520	2200	1750	920	2290	3130	4030	14000	1860	644	242	284
10	490	2020	1540	820	2050	11400	3000	11300	1570	605	238	243
11	461	1690	1420	750	1820	10600	28500	6780	1390	563	241	215
12	435	1480	1390	733	1610	6590	52200	4720	1290	559	280	201
13	422	1330	1380	656	1510	4800	46800	3810	1200	579	490	215
14	409	1210	1300	519	1450	3770	40000	3330	2140	598	455	284
15	396	1150	1220	439	1430	3180	47100	3030	2230	551	369	350
16	387	1140	1140	367	1510	2790	56100	2640	10000	492	322	352
17	379	1910	1050	333	1770	2540	47500	2470	9660	457	310	530
18	369	10500	741	321	2940	2480	23300	2350	5020	425	330	778
19	409	9000	669	317	9910	2530	8810	4160	2880	402	583	566
20	475	5000	817	313	11400	2510	6970	3670	2230	382	1950	597
21	455	3730	891	331	34000	2400	12000	2420	1730	373	1040	528
22	461	2910	842	463	69200	2280	16300	2140	1710	564	618	386
23	2100	2580	727	689	76400	2140	32400	1840	3230	484	452	351
24	12800	2310	641	1040	46000	2010	38100	1690	2160	457	376	436
25	7750	2020	591	1060	18700	2630	19300	2160	1470	435	320	775
26	4010	1790	544	946	10400	2680	9950	2050	1490	400	273	942
27	2610	1420	505	798	24800	2380	7410	2540	1770	374	278	860
28	2100	1250	463	714	31300	2250	6040	4750	2050	375	429	589
29	1700	1360	435	685	---	2020	5170	6450	1580	423	342	430
30	1500	3290	431	623	---	1870	4480	4500	1590	635	328	362
31	6080	---	439	562	---	1710	---	3250	---	533	311	---
MEAN	1749	2890	1824	669	13510	5246	17990	5652	2590	678	425	457
MAX	12800	10500	9900	1060	76400	20900	56100	18600	10000	1900	1950	942
MIN	369	1140	431	313	530	1710	1510	1690	1200	373	238	201
IN.	.29	.47	.31	.11	2.04	.88	2.92	.95	.42	.11	.07	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1925 - 1997, BY WATER YEAR (WY)

MEAN	2624	2925	2056	1955	3747	5976	6968	6480	7353	4769	1779	3151
MAX	20630	29030	15440	14750	19250	34220	26680	43450	67270	87900	9194	28090
(WY)	1974	1932	1983	1932	1962	1979	1973	1995	1947	1993	1987	1926
MIN	37.1	40.3	53.0	32.1	57.0	79.5	67.3	130	176	52.8	41.0	62.5
(WY)	1957	1957	1956	1940	1939	1957	1956	1956	1988	1934	1936	1955

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1925 - 1997	
ANNUAL MEAN	5404		4382		4141	
HIGHEST ANNUAL MEAN					17390	1993
LOWEST ANNUAL MEAN					367	1934
HIGHEST DAILY MEAN	85800	May 29	76400	Feb 23	166000	Jun 8 1947
LOWEST DAILY MEAN	174	Feb 6	201	Sep 12	10	Aug 12 1934
ANNUAL SEVEN-DAY MINIMUM	222	Jan 4	255	Sep 8	12	Aug 7 1934
INSTANTANEOUS PEAK FLOW	---		81500	Feb 23	180000	Jun 8 1947
INSTANTANEOUS PEAK STAGE	---		36.36	Feb 23	42.52	Jul 10 1993
INSTANTANEOUS LOW FLOW	---		201	Sep 12	10	Aug 12 1934
ANNUAL RUNOFF (INCHES)	10.69		8.65		8.18	
10 PERCENT EXCEEDS	9890		9930		10200	
50 PERCENT EXCEEDS	1340		1510		975	
90 PERCENT EXCEEDS	389		357		128	

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 since October 1993.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
OCT												
09...	1250	527	425	8.10	16.0	7.9	10.3	107	92	75	190	56
NOV												
20...	1435	4930	260	7.80	5.5	0.4	11.5	94	5200	19000	120	36
DEC												
05...	1000	2860	335	7.70	2.0	97	12.5	94	1900	4500	150	45
JAN												
22...	1315	466	540	7.30	0.5	20	9.1	65	180	980	250	76
FEB												
12...	0945	1620	385	7.70	0.5	20	14.8	103	K32	70	160	48
MAR												
17...	0900	2510	415	8.00	6.0	90	11.7	96	300	260	190	59
APR												
23...	1030	29800	250	7.70	10.0	350	9.3	85	16000	21000	100	32
MAY												
27...	1410	2130	405	8.00	15.5	150	8.6	89	K1400	1800	190	58
JUN												
17...	1015	9790	170	7.50	23.0	430	4.4	53	K3700	K11000	71	22
JUL												
29...	0945	395	453	8.10	26.5	20	7.4	94	50	51	190	57
AUG												
19...	1035	511	390	8.00	23.5	44	7.0	85	400	800	170	51
SEP												
09...	0945	286	364	7.90	24.5	40	6.6	81	62	1200	170	50

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SILICA, DIS-SOLVED (mg/L as SiO_2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)
OCT												
09...	11	11	5.4	177	178	0	217	31	8.8	0.2	9.8	256
NOV												
20...	6.6	6.4	5.7	98	95	0	116	22	8.4	0.2	9.4	172
DEC												
05...	8.3	8.1	5.1	131	132	0	162	30	9.7	0.2	9.3	207
JAN												
22...	15	16	7.0	232	231	0	282	46	13	0.2	14	333
FEB												
12...	9.4	11	6.6	136	136	0	166	36	14	0.2	9.1	233
MAR												
17...	11	11	4.2	161	163	0	199	38	9.3	0.2	10	258
APR												
23...	5.6	6.0	3.3	82	82	0	101	19	5.6	0.2	8.9	156
MAY												
27...	11	10	3.5	170	171	0	208	31	7.3	0.2	8.4	246
JUN												
17...	3.6	3.8	3.9	59	57	0	69	10	3.7	0.2	6.1	118
JUL												
29...	11	13	3.7	200	203	0	247	31	10	0.3	8.6	287
AUG												
19...	10	12	3.3	165	165	0	201	30	9.5	0.2	6.9	239
SEP												
09...	9.9	11	3.7	146	146	0	191	25	8.7	0.3	8.4	222

K--Results based on colony count outside the acceptable range (non-ideal colony count).

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (mg/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L as N) (00613)	NITRO-GEN, NO_2+NO_3 DIS-SOLVED (mg/L as N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L as N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS DIS-SOLVED (mg/L as P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (mg/L as P) (00671)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)	BARIUM, DIS-SOLVED (µg/L as Ba) (1105)
OCT												
09...	240	0.35	364	<0.010	<0.02	<0.010	0.48	0.10	<0.02	0.02	<5.0	110
NOV												
20...	155	0.23	2290	0.012	0.68	<0.010	2.6	0.18	0.07	0.06	<5.0	81
DEC												
05...	196	0.28	1600	<0.010	0.68	<0.010	1.5	0.08	<0.02	0.05	<5.0	82
JAN												
22...	331	0.45	419	0.020	0.69	0.200	0.68	0.07	<0.02	<0.01	<5.0	150
FEB												
12...	222	0.32	1020	0.022	1.20	0.310	1.0	0.16	0.08	0.05	5.9	89
MAR												
17...	244	0.35	1750	0.014	0.70	0.040	0.98	0.28	0.02	0.03	<5.0	110
APR												
23...	136	0.21	12600	0.024	1.20	0.082	3.4	0.28	0.03	0.05	7.8	74
MAY												
27...	234	0.33	1410	0.084	0.45	<0.010	E2.4	0.44	0.05	0.02	<5.0	110
JUN												
17...	95	0.16	4810	0.081	1.70	<0.010	3.5	0.25	0.06	<0.01	8.3	67
JUL												
29...	256	0.39	306	<0.010	<0.02	0.027	0.78	0.12	0.04	0.04	<5.0	98
AUG												
19...	222	0.33	330	<0.010	0.02	0.081	0.96	0.18	0.02	0.05	12.0	82
SEP												
09...	212	0.30	171	0.011	0.10	<0.010	1.1	0.15	<0.02	0.04	7.1	88

DATE	COBALT, DIS-SOLVED (µg/L) as Co) (01035)	IRON, DIS-SOLVED (µg/L) as Fe) (01046)	LITHIUM DIS-SOLVED (µg/L) as Li) (01130)	MANGA-NESE, DIS-SOLVED (µg/L) as Mn) (01056)	MOLYB-DENUM, DIS-SOLVED (µg/L) as Mo) (01060)	NICKEL, DIS-SOLVED (µg/L) as Ni) (01065)	SELE-NIUM, DIS-SOLVED (µg/L) as Se) (01145)	SILVER, DIS-SOLVED (µg/L) as Ag) (01075)	STRON-TIUM, DIS-SOLVED (µg/L) as Sr) (01080)	VANA-DIUM, DIS-SOLVED (µg/L) as V) (01085)	SI-MAZINE, WATER, DISS, REC (µg/L) (04035)
OCT											
09...	<3.0	<3	<4	140	<10	4	<1	<1	220	<6	--
NOV											
20...	<3.0	21	<4	3	<10	4	<1	<1	130	<6	<0.005
DEC											
05...	<3.0	14	<4	20	<10	4	<1	<1	160	<6	--
JAN											
22...	4.0	27	6	1100	<10	5	<1	<1	300	<6	--
FEB											
12..	<3.0	41	<4	83	<10	3	<1	<1	170	<6	--
MAR											
17...	<3.0	7	<4	64	<10	3	<1	<1	220	<6	E0.002
APR											
23...	<3.0	13	<4	8	<10	3	<1	<1	120	<6	0.015
MAY											
27...	3.0	7	5	200	<10	3	<1	<1	220	<6	0.026
JUN											
17...	<3.0	14	<4	2	<10	4	<1	<1	91	<6	0.166
JUL											
29...	<3.0	3	8	210	<10	2	<1	<1	240	<6	<0.005
AUG											
19...	<3.0	<3	6	86	<10	2	<1	<1	220	<6	--
SEP											
09...	<3.0	<3	<4	94	<10	2	<1	<1	220	<6	--

DATE	PRO-METON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (µg/L) (04040)	CYANA-ZINE, WATER, DISS, REC (µg/L) (04041)	METO-LACHLOR WATER DISSOLV (µg/L) (39415)	ATRA-ZINE, WATER, DISS, REC (µg/L) (39632)	ALA-CHLOR, WATER, DISS, REC, (µg/L) (46342)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)	PROP-CHLOR, WATER, DISS, REC (µg/L) (04024)	BUTYL-ATE, WATER, DISS, REC (µg/L) (04028)	FONOFOS WATER DISS REC (µg/L) (04095)	ALPHA BHC DIS-SOLVED (µg/L) (34253)
NOV											
20...	<0.018	E0.057	0.040	0.071	0.163	<0.002	<0.004	<0.007	<0.002	<0.003	<0.002
MAR											
17...	<0.018	E0.008	0.018	0.038	0.105	E0.004	<0.004	<0.007	<0.002	<0.003	<0.002
APR											
23...	E0.003	E0.027	0.268	0.350	1.12	0.013	0.009	<0.007	<0.002	<0.003	<0.002
MAY											
27...	<0.018	E0.106	0.903	2.43	7.84	0.088	0.219	<0.007	<0.002	<0.003	<0.002
JUN											
17...	E0.010	E0.622	1.24	2.42	9.60	0.356	0.306	E0.011	<0.002	<0.003	<0.002
JUL											
29...	<0.018	E0.032	0.046	0.091	0.574	<0.002	<0.004	<0.007	<0.002	<0.003	<0.002

E--Laboratory estimated value.

06902000 GRAND RIVER NEAR SUMNER, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	P,P' DDE DISSOLV (µg/L) (34653)	CHLOR-PYRIFOS DIS-SOLVED (µg/L) (38933)	LINDANE DIS-SOLVED (µg/L) (39341)	DI-ELDRIN DIS-SOLVED (µg/L) (39381)	MALA-THION, DIS-SOLVED (µg/L) (39532)	PARA-THION, DIS-SOLVED (µg/L) (39542)	DI-AZINON, DIS-SOLVED (µg/L) (39572)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)
NOV											
20...	<0.006	<0.004	<0.004	<0.001	<0.005	<0.004	<0.002	<0.003	<0.004	<0.002	<0.007
MAR											
17...	<0.006	<0.004	<0.004	<0.001	<0.005	<0.004	<0.002	<0.003	<0.004	<0.002	<0.007
APR											
23...	<0.006	<0.004	<0.004	<0.001	<0.005	<0.004	<0.002	<0.003	<0.004	<0.002	<0.007
MAY											
27...	<0.006	<0.004	<0.004	<0.001	<0.005	<0.004	<0.002	<0.003	<0.004	<0.002	<0.007
JUN											
17...	<0.006	--	<0.004	0.008	<0.005	<0.004	0.011	<0.003	<0.004	<0.002	<0.007
JUL											
29...	<0.006	<0.004	<0.004	<0.001	<0.005	<0.004	<0.002	<0.003	<0.004	<0.002	<0.007

DATE	LIN-URON WATER FLTRD 0.7 µ GF, REC (µg/L) (82666)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
NOV											
20...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAR											
17...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR											
23...	0.013	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAY											
27...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUN											
17...	0.482	<0.006	<0.002	<0.004	E0.014	<0.004	<0.003	<0.002	E0.009	<0.013	<0.003
JUL											
29...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
NOV											
20...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR											
17...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
APR											
23...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	E0.019	<0.003	<0.013	<0.001	<0.005
MAY											
27...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	0.044	<0.003	<0.013	<0.001	<0.005
JUN											
17...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	0.089	<0.003	<0.013	<0.001	<0.005
JUL											
29...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

06904050 CHARITON RIVER AT LIVONIA, MO

LOCATION.--Lat 40°29'00", long 92°41'10", in NW 1/4 SE 1/4 NW 1/4 sec.34, T.66 N., R.16 W., Schuyler County, Hydrologic Unit 10280201, on left bank 10 ft downstream from bridge on U.S. Highway 136, 1.0 mi upstream from Shoal Creek, 0.5 mi east of Livonia, and at mile 90.9.

DRAINAGE AREA.--864 mi^2.

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

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

GAGE.--Water-stage recorder. Datum of gage is 770.00 ft above sea level.

REMARKS.--Estimated daily discharges: Dec. 20 to Feb. 3, March 1, 2, 10, May 9, and Sept. 1. Records fair except for discharges above 2,000 ft^3/s and estimated daily discharges, which are poor. Several observations of water temperature were made during the year. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	122	144	75	52	2150	122	2280	980	860	31	32
2	50	92	124	80	150	2240	116	1450	954	853	35	27
3	46	59	115	65	300	1850	111	1880	941	845	35	30
4	43	46	83	55	595	1480	109	1030	935	628	27	31
5	44	48	243	48	434	1380	125	950	920	281	24	32
6	44	55	878	45	309	1410	192	1020	944	261	53	32
7	46	56	885	45	256	1570	238	1030	774	255	29	29
8	46	49	890	45	347	1580	207	1710	564	236	21	26
9	49	48	881	45	539	2090	160	1760	538	110	20	27
10	48	41	885	43	507	2120	141	1000	529	51	24	28
11	67	38	887	43	495	1660	137	925	514	40	29	27
12	48	35	887	40	483	1720	173	969	520	37	34	25
13	43	32	883	40	469	1660	280	1030	574	35	46	34
14	42	31	879	43	458	1590	721	1010	611	35	35	35
15	41	32	877	43	448	1500	2480	989	592	32	28	38
16	41	39	875	45	294	1470	3940	976	701	30	73	33
17	42	226	871	50	254	1470	3870	992	601	28	66	37
18	38	325	864	48	1230	1470	3160	1000	765	26	277	46
19	36	252	789	45	1230	1460	1620	915	899	26	229	50
20	32	172	680	45	707	1460	1050	755	901	32	336	42
21	29	119	500	60	3130	1460	1600	956	903	49	370	34
22	35	97	275	90	3360	1350	1580	952	998	45	359	29
23	61	82	120	85	2720	1230	1630	950	935	51	333	65
24	107	74	90	80	1370	1220	1160	947	902	107	348	63
25	84	67	75	80	1020	1060	1020	959	895	58	348	91
26	53	57	70	70	1230	906	919	961	877	66	348	56
27	43	58	65	60	1940	645	880	903	868	70	335	45
28	38	67	65	55	1680	226	863	1450	868	49	130	39
29	46	56	60	50	---	155	887	930	864	40	50	30
30	77	98	65	48	---	137	1220	762	866	44	47	27
31	172	---	70	48	---	131	---	1000	---	39	33	---
MEAN	53.2	85.8	486	55.3	929	1350	1024	1111	791	172	134	38.0
MAX	172	325	890	90	3360	2240	3940	2280	998	860	370	91
MIN	29	31	60	40	52	131	109	755	514	26	20	25
IN.	.07	.11	.65	.07	1.12	1.80	1.32	1.48	1.02	.23	.18	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, BY WATER YEAR (WY)

MEAN	445	497	625	336	561	870	847	922	848	1057	656	534
MAX	1764	1714	2005	1797	1956	2046	1898	2239	1839	3923	2045	2029
(WY)	1994	1994	1983	1993	1983	1993	1983	1995	1980	1993	1993	1993
MIN	27.2	26.2	19.9	13.6	23.0	58.6	31.1	52.1	33.6	23.6	32.3	29.6
(WY)	1977	1990	1977	1977	1989	1989	1989	1980	1988	1988	1988	1976

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1974 - 1997	
ANNUAL MEAN	614		516		684	
HIGHEST ANNUAL MEAN					1838	1993
LOWEST ANNUAL MEAN					69.3	1989
HIGHEST DAILY MEAN	5480	May 28	3940	Apr 16	8960	Jul 18 1982
LOWEST DAILY MEAN	26	Feb 2	20	Aug 9	13	Jan 11 1977
ANNUAL SEVEN-DAY MINIMUM	29	Jan 29	28	Sep 6	13	Jan 11 1977
INSTANTANEOUS PEAK FLOW	---		4170	Apr 16	9200	Jul 18 1982
INSTANTANEOUS PEAK STAGE	---		18.29	Apr 16	28.33	Jul 18 1982
INSTANTANEOUS LOW FLOW	---		19	Aug 8,9	13	Jan 11 1977
ANNUAL RUNOFF (INCHES)	9.67		8.11		10.76	
10 PERCENT EXCEEDS	1250		1450		1630	
50 PERCENT EXCEEDS	320		141		385	
90 PERCENT EXCEEDS	42		33		33	

06904500 CHARITON RIVER AT NOVINGER, MO

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

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

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 sea level. 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.--Estimated daily discharges: Dec. 19 to Feb. 4, Feb. 18, and Apr. 14-23. Records fair except for periods of estimated daily discharges, which are poor. Several observations of water temperature were made during the year. Some regulation by Rathbun Lake (Iowa station 06903880). U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,900 ft^3/s, June 13, 1947; gage height, 28.50 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 28.6 ft, June 1917.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	188	374	160	150	4500	347	5310	1310	924	39	70
2	105	150	294	210	240	4140	342	3140	1230	902	38	57
3	85	120	253	170	500	3200	328	5590	1170	881	37	54
4	78	96	197	150	1000	2400	318	2630	1150	827	36	52
5	72	107	195	135	1220	2080	350	1730	1090	450	34	50
6	69	143	786	125	752	1950	636	1640	1120	326	32	48
7	67	132	968	120	585	2130	565	1550	1040	302	53	48
8	66	113	962	110	508	2150	462	2770	767	288	35	48
9	66	103	944	110	675	4710	377	3030	687	211	31	48
10	64	92	970	115	724	5180	343	1710	654	101	30	46
11	66	86	957	105	684	2900	2160	1370	634	70	53	44
12	73	76	957	100	672	2650	2250	1280	626	62	85	44
13	64	71	952	100	662	2440	2180	1330	1030	59	51	57
14	104	70	944	95	627	2280	1700	1280	936	55	52	61
15	105	77	938	105	600	2080	1500	1210	743	52	43	52
16	116	82	921	110	518	1990	7600	1160	2180	47	62	52
17	135	619	903	120	399	1990	7000	1140	1040	45	160	60
18	117	752	922	115	1690	1970	5000	1320	877	43	153	72
19	112	436	900	115	2620	1930	3500	1570	991	41	362	62
20	108	303	800	110	1350	1910	2000	912	982	41	255	56
21	101	248	750	130	11300	1890	4000	1060	977	89	371	51
22	118	209	575	160	8730	1800	3600	1070	2440	62	360	49
23	260	190	300	190	4990	1580	3900	1050	1690	50	350	60
24	242	173	220	170	2960	1540	2610	1040	1180	89	348	152
25	219	159	175	160	1720	1510	1990	1750	1100	88	347	115
26	166	115	150	140	2680	1230	1680	1140	1050	60	348	93
27	130	167	130	135	5100	1100	1520	2520	991	66	342	72
28	118	185	120	130	3410	643	1400	4650	962	64	239	63
29	123	180	135	120	---	454	1320	2390	947	53	97	55
30	180	362	150	115	---	403	1650	1380	936	43	72	47
31	282	---	170	120	---	358	---	1330	---	41	84	---
MEAN	121	193	581	131	2038	2164	2088	1969	1084	207	148	61.3
MAX	282	752	970	210	11300	5180	7600	5590	2440	924	371	152
MIN	64	70	120	95	150	358	318	912	626	41	30	44
IN.	.10	.16	.49	.11	1.55	1.82	1.70	1.66	.88	.17	.12	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1997[a], BY WATER YEAR (WY)

MEAN	789	762	926	558	981	1561	1553	1809	1281	1578	820	813
MAX	3352	2403	3318	2686	2487	4105	5302	5447	3462	9877	2770	3232
(WY)	1974	1993	1983	1993	1983	1993	1973	1995	1990	1993	1993	1993
MIN	25.6	30.2	20.0	13.6	28.0	87.1	35.8	68.4	46.1	32.2	28.1	39.3
(WY)	1972	1990	1977	1977	1989	1989	1989	1980	1988	1970	1971	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1970 - 1997[a]	
ANNUAL MEAN	1087		890		1120	
HIGHEST ANNUAL MEAN					3299	1993
LOWEST ANNUAL MEAN					114	1989
HIGHEST DAILY MEAN	20800	May 27	11300	Feb 21	20800	May 27 1996
LOWEST DAILY MEAN	53	Sep 22	30	Aug 10	11	Aug 1 1970
ANNUAL SEVEN-DAY MINIMUM	60	Sep 16	36	Aug 4	12	Jul 26 1970
INSTANTANEOUS PEAK FLOW	---		15100	Feb 21	22000	May 27 1996
INSTANTANEOUS PEAK STAGE	---		18.01	Feb 21	25.71	Jul 24 1993
INSTANTANEOUS LOW FLOW	---		28	Aug 10	11	Aug 1 1970,Jan 1 1995
ANNUAL RUNOFF (INCHES)	10.80		8.82		11.11	
10 PERCENT EXCEEDS	1600		2260		2400	
50 PERCENT EXCEEDS	462		326		556	
90 PERCENT EXCEEDS	80		53		41	

[a]Post-regulation period.

06905500 CHARITON RIVER NEAR PRAIRIE HILL, MO

LOCATION.--Lat 39°32'25", long 92°47'23", in NW 1/4 SW 1/4 sec.26, T.55 N., R.17 W., Chariton County, Hydrologic Unit 10280202, on right bank on downstream side of road at bridge on State Highway 129, 3.2 mi northwest of Prairie Hill, 13.5 mi upstream from Puzzle Creek, and at mile 19.6.

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

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 632.05 ft above sea level (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.--Estimated daily discharges: Dec. 18 to Feb. 5 and May 20. Water-discharge records fair except for Dec. 18 to Feb. 28 and May 20, which are poor. Some regulation by Rathbun Lake (Iowa station 06903880). National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	349	281	483	220	150	3840	366	2410	1430	884	82	106
2	267	334	602	230	170	4660	341	5310	1380	876	79	109
3	217	235	507	240	240	3820	327	4950	1260	845	74	98
4	183	197	424	200	500	2960	313	6240	1180	884	71	86
5	162	174	368	170	1800	2290	361	2660	1140	844	67	78
6	148	150	298	150	1310	1980	692	1780	1120	542	66	74
7	140	156	623	145	891	1840	946	1640	1140	357	65	71
8	136	188	1020	145	718	2040	696	1560	1070	328	63	69
9	132	168	1010	140	663	2760	545	3040	776	300	75	66
10	123	139	973	130	648	8120	463	3000	661	280	69	65
11	120	122	978	130	759	4990	9990	1660	629	211	78	62
12	116	112	969	125	750	3030	13100	1300	603	162	86	61
13	117	104	961	125	702	2740	5840	1220	648	137	87	62
14	126	99	952	125	733	2460	6270	1270	1110	123	113	67
15	111	97	951	130	708	2220	9180	1210	1040	114	91	71
16	166	98	945	140	754	1960	14200	1150	3250	110	82	74
17	163	137	937	145	755	1910	11800	1150	3190	106	79	85
18	208	488	940	140	898	1910	9160	1130	1380	101	103	91
19	215	885	930	130	2320	1920	6590	3490	997	96	204	68
20	183	570	920	120	2590	1870	3760	2440	1050	92	297	82
21	164	414	800	130	13900	1850	7150	1160	1030	89	271	70
22	172	346	750	150	12500	1830	6240	1130	1130	105	299	69
23	191	289	600	170	6350	1710	7070	1120	2420	132	339	72
24	312	269	420	210	4360	1520	5260	1080	1670	111	340	73
25	368	257	230	190	2590	2950	2910	1070	1160	97	341	83
26	322	194	210	170	3260	2010	2060	1770	1050	115	340	136
27	271	168	200	155	7250	1360	1660	1380	994	125	337	117
28	221	204	190	150	5400	1150	1450	8140	934	114	341	103
29	192	244	185	150	---	736	1320	5250	910	122	323	84
30	182	314	200	145	---	496	1230	2770	897	111	213	73
31	183	---	210	145	---	410	---	1600	---	93	137	---
MEAN	192	248	638	156	2631	2430	4376	2422	1242	278	168	80.8
MAX	368	885	1020	240	13900	8120	14200	8140	3250	884	341	136
MIN	111	97	185	120	150	410	313	1070	603	89	63	61
IN.	.12	.15	.39	.10	1.47	1.50	2.61	1.49	.74	.17	.10	.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1997, BY WATER YEAR (WY)

MEAN	728	826	754	710	1127	1907	2049	2059	2006	1444	726	744
MAX	5695	6574	5449	4516	4102	5724	8981	9560	14830	15980	4856	5203
(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	84.1	25.8	13.4	7.97	13.6
(WY)	1957	1957	1957	1957	1957	1957	1956	1956	1934	1934	1936	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1929 - 1997	
ANNUAL MEAN	1468		1224		1254	
HIGHEST ANNUAL MEAN					4320	1993
LOWEST ANNUAL MEAN					166	1989
HIGHEST DAILY MEAN	31800	May 28	14200	Apr 16	31800	May 28 1996
LOWEST DAILY MEAN	76	Apr 26	61	Sep 12	4.6	Aug 7 1934
ANNUAL SEVEN-DAY MINIMUM	91	Apr 22	65	Sep 8	4.8	Aug 4 1934
INSTANTANEOUS PEAK FLOW	---		21800	Apr 11	33600	May 27 1996
INSTANTANEOUS PEAK STAGE	---		18.35	Apr 11	22.33	May 27 1996
INSTANTANEOUS LOW FLOW	---		61	Aug 8,Sep 11-13	4.6	Aug 7 1934
ANNUAL RUNOFF (INCHES)	10.69		8.89		9.11	
10 PERCENT EXCEEDS	2200		3010		3180	
50 PERCENT EXCEEDS	618		341		358	
90 PERCENT EXCEEDS	127		86		38	

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 from January 1978 to September 1986 and an ambient water-quality monitoring network station from November 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
OCT											
09...	0930	126	13.5	434	8.2	9.7	96	--	K53	190	152
NOV											
20...	1030	559	5.0	370	8.2	11.8	95	28	2800	15000	118
DEC											
05...	1400	352	4.0	450	8.3	12.9	102	--	160	460	147
JAN											
22...	0930	150	0.5	460	7.6	8.9	63	18	K580	K3100	157
FEB											
12...	1400	702	1.5	450	8.1	13.4	97	--	K6	K43	136
MAR											
17...	1355	1920	6.5	290	8.0	12.4	103	--	K20	120	106
APR											
23...	1525	8530	11.0	265	7.8	10.6	99	--	K6600	5300	77
MAY											
27...	1030	1350	15.0	255	8.0	9.0	92	--	3100	4900	95
JUN											
17...	1515	2780	23.5	205	7.7	5.9	72	28	K9000	23000	74
JUL											
29...	1500	122	30.0	357	8.6	8.8	119	--	K10	50	143
AUG											
19...	1445	217	23.0	328	8.2	8.2	98	16	K6000	K10000	125
SEP											
09...	1410	66	27.5	422	8.5	8.7	113	--	K35	100	184

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
OCT										
09...	186	0	<0.02	<0.010	<0.01	0.38	0.06	0.02	--	--
NOV										
20...	146	0	0.39	0.010	0.07	1.3	0.23	0.07	170	50
DEC										
05...	178	0	0.42	<0.010	0.07	0.59	0.09	0.03	--	--
JAN										
22...	191	0	0.52	<0.010	0.39	0.79	0.08	0.04	200	60
FEB										
12...	166	0	0.75	0.030	0.32	1.1	0.14	0.11	--	--
MAR										
17...	130	0	0.45	0.020	0.02	0.91	0.34	0.04	--	--
APR										
23...	94	0	0.66	0.040	0.05	2.5	0.98	0.11	--	--
MAY										
27...	116	0	0.92	0.040	0.03	E1.7	0.45	0.08	--	--
JUN										
17...	90	0	1.30	0.027	0.04	7.5	0.52	0.08	99	30
JUL										
29...	165	10	<0.02	<0.010	0.03	0.67	0.07	0.04	--	--
AUG										
19...	153	0	<0.02	<0.010	0.06	1.5	0.27	0.05	140	40
SEP										
09...	216	4	<0.02	<0.010	0.02	0.60	0.06	0.04	--	--

K--Results based on colony count outside the acceptable range (non-ideal colony count).
E--Laboratory estimated value.

06905500 CHARITON RIVER NEAR PRAIRIE HILL, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
NOV										
20...	11	9.3	4.7	66	8.2	0.2	256	240	3200	5.3
JAN										
22...	13	15	3.5	71	10	0.2	288	24	380	<3.0
JUN										
17...	5.8	4.1	2.8	19	3.8	0.2	136	3300	36000	<3.0
AUG										
19...	9.0	10	3.7	38	7.0	0.2	200	140	2500	3.5

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
NOV										
20...	<1	<1	1.5	40	6	<1	5.6	<0.1	30	1.6
JAN										
22...	<1	<1	<1.0	20	<1	<1	890	<0.1	7	1.2
JUN										
17...	5	<1	1.4	7.0	42	<1	0.30	0.1	210	<1.0
AUG										
19...	<1	<1	1.0	6.0	4	<1	13	<0.1	20	<1.0

06906150 LONG BRANCH CREEK NEAR ATLANTA, MO

LOCATION.--Lat 39°53'51", long 92°29'34", SE 1/4 NW 1/4 NW 1/4 sec.20, T.59N., R.14W., Macon County, Hydrologic Unit 10280203, at right upstream end of bridge on Marion Street, 0.65 mi east of Highway RA, and 0.3 mi west of Atlanta.

DRAINAGE AREA.--23.0 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 814.75 ft above sea level.

REMARKS.--Estimated daily discharges: Jan. 8-15, 25-27, and Aug. 7-14. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	.21	5.7	.00	1.4	28	2.2	3.6	4.7	.37	.01	.04
2	.30	.20	4.7	.00	4.5	21	1.8	4.6	3.3	.33	.00	.03
3	.30	.22	5.5	.36	12	14	1.6	161	4.0	.32	.01	.05
4	.20	.30	4.5	1.0	88	12	1.9	37	4.2	.59	.01	.02
5	.14	.43	3.1	.95	75	8.9	14	11	3.2	1.1	.01	.03
6	.03	.48	2.4	3.2	16	7.3	27	8.5	3.1	1.3	.01	.02
7	.05	.36	1.8	1.3	3.5	6.2	11	7.2	2.3	.78	.01	.04
8	.08	.41	1.3	.90	1.6	4.7	5.3	6.4	1.1	2.1	.01	.02
9	.04	.44	1.0	.80	.78	100	3.2	4.3	.56	2.1	.01	.04
10	.00	.44	1.0	.54	.49	59	7.9	2.4	.54	.96	.01	.02
11	.00	.47	.91	.42	.33	19	692	2.0	.72	.57	.01	.00
12	.00	.45	.79	.36	.23	11	765	1.8	2.3	.46	.01	.02
13	.00	.46	.76	.26	.11	7.5	95	1.4	3.6	.39	.01	.04
14	.00	.50	.74	.15	.12	6.5	44	1.2	1.9	.31	.01	.05
15	.00	.55	.88	.08	.32	4.7	19	1.0	.97	.27	.43	.03
16	.00	.80	.89	.01	1.7	4.3	21	.92	130	.23	.28	.07
17	.00	1.8	.83	.01	9.7	3.8	13	.78	24	.14	.87	.12
18	.00	2.0	.72	.01	57	4.7	10	.95	7.3	.12	.56	.04
19	.00	2.1	.51	.00	33	4.5	8.3	242	5.4	.07	1.4	.20
20	.00	1.4	.32	.01	78	4.3	83	83	2.7	.09	2.6	.22
21	.06	1.5	.14	2.6	892	4.2	196	7.7	.84	1.0	3.3	.15
22	.47	1.2	.13	8.8	396	3.5	41	3.9	43	.42	1.5	.23
23	.03	.86	.10	4.9	26	3.0	137	2.9	5.1	.22	.70	.41
24	.69	.77	.03	2.8	16	5.0	26	2.3	2.1	.16	.46	.35
25	.79	.66	.00	1.6	11	16	13	2.1	1.1	.09	.31	.31
26	.37	.50	.00	1.1	190	14	11	2.3	.69	.04	.23	.20
27	.27	.47	.00	.50	247	7.8	10	48	.54	.18	.19	.14
28	.16	.47	.00	.34	43	6.6	8.6	232	.50	.16	.15	.04
29	.03	2.2	.00	.31	---	5.4	5.9	27	.39	.02	.06	.00
30	.31	5.9	.00	.25	---	3.9	4.3	13	.31	.01	.05	.00
31	.29	---	.00	.29	---	2.2	---	7.4	---	.01	.04	---
MEAN	.16	.95	1.25	1.09	78.7	13.0	76.0	30.0	8.68	.48	.43	.098
MAX	.79	5.9	5.7	8.8	892	100	765	242	130	2.1	3.3	.41
MIN	.00	.20	.00	.00	.11	2.2	1.6	.78	.31	.01	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1997, BY WATER YEAR (WY)

MEAN	.34	1.29	.99	.70	42.3	14.7	39.2	85.0	11.0	1.12	12.6	.61
MAX	.51	1.64	1.25	1.09	78.7	16.4	76.0	140	13.4	1.77	25.0	1.27
(WY)	1996	1996	1997	1997	1997	1996	1997	1996	1996	1996	1995	1996
MIN	.16	.95	.73	.31	7.06	13.0	2.42	30.0	8.68	.48	.43	.098
(WY)	1997	1997	1996	1996	1996	1997	1996	1997	1997	1997	1997	1997

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1995 - 1997	
ANNUAL MEAN	16.6		17.0		16.8	
HIGHEST ANNUAL MEAN					17.0	1997
LOWEST ANNUAL MEAN					16.7	1996
HIGHEST DAILY MEAN	1130	May 27	892	Feb 21	1130	May 27 1996
LOWEST DAILY MEAN	.00	Several Days	.00	Several Days	.00	Several Days
ANNUAL SEVEN-DAY MINIMUM	.00	Oct 10	.00	Oct 10	.00	Oct 10 1996
INSTANTANEOUS PEAK FLOW	---		1180	Apr 12	1180	Apr 12 1997
INSTANTANEOUS PEAK STAGE	---		12.89	Apr 12	12.89	Apr 12 1997
INSTANTANEOUS LOW FLOW	---		.00	Many Days	.00	Several Days
10 PERCENT EXCEEDS	18		20		19	
50 PERCENT EXCEEDS	.88		.79		.77	
90 PERCENT EXCEEDS	.10		.01		.08	

06906190 LONG BRANCH RESERVOIR NEAR MACON, MO

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

DRAINAGE AREA.--109 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is sea level (levels by the U.S. Army Corps of Engineers).

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 61,800 ac-ft, May 28, 1995, elevation, 800.25 ft; minimum, 14,300 ac-ft, Dec. 5, 1980, elevation, 780.21 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 49,500 ac-ft, Apr. 14, elevation, 796.56 ft; minimum, 26,300 ac-ft, Sept. 30, elevation, 787.49 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 08:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	790.37	788.55	788.23	787.99	787.99	794.44	792.37	794.94	792.74	791.45	788.59	787.96
2	790.33	788.53	788.23	787.99	787.99	794.34	792.33	794.78	792.66	791.39	788.53	787.95
3	790.29	788.48	788.26	787.99	787.99	794.23	792.27	794.67	792.56	791.30	788.47	787.96
4	790.25	788.45	788.26	787.98	788.16	794.10	792.23	794.84	792.45	791.25	788.42	787.88
5	790.21	788.48	788.25	787.99	788.44	793.96	792.23	794.70	792.35	791.19	788.35	787.86
6	790.15	788.44	788.25	787.97	788.61	793.80	792.26	794.56	792.28	791.15	788.29	787.82
7	790.12	788.48	788.25	787.96	788.67	793.66	792.36	794.40	792.20	791.12	788.22	787.80
8	789.93	788.29	788.20	787.94	788.71	793.53	792.35	794.28	792.13	791.05	788.16	787.78
9	789.84	788.26	788.15	787.93	788.73	793.43	792.29	794.12	792.05	791.02	788.12	787.76
10	789.83	788.24	788.15	787.97	788.73	793.59	792.25	793.95	791.97	790.97	788.09	787.74
11	789.75	788.22	788.15	787.93	788.76	793.66	792.61	793.78	791.91	790.97	788.12	787.70
12	789.70	788.19	788.21	787.91	788.76	793.58	795.31	793.67	791.85	790.92	788.12	787.67
13	789.64	788.16	788.21	787.90	788.77	793.47	796.34	793.50	791.78	790.90	788.11	787.64
14	789.62	788.16	788.20	787.89	788.76	793.40	796.56	793.35	791.76	790.87	788.10	787.63
15	789.56	788.12	788.21	787.89	788.76	793.24	796.48	793.19	791.73	790.55	788.05	787.63
16	789.53	788.20	788.19	787.90	788.76	793.11	796.35	793.03	791.76	790.05	788.04	787.60
17	789.48	788.30	788.19	787.88	788.76	793.03	796.18	792.90	792.05	789.55	788.11	787.69
18	789.45	788.28	788.16	787.87	788.75	792.97	795.99	792.78	792.01	789.39	788.10	787.66
19	789.40	788.29	788.15	787.86	789.06	792.88	795.82	792.71	791.94	789.35	788.10	787.63
20	789.34	788.28	788.14	787.84	789.17	792.80	795.63	793.13	791.86	789.27	788.20	787.66
21	789.27	788.28	788.11	787.83	790.23	792.72	795.94	793.06	791.79	789.23	788.15	787.63
22	789.22	788.26	788.11	787.86	792.88	792.66	796.11	792.93	791.75	789.19	788.14	787.60
23	789.22	788.23	788.09	787.90	793.60	792.59	796.12	792.82	791.95	789.13	788.13	787.60
24	789.17	788.25	788.07	787.93	793.55	792.50	796.21	792.72	791.88	789.09	788.10	787.64
25	789.11	788.24	788.07	787.94	793.47	792.70	796.04	792.63	791.82	789.01	788.08	787.62
26	789.04	788.20	788.06	787.97	793.42	792.70	795.86	792.60	791.78	788.94	788.07	787.59
27	788.96	788.19	788.03	788.00	794.14	792.66	795.67	792.50	791.71	788.87	788.05	787.57
28	788.88	788.15	788.03	788.03	794.46	792.60	795.49	792.72	791.64	788.89	788.03	787.54
29	788.80	788.15	788.02	788.02	---	792.56	795.30	792.96	791.58	788.81	788.02	787.51
30	788.60	788.20	788.01	788.00	---	792.51	795.10	792.92	791.52	788.73	787.99	787.49
31	788.57	---	787.99	787.99	---	792.49	---	792.84	---	788.65	787.98	---
MEAN	789.54	788.29	788.15	787.94	789.93	793.22	794.60	793.48	791.98	790.07	788.16	787.69
MAX	790.37	788.55	788.26	788.03	794.46	794.44	796.56	794.94	792.74	791.45	788.59	787.96
MIN	788.57	788.12	787.99	787.83	787.99	792.49	792.23	792.50	791.52	788.65	787.98	787.49
(-)	28600	27800	27400	27400	43300	37900	45100	38800	35500	28800	27300	26300
(=)	-4100	-800	-400	0	+15900	-5400	+7200	-6300	-3300	-6700	-1500	-1000

CAL YR 1996...-3900
WTR YR 1997...-6400

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

06906200 EAST FORK LITTLE CHARITON RIVER NEAR MACON, MO

LOCATION.--Lat 39°44'59", long 92°31'03", 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^2.

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

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

REMARKS.--Estimated daily discharges: Sept. 25-30. Records poor. Several observations of water temperature were made during the year. Complete regulation by Long Branch Reservoir (station 06906190), 250 ft upstream. U.S. Army Corps of Engineers satellite telemeter at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	9.9	12	14	14	267	99	302	141	57	52	9.3
2	47	10	12	14	15	259	96	292	133	57	52	8.8
3	47	11	12	14	15	251	93	284	126	56	53	8.8
4	47	11	12	14	18	242	91	284	119	56	53	8.8
5	47	11	12	14	15	229	93	275	112	56	52	8.8
6	47	11	11	14	15	221	97	266	112	56	52	9.0
7	42	11	11	14	15	211	97	254	109	55	52	9.2
8	45	11	11	14	15	203	97	244	106	55	29	9.2
9	46	11	12	14	15	202	93	234	102	54	17	9.2
10	46	11	12	14	15	203	93	223	98	23	16	9.2
11	45	11	13	14	15	198	178	213	95	3.0	16	9.2
12	45	11	14	14	15	191	328	212	92	4.4	10	9.2
13	45	11	14	14	15	181	415	215	89	5.2	7.4	9.2
14	45	11	14	14	15	172	413	205	86	183	8.4	9.2
15	46	11	14	14	16	162	402	194	79	495	8.8	9.4
16	46	11	14	14	16	151	394	183	89	489	9.2	9.7
17	46	11	14	14	16	143	381	176	104	295	9.2	10
18	46	11	14	14	16	136	372	167	102	51	8.6	10
19	45	11	14	14	16	129	368	165	97	51	9.0	10
20	45	11	14	14	34	122	365	182	91	51	8.8	10
21	45	11	14	15	114	118	375	177	86	51	8.8	10
22	45	11	14	15	223	114	378	168	93	51	8.8	10
23	45	11	14	15	256	109	386	159	93	51	8.8	10
24	45	11	14	14	251	109	382	153	83	51	8.8	10
25	45	11	14	14	242	117	368	146	79	51	8.8	10
26	45	11	14	14	248	115	356	141	72	51	8.8	10
27	45	11	14	14	269	114	345	135	66	52	9.0	10
28	45	11	14	14	272	110	333	148	62	52	9.2	10
29	45	11	14	14	---	109	321	158	60	52	9.2	10
30	34	12	14	14	---	107	311	154	58	52	9.1	10
31	10	---	14	14	---	103	---	147	---	52	9.5	---
MEAN	44.0	11.0	13.2	14.1	78.6	164	271	202	94.5	87.7	20.1	9.54
MAX	47	12	14	15	272	267	415	302	141	495	53	10
MIN	10	9.9	11	14	14	103	91	135	58	3.0	7.4	8.8
IN.	.45	.11	.14	.15	.73	1.69	2.70	2.08	.94	.90	.21	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1997[a], BY WATER YEAR (WY)

MEAN	55.3	65.5	88.4	51.3	56.4	115	130	183	133	126	75.5	57.9
MAX	406	354	304	223	148	502	475	680	369	743	401	341
(WY)	1987	1986	1993	1993	1985	1985	1983	1995	1995	1993	1981	1981
MIN	.16	.27	.000	.000	.000	7.30	7.27	7.21	5.45	5.52	2.48	7.06
(WY)	1979	1979	1979	1979	1979	1989	1989	1988	1988	1989	1980	1984

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1979 - 1997[a]	
ANNUAL MEAN	86.7		84.0		95.0	
HIGHEST ANNUAL MEAN					242	1993
LOWEST ANNUAL MEAN					7.13	1989
HIGHEST DAILY MEAN	1110	May 28	495	Jul 15	1380	May 18 1995
LOWEST DAILY MEAN	9.9	Nov 1	3.0	Jul 11	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	11	Oct 31	8.7	Aug 13	.00	Many Years
INSTANTANEOUS PEAK FLOW	---		500	Jul 14	1560	May 7 1996
INSTANTANEOUS PEAK STAGE	---		11.38	Jul 14	14.78	May 7 1996
INSTANTANEOUS LOW FLOW	---		.00	Jul 11	.00	Many Years
ANNUAL RUNOFF (INCHES)	10.54		10.19		11.53	
10 PERCENT EXCEEDS	324		249		286	
50 PERCENT EXCEEDS	36		45		47	
90 PERCENT EXCEEDS	11		9.5		6.1	

[a]Post-regulation period.

06906300 EAST FORK LITTLE CHARITON RIVER NEAR HUNTSVILLE, MO

LOCATION.--Lat 39°27'18", long 92°34'07", in NW 1/4 NW 1/4 NW 1/4 sec.26, T.54 N., R.15 W., Randolph County, Hydrologic Unit 10280203, on right bank downstream end of bridge on State Highway C, 1.0 mi downstream from Sugar Creek, and 1.5 mi northwest of Huntsville.

DRAINAGE AREA.--220 mi^2.

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 sea level (levels by the Missouri State Highway and Transportation Commission). From July 18, 1972 to Sept. 23, 1974, at datum 0.63 ft higher.

REMARKS.--Estimated daily discharges: Dec. 23, 24, Dec. 29 to Jan. 6, Jan. 8-25, Jan. 27 to Feb. 3, and Feb. 13, 15. 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^3/s, Apr. 21, 1973; gage height, 20.78 ft, former datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	14	29	15	18	443	119	317	166	68	52	11
2	50	11	21	15	30	369	112	306	162	61	56	11
3	59	9.6	19	14	45	332	106	312	152	61	55	13
4	67	10	17	14	78	308	104	306	136	59	58	11
5	60	11	16	15	83	291	142	299	126	62	59	11
6	49	13	16	14	52	273	189	289	121	63	57	11
7	50	14	16	13	38	263	140	278	123	64	50	11
8	45	14	16	15	33	248	124	269	121	57	54	11
9	48	12	14	15	30	355	113	256	110	53	35	11
10	49	11	15	15	27	339	118	245	99	58	20	11
11	49	11	16	14	28	290	2880	235	96	29	20	11
12	51	11	15	14	27	266	3900	225	100	7.4	12	10
13	53	11	15	14	26	250	887	243	94	8.0	20	10
14	47	11	15	15	27	237	655	234	98	11	11	10
15	47	11	18	15	27	202	560	218	84	384	13	10
16	46	13	19	17	29	187	521	207	108	502	13	11
17	46	27	17	17	37	179	467	193	104	496	10	19
18	46	28	11	15	50	174	420	181	108	121	14	15
19	48	17	14	15	57	167	388	175	98	56	16	11
20	55	15	11	20	78	155	382	182	90	52	30	11
21	51	15	12	25	3180	147	728	198	89	53	15	11
22	54	15	15	27	1260	139	485	188	92	51	12	11
23	66	14	16	30	372	131	522	176	115	55	12	13
24	58	14	15	25	304	124	452	168	98	56	11	15
25	57	14	14	23	274	290	399	151	89	55	12	13
26	52	10	15	22	1110	194	370	168	91	57	11	11
27	44	10	15	19	1090	165	355	162	80	57	11	10
28	43	14	15	16	488	155	342	186	76	57	11	10
29	43	15	15	16	---	144	329	185	73	55	11	9.8
30	43	33	15	16	---	135	319	191	69	55	11	9.8
31	38	---	15	17	---	126	---	172	---	50	11	---
MEAN	50.5	14.3	15.9	17.3	318	228	554	223	106	92.7	25.3	11.5
MAX	67	33	29	30	3180	443	3900	317	166	502	59	19
MIN	38	9.6	11	13	18	124	104	151	69	7.4	10	9.8
IN.	.26	.07	.08	.09	1.50	1.20	2.81	1.17	.54	.49	.13	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 1997[a], BY WATER YEAR (WY)

MEAN	107	137	159	96.7	174	237	258	337	212	237	116	125
MAX	1019	757	666	362	732	945	935	1201	563	1569	514	774
(WY)	1987	1986	1983	1993	1985	1985	1983	1995	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1979 - 1997[a]	
ANNUAL MEAN	145		136		183	
HIGHEST ANNUAL MEAN					468	1993
LOWEST ANNUAL MEAN					17.3	1989
HIGHEST DAILY MEAN	5140	May 8	3900	Apr 12	7760	Oct 3 1986
LOWEST DAILY MEAN	9.6	Nov 3	7.4	Jul 12	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	11	Nov 9	10	Sep 9	.40	Oct 9 1980
INSTANTANEOUS PEAK FLOW	---		4820	Apr 11	10400	Jun 27 1981
INSTANTANEOUS PEAK STAGE	---		16.71	Apr 11	19.30	Sep 2 1982
INSTANTANEOUS LOW FLOW	---		5.0	Jul 13	.00	Many Years
ANNUAL RUNOFF (INCHES)	9.00		8.41		11.30	
10 PERCENT EXCEEDS	350		310		392	
50 PERCENT EXCEEDS	50		50		66	
90 PERCENT EXCEEDS	15		11		7.8	

[a]Post-regulation period.

06906800 LAMINE RIVER NEAR OTTERVILLE, MO

LOCATION.--Lat 38°42'09", long 92°58'42", in NE 1/4 NE 1/4 NW 1/4 sec.2, T.45 N., R.19 W., Cooper County, Hydrologic Unit 10300103, on left bank at the left downstream end of Highway A, 7.2 mi downstream from confluence of Flat Creek and Richland Creek, 2.2 mi upstream from Otter Creek, and 1.1 mi east of Otterville.

DRAINAGE AREA.--543 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 652.87 ft above sea level.

REMARKS.--Estimated daily discharges: Dec. 19-31, Jan. 6-21, and Jan. 25 to Feb. 1. Records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. U.S.G.S satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	125	1140	86	1500	1910	193	135	1070	272	9.8	144
2	69	104	996	89	1250	1360	171	134	627	153	9.8	53
3	54	90	756	91	1030	887	158	143	458	103	9.8	35
4	46	84	527	92	1690	647	154	137	376	98	9.9	28
5	41	85	386	86	998	511	237	113	308	122	9.1	43
6	37	203	321	75	580	421	1350	97	258	79	8.7	35
7	35	4530	267	65	445	366	568	87	219	59	8.7	28
8	33	1040	222	62	379	330	347	2020	183	48	10	26
9	31	510	190	62	326	477	267	1120	151	44	9.2	23
10	30	342	170	60	287	1010	234	451	129	186	8.5	20
11	28	257	160	55	258	498	988	284	116	191	8.1	18
12	30	206	149	48	234	364	2360	208	116	105	8.3	17
13	32	170	134	40	211	308	872	164	965	64	8.8	17
14	29	148	128	35	193	290	527	130	2670	46	9.1	17
15	27	131	255	32	177	259	390	106	711	36	3030	16
16	26	123	329	32	168	225	322	90	970	30	775	15
17	25	2040	264	32	159	209	268	78	1370	27	258	27
18	25	1110	203	30	149	212	228	74	505	25	178	18
19	24	487	140	30	146	225	204	332	320	24	201	37
20	24	323	115	35	401	235	197	715	222	21	426	28
21	27	240	100	60	22700	216	339	306	168	19	255	22
22	185	181	105	982	17300	195	370	173	138	18	123	19
23	973	148	100	724	1640	172	1110	119	112	16	72	22
24	676	146	90	441	991	154	647	96	91	15	49	25
25	302	204	80	320	709	1080	391	96	78	15	2360	30
26	181	200	75	270	4820	1270	289	9080	73	14	474	31
27	162	156	70	350	7310	562	238	17600	71	13	112	26
28	677	127	75	600	1760	400	205	12100	258	12	57	23
29	450	232	75	520	---	323	178	1400	1790	12	40	21
30	257	2120	78	440	---	268	154	2910	606	11	32	19
31	168	---	80	700	---	225	---	3530	---	10	39	---
MEAN	155	529	251	211	2422	504	465	1743	504	60.9	278	29.4
MAX	973	4530	1140	982	22700	1910	2360	17600	2670	272	3030	144
MIN	24	84	70	30	146	154	154	74	71	10	8.1	15
IN.	.33	1.09	.53	.45	4.65	1.07	.96	3.70	1.04	.13	.59	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1997, BY WATER YEAR (WY)

MEAN	55.5	708	404	294	529	485	1009	1582	367	662	198	411
MAX	277	3347	1564	922	2422	1580	3809	4718	961	4077	850	3689
(WY)	1994	1993	1993	1993	1997	1990	1994	1990	1993	1993	1995	1993
MIN	7.73	17.3	11.1	45.4	35.0	46.4	279	38.8	10.5	11.0	3.40	6.00
(WY)	1993	1996	1990	1990	1996	1996	1991	1992	1988	1988	1991	1988

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1987 - 1997	
ANNUAL MEAN	468		583		558	
HIGHEST ANNUAL MEAN					1464	1993
LOWEST ANNUAL MEAN					155	1992
HIGHEST DAILY MEAN	20000	May 6	22700	Feb 21	47000	May 18 1995
LOWEST DAILY MEAN	9.9	Jul 19	8.1	Aug 11	1.3	Aug 26 1991
ANNUAL SEVEN-DAY MINIMUM	12	Jul 14	8.8	Aug 6	1.4	Aug 23 1991
INSTANTANEOUS PEAK FLOW	---		32700	Feb 21	84900	May 18 1995
INSTANTANEOUS PEAK STAGE	---		24.14	Feb 21	29.43	May 18 1995
INSTANTANEOUS LOW FLOW	---		8.1	Aug 10-12	1.2	Aug 28 1991
ANNUAL RUNOFF (INCHES)	11.74		14.58		13.97	
10 PERCENT EXCEEDS	577		1030		756	
50 PERCENT EXCEEDS	61		160		74	
90 PERCENT EXCEEDS	21		21		9.4	

06908000 BLACKWATER RIVER AT BLUE LICK, MO

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

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

PERIOD OF RECORD.--June 1922 to September 1933, May 1938 to current year.

REVISED RECORDS.--WSP 1006: 1929. WDR MO-83-1: 1982.

GAGE.--Water-stage recorder. Datum of gage is 593.79 ft above sea level. 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.--Estimated daily discharges: Dec. 20, 21, 23-26, Jan. 10-12, 17-19, 26-30, Feb. 13, 14, Feb. 20 to Mar. 4, and July 28 to Aug. 4. Records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	503	137	3490	116	337	8680	283	231	3960	237	10	10
2	300	118	2210	127	1270	7590	251	221	1260	125	11	11
3	214	105	1780	144	1940	2490	230	237	848	86	11	79
4	170	98	1430	148	2360	1190	226	280	671	61	10	42
5	144	111	921	138	2190	912	357	240	518	46	9.1	17
6	130	444	665	122	1520	695	762	196	394	39	8.3	12
7	120	410	489	102	1020	540	719	172	336	55	8.0	9.6
8	184	425	363	85	734	457	524	180	297	45	8.4	8.9
9	284	304	293	77	529	689	373	428	259	39	8.4	9.6
10	195	209	261	70	414	1600	335	415	233	57	8.2	9.0
11	147	160	249	62	362	1500	5020	281	215	66	8.2	9.5
12	122	134	237	55	324	940	8100	192	216	66	9.8	9.5
13	105	120	218	50	290	717	10400	140	341	54	97	9.1
14	93	109	201	41	280	578	11900	120	969	46	122	9.5
15	83	103	190	38	267	453	10100	104	438	38	352	16
16	77	103	183	35	295	349	4790	91	1480	30	343	17
17	72	1840	175	33	321	316	1030	82	1780	24	217	156
18	63	3930	156	33	327	313	764	101	836	20	114	126
19	63	3690	134	40	338	309	628	126	551	18	196	35
20	64	1580	125	48	800	278	498	340	353	16	653	16
21	62	869	110	68	9000	261	451	441	236	14	373	12
22	75	594	106	677	10600	245	502	289	218	13	162	10
23	736	400	100	857	13600	222	1180	175	157	12	89	12
24	1140	304	90	543	14400	200	700	121	114	12	57	91
25	857	263	85	424	11900	832	526	293	93	11	40	63
26	493	232	90	300	9530	1380	404	1960	80	11	46	38
27	284	198	96	270	8090	1070	330	3860	74	9.9	24	30
28	209	175	93	240	7910	714	305	5890	181	10	17	22
29	210	277	101	220	---	592	284	6270	577	11	14	16
30	202	2810	110	210	---	485	257	7250	514	11	13	12
31	166	---	111	203	---	356	---	7360	---	10	11	---
MEAN	244	675	479	180	3605	1192	2074	1229	607	41.7	98.4	30.6
MAX	1140	3930	3490	857	14400	8680	11900	7360	3960	237	653	156
MIN	62	98	85	33	267	200	226	82	74	9.9	8.0	8.9
IN.	.25	.67	.49	.19	3.35	1.23	2.07	1.26	.60	.04	.10	.03

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

MEAN	538	613	454	456	721	1030	1429	1244	1213	836	290	596
MAX	9500	6100	3359	2326	5206	4706	8473	8090	4416	8855	1668	5979
(WY)	1987	1929	1983	1974	1985	1973	1973	1995	1969	1951	1951	1961
MIN	.13	.32	1.66	1.55	5.54	9.50	29.6	9.93	18.4	1.78	1.61	.13
(WY)	1957	1957	1957	1957	1954	1956	1977	1932	1956	1933	1930	1956

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	786		849		787	
HIGHEST ANNUAL MEAN					2540	1993
LOWEST ANNUAL MEAN					95.8	1957
HIGHEST DAILY MEAN	14900	Jul 23	14400	Feb 24	48400	Nov 18 1928
LOWEST DAILY MEAN	11	Feb 6,7	8.0	Aug 7	.00	Jul 17-31 1980
ANNUAL SEVEN-DAY MINIMUM	13	Feb 1	8.4	Aug 5	.00	Jul 17 1980
INSTANTANEOUS PEAK FLOW	---		15100	Feb 23	54000	Nov 18 1928
INSTANTANEOUS PEAK STAGE	---		32.85	Feb 23	41.53	Oct 3 1986
INSTANTANEOUS LOW FLOW	---		7.7	Aug 7	.00	Jul 17-31 1980
ANNUAL RUNOFF (INCHES)	9.56		10.29		9.55	
10 PERCENT EXCEEDS	2270		1590		2320	
50 PERCENT EXCEEDS	111		210		88	
90 PERCENT EXCEEDS	16		12		4.4	

06909000 MISSOURI RIVER AT BOONVILLE, MO

LOCATION.--Lat 38°58'42", long 92°45'13", sec.35, T.49 N., R.17 W., Cooper County, Hydrologic Unit 10300102, on downstream side of second pier from right abutment of Missouri-Kansas-Texas Railroad Company Bridge at Boonville and at mile 196.6.

DRAINAGE AREA.--501,700 mi^2, approximately.

PERIOD OF RECORD.--October 1925 to current year. Gage-height records collected at same site 1893-99 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 565.42 ft above sea level. Prior to Oct. 1, 1928, nonrecording gage at site 0.4 mi downstream at datum 3.14 ft lower; Oct. 1, 1928, to May 9, 1931, nonrecording gage at site 50 ft upstream from present site at present datum; May 10, 1931, to Apr. 12, 1934, water-stage recorder at site 0.4 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Some regulation from many upstream reservoirs. Several observations of water temperature were made during the year. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88500	97700	111000	45200	44700	149000	86300	133000	141000	123000	83300	82400
2	83700	95100	122000	46300	47200	135000	85900	150000	129000	120000	82300	82100
3	80200	88200	116000	46900	49200	127000	88800	167000	121000	117000	81900	81600
4	77600	84900	108000	47400	53800	114000	93100	168000	116000	115000	81600	83000
5	76600	84100	103000	45800	64300	107000	96600	167000	113000	112000	80300	95600
6	75900	85800	97300	47300	68700	100000	103000	155000	111000	108000	79100	96400
7	75500	90200	92800	47400	68500	95200	112000	142000	109000	105000	78200	88700
8	76300	91400	88900	49500	63500	91200	118000	135000	108000	102000	77400	84200
9	78300	85100	85100	52300	58400	87400	116000	143000	104000	99400	77200	81600
10	77100	81400	82700	51700	55600	90800	116000	159000	101000	96800	77000	79700
11	76100	78800	80200	48200	54800	101000	145000	153000	98900	94900	76900	78500
12	75300	78400	76700	44900	54000	97000	234000	140000	98200	95200	77300	78800
13	74300	77700	73400	43500	53000	98200	274000	130000	98500	95600	78300	79100
14	73800	77400	70800	43200	52200	99600	277000	127000	102000	93000	80700	80600
15	73800	76800	68300	40800	51700	98100	257000	126000	103000	91600	85200	80800
16	73500	76300	66000	38800	51400	94800	235000	124000	102000	91900	89600	79500
17	73200	77300	64500	39200	51400	93200	221000	123000	125000	91900	85400	80000
18	72700	109000	64100	41400	52200	90800	213000	121000	126000	91000	85300	79800
19	73300	151000	62900	42400	55000	86900	201000	121000	111000	89400	86000	80300
20	74100	137000	60700	43100	70700	84800	183000	127000	103000	87300	87600	79700
21	75300	123000	56900	43000	155000	82900	167000	123000	97700	85900	89400	79400
22	76500	109000	52600	42800	230000	82700	168000	117000	97100	84900	91500	79400
23	79900	103000	48900	43600	249000	81700	170000	114000	102000	84700	91100	79800
24	92700	103000	46200	45600	234000	79800	179000	111000	103000	85300	89300	82600
25	111000	104000	43900	47000	203000	83300	179000	112000	107000	85900	87400	85500
26	111000	105000	40600	49200	169000	95100	171000	122000	111000	86200	89800	86100
27	101000	103000	39100	51100	161000	91000	156000	135000	118000	85400	84800	85300
28	92400	98800	39700	50700	167000	86000	146000	157000	125000	84900	84500	84000
29	88200	95800	42800	48400	---	85300	140000	170000	126000	84800	83600	85100
30	86500	98600	45000	45300	---	84500	136000	150000	127000	86000	82500	86100
31	87800	---	44600	44200	---	86200	---	145000	---	84500	82400	---
MEAN	81680	95560	70800	45680	96010	96110	162300	137600	111100	95440	83450	82860
MAX	111000	151000	122000	52300	249000	149000	277000	170000	141000	123000	91500	96400
MIN	72700	76300	39100	38800	44700	79800	85900	111000	97100	84500	76900	78500
IN.	.19	.21	.16	.11	.20	.22	.36	.32	.25	.22	.19	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1997[a], BY WATER YEAR (WY)

MEAN	64910	60160	44000	35160	48730	71130	90180	92210	93030	85010	64460	67590
MAX	187800	108800	106200	90150	106300	183900	212700	234700	201100	375200	213600	165900
(WY)	1974	1962	1983	1973	1982	1973	1973	1995	1984	1993	1993	1993
MIN	36280	24600	13840	14770	17620	19460	39060	40770	41990	41560	36570	36730
(WY)	1965	1991	1964	1963	1964	1964	1989	1989	1988	1988	1991	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1958 - 1997[a]	
ANNUAL MEAN	88640		96380		68090	
HIGHEST ANNUAL MEAN					140500	1993
LOWEST ANNUAL MEAN					39070	1963
HIGHEST DAILY MEAN	290000	May 30	277000	Apr 14	721000	Jul 30 1993
LOWEST DAILY MEAN	28900	Jan 26	38800	Jan 16	5000	Dec 21 1963
ANNUAL SEVEN-DAY MINIMUM	32500	Jan 24	41200	Jan 15	5730	Dec 19 1963
INSTANTANEOUS PEAK FLOW	---		281000	Apr 14	755000	Jul 29 1993
INSTANTANEOUS PEAK STAGE	---		29.37	Apr 14	37.10	Jul 29 1993
INSTANTANEOUS LOW FLOW	---		38000	Jan 16	5500	Jan 22,24 1963
ANNUAL RUNOFF (INCHES)	2.41		2.61		1.84	
10 PERCENT EXCEEDS	151000		147000		123000	
50 PERCENT EXCEEDS	77400		86900		54600	
90 PERCENT EXCEEDS	40600		49100		28300	

[a]Post-regulation period.

06917630 EAST FORK DRYWOOD CREEK AT PRAIRIE STATE PARK

(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°32'28", long 94°33'28", NE 1/4 NW 1/4 sec.16, T.32 N., R.33 W., Barton County, Hydrologic Unit 11070207. Sampling site is located on the northeast edge of the park.

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

REMARKS.--Several periods of no flow during the year in which samples are collected at Fleck Creek in Prairie State Park (06917635). Fleck Creek data are located in the partial records section of this report.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD mg/L as $CaCO_3$) (00410)
NOV											
05...	1235	1.6	9.5	116	6.79	11.0	96	--	460	156	13
JAN											
07...	1300	0.94	2.5	143	6.51	11.7	85	--	2	2	17
23...	1030	2.6	2.5	120	6.43	12.2	90	19	152	1900	11
MAR											
04...	1440	1.6	9.5	110	6.49	12.5	111	--	K7	20	13
APR											
15...	0930	1.7	9.5	107	6.85	10.3	89	--	21	K12	17
JUN											
24...	1615	0.52	28	105	7.77	7.4	94	16	K428	290	24

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)
NOV											
05...	16	0	<0.02	<0.01	<0.01	0.32	<0.02	0.01	--	--	--
JAN											
07...	21	0	--	--	--	0.30	0.01	--	--	--	--
23...	13	0	0.50	0.01	0.04	0.59	0.04	0.02	34	8.8	3.0
MAR											
04...	16	0	<0.02	<0.01	0.01	<0.20	0.06	0.01	--	--	--
APR											
15...	20	0	<0.02	<0.01	<0.01	0.24	0.02	<0.01	--	--	--
JUN											
24...	29	0	<0.02	<0.01	0.02	0.30	<0.02	0.01	36	8.9	3.4

DATE	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)
JAN											
23...	6.7	1.8	27	14	<0.1	106	6	860	14	<1	<1
JUN											
24...	6.7	0.4	21	0.8	<0.1	100	9	160	4.4	<1	<1

K--Results are based on colony count outside the acceptable range (non-ideal colony count).

06917630 EAST FORK DRYWOOD CREEK AT PRAIRIE STATE PARK--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)	PROP-CHLOR, WATER, DISS, REC (µg/L) (04024)	BUTYL-ATE, WATER, DISS, REC (µg/L) (04028)	SI-MAZINE, WATER, DISS, REC (µg/L) (04035)
JAN 23...	<1	50	2	<1	11	<0.1	9	3.7	--	--	--
JUN 24...	<1	20	1	<1	34	<0.1	5	3.8	<0.007	<0.002	<0.005

DATE	PRO-METON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (µg/L) (04040)	CYANA-ZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	ALPHA BHC DIS-SOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	METO-LACHLOR WATER DISSOLV (µg/L) (39415)	LINDANE DIS-SOLVED (µg/L) (39341)	DI-ELDRIN DIS-SOLVED (µg/L) (39381)	ATRA-ZINE, WATER, DISS, REC (µg/L) (39632)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)
JUN 24...	<0.018	E0.024	<0.004	<0.003	<0.002	<0.006	0.048	<0.004	<0.001	0.412	<0.004

DATE	FONOFOS WATER DISS REC (µg/L) (04095)	CHLOR-PYRIFOS DIS-SOLVED (µg/L) (38933)	MALA-THION, DIS-SOLVED (µg/L) (39532)	PARA-THION, DIS-SOLVED (µg/L) (39542)	DI-AZINON, DIS-SOLVED (µg/L) (39572)	ALA-CHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (µg/L) (49260)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)
JUN 24...	<0.003	<0.004	<0.005	<0.004	<0.002	0.011	<0.002	<0.003	<0.004	<0.002	<0.007

DATE	LIN-URON WATER FLTRD 0.7 µ GF, REC (µg/L) (82666)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
JUN 24...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
JUN 24...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

06918070 OSAGE RIVER ABOVE SCHELL CITY, MO

LOCATION.--Lat 38°03'20", long 94°08'44", in SE 1/4 SW 1/4 NW 1/4 sec.20, T.38 N., R.29 W., Bates County, Hydrologic Unit 10290105, on downstream side of left pier of bridge on State Highway M, 0.8 mi downstream from Shaw Branch, 0.2 mi upstream from McKenzie Creek, and 3.0 mi northwest of Schell City.

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

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and slope gage 1.7 mi downstream. Datum of gage is 700.00 ft above sea level.

REMARKS.--Estimated daily discharges: Dec. 16-18, Jan. 14-18, and 20-29. Discharge is calculated using fall computations due to backwater from Harry S Truman Reservoir. Water-discharge records poor. U.S. Army Corps of Engineers satellite telemeter at station.

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

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 44,000 ft^3/s, Feb. 25; minimum, 82 ft^3/s, Aug. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	2910	12700	1100	878	31900	3190	1880	14500	6800	330	207
2	812	2500	12900	1090	928	26100	2440	1170	10800	7220	243	190
3	611	2250	11700	1110	1090	20100	2040	1060	5830	5200	209	204
4	499	2040	10200	1160	1230	15300	1870	1400	4140	2370	200	192
5	428	2160	8550	1190	1270	11400	2390	1370	3900	1900	171	158
6	407	3290	6350	1170	1200	9570	4140	1210	3760	1890	146	166
7	393	6210	4950	1080	1080	8530	7250	1010	3720	1190	139	169
8	379	7040	4270	973	977	7700	7550	960	3330	819	126	149
9	1040	6910	3810	930	920	6960	4670	2550	2650	782	110	122
10	1320	4840	3420	830	898	6310	2930	3800	2190	5790	107	108
11	1090	2700	3180	695	856	6070	5670	2400	2040	9300	89	94
12	745	1820	3020	709	814	5630	18100	1490	1470	9440	82	87
13	569	1510	2880	710	776	5120	24800	1080	3530	8970	83	87
14	489	1340	2740	640	728	4370	27600	825	6440	8210	115	1470
15	434	1210	2610	570	691	3580	27800	667	7190	6700	165	1820
16	383	1190	2500	520	661	2730	24900	552	8050	6640	148	822
17	343	8280	2600	470	625	1920	15300	484	15000	4680	185	396
18	321	16500	3000	455	598	2870	9060	819	17900	2400	186	223
19	312	19500	3280	447	591	4810	7750	8810	12500	1470	9530	221
20	306	19800	3240	440	701	5130	7390	12900	6770	1120	14800	202
21	311	15300	3260	440	15500	3920	6920	11800	4110	901	12400	141
22	356	11200	3060	450	27500	2630	6290	5650	3100	643	8450	116
23	426	8750	2860	800	34400	2010	5900	2910	2700	537	4110	134
24	3530	7300	2820	1200	39000	1690	5590	2170	2500	631	1860	947
25	7880	6340	2610	1800	44000	3190	5360	1800	2430	540	996	1900
26	8040	5500	2180	2100	43500	6920	5040	6000	3900	405	643	1850
27	5450	4740	1890	2400	37500	7480	4130	13300	3060	331	472	1390
28	5190	3590	1860	1600	34300	5570	3430	19000	1900	316	371	913
29	6180	3080	1660	1400	---	6190	3240	21600	1240	304	301	568
30	5190	8030	1220	1180	---	6230	2790	22100	4080	305	241	372
31	3680	---	1120	985	---	4630	---	18400	---	292	222	---
MEAN	1883	6261	4272	989	10470	7631	8518	5522	5491	3164	1846	514
MAX	8040	19800	12900	2400	44000	31900	27800	22100	17900	9440	14800	1900
MIN	306	1190	1120	440	591	1690	1870	484	1240	292	82	87

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 06918080 Osage River near Schell City, Missouri.

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

REMARKS.--Sediment records fair.

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 CONCENTRATONS: 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 LOADS: Maximum daily, 160,000 tons, Feb. 21, 1997; minimum daily, 1.7 tons, Nov. 7-13, 1991.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 4,020 mg/L, Feb. 21; minimum daily mean, 35 mg/L, Jan. 20, 21.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 160,000 tons, Feb. 21; minimum daily, 18 tons, Aug. 12

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT IT FIELD (mg/L as $CaCO_3$) (00419)
NOV											
05...	0845	2110	9.0	377	7.32	10.5	89	18	K1780	540	125
MAR											
04...	1120	15400	7.0	315	7.40	9.6	80	--	212	580	108
APR											
15...	1330	27800	7.0	225	7.57	9.7	78	--	8400	15200	81
MAY											
13...	0935	1100	18.5	471	7.53	7.1	76	--	172	84	153
JUN											
24...	1330	2480	26.5	350	7.42	6.5	81	52	236	188	120
AUG											
13...	1330	80	25.0	453	7.74	6.2	74	--	86	104	160

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)
NOV											
05...	152	0	0.11	0.02	<0.01	0.71	0.08	0.03	170	55	8.0
MAR											
04...	131	0	0.80	0.03	0.08	1.1	0.19	0.09	--	--	--
APR											
15...	99	0	1.10	0.08	0.15	1.6	0.36	0.24	--	--	--
MAY											
13...	186	0	0.34	0.02	0.06	0.95	0.14	0.04	--	--	--
JUN											
24...	146	0	0.95	0.01	0.02	0.86	0.18	0.06	150	49	6.6
AUG											
13...	195	0	0.30	<0.01	0.02	0.81	0.08	0.04	--	--	--

K--Results based on colony count outside the acceptable range (non-ideal colony count).

06918070 OSAGE RIVER ABOVE SCHELL CITY, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)
NOV											
05...	8.9	4.2	37	7.9	0.2	226	50	910	32	<1	<1
JUN											
24...	11	3.4	31	8.4	0.2	242	190	3700	3.2	<1	<1

DATE	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)	PROP-CHLOR, WATER, DISS, REC (µg/L) (04024)	BUTYL-ATE, WATER, DISS, REC (µg/L) (04028)	SI-MAZINE, WATER, DISS, REC (µg/L) (04035)
NOV											
05...	1.2	60	3	<1	34	<0.1	6	1.2	<0.007	<0.002	<0.005
MAR											
04...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.005
APR											
15...	--	--	--	--	--	--	--	--	0.015	<0.002	E0.003
MAY											
13...	--	--	--	--	--	--	--	--	<0.007	<0.002	0.016
JUN											
24...	<1.0	2.0	5	<1	15	<0.1	20	1.2	<0.007	<0.002	0.113
AUG											
13...	--	--	--	--	--	--	--	--	<0.007	<0.002	0.017

DATE	PRO-METON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (µg/L) (04040)	CYANA-ZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	ALPHA BHC DIS-SOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	METO-LACHLOR WATER DISSOLV (µg/L) (39415)	LINDANE DIS-SOLVED (µg/L) (39341)	DI-ELDRIN DIS-SOLVED (µg/L) (39381)	ATRA-ZINE, WATER, DISS, REC (µg/L) (39632)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)
NOV											
05...	<0.018	E0.054	0.006	<0.003	<0.002	<0.006	0.191	<0.004	<0.001	0.554	<0.004
MAR											
04...	E0.004	E0.022	<0.004	<0.003	<0.002	<0.006	0.027	<0.004	<0.001	0.066	<0.004
APR											
15...	E0.015	E0.009	<0.004	<0.003	<0.002	<0.006	0.210	<0.004	<0.001	0.674	<0.004
MAY											
13...	0.028	E0.010	<0.004	<0.003	<0.002	<0.006	0.888	<0.004	<0.001	3.96	<0.004
JUN											
24...	E0.013	E0.299	0.011	<0.003	<0.002	<0.006	0.888	<0.004	<0.001	3.94	0.038
AUG											
13...	0.028	E0.068	0.008	<0.003	<0.002	<0.006	0.150	<0.004	<0.001	0.940	<0.004

E--Laboratory estimated value.

06918070 OSAGE RIVER ABOVE SCHELL CITY, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	FONOFOS WATER DISS REC (µg/L) (04095)	CHLOR-PYRIFOS DIS-SOLVED (µg/L) (38933)	MALA-THION, DIS-SOLVED (µg/L) (39532)	PARA-THION, DIS-SOLVED (µg/L) (39542)	DI-AZINON, DIS-SOLVED (µg/L) (39572)	ALA-CHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (µg/L) (49260)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)
NOV											
05...	<0.003	<0.004	<0.005	<0.004	<0.002	0.016	<0.002	<0.003	<0.004	<0.002	<0.007
MAR											
04...	<0.003	<0.004	<0.005	<0.004	<0.002	0.004	<0.002	<0.003	<0.004	<0.002	<0.007
APR											
15...	<0.003	<0.004	<0.005	<0.004	<0.002	0.038	0.040	<0.003	<0.004	<0.002	<0.007
MAY											
13...	<0.003	<0.004	<0.005	<0.004	<0.002	0.191	0.145	<0.003	<0.004	<0.002	<0.007
JUN											
24...	<0.003	<0.004	<0.005	<0.004	<0.002	0.119	0.016	<0.003	<0.004	<0.002	<0.007
AUG											
13...	<0.003	<0.004	<0.005	<0.004	<0.002	0.010	<0.002	<0.003	<0.004	<0.002	<0.007

DATE	LIN-URON WATER FLTRD 0.7 µ GF, REC (µg/L) (82666)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
NOV											
05...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAR											
04...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR											
15...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	E0.003	<0.013	<0.003
MAY											
13...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUN											
24...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
AUG											
13...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
NOV											
05...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR											
04...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
APR											
15...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
MAY											
13...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JUN											
24...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
AUG											
13...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

06918070 OSAGE RIVER ABOVE SCHELL CITY, MO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	1250	122	380	2910	137	1080	12700	556	19000
2	812	109	239	2500	117	788	12900	291	10200
3	611	110	181	2250	101	613	11700	217	6860
4	499	85	115	2040	97	531	10200	187	5110
5	428	88	102	2160	92	537	8550	179	4120
6	407	81	89	3290	119	1170	6350	183	3140
7	393	82	87	6210	346	5920	4950	148	1980
8	379	85	88	7040	458	8700	4270	127	1460
9	1040	162	473	6910	240	4510	3810	101	1040
10	1320	156	560	4840	126	1660	3420	88	816
11	1090	163	481	2700	82	602	3180	97	831
12	745	115	231	1820	56	274	3020	84	683
13	569	98	150	1510	62	253	2880	74	575
14	489	97	128	1340	54	194	2740	75	553
15	434	92	107	1210	60	198	2610	75	529
16	383	94	97	1190	69	246	2500	71	481
17	343	92	85	8280	853	22100	2600	68	478
18	321	87	75	16500	1190	52600	3000	71	574
19	312	93	78	19500	808	42500	3280	90	782
20	306	107	89	19800	424	22900	3240	105	921
21	311	109	91	15300	199	8240	3260	93	815
22	356	112	107	11200	160	4810	3060	83	681
23	426	117	137	8750	176	4140	2860	72	559
24	3530	885	12100	7300	181	3550	2820	74	562
25	7880	1200	25500	6340	184	3140	2610	73	518
26	8040	872	19100	5500	167	2470	2180	65	383
27	5450	385	5710	4740	176	2250	1890	66	332
28	5190	401	5750	3590	162	1560	1860	60	302
29	6180	436	7270	3080	283	2570	1660	60	266
30	5190	231	3250	8030	641	14500	1220	67	218
31	3680	173	1720	---	---	---	1120	68	206
		JANUARY			FEBRUARY			MARCH	
1	1100	66	197	878	53	126	31900	265	22900
2	1090	52	153	928	52	131	26100	209	14700
3	1110	43	130	1090	53	158	20100	201	10900
4	1160	50	155	1230	65	218	15300	184	7570
5	1190	59	191	1270	50	172	11400	166	5110
6	1170	64	202	1200	52	168	9570	153	3950
7	1080	47	137	1080	50	146	8530	155	3560
8	973	48	126	977	53	140	7700	158	3280
9	930	39	97	920	54	133	6960	161	3020
10	830	38	84	898	54	130	6310	163	2770
11	695	38	70	856	61	140	6070	160	2610
12	709	37	71	814	70	154	5630	156	2370
13	710	37	71	776	66	139	5120	158	2170
14	640	37	64	728	54	105	4370	178	2100
15	570	37	56	691	53	98	3580	199	1920
16	520	36	51	661	56	100	2730	204	1490
17	470	36	46	625	59	100	1920	207	1060
18	455	36	44	598	63	102	2870	216	1780
19	447	36	43	591	71	114	4810	605	7870
20	440	35	42	701	181	614	5130	600	8350
21	440	35	42	15500	4020	160000	3920	225	2370
22	450	38	46	27500	1750	128000	2630	246	1740
23	800	60	129	34400	873	80900	2010	178	975
24	1200	95	307	39000	620	65100	1690	143	649
25	1800	85	413	44000	419	49700	3190	428	4340
26	2100	90	510	43500	288	33800	6920	960	18100
27	2400	75	485	37500	268	26900	7480	526	10700
28	1600	44	191	34300	352	32700	5570	283	4240
29	1400	50	191	---	---	--	6190	414	6990
30	1180	59	183	---	---	--	6230	359	6040
31	985	60	157	---	---	--	4630	302	3760

06918070 OSAGE RIVER ABOVE SCHELL CITY, MO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	3190	265	2290	1880	162	808	14500	637	24900
2	2440	202	1330	1170	171	538	10800	568	16500
3	2040	179	981	1060	151	433	5830	476	7390
4	1870	171	863	1400	131	496	4140	447	4990
5	2390	199	1330	1370	115	424	3900	352	3710
6	4140	379	4440	1210	104	337	3760	288	2920
7	7250	941	19000	1010	109	296	3720	276	2780
8	7550	804	16600	960	138	357	3330	281	2520
9	4670	356	4540	2550	310	2630	2650	229	1640
10	2930	253	2010	3800	500	5150	2190	193	1140
11	5670	957	24000	2400	291	1910	2040	190	1040
12	18100	1750	85000	1490	154	621	1470	172	676
13	24800	982	65500	1080	121	353	3530	1740	19200
14	27600	673	50000	825	114	253	6440	1860	32200
15	27800	460	34600	667	118	211	7190	1020	19800
16	24900	298	20100	552	116	172	8050	807	18100
17	15300	209	8580	484	102	133	15000	1720	70800
18	9060	227	5480	819	137	540	17900	873	42300
19	7750	282	5900	8810	3060	71700	12500	523	17800
20	7390	335	6690	12900	1650	57900	6770	474	8520
21	6920	339	6320	11800	1060	34900	4110	431	4800
22	6290	294	4980	5650	614	9240	3100	289	2420
23	5900	267	4250	2910	578	4560	2700	266	1930
24	5590	250	3770	2170	344	2020	2500	272	1840
25	5360	240	3470	1800	247	1200	2430	201	1360
26	5040	240	3260	6000	2390	41900	3900	585	6210
27	4130	214	2380	13300	2010	72200	3060	557	4610
28	3430	194	1790	19000	1460	74400	1900	368	1920
29	3240	189	1650	21600	877	51100	1240	237	816
30	2790	168	1260	22100	545	32500	4080	1240	15200
31	---	---	---	18400	390	19000	---	---	---
		JULY			AUGUST			SEPTEMBER	
1	6800	1740	31800	330	126	112	207	115	64
2	7220	819	16000	243	114	74	190	109	56
3	5200	398	5680	209	107	60	204	111	62
4	2370	279	1770	200	99	54	192	124	63
5	1900	279	1450	171	94	44	158	112	48
6	1890	312	1580	146	104	41	166	106	48
7	1190	239	776	139	110	41	169	101	46
8	819	151	333	126	96	33	149	99	40
9	782	157	343	110	93	27	122	98	32
10	5790	1140	19900	107	97	28	108	106	31
11	9300	670	16700	89	86	21	94	99	25
12	9440	385	9820	82	82	18	87	97	22
13	8970	315	7630	83	96	22	87	105	25
14	8210	259	5730	115	101	32	1470	771	3580
15	6700	229	4140	165	117	52	1820	557	2800
16	6640	261	4660	148	120	47	822	305	673
17	4680	267	3370	185	156	79	396	271	289
18	2400	210	1350	186	139	70	223	222	133
19	1470	180	710	9530	1540	40000	221	195	117
20	1120	167	502	14800	845	33900	202	174	95
21	901	150	365	12400	590	19700	141	165	63
22	643	127	220	8450	614	14200	116	160	50
23	537	120	174	4110	318	3580	134	165	60
24	631	132	225	1860	218	1100	947	300	898
25	540	134	193	996	165	443	1900	296	1510
26	405	133	145	643	141	243	1850	212	1060
27	331	118	105	472	127	161	1390	162	606
28	316	119	101	371	120	119	913	142	348
29	304	126	104	301	118	96	568	137	208
30	305	130	107	241	120	78	372	135	153
31	292	123	98	222	120	72	---	---	---

06918440 SAC RIVER NEAR DADEVILLE, MO

LOCATION.--Lat 37°26'35", long 93°41'05", in NE 1/4 NE 1/4 NW 1/4 sec.9, T.31 N., R.25 W., Dade County, Hydrologic Unit 10290106, on downstream side of bridge on State Highway 245, 2 mi upstream from Cave Spring Branch, and 2 mi south of Dadeville.

DRAINAGE AREA.--257 mi^2.

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

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

REMARKS.--No estimated daily discharges. Records fair. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	284	362	1060	207	185	840	452	154	197	75	32	33
2	247	328	1030	202	178	771	424	155	154	67	31	32
3	213	300	895	197	171	718	401	156	130	61	31	31
4	187	282	778	192	167	682	401	151	116	58	29	30
5	167	269	718	183	157	639	436	141	105	57	28	30
6	150	650	662	175	151	595	489	136	97	54	27	29
7	135	4040	605	168	148	559	438	133	96	52	27	29
8	125	2590	555	164	147	532	413	159	86	51	28	29
9	112	1360	520	172	141	577	392	151	81	56	28	28
10	98	1000	494	162	137	735	371	139	79	56	29	28
11	89	808	469	149	132	679	358	133	78	57	29	27
12	84	684	444	168	128	638	348	127	76	58	33	27
13	76	608	419	162	125	680	327	124	84	53	41	27
14	71	574	401	157	122	919	307	131	82	50	43	28
15	65	544	390	144	118	843	291	116	71	48	41	28
16	61	521	372	132	115	767	277	109	82	46	39	28
17	59	1540	357	127	111	709	261	105	107	45	44	29
18	56	1190	338	126	109	676	250	102	107	45	46	28
19	54	953	319	123	107	679	241	97	82	44	65	27
20	52	825	305	116	170	632	231	94	71	41	87	30
21	59	736	297	125	824	596	237	88	64	40	57	30
22	72	655	289	164	944	553	227	83	60	39	49	29
23	88	607	280	186	754	518	217	81	56	39	46	34
24	82	593	279	200	643	492	203	79	53	37	43	44
25	74	676	261	209	571	674	193	79	50	36	40	47
26	68	682	254	209	709	736	182	76	50	35	38	43
27	375	658	248	216	1170	654	178	74	240	34	37	39
28	1010	663	241	207	935	612	174	74	125	34	35	36
29	577	704	230	196	---	560	166	72	96	35	34	32
30	465	921	222	191	---	520	160	94	87	34	33	30
31	395	---	215	189	---	483	---	378	---	33	33	---
MEAN	182	877	450	172	335	654	302	122	95.4	47.4	38.8	31.4
MAX	1010	4040	1060	216	1170	919	489	378	240	75	87	47
MIN	52	269	215	116	107	483	160	72	50	33	27	27
IN.	.82	3.81	2.02	.77	1.36	2.93	1.31	.55	.41	.21	.17	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1997, BY WATER YEAR (WY)

MEAN	138	327	324	244	286	437	413	351	224	114	64.1	120
MAX	780	1139	1058	743	918	1170	1427	1746	820	392	205	1545
(WY)	1987	1986	1993	1991	1985	1975	1994	1990	1995	1993	1968	1993
MIN	16.6	16.8	19.7	14.0	23.5	29.2	30.1	30.1	39.2	22.1	10.1	6.78
(WY)	1992	1981	1977	1981	1981	1996	1981	1977	1972	1980	1980	1980

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1966 - 1997	
ANNUAL MEAN	237		274		254	
HIGHEST ANNUAL MEAN					560	1993
LOWEST ANNUAL MEAN					50.2	1977
HIGHEST DAILY MEAN	4040	Nov 7	4040	Nov 7	23300	Sep 25 1993
LOWEST DAILY MEAN	13	Sep 8,12-14	27	Aug 6,7,Sep 11-13,19	4.5	Sep 14 1980
ANNUAL SEVEN-DAY MINIMUM	13	Sep 8	28	Sep 9	5.3	Sep 11 1980
INSTANTANEOUS PEAK FLOW	---		4510	Nov 7	36100	Sep 25 1993
INSTANTANEOUS PEAK STAGE	---		15.12	Nov 7	27.56	Sep 25 1993
INSTANTANEOUS LOW FLOW	---		25	Aug 6	3.8	Aug 8 1996
ANNUAL RUNOFF (INCHES)	12.58		14.50		13.41	
10 PERCENT EXCEEDS	662		681		551	
50 PERCENT EXCEEDS	65		148		118	
90 PERCENT EXCEEDS	22		33		25	

06918460 TURNBACK CREEK ABOVE GREENFIELD, MO

LOCATION.--Lat 37°24'09", long 93°48'06", on line between secs.21 and 28, T.31 N., R.26 W., Dade County, Hydrologic Unit 10290106, on left downstream side of bridge pier on State Highway O, 1.5 mi downstream from Limestone Creek, and 2.0 mi southeast of Greenfield.

DRAINAGE AREA.--252 mi^2.

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

REVISED RECORDS.--WDR MO-84-1 1968, 1970, 1972-74, 1976, 1978-79, 1983, 1986 (p).

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

REMARKS.--Estimated daily discharges: Jan. 10-20 and 28-31. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

REVISIONS.--The maximum discharge for the water year 1987 has been revised to 30,500 ft^3/s, Oct. 1, 1986, gage height, 24.5 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	266	343	874	181	187	828	389	150	194	118	35	35
2	229	302	797	178	178	733	362	152	161	98	34	33
3	201	269	726	175	169	648	340	163	141	86	32	32
4	179	250	663	171	165	583	349	155	127	79	32	33
5	159	234	623	162	157	532	402	148	115	73	31	30
6	144	796	570	155	151	486	383	143	106	67	29	29
7	131	3500	517	150	150	452	337	140	100	62	31	29
8	120	1610	473	150	148	421	322	166	93	62	30	29
9	110	1030	442	155	143	531	309	177	87	151	31	28
10	101	812	416	145	139	637	294	162	85	148	32	27
11	94	674	392	135	135	564	287	155	82	116	37	26
12	89	573	368	155	132	521	279	148	83	104	46	26
13	83	510	349	150	128	638	263	142	93	89	59	29
14	79	478	333	140	125	785	249	137	88	77	53	30
15	77	452	322	130	121	701	238	130	76	70	52	30
16	75	440	308	120	118	643	228	123	87	65	46	29
17	70	1940	294	115	115	591	219	119	95	67	54	28
18	66	1120	275	110	112	569	212	115	103	61	57	27
19	62	880	262	105	111	583	205	113	89	56	95	26
20	60	745	255	100	196	532	200	112	79	53	99	28
21	65	640	243	145	1820	497	212	106	72	51	78	26
22	81	556	238	185	1210	455	200	100	66	49	66	26
23	85	502	235	197	918	422	197	95	61	47	59	36
24	84	496	236	201	757	396	188	92	57	46	53	63
25	78	590	216	221	652	746	179	91	54	43	49	63
26	72	531	212	214	943	682	172	87	60	39	45	56
27	473	500	209	211	1170	608	171	86	425	39	43	48
28	989	498	205	205	945	559	166	85	146	39	41	43
29	597	557	196	200	---	504	160	82	119	39	39	40
30	472	723	190	196	---	460	155	170	144	37	37	37
31	388	---	186	192	---	420	---	326	---	36	36	---
MEAN	186	752	375	163	403	572	256	135	110	69.9	47.1	34.1
MAX	989	3500	874	221	1820	828	402	326	425	151	99	63
MIN	60	234	186	100	111	396	155	82	54	36	29	26
IN.	.85	3.33	1.72	.75	1.67	2.62	1.13	.62	.49	.32	.22	.15

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1997, BY WATER YEAR (WY)

MEAN	147	343	316	250	313	461	450	372	260	151	91.3	142
MAX	921	1385	982	765	1020	1377	1410	1797	874	636	354	1579
(WY)	1987	1986	1988	1973	1985	1973	1994	1990	1993	1992	1982	1993
MIN	23.4	21.7	20.2	19.9	27.5	27.1	39.3	93.9	44.3	24.2	14.4	11.6
(WY)	1979	1981	1990	1981	1981	1996	1981	1981	1972	1972	1980	1980

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1965 - 1997	
ANNUAL MEAN	224		257		274	
HIGHEST ANNUAL MEAN					612	1993
LOWEST ANNUAL MEAN					84.1	1981
HIGHEST DAILY MEAN	3500	Nov 7	3500	Nov 7	23700	Sep 25 1993
LOWEST DAILY MEAN	15	Sep 11	26	Sep 11,12,19,21,22	9.4	Oct 12 1980
ANNUAL SEVEN-DAY MINIMUM	16	Sep 6	27	Sep 16	10	Oct 8 1980
INSTANTANEOUS PEAK FLOW	---		3960	Nov 7	44000	Oct 1 1986
INSTANTANEOUS PEAK STAGE	---		14.08	Nov 7	26.34	Sep 25 1993
INSTANTANEOUS LOW FLOW	---		25	Sep 13,19-22	9.4	Oct 12 1980
ANNUAL RUNOFF (INCHES)	12.10		13.85		14.78	
10 PERCENT EXCEEDS	606		614		586	
50 PERCENT EXCEEDS	70		150		132	
90 PERCENT EXCEEDS	25		37		32	

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, 1 mile north of Springfield.

DRAINAGE AREA.--13.7 mi^2.

PERIOD OF RECORD.--August 30, 1996 to present.

GAGE.--Water stage recorder.

REMARKS.--Estimated daily discharges: Nov. 8-20. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	19	113	5.7	9.2	51	17	14	25	2.5	1.2	2.4
2	9.4	15	77	5.6	8.5	49	15	20	16	2.4	1.1	2.2
3	7.9	13	59	5.9	8.6	43	14	21	12	2.2	.98	2.1
4	6.5	12	48	5.3	8.8	38	17	13	9.8	2.1	.96	2.0
5	5.9	11	41	4.9	7.9	33	52	11	8.1	2.0	.89	1.9
6	5.5	50	35	4.6	7.4	28	37	9.9	7.1	1.9	.89	1.9
7	5.2	280	30	4.4	7.3	25	28	9.2	6.3	1.9	.82	1.8
8	5.2	150	26	4.4	7.4	23	23	14	5.4	1.9	.87	1.8
9	4.8	90	22	4.4	6.8	77	21	12	5.0	3.5	.83	1.7
10	4.8	65	20	4.2	6.6	62	19	10	4.6	2.9	.75	1.7
11	4.8	45	17	3.8	6.4	48	19	9.3	4.2	2.8	.96	1.7
12	4.8	35	15	3.8	6.3	42	18	8.7	4.3	2.7	.95	1.7
13	4.6	28	14	3.8	6.0	94	16	8.5	5.6	2.5	1.1	1.8
14	4.2	25	13	3.8	5.9	87	14	30	5.3	2.5	3.9	1.7
15	3.7	28	12	3.5	5.7	64	13	12	4.3	2.4	3.3	1.5
16	3.5	30	11	3.3	5.3	52	13	9.2	4.7	2.2	3.4	1.4
17	3.5	150	10	3.2	5.7	45	14	8.1	5.2	2.2	7.4	1.7
18	3.5	90	9.1	3.2	5.0	40	13	7.2	6.3	2.2	5.6	1.7
19	3.4	65	8.3	3.3	5.2	35	13	6.3	4.9	2.0	7.2	1.6
20	3.0	40	8.0	3.3	21	31	14	5.6	4.0	1.9	6.8	6.3
21	4.3	28	7.4	4.1	111	27	16	5.0	3.6	2.0	6.7	3.0
22	9.8	23	6.9	14	66	24	15	4.3	3.4	1.9	6.3	3.2
23	8.1	19	8.5	13	47	22	16	3.9	3.2	1.9	5.7	13
24	9.9	38	9.2	14	38	20	14	3.7	3.0	1.7	5.0	7.5
25	9.3	56	7.7	13	32	53	13	3.5	2.9	1.6	4.3	8.7
26	8.4	41	7.0	12	79	36	12	3.4	2.9	1.5	3.9	8.5
27	62	35	7.5	12	72	29	13	3.2	2.9	1.5	3.6	7.3
28	40	34	7.1	11	55	26	13	3.0	2.8	1.5	3.3	6.3
29	31	116	6.4	10	---	23	14	2.9	2.7	1.5	3.0	5.4
30	25	119	6.0	10	---	21	14	113	2.7	1.4	2.8	4.6
31	20	---	5.8	9.7	---	18	---	48	---	1.2	2.5	---
MEAN	10.8	58.3	21.5	6.68	23.3	40.8	17.7	14.0	5.94	2.08	3.13	3.60
MAX	62	280	113	14	111	94	52	113	25	3.5	7.4	13
MIN	3.0	11	5.8	3.2	5.0	18	12	2.9	2.7	1.2	.75	1.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1997, BY WATER YEAR (WY)

MEAN	10.8	58.3	21.5	6.68	23.3	40.8	17.7	14.0	5.94	2.08	3.13	5.89
MAX	10.8	58.3	21.5	6.68	23.3	40.8	17.7	14.0	5.94	2.08	3.13	8.17
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1996
MIN	10.8	58.3	21.5	6.68	23.3	40.8	17.7	14.0	5.94	2.08	3.13	3.60
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997

SUMMARY STATISTICS	FOR 1997 WATER YEAR		WATER YEARS 1996 - 1997	
ANNUAL MEAN	17.2		17.2	
HIGHEST ANNUAL MEAN			17.2	1997
LOWEST ANNUAL MEAN			17.2	1997
HIGHEST DAILY MEAN	280	Nov 7	280	Nov 7 1996
LOWEST DAILY MEAN	.75	Aug 10	.54	Aug 30 1996
ANNUAL SEVEN-DAY MINIMUM	.86	Aug 4	.68	Aug 30 1996
INSTANTANEOUS PEAK FLOW	688	Nov 7	688	Nov 7 1996
INSTANTANEOUS PEAK STAGE	5.05	Nov 7	5.05	Nov 7 1996
INSTANTANEOUS LOW FLOW	.00	Jul 15	.00	Jul 15 1997
10 PERCENT EXCEEDS	45		42	
50 PERCENT EXCEEDS	7.4		6.9	
90 PERCENT EXCEEDS	1.9		1.6	

06918740 LITTLE SAC RIVER NEAR MORRISVILLE, MO

LOCATION.--Lat 37°28'58", long 93°29'07", SW 1/4 SW 1/4 sec.20, T.32 N., R.23 W., Polk County, Hydrologic Unit 10290106, on downstream side of center pier of Hamilton Bridge on State Highway 215, 0.7 mi upstream from Slagle Creek, and 3 mi west of Morrisville.

DRAINAGE AREA.--237 mi^2.

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

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

GAGE.--Water-stage recorder. Elevation of gage is 881 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 4 to Feb. 7, July 22 to Aug. 3, and Aug. 11. Records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	281	1170	105	180	812	287	97	309	32	9.4	18
2	163	246	913	100	175	746	263	99	173	29	10	17
3	128	212	705	95	170	607	240	115	138	25	12	16
4	102	194	582	92	285	521	271	108	128	24	13	16
5	86	185	523	90	400	459	769	98	110	22	11	14
6	73	2150	468	87	305	408	712	90	97	20	9.8	13
7	62	6930	414	84	255	365	456	87	92	20	8.9	12
8	55	1910	365	82	217	331	383	118	89	19	8.3	12
9	48	1060	332	85	205	794	336	137	87	22	7.8	11
10	41	773	305	82	197	860	292	115	87	26	7.3	10
11	37	606	279	78	191	603	272	130	85	26	8.0	10
12	36	506	254	75	185	502	274	152	85	23	19	10
13	34	440	230	73	181	1170	242	142	114	21	31	11
14	32	400	214	71	172	1270	215	225	93	19	27	12
15	30	370	214	69	164	849	197	194	87	17	28	11
16	32	538	196	68	158	668	177	162	89	16	34	12
17	31	1500	183	66	153	563	163	146	87	17	32	13
18	28	823	168	68	149	556	155	144	83	21	33	13
19	26	621	162	70	147	611	148	133	58	18	185	13
20	27	517	162	72	190	512	143	129	49	16	149	17
21	32	444	159	90	2620	455	180	123	46	15	75	14
22	46	385	140	200	1300	397	157	119	42	14	49	18
23	68	342	144	250	879	353	200	116	37	13	39	25
24	63	361	143	240	685	321	178	115	33	13	33	47
25	50	546	132	315	549	1130	145	113	29	12	30	58
26	46	527	131	280	1500	784	130	113	34	12	27	43
27	958	478	131	245	1400	568	129	111	31	11	24	34
28	1090	484	126	235	915	485	125	111	46	11	22	28
29	541	719	123	213	---	415	113	111	42	10	21	24
30	405	1140	115	210	---	366	104	112	38	9.8	19	21
31	322	---	111	195	---	321	---	568	---	9.6	18	---
MEAN	158	856	300	132	497	607	249	140	83.9	18.2	32.3	19.1
MAX	1090	6930	1170	315	2620	1270	769	568	309	32	185	58
MIN	26	185	111	66	147	321	104	87	29	9.6	7.3	10
IN.	.77	4.03	1.46	.64	2.19	2.95	1.17	.68	.40	.09	.16	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1997, BY WATER YEAR (WY)

MEAN	126	350	304	236	280	467	426	331	212	74.6	35.6	201
MAX	809	1256	1045	752	1139	1290	1409	1359	968	342	145	2033
(WY)	1987	1986	1988	1991	1985	1973	1994	1990	1995	1979	1988	1968
MIN	10.2	10.9	10.7	9.05	29.4	29.2	32.7	30.9	20.7	11.6	4.90	3.15
(WY)	1996	1981	1990	1981	1996	1996	1981	1977	1972	1980	1980	1980

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1969 - 1997	
ANNUAL MEAN	222		255		248	
HIGHEST ANNUAL MEAN					516	1973
LOWEST ANNUAL MEAN					58.6	1977
HIGHEST DAILY MEAN	6930	Nov 7	6930	Nov 7	18600	Sep 25 1993
LOWEST DAILY MEAN	4.1	Sep 6	7.3	Aug 10	.60	Sep 15 1980
ANNUAL SEVEN-DAY MINIMUM	5.1	Aug 31	8.7	Aug 5	1.6	Aug 27 1980
INSTANTANEOUS PEAK FLOW	---		9220	Nov 7	29100	Sep 25 1993
INSTANTANEOUS PEAK STAGE	---		16.01	Nov 7	23.33	Sep 25 1993
INSTANTANEOUS LOW FLOW	---		5.0	Aug 22	.30	Sep 15 1980
ANNUAL RUNOFF (INCHES)	12.78		14.62		14.20	
10 PERCENT EXCEEDS	550		606		546	
50 PERCENT EXCEEDS	42		123		85	
90 PERCENT EXCEEDS	12		14		13	

06918990 STOCKTON LAKE NEAR STOCKTON, MO

LOCATION.--Lat 37°41'38", long 93°45'55", SW 1/4 SE 1/4 SW 1/4 sec.10, T.34 N., R.26 W., Cedar County, Hydrologic Unit 10290106, in power house at dam on Sac River, 2 mi east of Stockton.

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

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

GAGE.--Water-stage recorder. Nonrecording gage prior to May 30, 1973. Datum of gage is sea level (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 taintor 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, hydroelectric power, and recreational purposes. U.S. Army Corps of Engineers satellite telemeter at station.

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

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, 1,010,000 ac-ft, Nov. 19, elevation, 872.28 ft; minimum, 787,000 ac-ft, Sept. 30, elevation, 863.34 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 24:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	868.21	868.75	872.12	867.94	865.95	869.88	870.83	868.50	868.84	868.92	866.37	864.96
2	868.22	868.63	872.12	867.91	866.01	870.12	870.70	868.55	868.88	868.79	866.20	864.75
3	868.25	868.68	871.97	867.92	866.01	870.33	870.59	868.53	868.91	868.71	866.14	864.75
4	868.27	868.55	871.81	867.93	865.96	870.46	870.56	868.53	868.91	868.78	865.98	864.72
5	868.29	868.43	871.62	867.93	865.87	870.55	870.64	868.48	868.94	868.75	865.97	864.70
6	868.30	869.12	871.37	867.83	865.90	870.52	870.48	868.45	868.96	868.66	865.94	864.59
7	868.31	870.66	871.14	867.75	865.84	870.58	870.39	868.38	868.96	868.57	865.91	864.51
8	868.33	871.07	870.87	867.67	865.87	870.51	870.26	868.42	868.97	868.47	865.89	864.33
9	868.28	871.55	870.60	867.57	865.92	870.60	870.16	868.34	868.97	868.51	865.87	864.25
10	868.24	871.56	870.37	867.39	865.94	870.71	870.06	868.36	868.97	868.44	865.84	864.24
11	868.18	871.55	870.10	867.29	865.81	870.73	870.00	868.39	868.99	868.49	865.87	864.23
12	868.18	871.47	869.96	867.18	865.67	870.76	869.79	868.42	869.01	868.49	865.92	864.20
13	868.05	871.38	869.80	867.01	865.66	870.95	869.64	868.48	869.12	868.41	865.93	864.22
14	867.93	871.30	869.69	866.88	865.62	871.26	869.49	868.47	869.14	868.25	865.95	864.21
15	867.76	871.22	869.55	866.69	865.63	871.36	869.36	868.47	869.16	868.09	865.79	864.05
16	867.72	871.29	869.33	866.54	865.69	871.34	869.15	868.44	869.27	867.93	865.60	863.86
17	867.66	871.73	869.16	866.22	865.74	871.27	869.04	868.42	869.34	867.81	865.66	863.78
18	867.57	872.14	868.97	866.14	865.73	871.22	869.00	868.54	869.24	867.61	865.66	863.70
19	867.56	872.28	868.86	866.11	865.74	871.27	868.94	868.58	869.15	867.62	865.89	863.61
20	867.54	872.22	868.61	866.13	866.25	871.18	868.98	868.55	869.01	867.62	865.87	863.59
21	867.61	872.13	868.51	866.23	867.31	871.07	868.83	868.52	869.00	867.64	865.88	863.52
22	867.79	872.09	868.44	866.25	867.77	871.04	868.72	868.52	869.01	867.53	865.89	863.51
23	867.82	872.12	868.36	866.19	868.05	870.92	868.66	868.52	868.90	867.39	865.89	863.61
24	867.85	872.07	868.28	866.15	868.23	870.89	868.63	868.54	868.82	867.21	865.75	863.56
25	867.88	872.03	868.21	866.09	868.38	871.11	868.53	868.56	868.87	867.02	865.55	863.57
26	867.87	871.66	867.98	866.13	868.82	871.26	868.54	868.55	868.91	866.82	865.33	863.57
27	868.31	871.74	867.90	866.03	869.27	871.25	868.54	868.61	868.95	866.63	865.24	863.57
28	868.67	871.70	867.93	865.93	869.62	871.19	868.45	868.62	868.97	866.59	865.06	863.56
29	868.85	871.75	867.99	865.90	---	871.10	868.49	868.65	869.00	866.56	864.94	863.51
30	868.90	871.94	867.91	865.87	---	871.03	868.51	868.73	869.05	866.54	864.94	863.34
31	868.88	---	867.89	865.88	---	870.94	---	868.82	---	866.50	864.93	---
MEAN	868.11	871.09	869.59	866.80	866.58	870.88	869.47	868.51	869.01	867.85	865.73	864.02
MAX	868.90	872.28	872.12	867.94	869.62	871.36	870.83	868.82	869.34	868.92	866.37	864.96
MIN	867.54	868.43	867.89	865.87	865.62	869.88	868.45	868.34	868.82	866.50	864.93	863.34
(-)	922000	1000000	897000	848000	941000	975000	912000	920000	926000	863000	825000	787000
(=)	+18000	+78000	-103000	-49000	+93000	+34000	-63000	+8000	+6000	-63000	-38000	-38000

CAL YR 1996...+ 91000
WTR YR 1997...-117000

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

06919020 SAC RIVER AT HIGHWAY J BELOW STOCKTON, MO

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

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

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

GAGE.--Water-stage recorder. Datum of gage is 750.19 ft above sea level.

REMARKS.--Estimated daily discharge, Feb. 2. Records fair. Several observations of water temperature were made during the year. Considerable regulation by Stockton Lake (station 06918990), 6.3 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	536	3340	2520	321	165	567	2800	592	124	1380	764	609
2	134	2340	3680	640	140	432	2650	131	108	1350	1340	1080
3	122	525	5130	774	271	360	2560	1290	102	401	708	182
4	111	2250	5000	273	1000	313	2680	911	97	104	1410	73
5	105	2250	5070	109	1550	977	3090	899	94	85	270	70
6	100	2150	4870	1160	146	2080	2980	332	90	490	67	676
7	97	3850	4880	1370	1320	1750	2850	1880	112	1060	62	870
8	92	896	4880	1660	175	1990	2810	576	107	1170	61	1370
9	623	549	4860	1140	136	2020	2330	140	93	275	61	1130
10	472	2620	4880	2860	133	2200	2880	119	88	837	60	223
11	784	3200	4610	1280	1370	1610	1960	112	87	235	61	71
12	436	3410	2880	1350	2500	1970	3250	109	87	102	73	68
13	1060	2900	2970	2020	997	2600	3040	106	93	914	66	72
14	1510	3220	2490	2130	875	1760	2820	103	107	1810	64	69
15	2110	3140	2550	2530	131	1960	2580	100	104	1040	1610	1650
16	871	2870	3310	2680	123	2640	2790	779	107	2240	2140	2330
17	638	1920	2800	2810	117	3450	2660	104	487	1900	185	1240
18	1110	621	3090	2200	113	3520	1930	100	1060	1890	77	722
19	275	1380	3020	278	107	2550	1150	114	1790	228	1920	873
20	81	3590	2800	111	192	3640	695	291	2080	77	1180	132
21	104	3660	1760	126	4380	2970	2100	571	292	74	257	401
22	430	3040	1190	195	1170	2460	2450	444	121	919	118	376
23	353	2360	1740	1440	576	3220	1550	96	1230	1260	104	83
24	214	3430	1760	1610	939	2710	1430	94	962	1770	1010	469
25	164	2940	1610	2110	1140	2690	1580	94	143	2100	2080	417
26	139	2920	2860	420	2300	1130	162	95	109	2250	2120	79
27	540	3030	1100	2000	1490	3090	383	93	100	1740	1340	71
28	653	2720	670	1880	607	3050	1880	91	99	1020	1610	68
29	385	3050	128	1400	---	2790	148	89	93	205	1550	542
30	340	1810	1110	1400	---	2820	132	103	93	73	229	1350
31	1590	---	841	182	---	2880	---	170	---	68	83	---
MEAN	522	2533	2937	1305	863	2200	2077	346	342	938	732	579
MAX	2110	3850	5130	2860	4380	3640	3250	1880	2080	2250	2140	2330
MIN	81	525	128	109	107	313	132	89	87	68	60	68
IN.	.47	2.19	2.62	1.16	.70	1.96	1.79	.31	.30	.84	.65	.50

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1997, BY WATER YEAR (WY)

MEAN	695	940	1344	1317	1161	1530	1849	1684	1564	1186	893	879
MAX	4922	4697	3983	4464	2763	4230	4613	3403	4863	4726	2488	1949
(WY)	1994	1994	1986	1993	1988	1975	1974	1994	1990	1995	1992	1993
MIN	51.1	60.1	61.9	66.7	98.8	64.8	60.5	113	186	121	71.6	80.4
(WY)	1974	1981	1981	1981	1981	1977	1981	1977	1991	1977	1991	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1974 - 1997	
ANNUAL MEAN	936		1283		1254	
HIGHEST ANNUAL MEAN					2450	1994
LOWEST ANNUAL MEAN					256	1977
HIGHEST DAILY MEAN	5130	Dec 3	5130	Dec 3	12800	Sep 25 1993
LOWEST DAILY MEAN	30	Mar 10	60	Aug 10	25	Mar 25 1977
ANNUAL SEVEN-DAY MINIMUM	55	Aug 28	63	Aug 7	33	Oct 20 1973
INSTANTANEOUS PEAK FLOW	---		7330	Nov 6	14800	Oct 1 1986
INSTANTANEOUS PEAK STAGE	---		18.98	Nov 6	24.91	Feb 23 1985
INSTANTANEOUS LOW FLOW	---		60	Aug 7-11	24	Mar 25 1977
ANNUAL RUNOFF (INCHES)	9.87		13.49		13.18	
10 PERCENT EXCEEDS	2870		2970		3290	
50 PERCENT EXCEEDS	349		962		632	
90 PERCENT EXCEEDS	69		93		68	

06919500 CEDAR CREEK NEAR PLEASANT VIEW, MO

LOCATION.--Lat 37°50'03", long 93°52'31", in NE 1/4 sec.2, T.35 N., R.27 W., Cedar County, Hydrologic Unit 10290106, on downstream side of right pier of bridge on State Highway 39, 1.5 mi north of Pleasant View, 1.8 mi downstream from Alder Creek, and 5.8 mi upstream from mouth.

DRAINAGE AREA.--420 mi^2, approximately.

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 sea level. 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.--Estimated daily discharges: Jan. 9-20 and 28-30. Records good except for estimated daily discharges, which are fair. Several observations of water temperature were made during the year. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	272	1090	75	183	1100	319	65	112	177	6.2	11
2	100	223	851	74	180	944	277	66	81	187	5.5	9.4
3	80	186	651	74	168	776	250	72	61	90	5.5	8.0
4	67	167	462	74	147	580	252	73	49	70	5.5	6.6
5	57	168	381	70	133	460	449	69	40	55	5.2	5.8
6	49	1230	333	65	122	376	627	64	34	48	5.0	5.5
7	43	7530	290	61	116	324	420	59	29	33	4.7	5.5
8	37	5960	249	57	116	290	303	120	25	26	4.6	5.4
9	33	1110	219	55	115	321	259	203	21	24	4.5	5.2
10	28	657	204	55	114	635	232	180	19	22	4.4	4.8
11	24	478	191	54	110	567	223	121	17	40	4.2	4.2
12	22	367	176	54	107	367	230	95	18	421	4.8	3.9
13	20	303	162	54	104	1150	218	81	20	186	7.6	5.1
14	18	268	150	53	99	3530	194	71	23	105	8.7	5.5
15	16	244	147	53	95	1600	172	63	20	63	7.2	5.5
16	15	319	140	53	90	778	157	69	39	42	5.5	5.5
17	14	4440	135	52	86	600	142	65	196	30	14	5.8
18	12	3790	124	52	82	822	132	57	1080	23	20	5.9
19	11	1030	117	50	79	1400	125	55	439	19	367	5.8
20	10	692	116	50	255	900	119	51	181	16	1170	6.3
21	14	531	107	88	9450	647	112	49	186	14	317	11
22	472	410	95	201	9790	492	106	45	177	12	125	8.2
23	1080	341	98	315	5440	391	103	38	101	11	77	12
24	724	340	97	275	1020	332	99	34	69	54	54	19
25	394	482	95	461	727	1780	98	34	54	41	40	25
26	253	460	83	410	1980	2320	96	65	362	26	31	38
27	982	371	81	301	4990	908	87	45	196	19	24	35
28	2450	306	81	250	2000	676	80	35	170	16	19	33
29	1200	457	81	220	---	607	77	30	152	14	16	26
30	552	1280	79	200	---	461	72	113	111	10	14	21
31	358	---	76	190	---	376	---	120	---	7.7	12	---
MEAN	299	1147	231	132	1354	855	201	74.4	136	61.3	77.1	11.6
MAX	2450	7530	1090	461	9790	3530	627	203	1080	421	1170	38
MIN	10	167	76	50	79	290	72	30	17	7.7	4.2	3.9
IN.	.82	3.05	.63	.36	3.36	2.35	.53	.20	.36	.17	.21	.03

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

MEAN	175	356	295	261	400	563	550	506	362	241	84.5	187
MAX	3055	1923	1490	1063	2307	2275	2766	2969	1753	2229	641	2033
(WY)	1987	1993	1993	1949	1985	1973	1994	1961	1981	1958	1950	1993
MIN	.000	.000	.058	.12	.14	.23	4.09	39.1	4.52	.029	.000	.000
(WY)	1954	1954	1954	1954	1954	1954	1956	1988	1991	1954	1954	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	260		374		331	
HIGHEST ANNUAL MEAN					807	1993
LOWEST ANNUAL MEAN					16.0	1954
HIGHEST DAILY MEAN	7530	Nov 7	9790	Feb 22	26200	Jul 17 1958
LOWEST DAILY MEAN	2.5	Sep 14	3.9	Sep 12	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	2.9	Mar 8	4.6	Aug 6	.00	Many Years
INSTANTANEOUS PEAK FLOW	---		14800	Feb 21	37000	Jul 17 1958
INSTANTANEOUS PEAK STAGE	---		23.57	Feb 21	27.36	Apr 12 1994
INSTANTANEOUS LOW FLOW	---		3.8	Sep 12,13	.00	Many Years
ANNUAL RUNOFF (INCHES)	8.42		12.08		10.70	
10 PERCENT EXCEEDS	641		747		669	
50 PERCENT EXCEEDS	40		96		72	
90 PERCENT EXCEEDS	4.2		9.1		1.2	

06919900 SAC RIVER NEAR CAPLINGER MILLS, MO

LOCATION.--Lat 37°52'12", long 93°48'11", in NW 1/4 NE 1/4 SW 1/4 sec.21, T.36 N., R.26 W., St. Clair County, Hydrologic Unit 10290106, on right downstream wingwall of bridge on State Highway W, 1.5 mi downstream from Cedar Creek, and 5.0 mi north of Caplinger Mills.

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

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

GAGE.--Water-stage recorder. Datum of gage is 720.82 ft above sea level.

REMARKS.--No estimated daily discharges. Records good. Several observations of water temperature were made during the year. Some regulation from Stockton Lake (station 06918990). U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1420	4010	3580	935	437	2370	3590	665	367	864	176	165
2	308	2600	5090	241	411	1860	3280	375	280	1750	1400	1060
3	243	1650	5750	1150	382	1530	3310	1030	225	1300	1330	827
4	212	1780	5550	869	1650	1200	3150	1380	197	383	1260	169
5	190	2360	5550	221	1790	1010	3630	1230	177	211	1260	118
6	175	4390	5400	716	539	2710	3860	405	163	161	174	119
7	162	13600	5470	1770	1210	2580	3820	2120	158	1050	100	865
8	152	9530	5380	1760	753	2540	3410	920	174	1250	86	1020
9	541	2590	5410	1120	314	2730	3070	679	155	1180	82	1760
10	336	2530	5320	3160	300	3330	3270	452	138	415	80	831
11	722	4050	5260	1800	797	2540	2810	338	131	968	79	163
12	1120	3880	3390	1380	2810	2480	3380	289	134	646	88	99
13	238	3270	3580	2100	1690	4130	3430	259	143	598	118	93
14	1900	3630	2780	2430	1460	6900	3700	234	154	2350	101	92
15	2060	3640	3060	2740	398	4240	2650	215	159	829	438	710
16	1530	3680	3510	2640	257	3350	3270	818	188	2410	2710	2680
17	914	7750	3240	1940	242	4330	2960	433	1070	2780	956	1290
18	1160	6050	3440	2770	232	4720	3190	235	2220	1760	182	1030
19	760	2120	3440	999	220	5070	1510	212	2760	1120	1270	1040
20	132	4300	3190	210	348	4810	1040	220	2680	205	3290	620
21	146	4270	2450	263	14300	4330	1700	685	1620	126	1230	155
22	1140	3730	1240	441	17400	3390	2850	872	645	670	385	734
23	2090	3010	2140	1200	8690	3850	2270	265	827	1080	237	192
24	1290	4080	2310	2310	2240	3530	1820	180	1700	2030	271	128
25	788	3590	1510	2630	2800	5280	2090	168	668	2240	2000	1000
26	553	3430	3210	1670	4180	4240	560	246	563	2400	2340	215
27	1660	3510	1440	1930	8710	4240	342	199	393	2190	2150	136
28	4140	3270	1640	2330	4050	4010	2190	171	355	1390	1370	117
29	2170	4000	277	1910	---	3900	519	160	299	969	1980	405
30	1080	3700	703	2220	---	3630	286	347	264	180	1050	707
31	903	---	1240	598	---	3630	---	402	---	111	193	---
MEAN	975	4133	3405	1563	2808	3499	2565	523	634	1149	916	618
MAX	4140	13600	5750	3160	17400	6900	3860	2120	2760	2780	3290	2680
MIN	132	1650	277	210	220	1010	286	160	131	111	79	92
IN.	.62	2.55	2.17	1.00	1.62	2.23	1.58	.33	.39	.73	.58	.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1997, BY WATER YEAR (WY)

MEAN	1280	1610	1890	1614	1775	2287	2585	2467	2062	1438	994	1123
MAX	11070	5392	5838	5487	5202	5630	6805	5782	7046	5283	2850	5283
(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	1981	1991	1988	1991	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1975 - 1997	
ANNUAL MEAN	1362		1890		1759	
HIGHEST ANNUAL MEAN					3267	1994
LOWEST ANNUAL MEAN					399	1977
HIGHEST DAILY MEAN	13600	Nov 7	17400	Feb 22	51200	Oct 2 1986
LOWEST DAILY MEAN	74	Mar 10	79	Aug 11	44	Oct 11 1980
ANNUAL SEVEN-DAY MINIMUM	80	Jan 5	90	Aug 7	47	Oct 7 1980
INSTANTANEOUS PEAK FLOW	---		21100	Feb 22	61500	Apr 12 1994
INSTANTANEOUS PEAK STAGE	---		24.61	Feb 22	30.95	Apr 12 1994
INSTANTANEOUS LOW FLOW	---		45	Jan 17	44	Oct 11 1980
ANNUAL RUNOFF (INCHES)	10.24		14.18		13.21	
10 PERCENT EXCEEDS	3650		4050		4290	
50 PERCENT EXCEEDS	654		1260		1030	
90 PERCENT EXCEEDS	92		167		90	

06919950 BRUSH CREEK NEAR COLLINS, MO

LOCATION.--Lat 37°52'44", long 93°43'11", in NE 1/4 SE 1/4 SE 1/4 sec.18, T.36 N., R.25 W., St. Clair County, Hydrologic Unit 10290106, on left bank 100 ft upstream from Highway J bridge, 4.5 mi west of Collins.

DRAINAGE AREA.--81.2 mi^2.

PERIOD OF RECORD.--Mar. 23, 1995 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 733.98 ft above sea level.

REMARKS.--Estimated daily discharges: Jan. 17-20, 25, 27, and 28. Records fair. Several observations of water temperature were made during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	87	268	19	54	298	71	25	54	13	2.8	5.9
2	30	74	205	19	48	189	64	29	37	11	2.8	5.4
3	25	64	148	19	43	148	59	30	29	9.9	2.7	5.2
4	22	62	114	18	40	121	75	26	25	11	2.8	4.7
5	19	66	99	17	36	101	195	24	21	9.6	2.5	4.6
6	17	1630	86	16	33	87	161	23	18	8.6	2.4	4.3
7	15	1950	74	14	33	79	102	23	27	7.8	2.4	4.3
8	14	311	63	15	34	71	86	50	18	7.5	2.4	4.2
9	13	198	57	18	32	118	74	51	14	7.6	2.5	4.0
10	12	150	54	17	30	130	66	37	13	6.9	2.5	3.8
11	12	120	51	14	29	96	67	32	12	12	2.5	3.6
12	11	99	47	13	28	81	67	28	13	19	3.5	3.5
13	10	87	43	12	26	197	57	26	14	12	8.5	4.2
14	10	80	41	12	25	266	50	24	14	8.3	7.3	4.1
15	9.7	74	44	13	24	148	46	21	13	6.7	5.4	4.0
16	9.3	106	42	12	22	118	42	19	18	5.9	4.4	4.1
17	9.2	838	38	11	21	102	38	19	605	5.4	6.1	4.9
18	9.0	239	33	11	20	263	36	19	233	5.0	5.8	4.3
19	8.9	173	27	10	20	305	37	19	81	4.8	498	3.8
20	8.9	140	23	15	79	173	34	21	45	4.4	114	4.6
21	41	117	24	50	3570	134	39	17	267	4.4	36	4.5
22	383	98	26	106	474	106	40	15	104	4.4	21	4.0
23	353	87	28	64	225	90	52	14	53	4.2	16	6.7
24	159	118	25	59	162	81	46	14	34	4.0	12	9.4
25	109	150	20	120	132	504	38	14	27	3.8	10	8.6
26	84	111	21	67	1040	203	34	56	28	3.4	8.8	7.2
27	695	93	22	64	471	140	33	42	25	3.2	7.4	5.9
28	319	86	22	63	280	128	31	28	20	3.4	6.6	5.2
29	183	199	21	61	---	106	29	23	17	3.3	6.1	4.6
30	134	283	20	56	---	91	28	86	15	3.0	5.9	4.2
31	103	---	19	55	---	80	---	105	---	2.8	5.7	---
MEAN	92.5	263	58.2	34.2	251	153	59.9	31.0	63.1	6.98	26.3	4.93
MAX	695	1950	268	120	3570	504	195	105	605	19	498	9.4
MIN	8.9	62	19	10	20	71	28	14	12	2.8	2.4	3.5

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1997, BY WATER YEAR (WY)

MEAN	47.3	133	31.0	23.1	126	84.0	108	221	139	27.1	12.8	22.3
MAX	92.5	263	58.2	34.2	251	153	174	498	340	55.6	26.3	60.3
(WY)	1997	1997	1997	1997	1997	1997	1995	1995	1995	1996	1997	1996
MIN	2.11	3.56	3.74	12.0	4.88	14.6	59.9	31.0	13.7	6.98	4.75	1.80
(WY)	1996	1996	1996	1996	1996	1996	1997	1997	1996	1997	1995	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1995 - 1997	
ANNUAL MEAN	67.0		85.6		59.5	
HIGHEST ANNUAL MEAN					85.6	1997
LOWEST ANNUAL MEAN					33.5	1996
HIGHEST DAILY MEAN	1950	Nov 7	3570	Feb 21	3570	Feb 21 1997
LOWEST DAILY MEAN	1.6	Sep 11	2.4	Aug 6-8	1.5	Sep 18 1995
ANNUAL SEVEN-DAY MINIMUM	1.7	Sep 8	2.5	Aug 5	1.7	Sep 23 1995
INSTANTANEOUS PEAK FLOW	---		7350	Feb 21	7350	Feb 21 1997
INSTANTANEOUS PEAK STAGE	---		13.97	Feb 21	13.97	Feb 21 1997
INSTANTANEOUS LOW FLOW	---		2.3	Aug 7,8	1.3	Sep 18-19 1995
10 PERCENT EXCEEDS	149		166		170	
50 PERCENT EXCEEDS	15		27		15	
90 PERCENT EXCEEDS	2.8		4.4		2.5	

06921070 POMME DE TERRE RIVER NEAR POLK, MO

LOCATION.--Lat 37°40'56", long 93°22'12", in NE 1/4 NW 1/4 NW 1/4 sec.17, T.34 N., R.22 W., Polk County, Hydrologic Unit 10290107, on right bank 150 ft upstream from Jefferson Bridge on State Highway D, and 5 mi southwest of Polk.

DRAINAGE AREA.--276 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 872.61 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	145	318	2070	157	208	899	278	113	294	24	7.2	7.5
2	125	287	1250	156	190	901	249	112	172	19	7.0	7.0
3	106	247	898	155	171	680	225	205	123	16	7.0	6.8
4	88	222	711	152	186	557	274	238	99	15	8.6	6.4
5	74	210	652	144	198	478	1160	162	81	14	9.1	6.3
6	65	2830	600	133	173	417	950	134	69	13	8.2	6.0
7	58	12600	516	124	166	366	523	117	60	12	7.5	5.9
8	54	2250	447	121	171	327	401	129	52	12	6.7	5.8
9	48	1000	399	137	162	997	337	149	46	13	7.3	5.7
10	45	712	367	136	153	1210	291	129	41	14	7.4	5.5
11	41	548	343	113	147	690	272	106	38	15	6.9	5.3
12	39	440	314	108	141	530	288	95	38	18	53	5.2
13	39	378	287	103	134	2020	251	86	56	13	14	5.5
14	38	343	271	102	127	2120	219	86	112	12	9.1	6.1
15	37	331	277	110	119	962	197	125	77	11	10	6.0
16	37	379	265	111	111	704	179	93	85	10	8.0	5.6
17	40	2180	246	98	104	579	163	79	79	11	12	6.8
18	40	945	225	101	98	584	154	80	108	11	25	6.4
19	40	656	198	108	94	867	147	76	73	9.6	1170	5.8
20	41	528	179	115	129	599	156	65	54	9.6	371	5.7
21	67	442	191	189	3810	498	245	58	44	9.4	96	5.7
22	113	366	187	418	1380	413	234	51	36	9.4	48	6.9
23	216	323	193	408	806	353	209	47	31	9.6	33	10
24	242	330	232	452	605	315	214	45	27	8.4	24	13
25	198	1120	187	499	494	1670	179	43	24	7.7	18	17
26	175	830	175	344	2300	1010	156	44	30	7.8	15	14
27	1200	630	178	374	2180	632	148	44	38	8.4	12	12
28	2130	613	181	334	1010	526	147	41	27	7.9	11	10
29	755	1090	178	248	---	426	135	39	23	8.0	9.7	9.6
30	521	2570	168	230	---	361	123	368	21	8.9	9.0	8.5
31	384	---	161	217	---	314	---	1070	---	7.7	8.3	---
MEAN	232	1191	405	200	556	742	283	136	68.6	11.8	65.8	7.60
MAX	2130	12600	2070	499	3810	2120	1160	1070	294	24	1170	17
MIN	37	210	161	98	94	314	123	39	21	7.7	6.7	5.2
IN.	.97	4.81	1.69	.84	2.10	3.10	1.15	.57	.28	.05	.27	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1997, BY WATER YEAR (WY)

MEAN	153	404	357	278	331	540	547	388	239	74.8	41.5	177
MAX	1094	1408	1488	822	1496	1673	1978	1422	1252	326	154	2348
(WY)	1987	1986	1983	1991	1985	1973	1994	1995	1995	1976	1985	1993
MIN	8.88	9.94	8.94	10.8	42.5	43.4	26.8	41.5	15.9	4.16	2.72	1.70
(WY)	1979	1990	1990	1977	1981	1996	1981	1977	1988	1980	1980	1980

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1969 - 1997	
ANNUAL MEAN	340		322		293	
HIGHEST ANNUAL MEAN					554	1993
LOWEST ANNUAL MEAN					124	1980
HIGHEST DAILY MEAN	12600	Nov 7	12600	Nov 7	24300	Sep 25 1993
LOWEST DAILY MEAN	4.7	Sep 10,11	5.2	Sep 12	.30	Aug 10 1980
ANNUAL SEVEN-DAY MINIMUM	4.9	Sep 8	5.6	Sep 7	.34	Aug 9 1980
INSTANTANEOUS PEAK FLOW	---		13600	Nov 7	34300	Sep 24 1993
INSTANTANEOUS PEAK STAGE	---		17.54	Nov 7	27.10	Sep 24 1993
INSTANTANEOUS LOW FLOW	---		5.1	Sep 12,13	.30	Aug 10 1980
ANNUAL RUNOFF (INCHES)	16.76		15.86		14.44	
10 PERCENT EXCEEDS	844		729		597	
50 PERCENT EXCEEDS	53		129		90	
90 PERCENT EXCEEDS	9.7		8.1		10	

06921070 POMME DE TERRE RIVER NEAR POLK, MO--Continued
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
OCT											
28...	1200	1580	15.0	196	7.70	8.10	80	--	3000	19800	68
NOV											
04...	1045	222	8.0	401	7.64	11.2	94	32	135	77	141
DEC											
19...	0800	190	0.5	410	8.07	14.3	98	--	22	21	184
JAN											
22...	1145	416	0.5	385	8.02	12.4	88	13	520	1300	165
FEB											
03...	1230	165	6.0	392	8.03	12.0	96	--	K3	K160	184
MAR											
06...	0845	425	7.0	356	7.80	11.2	92	--	K65	28	162
APR											
15...	1730	192	14.5	350	8.71	13.7	133	--	34	K23	178
MAY											
12...	1200	96	18.5	387	7.55	6.40	68	--	55	K19	174
JUN											
24...	1045	27	26.5	403	7.93	5.50	68	12	K71	125	186
JUL											
30...	1105	8.9	25.5	412	8.03	5.80	70	--	46	305	196
AUG											
12...	1415	43	23.5	386	7.62	6.70	78	14	K580	K805	178
SEP											
05...	0945	6.4	20.5	334	7.23	6.00	67	--	105	82	156

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
OCT										
28...	82	0	0.70	0.020	0.06	1.4	0.30	0.24	--	--
NOV										
04...	172	0	0.91	<0.010	0.02	0.20	<0.02	0.03	200	43
DEC										
19...	225	0	0.77	<0.010	<0.01	<0.20	0.02	0.01	--	--
JAN										
22...	201	0	0.80	<0.010	0.14	0.44	0.04	<0.01	180	39
FEB										
03...	224	0	0.67	<0.010	<0.01	0.29	<0.02	<0.01	--	--
MAR										
06...	198	0	1.10	0.010	0.02	<0.20	0.07	0.02	--	--
APR										
15...	185	16	<0.02	<0.010	<0.01	0.23	0.03	<0.01	--	--
MAY										
12...	212	0	0.02	<0.010	0.03	0.28	0.03	<0.01	--	--
JUN										
24...	227	0	0.27	0.014	0.08	0.44	0.06	0.06	190	40
JUL										
30...	239	0	0.05	<0.010	0.10	0.59	0.06	0.05	--	--
AUG										
12...	217	0	0.08	<0.010	0.03	0.58	0.07	0.04	190	33
SEP										
05...	191	0	0.15	<0.010	0.06	0.51	0.06	0.07	--	--

K--Results based on colony count outside the acceptable range (non-ideal colony count).

06921070 POMME DE TERRE RIVER NEAR POLK, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)
NOV 04...	22	4.4	3.0	9.9	11	<0.1	218	2	60	9.7
JAN 22...	20	5.9	2.2	11	13	<0.1	204	8	190	<3.0
JUN 24...	22	5.7	3.3	6.9	9.8	<0.1	234	19	290	9.9
AUG 12...	26	4.4	2.8	5.2	8.3	<0.1	210	28	260	<3.0

DATE	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)	COPPER, DISSOLVED (µg/L as Cu) (01040)	IRON, DISSOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	LEAD, DISSOLVED (µg/L as Pb) (01049)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOVERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)	ZINC, DISSOLVED (µg/L as Zn) (01090)
NOV 04...	<1	<1	<1	20	1	<1	23	<0.1	1	1.0
JAN 22...	<1	<1	<1	9.0	<1	<1	11	<0.1	3	2.4
JUN 24...	<1	<1	<1	10	<1	<1	38	<0.1	2	<1.0
AUG 12...	<1	<1	<1	4.0	2	<1	8.9	<0.1	10	2.4

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^2.

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

GAGE.--Water-stage recorder. Datum of gage is 884.08 ft above sea level. 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 10 ft^3/s, which are poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	86	691	37	108	326	93	32	52	4.1	3.3	4.5
2	39	72	373	38	98	247	83	34	31	4.1	3.0	4.3
3	29	58	218	37	89	182	77	34	23	3.9	2.7	3.9
4	24	53	171	36	101	152	118	26	19	4.0	2.4	3.3
5	20	56	160	32	84	139	816	23	15	3.9	1.9	3.1
6	18	2300	140	27	77	125	300	21	12	3.9	1.3	3.3
7	15	3890	121	24	77	113	162	20	11	3.9	1.0	3.5
8	14	504	106	25	83	103	138	37	8.8	3.7	1.0	3.4
9	13	259	98	33	75	528	117	31	7.5	3.7	1.0	3.3
10	11	188	94	30	72	338	103	21	6.9	413	.93	2.8
11	9.8	151	89	23	70	206	108	18	6.9	115	.93	2.3
12	9.2	126	81	20	67	167	115	16	6.9	26	.95	2.3
13	8.5	116	75	18	61	1300	95	15	13	11	1.0	2.5
14	7.8	110	73	19	59	579	83	14	72	7.2	1.3	2.5
15	7.5	105	88	25	54	238	75	12	22	5.1	2.5	2.3
16	7.5	268	79	24	50	183	68	11	29	4.0	2.0	2.2
17	7.4	1330	72	19	47	157	60	11	65	3.5	3.2	3.3
18	7.5	287	60	19	45	275	56	17	106	3.1	2.9	4.0
19	7.2	199	49	22	43	373	54	16	41	2.9	1000	4.9
20	7.3	164	44	31	156	200	97	17	22	2.6	170	5.7
21	9.9	143	46	112	2410	161	229	12	15	2.4	54	5.4
22	64	121	51	142	492	129	97	9.3	12	3.2	27	4.3
23	118	110	56	95	244	113	86	8.2	9.1	3.6	17	5.2
24	67	145	70	194	182	103	70	7.8	7.2	3.8	13	12
25	43	263	42	173	153	951	59	7.9	6.5	3.4	11	9.9
26	32	189	42	120	1540	270	51	18	6.1	2.9	9.2	7.3
27	550	165	44	236	656	177	52	18	5.7	2.2	7.8	5.8
28	356	172	47	178	325	166	49	13	5.2	1.8	6.6	5.3
29	178	539	43	148	---	134	42	9.9	4.7	1.9	5.7	5.5
30	127	506	38	117	---	118	38	140	4.2	1.8	5.2	5.0
31	97	---	38	113	---	104	---	111	---	3.5	4.7	---
MEAN	63.1	423	110	69.9	269	270	120	25.2	21.5	21.3	44.0	4.44
MAX	550	3890	691	236	2410	1300	816	140	106	413	1000	12
MIN	7.2	53	38	18	43	103	38	7.8	4.2	1.8	.93	2.2
IN.	.65	4.21	1.13	.72	2.50	2.78	1.19	.26	.21	.22	.45	.04

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1997, BY WATER YEAR (WY)

MEAN	77.9	117	123	98.7	127	191	187	159	80.3	35.0	15.2	59.4
MAX	812	566	526	358	764	855	903	843	421	534	100	1134
(WY)	1987	1986	1983	1973	1985	1973	1994	1961	1985	1958	1958	1993
MIN	.000	.037	.38	.75	1.49	15.9	4.86	8.23	.73	.081	.000	.000
(WY)	1977	1964	1964	1964	1964	1996	1981	1988	1988	1980	1980	1960

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1957 - 1997	
ANNUAL MEAN	123		118		105	
HIGHEST ANNUAL MEAN					247	1993
LOWEST ANNUAL MEAN					25.9	1964
HIGHEST DAILY MEAN	3890	Nov 7	3890	Nov 7	12000	Oct 1 1986
LOWEST DAILY MEAN	1.7	Jul 1,26	.93	Aug 10-11	.00	Many Years
ANNUAL SEVEN-DAY MINIMUM	2.5	Jul 20	.97	Aug 7	.00	Many Years
INSTANTANEOUS PEAK FLOW	---		9730	Nov 7	31900	Oct 1 1986
INSTANTANEOUS PEAK STAGE	---		17.03	Nov 7	23.60	May 5 1961
INSTANTANEOUS LOW FLOW	---		.93	Aug 9-14	.00	Many Years
ANNUAL RUNOFF (INCHES)	14.94		14.36		12.79	
10 PERCENT EXCEEDS	228		232		187	
50 PERCENT EXCEEDS	19		38		26	
90 PERCENT EXCEEDS	3.4		3.3		.50	

06921325 POMME DE TERRE LAKE NEAR HERMITAGE, MO

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

DRAINAGE AREA.--611 mi^2.

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

GAGE.--Water-stage recorder. Nonrecording gage prior to Nov. 9, 1961. Datum of gage is sea level (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.

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

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, 300,000 ac-ft, Nov. 9, elevation 846.37 ft; minimum, 233,000 ac-ft, Aug. 16, elevation, 838.55 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 08:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	840.68	840.79	841.88	839.22	840.27	846.26	841.17	840.76	842.27	839.65	838.84	839.75
2	840.12	840.64	842.33	839.26	840.20	846.18	841.03	840.83	842.25	839.50	838.81	839.72
3	839.53	840.46	842.33	839.28	840.11	846.06	840.88	840.86	842.04	839.35	838.80	839.69
4	839.48	840.31	842.01	839.31	840.03	845.80	840.73	840.86	841.80	839.32	838.78	839.65
5	839.50	839.90	841.66	839.34	839.93	845.52	840.83	840.90	841.54	839.27	838.73	839.60
6	839.53	839.80	841.22	839.34	839.83	845.11	841.68	840.91	841.27	839.23	838.70	839.57
7	839.55	843.19	840.91	839.34	839.72	844.77	841.85	840.94	841.20	839.20	838.68	839.54
8	839.58	846.34	840.57	839.34	839.62	844.33	841.84	841.01	841.13	839.17	838.65	839.50
9	839.60	846.37	840.20	839.43	839.52	843.83	841.76	841.05	841.07	839.11	838.63	839.47
10	839.61	846.07	839.81	839.44	839.40	843.80	841.63	841.05	841.04	839.10	838.59	839.44
11	839.62	845.63	839.42	839.44	839.28	843.56	841.51	841.09	841.04	839.34	838.57	839.39
12	839.63	845.20	839.24	839.44	839.14	843.21	841.40	841.10	841.05	839.37	838.57	839.35
13	839.61	844.80	839.10	839.44	839.01	842.81	841.27	841.11	841.10	839.36	838.59	839.31
14	839.60	844.38	839.07	839.44	838.98	843.52	841.11	841.11	841.09	839.33	838.59	839.31
15	839.58	843.91	839.07	839.44	838.96	843.53	840.94	841.10	841.11	839.32	838.59	839.27
16	839.57	843.44	839.05	839.42	838.88	843.26	840.76	841.10	841.17	839.28	838.55	839.17
17	839.56	843.87	839.03	839.47	838.86	842.92	840.58	841.12	841.07	839.25	838.63	839.12
18	839.53	844.13	838.99	839.45	838.82	842.47	840.54	841.20	841.30	839.23	838.62	839.11
19	839.50	843.90	838.96	839.45	838.82	842.36	840.53	841.26	841.27	839.21	838.82	839.09
20	839.50	843.56	838.90	839.46	838.84	842.26	840.50	841.32	841.15	839.17	839.85	839.05
21	839.49	843.18	838.93	839.48	840.87	841.89	840.62	841.34	841.02	839.14	839.94	839.06
22	839.65	842.76	838.93	839.65	842.81	841.50	840.71	841.34	840.91	839.11	839.96	839.04
23	839.85	842.31	838.98	839.80	843.35	841.00	840.75	841.34	840.78	839.07	839.96	839.04
24	839.95	841.81	839.02	839.87	843.66	840.50	840.77	841.34	840.63	839.04	839.95	839.08
25	839.95	841.47	839.04	840.00	843.88	840.48	840.78	841.34	840.49	839.01	839.92	839.08
26	839.96	841.40	839.08	840.27	844.02	841.18	840.77	841.44	840.38	838.99	839.92	839.06
27	839.90	841.31	839.10	840.38	845.72	841.17	840.76	841.50	840.24	838.95	839.89	839.07
28	840.60	841.14	839.12	840.48	846.29	841.16	840.75	841.50	840.12	838.92	839.86	839.03
29	841.00	840.98	839.15	840.46	---	841.22	840.72	841.50	839.98	838.95	839.83	839.01
30	840.90	841.31	839.18	840.41	---	841.26	840.76	841.54	839.81	838.91	839.80	838.98
31	840.80	---	839.20	840.34	---	841.29	---	842.06	---	838.88	839.78	---
MEAN	839.84	842.81	839.79	839.64	840.67	843.04	841.00	841.19	841.04	839.18	839.14	839.29
MAX	841.00	846.37	842.33	840.48	846.29	846.26	841.85	842.06	842.27	839.65	839.96	839.75
MIN	839.48	839.80	838.90	839.22	838.82	840.48	840.50	840.76	839.81	838.88	838.55	838.98
(-)	252000	256000	239000	248000	299000	256000	251000	262000	244000	236000	243000	237000
(=)	-3000	+4000	-17000	+9000	+51000	-43000	-5000	+11000	-18000	-8000	+7000	-6000

CAL YR 1996...+14000
WTR YR 1997...-18000

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

06921350 POMME DE TERRE RIVER NEAR HERMITAGE, MO

LOCATION.--Lat 37°54'20", long 93°19'45", in NW 1/4 NW 1/4 sec.2, T.36 N., R.22 W., Hickory County, Hydrologic Unit 10290107, on right bank 2,000 ft downstream from outlet of Pomme de Terre Lake, 2.5 mi southwest of Hermitage, 4.5 mi upstream from Green Branch, and at mile 43.4.

DRAINAGE AREA.--615 mi^2.

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

GAGE.-- Water-stage recorder. Datum of gage is 749.33 ft above sea level.

REMARKS.--Estimated daily discharges: Oct. 4-10, Dec. 28, 29, and Mar. 21-25. Records good except for estimated daily discharges Oct. 4-10, which are poor. Several observations of water temperature were made during the year. Flow regulated by Pomme de Terre Lake (station 06921325), 0.5 mi upstream. U.S. Army Corps of Engineers satellite telemeter at station.

EXTREME FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft^3/s, May 9, 1961; gage height, 15.02 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2650	1040	1590	94	766	2070	1070	89	328	584	52	89
2	2640	1040	1770	94	765	2060	1070	92	968	584	52	89
3	1260	1040	2320	94	764	2060	1070	93	1270	351	52	89
4	2.5	1040	2520	94	765	2060	818	94	1270	93	52	89
5	2.5	1030	2510	95	764	2380	576	96	1270	93	51	89
6	2.5	1080	2290	95	763	2140	574	96	670	93	51	89
7	2.5	1070	2040	95	763	2560	880	91	303	93	52	89
8	2.5	1920	2040	95	763	2550	1090	89	303	91	52	89
9	2.5	2600	2030	96	763	2550	1090	90	182	91	52	89
10	2.5	2590	2030	96	762	2550	1100	93	93	91	52	89
11	18	2580	1440	96	762	2540	1100	95	93	91	52	89
12	54	2560	1050	95	761	2540	1110	95	93	91	52	89
13	55	2560	649	94	540	2540	1110	96	961	90	52	89
14	55	2550	371	94	366	2550	1110	96	1220	89	52	89
15	56	2540	372	93	366	2550	1110	95	1220	89	52	400
16	56	2540	371	94	366	2540	1110	95	1940	89	52	289
17	57	2560	373	94	366	2540	660	94	2660	95	53	60
18	58	2550	374	94	242	2540	323	92	1630	89	52	44
19	58	2550	373	92	112	2540	326	88	108	89	57	44
20	58	2540	209	91	120	2530	333	86	108	89	53	44
21	60	2530	92	92	146	2530	337	86	108	89	75	44
22	64	2520	92	92	118	2530	341	85	110	89	89	44
23	61	2510	93	201	116	2500	344	85	110	89	89	45
24	165	2510	94	296	116	2530	350	84	447	73	89	45
25	443	2220	94	295	277	1750	357	85	588	53	89	45
26	519	1580	93	293	472	1640	363	91	588	53	89	45
27	533	1580	93	493	463	1330	325	86	586	53	89	44
28	680	1580	93	769	1360	849	285	86	584	53	89	44
29	1050	1580	93	767	---	546	168	87	584	52	89	44
30	1050	1580	94	766	---	548	86	96	584	52	89	44
31	1050	---	94	765	---	831	---	92	---	52	89	---
MEAN	412	2006	895	217	525	2128	686	90.9	699	122	64.8	85.7
MAX	2650	2600	2520	769	1360	2560	1110	96	2660	584	89	400
MIN	2.5	1030	92	91	112	546	86	84	93	52	51	44
IN.	.77	3.64	1.68	.41	.89	3.99	1.25	.17	1.27	.23	.12	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 1997, BY WATER YEAR (WY)

MEAN	315	604	690	531	572	858	873	903	591	350	108	142
MAX	3116	2872	2886	2042	2100	3487	2948	4799	2157	2349	480	1110
(WY)	1994	1987	1986	1993	1975	1985	1984	1961	1985	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1961 - 1997	
ANNUAL MEAN	604		660		545	
HIGHEST ANNUAL MEAN					1163	1973
LOWEST ANNUAL MEAN					67.8	1963
HIGHEST DAILY MEAN	2950	May 1	2660	Jun 17	9000	May 9 1961
LOWEST DAILY MEAN	2.5	Oct 4-10	2.5	Oct 4-10	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	2.5	Oct 4	2.5	Oct 4	.00	At Times
INSTANTANEOUS PEAK FLOW	---		3260	Jun 16	5910	May 5 1970
INSTANTANEOUS PEAK STAGE	---		8.68	Jun 16	12.15	May 5 1970
INSTANTANEOUS LOW FLOW	---		2.5	Oct 4-10[a]	.00	Several Years
ANNUAL RUNOFF (INCHES)	13.38		14.57		12.04	
10 PERCENT EXCEEDS	2510		2510		1960	
50 PERCENT EXCEEDS	95		116		104	
90 PERCENT EXCEEDS	48		52		44	

[a]Estimated, may have been less during period of estimated daily discharges, Oct. 4-10

06921760 SOUTH GRAND RIVER NEAR CLINTON, MO

LOCATION.--Lat 38°22'16", long 93°51'23", in NW 1/4 SW 1/4 SE 1/4 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^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 700.00 ft above sea level. Auxiliary water-stage recorder 3.3 mi upstream from base gage at same datum.

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

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 37,200 ft^3/s, May 28; minimum, 17 ft^3/s, Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	680	229	5400	176	231	16700	701	253	5780	321	23	42
2	450	190	3700	180	413	13900	563	232	2850	264	23	39
3	316	181	2800	186	558	11200	468	262	1700	221	23	34
4	247	172	2050	187	662	8730	451	364	1160	182	23	33
5	199	297	1530	187	707	6790	516	342	824	151	21	32
6	170	1060	1050	191	650	5310	1150	295	652	166	21	29
7	149	1130	827	180	557	3900	1940	258	529	165	20	29
8	134	888	619	162	470	3000	1400	427	431	123	20	30
9	145	668	478	143	430	2690	931	1050	356	122	19	26
10	175	513	448	130	401	3130	694	969	296	123	18	21
11	178	416	395	134	355	2660	1260	690	246	101	18	19
12	156	355	359	126	313	2050	17600	482	224	95	18	18
13	138	314	324	115	282	1590	22400	346	474	111	19	18
14	123	280	289	102	253	1240	8400	265	665	136	19	17
15	110	260	252	96	237	1080	3670	221	634	121	21	18
16	101	245	235	89	229	919	2140	196	1230	109	18	19
17	90	934	193	86	237	789	1530	177	5710	96	23	25
18	78	4870	167	89	240	693	1180	749	5370	83	27	27
19	76	6540	157	90	229	636	951	3830	1820	70	47	25
20	72	3110	178	93	257	573	799	7130	866	67	329	23
21	68	1680	168	101	6510	504	700	6440	584	66	609	24
22	73	1080	158	147	36000	450	601	2440	434	56	400	23
23	87	808	161	366	30300	402	534	1110	329	50	258	26
24	698	676	160	438	12700	358	538	689	266	42	177	54
25	910	579	176	434	6780	681	519	531	229	34	132	100
26	694	498	168	466	7160	1370	475	4380	246	29	100	93
27	491	438	154	366	17900	1300	419	24700	220	28	81	79
28	405	378	147	372	20300	1050	369	37200	189	28	69	62
29	369	380	150	290	---	1050	327	21600	186	26	58	52
30	327	1580	157	231	---	1020	283	7680	268	25	50	46
31	282	---	164	203	---	869	---	6410	---	23	44	---
MEAN	264	1025	749	199	5191	3117	2450	4249	1159	104	88.0	36.1
MAX	910	6540	5400	466	36000	16700	22400	37200	5780	321	609	100
MIN	68	172	147	86	229	358	283	177	186	23	18	17

06921760 SOUTH GRAND RIVER NEAR CLINTON, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1991 to current year.

REMARKS.--Sediment records fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 5,910 mg/L, Apr. 20, 1991; minimum daily mean, 4 mg/L, Aug. 18 and 30, 1993.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 146,000 tons, Feb. 22, 1997; minimum daily, 1.5 tons, Oct. 10, 1992.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,600 mg/L, Feb. 21; minimum daily mean, 42 mg/L, Dec. 22, 23, and 30.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 146,000 tons, Feb. 22; minimum daily, 3.0 tons, Aug. 12.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	680	234	395	229	87	54	5400	336	4890
2	450	238	289	190	79	40	3700	190	1900
3	316	178	151	181	73	36	2800	132	1000
4	247	160	106	172	77	36	2050	105	582
5	199	164	88	297	117	116	1530	97	401
6	170	167	76	1060	205	592	1050	88	249
7	149	161	65	1130	179	550	827	87	194
8	134	159	57	888	143	343	619	82	138
9	145	138	55	668	112	202	478	89	115
10	175	151	71	513	87	121	448	137	165
11	178	129	62	416	70	79	395	113	121
12	156	127	54	355	63	60	359	82	79
13	138	127	47	314	70	59	324	97	85
14	123	128	42	280	73	55	289	85	67
15	110	129	38	260	58	41	252	54	37
16	101	114	31	245	75	50	235	51	33
17	90	111	27	934	186	589	193	52	27
18	78	106	22	4870	488	6540	167	51	23
19	76	100	21	6540	239	4280	157	49	21
20	72	96	19	3110	173	1450	178	54	26
21	68	109	20	1680	143	647	168	59	27
22	73	124	25	1080	120	349	158	42	18
23	87	103	26	808	100	218	161	42	18
24	698	338	710	676	89	162	160	46	20
25	910	218	538	579	81	127	176	50	24
26	694	170	317	498	73	98	168	55	25
27	491	146	193	438	63	75	154	56	23
28	405	129	141	378	60	61	147	58	23
29	369	126	125	380	58	61	150	56	23
30	327	119	105	1580	268	1140	157	42	18
31	282	96	73	---	---	---	164	51	23
		JANUARY			FEBRUARY			MARCH	
1	176	44	21	231	---	46	16700	237	10700
2	180	69	34	413	---	94	13900	200	7460
3	186	91	46	558	---	148	11200	174	5270
4	187	98	50	662	---	205	8730	168	3950
5	187	97	49	707	---	220	6790	167	3050
6	191	74	38	650	---	189	5310	167	2390
7	180	64	31	557	---	153	3900	166	1740
8	162	---	27	470	---	121	3000	162	1300
9	143	---	23	430	---	104	2690	139	1010
10	130	---	21	401	84	91	3130	139	1170
11	134	---	21	355	79	76	2660	163	1160
12	126	---	20	313	77	65	2050	197	1080
13	115	---	18	282	76	58	1590	192	827
14	102	---	15	253	74	51	1240	169	568
15	96	---	14	237	68	44	1080	143	415
16	89	---	13	229	62	38	919	130	319
17	86	---	12	237	58	37	789	118	250
18	89	---	13	240	84	54	693	114	213
19	90	---	13	229	100	62	636	114	196
20	93	---	13	257	104	76	573	128	198
21	101	---	14	6510	1600	39000	504	124	169
22	147	---	29	36000	1520	146000	450	109	133
23	366	---	131	30300	535	44800	402	107	117
24	438	100	118	12700	376	12900	358	103	101
25	434	90	106	6780	297	5430	681	246	540
26	466	88	111	7160	290	5850	1370	328	1220
27	366	86	85	17900	419	20900	1300	332	1160
28	372	84	84	20300	343	18800	1050	317	897
29	290	---	63	---	---	---	1050	298	843
30	231	---	48	---	---	---	1020	264	727
31	203	---	40	---	---	---	869	278	647

06921760 SOUTH GRAND RIVER NEAR CLINTON, MO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	701	278	524	253	205	140	5780	381	5910
2	563	272	414	232	171	107	2850	304	2330
3	468	307	387	262	154	110	1700	252	1150
4	451	357	434	364	165	163	1160	230	709
5	516	352	498	342	149	137	824	246	543
6	1150	521	1720	295	165	130	652	258	451
7	1940	478	2520	258	181	126	529	259	370
8	1400	311	1170	427	271	406	431	241	280
9	931	199	504	1050	525	1480	356	233	224
10	694	145	272	969	393	1030	296	219	174
11	1260	245	1220	690	324	602	246	216	143
12	17600	677	31000	482	280	363	224	216	131
13	22400	345	21100	346	258	240	474	344	494
14	8400	280	6280	265	263	188	665	336	603
15	3670	248	2430	221	201	120	634	340	580
16	2140	218	1260	196	176	93	1230	659	2600
17	1530	209	854	177	199	95	5710	543	8350
18	1180	203	643	749	643	2210	5370	349	5050
19	951	191	489	3830	812	8290	1820	293	1440
20	799	180	387	7130	498	9770	866	244	564
21	700	188	354	6440	351	6100	584	246	386
22	601	175	284	2440	305	1980	434	272	314
23	534	196	282	1110	292	858	329	283	251
24	538	209	304	689	293	542	266	251	180
25	519	200	280	531	282	409	229	260	161
26	475	188	241	4380	686	8400	246	257	170
27	419	193	217	24700	507	34700	220	238	142
28	369	203	201	37200	549	55200	189	217	111
29	327	214	189	21600	419	24600	186	201	101
30	283	228	173	7680	320	6610	268	218	162
31	---	---	---	6410	324	5680	---	---	---
		JULY			AUGUST			SEPTEMBER	
1	321	193	167	23	85	5.3	42	90	10
2	264	191	136	23	81	5.1	39	91	9.7
3	221	179	106	23	72	4.6	34	117	11
4	182	166	81	23	66	4.0	33	96	8.5
5	151	155	63	21	71	4.0	32	100	8.7
6	166	158	71	21	79	4.4	29	105	8.1
7	165	165	73	20	86	4.7	29	90	7.0
8	123	159	52	20	87	4.8	30	76	6.1
9	122	151	50	19	80	4.1	26	72	4.9
10	123	154	51	18	66	3.2	21	98	5.6
11	101	154	42	18	62	3.1	19	125	6.3
12	95	139	36	18	61	3.0	18	109	4.2
13	111	129	39	19	65	3.3	18	87	3.1
14	136	127	46	19	63	3.3	17	83	3.9
15	121	133	43	21	65	3.8	18	88	4.4
16	109	139	40	18	68	3.3	19	92	4.7
17	96	135	35	23	72	4.6	25	91	6.4
18	83	122	27	27	79	5.8	27	89	6.4
19	70	109	21	47	107	14	25	87	6.0
20	67	97	18	329	244	294	23	85	5.2
21	66	90	16	609	257	423	24	81	5.3
22	56	103	15	400	245	262	23	73	4.6
23	50	117	16	258	214	149	26	79	5.4
24	42	110	12	177	192	92	54	145	25
25	34	105	9.7	132	165	59	100	170	46
26	29	101	8.0	100	143	38	93	149	37
27	28	97	7.4	81	132	29	79	156	33
28	28	102	7.7	69	122	22	62	122	20
29	26	127	8.9	58	116	18	52	117	16
30	25	95	6.3	50	109	15	46	114	14
31	23	88	5.4	44	102	12	---	---	---

06922440 HARRY S TRUMAN RESERVOIR AT WARSAW, MO

LOCATION.-- Lat 38°15'30", long 93°23'40", in NW 1/4 NE 1/4 sec.7, T.40 N., R.22 W., Benton County, Hydrologic Unit 10290105, in control room near middle of dam on Osage River, 1.5 mi northwest of Warsaw, and at mile 175.

DRAINAGE AREA.--11,500 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is sea level (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, hydroelectric power, recreation, and fish and wildlife enhancement. U.S. Army Corps of Engineers satellite telemeter at station.

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

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, 2,160,000 ac-ft, Mar. 2, elevation, 719.00 ft; minimum, 1,100,000 ac-ft, Aug. 15, elevation, 704.48 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 24:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	707.06	706.43	708.39	706.80	706.61	718.99	707.82	706.26	710.22	706.71	704.81	705.88
2	706.70	706.65	708.67	706.76	706.74	719.00	707.42	706.21	710.10	706.66	704.83	705.71
3	706.58	706.87	708.66	706.72	706.57	718.80	707.05	706.22	709.79	706.66	704.88	705.72
4	706.50	706.60	708.60	706.87	706.68	718.41	706.72	706.36	709.28	706.51	704.73	705.72
5	706.51	706.71	708.45	706.85	706.66	717.90	706.64	706.48	708.63	706.54	704.72	705.69
6	706.54	707.43	708.31	706.68	706.60	717.32	706.52	706.47	708.03	706.61	704.72	705.68
7	706.55	708.70	707.86	706.66	706.50	716.92	706.48	706.42	707.48	706.34	704.70	705.64
8	706.57	709.22	707.55	706.52	706.67	716.62	706.51	706.62	707.02	706.22	704.68	705.46
9	706.60	709.35	707.24	706.69	706.80	716.31	706.16	706.68	706.76	706.08	704.68	705.33
10	706.66	709.23	707.29	706.56	706.71	716.00	706.14	706.69	706.50	705.81	704.66	705.23
11	706.62	709.10	707.17	706.58	706.54	715.62	706.47	706.58	706.46	705.89	704.70	705.17
12	706.66	708.91	706.90	706.64	706.42	715.20	707.23	706.42	706.48	706.26	704.81	705.10
13	706.71	708.69	706.71	706.59	706.42	714.88	708.71	706.32	706.80	706.64	704.72	705.11
14	706.75	708.31	706.59	706.54	706.31	714.47	709.91	706.24	707.11	706.46	704.63	705.15
15	706.70	708.01	706.36	706.52	706.44	714.04	710.54	706.10	707.43	706.64	704.48	705.09
16	706.64	707.79	706.01	706.47	706.40	713.53	710.66	705.98	707.60	706.57	704.52	705.05
17	706.52	708.29	705.82	706.48	706.48	712.98	710.53	706.20	707.50	706.49	704.67	704.93
18	706.42	708.79	705.82	706.51	706.44	712.56	710.35	706.15	707.43	706.14	704.68	704.88
19	706.44	709.03	706.02	706.59	706.38	712.26	709.85	706.46	707.31	706.23	705.75	704.78
20	706.46	709.13	706.29	706.50	707.66	711.83	709.26	706.77	707.05	706.27	706.44	704.82
21	706.43	709.14	706.51	706.51	710.24	711.39	708.61	706.60	706.80	706.06	706.55	704.81
22	706.66	709.13	706.72	706.52	712.39	710.81	707.87	706.40	706.37	705.84	706.72	704.82
23	706.66	709.07	706.80	706.55	714.44	710.15	707.17	705.90	706.19	705.51	706.89	704.88
24	706.46	708.85	706.76	706.71	715.57	709.45	706.93	705.95	706.25	705.20	706.92	704.94
25	706.34	708.64	706.77	706.93	716.06	709.10	706.95	705.84	706.37	704.94	706.67	705.02
26	706.61	708.31	706.82	707.05	717.20	708.72	706.90	707.05	706.43	705.00	706.51	705.10
27	707.11	707.91	706.82	707.15	718.14	708.34	706.85	707.68	706.47	705.09	706.36	705.17
28	707.18	707.67	706.93	707.03	718.76	708.29	706.74	708.25	706.57	704.90	706.18	705.21
29	707.32	707.79	706.94	706.86	---	708.24	706.66	708.93	706.67	704.85	705.92	705.24
30	707.02	708.04	706.86	706.69	---	708.24	706.54	709.38	706.70	704.86	705.97	705.25
31	706.60	---	706.85	706.47	---	708.12	---	709.84	---	704.85	705.98	---
MEAN	706.66	708.26	707.08	706.68	709.10	713.37	707.74	706.76	707.33	705.96	705.40	705.22
MAX	707.32	709.35	708.67	707.15	718.76	719.00	710.66	709.84	710.22	706.71	706.92	705.88
MIN	706.34	706.43	705.82	706.47	706.31	708.12	706.14	705.84	706.19	704.85	704.48	704.78
(-)	1210000	1300000	1230000	1210000	1240000	1300000	1210000	1410000	1220000	1120000	1180000	1140000
(=)	-50000	+90000	-70000	-20000	+30000	+60000	-90000	+200000	-190000	-100000	+60000	-40000

CAL YR 1996...+ 20000
WTR YR 1997...-120000

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

06922450 OSAGE RIVER BELOW HARRY S TRUMAN DAM AT WARSAW, MO

LOCATION.--Lat 38°15'41", long 93°24'16", NE 1/4 SW 1/4 sec.17, T.40 N., R.22 W., Benton County, Hydrologic Unit 10290109, on right bank 2,000 ft below Harry S Truman Dam and 1.5 mi northwest of Warsaw.

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

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

GAGE.--Acoustic flow monitor. Datum of gage is sea level (levels by the U.S. Army Corps of Engineers).

REMARKS.--No estimated daily discharges. Records not published prior to 1982 water year due to test period of acoustic flow monitor which included periods of unreliable record. Flow completely regulated by Harry S. Truman Dam (station 06922440), 2,000 ft upstream. U.S. Army Corps of Engineers satellite telemeter at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18200	14400	14200	4200	0	40600	18200	9180	12500	7430	1900	3380
2	13500	0	18800	3390	0	40700	19900	7280	24800	11200	500	5450
3	6460	0	25100	3530	9690	43000	18200	0	24800	9000	500	500
4	3600	12500	25200	0	3830	45800	18000	0	25000	8480	5400	500
5	0	3520	25100	1400	5510	46100	14300	0	25300	500	867	1230
6	0	5220	25200	5880	6310	46600	13700	2390	24300	500	500	500
7	1400	5430	25400	4390	6910	38100	14500	4710	20500	8640	500	1940
8	0	14100	21500	6420	0	28600	14000	2050	16000	5230	500	5800
9	0	14400	21900	1450	0	29200	20600	2240	11600	6160	500	5350
10	0	14300	11600	5940	6680	29400	9560	5910	9980	11600	500	3070
11	2880	15100	13600	1470	7180	29500	3870	7700	3900	8180	500	1600
12	0	15100	16000	1010	7320	29800	1830	6750	2570	500	500	2000
13	0	14500	13300	4430	5950	30000	0	4260	2040	500	2090	500
14	1080	17400	11500	4530	5950	30100	0	5140	250	15400	3500	500
15	3980	17900	12500	5000	0	30500	7550	4300	250	3680	5580	4250
16	3950	17600	16600	3700	0	30900	23200	4030	13200	10600	500	4450
17	4620	17700	11700	3670	1980	30300	31500	2850	20800	10200	500	7200
18	2500	17600	7200	3000	2670	29700	31600	3550	26400	13800	500	2550
19	0	21300	1730	0	2670	29900	31800	5430	26300	500	500	3320
20	0	25200	0	3690	2500	30500	32400	8460	22400	500	6770	250
21	2460	25200	0	2730	5150	29300	32700	22700	17500	7820	14400	250
22	5160	24900	0	3130	0	29600	33100	21800	18200	6380	7900	571
23	2560	21700	4540	2790	0	30000	32300	19700	8500	9650	1900	250
24	11500	22000	4350	3730	1700	30400	16000	2480	3310	9640	1950	250
25	13000	21600	4530	0	17400	31300	8010	6820	5230	9290	10200	600
26	4220	24500	3970	1710	20500	31000	9630	0	6380	500	7650	250
27	4190	23400	4750	6930	25200	28500	7760	14900	4160	500	6920	250
28	12900	13800	1420	9940	35200	18600	7890	26200	500	8680	6300	250
29	12900	13600	1750	10200	---	13800	8110	25800	500	1570	9280	139
30	14700	12800	4310	9660	---	13600	7460	25400	3800	500	500	250
31	15800	---	3120	10300	---	14400	---	12600	---	658	500	---
MEAN	5212	15560	11320	4136	6439	30960	16260	8536	12700	6058	3229	1913
MAX	18200	25200	25400	10300	35200	46600	33100	26200	26400	15400	14400	7200
MIN	0	0	0	0	0	13600	0	0	250	500	500	139

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1997[a], BY WATER YEAR (WY)

MEAN	9478	11630	13540	8405	8566	14090	15300	16950	16490	9125	5907	3526
MAX	52090	42250	43020	32520	20050	44920	32720	48830	48240	43150	28320	18300
(WY)	1987	1987	1993	1993	1982	1985	1984	1994	1995	1995	1993	1993
MIN	00	23.8	83.6	682	933	864	253	2512	585	551	367	196
(WY)	1996	1996	1996	1996	1996	1996	1996	1992	1988	1991	1991	1991

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1982 - 1997[a]	
ANNUAL MEAN	6190		10210		11490	
HIGHEST ANNUAL MEAN					18760	1993
LOWEST ANNUAL MEAN					2516	1997
HIGHEST DAILY MEAN	58800	May 16	46600	Mar 6	71100	Oct 20 1986
LOWEST DAILY MEAN	0	Many Days	0	Many Days	0	Most Years

[a]Post-regulation period.

06922850 BIG BUFFALO CREEK AT BIG BUFFALO WILDLIFE AREA

(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°20'06", long 93°05'05", SE 1/4 NW 1/4 sec.12, T.41 N., R.19 W., Morgan County, Hydrologic Unit 10290109. Sampling site is reached by taking Highway FF to the end, turn right onto dirt road and travel about 2 mi.

DRAINAGE AREA.--24.5 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
26...	1230	11	7.5	329	7.99	9.5	77	--	K1	K12	179
JAN											
21...	1400	5.5	5.5	616	7.66	9.7	78	<10	K1	K8	203
MAR											
18...	1130	12	8.5	303	8.03	10.5	88	--	K1	K1	152
APR											
03...	1130	11	14.0	331	7.89	8.4	80	--	1	4	163
JUN											
13...	1400	124	18.0	211	7.76	8.2	85	21	K1400	K2200	97
AUG											
18...	1350	6.2	23.0	426	7.83	8.1	93	--	12	41	217

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN,AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)
NOV										
26...	219	0	0.07	<0.01	0.04	0.24	<0.02	<0.01	--	--
JAN										
21...	247	0	0.11	<0.01	<0.01	<0.20	0.02	<0.01	210	43
MAR										
18...	184	0	0.13	<0.01	<0.01	<0.20	<0.02	<0.01	--	--
APR										
03...	200	0	0.08	<0.01	0.01	<0.20	0.02	<0.01	--	--
JUN										
13...	120	0	0.06	<0.01	0.05	0.66	0.02	0.02	110	23
AUG										
18...	267	0	0.13	<0.01	0.02	<0.20	<0.02	0.01	--	--

DATE	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)
JAN										
21...	26	2.6	0.90	8.8	6.4	<0.1	218	<1	20	<3.0
JUN										
13...	13	1.6	2.2	4.8	--	<0.1	154	11	290	110

DATE	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)	COPPER, DISSOLVED (µg/L as Cu) (01040)	IRON, DISSOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	LEAD, DISSOLVED (µg/L as Pb) (01049)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOVERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)	ZINC, DISSOLVED (µg/L as Zn) (01090)
JAN										
21...	<1	<1	<1.0	4.0	<1	<1	1.9	<0.1	1	<1.0
JUN										
13...	<1	<1	1.3	150	<1	<1	5.9	<0.1	5	3.8

K--Results based on colony count outside the acceptable range (non-ideal colony count).

06923150 DOUSINBURY CREEK ON HIGHWAY JJ NEAR WALL STREET, MO

LOCATION.--Lat 37°35'38", long 92°58'00", SW 1/4 SW 1/4 NE 1/4 sec.12, T.33 N., R.19 W., Dallas County, Hydrologic Unit 10290110, on downstream end of center pier of bridge on State Highway JJ, 1 mi upstream from Niangua River, and 1.5 mi southwest of Wall Street.

DRAINAGE AREA.--39.5 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 1,014.05 ft above sea level.

REMARKS.--No estimated daily discharges. Water-discharge records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	20	184	28	34	69	16	11	11	1.1	1.5	2.5
2	12	17	98	27	33	64	15	11	9.2	.88	1.4	2.1
3	9.4	15	69	27	37	54	15	12	8.2	.68	1.2	1.8
4	7.8	14	60	26	41	48	18	11	7.3	.63	1.0	1.5
5	7.0	12	59	25	35	43	75	10	6.5	.53	.78	1.3
6	6.1	624	52	24	33	39	33	9.8	5.7	.49	.51	1.1
7	5.4	1540	47	23	33	37	23	9.6	5.1	.41	.42	1.0
8	5.1	159	43	23	32	36	20	12	4.4	.35	.42	.82
9	4.4	84	41	25	32	74	17	11	3.8	.39	.51	.65
10	3.8	70	40	24	30	60	17	10	3.5	47	.56	.62
11	3.3	62	38	21	30	49	17	10	3.4	26	2.7	.80
12	3.1	54	37	20	29	43	17	11	3.6	15	2.9	.57
13	2.7	50	36	18	29	238	15	11	11	10	2.3	.47
14	2.5	48	35	17	28	105	15	10	11	7.6	2.4	.45
15	2.2	45	34	19	28	41	14	9.2	8.4	6.0	3.8	.48
16	2.2	45	34	20	27	32	13	8.5	8.0	4.6	2.1	.41
17	1.9	150	33	18	26	28	12	9.0	8.1	4.0	4.7	1.0
18	1.7	64	32	16	26	32	12	8.5	9.9	3.5	4.1	.72
19	1.6	54	30	16	25	38	12	8.2	7.4	2.7	104	.50
20	1.7	49	29	17	34	27	13	7.1	5.9	2.3	37	.52
21	3.6	43	29	30	145	24	14	6.3	4.6	2.0	25	.85
22	41	40	30	56	66	21	13	5.6	3.7	1.9	20	.81
23	24	38	31	39	51	19	13	5.1	3.0	1.5	16	4.9
24	15	48	30	50	43	18	12	5.0	2.5	1.3	12	6.8
25	11	77	29	42	39	182	12	5.4	2.3	.96	9.5	3.5
26	10	58	29	37	251	48	12	4.8	2.2	.62	7.7	2.3
27	148	55	29	57	128	31	12	4.6	1.9	.51	6.5	1.6
28	76	61	29	43	70	27	12	4.1	1.6	.52	5.3	1.4
29	34	207	28	38	---	22	12	3.8	1.5	6.6	4.3	1.2
30	27	220	28	36	---	19	11	22	1.3	3.6	3.5	.91
31	23	---	27	36	---	17	---	14	---	2.1	3.0	---
MEAN	16.5	134	43.5	29.0	50.5	51.1	17.1	9.05	5.53	5.02	9.26	1.45
MAX	148	1540	184	57	251	238	75	22	11	47	104	6.8
MIN	1.6	12	27	16	25	17	11	3.8	1.3	.35	.42	.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1997, BY WATER YEAR (WY)

MEAN	12.8	69.5	21.3	37.4	25.6	24.1	102	84.5	31.7	6.88	7.17	71.3
MAX	18.6	134	43.5	83.1	50.5	51.1	232	174	75.9	9.81	17.4	305
(WY)	1995	1997	1997	1995	1997	1997	1994	1995	1995	1995	1994	1993
MIN	1.15	2.03	5.47	16.8	4.84	5.91	17.1	9.05	5.53	4.27	1.87	1.43
(WY)	1996	1996	1996	1994	1996	1996	1997	1997	1997	1996	1996	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1993 - 1997	
ANNUAL MEAN	38.2		30.8		36.9	
HIGHEST ANNUAL MEAN					49.2	1995
LOWEST ANNUAL MEAN					22.8	1996
HIGHEST DAILY MEAN	1540	Nov 7	1540	Nov 7	3330	Sep 24 1993
LOWEST DAILY MEAN	.19	Sep 14	.35	Jul 8	.19	Sep 14 1996
ANNUAL SEVEN-DAY MINIMUM	.29	Sep 9	.50	Jul 3	.29	Sep 9 1996
INSTANTANEOUS PEAK FLOW	---		3640	Nov 7	6780	Sep 25 1993
INSTANTANEOUS PEAK STAGE	---		7.87	Nov 7	10.14	Sep 25 1993
INSTANTANEOUS LOW FLOW	---		.30	Sep 20	.17	Sep 14 1996
10 PERCENT EXCEEDS	71		55		61	
50 PERCENT EXCEEDS	7.9		14		11	
90 PERCENT EXCEEDS	1.4		1.1		1.4	

06923150 DOUSINBURY CREEK ON HIGHWAY JJ NEAR WALL STREET, MO--Continued
(National water-quality assessment station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1993 to February 1997.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH, WATER WHOLE, FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	E. COLI, WATER WHOLE, TOTAL UREASE (COLS./ 100 mL) (31633)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY, WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)	BICAR-BONATE WATER DIS IT FIELD (mg/L as HCO_3) (00453)
NOV												
15...	1230	45	6.5	273	7.9	11.0	90	250	120	74	127	155
FEB												
27...	1200	110	6.0	168	7.7	11.8	95	820	760	1000	78	95

DATE	CAR-BONATE, WATER DIS IT FIELD (mg/L as CO_3) (00452)	NITRO-GEN, NO_2+NO_3 DIS-SOLVED (mg/L as N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L as N) (00613)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L as N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (mg/L as N) (00623)	PHOS-PHORUS, TOTAL (mg/L as P) (00665)	PHOS-PHORUS, DIS-SOLVED (mg/L as P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (mg/L as P) (00671)	HARD-NESS, TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM, DIS-SOLVED (mg/L as Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)
NOV												
15...	0	1.10	<0.01	<0.015	<0.2	<0.2	0.03	0.02	0.02	130	27	16
FEB												
27...	0	0.61	<0.01	<0.015	0.3	0.2	0.02	<0.01	0.02	79	16	9.3

DATE	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SILICA, DIS-SOLVED (mg/L as SiO_2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	SEDI-MENT, SUS-PENDED (mg/L) (80154)	CARBON, ORGANIC DIS-SOLVED (mg/L as C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (mg/L as C) (00689)
NOV										
15...	2.5	1.8	6.2	7.0	<0.1	8.0	148	45	1.3	0.1
FEB										
27...	2.0	1.6	5.8	4.4	<0.1	6.3	96	18	4.0	0.5

06923700 NIANGUA RIVER BELOW BENNETT SPRINGS, MO

(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°44'17", long 92°51'37", in SE 1/4 sec.25, T.35 N., R.18 W., Dallas County, Hydrologic Unit 10290110, at bridge on Highway 64, 1,200 ft downstream inflow of Bennett Springs Branch.

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

REMARKS.--Ambient water-quality monitoring 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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
26...	1100	1300	10.5	263	7.36	11.1	97	--	1060	1280	113
JAN											
22...	0830	660	4.5	319	7.33	11.3	88	<10	K11	56	157
MAR											
19...	1345	1400	10.5	278	7.66	11.3	99	--	200	172	133
APR											
02...	1015	700	13.0	307	7.83	10.0	93	--	59	24	140
JUN											
26...	1145	270	18.5	369	7.85	9.4	99	<5	140	55	175
AUG											
14...	0840	140	16.0	397	7.28	7.9	79	--	76	K1900	188

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
26...	142	0	1.20	<0.01	0.03	0.29	<0.02	0.04	--	--
JAN										
22...	191	0	0.84	<0.01	0.02	<0.20	0.03	<0.01	180	37
MAR										
19...	163	0	0.79	<0.01	<0.01	0.30	<0.02	0.02	--	--
APR										
02...	169	0	0.63	<0.01	<0.01	<0.20	0.04	0.02	--	--
JUN										
26...	217	0	0.80	<0.01	0.03	<0.20	<0.02	0.08	190	39
AUG										
14...	232	0	0.87	<0.01	0.03	<0.20	0.02	0.02	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
22...	21	3.8	1.3	6.8	--	<0.1	210	6	120	<3.0
JUN										
26...	22	2.9	1.4	4.6	5.7	<0.1	198	8	90	7.8

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
22...	<1	<1	<1	5	<1	<1	5.2	<0.1	2	<1
JUN										
26...	<1	<1	<1	7	<1	<1	9.4	<0.1	<1	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).

06923950 NIANGUA RIVER AT TUNNEL DAM NEAR MACKS CREEK, MO

LOCATION.--Lat 37°56'14", long 92°51'03", in SE 1/4 SW 1/4 SW 1/4 sec.19, T.37N., R.17W., Camden County, Hydrologic Unit 10290110, at left end of concrete structure on top of Tunnel Dam, 6.5 mi southeast of Macks Creek.

DRAINAGE AREA.--598 mi^2.

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

GAGE.--Water-stage recorder.

REMARKS.--Estimated daily discharges: Nov. 24, Dec. 10, 11, 13, 14, 19-21, 24-26, Jan. 1, 2, 5, 23, Mar. 14-16, Sept. 12, 13, 15-18, 20, 29, and 30. Records fair except for discharges below 20 ft^3/s, which are poor. Several observations of water temperature were made during the year. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	64	3890	6.0	7.7	983	108	38	430	39	302	280
2	64	49	3030	11	28	710	91	29	63	26	296	269
3	40	52	1720	47	9.0	673	78	18	25	16	293	262
4	67	59	728	51	76	410	67	11	71	23	289	255
5	58	53	458	9.4	101	254	325	46	35	10	283	252
6	41	1030	341	9.3	106	157	794	34	16	5.3	280	250
7	41	9980	252	13	90	179	589	13	42	35	277	249
8	44	14500	144	22	68	130	204	35	11	15	272	252
9	42	5110	59	7.2	59	216	129	6.0	13	15	255	250
10	51	1350	9.6	12	65	638	101	16	39	14	255	248
11	62	799	18	60	83	812	52	15	33	18	256	126
12	60	467	58	46	79	400	40	5.5	38	69	270	6.0
13	56	282	33	28	61	428	58	29	97	59	271	5.0
14	55	156	33	21	70	2200	34	22	16	16	283	17
15	63	81	20	35	96	1600	48	46	26	6.5	295	67
16	59	28	7.8	35	78	1120	33	6.1	87	18	279	193
17	64	336	13	25	62	539	134	40	1100	14	289	153
18	65	1280	30	12	67	502	212	58	1730	11	286	20
19	66	784	10	28	93	577	196	33	508	10	1290	177
20	67	147	8.0	42	87	668	198	6.5	202	8.2	1090	198
21	69	44	8.0	42	267	406	145	19	89	5.5	959	208
22	119	23	16	49	1410	272	42	17	18	29	612	221
23	160	13	31	60	880	156	52	30	71	27	455	150
24	221	13	11	39	380	74	28	29	53	22	386	15
25	200	65	15	68	163	423	30	30	20	19	346	10
26	95	660	27	153	524	1680	55	57	11	17	323	8.0
27	132	478	47	216	2930	1020	38	47	24	24	304	11
28	542	225	23	412	2440	520	25	23	14	140	291	9.4
29	2130	249	17	163	---	315	21	12	7.0	353	284	7.0
30	734	1960	10	19	---	171	51	56	16	324	279	6.0
31	64	---	5.8	22	---	81	---	43	---	311	285	---
MEAN	182	1345	357	56.9	371	591	133	28.1	164	54.8	385	139
MAX	2130	14500	3890	412	2930	2200	794	58	1730	353	1290	280
MIN	40	13	5.8	6.0	7.7	74	21	5.5	7.0	5.3	255	5.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 1997, BY WATER YEAR (WY)

MEAN	182	1345	357	105	202	319	633	517	109	60.9	214	301
MAX	182	1345	357	154	371	591	1134	1006	164	67.1	385	462
(WY)	1997	1997	1997	1996	1997	1997	1996	1996	1997	1996	1997	1996
MIN	182	1345	357	56.9	39.2	47.9	133	28.1	55.4	54.8	43.9	139
(WY)	1997	1997	1997	1997	1996	1996	1997	1997	1996	1997	1996	1997

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1995 - 1997	
ANNUAL MEAN	406		315		315	
HIGHEST ANNUAL MEAN					315	1997
LOWEST ANNUAL MEAN					315	1997
HIGHEST DAILY MEAN	14500	Nov 8	14500	Nov 8	14500	Nov 8 1996
LOWEST DAILY MEAN	5.8	Dec 31	5.0	Sep 13	5.0	Sep 13 1997
ANNUAL SEVEN-DAY MINIMUM	13	Dec 16	9.5	Sep 24	9.5	Sep 24 1997
INSTANTANEOUS PEAK FLOW	---		15200[a]	Nov 8	15200[a]	Nov 8 1996
INSTANTANEOUS PEAK STAGE	---		14.19	Nov 8	14.19	Nov 8 1996
INSTANTANEOUS LOW FLOW	---		5.0	Sep 13	5.0	Sep 13 1997
10 PERCENT EXCEEDS	730		647		520	
50 PERCENT EXCEEDS	49		64		51	
90 PERCENT EXCEEDS	34		11		18	

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

06925500 LAKE OF THE OZARKS NEAR BAGNELL, MO

LOCATION.--Lat 38°12'19", long 92°37'21", in SE 1/4 sec.19, T.40 N., R.15 W., Miller County, Hydrologic Unit 10290111, at left end of powerhouse section near left end of Bagnell Dam on Osage River, 2 mi southwest of Bagnell, and at mile 81.7.

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

PERIOD OF RECORD.--April 1931 to current year. Gage-height records collected at same site since 1932 and are contained 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 sea level subtract 0.88 ft.

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

COOPERATION.--Records were provided by the Union Electric Company 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, 1,218,000 ac-ft, Nov. 8, elevation, 660.00 ft; minimum, 894,000 ac-ft, Feb. 20, elevation, 653.96 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 24:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	658.99	658.16	658.55	657.74	656.06	655.40	656.27	655.94	659.17	659.52	657.76	659.34
2	659.20	657.96	658.20	657.87	656.04	655.81	656.08	656.04	658.95	659.54	657.76	659.15
3	659.30	657.86	658.06	657.96	656.04	656.27	655.95	655.89	658.86	659.39	657.74	659.10
4	659.45	658.04	657.83	657.93	655.80	656.88	655.80	655.88	658.80	659.46	657.93	659.08
5	659.46	657.93	657.80	657.94	655.71	657.47	655.89	655.87	659.00	659.37	657.93	659.10
6	659.45	658.38	657.94	657.89	655.54	658.04	656.16	656.02	659.07	659.39	657.92	659.02
7	659.44	659.42	658.03	657.77	655.35	658.41	656.03	656.26	659.27	659.64	657.91	659.05
8	659.44	660.00	657.98	657.61	655.31	658.26	655.70	656.50	659.66	659.54	657.91	659.18
9	659.41	659.91	658.39	657.50	655.30	658.21	655.91	656.67	659.71	659.60	657.91	659.30
10	659.40	659.62	658.33	657.32	655.36	658.13	655.62	656.92	659.89	659.68	657.90	659.37
11	659.34	659.43	658.34	656.88	655.17	658.06	655.39	657.23	659.76	659.80	657.89	659.34
12	659.32	659.40	658.45	656.54	655.05	657.98	655.06	657.51	659.59	659.57	658.02	659.39
13	659.07	659.21	658.44	656.28	654.76	658.08	655.11	657.68	659.46	659.26	658.11	659.38
14	658.78	659.22	658.25	656.25	654.59	658.21	655.04	657.88	659.37	659.37	658.28	659.23
15	658.65	658.88	658.62	656.15	654.46	658.28	655.00	658.07	659.29	659.05	658.21	659.03
16	658.53	658.76	658.92	655.86	654.28	658.28	654.91	658.23	659.40	658.86	657.82	658.74
17	658.36	658.88	659.06	655.44	654.28	658.27	654.91	658.41	659.37	658.66	657.75	658.68
18	658.12	658.76	658.86	655.46	654.39	658.28	654.92	658.68	659.37	658.73	657.60	658.30
19	658.01	658.64	658.34	655.43	654.06	658.31	654.94	658.94	659.24	658.43	657.96	658.00
20	657.91	658.69	657.84	655.55	653.96	658.31	655.00	659.25	659.46	657.96	658.40	657.97
21	657.95	658.72	657.72	655.67	654.95	658.25	655.03	659.37	659.80	657.66	658.96	657.95
22	658.00	658.71	657.73	655.73	654.80	658.17	655.15	659.59	659.96	657.85	659.16	657.88
23	657.63	658.65	657.92	655.69	654.86	658.08	655.55	659.75	659.80	658.17	659.22	657.95
24	657.50	658.70	658.08	655.80	654.33	658.00	655.69	659.70	659.45	658.35	659.23	657.96
25	657.58	658.95	658.25	655.82	654.00	658.24	655.66	659.95	659.40	658.17	659.33	657.91
26	657.65	659.06	658.37	655.85	654.39	658.44	656.07	659.66	659.53	657.89	659.26	657.75
27	657.86	659.18	658.54	656.14	654.56	658.58	656.41	659.29	659.68	657.79	659.24	657.74
28	657.82	658.98	658.30	656.07	654.88	658.41	656.47	659.17	659.64	657.77	659.20	657.73
29	657.85	659.12	657.91	656.16	---	657.75	656.28	658.96	659.72	657.80	659.32	657.70
30	657.89	658.94	657.72	656.41	---	657.14	656.10	659.07	659.66	657.76	659.31	657.60
31	657.97	---	657.57	656.41	---	656.62	---	658.97	---	657.73	659.31	---
MEAN	658.56	658.87	658.20	656.55	654.94	657.83	655.60	657.98	659.44	658.77	658.40	658.60
MAX	659.46	660.00	659.06	657.96	656.06	658.58	656.47	659.95	659.96	659.80	659.33	659.39
MIN	657.50	657.86	657.57	655.43	653.96	655.40	654.91	655.87	658.80	657.66	657.60	657.60
(-)	1100000	1160000	1080000	1020000	940000	1030000	1000000	1160000	1200000	1090000	1180000	1030000
(=)	-55000	+60000	-80000	-60000	-80000	+90000	-30000	+160000	+40000	-110000	+90000	-150000

CAL YR 1996...+ 58000
WTR YR 1997...-125000

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

06926000 OSAGE RIVER NEAR BAGNELL, MO

LOCATION.--Lat 38°11'29", long 92°36'26", in NW 1/4 NE 1/4 SE 1/4 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 Union Electric Company of Missouri, and at mile 80.5.

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

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

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

REMARKS.--No estimated daily discharges. Records fair. Several observations of water temperature were made during the year. Flow regulated by Lake of the Ozarks (station 06925500), 1.3 mi upstream.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16700	10600	31000	1420	11000	33300	28000	12800	4690	10100	693	2000
2	9120	5990	31000	764	3040	33300	27400	8550	29900	10300	687	8050
3	3180	2850	30900	1950	10200	33300	20100	3080	27200	12700	685	2490
4	501	9020	31600	1560	12400	33400	25400	1500	25600	4020	686	487
5	473	8760	28100	1760	8920	33400	19000	768	21200	3150	441	1090
6	835	8070	23300	6740	11400	33500	12700	647	22600	1080	406	1730
7	1730	19000	23900	8430	13400	33600	18600	709	16000	2540	399	1410
8	799	18600	23700	11000	3370	33600	22800	483	6090	7400	427	2470
9	1150	24900	14000	6090	1390	33600	17000	477	10500	5570	488	1920
10	734	25000	15300	10000	5100	33700	20300	471	6600	6900	805	1800
11	4460	24300	13200	12200	11700	33600	13500	470	8110	5020	918	1950
12	1290	17500	16100	9500	10900	33600	11000	473	10700	5640	495	714
13	5960	20200	11900	11300	13300	33600	1350	471	11000	7510	708	466
14	8620	16900	20600	5900	9180	33800	3430	471	5000	12000	450	2980
15	7810	24200	4520	7980	6380	33600	7790	527	2690	10800	5150	8720
16	7160	24600	9340	11000	4830	33600	17800	487	15900	15400	9480	11000
17	8980	21600	9100	13900	3930	33600	29800	837	20400	13200	4000	8180
18	9060	24100	12700	4230	844	33600	29900	669	30500	11700	3770	11000
19	2830	24800	15400	1730	8960	33600	30000	1480	30600	8860	574	9700
20	2660	24800	13300	2260	11000	33500	30300	1960	20100	11400	473	2120
21	3390	24900	4720	1870	17900	33500	31500	11300	10700	14700	481	590
22	7000	24900	571	3640	15400	33200	30900	17300	12500	2140	1290	1970
23	12700	24900	499	5240	4320	32200	25700	16000	14500	1440	1570	785
24	15500	21500	1010	4830	13200	33500	16300	7090	12200	4170	1890	962
25	11800	17900	728	2060	24500	33600	11600	767	7370	11000	7370	1960
26	3660	19200	1760	3110	29700	32300	1420	27000	3860	6750	8470	3830
27	5650	20300	922	9020	33000	29800	556	29900	1930	3190	5640	823
28	15600	22400	9860	15300	33200	29800	6680	30800	5590	7660	7220	485
29	15400	13500	11000	11400	---	32300	13000	31000	1310	1490	5790	1150
30	15200	21000	10500	7440	---	31800	11500	32000	7160	1030	782	1740
31	15200	---	9300	10400	---	28300	---	22600	---	689	988	---
MEAN	6940	18880	13870	6581	11870	32940	17840	8487	13420	7082	2362	3152
MAX	16700	25000	31600	15300	33200	33800	31500	32000	30600	15400	9480	11000
MIN	473	2850	499	764	844	28300	556	470	1310	689	399	466
IN.	.57	1.50	1.14	.54	.88	2.71	1.42	.70	1.07	.58	.19	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 1997[a], BY WATER YEAR (WY)

MEAN	7023	8622	8214	8089	9848	13600	15840	15770	15030	9542	4980	5825
MAX	67300	45270	45050	34700	34720	57300	70040	92260	78160	96780	26560	54540
(WY)	1987	1987	1993	1993	1949	1973	1973	1943	1935	1951	1993	1951
MIN	471	538	562	586	535	359	452	516	515	492	510	486
(WY)	1957	1957	1996	1940	1964	1931	1931	1956	1931	1931	1956	1954

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1931 - 1997[a]	
ANNUAL MEAN	8239		11940		10190	
HIGHEST ANNUAL MEAN					23360	1973
LOWEST ANNUAL MEAN					1046	1954
HIGHEST DAILY MEAN	35500	May 7	33800	Mar 14	212000	May 19 1943
LOWEST DAILY MEAN	381	Sep 18	399	Aug 7	235	Apr 23 1971
ANNUAL SEVEN-DAY MINIMUM	416	Apr 16	474	May 8	320	Mar 3 1931
INSTANTANEOUS PEAK FLOW	---		34000	Mar 14	220000	May 19 1943
INSTANTANEOUS PEAK STAGE	---		16.28	May 30	48.80	May 19 1943
INSTANTANEOUS LOW FLOW	---		350	Sep 13	183	Sep 9 1969
ANNUAL RUNOFF (INCHES)	8.01		11.58		9.89	
10 PERCENT EXCEEDS	24400		30900		29800	
50 PERCENT EXCEEDS	4010		9060		4020	
90 PERCENT EXCEEDS	458		709		506	

[a]Post-regulation period.

06926510 OSAGE RIVER BELOW ST. THOMAS, MO

LOCATION.--Lat 38°25'18", long 92°12'31", in NW 1/4 NW 1/4 sec.1, T.42 N., R.12 W., Cole County, Hydrologic Unit 10290111, on downstream bridge pier of State Highway B, 3.8 mi north of St. Thomas, and at mile 34.5.

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

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 and published as "Osage River near St. Thomas" (06926500).

GAGE.--Water-stage recorder. Datum of gage is 525.72 ft above sea level.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18700	14700	30400	6350	13300	38800	29800	13800	16800	9950	1120	1270
2	15100	11200	35400	1600	11400	37500	30300	15100	20800	11100	1040	2830
3	9490	6690	35500	1390	4700	36500	22200	8240	32900	13100	1010	10000
4	4240	3960	34800	2500	14500	35900	28300	5610	28800	13300	987	2730
5	1390	9780	35300	2250	12700	35500	24800	3200	26900	4800	948	1140
6	799	8830	29700	2930	10400	35200	18900	2080	24700	4010	653	1120
7	730	26100	25800	8480	15400	35200	14600	1380	23900	1860	512	2160
8	1830	32300	26200	9260	11800	35100	26700	1840	11400	3510	424	2030
9	1730	26400	22700	10800	3440	35400	21800	1440	8320	9430	456	3050
10	992	27900	17300	6890	2250	36300	22000	1220	9800	5730	545	2770
11	1460	27600	16400	13400	7870	35800	17300	1210	6900	7390	871	2340
12	4110	24800	19400	12600	13000	35500	18200	1050	10100	6360	1180	2500
13	2420	21000	15200	11200	13400	35900	21200	941	12900	6700	995	1400
14	5680	20500	22400	8050	12600	38700	22300	888	12400	10600	925	753
15	9430	20400	14500	6130	11900	36800	22700	843	5880	11800	864	4310
16	7850	26300	7130	10200	5270	35800	24000	846	7690	15200	7260	10300
17	7130	26700	11300	13400	5170	35500	36800	902	20100	15400	12100	12500
18	9720	25000	12600	12100	3730	35500	38700	1260	33100	14600	3860	9970
19	9160	27300	18000	3550	2320	36100	38200	1690	34700	11900	4080	12100
20	3790	28800	18300	2350	11500	35800	37300	2240	30900	10000	3220	10600
21	3390	28500	11400	2880	19600	35500	37300	4310	15100	15300	1390	2510
22	3820	27900	2910	3740	32100	35300	36800	16500	12300	12900	1030	1110
23	8360	27500	650	5070	25400	35200	35900	16900	18300	2890	1590	2240
24	14400	27300	471	6560	22400	35100	24200	17900	14500	2130	2120	1480
25	15900	22500	763	5360	31300	35700	20100	5480	13300	5810	3020	1200
26	12700	20200	608	3160	36700	36300	13600	18700	9030	12700	7950	2460
27	4690	22600	1860	7720	45200	32800	3990	34400	5000	7130	9960	4450
28	9050	22900	4230	18400	40400	31500	2170	35300	3260	3870	6250	1560
29	18800	20800	11900	17100	---	32700	10600	36000	7610	8780	9030	816
30	16700	18700	12500	12400	---	33500	13900	39700	2730	2240	5800	1190
31	16300	---	12400	7690	---	31900	---	39000	---	1480	1610	---
MEAN	7737	21840	16390	7597	15710	35430	23820	10640	16000	8451	2994	3830
MAX	18800	32300	35500	18400	45200	38800	38700	39700	34700	15400	12100	12500
MIN	730	3960	471	1390	2250	31500	2170	843	2730	1480	424	753

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 1997, BY WATER YEAR (WY)

MEAN	7737	21840	16390	7597	15710	35430	23820	10640	16000	8140	3970	4117
MAX	7737	21840	16390	7597	15710	35430	23820	10640	16000	8451	4946	4405
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1997	1997	1996	1996
MIN	7737	21840	16390	7597	15710	35430	23820	10640	16000	7829	2994	3830
(WY)	1997	1997	1997	1997	1997	1997	1997	1997	1997	1996	1997	1997

SUMMARY STATISTICS	FOR 1997 WATER YEAR		WATER YEARS 1996 - 1997	
ANNUAL MEAN	14170		14170	
HIGHEST ANNUAL MEAN			14170	1997
LOWEST ANNUAL MEAN			14170	1997
HIGHEST DAILY MEAN	45200	Feb 27	45200	Feb 27 1997
LOWEST DAILY MEAN	424	Aug 8	424	Aug 8 1997
ANNUAL SEVEN-DAY MINIMUM	630	Aug 5	630	Aug 5 1997
INSTANTANEOUS PEAK FLOW	46600	Feb 27	46600	Feb 27 1997
INSTANTANEOUS PEAK STAGE	15.94	Feb 27	15.94	Feb 27 1997
INSTANTANEOUS LOW FLOW	404	Aug 8	404	Aug 8 1997
10 PERCENT EXCEEDS	35300		33300	
50 PERCENT EXCEEDS	11300		8930	
90 PERCENT EXCEEDS	1210		1320	

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 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, and July 25 and Aug. 11, 1980; minimum daily, 0.0°C, Jan. 21, 1978.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV												
22...	1130	27800	195	7.83	11.5	4.2	9.0	81	40	K35	130	35
JAN												
21...	1015	2910	277	7.52	4.0	4.7	11.2	85	9	38	120	34
MAR												
20...	1015	35900	266	7.93	8.0	22	10.7	88	80	400	120	35
MAY												
12...	1045	1050	307	8.29	19.5	3.8	10.5	113	21	55	140	36
JUL												
28...	1155	3900	304	7.71	25.5	3.1	5.5	66	K19	20	130	38
SEP												
04...	1120	2720	298	7.06	23.5	3.9	5.5	64	145	140	130	36

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	ALKA-LINITY WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)	BICAR-BONATE WATER DIS IT FIELD (mg/L as HCO_3) (00453)	CAR-BONATE WATER DIS IT FIELD (mg/L as CO_3) (00452)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SILICA, DIS-SOLVED (mg/L as SiO_2) (00955)	SOLIDS RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)
NOV											
22...	9.4	5.6	3.5	111	133	0	19	5.9	0.2	3.8	158
JAN											
21...	9.3	5.0	3.8	107	127	0	19	6.8	0.1	7.0	162
MAR											
20...	8.1	6.1	3.3	114	140	0	23	7.2	0.2	4.4	159
MAY											
12...	13	5.0	2.9	137	170	0	19	6.8	0.1	1.3	181
JUL											
28...	9.3	5.8	3.1	110	134	0	24	6.5	0.1	4.3	175
SEP											
04...	10	5.9	3.0	107	132	0	22	6.3	0.1	3.7	173

K--Results based on colony count outside the acceptable range (non-ideal colony count).

06926510 OSAGE RIVER BELOW ST. THOMAS, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (mg/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L as N) (00613)	NITRO-GEN, NO_2+NO_3 DIS-SOLVED (mg/L as N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L as N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS DIS-SOLVED (mg/L as P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (mg/L as P) (00671)	ALUM-INUM, DIS-SOLVED (µg/L as AL) (01106)
NOV											
22...	149	0.21	11900	<0.010	0.30	0.015	0.41	<0.02	<0.02	0.02	<5.0
JAN											
21...	151	0.22	1270	<0.010	0.54	<0.010	0.46	0.04	0.03	<0.01	187
MAR											
20...	159	0.22	15400	0.015	0.45	0.086	0.70	0.04	<0.02	0.02	206
MAY											
12...	169	0.25	513	0.012	0.06	0.044	0.56	<0.02	0.06	0.08	24.7
JUL											
28...	158	0.24	1840	0.013	0.11	0.040	0.34	<0.02	<0.02	0.02	--
SEP											
04...	154	0.24	1270	<0.010	0.10	0.120	0.43	<0.02	<0.02	0.03	7.4

DATE	BARIUM, DIS-SOLVED (µg/L as Ba) (01005)	COBALT, DIS-SOLVED (µg/L as Co) (01035)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LITHIUM DIS-SOLVED (µg/L as Li) (01130)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MOLYB-DENUM, DIS-SOLVED (µg/L as Mo) (01060)	NICKEL, DIS-SOLVED (µg/L as Ni) (01065)	SELE-NIUM, DIS-SOLVED (µg/L as Se) (01145)	SILVER, DIS-SOLVED (µg/L as Ag) (01075)	STRON-TIUM, DIS-SOLVED (µg/L as Sr) (01080)	VANA-DIUM, DIS-SOLVED (µg/L as V) (01085)
NOV											
22...	64	<3	<3	<4	4	<10	<1	<1	<1	110	<6
JAN											
21...	64	<3	310	<4	27	<10	1	<1	<1	98	<6
MAR											
20...	56	<3	130	<4	5	<10	1	<1	<1	110	<6
MAY											
12...	71	<3	21	<4	5	<10	<1	<1	<1	94	<6
SEP											
04...	62	<3	7	<4	87	<10	<1	<1	<1	120	<6

06928440 ROUBIDOUX SPRING AT WAYNESVILLE, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°49'30", long 92°11'53", NE 1/4 NW 1/4 sec.25 T.36 N., R.12 W., Pulaski County, Hydrologic Unit 10290201. Take Business Loop 44 through Waynesville, turn south along river and follow up to spring.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
18...	1230	146	13.0	283	7.83	8.6	82	--	180	47	137
JAN											
16...	1230	75	10.5	343	7.63	10.3	91	<10	200	K2	171
MAR											
17...	1615	176	10.5	224	7.22	9.0	80	--	120	140	105
APR											
02...	1345	165	11.5	271	7.72	8.9	80	--	K8	K12	132
JUN											
09...	1335	86	15.0	311	7.51	8.2	81	7	30	54	154
AUG											
22...	1055	57	16.0	395	7.18	5.9	59	--	300	400	191

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN,AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)
NOV										
18...	167	0	0.68	<0.01	0.02	<0.20	<0.02	0.01	--	--
JAN										
16...	210	0	0.25	<0.01	<0.01	<0.20	<0.02	<0.01	170	35
MAR										
17...	126	0	0.46	<0.01	<0.01	0.40	<0.02	0.01	--	--
APR										
02...	163	0	0.25	<0.01	<0.01	<0.20	0.03	0.01	--	--
JUN										
09...	191	0	0.25	<0.01	<0.01	0.28	<0.02	<0.01	170	34
AUG										
22...	234	0	0.39	<0.01	0.01	<0.20	<0.02	0.01	--	--

DATE	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)
JAN										
16...	21	2.7	1.3	7.9	14	<0.1	188	<1	30	5
JUN										
09...	20	2.0	1.4	6.7	3.7	<0.1	172	3	60	9

DATE	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)	COPPER, DISSOLVED (µg/L as Cu) (01040)	IRON, DISSOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	LEAD, DISSOLVED (µg/L as Pb) (01049)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOVERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)	ZINC, DISSOLVED (µg/L as Zn) (01090)
JAN										
16...	<1	<1	<1	9	1	<1	0.80	<0.1	4	<1
JUN										
09...	<1	<1	<1	5	<1	<1	1.2	<0.1	<1	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).

06929315 PADDY CREEK ABOVE SLABTOWN SPRING, MO

LOCATION.--Lat 37°33'29", long 92°02'55", in SE 1/4 NE 1/4 NE 1/4 sec.20, T.33 N., R.10 W., Texas County, Hydrologic Unit 10290202, on the right bank 75 ft upstream from a concrete ford on a county road, 1 mi upstream from Big Piney River, and 12 mi west of Licking.

DRAINAGE AREA.--34.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 22, 1993 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 900 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Water-discharge records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.3	15	146	5.0	16	86	15	7.4	36	12	1.3	1.5
2	5.8	9.8	90	5.2	14	103	14	8.5	19	8.8	1.2	1.5
3	4.8	7.1	61	5.6	19	68	13	9.6	13	7.1	1.1	1.5
4	4.1	5.8	46	6.0	70	52	13	9.0	9.6	7.8	1.1	1.4
5	3.4	5.2	46	5.7	46	41	90	9.0	7.2	5.9	1.0	1.3
6	3.1	7.7	45	5.2	33	31	82	8.9	6.5	4.9	1.0	1.2
7	2.7	743	39	4.7	25	26	49	8.3	5.3	4.4	.97	1.2
8	2.9	145	31	4.6	20	22	37	8.8	4.7	3.9	1.1	1.5
9	2.7	69	26	5.2	16	26	28	7.8	4.1	3.7	1.2	1.6
10	2.6	45	24	4.6	15	32	24	6.8	4.0	3.5	1.1	1.5
11	2.4	32	22	4.2	13	30	22	6.4	4.2	3.6	1.2	1.5
12	2.3	23	19	3.7	12	25	20	6.3	3.8	3.1	1.9	1.5
13	1.9	18	15	3.1	11	136	17	6.0	16	2.7	3.3	1.5
14	1.8	14	14	3.1	9.9	145	15	6.4	63	2.5	5.0	1.5
15	1.8	11	12	3.7	8.9	70	13	5.9	26	2.4	4.9	1.4
16	2.1	9.9	11	3.3	8.0	50	12	5.3	17	2.1	3.0	1.3
17	2.3	33	10	3.1	7.3	43	11	5.2	44	2.0	2.7	1.5
18	2.1	40	8.7	2.8	6.7	38	10	4.8	54	2.0	2.6	1.4
19	2.0	30	7.5	2.5	6.6	33	11	4.6	31	1.8	3.6	1.4
20	1.9	24	6.7	2.3	26	30	11	4.4	20	1.6	6.0	3.1
21	13	19	6.6	3.4	174	27	13	3.8	15	1.5	4.4	3.4
22	25	13	6.6	15	87	24	11	3.2	11	1.5	3.5	2.6
23	31	11	6.9	27	50	20	11	4.1	8.5	1.5	2.9	4.5
24	20	66	6.3	24	36	18	9.9	4.4	7.0	1.5	2.4	8.1
25	13	233	5.4	25	28	27	9.1	3.6	5.7	1.4	2.0	5.5
26	8.5	101	5.6	21	491	37	8.6	3.1	5.2	1.3	2.0	4.1
27	73	60	5.5	26	255	32	9.3	3.3	8.2	1.2	1.9	3.3
28	96	48	5.8	31	99	30	9.0	3.1	46	1.2	1.7	2.7
29	47	99	5.3	25	---	25	8.3	2.9	48	1.4	1.6	2.5
30	30	195	5.2	21	---	21	7.6	73	20	1.3	1.6	2.1
31	20	---	5.2	18	---	17	---	86	---	1.3	1.5	---
MEAN	14.1	71.1	24.0	10.3	57.3	44.0	20.1	10.6	18.8	3.25	2.28	2.30
MAX	96	743	146	31	491	145	90	86	63	12	6.0	8.1
MIN	1.8	5.2	5.2	2.3	6.6	17	7.6	2.9	3.8	1.2	.97	1.2

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1997, BY WATER YEAR (WY)

MEAN	5.82	49.6	12.1	14.6	21.3	25.4	85.0	54.5	12.7	4.41	1.47	32.3
MAX	14.1	117	24.0	32.3	57.3	44.0	138	88.6	18.8	13.6	2.28	139
(WY)	1997	1994	1997	1995	1997	1997	1994	1996	1997	1995	1997	1993
MIN	1.08	1.27	3.49	5.91	2.81	5.41	20.1	10.6	4.30	.98	1.02	.65
(WY)	1996	1996	1995	1994	1996	1996	1997	1997	1996	1996	1993	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1993 - 1997	
ANNUAL MEAN	27.1		22.8		24.3	
HIGHEST ANNUAL MEAN					32.8	1994
LOWEST ANNUAL MEAN					18.7	1996
HIGHEST DAILY MEAN	930	Apr 22	743	Nov 7	2320	Nov 14 1993
LOWEST DAILY MEAN	.41	Aug 17	.97	Aug 7	.41	Aug 17 1996
ANNUAL SEVEN-DAY MINIMUM	.51	Aug 11	1.1	Aug 2	.51	Aug 11 1996
INSTANTANEOUS PEAK FLOW	---		1760	Feb 26	8610	Nov 14 1993
INSTANTANEOUS PEAK STAGE	---		4.65	Feb 26	9.90	Nov 14 1993
INSTANTANEOUS LOW FLOW	---		.86	Aug 2-10	.22	Sep 19 1993
10 PERCENT EXCEEDS	66		48		48	
50 PERCENT EXCEEDS	4.8		7.8		4.3	
90 PERCENT EXCEEDS	.83		1.5		1.0	

06929315 PADDY CREEK ABOVE SLABTOWN SPRING, MO--Continued
(National water-quality assessment station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1993 to February 1997.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH, WATER WHOLE, FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	E. COLI, WATER WHOLE, TOTAL UREASE (COLS./ 100 mL) (31633)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY, WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)	BICAR-BONATE WATER DIS IT FIELD (mg/L as HCO_3) (00453)
NOV												
12...	1300	23	7.0	179	8.0	11.2	91	K13	K8	28	88	107
FEB												
12...	1200	12	3.0	195	7.9	13.1	96	K1	K2	K1	106	130

DATE	CAR-BONATE, WATER DIS IT FIELD (mg/L as CO_3) (00452)	NITRO-GEN, NO_2+NO_3 DIS-SOLVED (mg/L as N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L as N) (00613)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L as N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (mg/L as N) (00623)	PHOS-PHORUS, TOTAL (mg/L as P) (00665)	PHOS-PHORUS, DIS-SOLVED (mg/L as P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (mg/L as P) (00671)	HARD-NESS, TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM, DIS-SOLVED (mg/L as Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)
NOV												
12...	0	<0.05	<0.01	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	86	18	10
FEB												
12...	0	<0.05	<0.01	<0.015	<0.2	<0.2	<0.01	<0.01	<0.01	100	21	12

DATE	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SILICA, DIS-SOLVED (mg/L as SiO_2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	SEDI-MENT, SUS-PENDED (mg/L) (80154)	CARBON, ORGANIC DIS-SOLVED (mg/L as C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (mg/L as C) (00689)
NOV										
12...	1.1	0.9	4.3	1.4	<0.1	7.7	96	22	1.8	0.2
FEB										
12...	1.2	0.7	4.9	1.4	<0.1	6.3	102	17	1.2	0.2

K--Results based on colony count outside the acceptable range (non-ideal colony count).

06930400 SHANGHAI SPRING NEAR WAYNESVILLE, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°45'54", long 92°01'00", in sec.24, T.36 N, R.11 W., Pulaski County, Hydrologic Unit 10290202. Take exit 163 south outer road east toward Devil's Elbow, turn right on first gravel road, continue about 5 mi until you reach a wooden bridge.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAl (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
18...	1500	66	14.0	303	7.03	6.50	62	--	50	196	126
JAN											
23...	1600	52	13.5	451	7.13	4.90	47	16	39	130	163
MAR											
19...	1630	84	12.5	246	7.24	8.80	80	--	K14	87	110
APR											
01...	1520	41	13.0	289	7.12	7.50	69	--	25	37	132
JUN											
05...	1515	42	14.0	361	7.16	6.30	61	7	130	380	178
AUG											
22...	1240	29	15.5	346	7.03	8.10	80	--	K320	420	148

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
18...	154	0	1.70	<0.01	0.01	<0.20	0.11	0.11	--	--
JAN										
23...	199	0	2.10	0.02	0.04	0.26	0.18	0.17	200	42
MAR										
19...	134	0	0.91	<0.01	<0.01	0.34	0.04	0.05	--	--
APR										
01...	162	0	1.30	<0.01	0.01	<0.20	0.11	0.08	--	--
JUN										
05...	217	0	E0.95	<0.01	E0.01	<0.20	E0.06	E0.07	170	35
AUG										
22...	180	0	1.40	0.01	0.01	<0.20	0.11	0.14	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
23...	23	13	2.0	9.3	37	0.2	272	4	130	3.1
JUN										
05...	20	5.9	1.6	7.5	7.1	<0.1	222	3	270	4.5

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
23...	<1	<1	<1	8	<1	<1	2.5	<0.1	4	3.3
JUN										
05...	<1	<1	<1	3	1	<1	0.7	0.1	5	2.5

K--Results based on colony count outside the acceptable range (non-ideal colony count).
E--Laboratory estimated value.

06930450 BIG PINEY RIVER AT DEVIL'S ELBOW, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°50'53", long 92°03'44, in SE 1/4 NE 1/4 sec.18, T.36 N., R.10 W., Pulaski County, Hydrologic Unit 1929020, at bridge on County Highway V at Devil's Elbow.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAl (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
27...	1015	4200	5.5	185	7.60	11.4	89	--	2100	2000	81
JAN											
24...	1315	1480	6.5	324	8.02	10.9	89	<10	40	820	163
MAR											
17...	1400	2340	9.5	218	7.54	11.2	96	--	110	980	107
APR											
01...	1245	1030	12.5	257	8.11	9.7	89	--	44	580	124
JUN											
23...	1300	270	23.5	260	7.90	7.6	87	9	46	K17	126
AUG											
25...	0945	315	23.0	332	7.91	8.7	100	--	210	580	171

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
27...	98	0	0.62	0.01	0.02	0.47	0.03	0.05	--	--
JAN										
24...	199	0	0.56	<0.01	0.04	0.25	<0.02	<0.01	170	35
MAR										
17...	129	0	0.47	<0.01	<0.01	0.32	0.02	<0.01	--	--
APR										
01...	152	0	0.13	<0.01	<0.01	<0.20	0.02	<0.01	--	--
JUN										
23...	157	0	0.24	<0.01	0.03	0.22	<0.02	0.02	130	26
AUG										
25...	210	0	0.20	<0.01	0.01	<0.20	<0.02	0.01	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
24...	20	14	6.2	6.6	7.1	<0.1	176	6	150	<3.0
JUN										
23...	15	2.3	1.4	4.5	2.8	<0.1	148	16	230	31

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
24...	<1	<1	2.4	8.0	3	<1	6.9	<0.1	20	12
JUN										
23...	<1	<1	<1.0	30	<1	<1	10	<0.1	<1	<1.0

K--Results based on colony count outside the acceptable range (non-ideal colony count).

06930800 GASCONADE RIVER ABOVE JEROME, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°55'12", long 91°58'33", in NE 1/4 sec.24, T.37 N., R.10 W., Phelps County, Hydrologic Unit 10290203, at bridge on State Highway D at Jerome, 150 ft upstream from Little Piney Creek, and 0.7 mi upstream from gaging station.

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

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

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

REMARKS.--National stream-quality accounting network station January 1978 to September 1993. Ambient water-quality monitoring network station November 1993 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 588 microsiemens per centimeter, Sept. 23, 1981; minimum, 132 microsiemens per centimeter, November 8, 1996.
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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
OCT										
11...	1100	1210	14.0	318	7.89	7.5	72	K600	21	151
NOV										
08...	1130	29300	12.0	132	7.55	8.5	78	7400	15600	61
DEC										
13...	1000	3280	8.5	270	7.86	9.5	80	32	23	132
JAN										
24...	0930	3460	6.0	331	7.97	10.2	83	23	78	161
FEB										
14...	0930	2710	5.5	326	7.87	11.3	88	80	K8	150
MAR										
21...	0900	5970	11.5	248	7.73	9.8	89	210	21	128
APR										
04...	0815	2860	15.0	291	8.08	9.1	90	K10	K12	142
MAY										
16...	1045	1550	17.0	333	7.90	8.2	84	K1	K3	167
JUN										
06...	0815	2340	19.0	300	7.92	7.6	82	K82	53	148
JUL										
29...	0855	704	26.5	537	7.97	6.7	82	35	36	166
AUG										
15...	0920	704	24.0	337	8.10	8.2	97	37	28	169
SEP										
05...	1245	613	21.0	329	7.53	8.9	99	21	K22	165

K--Results based on colony count outside the acceptable range (non-ideal colony count).

06930800 GASCONADE RIVER ABOVE JEROME, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)
OCT										
11...	185	0	0.78	<0.01	0.02	<0.20	0.02	0.02	--	--
NOV										
08...	74	0	0.23	0.01	0.05	1.20	0.21	0.09	63	13
DEC										
13...	161	0	0.84	<0.01	0.01	<0.20	0.03	0.02	--	--
JAN										
24...	196	0	0.51	<0.01	0.02	<0.20	0.02	<0.01	170	34
FEB										
14...	183	0	0.66	<0.01	0.01	0.24	0.02	<0.01	--	--
MAR										
21...	156	0	0.62	<0.01	0.03	0.34	<0.02	0.01	--	--
APR										
04...	173	0	0.10	<0.01	0.01	<0.20	0.03	0.03	--	--
MAY										
16...	204	0	0.06	<0.01	0.04	<0.20	<0.02	<0.01	--	--
JUN										
06...	181	0	E0.43	E0.01	E0.04	E0.37	E0.02	E0.02	150	30
JUL										
29...	202	0	0.25	<0.01	0.04	<0.20	0.02	0.02	--	--
AUG										
15...	206	0	0.26	<0.01	0.02	<0.20	0.03	0.02	170	34
SEP										
05...	202	0	0.17	<0.01	0.02	<0.20	<0.02	0.01	--	--

DATE	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)	IRON, DISSOLVED (µg/L as Fe) (01046)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)
NOV										
08...	7.4	1.4	2.5	4.2	2.6	<0.1	84	15.0	51	5
JAN										
24...	20	3.1	1.5	6.8	6.3	<0.1	184	154	160	21
JUN										
06...	17	2.3	1.6	5.1	3.6	<0.1	172	14.7	8	24
AUG										
15...	21	2.7	1.2	4.4	5.5	<0.1	182	11.5	<3	6

DATE	BARIUM, DISSOLVED (µg/L as Ba) (01005)	COBALT, DISSOLVED (µg/L as Co) (01035)	LITHIUM DISSOLVED (µg/L as Li) (01130)	MOLYBDENUM, DISSOLVED (µg/L as Mo) (01060)	NICKEL, DISSOLVED (µg/L as Ni) (01065)	SELENIUM, DISSOLVED (µg/L as Se) (01145)	SILVER, DISSOLVED (µg/L as Ag) (01075)	STRONTIUM, DISSOLVED (µg/L as Sr) (01080)	VANADIUM, DISSOLVED (µg/L as V) (01085)
NOV									
08...	28	<3	<4	<10	1	<1	<1	16	<6
JAN									
24...	45	<3	<4	<10	<1	<1	<1	38	<6
JUN									
06...	48	<3	<4	<10	<1	<1	<1	34	<6
AUG									
15...	50	<3	<4	<10	<1	<1	<1	39	<6

E--Laboratory estimated value.

06932000 LITTLE PINEY CREEK AT NEWBURG, MO

LOCATION.--Lat 37°54'35", long 91°54'12", in SW 1/4 SE 1/4 sec.22, T.37 N., R.9 W., Phelps County, Hydrologic Unit 10290203, on left bank at downstream side of bridge on State Highway P and T at Newburg, and 2 mi upstream from Mill Creek.

DRAINAGE AREA.--199 mi^2, approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 693.40 ft above sea level. 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.--Estimated daily discharges: Nov. 3-12, Jan. 11-14, and 18. Records fair except for estimated daily discharges Nov. 6-12, which are poor. Several observations of water temperature were made during the year. U.S.G.S satellite telemeter at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135	131	597	140	283	701	249	176	261	149	77	82
2	122	120	478	141	259	732	237	181	212	142	78	80
3	112	115	399	141	305	542	227	203	183	135	79	79
4	106	110	345	141	409	460	233	186	165	133	78	77
5	101	105	349	138	338	403	284	180	152	127	76	77
6	97	120	324	134	299	361	297	175	144	124	76	77
7	94	1500	296	131	277	330	264	171	137	120	76	77
8	93	1000	268	132	258	305	249	210	130	116	79	81
9	92	500	246	140	242	462	233	192	125	114	82	80
10	89	350	234	134	232	453	224	179	121	111	79	78
11	86	315	223	129	223	380	229	175	118	105	78	76
12	86	285	210	127	214	334	227	173	119	102	83	75
13	85	241	195	125	205	1180	217	168	534	99	92	75
14	84	213	186	125	200	1110	209	166	672	96	94	75
15	83	191	180	131	191	575	203	161	289	94	91	75
16	84	178	172	126	186	466	198	156	265	92	82	75
17	86	311	168	131	177	416	192	441	435	91	87	85
18	86	262	162	129	175	468	191	751	862	90	82	78
19	83	227	155	127	173	532	191	193	381	89	435	75
20	82	203	149	132	272	445	193	158	290	91	190	76
21	89	188	148	191	568	403	203	143	242	89	128	75
22	109	171	149	245	448	361	196	134	256	89	109	75
23	111	162	175	214	360	329	193	130	213	88	99	86
24	101	340	163	232	312	307	189	129	188	85	93	87
25	97	1060	149	220	281	403	184	128	178	84	89	81
26	95	572	148	200	2160	388	180	130	173	87	86	78
27	130	412	146	1590	2220	350	183	134	165	87	85	76
28	233	364	146	569	721	333	180	125	184	87	84	76
29	189	511	142	394	---	305	176	120	183	85	83	75
30	164	748	140	332	---	286	176	276	161	82	82	74
31	142	---	137	307	---	265	---	385	---	78	84	---
MEAN	108	367	225	231	428	464	214	201	251	102	101	77.9
MAX	233	1500	597	1590	2220	1180	297	751	862	149	435	87
MIN	82	105	137	125	173	265	176	120	118	78	76	74
IN.	.62	2.05	1.30	1.33	2.23	2.68	1.19	1.16	1.40	.59	.58	.43

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1997, BY WATER YEAR (WY)

MEAN	99.1	143	155	153	178	233	271	268	204	100	82.0	88.4
MAX	913	694	1300	770	678	822	1335	871	1545	525	493	706
(WY)	1950	1994	1983	1950	1985	1945	1945	1957	1935	1951	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1929 - 1997	
ANNUAL MEAN	201		229		164	
HIGHEST ANNUAL MEAN					391	1985
LOWEST ANNUAL MEAN					47.0	1954
HIGHEST DAILY MEAN	3150	Apr 29	2220	Feb 27	19600	Dec 3 1982
LOWEST DAILY MEAN	70	Aug 16,17	74	Sep 30	24	1936,1954,1956
ANNUAL SEVEN-DAY MINIMUM	77	Aug 11	76	Sep 10	24	Aug 22 1936
INSTANTANEOUS PEAK FLOW	---		6450	May 18	32500	Aug 14 1946
INSTANTANEOUS PEAK STAGE	---		10.20	May 18	16.60	Jun 17 1985
INSTANTANEOUS LOW FLOW	---		74	Sep 30	24	Several Years
ANNUAL RUNOFF (INCHES)	13.65		15.56		11.14	
10 PERCENT EXCEEDS	369		424		291	
50 PERCENT EXCEEDS	109		166		87	
90 PERCENT EXCEEDS	83		81		43	

06933500 GASCONADE RIVER AT JEROME, MO

LOCATION.--Lat 37°55'47", long 91°58'38", in NE 1/4 NE 1/4 SE 1/4 sec.13, T.37 N., R.10 W., Phelps County, Hydrologic Unit 10290203, on left bank at Jerome, 0.5 mi downstream from Little Piney Creek, and at mile 107.

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

PERIOD OF RECORD.--April 1903 to July 1906, published as "at Arlington", January 1923 to current year. 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 sea level. 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.--Estimated daily discharges: Oct. 6-28, Nov. 16, Dec. 28 to Jan. 14, and Jan. 28-30. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. National Weather Service gage height and U.S.G.S. satellite telemeters at station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4090	2680	17300	1700	3680	23400	3470	2040	6830	1950	670	674
2	3210	2320	18800	1650	3380	13100	3200	2000	5550	1650	675	661
3	2630	2080	13400	1600	3220	10900	2980	2040	3950	1470	661	650
4	2320	1920	9320	1550	3800	9250	2870	1960	3160	1350	646	637
5	2060	1810	7410	1500	5240	7560	2990	1960	2650	1250	632	621
6	1840	2130	6460	1450	5840	6350	4810	2050	2310	1170	617	609
7	1660	14000	6020	1400	5270	5480	7650	1970	2180	1100	604	601
8	1530	29000	5400	1350	4530	4830	6440	2060	1930	1050	597	613
9	1400	29700	4730	1320	4010	4820	4950	1980	1780	1010	604	648
10	1300	24100	4210	1300	3630	5290	4170	1870	1670	959	601	650
11	1210	8510	3840	1400	3310	6400	3760	1810	1560	922	598	641
12	1150	6160	3530	1350	3070	6460	3520	1770	1500	892	605	628
13	1090	4970	3260	1320	2870	7600	3360	1700	1860	876	612	618
14	1040	4160	3030	1300	2720	13000	3170	1660	4120	869	643	607
15	998	3610	2860	1280	2570	16000	2950	1600	4300	853	697	593
16	970	3800	2700	1290	2440	12200	2760	1540	3800	832	669	582
17	970	3720	2570	1220	2300	8400	2580	1540	3540	810	675	638
18	950	4320	2460	1210	2190	7060	2450	2250	4960	785	663	623
19	931	6960	2360	1160	2100	6950	2360	1560	4010	767	1910	596
20	923	6100	2250	1220	2300	6670	2300	1450	3600	767	1900	594
21	1050	4870	2140	1400	4640	5910	2360	1370	3110	796	1470	605
22	1130	4060	2060	1750	12200	5240	2390	1320	2690	758	1250	609
23	1240	3520	2030	2310	14600	4660	2600	1270	2330	734	1100	647
24	1280	3410	2000	3620	9910	4200	2660	1250	2030	782	943	703
25	1300	6510	2130	4230	6870	4400	2540	1240	1830	760	853	704
26	1300	14000	2210	4020	8830	5600	2380	1320	1730	729	799	713
27	1370	16200	2090	9000	21100	5930	2300	1380	1620	706	761	721
28	2570	10800	1950	8000	29700	5390	2220	1320	1670	712	731	716
29	4490	8330	1900	6500	---	4750	2150	1240	1850	698	711	703
30	4040	11700	1800	4800	---	4270	2090	1640	2320	679	694	692
31	3200	---	1750	4060	---	3810	---	3080	---	658	684	---
MEAN	1782	8182	4644	2492	6297	7609	3214	1717	2881	947	815	643
MAX	4490	29700	18800	9000	29700	23400	7650	3080	6830	1950	1910	721
MIN	923	1810	1750	1160	2100	3810	2090	1240	1500	658	597	582
IN.	.72	3.22	1.89	1.01	2.31	3.09	1.26	.70	1.13	.38	.33	.25

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

MEAN	1412	2413	2540	2463	2967	4006	4693	4410	3099	1549	1187	1304
MAX	10390	10400	17740	10980	11540	13110	20450	15390	18500	10730	9244	12580
(WY)	1950	1994	1983	1950	1985	1945	1945	1990	1935	1951	1927	1993
MIN	289	368	392	368	491	597	504	668	518	339	324	293
(WY)	1957	1957	1956	1956	1964	1956	1956	1932	1934	1934	1936	1956

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	3314		3409		2659	
HIGHEST ANNUAL MEAN					6491	1985
LOWEST ANNUAL MEAN					544	1954
HIGHEST DAILY MEAN	29700	Nov 9	29700	Nov 9,Feb 28	121000	Dec 5 1982
LOWEST DAILY MEAN	558	Sep 14	582	Sep 16	259	Sep 21 1956
ANNUAL SEVEN-DAY MINIMUM	582	Sep 9	603	Aug 7	266	Sep 16 1956
INSTANTANEOUS PEAK FLOW	---		33100	Nov 8,9	136000	Dec 5 1982
INSTANTANEOUS PEAK STAGE	---		15.92	Nov 8,9	31.34	Dec 5 1982
INSTANTANEOUS LOW FLOW	---		573	Sep 16	254	Sep 21 1956
ANNUAL RUNOFF (INCHES)	15.89		16.30		12.72	
10 PERCENT EXCEEDS	8530		6950		5570	
50 PERCENT EXCEEDS	1370		2040		1270	
90 PERCENT EXCEEDS	685		667		525	

06934000 GASCONADE RIVER NEAR RICH FOUNTAIN, MO

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

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

PERIOD OF RECORD.--Nov. 1, 1921 to Sept. 30, 1959, Oct. 1, 1986 to current year. From 1959 to 1986 annual peaks only.

GAGE.--Water-stage recorder. Datum of gage 553.70 ft above sea level. 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. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5040	3180	15600	2010	4390	29500	3890	2150	4700	2490	778	817
2	3800	2720	19700	1960	3980	24100	3570	2100	6770	2140	798	784
3	3120	2390	19100	1920	3730	13000	3320	2110	5010	1860	801	755
4	2670	2150	12500	1890	4630	10600	3150	2120	3810	1870	779	732
5	2340	1980	8940	1840	4690	8710	3250	2040	3180	1640	748	709
6	2090	3860	7360	1800	5840	7230	3590	2050	2780	1500	725	698
7	1880	18500	6580	1740	5980	6220	6020	2110	2500	1400	712	687
8	1730	22500	6030	1690	5240	5490	7490	2330	2380	1330	705	706
9	1600	29000	5360	1690	4580	5280	5840	2370	2130	1510	710	713
10	1490	30800	4760	1680	4110	6070	4750	2160	1970	1420	714	716
11	1380	21500	4300	1640	3750	6030	4140	2030	1860	1200	708	711
12	1290	7820	3940	3090	3460	6890	3810	1960	1750	1140	744	693
13	1220	5910	3640	3270	3230	7880	3560	1910	2370	1100	781	677
14	1150	4850	3370	2420	3050	13000	3400	1850	3190	1070	783	665
15	1100	4140	3160	2670	2900	16200	3220	1800	4370	1050	993	657
16	1050	3670	2980	2380	2760	16700	3020	1740	4540	1020	884	649
17	1030	4480	2820	2030	2640	11400	2830	1700	5190	992	863	717
18	1010	4550	2690	1740	2510	8450	2680	2850	6470	965	854	711
19	980	5480	2560	2120	2400	7960	2570	2340	5000	932	1930	687
20	941	7340	2450	2260	2460	7550	2480	1800	4060	908	3320	658
21	979	5830	2330	2470	4870	6860	2490	1630	3600	918	2200	652
22	1150	4790	2240	3110	8320	6000	2500	1510	8110	938	1740	665
23	1380	4080	2190	2640	14100	5300	2550	1440	3590	901	1500	699
24	1490	3670	2200	3110	14300	4760	2680	1380	2710	867	1320	730
25	1550	5230	2140	4570	8800	4610	2690	1400	3340	911	1150	789
26	1570	10200	2360	4540	9880	5370	2560	2740	4720	894	1040	785
27	1600	16500	2330	9810	19600	6130	2450	1850	2600	857	966	798
28	2270	15800	2240	12300	24200	6010	2380	1790	2150	831	911	803
29	3380	10600	2190	7440	---	5350	2300	1630	2090	827	867	789
30	4530	11600	2120	5750	---	4760	2210	2970	2170	809	834	774
31	3860	---	2060	4880	---	4300	---	3420	---	789	817	---
MEAN	1957	9171	5234	3305	6443	8958	3380	2041	3637	1196	1054	721
MAX	5040	30800	19700	12300	24200	29500	7490	3420	8110	2490	3320	817
MIN	941	1980	2060	1640	2400	4300	2210	1380	1750	789	705	649
IN.	.71	3.22	1.90	1.20	2.11	3.25	1.19	.74	1.28	.43	.38	.25

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

MEAN	1716	2619	2588	2940	3218	4473	5744	5412	3908	1822	1381	1465
MAX	12060	12230	12750	12700	7637	14640	22720	18300	19810	12630	9365	15330
(WY)	1950	1994	1988	1950	1949	1945	1945	1990	1935	1951	1927	1993
MIN	288	395	403	374	558	620	531	717	647	385	334	295
(WY)	1957	1957	1956	1956	1954	1956	1956	1932	1934	1954	1936	1954

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	3786		3901		3104	
HIGHEST ANNUAL MEAN					6560	1927
LOWEST ANNUAL MEAN					629	1954
HIGHEST DAILY MEAN	33600	Apr 29	30800	Nov 10	101000	Sep 28 1993
LOWEST DAILY MEAN	605	Sep 15	649	Sep 16	275	Sep 19 1954
ANNUAL SEVEN-DAY MINIMUM	635	Sep 10	676	Sep 15	279	Oct 6 1956
INSTANTANEOUS PEAK FLOW	---		32200	Nov 10	134000	Dec 6 1982
INSTANTANEOUS PEAK STAGE	---		17.60	Nov 10	33.27	Dec 6 1982
INSTANTANEOUS LOW FLOW	---		643	Sep 16	275	Sep 19 1954
ANNUAL RUNOFF (INCHES)	16.21		16.66		13.26	
10 PERCENT EXCEEDS	9230		7910		6620	
50 PERCENT EXCEEDS	1610		2390		1520	
90 PERCENT EXCEEDS	784		785		572	

06934500 MISSOURI RIVER AT HERMANN, MO

LOCATION.--Lat 38°42'36", long 91°26'21", in SW 1/4 sec.25, T.46 N., R.5 W., Montgomery County, Hydrologic Unit 10300200, on downstream side of third pier from right abutment of bridge on State Highway 19 at Hermann, and at mile 97.9.

DRAINAGE AREA.--524,200 mi^2, approximately.

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.

GAGE.--Water-stage recorder and nonrecording gage. Datum of gage is 481.56 ft above sea level. 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 892,000 ft^3/s, computed by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122000	113000	153000	62000	67100	246000	123000	153000	206000	148000	89000	89300
2	118000	117000	176000	57400	72800	229000	122000	153000	183000	146000	87600	88600
3	106000	111000	187000	54000	69800	210000	120000	167000	187000	141000	86400	90700
4	98300	102000	178000	53300	70300	185000	118000	176000	180000	139000	85700	93800
5	91300	99200	164000	54300	83000	167000	127000	176000	171000	130000	85200	90900
6	87600	101000	151000	54600	87200	155000	129000	171000	163000	120000	84200	99500
7	85400	128000	138000	55200	91500	145000	130000	160000	159000	113000	83000	101000
8	84200	162000	131000	61000	93200	137000	143000	149000	153000	107000	82100	96100
9	85200	144000	126000	65800	83400	132000	154000	145000	139000	107000	81300	92100
10	86600	140000	115000	67600	72900	137000	148000	152000	136000	107000	80700	90300
11	85100	138000	110000	65700	68200	137000	151000	163000	131000	104000	80500	88700
12	84100	131000	104000	67300	73000	141000	201000	158000	128000	102000	81000	87300
13	85000	111000	102000	62700	75300	140000	276000	147000	130000	101000	82600	87300
14	82800	109000	96400	59200	75100	155000	297000	138000	142000	101000	82500	87000
15	86500	106000	98800	55700	72300	153000	302000	133000	143000	103000	86100	87500
16	87400	110000	88400	52400	70600	150000	293000	131000	133000	102000	92800	91900
17	85700	115000	83400	53200	64900	146000	282000	128000	142000	106000	100000	96800
18	86500	121000	83200	55700	64600	139000	275000	126000	175000	106000	97800	97000
19	87800	158000	84300	55800	63400	135000	262000	126000	184000	104000	93700	95700
20	85500	198000	86200	49400	66700	132000	246000	126000	168000	103000	96900	95700
21	83600	188000	83100	48300	132000	128000	226000	128000	151000	101000	96700	92400
22	85500	171000	74300	54900	252000	125000	211000	131000	161000	103000	95800	86600
23	89600	156000	64700	59500	286000	123000	209000	133000	173000	98800	96800	84900
24	99400	149000	58700	59000	290000	121000	207000	131000	150000	91500	96300	85900
25	115000	147000	54200	63500	285000	119000	205000	125000	141000	90800	95000	87900
26	130000	146000	51300	63600	271000	126000	200000	143000	150000	94200	95600	90400
27	125000	151000	48200	67100	281000	134000	182000	179000	146000	98400	101000	92300
28	115000	153000	46400	93900	262000	128000	163000	195000	146000	94300	97600	93100
29	116000	148000	48100	89700	---	124000	155000	210000	151000	92600	95800	90900
30	115000	142000	58200	78400	---	125000	156000	223000	153000	94000	96100	90900
31	112000	---	62000	69400	---	124000	---	224000	---	90900	92300	---
MEAN	97000	135500	100200	61600	126600	146700	193800	154800	155800	107700	90260	91420
MAX	130000	198000	187000	93900	290000	246000	302000	224000	206000	148000	101000	101000
MIN	82800	99200	46400	48300	63400	119000	118000	125000	128000	90800	80500	84900
IN.	.21	.29	.22	.14	.25	.32	.41	.34	.33	.24	.20	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1997[a], BY WATER YEAR (WY)

MEAN	78410	78690	62790	50250	67600	97760	122400	121900	118700	101300	75500	78460
MAX	286700	152700	178900	129000	136800	267500	333400	313000	282300	376300	306600	243500
(WY)	1987	1986	1983	1973	1982	1973	1973	1995	1995	1993	1993	1993
MIN	36680	29400	17060	17350	19250	22810	45800	47710	46150	44010	39540	37800
(WY)	1964	1991	1964	1963	1964	1964	1963	1989	1988	1988	1991	1963

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1958 - 1997[a]	
ANNUAL MEAN	108400		121500		86830	
HIGHEST ANNUAL MEAN					181800	1993
LOWEST ANNUAL MEAN					44980	1963
HIGHEST DAILY MEAN	292000	May 31	302000	Apr 15	739000	Jul 31 1993
LOWEST DAILY MEAN	34700	Jan 15	46400	Dec 28	6210	Dec 23 1963
ANNUAL SEVEN-DAY MINIMUM	36500	Jan 11	52200	Dec 24	7400	Dec 20 1963
INSTANTANEOUS PEAK FLOW	---		303000	Apr 15	750000	Jul 31 1993
INSTANTANEOUS PEAK STAGE	---		26.97	Apr 15	36.97	Jul 31 1993
INSTANTANEOUS LOW FLOW	---		45600	Dec 29	602	Dec 23 1963
ANNUAL RUNOFF (INCHES)	2.82		3.15		2.25	
10 PERCENT EXCEEDS	193000		183000		165000	
50 PERCENT EXCEEDS	98700		109000		67900	
90 PERCENT EXCEEDS	47200		66300		36500	

[a]Post-regulation period.

06934500 MISSOURI RIVER AT HERMANN, MO--Continued
(National stream-quality accounting network station)

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 1996 TO SEPTEMBER 1997

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TURBIDITY (NTU) (00076)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT DIS FIX END FIELD $CaCO_3$ (mg/L) (39036)	ALKALINITY WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)
OCT												
25...	1050	14.0	114000	670	9.5	90	8.20	27	500	175	160	165
DEC												
02...	1305	5.0	177000	417	12.2	95	7.73	51	940	2900	152	156
JAN												
06...	1215	4.0	54700	770	13.1	98	8.16	21	560	185	223	221
FEB												
03...	1210	2.0	69800	561	13.2	95	7.73	23	550	866	165	166
MAR												
10...	1310	6.5	138000	421	11.6	94	7.78	72	245	581	154	149
25...	1230	9.5	118000	438	11.2	96	7.70	53	124	231	146	150
APR												
09...	1200	10.5	155000	592	10.1	89	7.97	100	263	209	155	155
21...	1405	12.5	225000	478	10.0	92	7.88	140	350	390	131	149
MAY												
05...	1400	14.0	177000	606	9.2	90	7.66	0.6	1250	2500	139	141
JUN												
03...	1100	16.0	188000	584	8.7	87	7.72	76	500	164	143	146
18...	1320	22.5	180000	677	8.3	94	7.51	0.2	300	175	151	152
JUL												
07...	1545	26.0	112000	735	6.8	83	7.89	0.2	390	80	160	163
AUG												
04...	1215	28.0	85700	538	8.2	103	8.18	22	243	200	318	322
18...	1250	28.5	97800	740	8.2	97	8.13	26	K600	136	297	297
SEP												
10...	1240	25.0	90200	708	6.9	84	7.38	110	K927	120	140	139

K--Results based on colony count outside the acceptable range (non-ideal colony count).

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	CARBONATE WATER DIS IT FIELD (mg/L as CO_3) (00452)	BICARBONATE WATER DIS IT FIELD (mg/L as HCO_3) (00453)	NITROGEN, TOTAL (mg/L as N) (00600)	NITROGEN DISSOLVED (mg/L as N) (00602)	NITROGEN, ORGANIC TOTAL (mg/L as N) (00605)	NITROGEN, ORGANIC DISSOLVED (mg/L as N) (00607)	NITROGEN, AMMONIA DISSOLVED (mg/L as N) (00608)	NITROGEN, NITRITE DISSOLVED (mg/L as N) (00613)	NITROGEN, NITRATE DISSOLVED (mg/L as N) (00618)	NITROGEN,AMMONIA + ORGANIC DIS. (mg/L as N) (00623)
OCT										
25...	0	202	0.9	0.62	0.47	0.17	0.03	0.03	0.39	0.2
DEC										
02...	0	190	1.8	1.4	0.64	0.24	0.06	<0.01	--	0.3
JAN										
06...	0	269	2.4	2.2	0.49	0.29	0.11	0.02	1.78	0.4
FEB										
03...	0	203	2.0	1.8	0.56	0.36	0.14	0.04	1.26	0.5
MAR										
10...	0	182	2.4	1.7	1.0	0.32	0.08	0.02	1.28	0.4
25...	0	183	2.2	1.9	0.78	0.48	0.04	0.01	1.36	0.5
APR										
09...	0	189	1.9	1.6	0.60	0.27	0.04	0.03	1.27	0.3
21...	0	182	3.1	2.0	1.4	0.32	0.02	0.02	1.60	0.3
MAY										
05...	0	172	3.0	2.1	1.5	0.54	0.02	0.03	1.52	0.6
JUN										
03...	0	178	2.2	1.7	0.78	--	<0.01	0.02	1.39	0.3
18...	0	185	2.1	1.5	0.88	--	<0.01	0.01	1.16	0.3
JUL										
07...	0	199	2.1	1.9	0.37	--	<0.01	<0.01	--	0.2
AUG										
04...	0	392	--	--	--	--	--	--	--	--
18...	0	363	1.2	0.79	0.60	--	<0.01	0.01	0.55	0.2
SEP										
10...	0	170	1.7	0.93	1.0	--	<0.01	<0.01	--	0.2

DATE	NITROGEN,AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITROGEN, NO_2+NO_3 DISSOLVED (mg/L as N) (00631)	PHOSPHATE, ORTHO, DISSOLVED (mg/L as PO_4) (00660)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS DISSOLVED (mg/L as P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (mg/L as P) (00671)	CARBON, ORGANIC DISSOLVED (mg/L as C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (mg/L as C) (00689)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	HARDNESS NONCARB DISSOLV FLD. as $CaCO_3$ (mg/L) (00904)
OCT										
25...	0.5	0.42	0.14	0.12	0.04	0.047	3.4	1.2	220	56
DEC										
02...	0.7	1.1	0.21	0.22	0.06	0.068	3.8	2.6	200	47
JAN										
06...	0.6	1.8	0.20	0.15	0.06	0.066	3.4	1.0	280	62
FEB										
03...	0.7	1.3	0.24	0.23	0.11	0.079	3.9	1.1	230	60
MAR										
10...	1.1	1.3	0.19	0.32	0.03	0.062	4.3	3.6	180	34
25...	0.8	1.4	0.21	0.31	0.10	0.068	4.5	1.7	200	49
APR										
09...	0.6	1.3	0.23	0.16	0.06	0.074	4.2	3.6	210	57
21...	1.4	1.6	0.16	0.60	0.08	0.053	5.1	1.3	--	--
MAY										
05...	1.5	1.5	0.21	0.42	0.07	0.070	4.9	0.3	220	78
JUN										
03...	0.8	1.4	0.20	0.24	0.05	0.064	4.0	1.4	210	62
18...	0.9	1.2	0.18	0.29	0.06	0.060	4.4	1.2	220	73
JUL										
07...	0.4	1.7	0.35	0.15	0.11	0.110	4.0	2.3	240	78
AUG										
04...	--	--	--	--	--	--	--	--	250	81
18...	0.6	0.56	0.21	0.17	0.05	0.070	3.3	0.9	240	74
SEP										
10...	1.0	0.70	0.28	0.43	0.07	0.091	3.2	3.2	220	78

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	HARDNESS NONCARB DISSOLV LAB as $CaCO_3$ (mg/L) (00905)	CALCIUM DISSOLVED (mg/L as Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	SODIUM ADSORPTION RATIO (00931)	SODIUM PERCENT (00932)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SILICA, DISSOLVED (mg/L as SiO_2) (00955)
OCT											
25...	58	54	21	59	2	36	7.9	19	170	0.4	8.2
DEC											
02...	50	53	17	36	.1	27	5.5	14	110	0.4	9.1
JAN											
06...	61	75	23	53	1	28	6.7	26	150	0.5	13
FEB											
03...	58	59	19	43	1	29	5.5	20	120	0.4	12
MAR											
10...	37	50	14	26	0.8	23	5.6	14	77	0.2	9.6
25...	50	54	16	31	0.9	24	6.1	15	110	0.3	9.9
APR											
09...	62	56	18	33	1	25	6.0	16	120	0.3	9.8
21...	--	--	--	--	--	--	--	13	97	0.3	--
MAY											
05...	71	58	18	36	1	26	6.3	14	130	0.3	9.2
JUN											
03...	58	54	18	37	1	27	5.9	14	120	0.3	8.0
18...	64	57	20	45	1	30	5.9	14	150	0.4	7.8
JUL											
07...	73	62	21	56	2	33	6.8	17	170	0.4	9.8
AUG											
04...	89	65	22	70	2	37	6.5	16	220	0.4	8.7
18...	84	60	21	64	2	36	6.1	16	190	0.4	7.9
SEP											
10...	69	54	20	62	2	38	6.2	16	190	0.4	9.1

DATE	MOLYBDENUM, DISSOLVED (mg/L as Mo) (01060)	NICKEL, DISSOLVED (mg/L as Ni) (01065)	SILVER, DISSOLVED (mg/L as Ag) (01075)	STRONTIUM, DISSOLVED (mg/L as Sr) (01080)	VANADIUM, DISSOLVED (mg/L as V) (01085)	ZINC, DISSOLVED (mg/L as Zn) (01090)	ANTIMONY, DISSOLVED (mg/L as Sb) (01095)	ALUMINUM, DISSOLVED (mg/L as Al) (01106)	LITHIUM DISSOLVED (mg/L as Li) (01130)	SELENIUM, DISSOLVED (mg/L as Se) (01145)	PROPCHLOR, WATER, DISS, REC (mg/L) (04024)
OCT											
25...	3	2	<1	470	<6	<1	<1	3	36	1	<0.007
DEC											
02...	2	3	<1	370	<6	<1	<1	2	21	1	<0.007
JAN											
06...	3	4	<1	570	<6	3	<1	4	33	2	<0.007
FEB											
03...	2	2	<1	400	<6	<1	<1	33	25	<1	<0.007
MAR											
10...	2	3	<1	310	<6	<1	<1	2	14	1	<0.007
25...	2	2	<1	340	<6	1	<1	45	19	2	<0.007
APR											
09...	2	2	<1	350	<6	1	<1	2	21	2	<0.007
21...	--	--	--	--	--	--	--	--	--	--	<0.007
MAY											
05...	2	3	<1	360	<6	<1	<1	19	23	2	<0.007
JUN											
03...	2	3	<1	370	<6	1	<1	55	27	2	E0.005
18...	3	2	<1	410	<6	<1	<1	4	34	2	<0.007
JUL											
07...	4	2	<1	480	<6	1	<1	3	39	2	<0.007
AUG											
04...	4	3	<1	540	<6	3	<1	7	50	2	<0.007
18...	3	2	<1	480	<6	<1	<1	5	46	2	<0.007
SEP											
10...	3	2	<1	470	<6	1	<1	3	42	2	<0.007

E--Laboratory estimated value.

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	BUTYLATE, WATER, DISS, REC (µg/L) (04028)	SIMAZINE, WATER, DISS, REC (µg/L) (04035)	PROMETON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRAZINE, WATER, DISS, REC (µg/L) (04040)	CYANAZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	URANIUM NATURAL DISSOLVED (mg/L as U) (22703)	ALPHA BHC DISSOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	CHLORPYRIFOS DISSOLVED (µg/L) (38933)	LINDANE DISSOLVED (µg/L) (39341)
OCT											
25...	<0.002	<0.005	E0.006	E0.036	0.010	<0.003	4	<0.002	<0.006	<0.004	<0.004
DEC											
02...	<0.002	0.007	E0.009	E0.042	0.019	<0.003	3	<0.002	<0.006	<0.004	<0.004
JAN											
06...	<0.002	<0.005	E0.006	E0.004	0.009	<0.003	5	<0.002	<0.006	<0.004	<0.004
FEB											
03...	<0.002	<0.005	<0.018	E0.014	0.017	<0.003	3	<0.002	<0.006	<0.004	<0.004
MAR											
10...	<0.002	0.006	<0.018	E0.051	0.056	<0.003	3	<0.002	<0.006	<0.004	<0.004
25...	<0.002	E0.003	E0.003	E0.012	0.023	<0.003	4	<0.002	E0.001	<0.004	<0.004
APR											
09...	<0.002	0.005	E0.005	E0.016	0.024	<0.003	4	<0.002	<0.006	<0.004	<0.004
21...	<0.002	0.006	E0.003	E0.013	0.035	<0.003	--	<0.002	<0.006	<0.004	<0.004
MAY											
05...	<0.002	0.012	E0.006	E0.007	0.130	<0.003	4	<0.002	<0.006	<0.004	<0.004
JUN											
03...	<0.002	0.028	E0.010	E0.068	0.452	<0.003	3	<0.002	<0.006	<0.004	<0.004
18...	<0.002	0.021	E0.012	E0.111	0.174	<0.003	4	<0.002	<0.006	<0.004	<0.004
JUL											
07...	<0.002	0.014	<0.018	E0.052	0.174	<0.003	5	<0.002	<0.006	<0.004	<0.004
AUG											
04...	<0.002	0.007	<0.018	E0.027	0.012	<0.003	4	<0.002	<0.006	<0.004	<0.004
18...	<0.002	0.007	E0.014	E0.016	0.015	<0.003	4	<0.002	<0.006	<0.004	<0.004
SEP											
10...	<0.002	E0.005	<0.018	E0.015	0.025	<0.003	4	<0.002	<0.006	<0.004	<0.004

DATE	DIELDRIN DISSOLVED (µg/L) (39381)	METOLACHLOR WATER DISSOLV (µg/L) (39415)	MALATHION, DISSOLVED (µg/L) (39532)	PARATHION, DISSOLVED (µg/L) (39542)	DIAZINON, DISSOLVED (µg/L) (39572)	ATRAZINE, WATER, DISS, REC (µg/L) (39632)	ALACHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETOCHLOR, WATER FLTRD REC (µg/L) (49260)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (mg/L) (70301)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)
OCT											
25...	<0.001	0.061	<0.005	<0.004	<0.002	0.209	<0.002	E0.003	454	442	140000
DEC											
02...	<0.001	0.177	<0.005	<0.004	<0.002	0.370	0.025	0.009	350	344	167000
JAN											
06...	<0.001	0.074	<0.005	<0.004	<0.002	0.162	E0.004	0.021	507	489	74900
FEB											
03...	<0.001	0.068	<0.005	<0.004	0.005	0.135	E0.003	<0.002	396	386	74600
MAR											
10...	<0.001	0.090	<0.005	<0.004	<0.002	0.214	0.007	0.006	301	292	112000
25...	E0.003	0.136	<0.005	<0.004	0.004	0.153	E0.002	0.013	347	333	111000
APR											
09...	<0.001	0.280	<0.005	<0.004	E0.003	0.234	E0.004	0.152	368	359	154000
21...	<0.001	0.236	<0.005	<0.004	<0.002	0.410	0.010	0.029	311	--	--
MAY											
05...	<0.001	0.485	<0.005	<0.004	E0.003	1.24	0.038	0.253	375	360	179000
JUN											
03...	<0.001	1.05	<0.005	<0.004	0.006	2.63	0.162	0.329	378	355	192000
18...	<0.001	0.344	<0.005	<0.004	0.006	1.04	0.035	0.052	444	399	216000
JUL											
07...	<0.001	0.663	<0.005	<0.004	<0.002	1.71	0.070	0.044	480	454	145000
AUG											
04...	<0.001	0.111	<0.005	<0.004	<0.002	0.222	0.005	0.006	535	603	124000
18...	<0.001	0.111	<0.005	<0.004	E0.003	0.222	0.010	0.009	485	552	128000
SEP											
10...	<0.001	0.108	<0.005	<0.004	E0.001	0.237	0.005	0.014	443	449	108000

E--Laboratory estimated value.

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 mm (70331)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L as NH_4) (71846)	NITRO-GEN, NITRATE DIS-SOLVED (mg/L as NO_3) (71851)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L as NO_2) (71856)	SEDI-MENT, SUS-PENDED (mg/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	TRI-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82661)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)
OCT											
25...	48	0.04	1.7	0.10	325	100000	<0.004	<0.003	<0.002	<0.004	<0.002
DEC											
02...	41	0.08	--	--	624	298000	<0.004	<0.003	<0.002	<0.004	<0.002
JAN											
06...	61	0.14	7.9	0.07	202	29800	<0.004	<0.003	<0.002	<0.004	<0.002
FEB											
03...	43	0.18	5.6	0.13	227	42800	0.005	<0.003	<0.002	<0.004	<0.002
MAR											
10...	50	0.10	5.7	0.07	592	221000	0.006	<0.003	<0.002	<0.004	<0.002
25...	54	0.04	6.0	0.05	399	127000	<0.004	<0.003	E0.004	<0.004	<0.002
APR											
09...	68	0.05	5.6	0.09	787	329000	0.011	<0.003	<0.002	<0.004	<0.002
21...	68	0.02	7.1	0.08	1110	671000	0.006	<0.003	E0.004	<0.004	<0.002
MAY											
05...	80	0.02	6.7	0.09	2000	956000	0.009	<0.003	E0.004	<0.004	<0.002
JUN											
03...	65	--	6.2	0.07	553	281000	0.047	<0.003	0.006	<0.004	<0.002
18...	53	--	5.1	0.05	573	278000	0.025	<0.003	E0.004	<0.004	<0.002
JUL											
07...	82	--	--	--	567	171000	<0.020	<0.003	<0.002	<0.004	<0.002
AUG											
04...	41	--	--	--	224	51800	<0.004	<0.003	<0.002	<0.004	<0.002
18...	--	--	2.4	0.03	251	66300	<0.004	<0.003	<0.002	<0.004	<0.002
SEP											
10...	84	--	--	--	555	135000	<0.004	<0.003	<0.002	<0.004	<0.002

DATE	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
OCT											
25...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
DEC											
02...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JAN											
06...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
FEB											
03...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAR											
10...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
25...	<0.007	<0.006	0.004	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR											
09...	<0.007	<0.006	E0.004	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
21...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAY											
05...	<0.007	<0.006	0.009	<0.004	<0.010	<0.004	<0.003	<0.002	E0.008	<0.013	<0.003
JUN											
03...	<0.007	<0.006	E0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
18...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUL											
07...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
AUG											
04...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	--	<0.002	<0.003	<0.013	<0.003
18...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
SEP											
10...	<0.007	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

E--Laboratory estimated value.

06934500 MISSOURI RIVER AT HERMANN, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
OCT											
25...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
DEC											
02...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JAN											
06...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
FEB											
03...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR											
10...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
25...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
APR											
09...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
21...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
MAY											
05...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JUN											
03...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
18...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
JUL											
07...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
AUG											
04...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
18...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
SEP											
10...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

06935955 FEE FEE CREEK NEAR BRIDGETON, MO
(Metropolitan Sewer District)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°43'39", long 90°26'52", St. Louis County, Hydrologic Unit 10300200, on left old abutment of Old McKelvey Road, 0.17 mi west of I-270, 0.92 mi north of Dorsett Road, and 0.65 mi upstream of Creve Couer Creek.

DRAINAGE AREA.--11.7 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 mL) (31633)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)
DEC												
11...	1500	2.9	1640	7.95	7.5	10.4	86	124	324	K68	258	0
MAR												
06...	0800	3.7	1640	7.82	4.0	12.2	92	560	6600	420	272	0
MAY												
25...	2220	e463	275	7.75	19.5	7.5	80	K75500	K70000	K43000	92	0
JUN												
09...	1745	e2.6	1210	7.89	19.5	7.9	86	3300	430	2300	188	0
AUG												
28...	0730	e2.0	916	7.84	24.5	5.0	60	540	1220	3400	170	0
SEP												
02...	1633	e72	690	7.77	27.5	6.8	85	K1000	K15800	K4000	106	0

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	NITRO-GEN, TOTAL (mg/L as N) (00600)	NITRO-GEN, ORGANIC TOTAL (mg/L as N) (00605)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, NITRATE TOTAL (mg/L as N) (00620)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITRO-GEN, AMMONIA TOTAL (mg/L as NH_4) (71845)	NITRO-GEN, TOTAL (mg/L as NO_3) (71887)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	PHOS-PHATE, TOTAL (mg/L as PO_4) (00650)	PHOS-PHORUS TOTAL (mg/L as P) (00665)
DEC												
11...	315	1.2	0.31	0.05	0.030	0.830	0.36	0.06	5.4	0.86	0.18	0.08
MAR												
06...	334	1.2	0.27	0.02	0.020	0.890	0.29	0.03	5.3	0.91	0.12	0.08
MAY												
25...	101	2.1	1.5	0.28	0.040	0.390	E9.2	0.36	4.9	0.43	0.31	E3.40
JUN												
09...	230	--	--	E0.14	E0.048	--	E0.78	--	--	E0.74	--	E0.12
AUG												
28...	214	0.88	0.55	0.10	<0.010	0.410	0.65	0.13	3.9	0.23	0.21	0.09
SEP												
02...	129	2.5	1.9	0.07	0.026	0.424	2.0	0.09	11	0.45	0.34	0.61

DATE	PHOS-PHORUS ORTHO TOTAL (mg/L AS P) (70507)	PHOS-PHORUS ORGANIC TOTAL (mg/L AS P) (00670)	HARD-NESS TOTAL (mg/L AS $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L AS Mg) (00925)	ARSENIC DIS-SOLVED (ug/L AS As) (01000)	BERYL-LIUM, DIS-SOLVED (ug/L AS BE) (01010)	CADMIUM DIS-SOLVED (ug/L AS Cd) (01025)	CHRO-MIUM, DIS-SOLVED (ug/L AS Cr) (01030)	COPPER, DIS-SOLVED (ug/L AS Cu) (01040)	IRON, DIS-SOLVED (ug/L AS Fe) (01046)	LEAD, DIS-SOLVED (ug/L AS Pb) (01049)
DEC												
11...	0.06	0.02	430	120	32	1	<0.5	<1	1.7	<1.0	30	<1
MAR												
06...	0.04	0.04	440	120	35	<1	<0.5	<1	<1.0	1.1	20	<1
MAY												
25...	0.10	0.40	90	26	6	2	<0.5	<1	<1.0	<1.0	10	<1
JUN												
09...	E0.09	--	310	85	23	4	<0.5	<1	<1.0	1.4	20	<1
AUG												
28...	0.07	0.02	330	91	25	5	<0.5	<1	<1.0	2.0	7	<1
SEP												
02...	0.11	0.50	160	46	12	4	<0.5	<1	1.5	1.8	10	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).
E--Laboratory estimated value.
e--Estimated discharge value.

06935955 FEE FEE CREEK NEAR BRIDGETON, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MANGANESE, DISSOLVED (ug/L AS Mn) (01056)	NICKEL, DISSOLVED (ug/L AS Ni) (01065)	SILVER, DISSOLVED (ug/L AS Ag) (01075)	ZINC, DISSOLVED (ug/L AS Zn) (01090)	ALUMINUM, DISSOLVED (ug/L AS Al) (01106)	SELENIUM, DISSOLVED (ug/L AS Se) (01145)	MERCURY TOTAL RECOVERABLE (ug/L AS Hg) (71900)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (mg/L) (00556)	DICHLOROBROMOMETHANE TOTAL (ug/L) (32101)	CARBON-TETRACHLORIDE TOTAL (ug/L) (32102)	1,2-DICHLOROETHANE TOTAL (ug/L) (32103)
DEC												
11...	880	4.1	<1	4.6	7.4	1	<0.1	7	--	--	--	--
MAR												
06...	870	4.6	<1	27	6.0	1	<0.1	4	--	--	--	--
MAY												
25...	500	2.2	<1	<1.0	9.2	<1	0.4	5200	E5	<0.2	<0.2	<0.2
JUN												
09...	500	4.2	<1	2.5	9.0	<1	0.1	19	--	--	--	--
AUG												
28...	170	3.0	<1	7.3	6.1	2	<0.1	13	--	--	--	--
SEP												
02...	130	3.3	<1	1.8	8.6	<1	0.1	480	2	<0.2	<0.2	<0.2

DATE	BROMOFORM TOTAL (ug/L) (32104)	CHLORODIBROMOMETHANE TOTAL (ug/L) (32105)	CHLOROFORM TOTAL (ug/L) (32106)	TOLUENE TOTAL (ug/L) (34010)	BENZENE TOTAL (ug/L) (34030)	ACENAPHTHYLENE TOTAL (ug/L) (34200)	ACENAPHTHENE TOTAL (ug/L) (34205)	ANTHRACENE TOTAL (ug/L) (34220)	BENZO B FLUORANTHENE TOTAL (ug/L) (34230)	BENZO K FLUORANTHENE TOTAL (ug/L) (34242)	BENZO-A-PYRENE TOTAL (ug/L) (34247)	BIS 2-CHLOROETHYL ETHER UNFLTRD RECOVER (ug/L) (34273)
MAY												
25...	<0.2	<0.2	<0.2	<0.2	<0.2	E0.1	E0.5	E0.8	E5	E4	E5	<5
SEP												
02...	<0.2	<0.2	<0.2	<0.2	<0.2	E0.02	E0.05	E0.4	E3	E1	E2	<5

DATE	BIS (2-CHLOROETHOXY) METHANE TOTAL (ug/L) (34278)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (ug/L) (34283)	N-BUTYL BENZYL PHTHALATE TOTAL (ug/L) (34292)	CHLOROBENZENE TOTAL (ug/L) (34301)	CHRYSENE TOTAL (ug/L) (34320)	DIETHYL PHTHALATE TOTAL (ug/L) (34336)	DIMETHYL PHTHALATE TOTAL (ug/L) (34341)	ETHYLBENZENE TOTAL (ug/L) (34371)	FLUORANTHENE TOTAL (ug/L) (34376)	FLUORENE TOTAL (ug/L) (34381)	CYCLOPENTADIENHEXACHLORO-UNFLTRD RECOVER (ug/L) (34386)	ETHANE HEXACHLOROWATER UNFLTRD RECOVER (ug/L) (34396)
MAY												
25...	<5	<5	<5	<0.2	E6	<5	<5	<0.2	11	E0.5	<20	<5
SEP												
02...	<5	<5	<5	<0.2	E2	<5	<5	<0.2	E4	E0.06	<20	<5

DATE	INDENO(1,2,3-CD)PYRENE TOTAL (ug/L) (34403)	ISOPHORONE TOTAL (ug/L) (34408)	METHYLENE CHLORIDE TOTAL (ug/L) (34423)	N-NITROSODI-N-PROPYLAMINE TOTAL (ug/L) (34428)	N-NITROSODIPHENYLAMINE TOTAL (ug/L) (34433)	N-NITROSODIMETHYLAMINE TOTAL (ug/L) (34438)	BENZENE NITROWATER UNFLTRD RECOVER (ug/L) (34447)	PARACHLOROMETA CRESOL TOTAL (ug/L) (34452)	PHENANTHRENE TOTAL (ug/L) (34461)	PYRENE TOTAL (ug/L) (34469)	TETRACHLOROETHYLENE TOTAL (ug/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (ug/L) (34488)
MAY												
25...	E2	<5	<0.2	<5	<5	<5	<5	<30	6	8	<0.2	<0.2
SEP												
02...	E1	<5	<0.2	<5	<5	<5	<5	<30	E2	E3	<0.2	<0.2

DATE	1,1-DICHLOROETHANE TOTAL (ug/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (ug/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (ug/L) (34506)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (ug/L) (34521)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (ug/L) (34526)	BENZENE O-DICHLOROWATER UNFLTRD REC (ug/L) (34536)	1,2-DICHLOROPROPANE TOTAL (ug/L) (34541)	BENZENE 1,2,4-TRICHLOROWAT UNF REC (ug/L) (34551)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (ug/L) (34556)	BENZENE 1,3-DICHLOROWATER UNFLTRD REC (ug/L) (34566)	2-CHLORONAPHTHALENE TOTAL (ug/L) (34581)	2-CHLOROPHENOL TOTAL (ug/L) (34586)
MAY												
25...	<0.2	<0.2	<0.2	E2	E4	<5	<0.2	<5	<10	<5	<5	<5
SEP												
02...	<0.2	<0.2	<0.2	E1	E1	<5	<0.2	<5	<10	<5	<5	<5

E--Laboratory estimated value.

06935955 FEE FEE CREEK NEAR BRIDGETON, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	2-NITRO-PHENOL TOTAL (ug/L) (34591)	DI-N-OCTYL PHTHAL-ATE TOTAL (ug/L) (34596)	2,4-DI-CHLORO-PHENOL TOTAL (ug/L) (34601)	2,4-DI-METHYL-PHENOL TOTAL (ug/L) (34606)	2,4-DI-NITRO-TOLUENE TOTAL (ug/L) (34611)	2,4,-DI-NITRO-PHENOL TOTAL (ug/L) (34616)	2,4,6-TRI-CHLORO-PHENOL TOTAL (ug/L) (34621)	2,6-DI-NITRO-TOLUENE TOTAL (ug/L) (34626)	3,3'-DI-CHLORO-BENZI-DINE TOTAL (ug/L) (34631)	4-BROMO-PHENYL PHENYL ETHER TOTAL (ug/L) (34636)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (ug/L) (34641)	4-NITRO-PHENOL TOTAL (ug/L) (34646)
MAY												
25...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	E6
SEP												
02...	<5	<10	E0.3	<5	<5	<20	<20	<5	<20	<5	<5	<30

DATE	4,6-DINITRO-ORTHO-CRESOL TOTAL (ug/L) (34657)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (ug/L) (34668)	PHENOL (C6H-5OH) TOTAL (ug/L) (34694)	NAPHTH-ALENE TOTAL (ug/L) (34696)	CHLOR-PYRIFOS TOTAL RECOVER (ug/L) (38932)	PHORATE TOTAL (ug/L) (39023)	PENTA-CHLORO-PHENOL TOTAL (ug/L) (39032)	PER-THANE TOTAL (ug/L) (39034)	DEF TOTAL (ug/L) (39040)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (ug/L) (39100)	DI-N-BUTYL PHTHAL-ATE TOTAL (ug/L) (39110)	BENZI-DINE TOTAL (ug/L) (39120)
MAY												
25...	<30	<0.2	<5	E0.2	0.04	<0.01	<30	<0.1	<0.01	E3	<5	<40
SEP												
02...	<30	--	<5	<5	0.01	<0.01	<30	<0.1	<0.02	<5	<5	<40

DATE	VINYL CHLO-RIDE TOTAL (ug/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (ug/L) (39180)	PCNS UNFILT RECOVER (ug/L) (39250)	ALDRIN, TOTAL (ug/L) (39330)	LINDANE TOTAL (ug/L) (39340)	CHLOR-DANE, TECH-NICAL TOTAL (ug/L) (39350)	P,P'-DDD UNFILT RECOVER (ug/L) (39360)	P,P'-DDE, TOTAL (ug/L) (39365)	P,P'-DDT UNFILT RECOVER (ug/L) (39370)	DI-ELDRIN TOTAL (ug/L) (39380)	ENDO-SULFAN, I TOTAL (ug/L) (39388)
MAY											
25...	<0.2	4.4	<0.1	<0.01	<0.01	0.1	0.02	0.01	0.01	0.02	<0.01
SEP											
02...	--	--	<0.1	<0.01	<0.01	0.1	0.02	0.01	0.01	0.01	<0.01

DATE	ENDRIN WATER UNFLTRD REC (ug/L) (39390)	ETHION, TOTAL (ug/L) (39398)	TOX-APHENE, TOTAL (ug/L) (39400)	HEPTA-CHLOR, TOTAL (ug/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (ug/L) (39420)	METH-OXY-CHLOR, TOTAL (ug/L) (39480)	PCB, TOTAL (ug/L) (39516)	MALA-THION, TOTAL (ug/L) (39530)	PARA-THION, TOTAL (ug/L) (39540)	DI-AZINON, TOTAL (ug/L) (39570)	METHYL PARA-THION, TOTAL (ug/L) (39600)
MAY											
25...	<0.01	<0.01	<1	<0.01	<0.01	0.01	0.2	0.01	<0.01	0.2	<0.01
SEP											
02...	<0.01	<0.01	<1	<0.01	<0.01	<0.01	<0.2	E0.01	<0.01	0.08	<0.01

DATE	HEXA-CHLORO-BENZENE TOTAL (ug/L) (39700)	HEXA-CHLORO-BUT-ADIENE TOTAL (ug/L) (39702)	MIREX, TOTAL (ug/L) (39755)	TOTAL TRI-THION (ug/L) (39786)	CIS-1,2-DI-CHLORO-ETHENE WATER TOTAL (ug/L) (77093)	STYRENE TOTAL (ug/L) (77128)	FREON-113 WATER UNFLTRD REC (ug/L) (77652)	METHYL TERT-BUTYL ETHER WAT UNF REC (ug/L) (78032)	XYLENE WATER UNFLTRD REC (ug/L) (81551)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (ug/L) (82614)	1,2-DI-PHENYL-HYDRA-ZINE WATER TOT.REC (ug/L) (82626)
MAY											
25...	<5	<5	<0.01	<0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<5
SEP											
02...	<5	<5	<0.01	<0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<5

E--Laboratory estimated value.

06936475 COLDWATER CREEK NEAR BLACK JACK, MO
(Metropolitan Sewer District)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°49'04", long 90°15'04", sec.17, T.47 N. R. 7 W., St. Louis County, Hydrologic Unit 10300200, on left bank 80 ft downstream of Old Jamestown Road bridge, 0.35 mi south of Lindberg, 1.1 mi west of Highway 367, and 3.8 mi upstream of the Missouri River.

DRAINAGE AREA.--40.4 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 mL) (31633)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)
DEC												
11...	1330	12	1130	7.37	5.5	7.40	58	K52	104	61	254	0
MAR												
05...	1600	e16	1200	7.68	8.5	9.60	82	K60	K57	K250	267	0
MAY												
25...	0045	e334	18	7.58	19.5	5.80	64	7600	K54200	K25000	129	0
JUN												
10...	0800	e3	874	7.77	20.0	4.90	54	500	6700	720	160	0
AUG												
26...	1050	e1	476	7.60	24.0	5.50	65	K1390	K2580	K1700	96	0
SEP												
02...	2015	e974	325	7.02	27.0	4.10	51	12600	K54200	K40000	71	0

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	NITRO-GEN, TOTAL (mg/L as N) (00600)	NITRO-GEN, ORGANIC TOTAL (mg/L as N) (00605)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, NITRATE TOTAL (mg/L as N) (00620)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITRO-GEN, AMMONIA TOTAL (mg/L as NH_4) (71845)	NITRO-GEN, TOTAL (mg/L as NO_3) (71887)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	PHOS-PHATE, TOTAL (mg/L as PO_4) (00650)	PHOS-PHORUS TOTAL (mg/L as P) (00665)
DEC												
11...	309	0.80	0.24	0.01	<0.010	--	0.25	0.01	3.5	0.55	0.06	0.02
MAR												
05...	328	3.1	0.60	0.80	0.130	1.57	1.4	1.0	14	1.70	0.12	0.09
MAY												
25...	168	--	--	0.55	0.084	0.536	E5.6	0.71	--	0.62	0.21	E2.10
JUN												
10...	199	--	--	E0.30	E0.200	--	E1.1	--	--	E1.80	--	E0.16
AUG												
26...	117	1.6	0.63	0.09	0.036	0.874	0.72	0.12	7.2	0.91	0.25	0.13
SEP												
02...	90	2.6	1.8	0.05	0.053	0.647	1.9	0.06	12	0.70	0.21	0.65

DATE	PHOS-PHORUS ORTHO TOTAL (mg/L AS P) (70507)	PHOS-PHORUS ORGANIC TOTAL (mg/L AS P) (00670)	HARD-NESS TOTAL (mg/L AS $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L AS Mg) (00925)	ARSENIC DIS-SOLVED (ug/L AS As) (01000)	BERYL-LIUM, DIS-SOLVED (ug/L AS BE) (01010)	CADMIUM DIS-SOLVED (ug/L AS Cd) (01025)	CHRO-MIUM, DIS-SOLVED (ug/L AS Cr) (01030)	COPPER, DIS-SOLVED (ug/L AS Cu) (01040)	IRON, DIS-SOLVED (ug/L AS Fe) (01046)	LEAD, DIS-SOLVED (ug/L AS Pb) (01049)
DEC												
11...	0.02	0.03	--	--	--	--	--	--	--	--	--	--
MAR												
05...	0.04	0.05	400	95	39	1	<0.5	<1	<1	1.6	10	<1
MAY												
25...	0.07	--	200	48	20	2	<0.5	<1	<1	<1.0	40	<1
JUN												
10...	E0.06	--	270	67	25	3	<0.5	<1	<1	1.2	10	<1
AUG												
26...	0.08	0.05	130	37	9.0	3	<0.5	<1	<1	2.2	6.0	<1
SEP												
02...	0.07	0.58	100	29	7.0	3	<0.5	<1	<1	2.3	20	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).
e--Estimated discharge value.
E--Laboratory estimated value

06936475 COLDWATER CREEK NEAR BLACK JACK, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MANGANESE, DISSOLVED (ug/L AS Mn) (01056)	NICKEL, DISSOLVED (ug/L AS Ni) (01065)	SILVER, DISSOLVED (ug/L AS Ag) (01075)	ZINC, DISSOLVED (ug/L AS Zn) (01090)	ALUMINUM, DISSOLVED (ug/L AS Al) (01106)	SELENIUM, DISSOLVED (ug/L AS Se) (01145)	MERCURY TOTAL RECOVERABLE (ug/L AS Hg) (71900)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (mg/L) (00556)	DICHLOROBROMOMETHANE TOTAL (ug/L) (32101)	CARBON-TETRACHLORIDE TOTAL (ug/L) (32102)	1,2-DICHLOROETHANE TOTAL (ug/L) (32103)
MAR												
05...	340	3.0	<1	9.7	5.3	5	<0.1	9	--	--	--	--
MAY												
25...	790	3.9	<1	2.8	8.6	2	0.3	2100	--	<0.2	<0.2	<0.2
JUN												
10...	390	3.6	<1	8.5	8.4	1	<0.1	23	--	--	--	--
AUG												
26...	170	1.3	<1	2.6	8.8	2	<0.1	37	--	--	--	--
SEP												
02...	200	2.9	<1	11	7.6	<1	0.3	470	1	<0.2	<0.2	<0.2

DATE	BROMOFORM TOTAL (ug/L) (32104)	CHLORODIBROMOMETHANE TOTAL (ug/L) (32105)	CHLOROFORM TOTAL (ug/L) (32106)	TOLUENE TOTAL (ug/L) (34010)	BENZENE TOTAL (ug/L) (34030)	ACENAPHTHYLENE TOTAL (ug/L) (34200)	ACENAPHTHENE TOTAL (ug/L) (34205)	ANTHRACENE TOTAL (ug/L) (34220)	BENZO B FLUORANTHENE TOTAL (ug/L) (34230)	BENZO K FLUORANTHENE TOTAL (ug/L) (34242)	BENZO-A-PYRENE TOTAL (ug/L) (34247)	BIS 2-CHLOROETHYL ETHER UNFLTRD RECOVER (ug/L) (34273)
MAY												
25...	<0.2	<0.2	<0.2	<0.2	<0.2	--	--	<5	E1	--	--	<5
SEP												
02...	<0.2	<0.2	<0.2	<0.2	<0.2	<5	<5	<5	E1	E0.5	E0.6	<5

DATE	BIS (2-CHLOROETHOXY) METHANE TOTAL (ug/L) (34278)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (ug/L) (34283)	N-BUTYL BENZYL PHTHALATE TOTAL (ug/L) (34292)	CHLOROBENZENE TOTAL (ug/L) (34301)	CHRYSENE TOTAL (ug/L) (34320)	DIETHYL PHTHALATE TOTAL (ug/L) (34336)	DIMETHYL PHTHALATE TOTAL (ug/L) (34341)	ETHYLBENZENE TOTAL (ug/L) (34371)	FLUORANTHENE TOTAL (ug/L) (34376)	FLUORENE TOTAL (ug/L) (34381)	CYCLOPENTADIENE HEXACHLORO-UNFLTRD RECOVER (ug/L) (34386)	ETHANE HEXACHLORO-WATER UNFLTRD RECOVER (ug/L) (34396)
MAY												
25...	<5	<5	<5	<0.2	E0.6	<5	<5	<0.2	E1	<5	<20	<5
SEP												
02...	<5	<5	<5	<0.2	E0.3	<5	<5	<0.2	E1	<5	<20	<5

DATE	INDENO (1,2,3-CD) PYRENE TOTAL (ug/L) (34403)	ISOPHORONE TOTAL (ug/L) (34408)	METHYLENE CHLORIDE TOTAL (ug/L) (34423)	N-NITROSODI-N-PROPYLAMINE TOTAL (ug/L) (34428)	N-NITRO-SODI-PHENYLAMINE TOTAL (ug/L) (34433)	N-NITRO-SODI-METHYLAMINE TOTAL (ug/L) (34438)	BENZENE NITROWATER UNFLTRD RECOVER (ug/L) (34447)	PARACHLOROMETA CRESOL TOTAL (ug/L) (34452)	PHENANTHRENE TOTAL (ug/L) (34461)	PYRENE TOTAL (ug/L) (34469)	TETRACHLOROETHYLENE TOTAL (ug/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (ug/L) (34488)
MAY												
25...	E0.7	<5	<0.2	<5	<5	<5	<5	<30	E0.4	E1	0.8	<0.2
SEP												
02...	E0.5	<5	<0.2	<5	<5	<5	<5	<30	E0.4	E1	0.6	<0.2

DATE	1,1-DICHLOROETHANE TOTAL (ug/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (ug/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (ug/L) (34506)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (ug/L) (34521)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (ug/L) (34526)	BENZENE O-DICHLOROWATER UNFLTRD REC (ug/L) (34536)	1,2-DICHLOROPROPANE TOTAL (ug/L) (34541)	BENZENE 1,2,4-TRICHLOROWAT UNF REC (ug/L) (34551)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (ug/L) (34556)	BENZENE 1,3-DICHLOROWATER UNFLTRD REC (ug/L) (34566)	2-CHLORONAPHTHALENE TOTAL (ug/L) (34581)	2-CHLOROPHENOL TOTAL (ug/L) (34586)
MAY												
25...	<0.2	<0.2	<0.2	E0.8	E0.4	<0.2	<0.2	<5	<10	<0.2	<5	<5
SEP												
02...	<0.2	<0.2	<0.2	E0.9	E0.3	<0.2	<0.2	<5	<10	<0.2	<5	<5

E--Laboratory estimated value.

06936475 COLDWATER CREEK NEAR BLACK JACK, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	2-NITRO-PHENOL TOTAL (ug/L) (34591)	DI-N-OCTYL PHTHAL-ATE TOTAL (ug/L) (34596)	2,4-DI-CHLORO-PHENOL TOTAL (ug/L) (34601)	2,4-DI-METHYL-PHENOL TOTAL (ug/L) (34606)	2,4-DI-NITRO-TOLUENE TOTAL (ug/L) (34611)	2,4,-DI-NITRO-PHENOL TOTAL (ug/L) (34616)	2,4,6-TRI-CHLORO-PHENOL TOTAL (ug/L) (34621)	2,6-DI-NITRO-TOLUENE TOTAL (ug/L) (34626)	3,3'-DI-CHLORO-BENZI-DINE TOTAL (ug/L) (34631)	4-BROMO-PHENYL PHENYL ETHER TOTAL (ug/L) (34636)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (ug/L) (34641)	4-NITRO-PHENOL TOTAL (ug/L) (34646)
MAY												
25...	<5	<10	E0.3	<5	<5	<20	<20	<5	<20	<5	<5	<30
SEP												
02...	<5	<10	E0.3	<5	<5	<20	<20	<5	<20	<5	<5	<30

DATE	4,6-DINITRO-ORTHO-CRESOL TOTAL (ug/L) (34657)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (ug/L) (34668)	PHENOL (C6H-5OH) TOTAL (ug/L) (34694)	NAPHTH-ALENE TOTAL (ug/L) (34696)	CHLOR-PYRIFOS TOTAL RECOVER (ug/L) (38932)	PHORATE TOTAL (ug/L) (39023)	PENTA-CHLORO-PHENOL TOTAL (ug/L) (39032)	PER-THANE TOTAL (ug/L) (39034)	DEF TOTAL (ug/L) (39040)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (ug/L) (39100)	DI-N-BUTYL PHTHAL-ATE TOTAL (ug/L) (39110)	BENZI-DINE TOTAL (ug/L) (39120)
MAY												
25...	<30	<0.2	<5	<5	0.03	<0.01	<30	<0.1	<0.01	<5	<5	<40
SEP												
02...	<30	<0.2	<5	<5	0.03	<0.01	<30	<0.1	<0.01	<5	<5	<40

DATE	VINYL CHLO-RIDE TOTAL (ug/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (ug/L) (39180)	PCNS UNFILT RECOVER (ug/L) (39250)	ALDRIN, TOTAL (ug/L) (39330)	LINDANE TOTAL (ug/L) (39340)	CHLOR-DANE, TECH-NICAL TOTAL (ug/L) (39350)	P,P'-DDD UNFILT RECOVER (ug/L) (39360)	P,P'-DDE, TOTAL (ug/L) (39365)	P,P'-DDT UNFILT RECOVER (ug/L) (39370)	DI-ELDRIN TOTAL (ug/L) (39380)	ENDO-SULFAN, I TOTAL (ug/L) (39388)
MAY											
25...	<0.2	<0.2	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01
SEP											
02...	<0.2	<0.2	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01

DATE	ENDRIN WATER UNFLTRD REC (ug/L) (39390)	ETHION, TOTAL (ug/L) (39398)	TOX-APHENE, TOTAL (ug/L) (39400)	HEPTA-CHLOR, TOTAL (ug/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (ug/L) (39420)	METH-OXY-CHLOR, TOTAL (ug/L) (39480)	PCB, TOTAL (ug/L) (39516)	MALA-THION, TOTAL (ug/L) (39530)	PARA-THION, TOTAL (ug/L) (39540)	DI-AZINON, TOTAL (ug/L) (39570)	METHYL PARA-THION, TOTAL (ug/L) (39600)
MAY											
25...	<0.01	<0.01	<1	<0.01	<0.01	<0.01	0.2	0.02	<0.01	0.2	<0.01
SEP											
02...	<0.01	<0.01	<1	<0.01	<0.01	<0.01	0.2	0.02	<0.01	0.2	<0.01

DATE	HEXA-CHLORO-BENZENE TOTAL (ug/L) (39700)	HEXA-CHLORO-BUT-ADIENE TOTAL (ug/L) (39702)	MIREX, TOTAL (ug/L) (39755)	TOTAL TRI-THION (ug/L) (39786)	CIS-1,2-DI-CHLORO-ETHENE WATER TOTAL (ug/L) (77093)	STYRENE TOTAL (ug/L) (77128)	FREON-113 WATER UNFLTRD REC (ug/L) (77652)	METHYL TERT-BUTYL ETHER WAT UNF REC (ug/L) (78032)	XYLENE WATER UNFLTRD REC (ug/L) (81551)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (ug/L) (82614)	1,2-DI-PHENYL-HYDRA-ZINE WATER TOT.REC (ug/L) (82626)
MAY											
25...	<5	<5	<0.01	<0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	--
SEP											
02...	<5	<5	<0.01	<0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<5

E--Laboratory estimated value.

07005000 MALINE CREEK AT BELLEFONTAINE NEIGHBORS, MO

(Metropolitan Sewer District)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°44'12", long 90°13'35", St. Louis County, Hydrologic Unit 07140101,on right bank 200 ft upstream of bridge on Bellefontaine Road, 2.3 mi south of I-270, on the southside of Bellefontaine City Park, and 1.04 mi upstream of Mississippi River.

DRAINAGE AREA.--24.4 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 mL) (31633)	ALKALINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)
DEC												
11...	1130	5	57	7.81	6.0	10.0	79	84	180	184	198	0
MAR												
05...	1315	e8	1100	7.78	8.0	11.0	93	860	K68	K350	204	0
MAY												
25...	2350	e779	554	7.52	19.5	4.0	44	K45500	K58500	K60000	106	0
JUN												
10...	0915	e5	1160	7.96	20.0	6.9	76	430	K5900	K910	197	0
AUG												
26...	0830	e2	551	7.91	25.0	6.2	75	5000	1240	4300	107	0
SEP												
02...	1634	e1150	151	7.03	25.0	6.4	76	3640	3000	K1000	34	0

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	NITROGEN, TOTAL (mg/L as N) (00600)	NITROGEN, ORGANIC TOTAL (mg/L as N) (00605)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, NITRATE TOTAL (mg/L as N) (00620)	NITROGEN,AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITROGEN, AMMONIA TOTAL (mg/L as NH_4) (71845)	NITROGEN, TOTAL (mg/L as NO_3) (71887)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	PHOSPHATE, TOTAL (mg/L as PO_4) (00650)	PHOSPHORUS TOTAL (mg/L as P) (00665)
DEC												
11...	242	1.1	0.35	0.08	0.020	0.670	0.43	0.10	5.0	0.69	0.28	0.13
MAR												
05...	249	1.6	0.56	0.12	0.020	0.860	0.68	0.15	6.9	0.88	0.18	0.11
MAY												
25...	116	--	--	0.30	0.050	0.360	E8.8	0.39	--	0.41	0.12	E3.10
JUN												
10...	244	--	--	E0.13	E0.046	--	E0.82	--	--	E0.50	--	E0.11
AUG												
26...	131	1.3	0.94	0.16	0.024	0.226	1.1	0.21	6.0	0.25	0.21	0.13
SEP												
02...	41	6.3	5.3	0.21	0.054	0.786	5.5	0.27	28	0.84	0.67	2.30

DATE	PHOSPHORUS ORTHO TOTAL (mg/L AS P) (70507)	PHOSPHORUS ORGANIC TOTAL (mg/L AS P) (00670)	HARDNESS TOTAL (mg/L AS $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L AS Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L AS Mg) (00925)	ARSENIC DISSOLVED (ug/L AS As) (01000)	BERYLLIUM, DISSOLVED (ug/L AS BE) (01010)	CADMIUM DISSOLVED (ug/L AS Cd) (01025)	CHROMIUM, DISSOLVED (ug/L AS Cr) (01030)	COPPER, DISSOLVED (ug/L AS Cu) (01040)	IRON, DISSOLVED (ug/L AS Fe) (01046)	LEAD, DISSOLVED (ug/L AS Pb) (01049)
DEC												
11...	0.09	0.04	340	93	26	<1	<0.5	<1	<1	<1.0	20	<1
MAR												
05...	0.06	0.05	380	100	31	<1	<0.5	<1	<1	1.5	9.0	<1
MAY												
25...	0.04	--	160	43	12	2	<0.5	<1	<1	<1.0	30	<1
JUN												
10...	E0.06	--	360	95	30	4	<0.5	<1	<1	<1.0	9.0	<1
AUG												
26...	0.07	0.06	150	43	10	3	<0.5	<1	<1	2.2	7.0	<1
SEP												
02...	0.22	2.1	47	14	3	2	<0.5	<1	<1	1.1	20	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).
e--Estimated discarge value.
E--Laboratory estimated value.

07005000 MALINE CREEK AT BELFONATIANE NEIGHBORS, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MANGANESE, DISSOLVED (ug/L AS Mn) (01056)	NICKEL, DISSOLVED (ug/L AS Ni) (01065)	SILVER, DISSOLVED (ug/L AS Ag) (01075)	ZINC, DISSOLVED (ug/L AS Zn) (01090)	ALUMINUM, DISSOLVED (ug/L AS Al) (01106)	SELENIUM, DISSOLVED (ug/L AS Se) (01145)	MERCURY TOTAL RECOVERABLE (ug/L AS Hg) (71900)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (mg/L) (00556)	DICHLOROBROMOMETHANE TOTAL (ug/L) (32101)	CARBON TETRACHLORIDE TOTAL (ug/L) (32102)	1,2-DICHLOROETHANE TOTAL (ug/L) (32103)
DEC												
11...	410	2.7	<1	4.1	7.8	<1	<0.1	10	--	--	--	--
MAR												
05...	540	3.3	<1	12	6.0	<1	<0.1	9	--	--	--	--
MAY												
25...	1000	3.4	<1	2.4	7.0	<1	0.3	2900	E30	<0.2	<0.2	<0.2
JUN												
10...	810	3.7	<1	1.5	7.6	<1	<0.1	30	--	--	--	--
AUG												
26...	200	1.6	<1	<1.0	7.4	2	<0.1	28	--	--	--	--
SEP												
02...	170	3.8	<1	<1.0	10	<1	0.2	2300	1	<0.2	<0.2	<0.2

DATE	BROMOFORM TOTAL (ug/L) (32104)	CHLORODIBROMOMETHANE TOTAL (ug/L) (32105)	CHLOROFORM TOTAL (ug/L) (32106)	TOLUENE TOTAL (ug/L) (34010)	BENZENE TOTAL (ug/L) (34030)	ACENAPHTHYLENE TOTAL (ug/L) (34200)	ACENAPHTHENE TOTAL (ug/L) (34205)	ANTHRACENE TOTAL (ug/L) (34220)	BENZO B FLUORANTHENE TOTAL (ug/L) (34230)	BENZO K FLUORANTHENE TOTAL (ug/L) (34242)	BENZO-A-PYRENE TOTAL (ug/L) (34247)	BIS 2-CHLOROETHYL ETHER UNFLTRD RECOVER (ug/L) (34273)
MAY												
25...	<0.2	<0.2	<0.2	<0.2	<0.2'	<5	<5	E0.2	E2	E2	E2	<5
SEP												
02...	<0.2	<0.2	<0.2	<0.2	<0.2	<5	E0.03	<5	E0.9	E0.3	E0.5	<5

DATE	BIS (2-CHLOROETHOXY) METHANE TOTAL (ug/L) (34278)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (ug/L) (34283)	N-BUTYL BENZYL PHTHALATE TOTAL (ug/L) (34292)	CHLOROBENZENE TOTAL (ug/L) (34301)	CHRYSENE TOTAL (ug/L) (34320)	DIETHYL PHTHALATE TOTAL (ug/L) (34336)	DIMETHYL PHTHALATE TOTAL (ug/L) (34341)	ETHYLBENZENE TOTAL (ug/L) (34371)	FLUORANTHENE TOTAL (ug/L) (34376)	FLUORENE TOTAL (ug/L) (34381)	CYCLOPENTADIENE HEXACHLORO UNFLTRD RECOVER (ug/L) (34386)	ETHANE HEXACHLORO WATER UNFLTRD RECOVER (ug/L) (34396)
MAY												
25...	<5	<5	<5	<0.2	E2	<5	<5	<0.2	E4	E0.1	<20	<5
SEP												
02...	<5	<5	<5	<0.2	E0.5	<5	<5	<0.2	E1	<5	<20	<5

DATE	INDENO (1,2,3-CD) PYRENE TOTAL (ug/L) (34403)	ISOPHORONE TOTAL (ug/L) (34408)	METHYLENE CHLORIDE TOTAL (ug/L) (34423)	N-NITROSODI-N-PROPYLAMINE TOTAL (ug/L) (34428)	N-NITROSODIPHENYLAMINE TOTAL (ug/L) (34433)	N-NITROSODIMETHYLAMINE TOTAL (ug/L) (34438)	BENZENE NITROWATER UNFLTRD RECOVER (ug/L) (34447)	PARACHLOROMETA CRESOL TOTAL (ug/L) (34452)	PHENANTHRENE TOTAL (ug/L) (34461)	PYRENE TOTAL (ug/L) (34469)	TETRACHLOROETHYLENE TOTAL (ug/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (ug/L) (34488)
MAY												
25...	E1	<5	<0.2	<5	<5	<5	<5	<30	E2	E3	<0.2	<0.2
SEP												
02...	E0.5	<5	<0.2	<5	<5	<5	<5	<30	E0.3	E0.8	<0.2	<0.2

DATE	1,1-DICHLOROETHANE TOTAL (ug/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (ug/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (ug/L) (34506)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (ug/L) (34521)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (ug/L) (34526)	BENZENE O-DICHLOROWATER UNFLTRD REC (ug/L) (34536)	1,2-DICHLOROPROPANE TOTAL (ug/L) (34541)	BENZENE 1,2,4-TRICHLOROWAT UNF REC (ug/L) (34551)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (ug/L) (34556)	BENZENE 1,3-DICHLOROWATER UNFLTRD REC (ug/L) (34566)	2-CHLORONAPHTHALENE TOTAL (ug/L) (34581)	2-CHLOROPHENOL TOTAL (ug/L) (34586)
MAY												
25...	<0.2	<0.2	<0.2	E2	E1	<5	<0.2	<5	<10	<5	<5	<5
SEP												
02...	<0.2	<0.2	<0.2	E0.6	E0.3	<5	<0.2	<5	<10	<5	<5	<5

E--Laboratory estimated value.

07005000 MALINE CREEK AT BELFONATIANE NEIGHBORS, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	2-NITRO-PHENOL TOTAL (ug/L) (34591)	DI-N-OCTYL PHTHAL-ATE TOTAL (ug/L) (34596)	2,4-DI-CHLORO-PHENOL TOTAL (ug/L) (34601)	2,4-DI-METHYL-PHENOL TOTAL (ug/L) (34606)	2,4-DI-NITRO-TOLUENE TOTAL (ug/L) (34611)	2,4,-DI-NITRO-PHENOL TOTAL (ug/L) (34616)	2,4,6-TRI-CHLORO-PHENOL TOTAL (ug/L) (34621)	2,6-DI-NITRO-TOLUENE TOTAL (ug/L) (34626)	3,3'-DI-CHLORO-BENZI-DINE TOTAL (ug/L) (34631)	4-BROMO-PHENYL PHENYL ETHER TOTAL (ug/L) (34636)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (ug/L) (34641)	4-NITRO-PHENOL TOTAL (ug/L) (34646)
MAY												
25...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	<30
SEP												
02...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	<30

DATE	4,6-DINITRO-ORTHO-CRESOL TOTAL (ug/L) (34657)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (ug/L) (34668)	PHENOL (C6H-5OH) TOTAL (ug/L) (34694)	NAPHTH-ALENE TOTAL (ug/L) (34696)	CHLOR-PYRIFOS TOTAL RECOVER (ug/L) (38932)	PHORATE TOTAL (ug/L) (39023)	PENTA-CHLORO-PHENOL TOTAL (ug/L) (39032)	PER-THANE TOTAL (ug/L) (39034)	DEF TOTAL (ug/L) (39040)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (ug/L) (39100)	DI-N-BUTYL PHTHAL-ATE TOTAL (ug/L) (39110)	BENZI-DINE TOTAL (ug/L) (39120)
MAY												
25...	<30	<0.2	<5	<5	0.03	<0.01	<30	<0.1	<0.01	<5	<5	<40
SEP												
02...	<30	<0.2	<5	<5	0.02	<0.01	<30	<0.1	<0.02	<5	<5	<40

DATE	VINYL CHLO-RIDE TOTAL (ug/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (ug/L) (39180)	PCNS UNFILT RECOVER (ug/L) (39250)	ALDRIN, TOTAL (ug/L) (39330)	LINDANE TOTAL (ug/L) (39340)	CHLOR-DANE, TECH-NICAL TOTAL (ug/L) (39350)	P,P'-DDD UNFILT RECOVER (ug/L) (39360)	P,P'-DDE, TOTAL (ug/L) (39365)	P,P'-DDT UNFILT RECOVER (ug/L) (39370)	DI-ELDRIN TOTAL (ug/L) (39380)	ENDO-SULFAN, I TOTAL (ug/L) (39388)
MAY											
25...	<0.2	<0.2	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01
SEP											
02...	<0.2	<0.2	<0.1	<0.01	<0.01	0.1	<0.01	<0.01	<0.01	0.01	<0.01

DATE	ENDRIN WATER UNFLTRD REC (ug/L) (39390)	ETHION, TOTAL (ug/L) (39398)	TOX-APHENE, TOTAL (ug/L) (39400)	HEPTA-CHLOR, TOTAL (ug/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (ug/L) (39420)	METH-OXY-CHLOR, TOTAL (ug/L) (39480)	PCB, TOTAL (ug/L) (39516)	MALA-THION, TOTAL (ug/L) (39530)	PARA-THION, TOTAL (ug/L) (39540)	DI-AZINON, TOTAL (ug/L) (39570)	METHYL PARA-THION, TOTAL (ug/L) (39600)
MAY											
25...	<0.01	<0.01	<1	<0.01	<0.01	<0.01	<0.1	0.02	<0.01	0.14	<0.01
SEP											
02...	<0.01	<0.01	<1	<0.01	<0.01	<0.01	<0.1	E0.01	<0.01	0.16	<0.01

DATE	HEXA-CHLORO-BENZENE TOTAL (ug/L) (39700)	HEXA-CHLORO-BUT-ADIENE TOTAL (ug/L) (39702)	MIREX, TOTAL (ug/L) (39755)	TOTAL TRI-THION (ug/L) (39786)	CIS-1,2-DI-CHLORO-ETHENE WATER TOTAL (ug/L) (77093)	STYRENE TOTAL (ug/L) (77128)	FREON-113 WATER UNFLTRD REC (ug/L) (77652)	METHYL TERT-BUTYL ETHER WAT UNF REC (ug/L) (78032)	XYLENE WATER UNFLTRD REC (ug/L) (81551)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (ug/L) (82614)	1,2-DI-PHENYL-HYDRA-ZINE WATER TOT.REC (ug/L) (82626)
MAY											
25...	<5	<5	<0.01	<0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<5
SEP											
02...	<5	<5	<0.01	<0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<5

E--Laboratory estimated value.

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO

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

DRAINAGE AREA.--697,000 mi^2, 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 in reports of the U.S. Geological Survey. 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.

GAGE.--Water-stage recorder. Datum of gage is 379.94 ft above sea level. 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.--Estimated daily discharge: Aug. 2. Water-discharge records good except estimated daily discharge, which is fair. Natural flow of stream affected by many reservoirs and navigation dams in upper Mississippi River Basin and by many reservoirs and diversions for irrigation in Missouri River Basin. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 27, 1844, reached a stage of 41.32 ft, from floodmarks, discharge, 1,300,000 ft^3/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^3/s, Dec. 23, 1863.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166000	174000	223000	131000	146000	540000	290000	425000	345000	263000	191000	171000
2	160000	180000	228000	129000	141000	538000	289000	413000	323000	259000	180000	171000
3	150000	194000	247000	130000	150000	516000	290000	405000	302000	258000	177000	169000
4	142000	188000	256000	126000	160000	483000	286000	404000	292000	256000	185000	165000
5	142000	172000	252000	125000	164000	451000	286000	406000	283000	256000	186000	168000
6	132000	167000	241000	121000	174000	424000	298000	403000	269000	249000	186000	162000
7	120000	191000	236000	123000	181000	402000	300000	393000	260000	232000	186000	162000
8	113000	216000	224000	114000	183000	380000	302000	382000	250000	220000	181000	169000
9	114000	233000	208000	124000	184000	359000	316000	368000	249000	213000	177000	166000
10	118000	222000	209000	125000	175000	354000	328000	358000	239000	213000	170000	164000
11	114000	216000	199000	109000	162000	354000	329000	360000	239000	218000	166000	156000
12	114000	212000	190000	112000	153000	350000	338000	368000	232000	210000	167000	153000
13	113000	204000	184000	119000	153000	354000	386000	362000	229000	212000	172000	149000
14	112000	183000	177000	119000	158000	372000	451000	350000	241000	208000	172000	143000
15	110000	171000	179000	114000	154000	388000	479000	336000	260000	212000	168000	133000
16	111000	165000	181000	114000	149000	386000	490000	321000	248000	211000	160000	134000
17	114000	164000	177000	111000	146000	377000	491000	309000	228000	210000	166000	140000
18	125000	162000	169000	111000	136000	367000	494000	298000	250000	213000	181000	146000
19	113000	170000	165000	118000	133000	354000	500000	289000	273000	209000	189000	148000
20	116000	216000	137000	121000	144000	339000	501000	283000	276000	208000	199000	152000
21	126000	257000	132000	117000	190000	332000	500000	280000	266000	202000	196000	154000
22	130000	255000	132000	119000	299000	328000	494000	280000	248000	204000	183000	154000
23	133000	246000	128000	126000	390000	319000	488000	278000	250000	222000	180000	148000
24	122000	239000	124000	130000	422000	310000	486000	270000	259000	226000	174000	153000
25	138000	242000	108000	131000	436000	305000	483000	260000	251000	211000	171000	157000
26	171000	249000	108000	126000	446000	302000	479000	263000	253000	195000	172000	155000
27	187000	242000	109000	135000	478000	302000	474000	282000	261000	190000	174000	153000
28	182000	249000	110000	142000	492000	302000	460000	314000	263000	198000	173000	160000
29	171000	246000	110000	164000	---	297000	444000	338000	265000	201000	172000	158000
30	174000	232000	114000	169000	---	293000	433000	356000	267000	204000	173000	143000
31	171000	---	124000	156000	---	291000	---	362000	---	198000	181000	---
MEAN	135600	208600	173600	126200	225000	370000	406200	339200	262400	218700	177700	155200
MAX	187000	257000	256000	169000	492000	540000	501000	425000	345000	263000	199000	171000
MIN	110000	162000	108000	109000	133000	291000	286000	260000	228000	190000	160000	133000
IN.	.22	.33	.29	.21	.34	.61	.65	.56	.42	.36	.29	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1997, BY WATER YEAR (WY)

MEAN	138500	142900	123600	115300	142500	230000	306100	289800	266500	220000	144600	138300
MAX	575300	359200	452400	307800	301400	521800	692500	588700	600600	808800	700200	531800
(WY)	1987	1986	1983	1973	1974	1973	1973	1995	1947	1993	1993	1993
MIN	44170	47920	42130	31340	41900	74550	110100	79500	70260	67130	43510	54640
(WY)	1940	1940	1938	1940	1940	1964	1934	1934	1934	1936	1936	1939

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1933 - 1997	
ANNUAL MEAN	222000		233000		188200	
HIGHEST ANNUAL MEAN					429700	1993
LOWEST ANNUAL MEAN					67700	1934
HIGHEST DAILY MEAN	612000	Jun 2	540000	Mar 1	1050000	Aug 1 1993
LOWEST DAILY MEAN	82700	Jan 8	108000	Dec 25,26	27800	Dec 12 1937
ANNUAL SEVEN-DAY MINIMUM	89500	Jan 5	112000	Dec 24	28200	Jan 18 1940
INSTANTANEOUS PEAK FLOW	---		544000	Mar 1	1080000	Aug 1 1993
INSTANTANEOUS PEAK STAGE	---		32.25	Mar 1	49.58	Aug 1 1993
INSTANTANEOUS LOW FLOW	---		104000	Dec 26	27800	Dec 12 1937
ANNUAL RUNOFF (INCHES)	4.34		4.54		3.67	
10 PERCENT EXCEEDS	422000		391000		366000	
50 PERCENT EXCEEDS	179000		201000		151000	
90 PERCENT EXCEEDS	109000		124000		68200	

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--
WATER TEMPERATURES: October 1951 to current year.
SEDIMENT RECORDS: April 1948 to current year.

REMARKS.--Sediment discharge for many days computed from turbidity readings. Sediment records fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 6,720 mg/L, Feb. 24, 1985; minimum daily mean, 19 mg/L, Jan. 21 and 22, 1967.
SEDIMENT LOADS: Maximum daily, 9,830,000 tons, Feb. 24, 1985; minimum daily, 2,800 tons, Jan. 21, 1967.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,580 mg/L, Apr. 15; minimum daily mean, 90 mg/L, Jan. 8.
SEDIMENT LOADS: Maximum daily, 3,330,000 tons, Apr. 15; minimum daily, 27,900 tons, Jan. 8.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	166000	367	164000	174000	170	79900	223000	375	226000
2	160000	487	210000	180000	124	60100	228000	295	182000
3	150000	248	100000	194000	114	59900	247000	265	177000
4	142000	221	84700	188000	134	68100	256000	377	261000
5	142000	198	76100	172000	237	110000	252000	298	271000
6	132000	200	71400	167000	285	128000	241000	431	280000
7	120000	154	50000	191000	315	162000	236000	424	270000
8	113000	203	64800	216000	411	240000	224000	309	187000
9	114000	202	62100	233000	668	420000	208000	283	159000
10	118000	177	56400	222000	424	254000	209000	187	106000
11	114000	139	42600	216000	410	239000	199000	180	96700
12	114000	128	39300	212000	371	213000	190000	163	83600
13	113000	120	36700	204000	295	162000	184000	151	75000
14	112000	133	40300	183000	171	84500	177000	170	81100
15	110000	130	38500	171000	134	62000	179000	168	81100
16	111000	119	35800	165000	123	54800	181000	144	70600
17	114000	125	38500	164000	129	57100	177000	144	68900
18	125000	116	39100	162000	105	45900	169000	156	71400
19	113000	99	30100	170000	123	56600	165000	143	63800
20	116000	112	35000	216000	206	120000	137000	140	51600
21	126000	111	37800	257000	444	308000	132000	164	58400
22	130000	101	35400	255000	802	552000	132000	168	60000
23	133000	104	37400	246000	1810	1200000	128000	162	55900
24	122000	94	31100	239000	627	405000	124000	224	74800
25	138000	85	31600	242000	700	457000	108000	203	59100
26	171000	95	43900	249000	646	434000	108000	202	58900
27	187000	153	77200	242000	477	312000	109000	191	56200
28	182000	278	137000	249000	603	406000	110000	168	49800
29	171000	224	103000	246000	517	344000	110000	143	42300
30	174000	233	109000	232000	456	286000	114000	123	37800
31	171000	252	117000	---	---	---	124000	122	40800

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	131000	136	48200	146000	145	57200	540000	1060	1550000
2	129000	112	39000	141000	159	60500	538000	852	1240000
3	130000	119	41700	150000	187	75700	516000	871	1210000
4	126000	103	36600	160000	233	101000	483000	699	912000
5	125000	147	49500	164000	300	133000	451000	719	876000
6	121000	127	41500	174000	256	120000	424000	702	804000
7	123000	101	33500	181000	253	123000	402000	639	693000
8	114000	90	27900	183000	263	130000	380000	577	592000
9	124000	92	30700	184000	252	125000	359000	377	366000
10	125000	151	50800	175000	235	111000	354000	428	409000
11	109000	167	49200	162000	256	112000	354000	472	451000
12	112000	168	50900	153000	262	108000	350000	469	443000
13	119000	130	41700	153000	245	101000	354000	442	422000
14	119000	146	46900	158000	217	92600	372000	639	642000
15	114000	137	42200	154000	193	80100	388000	485	509000
16	114000	105	32400	149000	170	68300	386000	393	410000
17	111000	---	30000	146000	165	65000	377000	415	423000
18	111000	---	28800	136000	152	55800	367000	476	471000
19	118000	---	29900	133000	127	45700	354000	454	434000
20	121000	---	30100	144000	220	85400	339000	421	385000
21	117000	---	28400	190000	453	232000	332000	390	349000
22	119000	---	28300	299000	773	624000	328000	371	329000
23	126000	140	47600	390000	2360	2480000	319000	366	315000
24	130000	149	52200	422000	2360	2690000	310000	320	268000
25	131000	158	55900	436000	2000	2350000	305000	272	224000
26	126000	110	37600	446000	1690	2040000	302000	249	203000
27	135000	98	35900	478000	1460	1890000	302000	236	193000
28	142000	198	75800	492000	1070	1420000	302000	278	227000
29	164000	230	102000	---	---	---	297000	303	243000
30	169000	267	122000	---	---	---	293000	280	221000
31	156000	177	74500	---	---	---	291000	261	205000
		APRIL			MAY			JUNE	
1	290000	264	206000	425000	252	289000	345000	464	432000
2	289000	256	200000	413000	228	255000	323000	381	332000
3	290000	322	252000	405000	203	222000	302000	341	278000
4	286000	370	286000	404000	301	328000	292000	273	215000
5	286000	399	308000	406000	834	914000	283000	246	188000
6	298000	405	325000	403000	894	972000	269000	276	201000
7	300000	403	327000	393000	859	911000	260000	178	125000
8	302000	441	360000	382000	687	708000	250000	179	121000
9	316000	487	415000	368000	523	520000	249000	175	118000
10	328000	613	543000	358000	473	457000	239000	171	110000
11	329000	662	588000	360000	366	356000	239000	216	139000
12	338000	786	718000	368000	572	569000	232000	194	121000
13	386000	1100	1150000	362000	1250	1210000	229000	181	112000
14	451000	1490	1810000	350000	1220	1160000	241000	159	103000
15	479000	2580	3330000	336000	581	527000	260000	193	136000
16	490000	1820	2410000	321000	504	437000	248000	220	148000
17	491000	1340	1780000	309000	472	393000	228000	186	115000
18	494000	1190	1590000	298000	345	278000	250000	208	140000
19	500000	1320	1780000	289000	298	232000	273000	178	131000
20	501000	1550	2100000	283000	261	199000	276000	398	297000
21	500000	1130	1520000	280000	211	160000	266000	335	241000
22	494000	724	967000	280000	238	180000	248000	271	182000
23	488000	558	736000	278000	270	203000	250000	746	504000
24	486000	499	655000	270000	216	158000	259000	467	327000
25	483000	466	607000	260000	178	125000	251000	344	233000
26	479000	512	663000	263000	167	119000	253000	172	118000
27	474000	546	699000	282000	269	205000	261000	188	132000
28	460000	408	507000	314000	306	260000	263000	178	126000
29	444000	395	474000	338000	288	262000	265000	571	408000
30	433000	323	378000	356000	361	347000	267000	897	647000
31	---	---	---	362000	512	501000	---	---	---

07010000 MISSISSIPPI RIVER AT ST. LOUIS, MO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	263000	1300	922000	191000	157	81000	171000	110	50900
2	259000	918	642000	180000	166	80700	171000	100	46100
3	258000	492	343000	177000	220	105000	169000	122	55600
4	256000	443	306000	185000	198	99100	165000	110	49100
5	256000	352	244000	186000	149	74800	168000	126	57000
6	249000	335	225000	186000	114	57100	162000	103	45200
7	232000	335	210000	186000	124	62400	162000	120	52600
8	220000	315	187000	181000	102	49800	169000	147	67200
9	213000	338	194000	177000	88	42200	166000	193	86600
10	213000	317	182000	170000	89	40800	164000	488	216000
11	218000	243	143000	166000	88	39600	156000	359	151000
12	210000	216	123000	167000	98	44200	153000	302	125000
13	212000	166	95200	172000	100	46500	149000	214	86100
14	208000	170	95300	172000	95	44100	143000	151	58300
15	212000	200	114000	168000	107	48700	133000	124	44600
16	211000	132	74900	160000	88	38100	134000	118	42700
17	210000	177	100000	166000	110	49500	140000	130	49100
18	213000	325	187000	181000	153	74800	146000	125	49500
19	209000	232	131000	189000	171	87200	148000	104	41500
20	208000	171	95900	199000	141	75600	152000	133	54600
21	202000	173	94300	196000	146	77000	154000	132	54900
22	204000	149	82100	183000	116	57400	154000	146	60800
23	222000	152	91100	180000	129	62600	148000	121	48200
24	226000	149	91200	174000	129	60600	153000	160	65900
25	211000	129	73700	171000	160	74000	157000	133	56500
26	195000	137	72300	172000	132	61300	155000	137	57300
27	190000	166	85500	174000	127	59600	153000	163	67300
28	198000	160	85500	173000	167	78100	160000	178	76900
29	201000	178	96700	172000	194	90300	158000	189	80700
30	204000	259	143000	173000	134	62900	143000	161	62100
31	198000	222	119000	181000	117	57200	---	---	---

07010180 GRAVOIS CREEK NEAR MEHLVILLE, MO
(Metropolitan Sewer District)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°31'36", long 90°17'58", St. Louis County, Hydrologic Unit 07140101, on left upstream abutment of bridge on Green Park Road, 0.92 mi east of I-55, 0.22 mi west of Lemay Ferry Road, and 3.5 mi upstream from River des Peres.

DRAINAGE AREA.--18.1 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 mL) (31633)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)
DEC												
11...	1500	2.9	1640	7.95	7.5	10.4	86	124	324	2200	244	0
MAR												
06...	0800	3.7	1640	7.82	4.0	12.2	92	560	6600	420	272	0
MAY												
25...	2220	e209	275	7.75	19.5	7.5	80	K75500	K70000	K43000	92	0
JUN												
09...	1745	e3.2	1210	7.89	19.5	7.9	86	3300	430	2300	188	0
AUG												
28...	0730	e2.5	916	7.84	24.5	5.0	60	540	1220	3400	170	0
SEP												
02...	1633	e2.2	690	7.77	27.5	6.8	85	K1000	K15800	K4000	106	0

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	NITRO-GEN, TOTAL (mg/L as N) (00600)	NITRO-GEN, ORGANIC TOTAL (mg/L as N) (00605)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, NITRATE TOTAL (mg/L as N) (00620)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITRO-GEN, AMMONIA TOTAL (mg/L as NH_4) (71845)	NITRO-GEN, TOTAL (mg/L as NO_3) (71887)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	PHOS-PHATE, TOTAL (mg/L as PO_4) (00650)	PHOS-PHORUS TOTAL (mg/L as P) (00665)
DEC												
11...	315	1.2	0.31	0.05	0.030	0.830	0.36	0.06	5.4	0.86	0.18	0.08
MAR												
06...	334	1.2	0.27	0.02	0.020	0.890	0.29	0.03	5.3	0.91	0.12	0.08
MAY												
25...	101	--	--	0.28	0.040	0.390	E9.2	0.36	--	0.43	0.31	E3.40
JUN												
09...	230	--	--	E0.14	E0.048	--	E0.78	--	--	E0.74	--	E0.12
AUG												
28...	214	0.88	0.55	0.10	<0.010	--	0.65	0.13	3.9	0.23	0.21	0.09
SEP												
02...	129	2.5	1.9	0.07	0.026	0.424	2.0	0.09	11	0.45	0.34	0.61

DATE	PHOS-PHORUS ORTHO TOTAL (mg/L AS P) (70507)	PHOS-PHORUS ORGANIC TOTAL (mg/L AS P) (00670)	HARD-NESS TOTAL (mg/L AS $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L AS Mg) (00925)	ARSENIC DIS-SOLVED (ug/L AS As) (01000)	BERYL-LIUM, DIS-SOLVED (ug/L AS BE) (01010)	CADMIUM DIS-SOLVED (ug/L AS Cd) (01025)	CHRO-MIUM, DIS-SOLVED (ug/L AS Cr) (01030)	COPPER, DIS-SOLVED (ug/L AS Cu) (01040)	IRON, DIS-SOLVED (ug/L AS Fe) (01046)	LEAD, DIS-SOLVED (ug/L AS Pb) (01049)
DEC												
11...	0.06	0.02	430	120	32	1	<0.5	<1	1.7	<1.0	30	<1
MAR												
06...	0.04	0.04	440	120	35	<1	<0.5	<1	<1.0	1.1	20	<1
MAY												
25...	0.10	--	90	26	6	2	<0.5	<1	<1.0	<1.0	10	<1
JUN												
09...	E0.09	--	310	85	23	4	<0.5	<1	<1.0	1.4	20	<1
AUG												
28...	0.07	0.02	330	91	25	5	<0.5	<1	<1.0	2.0	7	<1
SEP												
02...	0.11	0.50	160	46	12	4	<0.5	<1	1.5	1.8	10	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).
e--Estimated discharge value.
E--Laboratory estimated value.

07010180 GRAVOIS CREEK NEAR MEHLVILLE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MANGANESE, DISSOLVED (ug/L AS Mn) (01056)	NICKEL, DISSOLVED (ug/L AS Ni) (01065)	SILVER, DISSOLVED (ug/L AS Ag) (01075)	ZINC, DISSOLVED (ug/L AS Zn) (01090)	ALUMINUM, DISSOLVED (ug/L AS Al) (01106)	SELENIUM, DISSOLVED (ug/L AS Se) (01145)	MERCURY TOTAL RECOVERABLE (ug/L AS Hg) (71900)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (mg/L) (00556)	DICHLOROBROMOMETHANE TOTAL (ug/L) (32101)	CARBON TETRACHLORIDE TOTAL (ug/L) (32102)	1,2-DICHLOROETHANE TOTAL (ug/L) (32103)
DEC												
11...	880	4.1	<1	4.6	7.4	1	<0.1	7	--	--	--	--
MAR												
06...	870	4.6	<1	27	6.0	1	<0.1	4	--	--	--	--
MAY												
25...	500	2.2	<1	<1.0	9.2	<1	0.4	5200	E5	<0.2	<0.2	<0.2
JUN												
09...	500	4.2	<1	2.5	9.0	<1	0.1	19	--	--	--	--
AUG												
28...	170	3.0	<1	7.3	6.1	2	<0.1	13	--	--	--	--
SEP												
02...	130	3.3	<1	1.8	8.6	<1	0.1	480	2	<0.2	<0.2	<0.2

DATE	BROMOFORM TOTAL (ug/L) (32104)	CHLORODIBROMOMETHANE TOTAL (ug/L) (32105)	CHLOROFORM TOTAL (ug/L) (32106)	TOLUENE TOTAL (ug/L) (34010)	BENZENE TOTAL (ug/L) (34030)	ACENAPHTHYLENE TOTAL (ug/L) (34200)	ACENAPHTHENE TOTAL (ug/L) (34205)	ANTHRACENE TOTAL (ug/L) (34220)	BENZO B FLUORANTHENE TOTAL (ug/L) (34230)	BENZO K FLUORANTHENE TOTAL (ug/L) (34242)	BENZO-A-PYRENE TOTAL (ug/L) (34247)	BIS 2-CHLOROETHYL ETHER UNFLTRD RECOVER (ug/L) (34273)
MAY												
25...	<0.2	<0.2	<0.2	<0.2	<0.2	E0.10	E0.50	E0.8	E5	E4	E5	<5
SEP												
02...	<0.2	<0.2	<0.2	<0.2	<0.2	E0.02	E0.05	E0.4	E3	E1	E2	<5

DATE	BIS (2-CHLOROETHOXY) METHANE TOTAL (ug/L) (34278)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (ug/L) (34283)	N-BUTYL BENZYL PHTHALATE TOTAL (ug/L) (34292)	CHLOROBENZENE TOTAL (ug/L) (34301)	CHRYSENE TOTAL (ug/L) (34320)	DIETHYL PHTHALATE TOTAL (ug/L) (34336)	DIMETHYL PHTHALATE TOTAL (ug/L) (34341)	ETHYLBENZENE TOTAL (ug/L) (34371)	FLUORANTHENE TOTAL (ug/L) (34376)	FLUORENE TOTAL (ug/L) (34381)	CYCLOPENTADIENE HEXACHLORO UNFLTRD RECOVER (ug/L) (34386)	ETHANE HEXACHLORO WATER UNFLTRD RECOVER (ug/L) (34396)
MAY												
25...	<5	<5	<5	<0.2	E6	<5	<5	<0.2	11	E0.5	<20	<5
SEP												
02...	<5	<5	<5	<0.2	E2	<5	<5	<0.2	E4	E0.06	<20	<5

DATE	INDENO (1,2,3-CD) PYRENE TOTAL (ug/L) (34403)	ISOPHORONE TOTAL (ug/L) (34408)	METHYLENE CHLORIDE TOTAL (ug/L) (34423)	N-NITROSODI-N-PROPYLAMINE TOTAL (ug/L) (34428)	N-NITROSODIPHENYLAMINE TOTAL (ug/L) (34433)	N-NITROSODIMETHYLAMINE TOTAL (ug/L) (34438)	BENZENE NITROWATER UNFLTRD RECOVER (ug/L) (34447)	PARACHLOROMETA CRESOL TOTAL (ug/L) (34452)	PHENANTHRENE TOTAL (ug/L) (34461)	PYRENE TOTAL (ug/L) (34469)	TETRACHLOROETHYLENE TOTAL (ug/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (ug/L) (34488)
MAY												
25...	E2	<5	<0.2	<5	<5	<5	<5	<30	6	8	<0.2	<0.2
SEP												
02...	E1	<5	<0.2	<5	<5	<5	<5	<30	E2	E3	<0.2	<0.2

DATE	1,1-DICHLOROETHANE TOTAL (ug/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (ug/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (ug/L) (34506)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (ug/L) (34521)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (ug/L) (34526)	BENZENE O-DICHLOROWATER UNFLTRD REC (ug/L) (34536)	1,2-DICHLOROPROPANE TOTAL (ug/L) (34541)	BENZENE 1,2,4-TRICHLOROWAT UNF REC (ug/L) (34551)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (ug/L) (34556)	BENZENE 1,3-DICHLOROWATER UNFLTRD REC (ug/L) (34566)	2-CHLORONAPHTHALENE TOTAL (ug/L) (34581)	2-CHLOROPHENOL TOTAL (ug/L) (34586)
MAY												
25...	<0.2	<0.2	<0.2	E2	E4	<5	<0.2	<5	<10	<5	<5	<5
SEP												
02...	<0.2	<0.2	<0.2	E1	E1	--	--	<5	<10	--	<5	<5

E--Laboratory estimated value.

07010180 GRAVOIS CREEK NEAR MEHLVILLE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	2-NITRO-PHENOL TOTAL (ug/L) (34591)	DI-N-OCTYL PHTHAL-ATE TOTAL (ug/L) (34596)	2,4-DI-CHLORO-PHENOL TOTAL (ug/L) (34601)	2,4-DI-METHYL-PHENOL TOTAL (ug/L) (34606)	2,4-DI-NITRO-TOLUENE TOTAL (ug/L) (34611)	2,4,-DI-NITRO-PHENOL TOTAL (ug/L) (34616)	2,4,6-TRI-CHLORO-PHENOL TOTAL (ug/L) (34621)	2,6-DI-NITRO-TOLUENE TOTAL (ug/L) (34626)	3,3'-DI-CHLORO-BENZI-DINE TOTAL (ug/L) (34631)	4-BROMO-PHENYL PHENYL ETHER TOTAL (ug/L) (34636)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (ug/L) (34641)	4-NITRO-PHENOL TOTAL (ug/L) (34646)
MAY												
25...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	E6
SEP												
02...	<5	<10	E0.3	<5	<5	<20	<20	<5	<20	<5	<5	<30

DATE	4,6-DINITRO-ORTHO-CRESOL TOTAL (ug/L) (34657)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (ug/L) (34668)	PHENOL (C6H-5OH) TOTAL (ug/L) (34694)	NAPHTH-ALENE TOTAL (ug/L) (34696)	CHLOR-PYRIFOS TOTAL RECOVER (ug/L) (38932)	PHORATE TOTAL (ug/L) (39023)	PENTA-CHLORO-PHENOL TOTAL (ug/L) (39032)	PER-THANE TOTAL (ug/L) (39034)	DEF TOTAL (ug/L) (39040)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (ug/L) (39100)	DI-N-BUTYL PHTHAL-ATE TOTAL (ug/L) (39110)	BENZI-DINE TOTAL (ug/L) (39120)
MAY												
25...	<30	<0.2	<5	E0.2	0.04	<0.01	<30	<0.1	<0.01	E3	<5	<40
SEP												
02...	<30	<0.2	<5	<5	0.01	<0.01	<30	<0.1	<0.02	<5	<5	<40

DATE	VINYL CHLO-RIDE TOTAL (ug/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (ug/L) (39180)	PCNS UNFILT RECOVER (ug/L) (39250)	ALDRIN, TOTAL (ug/L) (39330)	LINDANE TOTAL (ug/L) (39340)	CHLOR-DANE, TECH-NICAL TOTAL (ug/L) (39350)	P,P'-DDD UNFILT RECOVER (ug/L) (39360)	P,P'-DDE, TOTAL (ug/L) (39365)	P,P'-DDT UNFILT RECOVER (ug/L) (39370)	DI-ELDRIN TOTAL (ug/L) (39380)	ENDO-SULFAN, I TOTAL (ug/L) (39388)
MAY											
25...	<0.2	4.4	<0.1	<0.01	<0.01	0.1	0.02	0.01	0.01	0.02	<0.01
SEP											
02...	<0.2	--	<0.1	<0.01	<0.01	0.1	0.02	0.01	0.01	0.01	<0.01

DATE	ENDRIN WATER UNFLTRD REC (ug/L) (39390)	ETHION, TOTAL (ug/L) (39398)	TOX-APHENE, TOTAL (ug/L) (39400)	HEPTA-CHLOR, TOTAL (ug/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (ug/L) (39420)	METH-OXY-CHLOR, TOTAL (ug/L) (39480)	PCB, TOTAL (ug/L) (39516)	MALA-THION, TOTAL (ug/L) (39530)	PARA-THION, TOTAL (ug/L) (39540)	DI-AZINON, TOTAL (ug/L) (39570)	METHYL PARA-THION, TOTAL (ug/L) (39600)
MAY											
25...	<0.01	<0.01	<1	<0.01	<0.01	0.01	0.2	0.01	<0.01	0.2	<0.01
SEP											
02...	<0.01	<0.01	<1	<0.01	<0.01	<0.01	<0.2	E0.01	<0.01	0.08	<0.01

DATE	HEXA-CHLORO-BENZENE TOTAL (ug/L) (39700)	HEXA-CHLORO-BUT-ADIENE TOTAL (ug/L) (39702)	MIREX, TOTAL (ug/L) (39755)	TOTAL TRI-THION (ug/L) (39786)	CIS-1,2-DI-CHLORO-ETHENE WATER TOTAL (ug/L) (77093)	STYRENE TOTAL (ug/L) (77128)	FREON-113 WATER UNFLTRD REC (ug/L) (77652)	METHYL TERT-BUTYL ETHER WAT UNF REC (ug/L) (78032)	XYLENE WATER UNFLTRD REC (ug/L) (81551)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (ug/L) (82614)	1,2-DI-PHENYL-HYDRA-ZINE WATER TOT.REC (ug/L) (82626)
MAY											
25...	<5	<5	<0.01	<0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<5
SEP											
02...	<5	<5	<0.01	<0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<5

E--Laboratory estimated value.

07010500 MARAMEC SPRING NEAR ST. JAMES, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°57'20", long 91°31'57", NW 1/4 SE 1/4 sec.1, T.37 N., R.6 W., Phelps County, Hydrologic Unit 07140102. Site is at Maramec Spring Park, about 5 mi east of St. James on Highway 8.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
13...	1330	210	13.5	196	7.27	8.30	78	--	165	490	91
JAN											
30...	0915	310	12.5	239	7.09	9.40	89	<10	110	100	123
MAR											
10...	1045	320	12.0	181	6.62	9.60	90	--	22	37	82
APR											
01...	0840	240	12.5	195	6.43	8.10	75	--	27	21	89
JUN											
19...	1330	380	13.5	192	7.16	9.60	91	14	285	--	81
AUG											
19...	1035	140	14.5	316	7.38	7.70	74	--	230	315	149

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)
NOV										
13...	109	0	0.65	<0.01	0.01	0.23	0.02	0.02	--	--
JAN										
30...	154	0	0.63	<0.01	<0.01	<0.20	<0.02	0.02	110	24
MAR										
10...	103	0	0.61	<0.01	0.02	<0.20	0.04	0.02	--	--
APR										
01...	110	0	0.55	<0.01	0.01	<0.20	<0.02	0.01	--	--
JUN										
19...	97	0	0.48	<0.01	0.02	0.28	<0.02	0.02	95	20
AUG										
19...	185	0	0.71	<0.01	0.03	<0.20	<0.02	0.03	--	--

DATE	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)
JAN										
30...	13	3.3	1.2	6.3	7.1	<0.1	144	3	230	4.3
JUN										
19...	11	1.9	1.2	5.0	5.0	<0.1	108	6	330	75

DATE	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)	COPPER, DISSOLVED (µg/L as Cu) (01040)	IRON, DISSOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	LEAD, DISSOLVED (µg/L as Pb) (01049)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOVERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)	ZINC, DISSOLVED (µg/L as Zn) (01090)
JAN										
30...	<1	<1	<1	20	<1	<1	0.50	<0.1	1	<1
JUN										
19...	<1	<1	<1	50	<1	<1	2.9	<0.1	<1	<1

07013000 MERAMEC RIVER NEAR STEELVILLE, MO

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

DRAINAGE AREA.--781 mi^2.

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 sea level. Prior to May 24, 1934, and from July 20, 1966, to July 20, 1967, nonrecording gage; May 24, 1934, to Oct. 10, 1942, water-stage recorder at site 400 ft downstream at present datum; July 21, 1967, to Feb. 13, 1973, at site 1,900 ft downstream and at datum 1.8 ft lower.

REMARKS.--Estimated daily discharge: Aug. 20. Records fair. Several observations of water temperature were made during the year. 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^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	499	512	2430	410	901	2370	725	373	2400	634	194	238
2	422	448	2030	397	812	2270	679	379	1200	529	194	227
3	363	399	1520	385	746	1890	635	393	893	464	192	213
4	322	365	1190	381	1270	1620	609	410	737	442	188	204
5	292	336	1050	371	1500	1360	683	396	631	412	183	199
6	269	327	1060	352	1150	1150	1500	386	558	392	177	197
7	253	3200	971	334	945	993	1370	376	510	368	177	196
8	252	8120	859	324	834	881	997	435	457	346	177	202
9	247	2350	763	334	746	861	826	687	418	329	193	199
10	238	1390	700	331	678	1270	722	605	387	320	198	199
11	229	1030	662	309	628	1040	659	534	364	302	193	200
12	222	830	615	294	586	912	630	496	347	294	195	195
13	215	702	572	286	549	1160	585	468	361	284	210	190
14	208	613	532	283	521	3800	528	448	2690	272	236	190
15	202	549	502	300	496	2070	480	451	1570	261	266	186
16	198	500	478	291	471	1590	444	416	1030	253	262	186
17	204	521	462	262	448	1350	421	395	968	247	240	204
18	208	622	445	270	433	1220	407	1040	2120	241	226	197
19	223	517	423	281	416	1720	408	624	1320	235	380	206
20	207	470	397	280	538	1530	399	457	898	230	700	198
21	273	440	385	338	3000	1270	417	394	724	230	520	191
22	328	406	379	767	2810	1090	454	353	1260	230	413	211
23	429	383	382	983	1640	961	443	330	1490	231	347	231
24	467	438	468	864	1190	868	429	324	886	226	308	232
25	402	3200	744	870	978	894	405	633	694	223	283	244
26	361	5140	599	763	1810	1390	390	2190	584	219	265	255
27	353	2520	528	1390	5520	1250	390	934	551	214	253	236
28	777	1550	489	1550	3160	1080	391	702	531	210	246	220
29	1270	1360	470	1360	---	963	389	562	1160	221	239	208
30	806	2400	448	1170	---	866	383	576	852	203	234	200
31	615	---	429	1000	---	793	---	3350	---	197	234	---
MEAN	366	1388	741	565	1242	1370	593	649	953	299	262	208
MAX	1270	8120	2430	1550	5520	3800	1500	3350	2690	634	700	255
MIN	198	327	379	262	416	793	383	324	347	197	177	186
IN.	.54	1.98	1.09	.83	1.66	2.02	.85	.96	1.36	.44	.39	.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 1997, BY WATER YEAR (WY)

MEAN	288	513	586	576	654	874	1106	986	741	349	264	286
MAX	2562	2995	4712	3155	2397	2842	4954	3665	4644	3287	1181	2664
(WY)	1950	1994	1983	1950	1985	1945	1994	1957	1935	1951	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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1923 - 1997	
ANNUAL MEAN	751		715		601	
HIGHEST ANNUAL MEAN					1473	1985
LOWEST ANNUAL MEAN					177	1954
HIGHEST DAILY MEAN	16700	Apr 23	8120	Nov 8	44500	Dec 4 1982
LOWEST DAILY MEAN	156	Sep 14	177	Aug 6-8	76	Jul 22 1934
ANNUAL SEVEN-DAY MINIMUM	164	Sep 8	184	Aug 3	78	Oct 5 1956
INSTANTANEOUS PEAK FLOW	---		9850	Nov 8	51200	Jun 18 1985
INSTANTANEOUS PEAK STAGE	---		10.71	Nov 8	26.15	Jun 18 1985
INSTANTANEOUS LOW FLOW	---		153	Sep 15	74	Jul 22 1934
ANNUAL RUNOFF (INCHES)	13.09		12.43		10.45	
10 PERCENT EXCEEDS	1510		1430		1110	
50 PERCENT EXCEEDS	366		445		269	
90 PERCENT EXCEEDS	185		207		131	

07014000 HUZZAH CREEK NEAR STEELVILLE, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°58'29", long 91°12'16", in SE 1/4 SW 1/4 sec.25, T.38 N., R.3 W., Crawford County, Hydrologic Unit 07140102. From Steelville take Highway 8 east for about 9 mi.

DRAINAGE AREA.--259 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
12...	1130	239	9.0	308	7.92	10.5	89	--	47	82	151
JAN											
29...	1215	576	2.0	264	7.94	13.6	98	11	K11	30	154
MAR											
10...	1250	330	10.0	291	7.69	11.5	102	--	K5	K12	154
APR											
01...	1020	200	11.5	321	7.88	12.2	110	--	K5	K4	164
JUN											
19...	1130	310	20.5	317	7.87	8.2	90	11	49	69	151
AUG											
19...	1330	274	22.5	340	7.94	7.9	90	--	300	480	162

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)
NOV										
12...	185	0	0.37	<0.01	0.02	<0.2	<0.02	<0.01	--	--
JAN										
29...	186	0	0.23	<0.01	<0.01	<0.2	<0.02	<0.01	140	30
MAR										
10...	189	0	0.23	<0.01	<0.01	<0.2	0.03	0.01	--	--
APR										
01...	204	0	0.07	<0.01	<0.01	<0.2	<0.02	<0.01	--	--
JUN										
19...	203	0	0.12	<0.01	0.01	<0.2	<0.02	<0.01	150	32
AUG										
19...	198	0	0.26	<0.01	0.02	<0.2	<0.02	0.02	--	--

DATE	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)
JAN										
29...	17	3.1	0.8	11	2.5	<0.1	162	1	70	4.7
JUN										
19...	18	2.2	0.9	6.9	2.2	<0.1	158	2	50	13

DATE	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)	COPPER, DISSOLVED (µg/L as Cu) (01040)	IRON, DISSOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	LEAD, DISSOLVED (µg/L as Pb) (01049)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOVERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)	ZINC, DISSOLVED (µg/L as Zn) (01090)
JAN										
29...	<1	<1	<1	5.0	<1	<1	1.1	<0.1	2	<1
JUN										
19...	<1	<1	<1	10	<1	<1	5.0	<0.1	1	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07014200 COURTOIS CREEK AT BERRYMAN, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°55'05", long 91°06'04", in SW 1/4 NE 1/4 sec.13, T.37 N., R.1 W., Crawford County, Hydrologic Unit 07140102. Take Highway 8 until you cross Courtois Creek, about 13 mi east of Steelville.

DRAINAGE AREA.--173 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
12...	1400	145	8.5	318	7.98	11.2	94	--	K18	28	157
JAN											
29...	0905	413	1.5	199	7.73	13.5	95	<10	K17	59	122
MAR											
10...	1415	240	10.0	240	7.61	11.5	102	--	K7	K12	117
APR											
01...	1210	170	11.5	256	7.77	12.0	110	--	K4	K7	125
JUN											
19...	0840	313	17.0	203	8.80	8.8	90	<5	84	125	138
AUG											
19...	1520	167	21.5	298	8.12	7.1	80	--	260	450	172

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN,AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)
NOV										
12...	189	0	0.17	<0.01	0.01	<0.2	<0.02	<0.01	--	--
JAN										
29...	151	0	0.20	<0.01	<0.01	<0.2	<0.02	<0.01	110	24
MAR										
10...	146	0	0.18	<0.01	<0.01	<0.2	0.03	0.01	--	--
APR										
01...	156	0	0.06	<0.01	<0.01	<0.2	<0.02	<0.01	--	--
JUN										
19...	166	0	0.09	<0.01	0.01	0.2	<0.02	<0.01	140	29
AUG										
19...	207	0	0.16	<0.01	0.02	<0.2	<0.02	0.02	--	--

DATE	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)
JAN										
29...	13	1.7	0.7	12	5.0	<0.1	156	2	80	6.4
JUN										
19...	17	1.8	0.8	12	2.2	<0.1	156	2	70	18

DATE	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)	COPPER, DISSOLVED (µg/L as Cu) (01040)	IRON, DISSOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	LEAD, DISSOLVED (µg/L as Pb) (01049)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOVERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)	ZINC, DISSOLVED (µg/L as Zn) (01090)
JAN										
29...	<1	<1	<1	10	1	<1	2.2	<0.1	9	5.7
JUN										
19...	<1	<1	<1	10	<1	<1	5.6	<0.1	2	1.3

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07014500 MERAMEC RIVER NEAR SULLIVAN, MO

LOCATION.--Lat 38°09'30", long 91°06'30", in SE 1/4 NE 1/4 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^2.

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.

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

REMARKS.--Estimated daily discharges: Jan. 12-20. Water-discharge records fair. Water diverted from river 0.5 mi above gage by mining company. 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^3/s.

REVISIONS.--The peak stage for period of record was published incorrectly as 32.0 ft on June 9, 1945, in reports 1988 to 1995.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	1220	4820	1000	2310	5880	1880	992	7360	1660	454	502
2	1050	1030	4410	958	2080	4940	1750	979	3830	1370	450	522
3	889	904	3530	927	1900	4440	1640	1020	2800	1190	445	494
4	771	809	2810	903	2500	3730	1580	992	2270	1140	434	457
5	690	745	2420	867	3450	3170	1920	972	1940	1060	425	435
6	634	719	2360	825	2890	2740	3790	936	1700	990	411	425
7	588	3320	2230	782	2370	2410	3840	919	1530	920	409	414
8	572	9250	2010	751	2090	2180	2870	1000	1380	872	405	421
9	548	6530	1800	763	1870	2120	2350	1390	1260	825	419	449
10	538	3400	1640	757	1690	2720	2050	1420	1160	862	448	498
11	514	2460	1530	731	1560	2620	1870	1260	1080	791	451	470
12	501	1980	1440	710	1450	2320	1800	1170	1020	748	469	446
13	483	1650	1330	690	1350	2850	1710	1080	1040	716	591	426
14	466	1440	1230	670	1280	6870	1590	1040	5230	687	652	414
15	453	1270	1160	660	1210	6440	1480	1000	4600	657	650	410
16	448	1140	1120	650	1140	4290	1400	961	2830	633	630	405
17	451	1090	1120	640	1070	3380	1320	897	2650	609	600	440
18	473	1170	1080	640	1020	2980	1260	1000	4230	596	562	447
19	449	1120	1020	630	977	3740	1240	1750	3450	582	958	437
20	467	1010	954	630	1970	3740	1220	1120	2320	564	1680	435
21	607	934	902	700	5400	3170	1250	967	2100	550	1430	477
22	731	867	883	1540	6090	2760	1300	872	10100	540	1000	540
23	817	810	880	2490	4330	2440	1280	812	4900	539	795	525
24	932	873	1560	2310	3140	2210	1220	788	2990	531	685	544
25	891	4420	1920	2160	2530	2270	1160	1680	2180	517	617	611
26	786	10200	1670	1990	3760	3100	1100	6160	1770	509	572	598
27	756	6310	1440	5650	14700	3090	1080	4730	1530	496	539	557
28	1100	4030	1300	7170	15900	2730	1080	2880	1570	489	513	507
29	2280	3220	1220	4180	---	2470	1060	2150	1890	502	496	477
30	1930	4150	1140	3150	---	2230	1030	2290	2250	501	483	450
31	1470	---	1060	2610	---	2050	---	8330	---	472	475	---
MEAN	793	2602	1742	1585	3287	3293	1671	1728	2832	746	618	474
MAX	2280	10200	4820	7170	15900	6870	3840	8330	10100	1660	1680	611
MIN	448	719	880	630	977	2050	1030	788	1020	472	405	405
IN.	.62	1.97	1.36	1.24	2.32	2.57	1.26	1.35	2.14	.58	.48	.36

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

MEAN	601	1084	1262	1247	1440	1924	2438	2018	1355	728	535	555
MAX	4307	5692	8307	6304	5264	5786	9435	7022	8742	6142	2030	5489
(WY)	1950	1986	1983	1950	1982	1945	1994	1957	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	1521		1767		1263	
HIGHEST ANNUAL MEAN					3014	1985
LOWEST ANNUAL MEAN					341	1954
HIGHEST DAILY MEAN	20900	Apr 29	15900	Feb 28	70600	Jun 9 1945
LOWEST DAILY MEAN	312	Sep 15	405	Aug 8,Sep 16	131	Sep 20 1956
ANNUAL SEVEN-DAY MINIMUM	318	Sep 9	421	Aug 3	133	Sep 16 1956
INSTANTANEOUS PEAK FLOW	---		19800	Feb 27	77300	Jun 9 1945
INSTANTANEOUS PEAK STAGE	---		17.34	Feb 27	32.22	Dec 4 1982
INSTANTANEOUS LOW FLOW	---		401	Aug 8,Sep 16,17	131	Sep 20 1956
ANNUAL RUNOFF (INCHES)	14.04		16.27		11.64	
10 PERCENT EXCEEDS	3330		3750		2440	
50 PERCENT EXCEEDS	819		1120		606	
90 PERCENT EXCEEDS	394		473		273	

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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
OCT											
07...	0930	592	16.5	329	8.14	8.5	86	--	K18	35	172
NOV											
13...	1445	1640	7.5	266	7.99	10.5	95	18	175	130	144
DEC											
05...	0900	2460	6.5	232	7.77	11.9	98	--	46	72	110
JAN											
14...	1115	670	0.5	347	8.14	14.5	97	<10	9	K6	170
FEB											
05...	1230	3450	5.5	260	7.69	12.0	94	--	83	232	112
MAR											
13...	1115	2230	10.0	214	7.76	10.3	92	--	40	K16	122
APR											
07...	1130	3800	13.0	234	7.93	10.0	92	--	176	2100	115
MAY											
07...	1440	919	17.0	333	7.83	10.7	112	--	K1	155	161
JUN											
17...	1215	2220	21.0	267	8.00	8.5	94	12	156	440	127
JUL											
09...	1730	812	24.0	310	7.97	8.5	101	--	20	36	151
AUG											
06...	1440	410	24.5	363	8.23	9.9	118	--	K8	K4	174
SEP											
04...	0850	457	22.0	348	7.50	7.6	86	--	30	65	171

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
OCT										
07...	210	0	0.29	<0.01	0.01	0.31	<0.02	<0.01	--	--
NOV										
13...	176	0	0.40	<0.01	0.01	<0.20	<0.02	0.01	140	28
DEC										
05...	134	0	0.34	<0.01	<0.01	0.22	<0.02	0.01	--	--
JAN										
14...	208	0	0.31	<0.01	<0.01	<0.20	0.02	<0.01	180	36
FEB										
05...	137	0	0.37	<0.01	0.01	0.22	0.02	0.01	--	--
MAR										
13...	148	0	0.30	<0.01	<0.01	<0.20	0.03	<0.01	--	--
APR										
07...	141	0	0.09	<0.01	0.04	0.48	0.02	<0.01	--	--
MAY										
07...	196	0	0.08	<0.01	<0.01	<0.20	<0.02	<0.01	--	--
JUN										
17...	155	0	0.23	<0.01	0.02	0.31	<0.02	0.01	140	28
JUL										
09...	184	0	0.05	<0.01	0.02	0.22	<0.02	<0.01	--	--
AUG										
06...	212	0	0.20	<0.01	0.01	<0.20	<0.02	<0.01	190	56
SEP										
04...	208	0	0.14	<0.01	0.03	<0.20	<0.02	<0.01	--	--

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07014500 MERAMEC RIVER NEAR SULLIVAN, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
NOV 13...	16	2.6	1.3	8.0	6.9	<0.1	148	6	120	47
JAN 14...	21	3.2	1.0	9.5	5.5	<0.1	192	2	40	8.2
JUN 17...	17	2.2	1.0	7.3	2.8	<0.1	146	29	400	29
AUG 06...	11	2.8	1.3	7.0	4.8	<0.1	184	12	140	9.9

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
NOV 13...	<1	<1	<1	40	1	<1	9.4	<0.1	2	1.5
JAN 14...	<1	<1	<1	10	<1	<1	11	<0.1	4	<1.0
JUN 17...	<1	<1	<1	30	2	<1	6.6	<0.1	3	<1.0
AUG 06...	<1	<1	<1	7	4	<1	10	<0.1	4	<1.0

07015720 BOURBEUSE RIVER NEAR HIGH GATE, MO

LOCATION.--Lat 38°08'49", long 91°34'50", in SW 1/4 NE 1/4 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^2.

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

REVISED RECORDS.--WDR MO-83-1: 1982.

GAGE.--Water-stage recorder. Datum of gage is 802.1 ft above sea level (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.--Estimated daily discharges: Jan. 9-20 and 28. Records fair except for discharges below 5 ft^3/s, which are poor. Several observations of water temperature were made during the year. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	27	599	34	156	466	52	25	127	60	.96	8.0
2	5.2	23	400	33	136	512	46	30	63	45	.93	4.2
3	4.1	20	238	31	328	262	42	117	43	35	.81	3.2
4	3.5	19	163	30	652	178	42	69	37	155	.60	2.5
5	3.2	17	218	28	249	133	195	51	28	66	.51	2.1
6	2.9	1290	203	25	161	105	250	42	28	40	.53	1.7
7	2.8	6210	140	23	125	87	126	37	50	32	.50	1.7
8	4.3	644	101	22	108	76	86	167	30	26	.55	2.5
9	5.6	270	77	21	89	545	65	123	21	25	.67	3.4
10	6.4	165	65	21	78	394	54	74	17	21	.65	2.8
11	6.4	111	57	20	71	196	50	56	14	18	.61	2.3
12	5.0	80	49	20	64	125	52	47	12	15	11	2.0
13	4.2	64	44	20	57	1670	47	40	315	12	25	1.8
14	4.2	54	41	20	53	862	41	35	710	9.7	10	1.7
15	4.1	47	39	20	49	278	37	31	161	8.0	11	1.6
16	4.1	44	36	20	47	173	35	26	545	6.7	6.8	1.5
17	4.4	588	34	19	44	128	32	23	2680	5.3	4.6	4.7
18	13	255	32	19	41	212	31	50	1060	4.3	3.7	6.8
19	13	149	32	19	39	438	32	50	263	3.4	687	6.3
20	7.4	100	32	23	455	213	30	32	146	3.0	150	4.4
21	26	77	29	349	1240	143	37	23	95	2.7	48	3.4
22	31	59	25	541	451	100	37	18	3950	2.4	28	2.7
23	81	49	45	230	222	79	34	15	442	2.4	19	3.3
24	37	746	101	385	144	66	31	14	205	2.5	14	5.6
25	25	2110	69	310	107	189	28	19	193	2.4	9.9	5.1
26	20	604	52	170	4620	212	26	50	262	2.2	7.7	4.6
27	274	323	38	5350	1650	130	26	52	119	1.8	6.1	4.1
28	216	292	44	600	385	103	26	47	173	1.5	5.1	3.5
29	79	1080	43	305	---	80	26	38	186	1.2	4.4	3.4
30	43	1130	38	199	---	68	28	272	91	1.3	3.9	3.0
31	32	---	35	163	---	60	---	343	---	1.0	4.0	---
MEAN	31.5	555	101	293	422	267	54.8	65.0	402	19.7	34.4	3.46
MAX	274	6210	599	5350	4620	1670	250	343	3950	155	687	8.0
MIN	2.8	17	25	19	39	60	26	14	12	1.0	.50	1.5
IN.	.27	4.59	.86	2.50	3.26	2.28	.45	.56	3.32	.17	.29	.03

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1997, BY WATER YEAR (WY)

MEAN	50.6	176	199	148	178	225	272	184	119	37.9	32.4	51.6
MAX	552	799	1213	549	634	747	1191	894	963	473	373	865
(WY)	1987	1986	1983	1969	1985	1984	1994	1995	1985	1993	1982	1993
MIN	.34	.94	1.68	.65	12.4	1.32	1.57	3.88	.95	.25	.19	.14
(WY)	1967	1981	1990	1977	1981	1981	1981	1977	1972	1972	1971	1971

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1965 - 1997	
ANNUAL MEAN	161		185		138	
HIGHEST ANNUAL MEAN					315	1985
LOWEST ANNUAL MEAN					21.7	1981
HIGHEST DAILY MEAN	6210	Nov 7	6210	Nov 7	21000	Dec 3 1982
LOWEST DAILY MEAN	.41	Sep 5	.50	Aug 7	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	.47	Sep 1	.57	Aug 4	.00	Several Years
INSTANTANEOUS PEAK FLOW	---		14600	Jan 27	49300	Dec 3 1982
INSTANTANEOUS PEAK STAGE	---		18.33	Jan 27	23.65	Dec 3 1982
INSTANTANEOUS LOW FLOW	---		.47	Aug 5,7,8	.00	Several Years
ANNUAL RUNOFF (INCHES)	16.24		18.58		13.92	
10 PERCENT EXCEEDS	272		363		235	
50 PERCENT EXCEEDS	30		38		21	
90 PERCENT EXCEEDS	2.6		2.9		.75	

07016400 BOURBEUSE RIVER ABOVE UNION, MO

(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°25'55", long 91°01'11, in SW 1/4 NW 1/4 sec.34, T.43 N., R.1 W., Franklin County, Hydrologic Unit 07140103, at bridge on North Bend Drive, 5.5 mi upstream from gaging station, and 0.5 mi southwest of Union.

DRAINAGE AREA.--808 mi^2, approximately.

PERIOD OF RECORD.--November 1983 to October 1987, November 1993 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
OCT											
07...	1215	65	18.0	292	8.13	7.8	82	--	K13	K10	124
NOV											
13...	0920	684	6.5	167	7.60	10.8	94	35	400	740	68
DEC											
04...	1215	1660	4.5	152	7.31	12.7	96	--	K370	K3800	44
JAN											
08...	1300	165	3.0	311	8.15	13.8	102	<10	K6	K6	112
FEB											
05...	0810	2730	3.5	102	7.15	12.5	93	--	168	1080	54
MAR											
13...	0815	1090	10.0	161	7.19	10.5	93	--	580	410	51
APR											
07...	1700	1110	15.0	306	7.96	10.8	104	--	K120	45	88
MAY											
07...	1245	288	17.5	288	7.80	10.2	107	--	K8	K7	117
JUN											
17...	1000	1030	22.5	176	7.60	7.9	91	34	213	233	64
JUL											
09...	1310	315	26.0	239	7.84	8.3	103	--	21	31	94
AUG											
06...	1205	52	26.0	273	7.77	8.4	103	--	46	K2	117
SEP											
02...	1130	70	27.5	217	7.04	6.5	82	--	K78	K15	89

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)
OCT										
07...	151	0	<0.02	<0.01	<0.01	<0.20	<0.02	0.01	--	--
NOV										
13...	83	0	0.43	0.01	0.04	0.44	0.06	0.05	75	15
DEC										
04...	54	0	0.31	<0.01	0.05	0.46	0.06	0.04	--	--
JAN										
08...	137	0	0.11	<0.01	0.01	0.21	<0.02	<0.01	140	28
FEB										
05...	66	0	0.57	0.01	0.05	0.69	0.10	0.04	--	--
MAR										
13...	62	0	0.37	0.02	0.06	0.70	0.06	0.05	--	--
APR										
07...	108	0	<0.02	<0.01	0.04	0.35	0.03	<0.01	--	--
MAY										
07...	142	0	<0.02	<0.01	<0.01	0.20	<0.02	<0.01	--	--
JUN										
17...	79	0	0.24	0.01	0.05	0.71	0.05	0.04	80	16
JUL										
09...	119	0	0.12	<0.01	0.02	0.44	0.06	<0.01	--	--
AUG										
06...	143	0	<0.02	<0.01	0.02	0.42	<0.02	<0.01	130	24
SEP										
02...	109	0	0.19	<0.01	0.04	0.25	<0.02	0.01	--	--

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07016400 BOURBEUSE RIVER ABOVE UNION, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
NOV										
13...	9.0	4.4	2.4	13	4.8	<0.1	110	23	540	110
JAN										
08...	16	5.6	1.7	25	7.5	<0.1	166	1	60	30
JUN										
17...	9.7	3.4	1.7	14	3.7	<0.1	114	52	800	150
AUG										
06...	17	4.2	2.1	12	8.2	<0.1	146	13	170	17

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
NOV										
13...	<1	<1	<1.0	130	3	<1	37	<0.1	6	<1.0
JAN										
08...	<1	<1	<1.0	90	<1	<1	57	<0.1	2	1.1
JUN										
17...	<1	<1	1.2	150	3	<1	14	<0.1	5	<1.0
AUG										
06...	<1	<1	1.4	20	1	<1	51	<0.1	2	2.2

07016500 BOURBEUSE RIVER AT UNION, MO

LOCATION.--Lat 38°26'45", long 90°59'30", in SE 1/4 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^2.

PERIOD OF RECORD.--June 1921 to current year. October 1916 to June 1921 gage heights are contained 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 sea level. 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.--Estimated daily discharges: Jan. 10-21, 30, 31, and Mar. 1-3. Records good except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. National Weather Service telemark 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^3/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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	189	244	6380	241	1190	11500	465	182	2130	520	61	75
2	140	177	4120	240	1100	3830	421	182	1340	452	60	69
3	108	144	2770	231	1070	2700	380	197	757	364	58	68
4	90	123	1740	219	1440	1760	351	188	525	340	56	66
5	78	113	1260	206	2850	1240	419	206	400	292	54	60
6	71	453	1050	193	1940	955	546	307	324	285	52	58
7	65	3100	1060	182	1200	768	974	307	281	346	50	55
8	61	8200	975	167	917	652	982	283	359	306	48	56
9	62	12500	791	169	766	704	666	309	441	300	54	56
10	66	5160	667	159	666	1130	538	373	314	511	53	55
11	60	1190	578	155	587	2650	490	455	258	291	50	53
12	57	847	514	150	521	1530	469	533	217	261	50	52
13	54	652	466	145	471	1570	441	403	324	283	53	51
14	52	533	426	142	435	4350	403	315	1310	224	56	50
15	51	456	391	138	399	7750	366	267	2060	187	196	51
16	52	401	358	134	369	2700	327	233	1640	159	159	51
17	58	409	334	130	344	1460	298	183	1340	140	181	84
18	56	464	310	134	327	1120	276	178	3830	128	171	69
19	51	1350	289	136	307	1040	262	152	7750	119	218	64
20	51	934	270	143	650	1480	253	140	3650	116	590	64
21	100	668	253	202	1740	1510	274	129	1110	137	1560	66
22	116	529	241	499	4700	1030	265	121	4220	103	712	65
23	114	442	241	2410	3460	805	272	120	10600	95	403	67
24	116	524	245	2110	1660	661	272	126	11600	91	280	71
25	133	2330	233	1570	1090	591	257	128	2780	85	209	65
26	156	6920	256	1880	2210	547	238	366	1180	79	160	61
27	180	5350	284	3340	8150	720	223	1080	1290	75	133	59
28	156	2050	297	8500	12700	877	212	1110	1000	72	116	57
29	131	1520	269	12500	---	691	203	681	667	71	101	58
30	316	2860	264	6400	---	604	192	581	531	64	90	58
31	396	---	251	2290	---	526	---	878	---	61	82	---
MEAN	109	2021	890	1455	1902	1918	391	346	2141	212	197	61.1
MAX	396	12500	6380	12500	12700	11500	982	1110	11600	520	1560	84
MIN	51	113	233	130	307	526	192	120	217	61	48	50
IN.	.16	2.79	1.27	2.08	2.45	2.74	.54	.49	2.96	.30	.28	.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1997, BY WATER YEAR (WY)

MEAN	312	557	670	656	774	1116	1315	1153	852	337	190	259
MAX	4575	3320	6107	3518	3214	4207	5303	4578	4583	3650	1927	4859
(WY)	1950	1986	1983	1950	1985	1984	1994	1995	1942	1993	1993	1993
MIN	15.0	28.0	35.4	30.7	41.1	42.0	94.9	66.6	33.7	23.9	21.0	19.2
(WY)	1957	1954	1954	1956	1963	1954	1956	1932	1936	1936	1936	1956

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1921 - 1997	
ANNUAL MEAN	910		961		681	
HIGHEST ANNUAL MEAN					1771	1993
LOWEST ANNUAL MEAN					106	1954
HIGHEST DAILY MEAN	22300	May 1	12700	Feb 28	63000	Dec 5 1982
LOWEST DAILY MEAN	41	Sep 15	48	Aug 8	12	Oct 10 1956
ANNUAL SEVEN-DAY MINIMUM	42	Sep 9	51	Aug 6	13	Oct 6 1956
INSTANTANEOUS PEAK FLOW	---		15700	Mar 1	73300	Dec 5 1982
INSTANTANEOUS PEAK STAGE	---		17.95	Mar 1	33.80	Dec 5 1982
INSTANTANEOUS LOW FLOW	---		48	Aug 7,8,12	11	Oct 10 1956
ANNUAL RUNOFF (INCHES)	15.33		16.14		11.45	
10 PERCENT EXCEEDS	1690		2240		1320	
50 PERCENT EXCEEDS	182		300		173	
90 PERCENT EXCEEDS	57		60		41	

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^2.

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

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

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 18, Feb. 26, 27, Apr. 24, May 26, 30, 31, June 13, and 14. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	115	869	137	281	900	168	83	877	59	16	24
2	98	102	551	131	251	1180	160	80	551	54	15	25
3	85	92	409	125	384	640	151	79	389	48	15	19
4	65	83	314	121	1040	462	145	73	299	56	14	16
5	60	90	462	113	478	363	1170	69	241	51	14	15
6	55	291	409	99	335	291	846	65	197	45	13	14
7	51	2000	294	89	279	244	407	62	167	44	13	14
8	50	900	235	83	249	217	292	124	144	44	13	14
9	50	500	194	93	215	341	230	131	126	49	15	30
10	66	291	176	88	193	432	199	101	113	64	17	28
11	48	203	161	92	176	296	186	90	102	50	15	19
12	46	174	150	72	169	240	183	83	93	42	24	15
13	44	155	137	63	157	847	161	77	1060	38	58	14
14	43	139	126	54	151	1330	146	73	1310	34	35	14
15	42	127	377	59	139	539	133	68	333	30	30	14
16	40	120	382	62	132	368	128	63	246	27	26	13
17	42	114	266	65	118	298	117	61	420	25	22	22
18	43	110	200	58	111	652	110	129	833	23	21	21
19	42	95	163	52	106	773	109	108	298	22	30	16
20	50	85	142	73	285	451	102	91	193	30	49	37
21	56	79	124	309	751	334	125	77	168	26	34	46
22	73	73	124	1110	545	267	117	65	558	22	25	26
23	90	68	226	577	340	225	110	56	207	20	21	23
24	100	638	353	388	257	200	102	51	140	19	19	47
25	84	5580	192	325	216	419	94	419	109	18	17	40
26	77	1700	170	237	3050	437	93	2010	91	16	16	31
27	221	742	164	1300	3990	298	96	569	87	16	15	25
28	508	523	204	778	956	265	97	329	85	15	15	21
29	312	504	181	403	---	224	92	233	73	18	15	19
30	222	1040	157	311	---	206	88	4980	64	25	19	17
31	136	---	145	286	---	187	---	2670	---	18	20	---
MEAN	97.1	558	260	250	548	449	205	425	319	33.8	21.6	22.6
MAX	508	5580	869	1300	3990	1330	1170	4980	1310	64	58	47
MIN	40	68	124	52	106	187	88	51	64	15	13	13
IN.	.64	3.56	1.71	1.65	3.26	2.96	1.31	2.80	2.04	.22	.14	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1997, BY WATER YEAR (WY)

MEAN	65.1	254	286	215	253	320	375	246	124	50.3	56.8	69.1
MAX	339	1147	1027	734	695	867	1329	843	872	262	393	669
(WY)	1971	1994	1983	1969	1985	1978	1994	1990	1985	1981	1970	1993
MIN	6.95	10.5	13.7	11.1	24.9	38.9	66.4	24.1	9.95	4.69	4.31	3.95
(WY)	1981	1981	1977	1981	1977	1981	1977	1977	1980	1980	1980	1971

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1965 - 1997	
ANNUAL MEAN	260		263		192	
HIGHEST ANNUAL MEAN					449	1985
LOWEST ANNUAL MEAN					56.6	1980
HIGHEST DAILY MEAN	7500	Apr 22	5580	Nov 25	21300	Nov 14 1993
LOWEST DAILY MEAN	11	Aug 9	13	Aug 6-8,Sep 16	2.5	Sep 15 1971
ANNUAL SEVEN-DAY MINIMUM	11	Aug 9	14	Aug 2	2.7	Sep 12 1971
INSTANTANEOUS PEAK FLOW	---		Unknown	Unknown	49100	Nov 14 1993
INSTANTANEOUS PEAK STAGE	---		Unknown	Unknown	28.95	Nov 14 1993
INSTANTANEOUS LOW FLOW	---		13	Aug 5-9, Sep 7,8,15,16	2.2	Sep 16 1971
ANNUAL RUNOFF (INCHES)	20.22		20.43		14.93	
10 PERCENT EXCEEDS	583		551		378	
50 PERCENT EXCEEDS	74		110		61	
90 PERCENT EXCEEDS	14		19		11	

07017605 COONVILLE CREEK AT ST. FRANCOIS STATE PARK

(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°58'04", long 90°32'00", in sec.25, T.38 N., R.4 E., St. Francois County, Hydrologic Unit 07140104, at first set of culverts on park road off U.S. Route 67.

PERIOD OF RECORD.--November 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
13...	1015	0.88	6.0	475	8.05	10.7	84	--	K13	23	242
JAN											
28...	1140	10	1.0	239	7.77	11.9	83	12	40	K520	60
MAR											
11...	0745	2.9	6.5	438	7.93	11.4	93	--	36	K15	211
APR											
02...	0720	3.0	13.0	446	8.04	11.0	103	--	K2	K4	210
JUN											
18...	1600	10	20.0	285	8.01	8.7	95	5	165	380	131
AUG											
21...	1225	2.2	18.5	501	7.97	7.6	80	--	33	245	245

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
13...	292	0	0.04	<0.01	0.01	<0.20	<0.02	<0.01	--	--
JAN										
28...	74	0	0.16	<0.01	<0.01	<0.20	<0.02	<0.01	110	24
MAR										
11...	259	0	0.06	<0.01	<0.01	<0.20	0.04	0.01	--	--
APR										
02...	260	0	0.02	<0.01	<0.01	<0.20	<0.02	<0.01	--	--
JUN										
18...	161	0	0.05	<0.01	0.01	0.22	<0.02	0.01	140	30
AUG										
21...	301	0	0.13	<0.01	0.01	<0.20	<0.02	0.01	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
28...	13	5.1	0.9	13	9.1	<0.1	158	4	150	58
JUN										
18...	17	3.7	0.9	10	10	<0.1	178	3	140	44

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
28...	<1	<1	<1	40	9	4	2.9	<0.1	90	82
JUN										
18...	<1	<1	<1	40	12	5	2.5	<0.1	90	66

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07018100 BIG RIVER NEAR RICHWOODS, MO

LOCATION.--Lat 38°09'34", long 90°42'22", in sec.33, T.40 N., R.3 E., Jefferson County, Hydrologic Unit 07140104, on left bank at 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^2.

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, Mo."

GAGE.--Water-stage recorder. Datum of gage is 523.00 ft above sea level.

REMARKS.--Estimated daily discharges: June 17, 18, and July 16 to Sept. 3. 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) from floodmark, 1.0 mi downstream adjusted to gage site by comparison with recorded flood 5.5 ft lower; discharge, 70,500 ft^3/s, from rating curve extended above 37,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	408	456	2030	534	1130	2640	854	381	7090	668	175	175
2	327	388	1800	507	1030	3620	788	368	2180	600	150	197
3	280	345	1280	485	956	2610	743	377	1630	536	145	187
4	243	311	994	471	2690	1830	711	367	1260	568	140	164
5	217	282	894	454	2250	1500	1210	350	1040	592	135	156
6	199	265	1160	421	1410	1270	2980	330	919	517	130	148
7	186	738	1020	385	1100	1110	1880	317	959	468	130	146
8	174	4100	834	357	958	1000	1220	358	840	444	140	153
9	169	1820	707	366	862	970	969	390	695	552	165	164
10	171	1010	631	372	777	1530	840	433	625	567	221	163
11	167	733	583	382	717	1390	763	401	568	507	151	153
12	161	585	542	364	671	1140	745	358	527	464	140	165
13	155	501	498	348	638	1450	694	334	531	429	217	155
14	148	444	470	326	601	4970	629	319	5980	402	154	146
15	143	399	457	310	566	2810	579	301	3550	383	173	140
16	140	367	953	322	539	1730	543	289	1610	270	166	134
17	138	346	893	346	510	1400	507	282	1220	250	170	201
18	142	328	719	339	481	1260	483	321	2920	230	183	295
19	146	315	594	300	455	1860	472	563	2290	220	300	241
20	144	282	495	311	1200	1710	463	501	1340	300	500	198
21	169	257	468	474	2210	1350	498	402	1110	260	454	675
22	191	242	446	1460	2290	1140	507	346	16000	220	270	324
23	248	230	653	2310	1530	1010	502	313	5040	200	184	267
24	305	293	1500	1400	1100	921	472	292	1880	190	144	265
25	338	5200	1130	1260	902	973	447	338	1300	180	138	253
26	285	11100	801	1010	2430	1460	423	3780	1080	160	115	232
27	265	3280	701	4080	15500	1300	421	4200	1000	155	128	229
28	542	1740	665	6170	7450	1090	431	1660	1740	150	185	200
29	1290	1300	696	2280	---	1000	424	1140	1020	200	175	180
30	785	1420	647	1520	---	931	406	1610	842	300	170	165
31	560	---	576	1230	---	905	---	12200	---	200	185	---
MEAN	285	1303	833	997	1891	1609	753	1085	2293	361	188	209
MAX	1290	11100	2030	6170	15500	4970	2980	12200	16000	668	500	675
MIN	138	230	446	300	455	905	406	282	527	150	115	134
IN.	.45	1.98	1.31	1.56	2.68	2.52	1.14	1.70	3.48	.57	.30	.32

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1997, BY WATER YEAR (WY)

MEAN	282	701	859	736	923	1215	1333	1062	575	401	261	327
MAX	1641	4223	4332	3845	2935	2838	5642	3880	3150	2492	1357	4022
(WY)	1950	1986	1983	1950	1985	1985	1994	1990	1985	1951	1950	1993
MIN	47.5	87.9	90.5	84.0	124	123	271	170	110	86.0	69.9	40.6
(WY)	1957	1977	1956	1977	1954	1954	1981	1965	1980	1980	1955	1956

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1949 - 1997	
ANNUAL MEAN	802		975		722	
HIGHEST ANNUAL MEAN					1766	1985
LOWEST ANNUAL MEAN					198	1954
HIGHEST DAILY MEAN	18200	Apr 29	16000	Jun 22	44400	Nov 15 1993
LOWEST DAILY MEAN	98	Sep 5	115	Aug 26	22	Sep 19 1954
ANNUAL SEVEN-DAY MINIMUM	102	Aug 31	139	Aug 2	26	Sep 13 1954
INSTANTANEOUS PEAK FLOW	---		22500	Jun 22	59800	Sep 23 1993
INSTANTANEOUS PEAK STAGE	---		20.73	Jun 22	30.33	Sep 23 1993
INSTANTANEOUS LOW FLOW	---		Unknown	Unknown[a]	20	Sep 19 1954
ANNUAL RUNOFF (INCHES)	14.85		18.01		13.35	
10 PERCENT EXCEEDS	1520		1840		1340	
50 PERCENT EXCEEDS	341		485		294	
90 PERCENT EXCEEDS	143		164		101	

[a]Probably ocurred during period of estimated record July 16 to Sept. 3.

07018100 BIG RIVER NEAR RICHWOODS, MO--Continued
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1963 to 1975, November 1983 to June 1987, November 1992 to current year.

REMARKS.--Reestablished ambient water-quality monitoring network station November 1992.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
13...	1205	496	6.5	386	8.09	10.8	94	--	K89	78	192
JAN											
14...	0815	360	0.5	541	8.23	14.9	101	<10	4	K3	228
MAR											
12...	1415	1100	11.0	342	7.78	10.4	93	--	K68	K36	162
APR											
07...	1415	1780	14.0	260	7.61	9.30	87	--	1200	--	130
JUN											
17...	1515	1220	22.0	343	8.01	8.50	96	20	420	268	155
AUG											
06...	0940	162	24.5	526	8.12	8.10	97	--	23	30	234

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
13...	234	0	0.36	<0.01	0.01	<0.20	<0.02	0.01	--	--
JAN										
14...	278	0	0.26	<0.01	<0.01	<0.20	0.03	<0.01	270	54
MAR										
12...	197	0	0.30	<0.01	<0.01	0.27	0.04	<0.01	--	--
APR										
07...	158	0	0.14	<0.01	0.03	0.48	0.04	0.02	--	--
JUN										
17...	189	0	0.21	<0.01	0.05	0.48	<0.02	<0.01	180	38
AUG										
06...	285	0	0.05	<0.01	0.03	<0.20	<0.02	<0.01	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
14...	32	6.2	4.8	40	8.7	<0.1	282	2	30	7.0
JUN										
17...	21	3.3	1.6	20	4.4	<0.1	210	29	440	22

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
14...	<1	<1	<1.0	20	10	4	28	<0.1	50	44
JUN										
17...	1	<1	1.8	30	100	7	19	<0.1	50	12

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07018500 BIG RIVER AT BYRNESVILLE, MO

LOCATION.--Lat 38°21'45", long 90°39'15, 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^2.

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 sea level. Prior to Mar. 9, 1940, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 26, 27, Jan. 27-29, May 22 to July 1, Aug. 2-14, and Aug. 21-27. Records fair except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. National Weather Service 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^3/s, by slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	574	582	1850	600	1440	7590	924	474	14600	825	282	225
2	445	482	2180	569	1330	3420	846	460	8490	702	260	249
3	371	418	1750	548	1240	3970	752	462	2580	628	220	237
4	326	379	1320	530	1840	2570	703	460	1930	585	210	201
5	289	349	1110	512	3200	1940	1020	447	1460	585	200	185
6	261	334	1050	498	2040	1580	2330	431	1240	585	195	182
7	241	956	1250	477	1480	1340	2910	414	1120	527	190	178
8	232	2130	1050	452	1240	1180	1710	413	1160	505	200	178
9	222	3530	856	446	1090	1130	1280	432	1040	573	210	185
10	217	1580	732	437	960	1330	1100	447	995	556	230	191
11	210	1020	671	358	860	1690	1050	462	725	547	260	183
12	204	756	627	356	787	1420	1040	457	668	493	230	179
13	197	606	593	375	729	1430	908	425	627	451	220	180
14	192	515	561	367	699	4230	815	400	631	415	250	181
15	185	449	540	398	663	5120	727	372	7180	383	358	172
16	179	404	537	390	630	2640	678	361	4250	356	336	165
17	177	379	933	367	603	1840	637	345	1910	333	326	194
18	181	355	840	359	576	1530	606	334	1420	316	298	212
19	174	337	697	390	555	1500	596	344	3420	306	404	269
20	176	323	608	392	1220	2090	580	488	2690	342	898	261
21	195	308	541	487	3100	1710	608	498	1490	308	500	231
22	237	290	520	1090	2920	1380	610	449	1210	296	350	515
23	283	274	511	2130	2340	1190	601	425	17500	289	230	347
24	294	407	817	2220	1590	1040	587	400	6040	281	180	294
25	327	2900	1410	1780	1250	979	554	350	2280	280	170	280
26	357	8540	1050	1400	2420	1170	534	420	1450	280	150	271
27	328	10500	785	5540	10300	1530	519	4580	1280	280	160	255
28	309	2820	698	6970	16000	1330	511	5000	1200	280	234	248
29	557	1790	671	4260	---	1150	506	1960	2040	337	218	230
30	1140	1510	686	2240	---	1060	492	1240	1120	405	217	213
31	759	---	649	1650	---	982	---	1910	---	323	234	---
MEAN	317	1507	906	1245	2254	2034	891	828	3125	431	272	230
MAX	1140	10500	2180	6970	16000	7590	2910	5000	17500	825	898	515
MIN	174	274	511	356	555	979	492	334	627	280	150	165
IN.	.40	1.83	1.14	1.57	2.56	2.56	1.08	1.04	3.80	.54	.34	.28

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

MEAN	335	733	898	927	1101	1429	1709	1440	836	493	294	360
MAX	2290	5084	5594	5064	3696	4539	7230	5196	4530	3895	1490	6464
(WY)	1950	1994	1983	1950	1982	1945	1994	1990	1928	1957	1950	1993
MIN	49.7	99.6	103	90.4	139	137	345	177	105	56.4	41.4	48.7
(WY)	1957	1977	1956	1977	1954	1954	1932	1932	1936	1936	1936	1956

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1922 - 1997	
ANNUAL MEAN	991		1158		879	
HIGHEST ANNUAL MEAN					1934	1985
LOWEST ANNUAL MEAN					227	1954
HIGHEST DAILY MEAN	24600	Apr 29	17500	Jun 23	57800	Sep 25 1993
LOWEST DAILY MEAN	104	Sep 4,5	150	Aug 26	25	Aug 30 1936
ANNUAL SEVEN-DAY MINIMUM	109	Aug 31	179	Sep 10	34	Aug 28 1936
INSTANTANEOUS PEAK FLOW	---		18400	Jun 23	63600	Sep 25 1993
INSTANTANEOUS PEAK STAGE	---		20.65	Jun 23[a]	29.37	Sep 25 1993
INSTANTANEOUS LOW FLOW	---		Unknown	Unknown[b]	25	Aug 30 1936
ANNUAL RUNOFF (INCHES)	14.71		17.15		13.02	
10 PERCENT EXCEEDS	1940		2260		1740	
50 PERCENT EXCEEDS	379		555		345	
90 PERCENT EXCEEDS	162		213		117	

[a]From highwater mark.
[b]Probably occurred during period of estimated discharges, Aug. 21-27.

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^2.

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder. Datum of gage is 404.18 ft above sea level. 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. Water-discharge records good. National Weather Service telemark and U.S. Army Corps of Engineers satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 22, 1915, reached a stage of 40.2 ft, from floodmarks, present datum, discharge, 175,000 ft^3/s, by slope-area measurement of peak flow.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2840	2470	11300	2450	7170	39800	4300	1940	17400	4270	882	944
2	2240	1990	14200	2330	6230	32200	3970	1880	19500	3610	814	951
3	1780	1700	11100	2230	5700	14500	3670	1950	9310	3070	782	953
4	1550	1510	8420	2170	6600	11700	3440	1990	6430	2850	773	910
5	1360	1380	6730	2110	8440	8910	3950	1940	5070	2570	741	859
6	1200	1520	5750	2050	9340	7290	6120	1890	4240	2450	709	819
7	1090	5850	5500	1980	7340	6180	8190	1900	3860	2270	685	794
8	1020	10500	5230	1900	5940	5400	7940	1930	3550	2170	670	777
9	979	18200	4590	1880	5120	5190	6290	2030	3220	2380	680	814
10	971	20500	4050	1850	4530	5770	5150	2250	2930	2240	697	788
11	950	9490	3670	1610	4090	6950	4690	2560	2610	2280	720	777
12	936	4950	3390	1490	3750	7580	4460	2520	2370	1970	746	804
13	891	3900	3150	1540	3490	6590	4050	2230	2490	1800	761	769
14	860	3230	2970	1590	3260	13900	3710	2020	4470	1710	850	774
15	833	2820	2800	1690	3090	18900	3380	1860	12100	1540	1280	755
16	818	2500	2640	1660	2930	18900	3100	1760	11800	1410	1470	738
17	816	2310	2890	1480	2780	10800	2850	1680	7850	1310	1200	911
18	818	2150	2930	1550	2640	7870	2660	1640	10300	1210	1120	882
19	814	2260	2690	1670	2520	7120	2630	1570	14400	1170	1570	890
20	808	2950	2480	1720	3600	7850	2470	2210	14000	1250	3560	909
21	955	2410	2290	1930	9350	8330	2710	2130	7420	1120	3750	848
22	1160	2030	2180	3710	12300	7100	2600	1810	10400	1070	3940	1030
23	1360	1810	2150	5490	14900	6020	2540	1620	28100	1030	2590	1100
24	1360	1820	2310	8270	10900	5250	2490	1480	31400	985	1930	1050
25	1370	6220	3220	7880	7420	4830	2360	1470	17900	967	1550	1020
26	1450	16900	3600	6580	8220	4900	2250	3770	7560	933	1320	1010
27	1420	25200	3310	12000	23500	5840	2170	11600	5450	915	1180	1020
28	1330	18700	3050	25200	32900	6240	2100	11400	5360	884	1090	1000
29	1430	9550	2820	26300	---	5690	2050	6790	5200	903	1030	951
30	2540	8410	2700	20800	---	5140	2020	5180	4110	1100	989	885
31	2960	---	2600	10900	---	4720	---	8040	---	979	1050	---
MEAN	1320	6508	4410	5355	7788	9918	3677	3066	9360	1755	1327	891
MAX	2960	25200	14200	26300	32900	39800	8190	11600	31400	4270	3940	1100
MIN	808	1380	2150	1480	2520	4720	2020	1470	2370	884	670	738
IN.	.40	1.92	1.34	1.63	2.14	3.02	1.08	.93	2.76	.53	.40	.26

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

MEAN	1444	2580	3073	3238	3843	5179	6369	5383	3654	1911	1174	1458
MAX	12120	15450	23620	17320	14730	13960	22580	18280	18070	12600	5441	18500
(WY)	1950	1986	1983	1950	1982	1978	1927	1995	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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	3950		4583		3261	
HIGHEST ANNUAL MEAN					7407	1985
LOWEST ANNUAL MEAN					751	1954
HIGHEST DAILY MEAN	61500	May 1	39800	Mar 1	139000	Dec 6 1982
LOWEST DAILY MEAN	584	Sep 14	670	Aug 8	196	Aug 27 1936
ANNUAL SEVEN-DAY MINIMUM	603	Sep 9	700	Aug 5	209	Aug 26 1936
INSTANTANEOUS PEAK FLOW	---		40800	Mar 1	145000	Dec 6 1982
INSTANTANEOUS PEAK STAGE	---		21.95	Mar 1	42.89	Dec 6 1982
INSTANTANEOUS LOW FLOW	---		658	Aug 8,9	196	Aug 27 1936
ANNUAL RUNOFF (INCHES)	14.20		16.43		11.70	
10 PERCENT EXCEEDS	8410		10800		6830	
50 PERCENT EXCEEDS	1540		2490		1440	
90 PERCENT EXCEEDS	765		885		526	

07019072 KIEFER CREEK NEAR BALLWIN, MO
(Metropolitan Sewer District)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°33'19", long 90°33'06", St. Louis County, Hydrologic Unit 07140102, on right bank 60 ft. downstream of bridge on Castlewood Road, 0.2 mi upstream of Spring Branch, 3.2 mi west of Highway 141, and 1.3 mi upsteram of Meramec River.

DRAINAGE AREA.--3.91 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 mL) (31633)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)
DEC												
12...	1130	2.2	731	7.16	12.5	9.3	86	5400	144	144	235	0
MAR												
06...	0920	4.5	700	7.10	11.5	10.3	93	K63	88	88	234	0
MAY												
30...	1800	e21.1	425	7.49	16.0	9.2	92	K45500	K62500	K51000	103	0
JUN												
09...	1135	e1.3	797	7.19	13.0	9.6	91	836	4100	490	227	0
AUG												
19...	1115	e97	203	7.75	21.0	9.0	101	7800	91000	5400	129	0
27...	1230	e1.9	816	7.20	14.5	9.4	92	355	540	22000	250	0

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	NITRO-GEN, TOTAL (mg/L as N) (00600)	NITRO-GEN, ORGANIC TOTAL (mg/L as N) (00605)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, NITRATE TOTAL (mg/L as N) (00620)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITRO-GEN, AMMONIA TOTAL (mg/L as NH_4) (71845)	NITRO-GEN, TOTAL (mg/L as NO_3) (71887)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	PHOS-PHATE, TOTAL (mg/L as PO_4) (00650)	PHOS-PHORUS TOTAL (mg/L as P) (00665)
DEC												
12...	287	--	--	<0.01	<0.01	--	<0.20	--	--	1.60	0.12	0.04
MAR												
06...	289	--	--	0.02	<0.01	--	<0.20	0.03	--	1.30	0.09	0.06
MAY												
30...	126	--	--	0.06	0.04	0.85	E1.2	0.08	--	0.89	0.43	0.30
JUN												
09...	270	--	--	E0.02	<0.01	--	E0.22	--	--	E1.70	--	E0.02
AUG												
19...	152	3.8	3.3	0.04	0.12	0.37	3.3	0.05	17	0.49	1.35	0.77
27...	308	2.0	0.23	0.02	<0.01	--	0.25	0.03	9.1	1.80	0.09	<0.02

DATE	PHOS-PHORUS ORTHO TOTAL (mg/L AS P) (70507)	PHOS-PHORUS ORGANIC TOTAL (mg/L AS P) (00670)	HARD-NESS TOTAL (mg/L AS $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L AS Mg) (00925)	ARSENIC DIS-SOLVED (ug/L AS As) (01000)	BERYL-LIUM, DIS-SOLVED (ug/L AS BE) (01010)	CADMIUM DIS-SOLVED (ug/L AS Cd) (01025)	CHRO-MIUM, DIS-SOLVED (ug/L AS Cr) (01030)	COPPER, DIS-SOLVED (ug/L AS Cu) (01040)	IRON, DIS-SOLVED (ug/L AS Fe) (01046)	LEAD, DIS-SOLVED (ug/L AS Pb) (01049)
DEC												
12...	0.04	0.02	290	95	14	<1	<0.5	<1.0	<1	<1.0	<1	<1
MAR												
06...	0.03	0.03	260	86	12	<1	<0.5	1.3	<1	<1.0	8	<1
MAY												
30...	0.14	0.16	120	40	6.0	<1	<0.5	<1.0	<1	2.3	10	<1
JUN												
09...	E0.04	--	280	90	14	<1	<0.5	<1.0	<1	<1.0	5	<1
AUG												
19...	0.44	0.33	64	19	4.0	2	<0.5	<1.0	<1	2.5	20	<1
27...	0.03	--	320	100	16	<1	<0.5	<1.0	<1	<1.0	3	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).
e--Estimated discharge value.
E--Laboratory estimated value.

07019072 KIEFER CREEK NEAR BALLWIN, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MANGANESE, DISSOLVED (ug/L AS Mn) (01056)	NICKEL, DISSOLVED (ug/L AS Ni) (01065)	SILVER, DISSOLVED (ug/L AS Ag) (01075)	ZINC, DISSOLVED (ug/L AS Zn) (01090)	ALUMINUM, DISSOLVED (ug/L AS Al) (01106)	SELENIUM, DISSOLVED (ug/L AS Se) (01145)	MERCURY TOTAL RECOVERABLE (ug/L AS Hg) (71900)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (mg/L) (00556)	DICHLOROBROMOMETHANE TOTAL (ug/L) (32101)	CARBON-TETRACHLORIDE TOTAL (ug/L) (32102)	1,2-DICHLOROETHANE TOTAL (ug/L) (32103)
DEC												
12...	6.6	1.1	<1	1.9	6.3	<1	<0.1	5	--	--	--	--
MAR												
06...	12	1.2	<1	8.0	12	<1	<0.1	6	--	--	--	--
MAY												
30...	9.6	1.7	<1	4.7	11	<1	0.1	120	E1	--	--	--
JUN												
09...	3.3	1.2	<1	3.3	8.0	<1	<0.1	15	--	--	--	--
AUG												
19...	5.0	1.2	<1	<1.0	11	2	<0.1	680	<1	<0.4	<0.4	<0.4
27...	3.6	<1.0	<1	1.1	7.4	1	<0.1	<1	--	--	--	--

DATE	BROMOFORM TOTAL (ug/L) (32104)	CHLORODIBROMOMETHANE TOTAL (ug/L) (32105)	CHLOROFORM TOTAL (ug/L) (32106)	TOLUENE TOTAL (ug/L) (34010)	BENZENE TOTAL (ug/L) (34030)	ACENAPHTHYLENE TOTAL (ug/L) (34200)	ACENAPHTHENE TOTAL (ug/L) (34205)	ANTHRACENE TOTAL (ug/L) (34220)	BENZO B FLUORANTHENE TOTAL (ug/L) (34230)	BENZO K FLUORANTHENE TOTAL (ug/L) (34242)	BENZO-A-PYRENE TOTAL (ug/L) (34247)	BIS 2-CHLOROETHYL ETHER UNFLTRD RECOVER (ug/L) (34273)
MAY												
30...	<0.4	<0.4	<0.4	<0.4	<0.4	<5	<5	<5	<10	<10	<10	<5
AUG												
19...	<0.4	<0.4	<0.4	<0.4	<0.4	<5	<5	E0.06	E0.5	E0.2	E0.2	<5

DATE	BIS (2-CHLOROETHOXY) METHANE TOTAL (ug/L) (34278)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (ug/L) (34283)	N-BUTYL BENZYL PHTHALATE TOTAL (ug/L) (34292)	CHLOROBENZENE TOTAL (ug/L) (34301)	CHRYSENE TOTAL (ug/L) (34320)	DIETHYL PHTHALATE TOTAL (ug/L) (34336)	DIMETHYL PHTHALATE TOTAL (ug/L) (34341)	ETHYLBENZENE TOTAL (ug/L) (34371)	FLUORANTHENE TOTAL (ug/L) (34376)	FLUORENE TOTAL (ug/L) (34381)	CYCLOPENTADIENHEXACHLOROUNFLTRD RECOVER (ug/L) (34386)	ETHANE HEXACHLOROWATER UNFLTRD RECOVER (ug/L) (34396)
MAY												
30...	<5	<5	<5	<0.4	<10	<5	<5	<0.4	E0.2	<5	<20	<5
AUG												
19...	<5	<5	<5	<0.4	E0.2	<5	<5	<0.4	E0.5	<5	<20	<5

DATE	INDENO (1,2,3-CD) PYRENE TOTAL (ug/L) (34403)	ISOPHORONE TOTAL (ug/L) (34408)	METHYLENE CHLORIDE TOTAL (ug/L) (34423)	N-NITROSODI-N-PROPYLAMINE TOTAL (ug/L) (34428)	N-NITROSODIPHENYLAMINE TOTAL (ug/L) (34433)	N-NITROSODIMETHYLAMINE TOTAL (ug/L) (34438)	BENZENE NITROWATER UNFLTRD RECOVER (ug/L) (34447)	PARACHLOROMETA CRESOL TOTAL (ug/L) (34452)	PHENANTHRENE TOTAL (ug/L) (34461)	PYRENE TOTAL (ug/L) (34469)	TETRACHLOROETHYLENE TOTAL (ug/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (ug/L) (34488)
MAY												
30...	<10	<5	<0.4	<5	<5	<5	<5	<30	<5	E0.1	--	--
AUG												
19...	E0.4	<5	<0.4	<5	<5	<5	<5	<30	E0.1	E0.4	<0.4	<0.4

DATE	1,1-DICHLOROETHANE TOTAL (ug/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (ug/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (ug/L) (34506)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (ug/L) (34521)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (ug/L) (34526)	BENZENE O-DICHLOROWATER UNFLTRD REC (ug/L) (34536)	1,2-DICHLOROPROPANE TOTAL (ug/L) (34541)	BENZENE 1,2,4-TRICHLOROWAT UNF REC (ug/L) (34551)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (ug/L) (34556)	BENZENE 1,3-DICHLOROWATER UNFLTRD REC (ug/L) (34566)	2-CHLORONAPHTHALENE TOTAL (ug/L) (34581)	2-CHLOROPHENOL TOTAL (ug/L) (34586)
MAY												
30...	--	--	--	<10	<10	<5	--	<5	<10	<5	<5	<5
AUG												
19...	<0.4	<0.4	<0.4	E0.5	E0.1	<0.4	<0.4	<5	<10	<0.4	<5	<5

E--Laboratory estimated value.

07019072 KIEFER CREEK NEAR BALLWIN, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	2-NITROPHENOL TOTAL (ug/L) (34591)	DI-N-OCTYL PHTHALATE TOTAL (ug/L) (34596)	2,4-DICHLOROPHENOL TOTAL (ug/L) (34601)	2,4-DIMETHYLPHENOL TOTAL (ug/L) (34606)	2,4-DINITROTOLUENE TOTAL (ug/L) (34611)	2,4,-DINITROPHENOL TOTAL (ug/L) (34616)	2,4,6-TRICHLOROPHENOL TOTAL (ug/L) (34621)	2,6-DINITROTOLUENE TOTAL (ug/L) (34626)	3,3'-DICHLOROBENZIDINE TOTAL (ug/L) (34631)	4-BROMOPHENYL PHENYL ETHER TOTAL (ug/L) (34636)	4-CHLOROPHENYL PHENYL ETHER TOTAL (ug/L) (34641)	4-NITROPHENOL TOTAL (ug/L) (34646)
MAY												
30...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	<30
AUG												
19...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	<30

DATE	4,6-DINITRO-ORTHO-CRESOL TOTAL (ug/L) (34657)	DICHLORODIFLUOROMETHANE TOTAL (ug/L) (34668)	PHENOL (C6H5OH) TOTAL (ug/L) (34694)	NAPHTHALENE TOTAL (ug/L) (34696)	CHLORPYRIFOS TOTAL RECOVER (ug/L) (38932)	PHORATE TOTAL (ug/L) (39023)	PENTACHLOROPHENOL TOTAL (ug/L) (39032)	PERTHANE TOTAL (ug/L) (39034)	DEF TOTAL (ug/L) (39040)	BIS(2-ETHYLHEXYL) PHTHALATE TOTAL (ug/L) (39100)	DI-N-BUTYL PHTHALATE TOTAL (ug/L) (39110)	BENZIDINE TOTAL (ug/L) (39120)
MAY												
30...	<30	<0.4	<5	<5	0.01	<0.01	<30	<0.1	<0.01	<5	<5	<40
AUG												
19...	<30	<0.4	<5	<5	0.01	<0.01	E3	<0.1	<0.01	<5	<5	<40

DATE	VINYL CHLORIDE TOTAL (ug/L) (39175)	TRICHLOROETHYLENE TOTAL (ug/L) (39180)	PCNS UNFILT RECOVER (ug/L) (39250)	ALDRIN, TOTAL (ug/L) (39330)	LINDANE TOTAL (ug/L) (39340)	CHLORDANE, TECHNICAL TOTAL (ug/L) (39350)	P,P'-DDD UNFILT RECOVER (ug/L) (39360)	P,P'-DDE, TOTAL (ug/L) (39365)	P,P'-DDT UNFILT RECOVER (ug/L) (39370)	DIELDRIN TOTAL (ug/L) (39380)	ENDOSULFAN, I TOTAL (ug/L) (39388)
MAY											
30...	<0.4	<0.4	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01
AUG											
19...	<0.4	<0.4	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01

DATE	ENDRIN WATER UNFLTRD REC (ug/L) (39390)	ETHION, TOTAL (ug/L) (39398)	TOXAPHENE, TOTAL (ug/L) (39400)	HEPTACHLOR, TOTAL (ug/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (ug/L) (39420)	METHOXYCHLOR, TOTAL (ug/L) (39480)	PCB, TOTAL (ug/L) (39516)	MALATHION, TOTAL (ug/L) (39530)	PARATHION, TOTAL (ug/L) (39540)	DIAZINON, TOTAL (ug/L) (39570)	METHYL PARATHION, TOTAL (ug/L) (39600)
MAY											
30...	<0.01	<0.01	<1	<0.01	<0.01	<0.01	<0.1	0.01	<0.01	0.15	<0.01
AUG											
19...	<0.01	<0.01	<1	<0.01	<0.01	<0.01	<0.1	0.01	<0.01	0.18	<0.01

DATE	HEXACHLOROBENZENE TOTAL (ug/L) (39700)	HEXACHLOROBUTADIENE TOTAL (ug/L) (39702)	MIREX, TOTAL (ug/L) (39755)	TOTAL TRITHION (ug/L) (39786)	CIS-1,2-DICHLOROETHENE WATER TOTAL (ug/L) (77093)	STYRENE TOTAL (ug/L) (77128)	FREON-113 WATER UNFLTRD REC (ug/L) (77652)	METHYL TERT-BUTYL ETHER WAT UNF REC (ug/L) (78032)	XYLENE WATER UNFLTRD REC (ug/L) (81551)	FONOFOS (DYFONATE) WATER WHOLE TOT.REC (ug/L) (82614)	1,2-DIPHENYLHYDRAZINE WATER TOT.REC (ug/L) (82626)
MAY											
30...	<5	<5	<0.01	<0.01	--	--	--	--	--	<0.01	<5
AUG											
19...	<5	<5	<0.01	<0.01	<0.4	<0.4	<0.4	<0.4	<0.4	<0.01	<5

E--Laboratory estimated value.

07019120 FISHPOT CREEK AT VALLEY PARK, MO

(Metropolitan Sewer District)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°33'07", long 90°30'41", sec.13, T.44 N., R.4 W., St. Louis County, Hydrologic Unit 07140102, on right bank 30 ft upstream of bridge on Hanna Road, 1.0 mi north of I-44, 0.94 mi west of Highway 141, and 1.71 mi upstream of Meramec River.

DRAINAGE AREA.--9.58 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 mL) (31633)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)
DEC												
12...	1000	0.37	699	7.69	7.0	7.0	56	5900	K61	84	185	0
MAR												
06...	1015	1.1	745	7.85	7.5	12.8	105	K28	13	K29	193	0
MAY												
26...	0555	e52	152	7.85	18.5	7.1	77	7000	K58400	K14000	67	0
JUN												
09...	1250	e0.01	596	7.61	19.5	4.9	53	68	290	150	168	0
AUG												
27...	1315	e0.01	476	7.57	25.0	3.3	40	327	339	6500	164	0

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	NITRO-GEN, TOTAL (mg/L as N) (00600)	NITRO-GEN, ORGANIC TOTAL (mg/L as N) (00605)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (71845)	NITRO-GEN, TOTAL (mg/L as NH_4) (71887)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as NO_3) (00630)	PHOS-PHATE, TOTAL (mg/L as N) (00650)	PHOS-PHORUS TOTAL (mg/L as PO_4) (00665)
DEC											
12...	226	0.70	0.26	<0.01	<0.01	0.26	0.10	3.1	0.44	0.40	0.14
MAR											
06..	238	--	--	<0.01	<0.01	<0.20	--	--	1.0	0.34	0.12
MAY											
26..	83	3.9	2.6	0.19	0.04	2.8	0.24	17	1.1	0.40	0.64
JUN											
09..	210	--	--	E0.07	<0.01	E0.33	--	--	E0.12	--	E0.07
AUG											
27..	206	0.37	0.20	0.05	<0.01	0.25	0.06	1.6	0.12	0.43	0.11

DATE	PHOS-PHORUS ORTHO TOTAL (mg/L AS P) (70507)	PHOS-PHORUS ORGANIC TOTAL (mg/L AS P) (00670)	HARD-NESS TOTAL (mg/L AS $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L AS Mg) (00925)	ARSENIC DIS-SOLVED (ug/L AS As) (01000)	BERYL-LIUM, DIS-SOLVED (ug/L AS BE) (01010)	CADMIUM DIS-SOLVED (ug/L AS Cd) (01025)	CHRO-MIUM, DIS-SOLVED (ug/L AS Cr) (01030)	COPPER, DIS-SOLVED (ug/L AS Cu) (01040)	IRON, DIS-SOLVED (ug/L AS Fe) (01046)	LEAD, DIS-SOLVED (ug/L AS Pb) (01049)
DEC												
12...	0.13	0.01	220	73	10	<1	<0.5	<1	<1	<1.0	1.0	<1
MAR												
06...	0.11	0.01	230	72	11	<1	<0.5	<1	<1	<1.0	10	<1
MAY												
26...	0.13	0.51	65	21	3.0	1	<0.5	<1	<1	1.1	20	<1
JUN												
09...	E0.10	--	190	62	9.4	2	<0.5	<1	<1	1.0	7.0	<1
AUG												
27...	0.14	0.0	180	59	8.0	2	<0.5	<1	<1	<1.0	20	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).
e--Estimated discharge value.
E--Laboratory estimated value.

07019120 FISHPOT CREEK AT VALLEY PARK, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MANGANESE, DISSOLVED (ug/L AS Mn) (01056)	NICKEL, DISSOLVED (ug/L AS Ni) (01065)	SILVER, DISSOLVED (ug/L AS Ag) (01075)	ZINC, DISSOLVED (ug/L AS Zn) (01090)	ALUMINUM, DISSOLVED (ug/L AS Al) (01106)	SELENIUM, DISSOLVED (ug/L AS Se) (01145)	MERCURY TOTAL RECOVERABLE (ug/L AS Hg) (71900)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (mg/L) (00556)	DICHLOROBROMOMETHANE TOTAL (ug/L) (32101)	CARBON-TETRACHLORIDE TOTAL (ug/L) (32102)	1,2-DICHLOROETHANE TOTAL (ug/L) (32103)
DEC												
12...	3.7	<1.0	<1	<1.0	7.5	<1	<0.1	5	--	--	--	--
MAR												
06...	11	1.1	<1	57	19	<1	<0.1	1	--	--	--	--
MAY												
26...	4.9	1.5	<1	2.2	11	<1	0.1	580	E1	<0.2	<0.2	<0.2
JUN												
09...	260	1.6	<1	<1.0	7.1	<1	0.1	<1	--	--	--	--
AUG												
27...	270	<1.0	<1	<1.0	7.1	<1	<0.1	<1	--	--	--	--

DATE	BROMOFORM TOTAL (ug/L) (32104)	CHLORODIBROMOMETHANE TOTAL (ug/L) (32105)	CHLOROFORM TOTAL (ug/L) (32106)	TOLUENE TOTAL (ug/L) (34010)	BENZENE TOTAL (ug/L) (34030)	ACENAPHTHYLENE TOTAL (ug/L) (34200)	ACENAPHTHENE TOTAL (ug/L) (34205)	ANTHRACENE TOTAL (ug/L) (34220)	BENZO B FLUORANTHENE TOTAL (ug/L) (34230)	BENZO K FLUORANTHENE TOTAL (ug/L) (34242)	BENZO-A-PYRENE TOTAL (ug/L) (34247)	BIS 2-CHLOROETHYL ETHER UNFLTRD RECOVER (ug/L) (34273)
MAY												
26...	<0.2	<0.2	<0.2	<0.2	<0.2	<5	<5	E0.1	E1	E1	E0.9	<5

DATE	BIS (2-CHLOROETHOXY) METHANE TOTAL (ug/L) (34278)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (ug/L) (34283)	N-BUTYL BENZYL PHTHALATE TOTAL (ug/L) (34292)	CHLOROBENZENE TOTAL (ug/L) (34301)	CHRYSENE TOTAL (ug/L) (34320)	DIETHYL PHTHALATE TOTAL (ug/L) (34336)	DIMETHYL PHTHALATE TOTAL (ug/L) (34341)	ETHYLBENZENE TOTAL (ug/L) (34371)	FLUORANTHENE TOTAL (ug/L) (34376)	FLUORENE TOTAL (ug/L) (34381)	CYCLOPENTADIENHEXACHLORO-UNFLTRD RECOVER (ug/L) (34386)	ETHANE HEXACHLORO-WATER UNFLTRD RECOVER (ug/L) (34396)
MAY												
26...	<5	<5	<5	<0.2	E1	<5	<5	<0.2	E2	<5	<20	<5

DATE	INDENO (1,2,3-CD) PYRENE TOTAL (ug/L) (34403)	ISOPHORONE TOTAL (ug/L) (34408)	METHYLENE CHLORIDE TOTAL (ug/L) (34423)	N-NITROSODI-N-PROPYLAMINE TOTAL (ug/L) (34428)	N-NITROSODIPHENYLAMINE TOTAL (ug/L) (34433)	N-NITROSODIMETHYLAMINE TOTAL (ug/L) (34438)	BENZENE NITROWATER UNFLTRD RECOVER (ug/L) (34447)	PARACHLOROMETA CRESOL TOTAL (ug/L) (34452)	PHENANTHRENE TOTAL (ug/L) (34461)	PYRENE TOTAL (ug/L) (34469)	TETRACHLOROETHYLENE TOTAL (ug/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (ug/L) (34488)
MAY												
26...	E0.8	<5	<0.2	<5	<5	<5	<5	<30	E1	E2	<0.2	<0.2

DATE	1,1-DICHLOROETHANE TOTAL (ug/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (ug/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (ug/L) (34506)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (ug/L) (34521)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (ug/L) (34526)	BENZENE O-DICHLOROWATER UNFLTRD REC (ug/L) (34536)	1,2-DICHLOROPROPANE TOTAL (ug/L) (34541)	BENZENE 1,2,4-TRICHLOROWAT UNF REC (ug/L) (34551)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (ug/L) (34556)	BENZENE 1,3-DICHLOROWATER UNFLTRD REC (ug/L) (34566)	2-CHLORONAPHTHALENE TOTAL (ug/L) (34581)	2-CHLOROPHENOL TOTAL (ug/L) (34586)
MAY												
26...	<0.2	<0.2	<0.2	E0.8	E0.5	<5	<0.2	<5	<10	<5	<5	<5

DATE	2-NITROPHENOL TOTAL (ug/L) (34591)	DI-N-OCTYL PHTHALATE TOTAL (ug/L) (34596)	2,4-DICHLOROPHENOL TOTAL (ug/L) (34601)	2,4-DIMETHYLPHENOL TOTAL (ug/L) (34606)	2,4-DINITROTOLUENE TOTAL (ug/L) (34611)	2,4,-DINITROPHENOL TOTAL (ug/L) (34616)	2,4,6-TRICHLOROPHENOL TOTAL (ug/L) (34621)	2,6-DINITROTOLUENE TOTAL (ug/L) (34626)	3,3'-DICHLOROBENZIDINE TOTAL (ug/L) (34631)	4-BROMOPHENYL PHENYL ETHER TOTAL (ug/L) (34636)	4-CHLOROPHENYL PHENYL ETHER TOTAL (ug/L) (34641)	4-NITROPHENOL TOTAL (ug/L) (34646)
MAY												
26...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	<30

E--Laboratory estimated value.

07019120 FISHPOT CREEK AT VALLEY PARK, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	4,6-DINITRO-ORTHO-CRESOL TOTAL (ug/L) (34657)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (ug/L) (34668)	PHENOL (C6H-5OH) TOTAL (ug/L) (34694)	NAPHTH-ALENE TOTAL (ug/L) (34696)	CHLOR-PYRIFOS TOTAL RECOVER (ug/L) (38932)	PHORATE TOTAL (ug/L) (39023)	PENTA-CHLORO-PHENOL TOTAL (ug/L) (39032)	PER-THANE TOTAL (ug/L) (39034)	DEF TOTAL (ug/L) (39040)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (ug/L) (39100)	DI-N-BUTYL PHTHAL-ATE TOTAL (ug/L) (39110)	BENZI-DINE TOTAL (ug/L) (39120)
MAY 26...	<30	<0.2	<5	<5	0.02	<0.01	<30	<0.1	<0.01	<5	<5	<40

DATE	VINYL CHLO-RIDE TOTAL (ug/L) (39175)	TRI-CHLORO-ETHYL-ENE TOTAL (ug/L) (39180)	PCNS UNFILT RECOVER (ug/L) (39250)	ALDRIN, TOTAL (ug/L) (39330)	LINDANE TOTAL (ug/L) (39340)	CHLOR-DANE, TECH-NICAL TOTAL (ug/L) (39350)	P,P'-DDD UNFILT RECOVER (ug/L) (39360)	P,P'-DDE, TOTAL (ug/L) (39365)	P,P'-DDT UNFILT RECOVER (ug/L) (39370)	DI-ELDRIN TOTAL (ug/L) (39380)	ENDO-SULFAN, I TOTAL (ug/L) (39388)
MAY 26...	<0.2	<0.2	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01

DATE	ENDRIN WATER UNFLTRD REC (ug/L) (39390)	ETHION, TOTAL (ug/L) (39398)	TOX-APHENE, TOTAL (ug/L) (39400)	HEPTA-CHLOR, TOTAL (ug/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (ug/L) (39420)	METH-OXY-CHLOR, TOTAL (ug/L) (39480)	PCB, TOTAL (ug/L) (39516)	MALA-THION, TOTAL (ug/L) (39530)	PARA-THION, TOTAL (ug/L) (39540)	DI-AZINON, TOTAL (ug/L) (39570)	METHYL PARA-THION, TOTAL (ug/L) (39600)
MAY 26...	<0.01	<0.01	<1	<0.01	<0.01	<0.01	<0.1	0.06	<0.01	0.24	<0.01

DATE	HEXA-CHLORO-BENZENE TOTAL (ug/L) (39700)	HEXA-CHLORO-BUT-ADIENE TOTAL (ug/L) (39702)	MIREX, TOTAL (ug/L) (39755)	TOTAL TRI-THION (ug/L) (39786)	CIS-1,2-DI-CHLORO-ETHENE WATER TOTAL (ug/L) (77093)	STYRENE TOTAL (ug/L) (77128)	FREON-113 WATER UNFLTRD REC (ug/L) (77652)	METHYL TERT-BUTYL ETHER WAT UNF REC (ug/L) (78032)	XYLENE WATER UNFLTRD REC (ug/L) (81551)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (ug/L) (82614)	1,2-DI-PHENYL-HYDRA-ZINE WATER TOT.REC (ug/L) (82626)
MAY 26...	<5	<5	<0.01	<0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<5

E--Laboratory estimated value.

07019280 MERAMEC RIVER AT PAULINA HILLS, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

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.

DRAINAGE AREA.--3,950 mi^2, approximately.

PERIOD OF RECORD.--August 1963 to July 1975, 1982 to current year.

REMARKS.--Records of discharge are obtained from gaging station Meramec River near Eureka plus a 10 percent correction.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
OCT											
07...	1430	1300	19.5	301	8.02	7.8	84	--	200	42	150
NOV											
13...	0655	4200	7.0	242	7.65	10.1	90	22	440	570	112
DEC											
04...	0735	9100	5.5	214	7.61	11.7	91	--	860	1100	83
JAN											
08...	1020	1700	5.0	380	8.32	13.3	102	<10	120	40	167
FEB											
04...	1605	6900	5.0	347	7.44	11.8	92	--	250	670	120
MAR											
12...	1100	7900	10.5	221	7.66	10.1	90	--	104	96	120
APR											
08...	0715	8400	14.0	308	8.13	9.3	87	--	120	56	141
MAY											
07...	1000	1800	16.5	387	7.71	9.8	100	--	K11	K51	160
JUN											
17...	1800	7323	22.5	238	7.75	7.1	81	26	11400	19400	101
JUL											
08...	1405	2100	26.0	365	8.03	7.8	96	--	800	224	145
AUG											
06...	0740	7700	26.5	418	7.88	5.6	69	--	285	69	187
SEP											
02...	1310	1000	29.0	383	7.57	8.3	107	--	44	K7	156

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
OCT										
07...	183	0	0.41	0.040	0.17	0.57	0.08	0.06	--	--
NOV										
13...	133	0	0.34	0.010	0.12	0.50	0.08	0.06	110	24
DEC										
04...	100	0	0.31	<0.010	0.01	0.46	0.05	0.04	--	--
JAN										
08...	199	0	0.14	0.010	0.20	0.41	0.02	0.04	180	39
FEB										
04...	146	0	0.52	0.010	0.09	0.39	0.06	0.04	--	--
MAR										
12...	145	0	0.44	0.010	0.05	0.37	0.07	0.03	--	--
APR										
08...	172	0	0.10	0.010	0.06	0.40	0.06	0.02	--	--
MAY										
07...	199	0	0.05	0.010	0.09	0.37	0.03	0.01	--	--
JUN										
17...	125	0	0.27	0.015	0.07	1.0	0.22	0.05	110	24
JUL										
08...	175	0	0.14	0.016	0.03	0.52	0.06	0.01	--	--
AUG										
06...	227	0	0.16	0.027	0.19	0.60	0.10	0.06	190	40
SEP										
02...	196	0	0.16	0.032	0.04	0.55	0.04	0.04	--	--

K--Results based on colony count outside the ideal range (non-ideal colony count).

07019280 MERAMEC RIVER AT PAULINA HILLS, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
NOV										
13...	13	5.4	2.2	12	5.9	<0.1	150	37	710	94
JAN										
08...	21	7.3	1.4	20	10	<0.1	210	1	70	16
JUN										
17...	12	4.5	1.8	12	5.6	<0.1	142	320	4400	110
AUG										
06...	22	9.4	2.1	23	12	0.1	224	50	880	13

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
NOV										
13...	<1	<1	<1.0	90	14	1	9.7	<0.1	10	1.7
JAN										
08...	<1	<1	<1.0	30	4	2	46	<0.1	4	2.1
JUN										
17...	<1	<1	1.3	90	87	2	10	<0.1	50	1.9
AUG										
06...	<1	<1	1.3	10	30	1	10	<0.1	10	<1.0

07019317 MATTESE CREEK NEAR MATTESE, MO
(Metropolitan Sewer District)

WATER-QUALITY RECORDS

LOCATION.--Lat 38°28'59", long 90°20'27", sec.10, T.43 N., R.6 W., St. Louis County, Hydrologic Unit 070140102, on right bank 5 ft downstream of bridge on Ringer Road, 0.9 mi east of I-55, 1.4 mi south of I-270, and 4.8 mi upstream of Meramec River.

DRAINAGE AREA.--7.88 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 mL) (31633)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)
DEC												
12...	0830	1.2	1080	7.76	7.5	10.7	89	6000	K47	229	295	0
MAR												
05...	0950	e1.2	1180	7.99	8.0	11.9	100	88	K37	80	261	0
MAY												
25...	2015	e385	208	7.98	20.0	7.50	83	K22000	25400	K30000	153	0
JUN												
09...	1400	e0.36	1020	8.05	20.0	10.1	111	K773	78	450	218	0
AUG												
27...	1415	e0.10	1030	8.01	27.5	7.70	97	440	540	5100	196	0
SEP												
17...	0340	--	153	6.93	--	--	--	K139000	K104000	87000	42	0

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	NITRO-GEN, TOTAL (mg/L as N) (00600)	NITRO-GEN, ORGANIC TOTAL (mg/L as N) (00605)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, NITRATE TOTAL (mg/L as N) (00620)	NITRO-GEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITRO-GEN, AMMONIA TOTAL (mg/L as NH_4) (71845)	NITRO-GEN, TOTAL (mg/L as NO_3) (71887)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	PHOS-PHATE, TOTAL (mg/L as PO_4) (00650)	PHOS-PHORUS TOTAL (mg/L as P) (00665)
DEC												
12...	361	1.0	0.31	0.04	0.010	0.660	0.35	0.05	4.5	0.67	0.18	0.09
MAR												
05...	322	1.1	0.22	0.03	0.020	0.810	0.25	0.04	4.8	0.83	0.15	0.08
MAY												
25...	153	--	--	0.24	0.042	0.488	E6.3	0.31	--	0.53	0.28	1.20
JUN												
09...	270	--	--	E0.06	E0.010	--	E0.38	--	--	E0.33	--	E0.07
AUG												
27...	242	0.69	0.37	0.06	<0.010	--	0.43	0.08	3.1	0.26	0.28	0.08
SEP												
17...	54	3.4	2.7	0.07	0.031	0.599	2.8	0.09	15	0.63	0.92	0.94

DATE	PHOS-PHORUS ORTHO TOTAL (mg/L AS P) (70507)	PHOS-PHORUS ORGANIC TOTAL (mg/L AS P) (00670)	HARD-NESS TOTAL (mg/L AS $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L AS Mg) (00925)	ARSENIC DIS-SOLVED (ug/L AS As) (01000)	BERYL-LIUM, DIS-SOLVED (ug/L AS BE) (01010)	CADMIUM DIS-SOLVED (ug/L AS Cd) (01025)	CHRO-MIUM, DIS-SOLVED (ug/L AS Cr) (01030)	COPPER, DIS-SOLVED (ug/L AS Cu) (01040)	IRON, DIS-SOLVED (ug/L AS Fe) (01046)	LEAD, DIS-SOLVED (ug/L AS Pb) (01049)
DEC												
12...	0.06	0.03	390	120	21	<1	<0.5	<1	<1.0	<1.0	30	<1
MAR												
05...	0.05	0.03	390	120	21	<1	<0.5	<1	<1.0	1.7	10	<1
MAY												
25...	0.09	1.1	67	22	3.0	1	<0.5	<1	<1.0	<1.0	30	<1
JUN												
09...	E0.09	--	300	91	18	2	<0.5	<1	<1.0	<1.0	10	<1
AUG												
27...	0.09	0.03	300	90	19	2	<0.5	<1	<1.0	1.6	9.0	<1
SEP												
17...	0.30	0.64	51	17	2.0	1	<0.5	<1	1.1	1.7	150	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).
e--Estimated discharge value.
E--Laboratory estimated value.

07019317 MATTESE CREEK NEAR MATTESE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MANGANESE, DISSOLVED (ug/L AS Mn) (01056)	NICKEL, DISSOLVED (ug/L AS Ni) (01065)	SILVER, DISSOLVED (ug/L AS Ag) (01075)	ZINC, DISSOLVED (ug/L AS Zn) (01090)	ALUMINUM, DISSOLVED (ug/L AS Al) (01106)	SELENIUM, DISSOLVED (ug/L AS Se) (01145)	MERCURY TOTAL RECOVERABLE (ug/L AS Hg) (71900)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (mg/L) (00556)	DICHLOROBROMOMETHANE TOTAL (ug/L) (32101)	CARBON TETRACHLORIDE TOTAL (ug/L) (32102)	1,2-DICHLOROETHANE TOTAL (ug/L) (32103)
DEC												
12...	81	1.3	<1	2.8	8.3	2	<0.1	13	--	--	--	--
MAR												
05...	69	1.2	<1	5.0	4.9	3	<0.1	1	--	--	--	--
MAY												
25...	8.8	1.9	<1	3.5	12	<1	0.2	1500	E1	<0.2	<0.2	<0.2
JUN												
09...	68	2.6	<1	1.4	8.7	<1	<0.1	5	--	--	--	--
AUG												
27...	74	1.2	<1	1.9	8.4	3	<0.1	3	--	--	--	--
SEP												
17...	4.2	2.0	<1	3.1	170	<1	<0.1	920	--	<0.4	<0.4	<0.4

DATE	BROMOFORM TOTAL (ug/L) (32104)	CHLORODIBROMOMETHANE TOTAL (ug/L) (32105)	CHLOROFORM TOTAL (ug/L) (32106)	TOLUENE TOTAL (ug/L) (34010)	BENZENE TOTAL (ug/L) (34030)	ACENAPHTHYLENE TOTAL (ug/L) (34200)	ACENAPHTHENE TOTAL (ug/L) (34205)	ANTHRACENE TOTAL (ug/L) (34220)	BENZO B FLUORANTHENE TOTAL (ug/L) (34230)	BENZO K FLUORANTHENE TOTAL (ug/L) (34242)	BENZO-A-PYRENE TOTAL (ug/L) (34247)	BIS 2-CHLOROETHYL ETHER UNFLTRD RECOVER (ug/L) (34273)
MAY												
25...	<0.2	<0.2	<0.2	<0.2	<0.2	E0.1	E0.1	E0.3	E4	E3	E3	<5
SEP												
17...	<0.4	<0.4	<0.4	<0.4	<0.4	<5	<5	<5	<10	<10	E0.6	<5

DATE	BIS (2-CHLOROETHOXY) METHANE TOTAL (ug/L) (34278)	BIS (2-CHLOROISOPROPYL) ETHER TOTAL (ug/L) (34283)	N-BUTYL BENZYL PHTHALATE TOTAL (ug/L) (34292)	CHLOROBENZENE TOTAL (ug/L) (34301)	CHRYSENE TOTAL (ug/L) (34320)	DIETHYL PHTHALATE TOTAL (ug/L) (34336)	DIMETHYL PHTHALATE TOTAL (ug/L) (34341)	ETHYLBENZENE TOTAL (ug/L) (34371)	FLUORANTHENE TOTAL (ug/L) (34376)	FLUORENE TOTAL (ug/L) (34381)	CYCLOPENTADIENE HEXACHLORO-UNFLTRD RECOVER (ug/L) (34386)	ETHANE HEXACHLORO-WATER UNFLTRD RECOVER (ug/L) (34396)
MAY												
25...	<5	<5	<5	<0.2	E4	<5	<5	<0.2	6	E0.2	<20	<5
SEP												
17...	<5	<5	<5	<0.4	<10	<5	<5	<0.4	E1	<5	<20	<5

DATE	INDENO (1,2,3-CD) PYRENE TOTAL (ug/L) (34403)	ISOPHORONE TOTAL (ug/L) (34408)	METHYLENE CHLORIDE TOTAL (ug/L) (34423)	N-NITROSODI-N-PROPYLAMINE TOTAL (ug/L) (34428)	N-NITROSODIPHENYLAMINE TOTAL (ug/L) (34433)	N-NITROSODIMETHYLAMINE TOTAL (ug/L) (34438)	BENZENE NITROWATER UNFLTRD RECOVER (ug/L) (34447)	PARACHLOROMETA CRESOL TOTAL (ug/L) (34452)	PHENANTHRENE TOTAL (ug/L) (34461)	PYRENE TOTAL (ug/L) (34469)	TETRACHLOROETHYLENE TOTAL (ug/L) (34475)	TRICHLOROFLUOROMETHANE TOTAL (ug/L) (34488)
MAY												
25...	E2	<5	<0.2	<5	<5	<5	<5	<30	E3	E4	<0.2	<0.2
SEP												
17...	E0.6	<5	<0.4	<5	<5	<5	<5	<30	<5	E0.9	<0.4	<0.4

DATE	1,1-DICHLOROETHANE TOTAL (ug/L) (34496)	1,1-DICHLOROETHYLENE TOTAL (ug/L) (34501)	1,1,1-TRICHLOROETHANE TOTAL (ug/L) (34506)	BENZOGHI PERYLENE1,12-BENZOPERYLENE TOTAL (ug/L) (34521)	BENZO A ANTHRACENE1,2-BENZANTHRACENE TOTAL (ug/L) (34526)	BENZENE O-DICHLOROWATER UNFLTRD REC (ug/L) (34536)	1,2-DICHLOROPROPANE TOTAL (ug/L) (34541)	BENZENE 1,2,4-TRICHLOROWAT UNF REC (ug/L) (34551)	1,2,5,6-DIBENZ-ANTHRACENE TOTAL (ug/L) (34556)	BENZENE 1,3-DICHLOROWATER UNFLTRD REC (ug/L) (34566)	2-CHLORONAPHTHALENE TOTAL (ug/L) (34581)	2-CHLOROPHENOL TOTAL (ug/L) (34586)
MAY												
25...	<0.2	<0.2	<0.2	E2	E2	<5	<0.2	<5	<10	<5	<5	<5
SEP												
17...	<0.4	<0.4	<0.4	E0.7	E0.3	<0.4	<0.4	<5	<10	<0.4	<5	<5

E--Laboratory estimated value.

07019317 MATTESE CREEK NEAR MATTESE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	2-NITROPHENOL TOTAL (ug/L) (34591)	DI-N-OCTYL PHTHALATE TOTAL (ug/L) (34596)	2,4-DICHLOROPHENOL TOTAL (ug/L) (34601)	2,4-DIMETHYLPHENOL TOTAL (ug/L) (34606)	2,4-DINITROTOLUENE TOTAL (ug/L) (34611)	2,4,-DINITROPHENOL TOTAL (ug/L) (34616)	2,4,6-TRICHLOROPHENOL TOTAL (ug/L) (34621)	2,6-DINITROTOLUENE TOTAL (ug/L) (34626)	3,3'-DICHLOROBENZIDINE TOTAL (ug/L) (34631)	4-BROMOPHENYL PHENYL ETHER TOTAL (ug/L) (34636)	4-CHLOROPHENYL PHENYL ETHER TOTAL (ug/L) (34641)	4-NITROPHENOL TOTAL (ug/L) (34646)
MAY												
25...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	E7
SEP												
17...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	<30

DATE	4,6-DINITRO-ORTHO-CRESOL TOTAL (ug/L) (34657)	DICHLORODIFLUOROMETHANE TOTAL (ug/L) (34668)	PHENOL (C6H5OH) TOTAL (ug/L) (34694)	NAPHTHALENE TOTAL (ug/L) (34696)	CHLORPYRIFOS TOTAL RECOVER (ug/L) (38932)	PHORATE TOTAL (ug/L) (39023)	PENTACHLOROPHENOL TOTAL (ug/L) (39032)	PERTHANE TOTAL (ug/L) (39034)	DEF TOTAL (ug/L) (39040)	BIS(2-ETHYLHEXYL) PHTHALATE TOTAL (ug/L) (39100)	DI-N-BUTYL PHTHALATE TOTAL (ug/L) (39110)	BENZIDINE TOTAL (ug/L) (39120)
MAY												
25...	<30	<0.2	<5	E0.1	0.05	<0.01	<30	<0.1	<0.01	E2	<5	<40
SEP												
17...	<30	<0.4	<5	<5	0.02	<0.01	<30	<0.1	<0.01	<5	<5	<40

DATE	VINYL CHLORIDE TOTAL (ug/L) (39175)	TRICHLOROETHYLENE TOTAL (ug/L) (39180)	PCNS UNFILT RECOVER (ug/L) (39250)	ALDRIN, TOTAL (ug/L) (39330)	LINDANE TOTAL (ug/L) (39340)	CHLORDANE, TECHNICAL TOTAL (ug/L) (39350)	P,P'-DDD UNFILT RECOVER (ug/L) (39360)	P,P'-DDE, TOTAL (ug/L) (39365)	P,P'-DDT UNFILT RECOVER (ug/L) (39370)	DIELDRIN TOTAL (ug/L) (39380)	ENDOSULFAN, I TOTAL (ug/L) (39388)
MAY											
25...	<0.2	<0.2	<0.1	<0.01	<0.01	0.1	<0.01	<0.01	<0.01	0.01	<0.01
SEP											
17...	<0.4	<0.4	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	--

DATE	ENDRIN WATER UNFLTRD REC (ug/L) (39390)	ETHION, TOTAL (ug/L) (39398)	TOXAPHENE, TOTAL (ug/L) (39400)	HEPTACHLOR, TOTAL (ug/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (ug/L) (39420)	METHOXYCHLOR, TOTAL (ug/L) (39480)	PCB, TOTAL (ug/L) (39516)	MALATHION, TOTAL (ug/L) (39530)	PARATHION, TOTAL (ug/L) (39540)	DIAZINON, TOTAL (ug/L) (39570)	METHYL PARATHION, TOTAL (ug/L) (39600)
MAY											
25...	<0.01	<0.01	<1	<0.01	<0.01	<0.01	0.1	0.01	<0.01	0.16	<0.01
SEP											
17...	--	<0.01	<1	<0.01	<0.01	--	<0.1	0.02	<0.01	0.37	<0.01

DATE	HEXACHLOROBENZENE TOTAL (ug/L) (39700)	HEXACHLOROBUTADIENE TOTAL (ug/L) (39702)	MIREX, TOTAL (ug/L) (39755)	TOTAL TRITHION (ug/L) (39786)	CIS-1,2-DICHLOROETHENE WATER TOTAL (ug/L) (77093)	STYRENE TOTAL (ug/L) (77128)	FREON-113 WATER UNFLTRD REC (ug/L) (77652)	METHYL TERT-BUTYL ETHER WAT UNF REC (ug/L) (78032)	XYLENE WATER UNFLTRD REC (ug/L) (81551)	FONOFOS (DYFONATE) WATER WHOLE TOT.REC (ug/L) (82614)	1,2-DIPHENYLHYDRAZINE WATER TOT.REC (ug/L) (82626)
MAY											
25...	<5	<5	<0.01	<0.01	<0.2	<0.2	<0.2	<0.2	<0.2	<0.01	<5
SEP											
17...	<5	<5	<0.01	<0.01	<0.4	<0.4	<0.4	<0.4	<0.4	<0.01	<5

E--Laboratory estimated value.

07020200 PICKLE CREEK AT HAWN STATE PARK

(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°50'05", long 90°13'48, in NE 1/4 NW 1/4 sec.14 T.36 N., R.7 E., Ste. Genevieve County, at foot bridge on walking trail 200 ft downstream from camping area in Hawn State Park.

PERIOD OF RECORD.--November 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
13...	0815	2.2	4.5	55	7.04	11.1	85	--	10	41	14
JAN											
28...	0750	2.0	0.5	48	6.09	13.4	91	14	K9	96	3
MAR											
10...	1635	20	10.0	39	5.63	11.1	98	--	0	K9	4
APR											
01...	1520	15	12.0	49	6.32	11.9	109	--	K7	22	7
JUN											
18...	1800	13	21.5	38	6.88	8.5	96	40	135	160	8
AUG											
21...	1025	1.6	20.0	57	7.14	8.5	92	--	30	205	21

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
13...	15	0	<0.02	<0.01	<0.01	0.23	<0.02	<0.01	--	--
JAN										
28...	3	0	0.03	<0.01	0.01	<0.20	<0.02	<0.01	15	2.6
MAR										
10...	6	0	<0.02	<0.01	<0.01	<0.20	0.06	0.01	--	--
APR										
01...	8	0	<0.02	<0.01	<0.01	<0.20	<0.02	<0.01	--	--
JUN										
18...	7	0	<0.02	<0.01	0.02	0.34	<0.02	<0.01	16	3.2
AUG										
21...	24	0	<0.02	<0.01	0.02	<0.20	<0.02	0.01	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
28...	2	1.5	1.0	11	3.9	<0.1	48	3	150	120
JUN										
18...	2	1.3	0.8	8.9	0.9	<0.1	44	2	160	83

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
28...	<1	<1	<1	150	<1	<1	54	<0.1	6	5.5
JUN										
18...	<1	<1	<1	190	<1	<1	24	<0.1	2	2.5

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07020500 MISSISSIPPI RIVER AT CHESTER, IL

LOCATION.--Lat 37°54'10", long 89°51'10", in SW 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^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--
DISCHARGE: October 1927 to current year in reports of the U.S. Geological Survey. 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 in reports of the U.S. Geological Survey. Since May 1891, in reports of the Mississippi River Commission and National Weather Service.

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

GAGE.--Water-stage recorder. Datum of gage is 341.05 ft above sea level. 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. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 30, 1844, reached a gage height of 39.8 ft, discharge, 1,350,000 ft^3/s, computed by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	181000	177000	248000	133000	179000	569000	316000	453000	376000	273000	201000	176000
2	175000	181000	243000	138000	165000	578000	313000	444000	357000	267000	195000	171000
3	168000	188000	254000	137000	160000	570000	310000	434000	330000	263000	189000	171000
4	156000	200000	270000	137000	174000	546000	307000	427000	304000	260000	190000	167000
5	151000	190000	269000	134000	183000	519000	310000	426000	292000	258000	193000	167000
6	147000	179000	261000	131000	189000	491000	319000	425000	280000	257000	194000	166000
7	137000	185000	251000	129000	198000	466000	320000	420000	272000	246000	193000	162000
8	125000	214000	241000	127000	202000	440000	318000	410000	260000	232000	191000	166000
9	118000	239000	227000	124000	202000	411000	320000	395000	254000	225000	187000	167000
10	119000	231000	216000	129000	198000	391000	333000	381000	249000	217000	182000	166000
11	121000	233000	214000	123000	188000	382000	339000	374000	242000	219000	177000	163000
12	119000	234000	203000	113000	175000	377000	340000	377000	240000	218000	172000	156000
13	118000	228000	194000	116000	168000	375000	359000	379000	237000	213000	174000	153000
14	116000	214000	187000	122000	169000	390000	412000	370000	249000	212000	177000	149000
15	116000	194000	184000	122000	172000	406000	455000	355000	262000	212000	174000	142000
16	113000	185000	186000	116000	167000	415000	477000	338000	270000	213000	173000	136000
17	115000	177000	184000	113000	164000	411000	490000	322000	255000	211000	166000	136000
18	121000	178000	176000	111000	157000	399000	495000	309000	262000	212000	173000	144000
19	124000	176000	174000	112000	149000	388000	503000	295000	276000	213000	183000	147000
20	120000	192000	162000	119000	149000	375000	510000	285000	289000	210000	195000	151000
21	121000	247000	140000	122000	174000	362000	515000	280000	285000	207000	198000	155000
22	132000	275000	136000	128000	263000	356000	514000	278000	278000	203000	192000	157000
23	137000	269000	135000	141000	397000	350000	511000	277000	264000	209000	184000	155000
24	135000	260000	134000	145000	464000	341000	507000	271000	277000	223000	179000	151000
25	130000	272000	126000	152000	493000	334000	504000	261000	278000	222000	174000	157000
26	147000	307000	115000	150000	507000	330000	500000	263000	269000	207000	173000	159000
27	179000	282000	115000	153000	537000	329000	497000	267000	265000	195000	173000	158000
28	190000	281000	115000	182000	558000	330000	490000	297000	272000	195000	172000	158000
29	183000	280000	116000	187000	---	327000	478000	324000	271000	202000	174000	162000
30	175000	263000	118000	204000	---	321000	464000	346000	273000	206000	171000	158000
31	178000	---	123000	195000	---	318000	---	382000	---	207000	176000	---
MEAN	140900	224400	184400	136900	246500	406400	417500	350500	276300	222800	182100	157500
MAX	190000	307000	270000	204000	558000	578000	515000	453000	376000	273000	201000	176000
MIN	113000	176000	115000	111000	149000	318000	307000	261000	237000	195000	166000	136000
IN.	.23	.35	.30	.22	.36	.66	.66	.57	.44	.36	.30	.25

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1997, BY WATER YEAR (WY)

MEAN	150600	157100	140900	131800	158300	251300	336400	320300	281300	240900	160700	148700
MAX	588300	380400	500100	323200	331000	528400	719100	630900	597200	795300	769500	551000
(WY)	1987	1986	1983	1973	1974	1973	1973	1995	1947	1993	1993	1993
MIN	59490	59320	51070	47810	52860	84200	137800	127200	81040	69050	69580	66030
(WY)	1957	1957	1964	1964	1964	1964	1977	1989	1988	1988	1988	1976

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1942 - 1997	
ANNUAL MEAN	234100		245200		206500	
HIGHEST ANNUAL MEAN					441700	1993
LOWEST ANNUAL MEAN					96770	1956
HIGHEST DAILY MEAN	624000	Jun 3	578000	Mar 2	1000000	Aug 6 1993
LOWEST DAILY MEAN	89200	Jan 9	111000	Jan 18	37600	Jan 1 1964
ANNUAL SEVEN-DAY MINIMUM	95400	Jan 5	116000	Jan 13	38500	Dec 20 1963
INSTANTANEOUS PEAK FLOW	---		580000	Mar 2	1000000	Aug 7 1993
INSTANTANEOUS PEAK STAGE	---		34.31	Mar 2	49.74	Aug 7 1993
INSTANTANEOUS LOW FLOW	---		110000	Oct 16,Jan 18,19	30000	Dec 12 1937
ANNUAL RUNOFF (INCHES)	4.50		4.70		3.96	
10 PERCENT EXCEEDS	473000		417000		397000	
50 PERCENT EXCEEDS	186000		207000		166000	
90 PERCENT EXCEEDS	115000		129000		77200	

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 DAILY 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, 2,500 mg/L, Feb. 25; minimum daily mean, 104 mg/L, Aug. 11.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 3,330,000 tons, Feb. 25; minimum daily, 34,700 tons, Dec. 30.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	181000	289	141000	177000	258	123000	248000	453	303000
2	175000	284	134000	181000	254	124000	243000	391	256000
3	168000	290	131000	188000	260	132000	254000	428	294000
4	156000	267	113000	200000	268	144000	270000	446	325000
5	151000	463	189000	190000	253	130000	269000	454	330000
6	147000	473	188000	179000	219	106000	261000	437	308000
7	137000	431	160000	185000	213	107000	251000	398	270000
8	125000	441	148000	214000	302	175000	241000	358	233000
9	118000	401	128000	239000	429	277000	227000	319	196000
10	119000	383	123000	231000	506	315000	216000	259	151000
11	121000	350	114000	233000	525	330000	214000	211	122000
12	119000	324	104000	234000	365	231000	203000	206	113000
13	118000	307	97400	228000	288	177000	194000	206	108000
14	116000	311	97800	214000	242	140000	187000	207	105000
15	116000	328	102000	194000	219	115000	184000	211	105000
16	113000	323	98800	185000	197	98500	186000	214	107000
17	115000	176	54800	177000	177	84300	184000	207	103000
18	121000	155	50700	178000	183	88000	176000	196	93300
19	124000	136	45700	176000	207	98200	174000	185	86800
20	120000	126	40900	192000	241	126000	162000	151	66200
21	121000	122	40000	247000	403	272000	140000	195	73400
22	132000	133	47300	275000	697	518000	136000	226	83200
23	137000	147	54100	269000	671	487000	135000	243	88300
24	135000	139	50500	260000	551	386000	134000	216	77900
25	130000	137	48200	272000	570	420000	126000	181	61500
26	147000	168	67200	307000	697	578000	115000	149	46300
27	179000	359	175000	282000	573	436000	115000	168	52000
28	190000	743	382000	281000	538	408000	115000	185	57300
29	183000	594	294000	280000	540	408000	116000	128	40300
30	175000	365	172000	263000	528	374000	118000	109	34700
31	178000	298	143000	---	---	---	123000	124	41300

07020500 MISSISSIPPI RIVER AT CHESTER, IL--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	133000	151	54500	179000	242	117000	569000	1100	1690000
2	138000	179	66400	165000	197	87800	578000	1030	1600000
3	137000	152	56400	160000	183	79100	570000	981	1510000
4	137000	121	45000	174000	198	93400	546000	912	1340000
5	134000	121	43800	183000	226	112000	519000	841	1180000
6	131000	126	44300	189000	248	127000	491000	781	1040000
7	129000	132	45700	198000	264	141000	466000	787	990000
8	127000	125	42800	202000	274	149000	440000	810	961000
9	124000	---	39700	202000	247	135000	411000	826	917000
10	129000	---	47000	198000	225	120000	391000	793	836000
11	123000	---	47200	188000	269	136000	382000	547	564000
12	113000	---	38200	175000	274	129000	377000	509	518000
13	116000	---	39300	168000	270	123000	375000	475	481000
14	122000	---	44100	169000	318	145000	390000	492	520000
15	122000	---	45300	172000	264	122000	406000	592	649000
16	116000	---	41200	167000	264	119000	415000	673	754000
17	113000	---	38100	164000	285	126000	411000	574	638000
18	111000	---	35600	157000	293	125000	399000	529	569000
19	112000	---	35600	149000	237	95400	388000	504	528000
20	119000	---	40500	149000	---	90700	375000	471	476000
21	122000	---	44500	174000	---	128000	362000	444	434000
22	128000	---	49300	263000	---	354000	356000	421	405000
23	141000	150	57100	397000	---	1140000	350000	394	372000
24	145000	---	67300	464000	2150	2720000	341000	339	312000
25	152000	---	79200	493000	2500	3330000	334000	288	259000
26	150000	---	71900	507000	2310	3160000	330000	250	222000
27	153000	---	75000	537000	2060	2990000	329000	283	252000
28	182000	---	132000	558000	1510	2270000	330000	309	276000
29	187000	---	138000	---	---	---	327000	319	282000
30	204000	---	202000	---	---	---	321000	312	271000
31	195000	307	162000	---	---	---	318000	302	259000
		APRIL			MAY			JUNE	
1	316000	286	244000	453000	528	645000	376000	---	551000
2	313000	279	236000	444000	411	493000	357000	---	458000
3	310000	335	280000	434000	503	589000	330000	416	370000
4	307000	329	273000	427000	495	570000	304000	358	293000
5	310000	306	257000	426000	480	552000	292000	308	243000
6	319000	322	277000	425000	766	879000	280000	284	215000
7	320000	302	262000	420000	818	926000	272000	296	218000
8	318000	284	243000	410000	695	769000	260000	318	223000
9	320000	299	259000	395000	546	583000	254000	341	234000
10	333000	368	331000	381000	524	539000	249000	338	227000
11	339000	376	344000	374000	428	432000	242000	217	142000
12	340000	358	329000	377000	392	399000	240000	170	110000
13	359000	479	468000	379000	471	481000	237000	172	110000
14	412000	842	944000	370000	604	603000	249000	179	121000
15	455000	1290	1590000	355000	725	694000	262000	184	131000
16	477000	1270	1630000	338000	570	519000	270000	190	139000
17	490000	1030	1360000	322000	421	367000	255000	188	130000
18	495000	921	1230000	309000	323	269000	262000	183	130000
19	503000	848	1150000	295000	276	219000	276000	189	141000
20	510000	791	1090000	285000	275	212000	289000	205	160000
21	515000	903	1260000	280000	248	188000	285000	345	265000
22	514000	838	1160000	278000	195	146000	278000	348	261000
23	511000	728	1000000	277000	220	165000	264000	312	223000
24	507000	623	854000	271000	230	169000	277000	340	255000
25	504000	583	794000	261000	223	157000	278000	491	368000
26	500000	582	786000	263000	214	152000	269000	384	279000
27	497000	572	767000	267000	213	154000	265000	261	186000
28	490000	561	743000	297000	313	253000	272000	219	161000
29	478000	584	753000	324000	447	392000	271000	219	160000
30	464000	567	710000	346000	---	493000	273000	287	211000
31	---	---	---	382000	---	600000	---	---	---

07020500 MISSISSIPPI RIVER AT CHESTER, IL--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	273000	479	353000	201000	138	74900	176000	---	70100
2	267000	635	457000	195000	123	64700	171000	---	66100
3	263000	633	449000	189000	127	64800	171000	138	63600
4	260000	452	318000	190000	137	70200	167000	127	57800
5	258000	390	271000	193000	150	78600	167000	125	56300
6	257000	353	245000	194000	143	74700	166000	125	56000
7	246000	305	202000	193000	121	63100	162000	130	56900
8	232000	294	184000	191000	120	61800	166000	140	62700
9	225000	248	150000	187000	126	63400	167000	150	67600
10	217000	242	142000	182000	117	57400	166000	171	76600
11	219000	249	147000	177000	104	49500	163000	225	98500
12	218000	217	128000	172000	136	63200	156000	252	106000
13	213000	193	111000	174000	119	56000	153000	211	87200
14	212000	173	99200	177000	110	52500	149000	182	73400
15	212000	159	90700	174000	116	54500	142000	148	56500
16	213000	154	88900	173000	138	64200	136000	145	53300
17	211000	152	86200	166000	140	62400	136000	183	67400
18	212000	144	82500	173000	138	64200	144000	179	69800
19	213000	178	103000	183000	135	67100	147000	149	59400
20	210000	191	108000	195000	143	75100	151000	136	55700
21	207000	173	96700	198000	150	80300	155000	129	54100
22	203000	152	82900	192000	156	80400	157000	122	51800
23	209000	146	82700	184000	130	64700	155000	118	49200
24	223000	153	91900	179000	128	61800	151000	115	47100
25	222000	156	93100	174000	121	56800	157000	122	52000
26	207000	128	71400	173000	125	58300	159000	122	52300
27	195000	118	62300	173000	124	57800	158000	127	54100
28	195000	118	62000	172000	125	58100	158000	133	56800
29	202000	141	76600	174000	137	64100	162000	137	59900
30	206000	152	84500	171000	---	66300	158000	151	65100
31	207000	151	84500	176000	---	70400	---	---	---

07022000 MISSISSIPPI RIVER AT THEBES, IL

LOCATION.--Lat 37°13'00", long 89°27'50", in NW 1/4 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^2, 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 in reports of the U.S. Geological Survey. 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.

GAGE.--Water-stage recorder. Datum of gage is 300.00 ft above sea level. 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.--Estimated daily discharges: Jan. 20-26. Water-discharge records good except for estimated daily discharges, which are fair. Natural flow of stream affected by many reservoirs and navigation dams in upper the 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, 1,375,000 ft^3/s, computed by the U.S. Army Corps of Engineers.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177000	182000	257000	132000	195000	604000	330000	459000	428000	275000	213000	180000
2	182000	182000	245000	140000	180000	628000	327000	451000	409000	273000	207000	177000
3	176000	186000	248000	141000	171000	630000	321000	445000	380000	269000	199000	174000
4	168000	196000	264000	142000	176000	604000	319000	439000	339000	268000	194000	168000
5	158000	200000	272000	142000	190000	571000	336000	435000	324000	265000	195000	169000
6	154000	188000	269000	140000	195000	544000	352000	436000	307000	265000	197000	169000
7	148000	185000	259000	136000	206000	514000	351000	436000	293000	260000	197000	167000
8	138000	206000	251000	136000	214000	486000	345000	430000	279000	246000	196000	164000
9	127000	232000	238000	133000	216000	459000	342000	416000	266000	238000	193000	168000
10	121000	253000	223000	133000	214000	433000	347000	398000	258000	231000	189000	164000
11	122000	250000	219000	136000	207000	415000	355000	380000	247000	226000	183000	169000
12	123000	241000	214000	128000	195000	406000	358000	375000	242000	228000	178000	164000
13	122000	232000	205000	120000	184000	400000	362000	377000	237000	225000	175000	160000
14	121000	223000	196000	124000	179000	410000	391000	374000	248000	223000	177000	156000
15	120000	206000	189000	129000	181000	420000	439000	362000	256000	222000	181000	152000
16	119000	191000	191000	129000	181000	429000	477000	346000	268000	222000	177000	144000
17	117000	183000	191000	124000	176000	431000	498000	330000	267000	223000	173000	141000
18	120000	177000	188000	120000	172000	424000	507000	316000	268000	221000	169000	143000
19	126000	177000	182000	118000	166000	414000	513000	290000	275000	223000	178000	150000
20	126000	178000	177000	119000	160000	398000	516000	294000	279000	224000	191000	153000
21	124000	209000	160000	126000	166000	383000	520000	287000	292000	221000	201000	157000
22	128000	259000	147000	129000	210000	373000	522000	284000	287000	218000	202000	160000
23	138000	268000	146000	135000	338000	368000	516000	283000	277000	217000	194000	161000
24	142000	260000	147000	149000	431000	360000	513000	281000	275000	227000	188000	158000
25	139000	259000	144000	152000	487000	350000	506000	276000	284000	236000	182000	156000
26	139000	293000	134000	159000	523000	345000	501000	273000	281000	229000	177000	160000
27	161000	290000	126000	161000	558000	341000	497000	276000	271000	215000	175000	161000
28	193000	282000	126000	177000	587000	342000	492000	288000	275000	206000	175000	159000
29	197000	282000	125000	189000	---	344000	483000	317000	275000	208000	175000	160000
30	187000	272000	125000	201000	---	339000	469000	343000	275000	212000	176000	162000
31	182000	---	126000	207000	---	334000	---	407000	---	215000	175000	---
MEAN	145000	224700	193000	142200	252100	435500	426800	358200	288700	233300	186500	160900
MAX	197000	293000	272000	207000	587000	630000	522000	459000	428000	275000	213000	180000
MIN	117000	177000	125000	118000	160000	334000	319000	273000	237000	206000	169000	141000
IN.	.23	.35	.31	.23	.37	.70	.67	.58	.45	.38	.30	.25

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

MEAN	149500	157000	141800	134900	160600	251600	330000	318700	283100	236600	156000	144100
MAX	589600	389000	531700	333300	350400	542000	731000	655800	584100	765500	768000	539300
(WY)	1987	1986	1983	1973	1974	1985	1973	1973	1947	1993	1993	1993
MIN	45500	50080	53850	33650	46920	80260	115600	88170	72350	73290	45000	59890
(WY)	1940	1940	1956	1940	1940	1934	1934	1934	1934	1936	1936	1937

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	242000		253700		205800	
HIGHEST ANNUAL MEAN					446000	1993
LOWEST ANNUAL MEAN					71730	1934
HIGHEST DAILY MEAN	630000	Jun 4	630000	Mar 3	978000	Aug 7 1993
LOWEST DAILY MEAN	90300	Jan 10	117000	Oct 17	24700	Jan 21 1940
ANNUAL SEVEN-DAY MINIMUM	94700	Jan 6	120000	Oct 12	26700	Jan 20 1940
INSTANTANEOUS PEAK FLOW	---		635000	Mar 3	996000	Aug 7 1993
INSTANTANEOUS PEAK STAGE	---		38.96	Mar 3	45.91	May 23 1995
INSTANTANEOUS LOW FLOW	---		116000	Oct 17	23400	Dec 13 1937
ANNUAL RUNOFF (INCHES)	4.62		4.83		3.92	
10 PERCENT EXCEEDS	486000		434000		400000	
50 PERCENT EXCEEDS	193000		215000		166000	
90 PERCENT EXCEEDS	120000		136000		74300	

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued
(National stream-quality accounting network station)

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.--NASQAN station January 1973 to September 1986. Illinois Environmental Protection Agency station October 1986 to September 1994 (during the 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 and 11, 1975, and July 17, 1977; minimum daily, 0.0°C, on several days during winter periods.
SUSPENDED-SEDIMENT CONCENTRATONS: Maximum daily mean, 3,890 mg/L, Dec. 22, 1985; minimum daily mean, 13 mg/L, Jan. 28, 1981.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 6,280,000 tons, Mar. 1, 1985; minimum daily, 2,530 tons, Jan. 28, 1981.

EXTREMES FOR CURRENT YEAR.--
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,630 mg/L, Feb. 25; minimum daily mean, 100 mg/L, Sept. 9.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 2,310,000 tons, Feb. 27; minimum daily, 35,700 tons, Jan. 19.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	DISCHARGE, INST. CUBIC FEET PER SECOND (00061)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TURBIDITY (NTU) (00076)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT DIS FIX END FIELD $CaCO_3$ (mg/L) (39036)	ALKALINITY WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)
OCT												
21...	1530	17.0	124000	654	9.7	99	8.11	20	100	K24	163	164
DEC												
16...	1530	4.0	191000	511	12.8	96	7.84	24	1000	1850	158	157
JAN												
27...	1425	2.0	161000	438	13.4	97	7.79	39	K640	340	163	164
FEB												
24...	1515	5.0	441000	555	11.3	87	7.64	380	580	6000	141	146
MAR												
12...	1430	8.0	405000	370	10.9	91	7.83	72	260	420	128	129
26...	1700	9.0	343000	464	9.4	79	8.03	55	K81	164	160	157
APR												
15...	1315	8.0	442000	507	10.5	86	7.49	0.8	440	480	135	137
28...	1525	13.0	492000	439	9.5	90	7.91	78	208	80	130	129
MAY												
22...	1600	18.0	284000	297	8.4	86	7.72	0.3	148	K12	153	154
JUN												
11...	1535	21.5	246000	586	8.0	88	7.49	30	K160	K10	153	157
JUL												
09...	1600	27.5	238000	617	7.0	86	7.80	60	--	K79	154	155
21...	1520	29.5	220000	601	7.2	92	7.98	42	260	88	160	159
AUG												
13...	1540	26.0	175000	634	8.0	98	8.12	--	60	K5	307	307
20...	1450	25.0	192000	586	7.5	89	8.20	19	310	210	150	156
SEP												
17...	1530	25.5	141000	641	7.5	91	7.96	27	400	K19	145	152

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	CARBONATE WATER DIS IT FIELD (mg/L as CO_3) (00452)	BICARBONATE WATER DIS IT FIELD (mg/L as HCO_3) (00453)	NITROGEN, TOTAL (mg/L as N) (00600)	NITROGEN DISSOLVED (mg/L as N) (00602)	NITROGEN, ORGANIC TOTAL (mg/L as N) (00605)	NITROGEN, ORGANIC DISSOLVED (mg/L as N) (00607)	NITROGEN, AMMONIA DISSOLVED (mg/L as N) (00608)	NITROGEN, NITRITE DISSOLVED (mg/L as N) (00613)	NITROGEN, NITRATE DISSOLVED (mg/L as N) (00618)	NITROGEN, AMMONIA + ORGANIC DIS. (mg/L as N) (00623)
OCT										
21...	0	200	1.4	1.1	0.52	0.22	0.08	0.03	0.75	0.3
DEC										
16...	0	192	2.8	2.5	0.59	0.29	0.11	0.02	2.08	0.4
JAN										
27...	0	200	3.2	2.9	0.74	0.44	0.26	0.03	2.17	0.7
FEB										
24...	0	178	4.3	2.6	2.1	0.41	0.19	0.02	1.98	0.6
MAR										
12...	0	157	3.8	3.0	1.1	0.35	0.25	0.03	2.37	0.6
26...	0	191	3.7	3.1	1.0	0.45	0.14	0.04	2.51	0.6
APR										
15...	0	167	4.0	2.8	1.6	0.38	0.04	0.03	2.33	0.4
28...	0	158	3.3	2.6	1.1	0.43	0.03	0.02	2.07	0.5
MAY										
22...	0	188	3.3	2.8	0.79	0.37	0.06	0.02	2.40	0.4
JUN										
11...	0	191	3.4	2.9	0.80	0.32	0.03	0.03	2.52	0.4
JUL										
09...	0	190	3.4	3.4	0.38	--	<0.01	0.02	3.01	0.4
21...	0	194	2.7	--	0.77	--	<0.01	0.02	1.94	<0.2
AUG										
13...	0	375	2.0	1.7	0.73	--	<0.01	0.02	1.29	0.4
20...	0	190	1.7	1.4	0.76	0.43	0.03	0.02	0.90	0.5
SEP										
17...	0	185	0.52	--	0.52	--	<0.01	<0.01	--	0.3

DATE	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITROGEN, NO_2+NO_3 DISSOLVED (mg/L as N) (00631)	PHOSPHATE, ORTHO, DISSOLVED (mg/L as PO_4) (00660)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS DISSOLVED (mg/L as P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (mg/L as P) (00671)	CARBON, ORGANIC DISSOLVED (mg/L as C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (mg/L as C) (00689)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	HARDNESS NONCARB DISSOLVFLD. as $CaCO_3$ (mg/L) (00904)
OCT										
21...	0.60	0.78	0.23	0.150	0.060	0.074	4.7	1.9	220	58
DEC										
16...	0.70	2.10	0.26	0.180	0.070	0.086	4.4	1.5	210	52
JAN										
27...	1.0	2.20	0.27	0.230	0.080	0.088	4.8	1.2	230	61
FEB										
24...	2.3	2.00	0.22	1.40	0.090	0.073	5.0	10	190	40
MAR										
12...	1.4	2.40	0.37	0.380	0.080	0.120	5.0	2.0	170	36
26...	1.2	2.55	0.23	0.404	0.126	0.076	5.2	0.3	--	--
APR										
15...	1.6	2.36	0.27	0.714	0.069	0.089	5.3	3.5	--	--
28...	1.2	2.10	0.19	0.390	0.070	0.062	4.8	2.6	--	--
MAY										
22...	0.85	2.42	0.25	0.238	0.070	0.081	4.9	0.7	230	79
JUN										
11...	0.84	2.55	0.25	0.186	0.071	0.083	6.1	0.6	240	83
JUL										
09...	0.38	3.03	0.43	0.174	0.165	0.140	4.1	1.1	220	66
21...	0.77	1.96	0.39	0.259	0.105	0.128	4.2	1.0	220	63
AUG										
13...	0.73	1.31	0.27	0.190	0.093	0.089	4.2	0.9	220	0
20...	0.79	0.91	0.27	0.222	0.093	0.089	4.4	0.6	220	67
SEP										
17...	0.52	<0.05	0.34	0.179	0.086	0.110	3.8	1.1	220	68

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	HARDNESS NONCARB DISSOLV LAB as $CaCO_3$ (mg/L) (00905)	CALCIUM DISSOLVED (mg/L as Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	SODIUM ADSORPTION RATIO (00931)	SODIUM PERCENT (00932)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SILICA, DISSOLVED (mg/L as SiO_2) (00955)
OCT											
21...	50	54	21	45	1	30	5.7	24	130	0.4	6.4
DEC											
16...	45	54	18	30	0.9	23	4.3	22	84	0.3	9.3
JAN											
27...	55	57	20	31	0.9	23	4.7	29	75	0.3	10
FEB											
24...	39	48	16	27	0.9	24	4.6	25	66	0.3	9.9
MAR											
12...	36	43	14	21	0.7	21	5.0	25	46	0.2	8.5
26...	36	47	16	27	0.9	24	5.0	22	57	0.2	7.5
APR											
15...	46	49	16	27	0.9	23	4.6	18	80	0.3	9.0
28...	--	--	--	--	--	--	--	15	66	0.2	--
MAY											
22...	67	58	21	27	0.8	20	4.9	19	99	0.3	6.5
JUN											
11...	76	58	23	30	0.9	21	4.7	20	97	0.3	6.3
JUL											
09...	58	55	20	33	1	24	5.0	20	110	0.3	8.7
21...	55	55	21	36	1	26	4.7	19	110	0.3	8.3
AUG											
13...	--	55	20	42	1	29	4.5	19	110	0.3	7.6
20...	65	55	21	42	1	29	4.5	19	130	0.3	7.2
SEP											
17...	60	53	21	46	1	31	5.0	20	140	0.3	8.9

DATE	MOLYBDENUM, DISSOLVED (mg/L as Mo) (01060)	NICKEL, DISSOLVED (mg/L as Ni) (01065)	SILVER, DISSOLVED (mg/L as Ag) (01075)	STRONTIUM, DISSOLVED (mg/L as Sr) (01080)	VANADIUM, DISSOLVED (mg/L as V) (01085)	ZINC, DISSOLVED (mg/L as Zn) (01090)	ANTIMONY, DISSOLVED (mg/L as Sb) (01095)	ALUMINUM, DISSOLVED (mg/L as Al) (01106)	LITHIUM DISSOLVED (mg/L as Li) (01130)	SELENIUM, DISSOLVED (mg/L as Se) (01145)	PROPCHLOR, WATER, DISS, REC (µg/L) (04024)
OCT											
21...	3	3	<1	350	7	<1	<1	5	24	<1	<0.007
DEC											
16...	2	2	<1	270	<6	<1	<1	11	15	1	<0.007
JAN											
27...	2	2	<1	250	<6	2	<1	54	13	<1	<0.007
FEB											
24...	2	2	<1	230	<6	<1	<1	37	16	<1	<0.007
MAR											
12...	1	2	<1	170	<6	<1	<1	38	7	<1	<0.007
26...	1	2	<1	190	<6	<1	<1	12	7	<1	<0.007
APR											
15...	2	2	<1	230	<6	<1	<1	24	16	<1	<0.007
28...	--	--	--	--	--	--	--	--	--	--	<0.007
MAY											
22...	2	2	<1	270	<6	<1	<1	10	19	2	<0.007
JUN											
11...	3	2	<1	270	<6	1	<1	6	19	2	<0.007
JUL											
09...	3	2	<1	300	<6	1	<1	3	21	1	<0.007
21...	3	2	<1	300	<6	2	<1	4	23	1	<0.007
AUG											
13...	3	2	<1	310	<6	<1	<1	5	27	1	--
20...	3	2	<1	320	<6	<1	<1	7	30	1	<0.007
SEP											
17...	3	2	<1	340	<6	5	<1	6	31	2	<0.007

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	BUTYLATE, WATER, DISS, REC (µg/L) (04028)	SIMAZINE, WATER, DISS, REC (µg/L) (04035)	PROMETON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRAZINE, WATER, DISS, REC (µg/L) (04040)	CYANAZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	URANIUM NATURAL DISSOLVED (mg/L as U) (22703)	ALPHA BHC DISSOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	CHLORPYRIFOS DISSOLVED (µg/L) (38933)	LINDANE DISSOLVED (µg/L) (39341)
OCT											
21...	<0.002	<0.005	E0.008	E0.004	<0.004	<0.003	3	<0.002	<0.004	<0.004	<0.001
DEC											
16...	<0.002	0.009	E0.008	E0.026	0.030	<0.003	3	<0.002	<0.004	<0.004	<0.001
JAN											
27...	<0.002	0.008	E0.007	E0.008	0.015	<0.003	2	<0.002	0.006	<0.004	<0.001
FEB											
24...	<0.002	0.006	E0.008	E0.032	0.035	<0.003	2	<0.002	<0.004	<0.004	<0.001
MAR											
12...	<0.002	0.008	E0.006	E0.024	0.044	<0.003	1	<0.002	<0.004	<0.004	<0.001
26...	<0.002	0.008	E0.004	E0.020	0.025	<0.003	2	<0.002	E0.002	<0.004	<0.001
APR											
15...	<0.002	0.008	E0.004	E0.015	0.066	<0.003	1	<0.002	<0.004	<0.004	<0.001
28...	<0.002	0.008	E0.003	E0.015	0.049	<0.003	--	<0.002	E0.003	<0.004	<0.001
MAY											
22...	<0.002	0.012	E0.007	E0.022	0.142	<0.003	4	<0.002	<0.004	<0.004	<0.001
JUN											
11...	<0.002	0.136	E0.009	E0.080	0.503	<0.003	3	<0.002	<0.004	<0.004	<0.001
JUL											
09...	<0.002	0.025	E0.013	E0.088	0.222	<0.003	3	<0.002	<0.004	<0.004	<0.001
21...	<0.002	0.008	E0.004	E0.018	0.026	<0.003	3	<0.002	E0.003	<0.004	E0.003
AUG											
13...	--	--	--	--	--	--	3	--	--	--	--
20...	<0.002	0.009	E0.011	E0.027	0.030	<0.003	3	<0.002	<0.004	<0.004	<0.001
SEP											
17...	<0.002	0.006	E0.008	E0.015	0.021	<0.003	3	<0.002	<0.004	<0.004	<0.001

DATE	DIELDRIN DISSOLVED (µg/L) (39381)	METOLACHLOR WATER DISSOLV (µg/L) (39415)	MALATHION, DISSOLVED (µg/L) (39532)	PARATHION, DISSOLVED (µg/L) (39542)	DIAZINON, DISSOLVED (µg/L) (39572)	ATRAZINE, WATER, DISS, REC (µg/L) (39632)	ALACHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETOCHLOR, WATER FLTRD REC (µg/L) (49260)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (mg/L) (70301)	SOLIDS, DISSOLVED (TONS PER DAY) (70302)
OCT											
21...	<0.001	0.052	<0.005	<0.004	<0.002	0.170	0.005	0.012	408	389	137000
DEC											
16...	<0.001	0.074	0.010	<0.004	0.007	0.214	0.010	0.020	339	326	175000
JAN											
27...	<0.001	0.092	0.039	<0.004	0.093	0.192	0.010	0.022	347	336	151000
FEB											
24...	<0.001	0.103	<0.005	<0.004	<0.002	0.139	0.006	0.041	308	295	367000
MAR											
12...	<0.001	0.280	<0.005	<0.004	<0.002	0.220	0.014	0.084	248	252	271000
26...	<0.001	0.423	<0.005	<0.004	E0.004	0.177	0.009	0.031	286	287	265000
APR											
15...	<0.001	0.396	<0.005	<0.004	E0.002	0.406	0.014	0.059	318	297	380000
28...	<0.001	0.262	0.006	<0.004	0.038	0.244	0.007	0.031	275	--	--
MAY											
22...	<0.001	0.430	<0.005	<0.004	<0.002	0.625	0.022	0.200	354	341	271000
JUN											
11...	<0.001	0.801	<0.005	<0.004	<0.002	1.99	0.050	0.244	360	345	239000
JUL											
09...	<0.001	0.760	<0.005	<0.004	<0.002	2.05	0.045	0.091	384	356	247000
21...	E0.003	0.412	<0.005	<0.004	0.004	0.172	0.009	0.029	380	357	226000
AUG											
13...	--	--	--	--	--	--	--	--	385	447	182000
20...	<0.001	0.092	<0.005	<0.004	E0.002	0.243	0.008	0.016	405	375	210000
SEP											
17...	<0.001	0.057	<0.005	<0.004	E0.003	0.157	0.004	0.008	406	387	155000

E--Laboratory estimated value.

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 mm (70331)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L as NH_4) (71846)	NITRO-GEN, NITRATE DIS-SOLVED (mg/L as NO_3) (71851)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L as NO_2) (71856)	SEDI-MENT, SUS-PENDED (mg/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	TRI-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82661)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)
OCT											
21...	93	0.10	3.3	0.10	141	47200	<0.004	<0.003	<0.002	<0.004	<0.002
DEC											
16...	78	0.14	9.2	0.07	152	78400	<0.004	<0.003	<0.002	<0.004	<0.002
JAN											
27...	72	0.33	9.6	0.10	206	89500	0.005	<0.003	<0.002	<0.004	<0.002
FEB											
24...	83	0.24	8.8	0.07	1760	2100000	0.006	<0.003	<0.002	<0.004	<0.002
MAR											
12...	64	0.32	10	0.10	397	434000	<0.010	<0.003	<0.002	<0.004	<0.002
26...	87	0.19	11	0.12	211	195000	<0.004	<0.003	0.005	<0.004	<0.002
APR											
15...	89	0.05	10	0.10	960	1150000	<0.004	<0.003	E0.004	<0.004	<0.002
28...	--	0.04	9.2	0.08	--	--	0.005	<0.003	E0.004	<0.004	<0.002
MAY											
22...	88	0.08	11	0.07	254	195000	<0.008	<0.003	E0.004	<0.004	<0.002
JUN											
11...	89	0.04	11	0.10	165	110000	0.018	<0.003	0.004	<0.004	<0.002
JUL											
09...	86	--	13	0.05	285	183000	<0.004	<0.003	<0.002	<0.004	<0.002
21...	88	--	8.6	0.08	186	110000	<0.004	<0.003	0.005	<0.004	<0.002
AUG											
13...	85	--	5.7	0.06	126	59500	--	--	--	--	--
20...	85	0.04	4.0	0.06	127	65800	<0.004	E0.001	E0.002	<0.004	<0.002
SEP											
17...	93	--	--	--	138	52500	<0.004	<0.003	<0.002	<0.004	<0.002

DATE	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
OCT											
21...	<0.007	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
DEC											
16...	<0.007	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JAN											
27...	<0.007	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
FEB											
24...	<0.007	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.010	<0.013	<0.003
MAR											
12...	<0.007	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
26...	<0.007	<0.006	E0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR											
15...	<0.007	<0.006	E0.001	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
28...	<0.007	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAY											
22...	<0.007	<0.006	E0.003	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUN											
11...	<0.007	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUL											
09...	<0.007	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
21...	<0.007	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
AUG											
13...	--	--	--	--	--	--	--	--	--	--	--
20...	<0.007	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	E0.002	<0.003	<0.013	<0.003
SEP											
17...	<0.007	<0.006	<0.002	<0.004	<0.01	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

E--Laboratory estimated value.

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
OCT											
21...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
DEC											
16...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JAN											
27...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
FEB											
24...	<0.017	<0.001	<0.004	E0.024	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR											
12...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
26...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
APR											
15...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
28...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
MAY											
22...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
JUN											
11...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
JUL											
09...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
21...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
AUG											
13...	--	--	--	--	--	--	--	--	--	--	--
20...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
SEP											
17...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	177000	571	273000	182000	355	175000	257000	419	290000
2	182000	593	291000	182000	377	185000	245000	389	257000
3	176000	619	293000	186000	334	168000	248000	346	231000
4	168000	667	302000	196000	236	125000	264000	313	224000
5	158000	665	283000	200000	236	127000	272000	316	232000
6	154000	593	246000	188000	219	111000	269000	319	231000
7	148000	495	198000	185000	256	128000	259000	322	225000
8	138000	236	88000	206000	303	169000	251000	293	198000
9	127000	218	74600	232000	337	211000	238000	271	174000
10	121000	218	71300	253000	371	254000	223000	267	161000
11	122000	212	70100	250000	442	298000	219000	232	137000
12	123000	211	69800	241000	368	239000	214000	194	112000
13	122000	199	65600	232000	298	187000	205000	210	116000
14	121000	179	58400	223000	259	156000	196000	248	131000
15	120000	184	59500	206000	218	121000	189000	221	113000
16	119000	186	59600	191000	207	106000	191000	193	99600
17	117000	196	62200	183000	198	97500	191000	195	101000
18	120000	201	65100	177000	166	79400	188000	218	111000
19	126000	191	65100	177000	154	73300	182000	184	90500
20	126000	175	59400	178000	176	84600	177000	182	87100
21	124000	154	51600	209000	280	159000	160000	147	63600
22	128000	169	58300	259000	356	250000	147000	143	57000
23	138000	171	63700	268000	556	402000	146000	156	61200
24	142000	180	69100	260000	881	619000	147000	184	73200
25	139000	176	65700	259000	909	659000	144000	157	60800
26	139000	151	56800	293000	708	560000	134000	153	55100
27	161000	192	83600	290000	584	456000	126000	153	52000
28	193000	267	140000	282000	490	372000	126000	138	46800
29	197000	255	135000	282000	406	309000	125000	132	44600
30	187000	271	137000	272000	360	264000	125000	144	48700
31	182000	287	141000	---	---	---	126000	125	42800
		JANUARY			FEBRUARY			MARCH	
1	132000	117	41800	195000	267	140000	604000	1190	1940000
2	140000	123	46600	180000	207	100000	628000	1030	1750000
3	141000	135	51600	171000	179	82300	630000	884	1500000
4	142000	133	51000	176000	172	81500	604000	731	1190000
5	142000	139	53200	190000	192	98600	571000	612	943000
6	140000	135	50700	195000	221	117000	544000	538	790000
7	136000	156	57300	206000	240	134000	514000	539	747000
8	136000	145	53200	214000	212	123000	486000	504	660000
9	133000	131	46700	216000	226	131000	459000	474	587000
10	133000	124	44500	214000	216	125000	433000	344	402000
11	136000	122	45000	207000	201	112000	415000	315	353000
12	128000	121	41900	195000	172	90500	406000	409	448000
13	120000	120	38900	184000	175	86600	400000	422	457000
14	124000	119	39700	179000	173	83900	410000	428	474000
15	129000	117	40700	181000	171	84000	420000	371	422000
16	129000	116	40500	181000	169	82800	429000	422	490000
17	124000	115	38300	176000	167	79500	431000	360	419000
18	120000	113	36700	172000	165	76800	424000	313	358000
19	118000	112	35700	166000	163	73100	414000	307	344000
20	119000	115	38100	160000	161	69800	398000	283	304000
21	126000	159	56400	166000	179	80800	383000	273	282000
22	129000	267	107000	210000	268	153000	373000	331	334000
23	135000	271	119000	338000	481	442000	368000	303	301000
24	149000	239	106000	431000	1340	1560000	360000	311	302000
25	152000	213	96600	487000	1630	2150000	350000	306	289000
26	159000	217	101000	523000	1460	2060000	345000	294	274000
27	161000	221	100000	558000	1530	2310000	341000	245	225000
28	177000	224	107000	587000	1420	2250000	342000	225	208000
29	189000	253	129000	---	---	---	344000	223	207000
30	201000	287	156000	---	---	---	339000	217	198000
31	207000	303	169000	---	---	---	334000	233	210000

07022000 MISSISSIPPI RIVER AT THEBES, IL--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	330000	245	219000	459000	433	536000	428000	602	696000
2	327000	198	174000	451000	431	526000	409000	598	660000
3	321000	157	136000	445000	351	422000	380000	531	543000
4	319000	177	153000	439000	342	406000	339000	413	377000
5	336000	192	174000	435000	344	404000	324000	332	290000
6	352000	196	186000	436000	365	430000	307000	279	231000
7	351000	201	190000	436000	592	696000	293000	270	213000
8	345000	187	174000	430000	714	829000	279000	265	200000
9	342000	213	197000	416000	713	801000	266000	226	162000
10	347000	274	257000	398000	593	637000	258000	208	145000
11	355000	266	255000	380000	468	480000	247000	206	137000
12	358000	292	282000	375000	496	502000	242000	186	122000
13	362000	269	263000	377000	443	450000	237000	166	106000
14	391000	379	402000	374000	547	552000	248000	196	131000
15	439000	899	1070000	362000	716	699000	256000	230	159000
16	477000	1340	1730000	346000	784	732000	268000	176	127000
17	498000	1020	1380000	330000	595	529000	267000	195	141000
18	507000	754	1030000	316000	440	375000	268000	239	173000
19	513000	644	892000	290000	345	282000	275000	282	209000
20	516000	662	921000	294000	350	278000	279000	229	178000
21	520000	694	974000	287000	321	249000	292000	250	197000
22	522000	709	999000	284000	293	225000	287000	310	240000
23	516000	609	849000	283000	255	195000	277000	299	223000
24	513000	472	654000	281000	248	188000	275000	280	208000
25	506000	451	617000	276000	245	183000	284000	357	274000
26	501000	461	624000	273000	255	188000	281000	395	300000
27	497000	435	584000	276000	287	214000	271000	258	189000
28	492000	447	593000	288000	259	201000	275000	204	151000
29	483000	492	641000	317000	378	325000	275000	189	140000
30	469000	415	525000	343000	589	547000	275000	210	156000
31	---	---	---	407000	837	922000	---	---	---
		JULY			AUGUST			SEPTEMBER	
1	275000	296	220000	213000	144	82600	180000	125	60700
2	273000	476	351000	207000	142	79200	177000	122	58300
3	269000	525	381000	199000	157	84600	174000	121	56700
4	268000	602	436000	194000	174	91200	168000	124	57800
5	265000	448	321000	195000	177	93400	169000	123	55800
6	265000	375	268000	197000	165	87800	169000	110	50400
7	260000	328	230000	197000	172	91400	167000	110	49700
8	246000	277	184000	196000	176	93500	164000	111	49400
9	238000	240	154000	193000	141	73400	168000	100	45500
10	231000	238	148000	189000	139	70800	164000	108	48900
11	226000	237	145000	183000	128	63500	169000	130	59100
12	228000	235	145000	178000	140	67100	164000	179	79600
13	225000	216	131000	175000	148	69800	160000	222	95800
14	223000	197	119000	177000	129	61700	156000	192	80900
15	222000	194	116000	181000	128	62600	152000	158	64900
16	222000	197	118000	177000	123	58900	144000	140	54400
17	223000	208	125000	173000	139	64800	141000	147	55800
18	221000	223	133000	169000	143	65100	143000	131	50800
19	223000	196	118000	178000	171	82100	150000	137	55300
20	224000	172	104000	191000	175	90200	153000	129	53100
21	221000	188	112000	201000	169	91700	157000	143	60600
22	218000	164	96100	202000	160	87500	160000	151	65100
23	217000	136	79800	194000	149	78200	161000	147	63700
24	227000	149	91600	188000	134	67800	158000	158	67300
25	236000	140	89100	182000	134	65900	156000	142	59600
26	229000	134	82700	177000	135	64600	160000	135	58700
27	215000	138	80200	175000	134	63300	161000	139	59900
28	206000	143	79300	175000	136	64400	159000	173	74200
29	208000	155	87100	175000	133	62900	160000	160	69300
30	212000	163	93200	176000	131	62000	162000	146	64000
31	215000	153	88900	175000	128	60300	---	---	---

07034000 ST. FRANCIS RIVER NEAR ROSELLE, MO

LOCATION.--Lat 37°35'45", long 90°29'50", in NE 1/4 sec.4, T.33 N., R.5 E., Madison County, Hydrologic Unit 08020202, on State Highway 72, 0.25 mi above Stouts Creek, and 1.5 mi east of Roselle.

DRAINAGE AREA.--234 mi^2.

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Data-collection platform used as primary recorder. Datum of gage is 684.99 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair except for flows above 2,000 ft^3/s, which are poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	115	1380	153	339	997	164	72	1110	102	10	81
2	31	100	813	145	307	2190	148	77	660	77	7.8	27
3	23	86	506	136	349	943	130	101	476	59	7.1	13
4	18	75	342	131	1630	622	131	99	337	52	6.9	9.1
5	15	69	480	136	817	444	2860	82	262	51	6.1	7.0
6	13	66	681	119	507	339	1790	73	214	42	5.6	6.0
7	12	1190	453	102	378	269	738	68	217	34	5.2	5.4
8	11	1590	316	92	319	228	455	92	197	29	4.9	5.4
9	11	557	235	97	272	309	326	192	147	183	5.4	5.8
10	11	309	192	97	232	743	248	147	123	325	6.1	10
11	10	198	175	80	207	487	213	114	108	89	6.3	12
12	10	146	162	74	201	347	201	97	95	50	6.9	11
13	10	119	149	66	187	584	175	86	105	36	9.3	9.5
14	9.8	104	131	61	174	1750	147	80	1320	28	23	7.8
15	8.5	93	750	66	174	785	128	71	447	24	21	6.6
16	7.5	84	932	75	160	499	116	65	267	19	24	5.8
17	7.3	86	589	68	143	379	104	58	406	16	29	8.2
18	8.2	97	387	63	131	477	99	185	1770	14	15	44
19	8.2	85	260	63	126	1050	92	137	667	12	11	34
20	7.8	79	176	76	124	626	88	83	352	12	53	16
21	11	74	156	433	547	442	105	65	237	11	63	12
22	16	69	147	2070	819	334	121	51	604	10	26	19
23	56	63	185	1190	498	248	110	43	366	10	14	17
24	71	294	581	670	341	206	98	39	205	9.4	10	14
25	45	6820	387	520	261	226	90	43	145	10	8.6	11
26	38	3640	262	357	1390	390	81	243	111	9.2	7.6	14
27	38	938	224	713	7170	330	80	302	97	7.8	6.9	11
28	734	583	241	1210	1280	283	88	214	856	7.5	6.4	9.6
29	432	472	245	575	---	266	87	167	237	41	5.9	8.2
30	232	1000	197	406	---	210	78	3240	143	32	5.9	7.2
31	155	---	171	354	---	195	---	7020	---	16	13	---
MEAN	67.8	640	384	335	682	555	310	432	409	45.7	13.9	14.9
MAX	734	6820	1380	2070	7170	2190	2860	7020	1770	325	63	81
MIN	7.3	63	131	61	124	195	78	39	95	7.5	4.9	5.4
IN.	.33	3.05	1.89	1.65	3.03	2.73	1.48	2.13	1.95	.23	.07	.07

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1997, BY WATER YEAR (WY)

MEAN	91.1	607	438	312	393	474	558	456	242	38.6	51.1	76.3
MAX	550	2017	1233	864	1165	1130	1798	1423	1617	97.1	341	791
(WY)	1985	1986	1991	1993	1985	1985	1994	1990	1985	1993	1985	1993
MIN	6.43	11.1	11.9	57.0	57.8	178	147	28.8	7.70	7.78	1.65	1.54
(WY)	1993	1996	1990	1986	1996	1996	1995	1987	1988	1983	1983	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1983 - 1997	
ANNUAL MEAN	318		321		311	
HIGHEST ANNUAL MEAN					710	1985
LOWEST ANNUAL MEAN					124	1987
HIGHEST DAILY MEAN	11600	Apr 22	7170	Feb 27	28000	Nov 19 1985
LOWEST DAILY MEAN	3.8	Sep 2	4.9	Aug 8	.83	Aug 26 1983
ANNUAL SEVEN-DAY MINIMUM	4.0	Aug 12	5.7	Aug 5	1.1	Aug 20 1983
INSTANTANEOUS PEAK FLOW	---		15200	May 30	45700	Nov 14 1993
INSTANTANEOUS PEAK STAGE	---		15.53	May 30	26.50	Nov 14 1993
INSTANTANEOUS LOW FLOW	---		4.9	Aug 8,9,Sep 8	.76	Aug 22 1983
ANNUAL RUNOFF (INCHES)	18.49		18.63		18.06	
10 PERCENT EXCEEDS	648		721		554	
50 PERCENT EXCEEDS	74		110		88	
90 PERCENT EXCEEDS	6.8		8.9		6.4	

07035000 LITTLE ST. FRANCIS RIVER AT FREDERICKTOWN, MO

LOCATION.--Lat 37°33'33", long 90°18'46", in NW 1/4 sec.7, T.33 N., R.7 E., Madison County, Hydrologic Unit 08020202, on right bank at downstream side of State Highway 72 bridge, 0.5 mi downstream from Village Creek, 1.3 mi below City Lake, and 1.0 mi west of courthouse in Fredericktown.

DRAINAGE AREA.--90.5 mi^2.

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Data-collection platform used as primary recorder. Datum of gage is 679.23 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except for period Aug. 11 to Sept. 30, which is poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	54	604	73	123	606	89	43	357	59	9.5	14
2	19	44	323	71	114	726	81	72	324	46	8.4	7.0
3	16	37	231	68	206	352	74	107	211	36	7.5	5.2
4	13	32	185	75	534	242	111	80	147	50	6.9	4.6
5	12	30	241	91	269	187	1720	65	113	35	6.0	4.4
6	12	28	226	71	191	153	572	57	89	27	5.0	4.2
7	11	526	182	58	159	132	260	50	116	23	4.6	4.3
8	11	384	154	52	141	120	176	88	77	265	4.5	5.6
9	11	178	136	59	126	175	133	94	58	663	5.7	6.4
10	13	116	131	52	115	240	110	71	49	295	7.2	6.3
11	11	85	134	43	107	173	102	60	43	121	5.5	6.6
12	11	66	143	41	99	139	100	53	39	77	5.6	6.8
13	12	56	137	38	94	278	85	47	87	56	7.1	7.0
14	12	49	125	36	92	540	74	50	297	45	6.5	8.1
15	12	44	600	49	93	253	66	40	111	37	7.9	9.3
16	23	40	450	53	87	183	59	33	73	30	7.2	10
17	34	43	288	43	79	155	53	31	261	26	7.0	16
18	14	41	211	40	76	236	49	43	975	22	6.2	18
19	9.6	37	171	42	74	333	50	43	261	20	13	8.5
20	12	34	144	68	87	210	48	27	149	17	15	28
21	19	32	136	181	279	168	73	22	101	15	12	9.8
22	32	28	135	919	255	139	61	19	263	13	7.3	7.5
23	37	27	164	382	171	119	55	17	133	12	5.8	6.3
24	27	293	259	239	135	107	50	16	86	11	5.1	9.8
25	19	3450	165	181	105	121	47	17	65	13	4.7	9.1
26	16	1080	146	134	521	128	44	113	52	11	4.8	7.6
27	92	390	136	257	1690	101	49	237	116	10	4.9	6.6
28	211	272	126	295	403	108	51	108	282	23	5.1	5.9
29	99	230	110	175	---	161	45	77	121	102	5.5	4.8
30	77	360	97	143	---	114	51	1020	78	21	6.8	4.4
31	57	---	79	133	---	103	---	1930	---	11	19	---
MEAN	31.5	270	205	134	229	219	151	153	171	70.7	7.33	8.40
MAX	211	3450	604	919	1690	726	1720	1930	975	663	19	28
MIN	9.6	27	79	36	74	101	44	16	39	10	4.5	4.2
IN.	.40	3.32	2.62	1.71	2.64	2.80	1.87	1.94	2.11	.90	.09	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1997, BY WATER YEAR (WY)

MEAN	39.6	239	185	155	149	177	190	192	82.2	18.4	30.9	25.6
MAX	273	748	423	450	336	352	500	542	521	70.7	282	165
(WY)	1985	1994	1991	1993	1989	1985	1996	1990	1985	1997	1985	1993
MIN	1.97	11.9	6.62	28.7	41.0	85.9	45.5	11.7	3.33	7.78	1.10	1.50
(WY)	1988	1988	1990	1986	1996	1996	1995	1987	1988	1992	1988	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1983 - 1997	
ANNUAL MEAN	138		137		123	
HIGHEST ANNUAL MEAN					265	1985
LOWEST ANNUAL MEAN					42.4	1987
HIGHEST DAILY MEAN	4750	Apr 22	3450	Nov 25	13800	Nov 14 1993
LOWEST DAILY MEAN	2.1	Sep 6	4.2	Sep 6	.76	Oct 17 1983
ANNUAL SEVEN-DAY MINIMUM	2.4	Sep 1	5.0	Sep 3	.94	Sep 27 1983
INSTANTANEOUS PEAK FLOW	---		5310	May 30	25100	Nov 14 1993
INSTANTANEOUS PEAK STAGE	---		14.96	May 30	26.50	Nov 14 1993
INSTANTANEOUS LOW FLOW	---		3.8	Sep 6,7	.33	Oct 8 1983
ANNUAL RUNOFF (INCHES)	20.71		20.51		18.54	
10 PERCENT EXCEEDS	275		278		245	
50 PERCENT EXCEEDS	41		66		40	
90 PERCENT EXCEEDS	3.7		7.1		3.2	

07035800 ST. FRANCIS RIVER NEAR MILL CREEK, MO

LOCATION.--Lat 37°30'09", long 90°27'28", in NE 1/4 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^2.

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

GAGE.--Data-collection platform used as primary recorder. Datum of gage is 556.27 ft above sea level.

REMARKS.--No estimated daily discharges. Records good except for period Oct. 1-22, which is poor. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	121	315	3330	353	664	2520	388	185	2620	267	58	160
2	93	281	1870	337	602	5170	348	207	1510	214	43	138
3	75	246	1140	321	727	2230	316	314	1070	174	35	64
4	62	220	790	312	3430	1380	364	292	749	177	29	40
5	53	201	930	357	1810	982	8210	249	593	162	25	28
6	47	190	1300	321	1090	745	4880	226	495	139	21	23
7	41	2390	907	281	814	606	1710	208	528	112	19	20
8	35	3510	671	258	692	518	1010	245	472	97	18	18
9	31	1220	539	271	596	633	718	359	368	959	19	20
10	34	693	469	265	525	1400	565	322	320	1110	20	21
11	42	483	434	229	472	978	488	276	287	423	21	24
12	30	374	427	213	440	717	468	246	258	264	24	28
13	27	314	409	196	415	1160	409	225	313	193	28	25
14	27	279	372	186	394	3940	354	217	2220	153	25	22
15	27	251	1910	198	386	1740	314	201	961	124	45	19
16	26	230	2470	226	365	1070	284	180	576	103	46	17
17	25	225	1420	203	336	807	258	166	949	86	47	23
18	30	233	935	193	317	934	240	200	4610	72	46	45
19	42	221	676	191	303	2250	227	280	1540	61	43	101
20	31	205	515	218	302	1260	216	198	815	56	55	74
21	28	197	455	689	1030	886	253	163	579	61	105	76
22	46	187	435	4840	1660	680	275	138	895	50	90	58
23	166	176	503	2900	1030	539	253	121	787	40	52	52
24	201	698	1110	1480	721	466	235	111	472	36	35	59
25	168	15500	813	1090	571	472	219	114	364	32	27	61
26	145	8700	601	761	1880	665	204	337	296	30	23	51
27	196	2300	533	1180	14100	588	203	1040	253	35	20	45
28	986	1340	520	2450	3010	542	212	590	1170	35	18	35
29	844	1050	505	1160	---	604	207	439	533	310	16	27
30	492	2280	439	841	---	497	197	5120	353	192	17	23
31	379	---	391	713	---	443	---	16400	---	94	23	---
MEAN	147	1484	897	749	1382	1207	801	947	899	189	35.3	46.6
MAX	986	15500	3330	4840	14100	5170	8210	16400	4610	1110	105	160
MIN	25	176	372	186	302	443	197	111	253	30	16	17
IN.	.34	3.28	2.05	1.71	2.85	2.76	1.77	2.16	1.99	.43	.08	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1997, BY WATER YEAR (WY)

MEAN	107	982	922	951	805	880	1205	981	308	87.9	62.8	143
MAX	438	3774	2428	2187	1745	1296	2890	2911	899	189	179	1153
(WY)	1994	1994	1991	1993	1989	1988	1994	1990	1997	1997	1993	1993
MIN	13.3	45.9	32.7	414	153	436	274	64.5	16.4	33.1	4.18	11.5
(WY)	1996	1990	1990	1992	1996	1996	1995	1987	1988	1996	1988	1987

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1987 - 1997	
ANNUAL MEAN	721		726		636	
HIGHEST ANNUAL MEAN					932	1994
LOWEST ANNUAL MEAN					429	1992
HIGHEST DAILY MEAN	22300	Apr 22	16400	May 31	72000	Nov 14 1993
LOWEST DAILY MEAN	6.4	Sep 14	16	Aug 29	1.8	Aug 18 1988
ANNUAL SEVEN-DAY MINIMUM	7.1	Sep 9	20	Aug 6	2.2	Aug 16 1988
INSTANTANEOUS PEAK FLOW	---		30900	May 31	130000	Nov 14 1993
INSTANTANEOUS PEAK STAGE	---		19.26	May 31	33.10	Nov 14 1993
INSTANTANEOUS LOW FLOW	---		6.0	Aug 11	1.7	Aug 18 1988
ANNUAL RUNOFF (INCHES)	19.44		19.51		17.11	
10 PERCENT EXCEEDS	1460		1440		1190	
50 PERCENT EXCEEDS	201		287		208	
90 PERCENT EXCEEDS	12		28		16	

07036100 ST. FRANCIS RIVER NEAR SACO, MO

LOCATION.--Lat 37°23'06", long 90°28'27", in NE 1/4 SE 1/4 NE 1/4 sec.10, T.31 N., R.5 E., Madison County, Hydrologic Unit 08020202, on right bank at downstream side of State Highway C bridge, 1.3 mi downstream from Twelvemile Creek, and 3.5 mi northwest of Saco.

DRAINAGE AREA.--664 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1983 to current year.

GAGE.--Data-collection platform used as primary recorder. Datum of gage is 472.00 ft above sea level.

REMARKS.--Estimated daily discharges: May 7, 8, and June 19. Water-discharge records good. U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1982 reached a gage height of 34.55 ft, discharge 124,000 ft^3/s, from rating extended above 27.0 ft, by slope-area measurement.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	331	531	4520	599	1020	3560	704	328	4620	339	100	28
2	261	472	2920	565	940	7510	644	352	2260	274	73	144
3	209	412	1800	540	945	3750	590	866	1630	227	58	116
4	174	358	1280	577	4370	2320	590	702	1160	214	48	72
5	151	322	1230	1030	2900	1680	10500	581	913	208	41	50
6	135	293	1790	711	1750	1300	7280	500	763	178	34	38
7	121	2810	1410	595	1320	1060	3010	450	727	155	30	31
8	109	5540	1070	530	1110	913	1770	425	687	132	27	27
9	99	2090	881	519	966	987	1300	670	566	460	30	27
10	85	1190	775	505	859	2010	1030	628	492	1280	33	26
11	75	841	716	438	778	1650	890	540	439	562	32	26
12	79	660	701	394	720	1240	847	478	395	356	34	26
13	69	555	689	362	685	1380	761	423	426	260	37	30
14	62	490	641	334	650	5600	676	391	2660	204	40	32
15	58	431	2120	338	625	2910	599	355	1570	166	42	28
16	55	382	4040	380	605	1790	551	305	891	138	52	26
17	55	360	2280	347	564	1370	504	271	778	117	61	30
18	63	359	1550	337	531	1820	462	248	5300	102	56	29
19	56	352	1140	330	510	3810	433	381	2500	89	64	40
20	64	324	896	336	501	2260	406	308	1100	79	67	96
21	66	306	778	731	1140	1600	448	235	773	71	69	85
22	89	288	727	5980	2430	1240	499	196	730	74	107	80
23	295	268	746	4840	1680	1000	478	167	1070	66	95	73
24	332	571	1390	2380	1200	859	444	155	603	57	68	75
25	310	17700	1300	1740	968	813	412	153	470	51	51	77
26	260	12700	966	1270	1490	1020	382	160	384	46	42	75
27	294	3760	855	1230	16500	990	370	1100	323	44	36	68
28	1070	2080	812	3170	5170	892	379	832	914	44	31	62
29	1350	1550	793	1790	---	973	374	613	694	67	28	54
30	799	2660	719	1310	---	879	353	3410	441	319	26	46
31	624	---	655	1100	---	781	---	24500	---	156	24	---
MEAN	252	2022	1361	1139	1890	1934	1256	1314	1209	211	49.5	53.9
MAX	1350	17700	4520	5980	16500	7510	10500	24500	5300	1280	107	144
MIN	55	268	641	330	501	781	353	153	323	44	24	26
IN.	.44	3.40	2.36	1.98	2.97	3.36	2.11	2.28	2.03	.37	.09	.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1997, BY WATER YEAR (WY)

MEAN	321	1849	1425	1199	1229	1488	1629	1416	670	108	145	167
MAX	2404	5304	3451	3231	2846	2858	3674	4125	4250	211	1215	1338
(WY)	1985	1994	1991	1993	1985	1985	1996	1990	1985	1997	1985	1993
MIN	27.1	65.2	44.1	179	220	705	379	94.7	29.1	39.7	10.7	6.53
(WY)	1988	1990	1990	1986	1996	1992	1995	1987	1988	1983	1988	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1983 - 1997	
ANNUAL MEAN	1015		1050		970	
HIGHEST ANNUAL MEAN					2084	1985
LOWEST ANNUAL MEAN					356	1987
HIGHEST DAILY MEAN	24500	Apr 23	24500	May 31	70100	Nov 14 1993
LOWEST DAILY MEAN	8.5	Sep 14,15	24	Aug 31	4.7	Sep 24 1983
ANNUAL SEVEN-DAY MINIMUM	9.7	Sep 9	28	Sep 7	5.1	Sep 15 1983
INSTANTANEOUS PEAK FLOW	---		40500	May 31	161000	Nov 14 1993
INSTANTANEOUS PEAK STAGE	---		22.45	May 31	36.10	Nov 14 1993
INSTANTANEOUS LOW FLOW	---		23	Sep 17	4.0	Sep 19 1983
ANNUAL RUNOFF (INCHES)	20.82		21.47		19.84	
10 PERCENT EXCEEDS	2150		2260		2000	
50 PERCENT EXCEEDS	308		500		288	
90 PERCENT EXCEEDS	22		47		30	

07037000 BIG CREEK AT DES ARC, MO

LOCATION.--Lat 37°17'35", long 90°37'45", in SE 1/4 sec.8, T.30 N., R.4 E., Iron County, Hydrologic Unit 08020202, at bridge on State Highway 143 at north edge of Des Arc, 420 ft above Black Creek, and 6.0 mi above Pond Creek.

DRAINAGE AREA.--99.6 mi^2.

PERIOD OF RECORD.--July 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 507.89 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	78	732	113	193	741	105	76	1150	66	18	16
2	93	72	530	107	176	1210	97	87	533	60	17	15
3	78	65	396	102	211	581	90	112	275	54	17	14
4	63	57	284	106	775	374	103	106	190	108	16	13
5	54	52	276	104	538	281	2470	101	149	78	15	12
6	47	49	288	93	354	221	1420	97	119	63	16	12
7	41	864	249	104	280	175	485	93	97	56	14	12
8	35	962	210	101	242	150	307	102	78	56	14	14
9	34	381	185	100	203	163	234	100	65	54	16	18
10	33	237	204	87	186	258	190	94	57	50	19	22
11	27	166	156	74	167	239	170	90	48	46	18	19
12	25	129	157	64	149	211	159	88	42	42	18	18
13	24	112	160	63	137	289	142	82	44	39	18	17
14	21	96	144	61	127	944	130	79	175	36	19	16
15	20	82	479	68	117	424	119	74	141	32	21	16
16	19	72	833	72	108	268	111	68	100	30	22	15
17	21	70	506	60	100	213	102	64	134	29	24	20
18	20	67	339	56	94	274	94	62	1670	27	23	22
19	18	66	250	58	88	680	91	59	725	26	25	21
20	17	68	202	60	87	354	86	55	370	25	25	22
21	19	67	175	76	153	252	99	52	255	26	23	30
22	49	70	158	924	251	199	97	50	210	25	20	29
23	131	62	155	810	222	164	96	49	173	23	19	30
24	115	153	195	494	194	141	91	50	144	23	18	37
25	88	3300	188	363	170	139	88	51	120	21	16	34
26	74	1910	172	264	386	152	85	54	103	20	14	31
27	72	793	163	251	2710	138	86	74	98	21	14	28
28	109	469	151	310	768	135	82	102	92	21	14	26
29	117	368	140	274	---	139	78	87	82	22	15	25
30	101	511	142	242	---	128	76	1190	73	23	15	23
31	85	---	136	210	---	116	---	4490	---	21	15	---
MEAN	56.9	382	270	189	328	315	253	256	250	39.5	18.0	20.9
MAX	131	3300	833	924	2710	1210	2470	4490	1670	108	25	37
MIN	17	49	136	56	87	116	76	49	42	20	14	12
IN.	.66	4.28	3.12	2.19	3.43	3.64	2.83	2.96	2.81	.46	.21	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1997, BY WATER YEAR (WY)

MEAN	73.5	270	221	188	167	223	283	213	123	34.1	25.9	35.2
MAX	396	610	632	465	400	357	579	494	587	95.7	102	128
(WY)	1985	1986	1988	1993	1989	1985	1994	1990	1985	1987	1985	1993
MIN	18.5	22.5	25.5	37.0	38.5	92.7	80.0	28.9	15.0	11.9	7.67	6.50
(WY)	1996	1996	1990	1984	1996	1992	1995	1987	1988	1991	1983	1983

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1983 - 1997	
ANNUAL MEAN	175		197		155	
HIGHEST ANNUAL MEAN					267	1985
LOWEST ANNUAL MEAN					71.8	1987
HIGHEST DAILY MEAN	3860	Apr 23	4490	May 31	7500	Nov 14 1993
LOWEST DAILY MEAN	8.2	Aug 28	12	Sep 5-7	4.9	Sep 3 1983
ANNUAL SEVEN-DAY MINIMUM	9.5	Aug 24	13	Sep 2	5.1	Aug 31 1983
INSTANTANEOUS PEAK FLOW	---		13600	May 31	25700	Nov 14 1993
INSTANTANEOUS PEAK STAGE	---		11.68	May 31	16.85	Nov 14 1993
INSTANTANEOUS LOW FLOW	---		11	Sep 7	4.9	Sep 3 1983
ANNUAL RUNOFF (INCHES)	23.92		26.82		21.10	
10 PERCENT EXCEEDS	391		383		310	
50 PERCENT EXCEEDS	67		92		58	
90 PERCENT EXCEEDS	15		19		16	

07037300 BIG CREEK AT SAM A. BAKER STATE PARK
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°15'40", long 90°30'23", in NE 1/4 SW 1/4 sec.21, T.30 N., R.5 E., Wayne County, Hydrologic Unit 08020202, at bridge 435 on County Highway NN.

PERIOD OF RECORD.--November 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
06...	0830	97	14.0	271	7.98	8.9	85	--	K8	185	124
JAN											
21...	1645	170	5.5	231	8.07	12.9	101	<10	34	59	100
MAR											
26...	1440	300	11.5	180	7.68	12.2	110	--	K1	K2	82
APR											
07...	1715	810	14.5	144	6.95	11.0	105	--	20	K12	56
JUN											
10...	1840	130	19.0	220	7.82	10.3	111	<5	K5	K19	109
AUG											
05...	1610	22	28.0	277	7.40	7.9	97	--	K21	K23	129

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
06...	151	0	0.16	<0.01	<0.01	<0.2	<0.02	<0.01	--	--
JAN										
21...	123	0	0.17	<0.01	0.02	<0.2	<0.02	<0.01	110	23
MAR										
26...	100	0	0.06	<0.01	0.02	<0.2	<0.02	0.02	--	--
APR										
07...	69	0	0.09	<0.01	0.01	<0.2	0.02	<0.01	--	--
JUN										
10...	133	0	0.03	<0.01	<0.01	<0.2	<0.02	<0.01	110	24
AUG										
05...	157	0	0.06	<0.01	0.02	<0.2	<0.02	<0.01	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
21...	13	2.8	0.9	9.3	3.1	<0.1	114	5	30	24
JUN										
10...	13	2.2	1.2	8.2	2.2	<0.1	118	4	20	4.3

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
21...	<1	<1	<1	20	<1	<1	2.8	<0.1	2	<1
JUN										
10...	<1	<1	<1	2	1	<1	2.7	<0.1	<1	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07037500 ST. FRANCIS RIVER NEAR PATTERSON, MO

LOCATION.--Lat 37°11'40", long 90°30'12", in NE 1/4 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^2.

PERIOD OF RECORD.--October 1920 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 sea level. 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.--Estimated daily discharges: Nov. 27-29 and Jan. 24-26. Records fair. Several observations of water temperature were made during the year. U.S. Army Corps of Engineer gage height and satellite telemeters 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^3/s, from rating curve extended above 55,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	649	788	4620	1060	1590	4890	1200	651	12600	683	284	61
2	509	672	4450	996	1490	10100	1110	790	3670	584	211	58
3	400	584	3020	946	1470	6210	1030	1330	2750	509	167	102
4	338	509	2280	925	3520	3780	1040	1280	2080	543	139	185
5	297	451	1980	1340	4380	2890	10600	1090	1660	498	115	133
6	268	401	2280	1260	2870	2310	15200	968	1390	453	95	100
7	244	1750	2290	1060	2220	1920	4970	872	1230	396	84	80
8	221	7440	1890	943	1880	1660	3090	853	1180	363	76	71
9	207	6750	1590	903	1650	1610	2330	938	1050	377	78	71
10	197	2180	1410	874	1470	2300	1880	1000	904	1070	86	69
11	177	1540	1290	712	1330	2620	1620	921	815	1140	84	65
12	159	1170	1250	747	1220	2110	1490	834	746	729	88	60
13	151	957	1200	667	1150	2040	1370	767	728	565	115	58
14	144	825	1140	659	1100	5340	1230	724	1730	462	105	57
15	132	719	1460	671	1050	4570	1120	678	2860	382	122	59
16	124	634	4780	706	1010	2960	1030	631	1600	321	120	60
17	118	582	3570	679	954	2320	950	581	1270	284	107	68
18	142	544	2640	644	902	2140	882	548	4090	251	118	78
19	142	522	2040	637	860	4380	839	515	4120	227	128	75
20	133	502	1670	640	847	3600	797	604	2140	201	162	70
21	134	470	1430	740	1130	2690	819	525	1490	182	160	123
22	187	445	1320	3810	2530	2160	846	459	1200	172	144	170
23	370	419	1280	7940	2560	1800	854	412	1410	165	159	164
24	516	632	1490	4000	1960	1540	817	387	1180	156	183	205
25	498	15400	2000	3000	1610	1410	780	401	920	151	149	191
26	445	25000	1650	2200	1810	1470	744	398	778	137	121	176
27	392	14000	1440	1800	16900	1580	728	626	679	121	101	162
28	677	6000	1340	2830	11600	1470	723	1280	623	113	88	152
29	1620	3500	1290	2850	---	1430	705	991	1280	217	77	138
30	1330	2880	1220	2070	---	1450	686	1610	855	180	71	125
31	954	---	1130	1760	---	1300	---	28400	---	375	66	---
MEAN	383	3276	2014	1615	2609	2840	2049	1679	1968	387	123	106
MAX	1620	25000	4780	7940	16900	10100	15200	28400	12600	1140	284	205
MIN	118	401	1130	637	847	1300	686	387	623	113	66	57
IN.	.46	3.82	2.43	1.95	2.84	3.43	2.39	2.03	2.30	.47	.15	.12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1997, BY WATER YEAR (WY)

MEAN	367	1064	1339	1487	1544	2144	2352	1761	929	326	213	250
MAX	3391	6214	12380	6725	4577	6981	9221	7145	8724	2513	1478	2103
(WY)	1985	1994	1983	1950	1951	1945	1927	1943	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1921 - 1997	
ANNUAL MEAN	1454		1576		1145	
HIGHEST ANNUAL MEAN					2731	1985
LOWEST ANNUAL MEAN					343	1941
HIGHEST DAILY MEAN	40000	Apr 23	28400	May 31	107000	Dec 4 1982
LOWEST DAILY MEAN	23	Sep 14	57	Sep 14	8.0	Aug 28 1936
ANNUAL SEVEN-DAY MINIMUM	28	Sep 9	61	Sep 11	8.4	Aug 26 1936
INSTANTANEOUS PEAK FLOW	---		37500	May 31	155000	Dec 3 1982
INSTANTANEOUS PEAK STAGE	---		22.62	May 31	35.77	Dec 3 1982
INSTANTANEOUS LOW FLOW	---		56	Sep 2,13-17	8.0	Aug 28 1936
ANNUAL RUNOFF (INCHES)	20.71		22.39		16.28	
10 PERCENT EXCEEDS	3420		3010		2340	
50 PERCENT EXCEEDS	484		853		344	
90 PERCENT EXCEEDS	55		118		53	

07039000 WAPPAPELLO LAKE AT WAPPAPELLO, MO

LOCATION.--Lat 36°55'42", long 90°17'04", in NW 1/4 SE 1/4 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^2, approximately.

PERIOD OF RECORD.--April 1941 to current year.

GAGE.--Datum of gage is sea level. Prior to June 19, 1941, nonrecording gage at same site and datum. U.S. Army Corps of Engineers satellite telemeter at station.

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, 177,000 ac-ft, June 3, elevation, 370.58 ft; minimum, 20,400 ac-ft, Jan. 16, elevation, 354.62 ft, Feb. 26.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 08:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	360.79	359.90	369.79	362.41	356.87	361.99	358.10	359.26	368.82	362.26	359.90	360.10
2	360.73	359.88	370.11	361.95	356.52	363.09	357.71	359.25	370.42	361.81	359.91	360.09
3	360.65	359.87	370.23	361.56	356.21	364.83	357.34	359.53	370.58	361.39	359.91	360.12
4	360.58	359.85	370.09	360.98	356.15	365.46	357.02	359.64	370.51	361.08	359.91	360.08
5	360.49	359.85	369.88	360.64	356.54	365.51	357.38	359.77	370.29	360.68	359.92	360.06
6	360.46	359.82	369.62	360.26	356.94	365.20	362.48	359.90	369.98	360.26	359.89	360.04
7	360.40	360.00	369.43	359.87	356.81	364.78	365.39	359.97	369.67	360.02	359.87	360.02
8	360.36	360.94	369.20	359.47	356.54	364.30	365.82	360.04	369.25	359.94	359.84	360.00
9	360.28	362.22	368.86	359.16	356.24	363.74	365.88	360.09	368.84	359.90	359.83	360.06
10	360.26	362.45	368.49	358.73	356.06	363.30	365.74	360.06	368.39	359.85	359.86	360.02
11	360.13	362.36	368.11	358.35	355.80	362.96	365.52	360.06	367.90	359.93	359.85	359.96
12	360.09	362.15	367.83	357.98	355.58	362.60	365.35	360.10	367.42	359.89	359.85	359.92
13	360.03	361.91	367.52	357.58	355.38	362.16	365.04	360.10	366.91	359.85	359.92	359.90
14	360.02	361.66	367.14	357.16	355.27	362.00	364.70	360.16	366.56	359.81	359.91	359.88
15	359.99	361.44	366.75	356.88	355.24	362.52	364.33	360.22	366.35	359.86	360.10	359.87
16	359.96	361.18	366.62	356.60	355.15	362.62	363.95	360.26	366.16	359.86	360.12	359.85
17	359.90	360.95	367.02	356.32	355.13	362.34	363.56	360.30	365.81	359.84	360.12	359.86
18	359.97	360.78	367.05	356.08	355.08	361.94	363.14	360.39	365.74	359.82	360.12	359.86
19	359.93	360.57	366.89	355.82	355.02	361.66	362.72	360.47	366.28	359.79	360.08	359.84
20	359.88	360.40	366.61	355.65	354.96	361.82	362.26	360.60	366.41	359.79	360.16	359.84
21	359.86	360.30	366.26	355.50	355.02	361.71	361.86	360.62	366.16	359.79	360.11	359.88
22	359.85	360.18	365.89	355.54	354.83	361.44	361.42	360.60	365.84	359.81	360.08	359.88
23	359.97	360.07	365.51	356.79	354.84	361.01	361.08	360.62	365.47	359.81	360.07	359.87
24	359.99	360.04	365.27	358.18	354.94	360.48	360.70	360.63	365.13	359.79	360.07	359.97
25	359.90	360.96	364.91	358.35	354.80	360.02	360.37	360.72	364.71	359.76	360.06	360.00
26	359.86	365.33	364.66	358.10	354.62	359.58	360.04	360.78	364.36	359.76	360.06	359.99
27	359.84	369.31	364.35	357.72	355.59	359.19	359.86	361.61	363.89	359.75	360.09	359.98
28	359.84	369.76	363.98	357.50	359.88	358.86	359.64	361.78	363.42	359.74	360.11	359.98
29	359.77	369.73	363.64	357.51	---	358.63	359.45	362.09	363.00	359.88	360.13	359.98
30	359.89	369.67	363.24	357.41	---	358.51	359.29	362.17	362.68	359.90	360.12	359.98
31	359.87	---	362.83	357.13	---	358.34	---	363.66	---	359.89	360.12	---
MEAN	360.11	362.12	367.03	358.17	355.79	362.02	361.90	360.50	366.90	360.11	360.00	359.96
MAX	360.79	369.76	370.23	362.41	359.88	365.51	365.88	363.66	370.58	362.26	360.16	360.12
MIN	359.77	359.82	362.83	355.50	354.62	358.34	357.02	359.25	362.68	359.74	359.83	359.84

07039000 WAPPAPELLO LAKE AT WAPPAPELLO, MO--Continued

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 08:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71800	64100	167000	86700	42600	82800	50700	59100	155000	85300	64100	65800
2	71300	63900	171000	82400	40400	93200	48100	59000	175000	81100	64200	65700
3	70600	63900	172000	78800	38600	111000	45600	61100	177000	77200	64200	65900
4	69900	63700	171000	73500	38200	117000	43500	62000	176000	74400	64200	65600
5	69100	63700	168000	70500	40500	118000	45900	63000	173000	70900	64300	65400
6	68900	63400	165000	67100	43000	114000	87400	64100	169000	67100	64000	65300
7	68400	64900	162000	63900	42200	110000	116000	64700	165000	65100	63900	65100
8	68000	73100	160000	60700	40500	105000	121000	65300	160000	64400	63600	64900
9	67300	84900	155000	58300	38700	99600	122000	65700	155000	64100	63500	65400
10	67100	87100	151000	55200	37700	95200	120000	65400	150000	63700	63800	65100
11	66000	86200	147000	52500	36200	92000	118000	65400	144000	64400	63700	64600
12	65700	84200	143000	49900	35000	88500	116000	65800	139000	64000	63700	64300
13	65200	82000	140000	47200	34000	84300	113000	65800	133000	63700	64300	64100
14	65100	79700	135000	44400	33500	82800	109000	66300	129000	63400	64200	63900
15	64800	77700	131000	21700	33300	87700	105000	66800	127000	63800	65800	63900
16	64600	75300	130000	20400	32900	88700	102000	67100	125000	63800	65900	63700
17	64100	73200	134000	39200	32800	86000	97800	67500	121000	63600	65900	63800
18	64700	71700	134000	37800	32500	82300	93700	68300	120000	63400	65900	63800
19	64400	69900	133000	36300	32200	79700	89700	69000	126000	63200	65600	63600
20	63900	68400	130000	35400	31900	81200	85300	70100	127000	63200	66300	63600
21	63800	67500	126000	34600	32200	80200	81600	70300	125000	63200	65900	63900
22	63700	66500	122000	34800	31300	77700	77500	70100	121000	63400	65600	63900
23	64700	65500	118000	42100	31400	73800	74400	70300	117000	63400	65500	63900
24	64800	65300	115000	51300	31800	69100	71000	70400	114000	63200	65500	64700
25	64100	73300	111000	52500	31200	65100	68100	71200	109000	63000	65400	64900
26	63800	116000	109000	50700	30400	61500	65300	71700	106000	63000	65400	64800
27	63600	161000	106000	48200	35100	58600	63800	79300	101000	62900	65700	64800
28	63600	166000	102000	46700	63900	56200	62000	80900	96400	62800	65900	64800
29	63000	166000	98600	46700	---	54500	60500	83700	92300	63900	66000	64800
30	64000	165000	94600	46100	---	53600	59300	84400	89300	64100	65900	64800
31	63900	---	90700	44200	---	52400	---	98800	---	64000	65900	---
MEAN	65900	85800	135000	51000	36600	83900	83800	69400	134000	66000	65000	64600
MAX	71800	166000	172000	86700	63900	118000	122000	98800	177000	85300	66300	65900
MIN	63000	63400	90700	20400	30400	52400	43500	59000	89300	62800	63500	63600

07039500 ST. FRANCIS RIVER AT WAPPAPELLO, MO

LOCATION.--Lat 36°55'41", long 90°15'55", in NW 1/4 SE 1/4 sec.2, T.26 N., R.7 E., Wayne 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^2.

PERIOD OF RECORD.--October 1940 to current year. Since January 1939 in reports of the Mississippi River Commission. Gage-height records collected in this vicinity since April 1920 are contained 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 sea level. 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.--Estimated daily discharges: Aug. 23-26. Records fair. Flow completely regulated by Wappapello Lake (station 07039000), 1.25 mi upstream. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1920, 30.7 ft (datum then in use), May 15, 1933, discharge 82,500 ft^3/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^3/s, Aug. 1915 (stage unknown).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1390	1260	4420	3560	3300	4970	2600	1100	1970	2990	210	220
2	1210	1170	4380	3520	3150	5360	2790	904	2720	2880	210	219
3	1120	906	4370	3490	2930	5520	2710	950	3320	2610	209	218
4	899	874	4350	3450	3090	5620	2470	897	3670	2400	208	216
5	837	872	4350	3410	3750	5590	2740	882	3910	2350	208	214
6	720	872	4340	3360	3950	5550	3020	879	3940	2220	207	216
7	705	940	4320	3230	3960	5480	3250	876	3990	1550	206	215
8	698	1440	4290	2970	3840	5430	3670	920	4160	838	206	215
9	698	2380	4260	2930	3380	5360	3730	1110	4150	731	211	261
10	698	2900	4240	2850	2950	5300	3730	1130	4120	759	211	369
11	658	2950	4230	2550	2790	5240	3720	1100	4080	909	208	365
12	554	2880	4200	2470	2520	5190	3710	994	4040	1140	209	225
13	509	2680	4160	2430	2250	5140	3680	850	3970	946	210	207
14	409	2550	4120	2320	1940	5180	3640	717	3860	695	208	207
15	399	2270	4090	2100	1680	5160	3610	580	3920	527	245	208
16	398	2210	4080	2080	1600	5170	3560	526	3930	403	219	208
17	399	2140	4100	1980	1440	5160	3500	378	3880	390	214	209
18	407	1910	4100	1810	1420	5120	3440	243	3540	385	258	210
19	400	1790	4080	1710	1420	5070	3390	229	3160	339	376	208
20	399	1520	4050	1540	1420	5070	3330	313	3370	224	435	213
21	399	1360	3980	1530	1700	4990	3310	538	3590	216	501	213
22	406	1250	3960	2160	2910	4720	3190	521	3610	216	338	208
23	494	1170	3950	3410	3220	4600	2900	414	3570	214	280	209
24	772	1020	3950	4150	3010	4460	2750	405	3530	212	225	214
25	1070	1130	3890	4330	2900	4170	2470	450	3490	211	170	211
26	1040	1760	3850	4300	2770	3980	2310	594	3490	211	115	210
27	883	2960	3810	4120	3130	3630	2030	1180	3390	209	61	209
28	959	4070	3760	3720	4300	3270	1930	1290	3230	210	56	209
29	1280	4300	3710	3630	---	2890	1680	1310	3100	227	74	209
30	1540	4390	3650	3610	---	2600	1400	1290	3040	218	203	209
31	1480	---	3600	3520	---	2550	---	1370	---	211	219	---
MEAN	769	1997	4085	2975	2740	4759	3009	805	3591	892	223	224
MAX	1540	4390	4420	4330	4300	5620	3730	1370	4160	2990	501	369
MIN	398	872	3600	1530	1420	2550	1400	229	1970	209	56	207
IN.	.68	1.70	3.59	2.62	2.18	4.19	2.56	.71	3.06	.78	.20	.19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1997[a], BY WATER YEAR (WY)

MEAN	429	985	2054	2405	2309	2749	2902	2546	1467	722	383	400
MAX	3239	4959	8897	8867	7796	7072	11920	9243	5860	4866	3385	2239
(WY)	1950	1952	1983	1950	1949	1979	1945	1983	1957	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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1942 - 1997[a]	
ANNUAL MEAN	1863		2167		1609	
HIGHEST ANNUAL MEAN					3534	1985
LOWEST ANNUAL MEAN					579	1954
HIGHEST DAILY MEAN	6000	May 13	5620	Mar 4	21800	Apr 16 1945
LOWEST DAILY MEAN	59	Aug 22,24-27,29	56	Aug 28	.00	Several Years
ANNUAL SEVEN-DAY MINIMUM	59	Aug 21	128	Aug 25	.00	At Times
INSTANTANEOUS PEAK FLOW	---		5630	Mar 4	22300	Apr 16 1945
INSTANTANEOUS PEAK STAGE	---		23.43	Mar 4	31.34	May 29-31 1991
INSTANTANEOUS LOW FLOW	---		55	Aug 28	.00	Several Years
ANNUAL RUNOFF (INCHES)	19.34		22.45		16.68	
10 PERCENT EXCEEDS	4350		4290		4100	
50 PERCENT EXCEEDS	1130		2030		710	
90 PERCENT EXCEEDS	170		211		41	

[a]Post-regulation period.

07043500 LITTLE RIVER DITCH 1 NEAR MOREHOUSE, MO

LOCATION.--Lat 36°50'03", long 89°43'48", in SW 1/4 SE 1/4 sec.2, T.25N., R.12E., 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^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to September 1991, October 1995 to current year. Prior to Jan. 1946 monthly discharge only, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 280.76 ft above sea level. 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.--Estimated daily discharges: Oct. 8-15, Oct. 17 to Nov. 3, Jan. 17-19, Aug. 9-14, and Aug. 25-26. Water-discharge records fair except periods of estimated daily discharges Oct. 8-15 and Oct. 17 to Nov. 3, which are poor. Little River Ditch 1 flows into Little River Ditch 251 at point 35.3 mi downstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 1945 reached a stage of 19.85 ft, from floodmark, discharge, 5,830 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	94	1320	345	390	5270	344	281	1060	316	835	99
2	91	88	1020	336	360	7950	324	284	1490	271	526	92
3	79	84	675	317	495	6650	310	1640	1010	239	350	115
4	77	81	459	328	3450	4550	318	1810	603	280	266	101
5	69	80	434	528	2430	3010	4040	849	452	311	221	91
6	67	78	605	458	1440	2180	6450	508	385	275	167	89
7	66	1230	519	414	901	1340	4250	389	426	282	144	86
8	65	2600	401	356	602	940	2720	355	523	240	137	88
9	65	1440	323	344	509	818	1990	326	377	438	132	91
10	65	867	294	311	473	1200	1240	298	336	832	128	88
11	64	494	275	289	438	1030	814	285	319	839	124	85
12	64	295	1140	279	406	745	731	274	285	576	122	83
13	63	213	1910	271	384	666	604	266	287	349	116	83
14	62	182	1160	264	369	2450	518	264	1050	253	116	85
15	68	164	829	282	364	1880	427	250	941	562	1300	85
16	71	154	1270	728	361	1240	359	240	534	501	1650	85
17	70	160	1500	840	341	773	332	238	1480	308	989	83
18	70	163	992	650	334	592	322	240	4290	220	569	84
19	68	155	655	490	319	725	319	330	2930	173	330	84
20	68	152	447	420	316	663	299	382	1680	412	1730	90
21	75	152	374	833	666	531	337	341	956	426	1140	93
22	90	142	342	4410	982	469	343	300	2970	225	491	98
23	150	140	457	5290	685	416	318	255	1590	181	244	103
24	200	149	3620	3570	470	388	292	330	707	157	154	143
25	170	1930	1560	2410	383	377	272	1630	516	146	130	129
26	150	3840	970	1730	400	360	257	1400	411	142	118	113
27	250	2160	776	1080	2520	346	323	1360	345	138	106	104
28	190	1460	660	704	2930	399	401	1580	407	136	99	97
29	140	961	533	537	---	550	338	2090	434	300	97	94
30	115	1040	429	457	---	452	322	975	409	1500	101	90
31	100	---	377	422	---	381	---	1110	---	1190	107	---
MEAN	97.9	692	849	958	847	1592	997	674	973	394	411	95.0
MAX	250	3840	3620	5290	3450	7950	6450	2090	4290	1500	1730	143
MIN	62	78	275	264	316	346	257	238	285	136	97	83
IN.	.25	1.72	2.18	2.45	1.96	4.08	2.47	1.73	2.41	1.01	1.05	.24

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

MEAN	174	444	667	766	881	963	877	746	394	267	182	174
MAX	944	2615	2875	4286	3646	2800	2851	2633	1564	817	658	703
(WY)	1985	1958	1983	1950	1989	1979	1979	1961	1989	1957	1985	1975
MIN	30.6	50.2	73.5	72.3	115	106	146	155	88.7	70.9	49.6	35.0
(WY)	1954	1954	1954	1981	1963	1981	1971	1949	1988	1954	1953	1953

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	415		714		540	
HIGHEST ANNUAL MEAN					1261	1973
LOWEST ANNUAL MEAN					134	1954
HIGHEST DAILY MEAN	4180	May 7	7950	Mar 2	11700	Feb 15 1989
LOWEST DAILY MEAN	34	Aug 27,28	62	Oct 14	21	Sep 18 1954
ANNUAL SEVEN-DAY MINIMUM	35	Aug 24	64	Oct 8	24	Sep 13 1954
INSTANTANEOUS PEAK FLOW	---		8590	Mar 2	12000	Feb 15 1989
INSTANTANEOUS PEAK STAGE	---		16.11	Mar 2	19.30	Feb 15 1989
INSTANTANEOUS LOW FLOW	---		66	Oct 6,7	21	Sep 18 1954
ANNUAL RUNOFF (INCHES)	12.57		21.55		16.31	
10 PERCENT EXCEEDS	1030		1640		1290	
50 PERCENT EXCEEDS	192		355		205	
90 PERCENT EXCEEDS	50		89		79	

07043500 LITTLE RIVER DITCH NO 1 NEAR MOREHOUSE, MO--Continued
(National water-quality assessment station)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH, WATER WHOLE, FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	E. COLI, WATER WHOLE, TOTAL UREASE (COLS./ 100 mL) (31633)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY, WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)	BICAR-BONATE WATER DIS IT FIELD (mg/L as HCO_3) (00453)
OCT												
02...	1245	96	23.0	491	8.3	9.7	110	56	29	58	188	227
16...	1400	71	20.5	566	8.3	8.1	88	K630	K170	73	238	290
NOV												
04...	1400	84	10.0	568	8.0	12.4	107	35	K16	30	214	261
19...	1500	154	10.5	514	7.9	10.7	94	91	56	68	184	225
DEC												
04...	1445	440	7.0	370	7.7	10.2	82	K1100	3800	270	131	160
18...	1400	948	3.0	218	7.4	11.8	85	2700	2100	4600	75	92
JAN												
14...	1430	265	1.0	557	8.0	--	--	130	K37	80	218	267
27...	1400	1030	6.0	221	7.6	10.5	83	470	420	790	77	94
FEB												
05...	1430	2210	5.5	133	7.2	10.3	81	1300	1300	7100	45	55
18...	1500	350	11.0	501	8.1	10.8	96	K11	K9	K11	184	225
MAR												
04...	1400	4320	8.5	94	7.1	9.4	79	2800	800	2000	32	39
13...	1130	590	13.5	396	7.7	7.4	70	100	40	68	147	180
17...	1530	725	11.0	353	7.8	9.9	88	420	320	200	122	149
24...	1530	388	15.5	509	7.9	9.2	91	70	K15	K11	174	212
APR												
01...	1330	344	14.5	493	7.9	10.1	96	64	31	24	178	217
07...	1530	3970	15.5	105	7.3	7.7	75	2200	1300	1400	33	40
14...	1410	532	13.0	374	7.7	9.5	88	180	K120	180	137	167
25...	0830	290	14.5	542	7.7	8.9	85	K22	K35	85	210	257
29...	1015	357	15.5	525	8.1	8.3	82	880	620	280	171	209
MAY												
08...	1105	365	17.0	468	7.9	8.3	84	240	220	--	179	219
12...	1515	276	19.0	550	8.1	9.4	99	50	K26	K12	211	257
21...	1400	362	20.0	447	8.0	9.1	96	230	140	120	168	205
27...	1500	1330	19.5	203	7.0	6.8	72	1200	1400	K3400	55	67
JUN												
05...	1315	446	19.0	461	7.6	7.7	81	120	150	100	168	205
10...	1310	336	18.5	502	7.6	8.2	85	1200	620	1600	175	213
16...	1315	517	23.5	391	7.3	7.0	81	K1400	600	980	132	162
23...	1315	1430	26.0	198	6.8	4.9	58	1100	1200	1800	64	78
30...	1345	463	24.0	361	8.0	6.8	79	K3700	K4300	K11000	124	152
JUL												
10...	0855	801	24.0	260	7.7	5.7	65	5000	K4100	3100	84	103
14...	1422	247	30.5	445	7.9	7.0	90	490	250	510	161	197
23...	0945	186	27.5	431	7.8	6.1	75	460	210	520	178	217
30...	0935	1590	22.0	87	7.1	5.8	65	5800	8400	K22000	27	33
AUG												
14...	0930	98	25.0	461	8.1	7.7	91	K270	180	280	184	224
26...	1310	118	27.5	456	8.0	8.3	101	91	85	81	178	218
SEP												
03...	1345	111	24.0	488	8.1	7.2	83	K1500	K1600	K3400	179	218
18...	0915	83	22.5	550	7.9	7.1	80	K810	320	K32	218	266

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07043500 LITTLE RIVER DITCH NO 1 NEAR MOREHOUSE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	CARBONATE WATER DIS IT FIELD (mg/L as CO_3) (00452)	NITROGEN, NO_2+NO_3 DISSOLVED (mg/L as N) (00631)	NITROGEN, NITRITE DISSOLVED (mg/L as N) (00613)	NITROGEN, AMMONIA DISSOLVED (mg/L as N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITROGEN, AMMONIA + ORGANIC DIS. (mg/L as N) (00623)	PHOSPHORUS, TOTAL (mg/L as P) (00665)	PHOSPHORUS, DISSOLVED (mg/L as P) (00666)	PHOSPHORUS ORTHO, DISSOLVED (mg/L as P) (00671)	HARDNESS, TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM, DISSOLVED (mg/L as Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)
OCT													
02...	1	0.050	<0.010	0.030	0.40	<0.20	0.090	0.060	0.050	210	48	21	19
16...	0	<0.050	0.010	0.040	<0.20	<0.20	0.070	0.040	0.050	240	55	26	22
NOV													
04...	0	0.050	0.010	0.020	<0.20	<0.20	0.050	0.040	0.040	240	56	25	22
19...	0	0.150	0.010	<0.015	0.30	<0.20	0.130	0.050	0.060	220	50	22	18
DEC													
04...	0	0.230	<0.010	0.050	0.70	0.30	0.250	0.080	0.090	160	36	16	13
18...	0	0.340	0.010	0.060	0.90	0.40	0.330	0.100	0.100	84	20	8.3	5.7
JAN													
14...	0	0.160	0.030	0.050	0.40	0.20	0.090	0.020	0.020	230	53	23	22
27...	0	0.310	0.010	0.090	0.90	0.40	0.350	0.070	0.070	88	21	8.7	7.2
FEB													
05...	0	0.550	0.020	0.130	1.8	0.50	0.470	0.110	0.110	52	13	4.7	3.4
18...	0	0.140	<0.010	<0.015	0.30	<0.20	0.070	<0.010	<0.010	200	47	19	20
MAR													
04...	0	0.220	0.020	0.070	1.6	0.50	0.470	0.080	0.080	38	9.7	3.4	1.9
13...	0	0.330	0.020	0.100	0.70	0.50	0.190	0.020	0.040	150	37	15	16
17...	0	0.320	0.020	0.110	0.80	0.50	0.200	0.040	0.050	140	34	13	14
24...	0	0.210	0.010	0.020	0.50	<0.20	0.120	0.040	0.030	200	49	20	22
APR													
01...	0	0.300	0.020	0.020	0.40	<0.20	0.120	0.040	0.030	200	48	20	23
07...	0	0.730	0.040	0.280	1.8	0.80	0.640	0.160	0.150	41	11	3.5	1.9
14...	0	0.410	0.020	0.060	0.60	0.30	0.230	0.060	0.050	150	36	14	15
25...	0	0.052	<0.010	<0.015	0.24	<0.20	0.068	0.020	0.030	240	57	22	26
29...	0	0.282	0.011	<0.015	0.43	0.21	0.090	0.016	0.025	200	50	19	21
MAY													
08...	0	0.381	0.043	<0.015	0.49	<0.20	0.183	0.091	0.067	190	47	19	20
12...	0	0.128	<0.010	<0.015	0.27	<0.20	0.111	0.038	0.040	230	55	22	24
21...	0	0.280	0.017	<0.015	0.74	0.33	0.228	0.037	0.036	190	44	19	19
27...	0	2.77	0.101	0.469	2.5	1.10	0.564	0.071	0.062	75	19	6.9	5.6
JUN													
05...	0	1.25	0.097	0.091	0.53	0.34	0.164	0.041	0.037	190	46	18	19
10...	0	0.516	0.036	0.047	0.54	<0.20	0.149	0.018	0.030	190	46	18	21
16...	0	1.47	0.099	0.071	0.95	0.46	0.279	0.052	0.052	150	38	14	15
23...	0	0.641	0.052	0.062	1.1	0.53	0.347	0.123	0.110	74	19	6.7	5.8
30...	0	0.472	0.030	0.075	1.4	0.36	0.416	0.053	0.051	140	35	14	15
JUL													
10...	0	0.577	0.031	0.035	0.94	0.45	0.250	0.054	0.061	100	25	9.2	7.9
14...	0	0.248	0.021	0.043	0.49	<0.20	0.179	0.051	0.065	180	45	17	16
23...	0	0.211	0.017	0.045	0.67	0.24	0.172	0.053	0.074	170	41	17	15
30...	0	0.388	0.018	0.102	0.99	0.71	0.176	0.027	0.024	30	7.4	2.8	2.7
AUG													
14...	0	0.104	0.012	<0.015	0.40	0.30	0.092	0.060	0.067	180	41	18	19
26...	0	--	--	--	--	--	--	--	--	200	48	20	17
SEP													
03...	0	0.098	0.010	<0.015	0.67	0.24	0.232	0.090	0.089	190	44	19	21
18...	0	1.42	<0.010	<0.015	<0.20	<0.20	0.098	0.047	0.056	230	56	23	25

07043500 LITTLE RIVER DITCH NO 1 NEAR MOREHOUSE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SILICA, DISSOLVED (mg/L as SiO_2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	SEDIMENT, SUSPENDED (mg/L) (80154)	IRON, DISSOLVED (µg/L as Fe) (01046)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	CARBON, ORGANIC DISSOLVED (mg/L as C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (mg/L as C) (00689)
OCT											
02 ...	3.6	22	32	0.20	14	288	71	<3.0	35	2.7	0.5
16 ...	2.0	18	34	0.20	16	328	73	5.0	57	1.4	0.8
NOV											
04 ...	2.3	26	34	0.10	15	319	54	3.0	82	2.0	0.2
19 ...	4.2	27	32	0.20	15	296	93	17	48	3.0	0.6
DEC											
04 ...	4.2	19	22	0.10	13	219	88	18	42	5.1	1.5
18 ...	4.2	12	10	0.10	9.6	125	91	31	41	5.2	2.8
JAN											
14 ...	2.4	22	38	0.20	17	321	86	4.0	110	3.7	1.3
27 ...	3.8	12	13	0.10	9.4	135	125	23	63	4.6	2.5
FEB											
05 ...	3.7	9.6	5.6	<0.10	6.4	89	320	24	55	6.5	7.6
18 ...	2.3	24	33	0.20	14	285	66	4.0	150	2.2	0.3
MAR											
04 ...	3.2	5.8	2.8	0.10	7.4	73	245	470	75	6.5	2.1
13 ...	2.8	18	24	0.20	14	235	73	180	150	3.5	0.8
17 ...	2.9	17	21	0.20	13	209	89	200	120	4.7	1.4
24 ...	2.7	23	34	0.20	15	301	83	80	110	2.8	1.1
APR											
01 ...	2.5	20	35	0.20	15	284	65	52	180	2.7	0.4
07 ...	3.5	6.0	4.5	0.14	8.6	76	322	410	59	6.2	5.2
14 ...	3.2	17	24	0.19	13	224	102	210	141	4.4	1.3
25 ...	2.3	22	39	0.19	15	311	104	14	145	2.6	0.2
29 ...	2.6	21	31	0.18	15	277	67	23	181	--	0.6
MAY											
08 ...	3.1	18	35	0.19	15	261	120	120	116	7.4	0.7
12 ...	2.6	21	40	0.20	15	308	92	<3.0	133	2.3	0.2
21 ...	3.1	17	28	0.19	14	242	171	20	136	3.4	0.5
27 ...	4.2	11	12	0.14	11	134	367	350	73	6.3	3.5
JUN											
05 ...	3.2	18	34	<0.10	17	266	92	130	166	3.2	0.8
10 ...	2.7	18	38	0.15	15	290	108	79	140	2.8	0.5
16 ...	4.2	15	26	0.18	14	225	201	130	103	3.9	1.1
23 ...	5.0	8.0	12	0.18	10	126	197	230	72	7.6	1.8
30 ...	3.8	12	26	0.18	13	213	305	4.6	152	4.3	1.5
JUL											
10 ...	4.8	11	13	0.15	11	156	284	94	90	5.5	2.4
14 ...	3.5	14	29	0.18	16	251	100	100	51	4.4	1.2
23 ...	3.4	17	25	0.17	15	269	104	<3.0	28	3.7	1.1
30 ...	4.0	4.6	4.7	<0.10	4.8	68	451	130	438	6.8	5.0
AUG											
14 ...	3.0	15	31	0.18	15	273	65	16	27	2.9	1.2
26 ...	2.9	13	29	0.16	15	285	45	4.4	27	2.7	0.7
SEP											
03 ...	4.2	16	36	0.19	15	281	138	9.2	41	4.3	0.8
18...	2.3	16	41	0.16	17	319	97	4.0	80	1.8	0.3

07043500 LITTLE RIVER DITCH NO 1 NEAR MOREHOUSE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	ACETO-CHLOR, WATER FLTRD REC (µg/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (µg/L) (46342)	ALPHA BHC DIS-SOLVED (µg/L) (34253)	ATRA-ZINE, WATER, DISS, REC (µg/L) (39632)	DEETHYL ATRA-ZINE, WATER, DISS, REC (µg/L) (04040)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	BUTYL-ATE, WATER, DISS, REC (µg/L) (04028)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (µg/L) (38933)	CYANA-ZINE, WATER, DISS, REC (µg/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (µg/L) (82682)
OCT												
02...	<0.002	0.005	<0.002	0.058	E0.002	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
16...	<0.002	<0.002	<0.002	0.006	<0.002	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
NOV												
04...	<0.002	<0.002	<0.002	0.029	E0.006	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
19...	<0.002	<0.002	<0.002	0.050	E0.012	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
DEC												
04...	<0.010	0.007	<0.002	0.092	E0.013	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
18...	<0.002	0.010	<0.002	0.108	E0.018	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
JAN												
14...	<0.002	<0.002	<0.002	0.032	E0.002	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
27...	<0.002	0.006	<0.002	0.059	E0.003	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
FEB												
05...	<0.002	0.009	<0.002	0.088	E0.013	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
18...	<0.002	E0.003	<0.002	0.024	E0.002	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
MAR												
04...	<0.002	0.009	<0.002	0.064	E0.014	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
13...	<0.002	E0.003	<0.002	0.035	E0.004	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
17...	<0.002	E0.003	<0.002	0.045	E0.004	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
24...	<0.002	E0.002	<0.002	0.023	E0.003	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
APR												
01...	E0.004	0.058	<0.002	0.276	E0.006	<0.002	<0.002	<0.003	<0.003	<0.004	0.009	<0.002
07...	0.209	2.54	<0.002	18.6	E0.063	<0.002	<0.002	E0.021	<0.003	<0.004	0.439	E0.001
14...	0.089	0.615	<0.002	4.88	E0.023	<0.002	<0.002	<0.003	<0.003	<0.004	0.354	<0.002
25...	0.021	0.063	<0.002	1.11	E0.020	<0.002	<0.002	E0.007	<0.003	<0.004	0.051	<0.002
29...	0.080	0.603	<0.002	6.50	E0.065	<0.002	<0.002	<0.003	<0.003	<0.004	0.197	<0.002
MAY												
08...	0.093	1.27	<0.002	15.6	E0.063	<0.002	<0.002	<0.003	<0.003	<0.004	0.170	<0.002
12...	0.041	0.277	<0.002	6.43	E0.027	<0.002	<0.002	<0.003	<0.003	<0.004	0.057	<0.002
21...	0.029	1.65	<0.002	5.50	E0.274	<0.002	<0.002	<0.003	<0.003	<0.004	1.24	<0.002
27...	0.099	5.46	<0.002	E22.1	E0.164	<0.002	<0.002	<0.003	<0.003	E0.004	0.092	E0.002
JUN												
05...	0.026	0.479	<0.002	4.60	E0.245	<0.002	<0.002	E0.022	<0.003	<0.004	0.151	<0.002
10...	0.010	0.179	<0.002	1.95	E0.143	<0.002	<0.002	<0.003	<0.003	<0.004	0.075	<0.002
16...	0.036	0.256	<0.002	4.56	E0.252	<0.002	<0.002	<0.003	<0.003	<0.004	0.119	<0.002
23...	0.017	0.212	<0.002	1.60	E0.532	<0.002	<0.002	<0.003	<0.003	<0.004	0.112	E0.001
30...	<0.002	0.176	<0.002	0.865	E0.032	<0.002	<0.002	<0.003	E0.280	<0.004	0.022	<0.002
JUL												
10...	<0.002	0.920	<0.002	2.13	E0.096	<0.002	<0.002	<0.003	<0.003	<0.004	0.242	<0.002
14...	0.014	0.490	<0.002	0.813	E0.101	<0.002	<0.002	E0.020	E0.020	<0.004	0.186	0.273
23...	<0.002	0.043	<0.002	0.636	E0.053	<0.002	<0.002	<0.003	<0.003	<0.004	0.017	<0.002
30...	<0.002	<0.002	<0.002	0.046	E0.009	<0.002	<0.002	<0.003	<0.003	0.005	<0.004	E0.003
AUG												
14...	<0.002	0.009	<0.002	0.206	E0.014	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	E0.001
26...	<0.002	E0.004	<0.002	0.079	E0.007	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002
SEP												
03...	<0.002	E0.004	<0.002	0.094	E0.008	<0.002	<0.002	<0.003	<0.003	<0.004	E0.004	<0.002
18...	<0.002	E0.003	<0.002	0.053	E0.004	<0.002	<0.002	<0.003	<0.003	<0.004	<0.004	<0.002

E--Laboratory estimated value.

07043500 LITTLE RIVER DITCH NO 1 NEAR MOREHOUSE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	P,P' DDE DISSOLV (µg/L) (34653)	DI-AZINON, DIS-SOLVED (µg/L) (39572)	DI-ELDRIN DIS-SOLVED (µg/L) (39381)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	FONOFOS WATER DISS REC (µg/L) (04095)	LINDANE DIS-SOLVED (µg/L) (39341)	LIN-URON WATER FLTRD 0.7 µ GF, REC (µg/L) (82666)	MALA-THION, DIS-SOLVED (µg/L) (39532)
OCT												
02...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
16...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
NOV												
04...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
19...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
DEC												
04...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
18...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
JAN												
14...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
27...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
FEB												
05...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
18...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
MAR												
04...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
13...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
17...	<0.006	E0.003	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
24...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
APR												
01...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
07...	<0.006	0.006	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
14...	<0.006	E0.004	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
25...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
29...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
MAY												
08...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
12...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
21...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
27...	<0.006	0.010	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
JUN												
05...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
10...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
16...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
23...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
30...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
JUL												
10...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
14...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
23...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
30...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
AUG												
14...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
26...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
SEP												
03...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005
18...	<0.006	<0.002	<0.001	<0.003	<0.017	<0.002	<0.004	<0.003	<0.003	<0.004	<0.002	<0.005

E--Laboratory estimated value.

07043500 LITTLE RIVER DITCH NO 1 NEAR MOREHOUSE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	METO-LACHLOR WATER DISSOLV (µg/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PARA-THION, DIS-SOLVED (µg/L) (39542)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)	PRO-METON, WATER, DISS, REC (µg/L) (04037)
OCT												
02...	<0.001	<0.006	0.021	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
16...	<0.001	<0.006	E0.003	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
NOV												
04...	<0.001	<0.006	0.015	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
19...	<0.001	<0.006	0.039	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
DEC												
04...	<0.001	<0.006	0.055	0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
18...	<0.001	<0.006	0.057	0.005	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
JAN												
14...	<0.001	<0.006	0.016	<0.004	0.012	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
27...	<0.001	<0.006	0.029	<0.004	0.008	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
FEB												
05...	<0.001	<0.006	0.042	0.010	0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
18...	<0.001	<0.006	0.011	<0.004	0.017	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
MAR												
04...	<0.001	<0.006	0.032	0.008	E0.003	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
13...	<0.001	<0.006	0.014	<0.004	0.023	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
17...	<0.001	<0.006	0.017	<0.004	0.018	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
24...	<0.001	<0.006	0.007	<0.004	0.015	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
APR												
01...	<0.001	<0.020	0.104	0.006	0.005	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
07...	<0.001	<0.006	4.090	0.010	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	E0.007
14...	<0.001	<0.006	0.623	<0.004	0.014	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	0.022
25...	<0.001	<0.006	0.285	<0.004	0.012	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	E0.006
29...	<0.001	<0.006	0.911	0.009	0.010	<0.003	<0.004	<0.004	E0.024	<0.005	<0.002	<0.018
MAY												
08...	<0.001	<0.006	4.270	<0.004	0.014	<0.003	<0.004	<0.004	0.047	<0.005	<0.002	<0.018
12...	<0.001	<0.006	1.080	<0.004	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
21...	<0.001	<0.006	4.520	0.026	0.071	<0.003	<0.004	<0.004	0.072	<0.005	<0.002	<0.018
27...	<0.001	<0.006	9.380	0.183	1.84	<0.003	<0.004	<0.004	0.330	<0.005	<0.002	E0.012
JUN												
05...	<0.001	<0.006	1.390	0.036	0.035	<0.003	<0.004	<0.004	0.035	<0.005	<0.002	E0.004
10...	<0.001	<0.006	0.831	0.012	0.124	<0.003	<0.004	<0.004	0.022	<0.005	<0.002	<0.018
16...	<0.001	<0.006	1.260	0.024	0.513	<0.003	<0.004	<0.004	0.062	<0.005	<0.002	E0.013
23...	<0.001	<0.006	1.110	0.043	0.308	<0.003	<0.004	<0.004	0.087	<0.005	<0.002	E0.008
30...	<0.001	<0.006	0.416	0.011	0.102	0.019	<0.004	<0.004	0.027	<0.005	<0.002	E0.004
JUL												
10...	<0.001	<0.006	0.707	0.046	0.025	<0.003	<0.004	<0.004	0.091	<0.005	<0.002	0.049
14...	<0.001	<0.006	0.222	0.029	0.171	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	0.030
23...	<0.001	<0.006	0.242	<0.004	0.027	<0.003	<0.004	<0.004	<0.020	<0.005	<0.002	0.108
30...	<0.001	<0.006	0.070	0.089	<0.004	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	E0.006
AUG												
14...	<0.001	<0.006	0.070	<0.020	0.739	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	E0.007
26...	<0.001	<0.006	0.029	<0.004	0.036	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
SEP												
03...	<0.010	<0.006	0.066	<0.004	0.103	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018
18...	<0.001	<0.006	0.007	<0.004	0.016	<0.003	<0.004	<0.004	<0.004	<0.005	<0.002	<0.018

E--Laboratory estimated value.

07043500 LITTLE RIVER DITCH NO 1 NEAR MOREHOUSE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)	PROP-CHLOR, WATER, DISS, REC (µg/L) (04024)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	SI-MAZINE, WATER, DISS, REC (µg/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82661)
OCT											
02...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
16...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
NOV											
04...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
19...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
DEC											
04...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
18...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
JAN											
14...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
27...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
FEB											
05...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	E0.002
18...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
MAR											
04...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
13...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
17...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
24...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
APR											
01...	<0.003	<0.007	<0.004	<0.013	E0.004	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
07...	<0.003	<0.007	<0.004	<0.013	0.033	<0.010	<0.007	<0.013	<0.002	<0.001	E0.004
14...	<0.003	<0.007	<0.004	<0.013	0.009	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
25...	<0.003	<0.007	<0.004	<0.013	0.007	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
29...	<0.003	<0.007	<0.004	<0.013	0.015	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
MAY											
08...	<0.003	<0.007	<0.004	<0.013	0.023	<0.010	<0.007	<0.013	<0.002	<0.001	0.007
12...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
21...	<0.003	<0.007	0.019	<0.013	0.041	<0.010	<0.007	<0.013	0.061	<0.001	0.007
27...	<0.003	<0.007	2.05	<0.013	0.033	E0.010	<0.007	<0.013	0.049	<0.001	0.016
JUN											
05...	<0.003	<0.007	<0.004	<0.013	0.016	E0.017	<0.007	<0.013	E0.003	<0.001	0.005
10...	<0.003	<0.007	0.018	<0.013	0.008	<0.010	<0.007	<0.013	0.016	<0.001	E0.004
16...	<0.003	<0.007	0.099	<0.013	0.019	E0.009	<0.007	<0.013	0.041	<0.001	0.008
23...	<0.003	<0.007	0.238	<0.013	0.015	E0.012	<0.007	<0.013	0.030	<0.001	0.009
30...	<0.003	<0.007	0.561	<0.013	0.008	E0.016	<0.007	<0.013	0.005	<0.001	0.032
JUL											
10...	<0.003	<0.007	<0.004	<0.013	0.008	<0.010	<0.007	<0.013	<0.002	<0.001	0.008
14...	<0.003	<0.007	<0.004	<0.013	0.069	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
23...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
30...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	0.004
AUG											
14...	<0.003	<0.007	<0.004	<0.013	E0.004	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
26...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
SEP											
03...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002
18...	<0.003	<0.007	<0.004	<0.013	<0.005	<0.010	<0.007	<0.013	<0.002	<0.001	<0.002

E--Laboratory estimated value.

07043500 LITTLE RIVER DITCH NO 1 NEAR MOREHOUSE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	DINOSEB WATER, FLTRD, GF 0.7µ REC (µg/L) (49301)	DICHLOR PROP, WATER, FLTRD, GF 0.7µ REC (µg/L) (49302)	DNOC WAT,FLT GF 0.7µ REC (µg/L) (49299)	NEB-URON, WATER, FLTRD, GF 0.7µ REC (µg/L) (49294)	DICHLO-BENIL, WATER, FLTRD, GF 0.7µ REC (µg/L) (49303)	FEN-URON, WATER, FLTRD, GF 0.7µ REC (µg/L) (49297)	2,4-DB WATER, FLTRD, GF 0.7µ REC (µg/L) (38746)	2,4-D, DIS-SOLVED (µg/L) (39732)	2,4,5-T DIS-SOLVED (µg/L) (39742)	ACIFL-UORFEN WATER, FLTRD, GF 0.7µ REC (µg/L) (49315)	ALDI-CARB, WATER, FLTRD, GF 0.7µ REC (µg/L) (49312)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7µ REC (µg/L) (49314)
OCT												
02...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	0.060	<0.016	<0.021
16...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
NOV												
04...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
19...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
DEC												
04...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	0.080	<0.016	<0.021
18...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	0.100	<0.016	<0.021
JAN												
14...	--	--	--	--	--	--	--	--	--	--	--	--
27...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	E0.030	<0.016	<0.021
FEB												
05...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	0.050	<0.016	<0.021
18...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
MAR												
04...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
13...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
17...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
24...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
APR												
01...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
07...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	0.300	<0.035	<0.035	<0.016	<0.021
14...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	0.110	<0.035	<0.035	<0.016	<0.021
25...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
29...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	0.220	<0.035	<0.035	<0.016	<0.021
MAY												
08...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	0.170	<0.035	<0.035	<0.016	<0.021
12...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	0.110	<0.035	<0.035	<0.016	<0.021
21...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	E0.590	<0.035	<0.035	<0.016	<0.021
27...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	0.240	<0.035	0.050	<0.016	<0.021
JUN												
05...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
10...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
16...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	0.190	<0.035	0.640	<0.016	<0.021
23...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	0.280	<0.035	0.340	<0.016	<0.021
30...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	0.460	<0.016	<0.021
JUL												
10...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	0.290	<0.035	<0.035	<0.016	<0.021
14...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	0.090	<0.035	<0.035	<0.016	<0.021
23...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	0.250	<0.016	<0.021
30...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	E5.83	<0.035	0.060	<0.016	<0.021
AUG												
14...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	0.120	<0.016	<0.021
26...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	0.050	<0.016	<0.021
SEP												
03...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021
18...	<0.035	<0.032	<0.035	<0.015	<0.020	<0.013	<0.035	<0.035	<0.035	<0.035	<0.016	<0.021

E--Laboratory estimated value.

07043500 LITTLE RIVER DITCH NO 1 NEAR MOREHOUSE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	ALDI-CARB SULFONE WAT,FLT GF 0.7µ REC (µg/L) (49313)	BENTA-ZON, WATER, FLTRD, GF 0.7µ REC (µg/L) (38711)	BRO-MACIL, WATER, DISS, REC (µg/L) (04029)	BRO-MOXYNIL WATER, FLTRD, GF 0.7µ REC (µg/L) (49311)	CHLOR-AMBEN, WATER, FLTRD, GF 0.7µ REC (µg/L) (49307)	CHLORO-THALO-NIL, WAT,FLT GF 0.7µ REC (µg/L) (49306)	CLOPYR-ALID, WATER, FLTRD, GF 0.7µ REC (µg/L) (49305)
OCT							
02...	<0.016	0.080	<0.035	<0.035	<0.011	<0.035	<0.05
16...	<0.016	<0.030	<0.035	<0.035	<0.011	<0.035	<0.05
NOV							
04...	<0.016	0.050	<0.035	<0.035	<0.011	<0.035	<0.05
19...	<0.016	<0.020	<0.035	<0.035	<0.011	<0.035	<0.05
DEC							
04...	<0.016	0.090	<0.035	<0.035	<0.011	<0.035	<0.05
18...	<0.016	<0.014	<0.035	<0.035	<0.011	<0.035	<0.05
JAN							
14...	--	--	--	--	--	--	--
27...	<0.016	<0.014	<0.035	<0.035	<0.011	<0.035	<0.05
FEB							
05...	<0.016	<0.014	<0.035	<0.035	<0.011	<0.035	<0.05
18...	<0.016	E0.020	<0.035	<0.035	<0.011	<0.035	<0.05
MAR							
04...	<0.016	<0.014	<0.035	<0.035	<0.011	<0.035	<0.05
13...	<0.016	E0.010	<0.035	<0.035	<0.011	<0.035	<0.05
17...	<0.016	E0.020	<0.035	<0.035	<0.011	<0.035	<0.05
24...	<0.016	E0.020	<0.035	<0.035	<0.011	<0.035	<0.05
APR							
01...	<0.016	E0.010	<0.035	<0.035	<0.011	<0.035	<0.05
07...	<0.016	<0.014	<0.035	<0.035	<0.011	<0.035	<0.05
14...	<0.016	E0.020	<0.03	<0.035	<0.011	<0.035	<0.05
25...	<0.016	E0.010	<0.035	<0.035	<0.011	<0.035	<0.05
29...	<0.016	E0.020	<0.035	<0.035	<0.011	<0.035	<0.05
MAY							
08...	<0.016	<0.014	<0.035	<0.035	<0.011	<0.035	<0.05
12...	<0.016	0.090	<0.035	<0.035	<0.011	<0.035	<0.05
21...	<0.016	E0.010	<0.035	<0.035	<0.011	<0.035	<0.05
27...	<0.016	0.070	<0.035	<0.035	<0.011	<0.035	<0.05
JUN							
05...	<0.016	0.060	<0.035	<0.035	<0.011	<0.035	<0.05
10...	<0.016	E0.030	<0.035	<0.035	<0.011	<0.035	<0.05
16...	<0.016	E1.31	<0.035	<0.035	<0.011	<0.035	<0.05
23...	<0.016	0.670	<0.035	<0.035	<0.011	<0.035	<0.05
30...	<0.016	0.610	<0.035	<0.035	<0.011	<0.035	<0.05
JUL							
10...	<0.016	0.630	<0.035	<0.035	<0.011	<0.035	<0.05
14...	<0.016	0.490	<0.035	<0.035	<0.011	<0.035	<0.05
23...	<0.016	0.280	<0.035	<0.035	<0.011	<0.035	<0.05
30...	<0.016	0.320	<0.035	<0.035	<0.011	<0.035	<0.05
AUG							
14...	<0.016	0.490	<0.035	<0.035	<0.011	<0.035	<0.05
26...	<0.016	0.140	<0.035	<0.035	<0.011	<0.035	<0.05
SEP							
03...	<0.016	<0.014	<0.035	<0.035	<0.011	<0.035	<0.05
18...	<0.016	0.040	<0.035	<0.035	<0.011	<0.035	<0.05

E--Laboratory estimated value.

07043500 LITTLE RIVER DITCH NO 1 NEAR MOREHOUSE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	DICAMBA WATER, FLTRD, GF 0.7µ REC (µg/L) (38442)	DIURON, WATER, FLTRD, GF 0.7µ REC (µg/L) (49300)	FLUO-METURON WATER, FLTRD, GF 0.7µ REC (µg/L) (38811)	MCPA, WATER, FLTRD, GF 0.7µ REC (µg/L) (38482)	MCPB, WATER, FLTRD, GF 0.7µ REC (µg/L) (38487)	METHIO-CARB, WATER, FLTRD, GF 0.7µ REC (µg/L) (38501)	METH-OMYL, WATER, FLTRD, GF 0.7µ REC (µg/L) (49296)	NORFLUR AZON, WATER, FLTRD, GF 0.7µ REC (µg/L) (49293)
OCT								
02...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
16...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
NOV								
04...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
19...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
DEC								
04...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
18...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
JAN								
14...	--	--	--	--	--	--	--	--
27...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
FEB								
05...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
18...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
MAR								
04...	<0.035	0.070	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
13...	<0.035	E0.008	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
17...	<0.035	E0.010	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
24...	<0.035	E0.009	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
APR								
01...	<0.035	E0.010	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
07...	<0.035	E0.030	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
14...	<0.035	E0.005	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
25...	<0.035	E0.007	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
29...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
MAY								
08...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
12...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
21...	<0.035	<0.020	E0.120	<0.05	<0.035	<0.026	<0.017	<0.024
27...	<0.035	0.150	1.05	<0.05	<0.035	<0.026	<0.017	<0.024
JUN								
05...	<0.035	<0.020	0.050	<0.05	<0.035	<0.026	<0.017	<0.024
10...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
16...	<0.035	<0.020	0.070	<0.05	<0.035	<0.026	<0.017	<0.024
23...	<0.035	<0.020	0.160	<0.05	<0.035	<0.026	<0.017	<0.024
30...	<0.035	E0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
JUL								
10...	<0.035	<0.020	0.100	<0.05	<0.035	<0.026	<0.017	<0.024
14...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
23...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
30...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
AUG								
14...	<0.035	<0.020	0.070	<0.05	<0.035	<0.026	<0.017	<0.024
26...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
SEP								
03...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024
18...	<0.035	<0.020	<0.035	<0.05	<0.035	<0.026	<0.017	<0.024

E--Laboratory estimated value.

07043500 LITTLE RIVER DITCH NO 1 NEAR MOREHOUSE, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	ORY-ZALIN, WATER, FLTRD, GF 0.7µ REC (µg/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7µ REC (µg/L) (38866)	PIC-LORAM, WATER, FLTRD, GF 0.7µ REC (µg/L) (49291)	PRO-PHAM, WATER, FLTRD, GF 0.7µ REC (µg/L) (49236)	SILVEX, DIS-SOLVED (µg/L) (39762)	TRI-CLOPYR, WATER, FLTRD, GF 0.7µ REC (µg/L) (49235)	DACTHAL MONO-ACID, WAT,FLT GF 0.7µ REC (µg/L) (49304)	3-HYDROXY CARBO-FURAN WAT,FLT GF 0.7µ REC (µg/L) (49308)	PRO-POXUR, WATER, FLTRD, GF 0.7µ REC (µg/L) (38538)
OCT									
02...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
16...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
NOV									
04...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
19...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
DEC									
04...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
18...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
JAN									
14...	--	--	--	--	--	--	--	--	--
27...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
FEB									
05...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
18...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
MAR									
04...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
13...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
17...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
24...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
APR									
01...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
07...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
14...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
25...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
29...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
MAY									
08...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
12...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
21...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
27...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
JUN									
05...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
10...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
16...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
23...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
30...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
JUL									
10...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
14...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
23...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
30...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
AUG									
14...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
26...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
SEP									
03...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035
18...	<0.019	<0.018	<0.05	<0.035	<0.021	<0.05	<0.017	<0.014	<0.035

07046250 LITTLE RIVER DITCHES NEAR RIVES, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 36°05'25", long 90°04'47", in NE 1/4 NE 1/4 sec.28, T.17 N., R.9 E., Dunklin County, Hydrologic Unit 08020204. 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 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
OCT											
22...	1130	260	17.5	406	8.06	7.9	82	--	84	77	158
NOV											
20...	1530	730	12.0	221	7.61	8.3	76	26	440	160	75
DEC											
17...	1400	7900	4.0	110	7.05	11.6	86	--	2200	6500	40
JAN											
22...	1730	6600	8.0	150	7.49	10.4	87	18	330	4250	105
FEB											
19...	1715	1300	11.5	302	8.00	10.2	91	--	40	52	111
MAR											
25...	1600	1100	15.5	357	7.78	11.1	109	--	40	K20	141
APR											
16...	1315	2000	17.0	311	7.19	9.1	92	--	46	123	121
MAY											
28...	1530	14000	22.0	133	7.44	5.5	62	--	1000	2550	38
JUN											
11...	1215	1200	22.5	362	7.73	7.2	82	<5	164	80	138
JUL											
22...	1530	1100	31.5	400	8.02	7.9	104	--	80	52	157
AUG											
06...	1100	540	25.0	321	7.55	7.0	84	--	K26	128	125
SEP											
04...	1130	430	22.0	392	8.01	7.7	84	--	29	112	151

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)
OCT											
22...	193	0	<0.02	<0.01	0.03	0.38	0.13	0.09	--	--	--
NOV											
20...	92	0	0.29	0.03	0.04	0.78	0.32	0.26	94	26	7.0
DEC											
17...	48	0	0.34	0.06	0.11	1.6	0.51	0.35	--	--	--
JAN											
22...	123	0	0.78	0.03	0.13	1.6	0.48	0.21	63	17	5.0
FEB											
19...	136	0	0.21	0.02	0.06	0.38	0.14	0.09	--	--	--
MAR											
25...	172	0	0.26	0.01	0.08	0.35	0.13	0.07	--	--	--
APR											
16...	147	0	0.44	0.03	0.07	0.51	0.18	0.11	--	--	--
MAY											
28...	43	0	2.40	0.12	0.51	3.4	0.89	0.33	--	--	--
JUN											
11...	169	0	<0.02	<0.01	0.19	0.95	0.10	0.04	170	47	12
JUL											
22...	191	0	<0.02	<0.01	0.01	0.80	0.20	0.13	--	--	--
AUG											
06...	152	0	<0.02	<0.01	0.02	0.54	0.16	0.11	140	39	10
SEP											
04...	185	0	0.02	<0.01	0.03	0.62	0.16	0.13	--	--	--

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07046250 LITTLE RIVER DITCHES NEAR RIVES, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)
NOV 20...	5.7	5.8	17	12	0.1	144	98	1800	4.5	<1	<1
JAN 22...	4.3	3.3	11	8	0.1	100	250	4300	150	<1	<1
JUN 11...	10	2.8	21	13	0.2	216	56	1500	9.3	<1	<1
AUG 06...	10	3.2	19	11	0.2	202	60	1200	15	<1	<1

DATE	COPPER, DISSOLVED (µg/L as Cu) (01040)	IRON, DISSOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	LEAD, DISSOLVED (µg/L as Pb) (01049)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOVERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)	ZINC, DISSOLVED (µg/L as Zn) (01090)	PROPCHLOR, WATER, DISS, REC (µg/L) (04024)	BUTYLATE, WATER, DISS, REC (µg/L) (04028)	SIMAZINE, WATER, DISS, REC (µg/L) (04035)
NOV 20...	1.3	20	4	<1	58	<0.1	20	1.6	0.009	<0.002	<0.005
JAN 22...	2.3	100	9	<1	21	<0.1	30	1.6	--	--	--
MAR 25...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.005
APR 16...	--	--	--	--	--	--	--	--	<0.007	<0.002	0.014
MAY 28...	--	--	--	--	--	--	--	--	<0.007	<0.002	0.079
JUN 11...	<1.0	9	2	<1	130	<0.1	7	<1.0	<0.007	<0.002	0.009
AUG 06...	1.5	10	2	<1	120	<0.1	7	<1.0	<0.007	<0.002	0.007

DATE	PROMETON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRAZINE, WATER, DISS, REC (µg/L) (04040)	CYANAZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	ALPHA BHC DISSOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	METOLACHLOR WATER DISSOLV (µg/L) (39415)	LINDANE DISSOLVED (µg/L) (39341)	DIELDRIN DISSOLVED (µg/L) (39381)	ATRAZINE, WATER, DISS, REC (µg/L) (39632)	METRIBUZIN SENCOR WATER DISSOLV (µg/L) (82630)
NOV 20...	<0.018	E0.011	0.032	<0.003	<0.002	<0.006	0.178	<0.004	<0.001	0.100	0.017
MAR 25...	<0.018	<0.002	0.004	<0.003	<0.002	<0.006	0.023	<0.004	<0.001	0.026	<0.004
APR 16...	E0.002	E0.025	0.199	<0.003	<0.002	<0.006	1.68	<0.004	<0.001	3.78	0.005
MAY 28...	<0.018	E0.316	0.208	<0.003	<0.002	<0.006	9.81	<0.004	<0.001	12.0	1.10
JUN 11...	<0.018	E0.053	0.059	<0.003	<0.002	<0.006	0.873	<0.004	<0.001	1.42	0.054
AUG 06...	E0.007	E0.011	0.569	<0.003	<0.002	<0.006	0.223	<0.004	<0.001	0.137	<0.004

E--Laboratory estimated value.

07046250 LITTLE RIVER DITCHES NEAR RIVES, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	FONOFOS WATER DISS REC (µg/L) (04095)	CHLOR-PYRIFOS DIS-SOLVED (µg/L) (38933)	MALA-THION, DIS-SOLVED (µg/L) (39532)	PARA-THION, DIS-SOLVED (µg/L) (39542)	DI-AZINON, DIS-SOLVED (µg/L) (39572)	ALA-CHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (µg/L) (49260)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)
NOV 20...	<0.003	<0.004	<0.005	<0.004	<0.002	0.026	<0.002	<0.003	<0.004	<0.002	<0.007
MAR 25...	<0.003	<0.004	<0.005	<0.004	<0.002	E0.002	<0.002	<0.003	<0.004	<0.002	<0.007
APR 16...	<0.003	<0.004	<0.005	<0.004	<0.002	0.201	0.131	<0.003	<0.004	<0.002	<0.007
MAY 28...	<0.003	<0.004	<0.005	<0.004	0.007	2.98	0.150	<0.003	<0.004	0.013	<0.007
JUN 11...	<0.003	<0.004	<0.005	<0.004	<0.002	0.184	<0.002	<0.003	<0.004	<0.002	<0.007
AUG 06...	<0.003	<0.004	<0.005	<0.004	<0.002	0.022	<0.002	<0.003	<0.004	<0.002	<0.007

DATE	LIN-URON WATER FLTRD 0.7 µ GF, REC (µg/L) (82666)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
NOV 20...	<0.002	<0.006	<0.002	<0.004	<0.010	0.008	<0.003	<0.002	<0.003	<0.013	<0.003
MAR 25...	<0.002	<0.006	<0.002	<0.004	<0.010	0.007	<0.003	<0.002	<0.003	<0.013	<0.003
APR 16...	<0.002	<0.006	<0.002	<0.004	0.026	0.007	<0.003	<0.002	E0.232	<0.013	<0.003
MAY 28...	<0.002	<0.006	<0.002	<0.004	<0.010	1.43	<0.003	<0.002	E0.074	<0.013	<0.003
JUN 11...	<0.002	<0.006	<0.002	<0.004	<0.010	0.603	<0.003	<0.002	<0.003	<0.013	<0.003
AUG 06...	<0.002	<0.006	<0.002	<0.004	<0.010	0.345	<0.003	<0.002	<0.003	<0.013	<0.003

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
NOV 20...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR 25...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
APR 16...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	E0.032	<0.003	<0.013	<0.001	<0.005
MAY 28...	<0.017	<0.001	0.330	<0.003	0.276	<0.002	0.232	<0.003	<0.013	<0.001	<0.005
JUN 11...	<0.017	<0.001	0.034	<0.003	0.018	<0.002	0.019	<0.003	<0.013	<0.001	<0.005
AUG 06...	<0.017	<0.001	<0.004	<0.003	0.011	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

07050150 ROARING RIVER SPRING NEAR CASSVILLE, MO

(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 36°35'30", long 93°50'00", in SE 1/4 NE 1/4 sec.27, T.22 N., R.27 W., Barry County, Hydrologic Unit 11010001. Sample 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) from November 1991 to October 1993.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 · µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS./ PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
07...	0755	140	14.0	339	7.24	8.90	87	--	82	58	169
JAN											
08...	0915	42	13.5	308	7.03	7.10	67	<10	32	12	106
MAR											
05...	0810	100	13.0	290	6.92	9.00	86	--	54	210	125
APR											
14...	1515	72	13.5	311	7.25	8.80	83	--	32	K13	132
JUN											
25...	0855	28	14.0	332	7.19	8.00	77	<5	--	125	142
AUG											
12...	1100	34	14.0	339	6.88	7.80	76	--	240	345	146

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
07...	206	0	2.7	<0.01	<0.01	<0.2	<0.02	0.02	--	--
JAN										
08...	130	0	2.8	<0.01	0.01	<0.2	<0.02	0.02	160	59
MAR										
05...	152	0	2.4	<0.01	<0.01	<0.2	0.06	0.02	--	--
APR										
14...	162	0	2.4	<0.01	0.02	<0.2	0.02	<0.01	--	--
JUN										
25...	174	0	2.6	<0.01	0.02	<0.2	<0.02	0.02	160	61
AUG										
12...	178	0	2.6	<0.01	<0.01	<0.2	0.03	0.02	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
08...	2.0	4.4	1.4	3.7	--	<0.1	260	<1	40	7.8
JUN										
25...	2.6	3.8	1.2	3.6	7.0	<0.1	204	4	30	3.2

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
08...	<1	<1	1.1	10	3	1	2.6	<0.1	9	7.7
JUN										
25...	<1	<1	<1.0	<1	<1	<1	0.8	<0.1	4	5.3

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07050700 JAMES RIVER NEAR SPRINGFIELD, MO

LOCATION.--Lat 37°09'00", long 93°12'12", in SW 1/4 SE 1/4 SW 1/4 sec.2, T.28 N., R.21 W., Greene County, Hydrologic Unit 11010002, on right bank on county road at Kinser Bridge, 1.1 mi downstream from Pearson Creek, and 2.5 mi southeast of Springfield.

DRAINAGE AREA.--246 mi^2.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,143.27 ft above sea level (levels by U.S. Army Corps of Engineers). Prior to Dec. 19, 1955, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharge. Records fair. Flows are affected by the pumping of Blackman Water Treatment Plant, 1.0 mi upstream. Several observations of water temperature were made during the year. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	105	2670	77	136	872	209	129	467	30	11	10
2	103	94	1500	66	125	789	181	140	320	31	10	9.9
3	81	95	992	70	123	649	165	326	234	29	11	9.8
4	68	69	732	90	239	540	169	236	187	26	12	9.5
5	47	64	656	86	300	462	446	191	140	24	12	11
6	46	94	594	81	250	406	765	161	117	22	10	13
7	32	1940	512	75	222	359	488	144	93	20	9.4	12
8	25	1600	446	73	209	310	380	178	70	19	8.9	9.8
9	17	972	392	78	180	426	319	177	77	26	8.4	6.9
10	16	665	353	74	172	872	276	161	68	23	8.2	6.9
11	14	518	318	66	159	634	256	154	67	23	10	6.6
12	14	417	292	61	147	503	257	141	73	20	11	6.5
13	13	358	263	56	134	1070	238	132	73	18	12	6.4
14	17	323	242	56	128	2110	206	174	110	17	36	7.2
15	19	332	228	57	116	1040	188	166	93	16	68	10
16	17	349	201	56	114	754	179	144	80	15	64	14
17	15	1650	187	47	97	598	176	131	78	20	73	20
18	14	1030	172	51	91	499	168	123	81	33	48	25
19	12	674	148	50	83	438	160	114	69	21	32	23
20	12	518	132	52	118	385	151	106	63	16	38	29
21	19	429	120	66	2600	346	175	97	53	16	29	38
22	66	360	123	158	1470	308	176	88	46	18	22	32
23	78	314	117	233	860	275	200	81	41	17	22	52
24	70	423	124	227	625	243	212	77	36	15	23	67
25	50	2690	108	261	494	374	190	74	33	13	20	47
26	45	1330	96	242	1300	484	169	73	31	12	18	44
27	76	876	88	224	2900	403	171	79	45	12	16	36
28	373	758	81	200	1120	355	164	71	43	13	15	29
29	267	1490	84	183	---	312	151	67	36	15	13	25
30	178	4280	76	161	---	274	140	821	33	11	12	21
31	122	---	75	155	---	241	---	1000	---	10	11	---
MEAN	67.1	827	391	111	518	559	238	186	98.6	19.4	22.4	21.3
MAX	373	4280	2670	261	2900	2110	765	1000	467	33	73	67
MIN	12	64	75	47	83	241	140	67	31	10	8.2	6.4
IN.	.31	3.75	1.83	.52	2.19	2.62	1.08	.87	.45	.09	.10	.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1997, BY WATER YEAR (WY)

MEAN	103	272	305	223	265	416	443	406	205	109	38.7	119
MAX	587	1327	1370	881	972	1041	1396	1672	873	1148	262	1566
(WY)	1971	1973	1983	1995	1985	1978	1994	1961	1985	1958	1958	1993
MIN	2.74	9.39	8.26	5.56	8.35	16.4	16.3	38.3	28.1	12.2	3.22	1.05
(WY)	1957	1964	1956	1981	1981	1981	1981	1977	1972	1962	1962	1956

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1956 - 1997	
ANNUAL MEAN	229		252		242	
HIGHEST ANNUAL MEAN					465	1985
LOWEST ANNUAL MEAN					52.8	1956
HIGHEST DAILY MEAN	4280	Nov 30	4280	Nov 30	24500	Sep 25 1993
LOWEST DAILY MEAN	3.9	Sep 14	6.4	Sep 13	.30	Sep 16 1956
ANNUAL SEVEN-DAY MINIMUM	4.6	Sep 8	7.2	Sep 8	.53	Sep 12 1956
INSTANTANEOUS PEAK FLOW	---		7020	Nov 30	41100	Sep 25 1993
INSTANTANEOUS PEAK STAGE	---		13.67	Nov 30	19.45	Sep 25 1993
INSTANTANEOUS LOW FLOW	---		3.7	Oct 8-13	.10	Sep 16 1956
ANNUAL RUNOFF (INCHES)	12.66		13.92		13.36	
10 PERCENT EXCEEDS	655		629		520	
50 PERCENT EXCEEDS	42		97		78	
90 PERCENT EXCEEDS	8.6		13		12	

07052152 WILSON CREEK NEAR BROOKLINE, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°09'07", long 93°22'18", in NE 1/4 SW 1/4 SE 1/4 sec.7, T.28 N., R.22 W., Greene County, Hydrologic Unit 11010002.

DRAINAGE AREA.--44.6 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
06...	0845	37	20.5	1160	7.55	14.3	159	--	K32	42	202
JAN											
22...	1415	77	15.5	1310	7.42	16.9	173	59	K111	K31	146
MAR											
05...	1600	62	14.0	858	7.27	15.8	155	--	K7500	K6700	188
APR											
16...	1015	84	17.0	898	7.48	15.5	158	--	120	K140	185
JUN											
26...	0800	36	24.0	1180	7.49	14.3	170	40	K727	330	154
AUG											
11...	1110	32	25.5	1390	7.47	13.3	162	--	64	93	141

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
06...	246	0	10.0	<0.01	0.03	0.97	4.3	4.3	--	--
JAN										
22...	179	0	6.5	0.06	0.15	1.2	2.3	2.2	180	64
MAR										
05...	230	0	5.2	0.11	0.15	3.9	2.5	1.3	--	--
APR										
16...	226	0	7.6	0.04	0.18	1.6	2.9	3.0	--	--
JUN										
26...	162	0	12.0	0.01	0.10	1.3	3.7	3.7	180	57
AUG										
11...	172	0	13.0	<0.01	0.03	1.5	4.1	3.8	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
22...	6.0	160	10	99	190	0.6	744	3	40	13
JUN										
26...	8.4	150	15	97	150	0.7	720	10	40	11

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
22...	<1	<1	1.9	30	3	2	45	<0.1	50	45
JUN										
26...	<1	<1	4.2	60	2	1	13	<0.1	50	53

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07052250 JAMES RIVER NEAR BOAZ, MO

(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°00'25", long 93°21'50, in NW 1/4 NE 1/4 sec.32, T.27 N., R.22 W., Christian County, Hydrologic Unit 11010002, at Frazier Bridge, 0.2 mi upstream from Turkey Hollow, and 2.0 mi southeast of Boaz.

DRAINAGE AREA.--462 mi^2.

PERIOD OF RECORD.--August 1967 to September 1982, November 1983 to June 1987, November 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
04...	1645	190	11.5	573	7.85	10.1	93	18	52	68	145
MAR											
05...	1345	900	11.5	394	7.59	10.5	98	--	188	K26	152
APR											
16...	0800	400	13.0	420	7.88	9.3	87	--	118	K8	160
MAY											
12...	1520	260	19.0	478	8.00	11.3	123	--	K28	K16	158
JUN											
25...	1515	100	27.5	607	8.27	9.8	124	21	K1940	K16	161
AUG											
11...	1545	50	23.0	960	7.68	7.5	87	--	54	148	171

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)
NOV											
04...	177	0	2.7	0.030	<0.01	0.35	0.68	0.63	210	72	7.0
MAR											
05...	186	0	2.2	0.020	0.03	0.74	0.15	0.13	--	--	--
APR											
16...	195	0	1.9	0.020	0.02	0.39	0.26	0.26	--	--	--
MAY											
12...	193	0	1.5	0.020	0.03	0.46	0.42	0.40	--	--	--
JUN											
25...	197	0	3.5	0.032	0.05	0.59	0.89	0.89	200	68	6.4
AUG											
11...	208	0	4.0	<0.010	0.03	1.4	1.70	1.50	--	--	--

DATE	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)
NOV											
04...	33	4.2	31	38	0.2	346	3	80	11	<1	<1
JUN											
25...	49	4.8	41	48	0.2	374	16	190	<3.0	<1	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07052250 JAMES RIVER NEAR BOAZ, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)	PROP-CHLOR, WATER, DISS, REC (µg/L) (04024)	BUTYL-ATE, WATER, DISS, REC (µg/L) (04028)	SI-MAZINE, WATER, DISS, REC (µg/L) (04035)
NOV 04...	1.6	10	1	<1	8.3	<0.1	9	8.9	<0.007	<0.002	<0.005
MAR 05...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.010
APR 16...	--	--	--	--	--	--	--	--	<0.007	<0.002	E0.002
MAY 12...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.005
JUN 25...	1.9	3.0	2	<1	8.6	<0.1	10	9.6	<0.007	<0.002	<0.010
AUG 11...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.005

DATE	PRO-METON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (µg/L) (04040)	CYANA-ZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	ALPHA BHC DIS-SOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	METO-LACHLOR WATER DISSOLV (µg/L) (39415)	LINDANE DIS-SOLVED (µg/L) (39341)	DI-ELDRIN DIS-SOLVED (µg/L) (39381)	ATRA-ZINE, WATER, DISS, REC (µg/L) (39632)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)
NOV 04...	0.034	<0.002	<0.004	<0.003	<0.002	<0.006	E0.002	<0.004	<0.001	0.006	<0.004
MAR 05...	0.074	<0.002	<0.004	<0.003	<0.002	<0.006	<0.002	<0.004	<0.001	0.020	<0.004
APR 16...	0.140	E0.003	<0.004	<0.003	<0.002	<0.006	<0.002	<0.004	<0.001	0.004	<0.004
MAY 12...	0.507	E0.004	<0.004	<0.003	<0.002	<0.006	E0.004	<0.004	<0.001	0.017	<0.004
JUN 25...	0.094	<0.002	<0.004	<0.003	<0.002	<0.006	<0.002	<0.004	<0.001	0.020	<0.004
AUG 11...	0.267	E0.004	<0.004	<0.003	<0.002	<0.006	0.083	0.010	<0.001	0.009	<0.004

DATE	FONOFOS WATER DISS REC (µg/L) (04095)	CHLOR-PYRIFOS DIS-SOLVED (µg/L) (38933)	MALA-THION, DIS-SOLVED (µg/L) (39532)	PARA-THION, DIS-SOLVED (µg/L) (39542)	DI-AZINON, DIS-SOLVED (µg/L) (39572)	ALA-CHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (µg/L) (49260)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)
NOV 04...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
MAR 05...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
APR 16...	<0.003	E0.003	<0.005	<0.004	0.013	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
MAY 12...	<0.003	0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
JUN 25...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
AUG 11...	<0.003	<0.004	<0.005	<0.004	0.017	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007

E--Laboratory estimated value.

07052250 JAMES RIVER NEAR BOAZ, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	LIN-URON WATER FLTRD 0.7 µ GF, REC (µg/L) (82666)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
NOV											
04...	<0.002	<0.006	<0.002	<0.004	0.030	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAR											
05...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR											
16...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAY											
12...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUN											
25...	<0.002	<0.006	<0.002	<0.250	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
AUG											
11...	<0.002	<0.006	<0.002	<0.004	0.013	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
NOV											
04...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR											
05...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
APR											
16...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAY											
12...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JUN											
25...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
AUG											
11...	<0.017	<0.001	<0.004	E0.028	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

07052500 JAMES RIVER AT GALENA, MO

LOCATION.--Lat 36°48'19", long 93°27'41", 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^2.

PERIOD OF RECORD.--October 1921 to current year (October 1921, monthly discharge only published in WSP 1311).

REVISED RECORDS.--WSP 977: 1935(M), 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 921.37 ft above sea level. 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.--Estimated daily discharges: Nov. 18 and Jan. 12-20. Records fair, except for estimated daily discharges, which are poor. Several observations of water temperature were made during the year. National Weather Service gage-height and U.S. Army Corps of Engineers satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1120	448	8210	565	605	3880	1210	546	1980	378	241	195
2	892	471	6340	545	570	3310	1110	544	1410	324	222	183
3	728	406	4590	539	549	2920	1020	672	1120	295	207	180
4	608	372	3590	526	579	2580	994	773	920	275	192	175
5	521	351	3050	519	680	2280	1330	676	781	260	181	172
6	456	350	2720	505	932	2020	2420	597	673	243	175	165
7	401	7450	2450	482	892	1810	2460	545	595	232	172	157
8	368	15700	2170	477	844	1660	1960	560	544	223	168	155
9	347	4920	1950	492	796	1600	1670	695	482	561	166	148
10	309	3280	1790	475	737	2240	1470	626	451	1130	162	155
11	284	2480	1660	462	707	2640	1350	575	418	681	169	150
12	265	2030	1530	455	688	2340	1310	535	427	490	213	140
13	248	1720	1400	448	663	2400	1210	504	433	391	496	140
14	230	1540	1300	442	631	5480	1120	479	420	329	424	160
15	217	1430	1220	438	602	4960	1040	463	407	294	653	156
16	210	1360	1140	432	570	3600	961	488	404	271	664	145
17	207	3100	1070	425	539	2950	902	453	428	253	625	149
18	200	5500	1000	420	514	2530	851	414	533	243	943	142
19	190	3260	937	418	488	2210	819	374	579	303	861	149
20	182	2580	888	416	610	1960	788	371	467	257	709	145
21	183	2150	827	407	5650	1780	768	334	408	228	579	156
22	266	1780	790	434	8560	1630	764	303	362	253	466	182
23	405	1540	769	611	4750	1480	743	271	322	280	400	226
24	404	1920	769	771	3500	1360	735	253	293	284	343	727
25	325	5920	724	833	2810	1550	729	236	279	249	301	689
26	289	7410	693	843	2610	2030	699	220	281	228	281	532
27	262	4810	675	818	7060	1950	658	285	410	210	266	407
28	560	3830	650	774	5480	1790	641	335	705	198	248	332
29	724	3830	624	725	---	1640	615	254	484	352	230	286
30	610	8730	596	670	---	1490	582	776	450	317	220	254
31	497	---	578	637	---	1330	---	3020	---	273	208	---
MEAN	403	3356	1829	549	1915	2368	1098	554	582	332	361	232
MAX	1120	15700	8210	843	8560	5480	2460	3020	1980	1130	943	727
MIN	182	350	578	407	488	1330	582	220	279	198	162	140
IN.	.47	3.79	2.14	.64	2.02	2.77	1.24	.65	.66	.39	.42	.26

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

MEAN	502	903	978	909	1101	1506	1798	1627	1200	589	398	435
MAX	2494	4407	5435	3443	3485	5372	8376	9549	6383	4010	5159	5684
(WY)	1942	1973	1983	1937	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1922 - 1997	
ANNUAL MEAN	925		1123		994	
HIGHEST ANNUAL MEAN					2499	1927
LOWEST ANNUAL MEAN					119	1954
HIGHEST DAILY MEAN	15700	Nov 8	15700	Nov 8	57000	Sep 25 1993
LOWEST DAILY MEAN	66	Sep 13	140	Sep 12,13	11	Aug 22 1954
ANNUAL SEVEN-DAY MINIMUM	70	Sep 8	147	Sep 12	12	Aug 18 1954
INSTANTANEOUS PEAK FLOW	---		20800	Nov 8	73200	Sep 25 1993
INSTANTANEOUS PEAK STAGE	---		14.52	Nov 8	33.46	Sep 25 1993
INSTANTANEOUS LOW FLOW	---		134	Sep 12,13,18	10	Sep 20 1954
ANNUAL RUNOFF (INCHES)	12.76		15.45		13.68	
10 PERCENT EXCEEDS	2400		2590		2160	
50 PERCENT EXCEEDS	352		570		436	
90 PERCENT EXCEEDS	110		207		120	

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^2.

PERIOD OF RECORD.--September 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level (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.

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

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, 2,950,000 ac-ft, Nov. 26, elevation, 920.56 ft; minimum, 2,470,000 ac-ft, Sept. 19, elevation, 909.43 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 24:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	913.52	910.62	920.39	915.34	911.97	916.93	915.47	913.91	915.77	915.34	912.28	910.92
2	913.55	910.53	920.39	915.49	912.03	916.82	915.47	914.02	915.87	915.27	912.11	910.80
3	913.66	910.46	920.18	915.54	912.01	916.65	915.45	913.86	915.95	915.30	911.87	910.79
4	913.72	910.36	919.89	915.62	911.80	916.32	915.52	913.73	916.00	915.29	911.70	910.79
5	913.78	910.39	919.62	915.61	911.82	915.98	915.90	913.81	916.01	915.25	911.69	910.76
6	913.84	910.70	919.29	915.52	911.63	915.76	916.29	913.76	916.12	915.19	911.66	910.62
7	913.79	913.22	918.95	915.38	911.54	915.68	916.44	913.71	916.16	915.13	911.66	910.46
8	913.70	914.94	918.54	915.19	911.61	915.56	916.27	913.93	916.18	915.10	911.62	910.23
9	913.65	915.85	918.11	915.00	911.52	915.67	916.05	914.08	916.21	915.07	911.63	910.05
10	913.72	916.53	917.67	914.71	911.51	915.86	915.94	914.09	916.24	915.07	911.61	910.06
11	913.70	916.91	917.30	914.41	911.27	915.90	915.90	914.07	916.27	915.01	911.80	909.99
12	913.72	917.18	916.99	913.96	910.98	915.81	915.74	914.15	916.36	914.95	911.87	910.01
13	913.74	917.22	916.84	913.66	910.74	915.96	915.61	914.27	916.22	914.72	911.75	910.15
14	913.52	917.34	916.81	913.43	910.99	916.09	915.43	914.34	916.23	914.63	911.68	910.15
15	913.30	917.48	916.52	913.35	911.10	916.15	915.29	914.36	916.25	914.43	911.54	910.03
16	913.07	917.67	916.26	913.06	911.18	916.10	915.04	914.46	916.32	914.18	911.32	909.93
17	912.93	918.28	916.10	912.91	911.21	916.04	914.78	914.48	916.39	913.98	911.45	909.85
18	912.67	918.52	915.91	912.72	911.38	915.91	914.59	914.44	916.41	913.79	911.78	909.60
19	912.65	918.57	915.70	912.77	911.57	915.75	914.38	914.50	916.33	913.71	911.87	909.43
20	912.65	918.45	915.49	912.83	912.47	915.59	914.23	914.42	916.11	913.63	911.85	909.55
21	912.46	918.27	915.30	912.91	914.36	915.40	913.98	914.31	916.12	913.40	911.95	909.67
22	912.27	918.02	915.14	912.97	915.48	915.22	913.83	914.42	916.03	913.06	911.96	909.77
23	912.05	917.81	914.95	912.81	916.03	915.08	913.70	914.50	915.80	912.93	911.98	910.07
24	911.76	918.82	914.86	912.77	916.12	914.94	913.64	914.57	915.57	912.72	911.81	910.22
25	911.50	920.41	914.88	912.61	915.99	915.08	913.53	914.58	915.57	912.59	911.67	910.42
26	911.54	920.56	914.89	912.67	916.39	915.21	913.64	914.73	915.51	912.45	911.45	910.42
27	911.63	920.24	914.95	912.50	916.90	915.29	913.78	914.80	915.48	912.41	911.40	910.46
28	911.46	919.80	915.00	912.22	917.00	915.35	913.86	914.89	915.57	912.25	911.29	910.51
29	911.16	919.91	915.06	912.02	---	915.41	913.89	914.89	915.64	912.32	911.13	910.51
30	910.82	920.25	915.10	911.89	---	915.46	913.90	915.34	915.59	912.33	911.13	910.51
31	910.66	---	915.27	911.91	---	915.47	---	915.59	---	912.36	911.13	---
MEAN	912.78	916.51	916.85	913.67	912.81	915.76	914.92	914.36	916.01	914.00	911.67	910.22
MAX	913.84	920.56	920.39	915.62	917.00	916.93	916.44	915.59	916.41	915.34	912.28	910.92
MIN	910.66	910.36	914.86	911.89	910.74	914.94	913.53	913.71	915.48	912.25	911.13	909.43
(-)	2520000	2930000	2710000	2570000	2790000	2720000	2650000	2730000	2730000	2590000	2540000	2510000
(=)	-110000	+410000	-220000	-140000	+220000	-70000	-70000	+80000	0	-140000	-50000	-30000

CAL YR 1996...+350000
WTR YR 1997...-120000

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

07053450 WHITE RIVER BELOW TABLE ROCK DAM NEAR BRANSON, MO

WATER-QUALITY RECORDS

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.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: June 1987 to current year. (See remarks).
DISSOLVED OXYGEN: June 1987 to current year. (See remarks).

INSTRUMENTATION.--Water-quality monitor since June 1987.

REMARKS.--The number of missing days of water temperature and dissolved oxygen record exceeds 20 percent of the year. The monitor was not operated from Jan. 22 to July 1.

OXYGEN DISSOLVED (mg/L), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	13.3	5.1	8.2	8.1	1.8	4.2	7.1	5.8	6.4	10.6	8.5	9.7
2	11.2	3.7	7.2	6.9	2.0	4.2	7.6	5.8	6.7	10.3	8.6	9.2
3	12.3	5.4	8.0	6.3	2.8	4.2	8.1	7.0	7.7	11.1	8.6	9.4
4	12.1	4.2	7.2	---	---	---	7.2	6.7	7.0	11.1	8.6	9.4
5	10.9	5.3	7.3	---	---	---	7.6	6.9	7.2	11.5	8.0	9.7
6	11.8	3.7	8.1	---	---	---	8.2	7.1	7.5	11.0	9.0	9.8
7	9.6	3.4	6.2	7.5	3.5	5.3	8.5	7.3	7.9	11.2	9.1	9.8
8	10.4	4.1	6.4	8.8	2.8	5.1	8.7	7.9	8.4	10.4	8.5	9.5
9	9.8	3.7	6.0	10.0	4.3	6.5	8.7	6.7	7.9	11.7	9.2	9.9
10	12.8	3.1	7.0	9.3	4.1	7.1	7.2	5.3	6.4	11.6	8.2	9.8
11	10.8	4.3	7.5	9.7	2.9	5.5	9.8	6.2	7.5	10.7	8.7	9.9
12	13.9	3.7	8.1	8.1	3.1	5.2	10.2	8.2	8.7	11.1	9.1	10.0
13	14.1	3.8	7.9	7.3	2.5	4.4	10.2	6.9	8.2	11.4	4.6	9.2
14	7.6	2.3	4.7	7.3	1.8	4.3	9.2	5.5	7.5	12.8	7.6	10.3
15	5.8	3.0	4.2	7.6	1.4	3.8	9.5	3.9	7.7	12.2	7.1	10.1
16	6.5	2.8	4.5	4.9	2.2	3.9	10.0	6.7	8.0	12.5	2.8	9.4
17	8.2	3.8	5.0	11.9	3.1	4.9	11.2	5.5	8.8	12.0	4.0	9.6
18	8.4	3.1	4.7	12.7	3.5	5.5	11.3	8.5	9.7	14.4	8.3	10.2
19	10.8	3.9	7.7	6.2	2.8	4.7	11.1	8.6	10.0	11.8	7.0	9.4
20	12.8	3.4	7.2	5.7	3.4	4.6	11.4	8.9	10.2	14.0	4.4	9.8
21	7.5	3.3	4.4	5.5	4.3	4.7	11.3	8.8	9.8	13.3	7.7	10.2
22	9.7	3.1	4.8	5.1	3.9	4.4	10.3	9.0	9.6	---	---	---
23	8.7	3.4	5.2	4.5	3.9	4.3	11.6	9.7	10.4	---	---	---
24	8.1	2.1	4.4	9.2	4.4	6.5	12.4	9.5	10.8	---	---	---
25	8.6	3.3	5.0	6.8	2.0	4.5	11.6	9.2	10.2	---	---	---
26	10.0	3.3	6.4	5.5	4.8	5.2	12.0	9.4	10.5	---	---	---
27	8.2	3.2	6.1	5.7	5.2	5.4	10.6	8.7	9.9	---	---	---
28	7.5	2.2	4.0	5.7	4.9	5.4	11.2	9.2	9.9	---	---	---
29	7.3	2.2	4.6	5.9	4.9	5.3	12.3	9.2	10.3	---	---	---
30	8.2	2.1	4.1	6.5	5.6	5.9	12.1	8.4	9.9	---	---	---
31	---	---	---	---	---	---	12.1	9.1	9.9	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	10.7	4.5	7.0	10.1	3.2	6.1
2	---	---	---	8.6	5.5	6.2	10.7	4.4	6.9	10.2	3.3	5.9
3	---	---	---	9.1	6.1	7.3	11.1	4.1	6.7	11.5	3.8	7.6
4	---	---	---	10.6	6.3	8.1	7.4	4.3	5.6	12.8	5.2	8.7
5	---	---	---	9.8	6.4	7.5	11.1	5.4	7.6	12.8	6.6	8.5
6	---	---	---	10.9	6.4	8.5	11.4	6.0	8.1	10.9	4.0	6.3
7	---	---	---	10.2	5.7	7.9	12.8	5.2	9.1	9.1	4.0	5.7
8	---	---	---	10.0	6.2	7.4	11.1	6.7	8.4	7.7	3.9	5.1
9	---	---	---	10.8	6.5	8.1	12.4	4.4	8.5	10.3	3.6	6.2
10	---	---	---	10.7	6.8	8.0	12.9	4.2	8.8	12.1	4.8	8.3
11	---	---	---	10.1	6.3	7.4	10.4	4.4	7.5	12.6	4.2	7.9
12	---	---	---	10.2	5.8	7.5	10.8	4.3	8.0	12.6	4.9	8.2
13	---	---	---	7.4	6.1	6.4	9.2	3.5	6.0	10.0	5.4	7.7
14	---	---	---	---	---	---	8.1	3.8	5.7	9.6	4.3	6.3
15	---	---	---	---	---	---	9.4	3.8	5.1	8.8	4.0	5.6
16	---	---	---	---	---	---	9.4	3.8	5.0	9.7	3.5	6.1
17	---	---	---	---	---	---	9.2	4.4	6.2	9.9	4.8	6.8
18	---	---	---	---	---	---	9.4	3.9	5.7	7.5	4.6	5.9
19	---	---	---	---	---	---	8.9	3.9	6.5	6.7	2.4	5.6
20	---	---	---	---	---	---	10.0	4.4	6.3	11.8	3.9	8.4
21	---	---	---	---	---	---	11.7	6.4	8.2	13.1	3.9	9.5
22	---	---	---	---	---	---	9.1	4.6	7.2	12.5	4.8	9.1
23	---	---	---	7.5	3.7	5.0	10.6	4.9	7.2	9.6	5.3	8.1
24	---	---	---	6.7	4.1	5.1	10.6	3.8	6.1	10.5	5.2	8.5
25	---	---	---	7.3	4.3	5.5	8.6	3.8	5.4	12.2	3.9	6.3
26	---	---	---	7.2	4.4	5.3	8.0	3.8	4.9	7.7	3.9	5.5
27	---	---	---	8.0	4.6	6.0	9.0	4.0	5.5	11.7	4.3	6.9
28	---	---	---	7.3	4.2	5.2	7.0	3.6	4.9	12.0	3.2	8.6
29	---	---	---	10.8	5.2	7.1	7.3	3.8	5.2	8.0	3.7	5.0
30	---	---	---	11.9	4.9	8.3	11.3	4.6	7.4	7.7	3.7	5.6
31	---	---	---	12.3	5.7	8.9	10.6	6.0	7.7	---	---	---

07053450 WHITE RIVER BELOW TABLE ROCK DAM NEAR BRANSON, MO--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	9.7	8.8	9.2	11.1	10.0	10.7	11.6	11.4	11.5	9.0	8.9	9.0
2	9.9	8.8	9.3	11.3	10.2	10.9	11.5	11.4	11.4	9.1	8.9	9.0
3	10.1	8.8	9.2	11.6	10.4	10.9	11.5	11.3	11.4	9.1	8.9	9.0
4	10.1	8.7	9.2	11.5	10.4	11.1	11.3	11.2	11.2	9.2	8.9	9.1
5	9.7	8.8	9.2	11.8	10.6	11.1	11.3	11.2	11.2	9.1	8.8	9.0
6	9.8	8.9	9.2	11.7	10.1	10.8	11.2	11.1	11.1	9.1	8.9	9.0
7	9.8	8.9	9.5	10.7	10.0	10.3	11.1	11.0	11.1	8.9	8.8	8.8
8	10.1	9.2	9.6	10.9	9.8	10.4	11.0	10.9	11.0	8.8	8.7	8.8
9	9.9	9.0	9.5	11.0	9.9	10.5	11.0	10.8	10.9	8.7	8.5	8.6
10	10.3	8.9	9.5	10.9	9.8	10.2	11.0	10.8	10.9	8.5	8.0	8.3
11	10.0	8.8	9.3	11.0	9.8	10.6	11.2	10.9	11.0	8.1	7.8	8.0
12	10.1	8.8	9.4	10.9	9.9	10.5	11.1	10.8	10.9	7.9	7.6	7.8
13	10.1	9.0	9.5	11.1	9.8	10.8	10.8	10.7	10.8	7.7	7.5	7.6
14	10.1	8.9	9.6	11.1	10.0	10.7	10.8	10.7	10.8	7.5	7.4	7.5
15	10.2	9.0	9.8	11.1	10.0	10.7	10.8	10.5	10.7	7.4	7.2	7.3
16	10.1	9.1	9.8	11.2	10.2	10.9	10.7	10.5	10.6	7.3	6.9	7.1
17	10.3	9.2	9.9	11.3	8.8	11.0	10.6	10.3	10.5	7.0	6.8	6.9
18	10.3	9.3	10.0	11.5	7.1	11.1	10.3	10.0	10.2	7.2	6.5	6.9
19	10.1	9.3	9.6	11.5	11.4	11.5	10.0	9.7	9.9	8.1	6.6	7.1
20	10.2	9.3	9.7	11.6	11.5	11.6	9.8	9.6	9.7	7.8	6.6	6.9
21	10.3	9.4	10.0	11.7	11.6	11.7	9.6	9.4	9.6	6.9	6.8	6.8
22	10.8	9.5	10.3	11.8	11.7	11.7	9.7	9.5	9.6	---	---	---
23	10.7	9.6	10.5	11.8	11.7	11.7	9.7	9.4	9.6	---	---	---
24	10.7	9.6	10.4	11.9	11.4	11.8	9.7	9.1	9.4	---	---	---
25	10.5	9.6	10.3	11.7	10.8	11.5	9.8	9.1	9.3	---	---	---
26	10.5	9.6	10.0	11.6	11.5	11.6	9.3	9.1	9.2	---	---	---
27	10.4	9.7	9.9	11.5	11.5	11.5	9.3	9.1	9.1	---	---	---
28	10.6	9.6	10.3	11.5	11.5	11.5	9.1	9.0	9.1	---	---	---
29	11.0	9.9	10.5	11.5	11.5	11.5	9.1	8.9	9.0	---	---	---
30	11.0	9.9	10.7	11.5	11.5	11.5	9.0	8.9	9.0	---	---	---
31	11.0	10.0	10.7	---	---	---	9.1	8.9	9.0	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	9.8	9.2	9.5	10.7	10.0	10.3
2	---	---	---	9.3	8.2	8.7	9.9	9.2	9.5	10.9	10.0	10.4
3	---	---	---	9.3	8.2	8.7	10.2	9.3	9.7	11.0	10.0	10.4
4	---	---	---	9.9	8.2	8.8	10.1	9.2	9.7	11.1	9.9	10.4
5	---	---	---	9.3	8.1	8.6	10.2	9.3	9.6	11.1	9.9	10.3
6	---	---	---	10.2	8.2	8.9	9.8	9.3	9.5	11.1	10.0	10.4
7	---	---	---	10.0	8.3	8.7	11.0	9.3	9.8	10.7	10.1	10.4
8	---	---	---	9.4	8.3	8.7	10.4	9.3	9.5	10.9	10.1	10.5
9	---	---	---	9.4	8.4	8.8	11.2	9.3	9.7	11.0	10.2	10.5
10	---	---	---	9.7	8.4	8.7	11.4	9.3	9.8	11.7	10.1	10.6
11	---	---	---	9.9	8.3	8.8	10.5	9.3	9.5	11.4	10.1	10.6
12	---	---	---	9.7	8.4	8.8	10.1	9.3	9.6	11.4	10.1	10.5
13	---	---	---	9.2	8.5	8.9	10.1	9.4	9.7	11.1	10.2	10.4
14	---	---	---	---	---	---	10.0	9.4	9.7	10.9	10.3	10.5
15	---	---	---	---	---	---	10.3	9.5	9.9	10.8	10.3	10.6
16	---	---	---	---	---	---	10.5	9.6	10.0	10.9	10.3	10.7
17	---	---	---	---	---	---	11.1	9.7	10.0	10.9	10.4	10.7
18	---	---	---	---	---	---	10.3	9.6	9.9	11.3	10.4	10.7
19	---	---	---	---	---	---	10.3	9.6	9.9	11.7	10.4	10.8
20	---	---	---	---	---	---	10.8	9.7	10.0	11.4	10.6	10.8
21	---	---	---	---	---	---	10.8	9.7	10.0	11.5	10.5	10.9
22	---	---	---	---	---	---	10.7	9.7	9.9	11.1	10.4	10.7
23	---	---	---	9.8	9.4	9.5	10.9	9.6	9.9	11.4	10.4	10.6
24	---	---	---	9.8	9.0	9.4	10.6	9.7	10.0	11.7	10.4	10.6
25	---	---	---	10.3	9.0	9.5	10.5	9.7	10.1	11.5	10.5	10.9
26	---	---	---	10.2	9.1	9.5	10.8	9.8	10.2	11.6	10.6	10.9
27	---	---	---	10.1	9.1	9.5	10.5	9.9	10.1	11.1	10.5	10.7
28	---	---	---	10.5	9.2	9.6	10.5	9.9	10.2	11.1	10.4	10.7
29	---	---	---	10.0	9.2	9.5	10.8	9.9	10.3	11.1	10.5	10.9
30	---	---	---	10.3	9.2	9.6	11.3	10.0	10.4	11.2	10.4	10.8
31	---	---	---	10.4	9.2	9.6	11.2	10.1	10.3	---	---	---

07053500 WHITE RIVER NEAR BRANSON, MO

LOCATION.--Lat 36°35'51", long 93°17'42", in SE 1/4 NE 1/4 sec.22, T.22 N., R.22 W., Taney County, Hydrologic Unit 11010003, on left bank 0.9 mi downstream from Table Rock Dam, 2.1 mi upstream from Fall Creek, 5.0 mi southwest of Branson, 7.4 mi upstream from Missouri Pacific bridge, and at mile 527.8.

DRAINAGE AREA.--4,022 mi^2.

PERIOD OF RECORD.--July 1909 to December 1910 gage heights and discharge measurements only, October 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 696.00 ft above sea level (levels by U.S. Army Corps of Engineers). July 19, 1909, to Dec. 31, 1910, nonrecording gage at site 7.4 mi downstream at different datum; Oct. 1, 1951, to Mar. 6, 1952, nonrecording gage at same site and datum.

REMARKS.--Flow regulated by Table Rock Lake (station 07053400) since Sept. 9, 1956.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 89,100 ft^3/s, May 16, 1956; gage height, 36.9 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1160	3620	14100	8050	40	13200	10700	4430	174	7500	3710	4850
2	1820	2680	14000	6750	253	13300	10700	5190	151	4180	4150	4700
3	786	2440	14000	8620	4580	13400	10700	5780	132	1900	5220	264
4	1190	3540	14000	7620	8350	14200	10700	4000	116	290	6460	179
5	524	171	14100	9130	5610	14300	10700	4780	575	1550	1080	597
6	162	40	14100	11100	7950	10300	10300	5860	221	1850	606	4030
7	3460	1460	14200	10800	8370	7150	8930	6350	140	2630	145	3700
8	3380	3500	14200	11500	1950	7320	10700	2560	157	3330	141	6660
9	1860	911	14200	8900	4590	6610	10700	2590	163	2200	178	4350
10	502	397	14200	11400	5040	6780	7720	1750	183	2290	178	145
11	431	4760	13900	10200	8020	7620	8890	1200	177	3560	251	1770
12	185	4860	10700	8850	9360	8510	8480	3570	222	3480	389	345
13	428	9000	6590	11200	8750	10400	7860	605	3870	5340	5110	135
14	6300	9000	6050	7100	350	11000	8630	2580	453	5920	5170	3050
15	6700	7200	8730	5170	1420	10500	7310	3890	175	7250	7430	5250
16	6070	7730	8690	8090	40	9900	9450	720	142	7550	7620	3770
17	4160	8290	7030	6290	1690	9210	9320	2170	138	6160	2200	3850
18	4980	9050	6740	4920	360	10400	7510	1890	960	5260	4190	5870
19	175	10900	7230	40	40	9540	7830	470	4620	2690	2610	6460
20	284	12900	6660	40	237	9150	6160	4880	5750	2450	3420	142
21	5890	13200	7590	528	1560	8490	9350	5380	446	6280	385	518
22	7210	13000	5540	749	40	8470	8850	158	3850	8920	964	643
23	5320	13200	7240	6200	329	6710	9010	40	6240	7440	955	140
24	7020	8070	3070	4280	7650	7070	5050	155	6670	6880	5160	351
25	5550	8480	1450	4790	10900	5850	7900	672	1700	5340	5340	1330
26	367	17600	6500	620	7700	6300	3850	717	1450	4280	6070	3360
27	390	19700	8240	8080	9480	6840	844	40	2620	3190	3650	1350
28	5060	19500	8770	9030	13800	8260	6710	325	217	6600	6000	249
29	7260	14200	7450	7880	---	10700	6140	258	177	2490	5420	4680
30	7790	14200	8810	4380	---	10600	6150	182	5950	520	1200	4250
31	6160	---	5600	637	---	10700	---	160	---	322	513	---
MEAN	3309	8120	9474	6547	4588	9445	8238	2366	1595	4182	3094	2566
MAX	7790	19700	14200	11500	13800	14300	10700	6350	6670	8920	7620	6660
MIN	162	40	1450	40	40	5850	844	40	116	290	141	135
IN.	.95	2.25	2.72	1.88	1.19	2.71	2.29	.68	.44	1.20	.89	.71

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 1997[a], BY WATER YEAR (WY)

MEAN	1971	3108	4567	4179	4223	5521	6263	5787	3943	3445	2857	2169
MAX	6660	13110	15210	16070	11970	14800	14800	22650	11610	11470	6526	4421
(WY)	1994	1975	1986	1985	1969	1985	1985	1961	1995	1976	1979	1979
MIN	429	888	239	201	420	419	341	415	782	1158	1015	708
(WY)	1982	1991	1996	1990	1964	1964	1981	1981	1981	1981	1977	1967

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1960 - 1997[a]
ANNUAL MEAN	3488		5301		4003
HIGHEST ANNUAL MEAN					7161 1993
LOWEST ANNUAL MEAN					852 1981
HIGHEST DAILY MEAN	19700	Nov 27	19700	Nov 27	33000 May 12 1961
LOWEST DAILY MEAN	40	Many Days	40	Several Days	35 Oct 31 1959
ANNUAL SEVEN-DAY MINIMUM	40	Apr 16	168	May 29	40 Jan 4 1984,Dec 14 1995, Dec 23 1995,Apr 16 1996
ANNUAL RUNOFF (INCHES)	11.81		17.90		13.52
10 PERCENT EXCEEDS	9000		10700		9790
50 PERCENT EXCEEDS	1570		5170		2650
90 PERCENT EXCEEDS	40		181		140

[a]Post-regulation period.

07053600 LAKE TANEYCOMO AT COLLEGE OF THE OZARKS

WATER-QUALITY RECORDS

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.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURE: May 1984 to current year. (See remarks).
DISSOLVED OXYGEN: May 1984 to current year. (See remarks).

INSTRUMENTATION.--Water-quality monitor since May 1984.

REMARKS.--The number of missing days of water temperature and dissolved oxygen record exceeds 20 percent of the year. The monitor was not operated from Jan. 22 to June 25.

OXYGEN DISSOLVED (mg/L), WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	6.46	1.12	4.44	---	---	---	---	---	---
2	---	---	---	6.96	2.28	4.95	---	---	---	---	---	---
3	---	---	---	6.70	.66	3.44	---	---	---	---	---	---
4	---	---	---	5.53	1.05	3.72	---	---	---	---	---	---
5	---	---	---	4.81	.74	3.69	---	---	---	---	---	---
6	---	---	---	8.74	6.76	7.48	---	---	---	---	---	---
7	---	---	---	10.4	4.75	8.21	---	---	---	---	---	---
8	---	---	---	4.82	4.65	4.70	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	7.62	7.39	7.41	---	---	---	---	---	---	---	---	---
11	9.18	7.56	8.78	---	---	---	---	---	---	---	---	---
12	9.26	8.89	9.16	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	4.63	4.46	4.62	---	---	---	---	---	---	---	---	---
18	5.88	4.46	5.07	---	---	---	---	---	---	---	---	---
19	6.22	4.48	5.45	---	---	---	---	---	---	---	---	---
20	8.03	6.17	7.52	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	4.99	4.63	4.85	---	---	---	---	---	---	---	---	---
23	6.10	4.67	5.38	---	---	---	---	---	---	---	---	---
24	6.03	3.64	4.44	---	---	---	---	---	---	---	---	---
25	5.51	3.64	4.82	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	5.94	1.65	5.50	---	---	---	---	---	---	---	---	---
31	5.25	1.25	3.81	---	---	---	---	---	---	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	9.82	6.41	7.75	10.9	4.96	8.05	10.9	3.75	7.17
2	---	---	---	9.79	6.23	7.26	63.0	4.85	6.90	8.03	4.39	5.77
3	---	---	---	11.1	6.34	7.93	8.54	2.13	5.49	7.90	2.00	5.52
4	---	---	---	10.6	7.50	9.02	8.33	4.44	5.05	12.1	5.54	8.62
5	---	---	---	12.6	7.30	10.5	10.6	2.00	6.41	10.5	5.20	7.96
6	---	---	---	9.62	6.84	7.97	9.37	4.70	6.82	11.5	4.01	6.19
7	---	---	---	9.84	6.46	7.85	10.7	5.84	7.80	7.19	2.16	5.49
8	---	---	---	8.99	6.45	7.40	---	---	---	10.9	3.24	5.25
9	---	---	---	10.2	5.86	7.61	---	---	---	10.9	4.23	4.29
10	---	---	---	9.23	5.80	7.88	---	---	---	10.6	3.30	5.46
11	---	---	---	8.99	6.45	7.03	11.3	9.45	10.3	15.1	3.36	6.26
12	---	---	---	10.2	5.71	7.01	13.7	7.81	8.50	10.6	3.38	5.80
13	---	---	---	8.27	5.81	6.84	9.16	5.39	6.97	11.1	2.21	7.90
14	---	---	---	8.45	5.87	6.82	7.94	5.24	6.03	13.3	2.26	5.93
15	---	---	---	9.33	3.42	6.54	6.76	5.02	5.68	10.8	3.43	5.26
16	---	---	---	7.87	5.39	6.31	10.9	3.39	5.33	10.9	3.07	4.96
17	---	---	---	7.27	5.24	6.02	8.99	5.15	6.13	7.07	4.40	5.47
18	---	---	---	8.21	5.03	6.31	10.5	2.19	5.23	6.13	4.50	4.65
19	---	---	---	9.11	5.22	6.67	8.68	5.52	6.42	5.63	4.24	5.00
20	---	---	---	10.0	5.52	6.72	8.45	5.22	6.29	11.2	2.84	4.51
21	---	---	---	7.46	5.36	6.41	10.3	5.77	7.08	8.43	2.00	5.98
22	---	---	---	---	---	---	11.3	9.28	9.36	8.46	6.23	7.19
23	---	---	---	---	---	---	10.4	5.36	6.95	8.86	5.54	7.50
24	---	---	---	---	---	---	8.64	4.96	6.23	7.84	5.62	7.00
25	---	---	---	8.04	4.98	6.14	7.85	5.12	6.36	8.45	4.52	6.20
26	11.2	7.40	9.20	8.40	4.52	6.25	7.03	5.03	6.01	7.46	4.53	5.50
27	9.89	6.53	7.99	9.06	4.70	6.70	8.23	5.07	5.97	8.01	2.00	5.72
28	9.87	3.82	7.87	8.30	4.84	5.94	7.74	4.72	5.12	7.59	5.21	6.23
29	13.5	7.29	10.9	8.28	4.32	6.14	8.77	4.75	5.36	8.09	4.34	5.39
30	11.6	6.99	9.52	11.2	5.02	7.25	10.5	2.00	6.28	6.66	2.00	5.11
31	---	---	---	11.0	7.33	9.44	11.3	2.29	6.95	---	---	---

07053600 LAKE TANEYCOMO AT COLLEGE OF THE OZARKS--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	10.7	10.2	10.5	---	---	---	---	---	---
2	---	---	---	10.7	10.0	10.4	---	---	---	---	---	---
3	---	---	---	11.3	9.9	10.7	---	---	---	---	---	---
4	---	---	---	10.7	10.3	10.6	---	---	---	---	---	---
5	---	---	---	10.5	10.3	10.4	---	---	---	---	---	---
6	---	---	---	12.3	11.7	11.9	---	---	---	---	---	---
7	---	---	---	13.2	10.5	12.1	---	---	---	---	---	---
8	---	---	---	10.5	10.4	10.4	---	---	---	---	---	---
9	9.9	9.7	9.8	---	---	---	---	---	---	---	---	---
10	10.7	10.6	10.7	---	---	---	---	---	---	---	---	---
11	11.4	10.5	11.1	---	---	---	---	---	---	---	---	---
12	10.5	10.4	10.4	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	10.2	10.2	10.2	---	---	---	---	---	---	---	---	---
18	10.4	9.6	10.1	---	---	---	---	---	---	---	---	---
19	10.2	9.7	9.9	---	---	---	---	---	---	---	---	---
20	10.8	10.1	10.5	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	10.6	10.3	10.4	---	---	---	---	---	---	---	---	---
23	10.7	10.0	10.4	---	---	---	---	---	---	---	---	---
24	10.8	10.0	10.5	---	---	---	---	---	---	---	---	---
25	10.6	10.1	10.5	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	12.1	10.4	10.9	---	---	---	---	---	---	---	---	---
31	11.1	10.3	10.7	---	---	---	---	---	---	---	---	---
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	9.8	8.9	9.2	14.1	10.0	12.1	12.9	10.6	11.1
2	---	---	---	11.0	8.9	9.4	11.2	10.0	10.2	12.2	10.5	10.8
3	---	---	---	12.0	9.3	9.8	11.6	10.0	10.3	13.2	10.6	11.7
4	---	---	---	11.3	9.3	10.3	10.7	10.0	10.1	15.6	12.6	14.1
5	---	---	---	13.3	9.2	11.5	12.7	10.0	10.4	15.6	11.5	13.5
6	---	---	---	13.2	9.0	9.9	11.1	10.4	10.6	12.3	10.6	11.4
7	---	---	---	11.3	9.0	9.6	14.0	10.7	12.2	11.6	10.6	10.8
8	---	---	---	11.0	9.3	9.6	14.3	10.5	12.1	11.2	10.8	10.9
9	---	---	---	12.3	9.2	9.9	15.5	12.4	14.0	11.6	10.6	11.0
10	---	---	---	13.1	9.2	10.0	15.4	13.4	14.1	12.9	9.3	11.0
11	---	---	---	11.0	9.3	9.7	15.0	13.6	13.9	14.8	10.6	12.4
12	---	---	---	12.0	9.3	9.9	14.4	12.7	13.0	13.1	10.6	12.4
13	---	---	---	10.3	9.3	9.6	13.0	10.1	11.5	13.5	12.6	13.0
14	---	---	---	9.9	9.4	9.6	10.9	10.0	10.3	13.3	10.7	12.0
15	---	---	---	10.1	9.3	9.6	10.7	10.0	10.3	11.4	10.7	11.0
16	---	---	---	9.9	9.3	9.5	11.0	10.1	10.6	12.0	10.9	10.7
17	---	---	---	10.0	9.4	9.6	13.7	10.2	10.8	12.2	10.9	11.3
18	---	---	---	10.0	9.5	9.7	11.4	9.2	10.3	11.5	10.9	11.0
19	---	---	---	11.4	9.6	10.0	11.8	10.3	10.7	11.7	11.0	11.2
20	---	---	---	11.7	9.6	10.1	12.2	10.4	10.7	12.1	11.1	11.1
21	---	---	---	10.1	9.7	10.0	13.4	10.4	11.0	14.8	11.8	13.0
22	---	---	---	---	---	---	13.6	10.8	12.5	13.0	11.5	12.4
23	---	---	---	---	---	---	12.7	10.7	11.3	13.6	12.0	12.9
24	---	---	---	---	---	---	53.0	10.3	11.6	14.6	12.0	12.9
25	12.2	9.2	9.8	10.5	9.8	10.3	11.1	10.3	10.5	13.3	11.1	12.4
26	11.6	9.0	9.9	10.7	9.8	10.1	11.1	10.3	10.6	12.2	11.1	11.6
27	11.1	8.9	9.5	11.8	9.8	10.3	11.4	10.4	10.7	12.6	11.0	11.5
28	12.0	8.9	9.9	10.6	9.8	10.0	85.0	10.0	12.2	12.4	11.1	11.6
29	14.8	10.8	12.5	11.7	9.9	10.2	11.1	10.4	10.6	44.0	10.9	12.2
30	14.2	8.9	11.5	14.1	9.9	11.5	13.3	10.5	10.9	11.7	10.9	11.2
31	---	---	---	16.3	12.6	13.7	12.6	10.7	11.3	---	---	---

07053700 LAKE TANEYCOMO AT BRANSON, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 36°38'09", long 93°12'52", in SE 1/4 NW 1/4 sec.4, T.22 N., R.21 W., Taney County, Hydrologic Unit 11010003, 1,000 ft downstream of Turkey Creek, at bridge on Business Route 65 in Branson.

PERIOD OF RECORD.--July 1977 to June 1991, and November 1996 to present.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD mg/L as $CaCO_3$ (00410)
NOV										
04...	1430	10.0	234	7.29	6.40	56	--	53	K16	74
JAN										
08...	1315	4.5	224	7.81	11.0	84	<10	10	14	99
MAR										
05...	1115	6.0	232	7.43	11.6	94	--	K12	K4	95
APR										
14...	1145	10.5	228	7.79	11.6	101	--	K3	K5	94
JUN										
25...	1215	9.5	232	7.63	6.10	52	<5	53	K17	96
AUG										
12...	0830	15.5	240	7.27	7.60	75	--	K415	K555	96

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)
NOV											
04...	91	0	0.40	<0.01	0.03	0.24	<0.02	<0.01	--	--	--
JAN											
08...	121	0	0.46	<0.01	<0.01	0.30	<0.02	0.01	110	35	5.0
MAR											
05...	116	0	0.54	<0.01	<0.01	<0.20	0.05	0.01	--	--	--
APR											
14...	115	0	0.67	<0.01	<0.01	0.21	0.03	<0.01	--	--	--
JUN											
25...	118	0	0.73	<0.01	0.02	<0.20	<0.02	0.01	110	34	5.6
AUG											
12...	118	0	0.54	<0.01	0.07	0.41	<0.02	<0.01	--	--	--

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07053700 LAKE TANEYCOME AT BRANSON, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)
JAN											
08...	5.3	2.0	7.7	7.8	<0.1	132	<1	50	3.8	<1	<1
JUN											
25...	5.1	1.7	7.2	6.6	<0.1	134	5	30	<3.0	<1	<1

DATE	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)	PROP-CHLOR, WATER, DISS, REC (µg/L) (04024)	BUTYL-ATE, WATER, DISS, REC (µg/L) (04028)	SI-MAZINE, WATER, DISS, REC (µg/L) (04035)
NOV											
04...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.005
JAN											
08...	<1	3	2	<1	14	<0.1	6	1.8	<0.007	<0.002	<0.005
MAR											
05...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.005
APR											
14...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.005
JUN											
25...	<1	4	<1	<1	21	<0.1	<1	1.1	<0.007	<0.002	<0.005
AUG											
12...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.005

DATE	PRO-METON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (µg/L) (04040)	CYANA-ZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	ALPHA BHC DIS-SOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	METO-LACHLOR WATER DISSOLV (µg/L) (39415)	LINDANE DIS-SOLVED (µg/L) (39341)	DI-ELDRIN DIS-SOLVED (µg/L) (39381)	ATRA-ZINE, WATER, DISS, REC (µg/L) (39632)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)
NOV											
04...	<0.018	<0.002	<0.004	<0.003	<0.002	<0.006	<0.002	<0.004	<0.001	<0.001	<0.004
JAN											
08...	E0.009	<0.002	<0.004	<0.003	<0.002	<0.006	E0.002	<0.004	<0.001	0.011	<0.004
MAR											
05...	<0.018	E0.003	<0.004	<0.003	<0.002	<0.006	<0.002	<0.004	<0.001	0.019	<0.004
APR											
14...	E0.004	<0.002	<0.004	<0.003	<0.002	<0.006	<0.002	<0.004	<0.001	0.005	<0.004
JUN											
25...	E0.006	E0.005	<0.004	<0.003	<0.002	<0.006	0.004	<0.004	<0.001	0.014	<0.004
AUG											
12...	E0.013	<0.002	<0.004	<0.003	<0.002	<0.006	<0.002	<0.004	<0.001	0.006	<0.004

E--Laboratory estimated value.

07053700 LAKE TANEYCOME, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	FONOFOS WATER DISS REC (µg/L) (04095)	CHLOR-PYRIFOS DIS-SOLVED (µg/L) (38933)	MALA-THION, DIS-SOLVED (µg/L) (39532)	PARA-THION, DIS-SOLVED (µg/L) (39542)	DI-AZINON, DIS-SOLVED (µg/L) (39572)	ALA-CHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (µg/L) (49260)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)
NOV 04...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
JAN 08...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
MAR 05...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
APR 14...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
JUN 25...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
AUG 12...	<0.003	<0.004	<0.005	<0.004	0.010	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007

DATE	LIN-URON WATER FLTRD 0.7 µ GF, REC (µg/L) (82666)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
NOV 04...	<0.002	<0.006	<0.002	<0.004	E0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JAN 08...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
MAR 05...	<0.002	<0.006	<0.002	<0.004	E0.008	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR 14...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUN 25...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
AUG 12...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
NOV 04...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JAN 08...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
MAR 05...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
APR 14...	<0.017	<0.001	<0.004	<0.003	<0.002	E0.001	<0.004	<0.003	<0.013	<0.001	<0.005
JUN 25...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
AUG 12...	<0.017	<0.001	<0.004	E0.016	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

07054080 BEAVER CREEK AT BRADLEYVILLE, MO

LOCATION.--Lat 36°46'47", long 92°54'25", 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^2.

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

GAGE.--Water-stage recorder. Datum of gage is 804.00 ft. above sea level.

REMARKS.--No estimated daily discharges. Records good. Several observaitons of water temperature were made during the year. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	225	88	1270	141	206	1250	356	223	329	76	43	76
2	182	87	983	142	194	1300	334	226	244	66	40	53
3	147	77	797	139	214	1030	316	221	201	60	38	46
4	124	73	672	138	534	884	336	208	174	56	37	42
5	112	73	647	130	566	767	2330	198	155	53	35	39
6	105	77	600	119	476	676	1210	189	142	51	33	38
7	97	6080	533	112	434	610	792	182	128	49	33	37
8	90	1670	467	112	419	558	659	198	118	48	33	37
9	82	888	419	122	388	752	581	189	108	50	36	38
10	76	642	388	111	365	908	516	178	103	47	35	35
11	70	495	362	104	345	768	519	170	99	47	42	34
12	66	398	336	104	327	677	549	164	103	46	148	33
13	62	342	304	107	308	2140	491	158	111	43	90	33
14	59	311	280	100	291	2160	444	155	102	42	114	39
15	57	297	267	92	266	1170	410	153	92	41	229	35
16	55	291	248	90	244	911	381	146	90	39	163	33
17	53	1100	234	89	225	789	353	140	106	40	292	38
18	50	884	214	95	213	705	334	134	113	42	243	36
19	48	658	198	88	202	634	323	130	92	38	169	33
20	49	530	184	87	518	576	310	127	83	36	137	34
21	53	442	176	137	4420	531	323	119	78	37	104	36
22	63	369	175	321	1530	483	310	113	73	61	85	33
23	66	325	179	361	961	440	318	109	70	56	76	74
24	60	2170	178	340	769	410	346	109	66	48	68	132
25	56	5790	160	321	667	637	316	112	62	43	62	100
26	54	2610	161	298	3430	678	287	112	60	40	57	73
27	53	1320	161	283	4700	566	279	179	70	38	54	62
28	53	1010	160	256	1550	518	266	134	93	36	50	56
29	53	1160	155	233	---	466	249	117	72	90	48	51
30	53	1970	149	220	---	421	236	622	86	72	46	47
31	56	---	145	214	---	383	---	555	---	50	47	---
MEAN	78.4	1074	361	168	884	800	482	186	114	49.7	86.7	48.4
MAX	225	6080	1270	361	4700	2160	2330	622	329	90	292	132
MIN	48	73	145	87	194	383	236	109	60	36	33	33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

MEAN	58.5	578	249	445	463	500	651	533	297	89.6	96.6	135
MAX	78.4	1074	361	919	884	800	935	909	593	168	168	309
(WY)	1997	1997	1997	1995	1997	1997	1995	1995	1995	1995	1995	1996
MIN	46.8	41.4	136	168	105	193	482	186	114	49.7	34.7	48.2
(WY)	1995	1996	1996	1997	1996	1996	1997	1997	1997	1997	1996	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1994 - 1997	
ANNUAL MEAN	305		356		340	
HIGHEST ANNUAL MEAN					464	1995
LOWEST ANNUAL MEAN					199	1996
HIGHEST DAILY MEAN	6080	Nov 7	6080	Nov 7	6080	Nov 7 1996
LOWEST DAILY MEAN	24	Sep 14	33	Several Days	24	Sep 14 1996
ANNUAL SEVEN-DAY MINIMUM	26	Sep 8	35	Aug 4	26	Sep 8 1996
INSTANTANEOUS PEAK FLOW	---		10300	Nov 7	13000	Jan 13 1995
INSTANTANEOUS PEAK STAGE	---		11.81	Nov 7	12.93	Jan 13 1995
INSTANTANEOUS LOW FLOW	---		31	Several Days	22	Sep 23 1996
10 PERCENT EXCEEDS	683		767		770	
50 PERCENT EXCEEDS	107		149		143	
90 PERCENT EXCEEDS	32		42		39	

07057475 DOUBLE SPRING NEAR DORA, MO

(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 36°43'17", long 92°11'13", in NE 1/4 NW 1/4 sec.32, T.24 N., R.11 W., Ozark County, Hydrologic Unit 11010006. Take Highway 181 south through Dora, turn east on gravel road before Highway H. Travel to end of the road and turn right, follow to end.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
04...	1200	44	14.0	397	7.53	7.5	73	--	200	71	198
JAN											
22...	1435	110	13.5	388	7.38	8.5	82	<10	150	200	193
MAR											
27...	1345	120	12.5	316	6.68	10.6	100	--	58	47	153
APR											
09...	0645	230	13.0	345	6.79	8.4	78	--	K1010	K600	147
JUN											
12...	0930	91	13.5	381	7.37	7.6	74	<5	K405	310	186
AUG											
07...	0825	61	14.0	404	6.95	8.1	76	--	21	K17	198

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
04...	242	0	1.10	<0.01	0.01	0.54	<0.02	0.02	--	--
JAN										
22...	234	0	1.30	<0.01	0.01	<0.20	0.03	0.02	200	42
MAR										
27...	190	0	1.40	<0.01	<0.01	<0.20	<0.02	0.01	--	--
APR										
09...	183	0	1.20	<0.01	0.01	<0.20	0.02	0.02	--	--
JUN										
12...	230	0	1.00	<0.01	<0.01	0.22	<0.02	<0.01	210	43
AUG										
07...	248	0	0.91	<0.01	0.02	<0.20	<0.02	0.02	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
22...	23	2.1	1.4	5.3	5.3	<0.1	200	1	30	10
JUN										
12...	24	1.8	1.4	4.4	4.3	<0.1	206	2	50	7.6

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
22...	<1	<1	<1	4	<1	<1	<0.2	<0.1	3	1.8
JUN										
12...	<1	<1	<1	3	<1	<1	0.9	<0.1	2	2.1

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07057500 NORTH FORK RIVER NEAR TECUMSEH, MO

LOCATION.--Lat 36°37'22", long 92°14'53", in NE 1/4 SE 1/4 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^2.

PERIOD OF RECORD.--October 1944 to current year.

GAGE.--Water-stage recorder. Datum of gage is 584.67 ft above sea level (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.--Estimated daily discharges: Aug. 14-16. Records fair. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	950	506	2060	774	760	2860	1040	876	1480	586	374	349
2	858	540	1840	766	743	2940	1010	860	1190	549	370	348
3	788	512	1600	759	749	2530	982	851	1040	524	369	344
4	729	487	1370	758	945	2170	1000	813	941	505	364	341
5	677	472	1320	742	1170	1890	3430	790	878	487	359	335
6	639	461	1380	712	1090	1650	4530	782	830	478	354	331
7	608	1960	1320	683	1040	1490	2690	770	793	468	351	327
8	590	3370	1210	674	1000	1380	2080	771	756	460	352	332
9	561	1790	1130	689	948	1360	1780	758	729	456	365	341
10	536	1310	1090	682	918	1550	1580	737	701	451	369	343
11	513	1080	1060	655	903	1580	1500	728	683	444	380	335
12	499	938	1010	624	883	1470	1460	722	678	437	411	328
13	485	863	948	602	870	1990	1350	713	693	431	407	324
14	474	825	905	595	850	4200	1270	713	681	426	500	321
15	465	827	997	614	820	2810	1210	696	654	424	600	322
16	456	820	1190	611	790	2210	1160	673	637	416	540	321
17	458	844	1200	581	767	1940	1120	659	647	413	480	343
18	446	928	1110	569	752	1770	1090	655	788	409	489	339
19	430	959	1030	569	744	1630	1080	647	709	404	454	332
20	422	919	966	570	973	1500	1060	631	645	400	433	333
21	431	871	926	592	3350	1420	1060	612	614	398	406	327
22	476	807	909	703	2850	1340	1030	598	591	427	390	323
23	496	769	916	934	2010	1250	1020	590	569	441	380	365
24	485	848	923	935	1620	1200	997	597	558	436	374	467
25	457	3360	899	905	1400	1220	966	640	549	397	368	448
26	445	4200	882	854	2080	1280	935	652	560	388	364	388
27	433	2510	868	836	8650	1280	926	2860	544	389	361	361
28	442	1920	856	814	3750	1280	923	1290	553	442	358	350
29	433	1680	832	775	---	1230	907	1060	549	414	353	340
30	426	1960	802	756	---	1160	897	976	594	392	352	334
31	424	---	785	758	---	1090	---	1970	---	382	348	---
MEAN	533	1311	1108	713	1551	1764	1403	861	728	441	399	346
MAX	950	4200	2060	935	8650	4200	4530	2860	1480	586	600	467
MIN	422	461	785	569	743	1090	897	590	544	382	348	321
IN.	1.10	2.61	2.28	1.46	2.88	3.63	2.79	1.77	1.45	.91	.82	.69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1945 - 1997, BY WATER YEAR (WY)

MEAN	415	679	729	740	861	1067	1272	1148	779	547	417	432
MAX	1040	2751	2842	2322	2873	2473	3623	2775	2515	1632	889	2093
(WY)	1985	1986	1983	1950	1985	1945	1945	1957	1945	1951	1958	1993
MIN	214	224	223	201	261	290	370	352	276	239	204	193
(WY)	1957	1955	1956	1956	1964	1981	1963	1977	1954	1954	1954	1954

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1945 - 1997	
ANNUAL MEAN	779		924		756	
HIGHEST ANNUAL MEAN					1555	1985
LOWEST ANNUAL MEAN					299	1954
HIGHEST DAILY MEAN	5440	May 11	8650	Feb 27	45100	Nov 19 1985
LOWEST DAILY MEAN	275	Sep 14	321	Sep 14,16	187	Sep 15 1954
ANNUAL SEVEN-DAY MINIMUM	283	Sep 8	328	Sep 10	188	Sep 12 1954
INSTANTANEOUS PEAK FLOW	---		12300	Feb 27	133000	Nov 19 1985
INSTANTANEOUS PEAK STAGE	---		10.88	Feb 27	28.10	Nov 19 1985
INSTANTANEOUS LOW FLOW	---		321	Sep 13-17,22,23	187	Sep 14 1954
ANNUAL RUNOFF (INCHES)	18.92		22.38		18.31	
10 PERCENT EXCEEDS	1480		1640		1350	
50 PERCENT EXCEEDS	504		743		511	
90 PERCENT EXCEEDS	336		364		292	

07057750 BRYANT CREEK BELOW EVANS, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 36°52'16", long 92°28'18", in NW 1/4 NW 1/4 sec.10, T.25 N., R.14 W., Douglas County, Hydrologic Unit 11010006. Sampling site is located off Highway 14, 12 mi west of Highway 95 intersection, and 13 mi south of Ava.

DRAINAGE AREA.--214 mi^2.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
04...	1400	45	11.5	403	8.25	10.6	97	--	K10	42	211
JAN											
23...	0745	150	6.5	383	8.12	11.2	91	<10	21	31	190
MAR											
28...	0650	280	12.5	334	7.83	12.9	123	--	K6	K3	172
APR											
09...	1000	430	9.5	321	7.70	11.2	97	--	130	130	150
JUN											
12...	1105	60	17.5	382	8.09	9.2	99	<5	160	245	195
AUG											
07...	1000	31	18.5	414	7.71	8.4	88	--	100	120	210

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)
NOV										
04...	257	0	0.58	<0.01	0.08	0.3	<0.02	<0.01	--	--
JAN										
23...	231	0	0.51	<0.01	<0.01	<0.2	<0.02	<0.01	200	42
MAR										
28...	210	0	0.44	<0.01	<0.01	<0.2	<0.02	<0.01	--	--
APR										
09...	183	0	0.43	<0.01	0.02	<0.2	0.02	0.01	--	--
JUN										
12...	238	0	0.32	<0.01	0.02	<0.2	<0.02	<0.01	200	44
AUG										
07...	256	0	0.39	<0.01	0.03	<0.2	<0.02	<0.01	--	--

DATE	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)
JAN										
23...	23	2.0	1.0	5.2	4.0	<0.1	202	1	20	3.1
JUN										
12...	23	1.6	1.2	4.0	3.6	<0.1	202	4	50	3.5

DATE	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)	COPPER, DISSOLVED (µg/L as Cu) (01040)	IRON, DISSOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	LEAD, DISSOLVED (µg/L as Pb) (01049)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOVERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)	ZINC, DISSOLVED (µg/L as Zn) (01090)
JAN										
23...	<1	<1	<1	2	<1	<1	2.6	<0.1	<1	<1
JUN										
12...	<1	<1	<1	3	<1	<1	8.3	<0.1	<1	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07061500 BLACK RIVER NEAR ANNAPOLIS, MO

LOCATION.--Lat 37°20'10", 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, and at mile 278.5.

DRAINAGE AREA.--484 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 569.72 ft above sea level (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 fair. Several observations of water temperature were made during the year. Occasional slight regulation from upstream reservoir since February 1963. U.S. Army Corps of Engineers gage-height and satellite telemeters at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	641	445	2060	574	897	2880	714	482	4540	466	188	192
2	533	430	1800	540	749	3090	605	473	2220	428	178	203
3	454	384	1570	461	727	2500	607	472	1240	401	173	187
4	404	350	1250	455	1370	1780	607	457	892	424	170	172
5	425	306	1040	451	1690	1420	2570	461	771	399	164	162
6	381	305	1100	435	1380	1270	5260	494	741	377	159	157
7	327	1380	1030	419	1080	999	3090	419	685	365	157	152
8	306	4970	925	477	936	887	1950	433	589	350	154	156
9	285	2190	801	441	817	928	1420	477	475	337	164	186
10	275	1240	676	407	717	1090	1050	463	458	619	173	212
11	259	927	671	387	689	1160	1040	443	447	509	175	199
12	246	733	649	374	694	920	955	433	443	436	181	187
13	236	625	602	361	587	1110	842	424	534	349	202	181
14	224	545	580	378	521	3520	736	420	1080	328	224	175
15	218	504	766	359	483	2690	760	410	940	294	222	170
16	222	499	1420	356	495	1750	679	395	722	275	231	165
17	222	486	1450	357	489	1430	587	388	721	267	225	185
18	229	431	1130	338	470	1250	628	383	1600	265	213	193
19	248	486	970	336	457	1330	589	389	970	260	227	189
20	252	403	863	339	462	1290	536	384	725	255	223	200
21	256	381	707	362	1190	1080	626	368	541	261	208	248
22	272	424	663	1020	2040	1020	672	356	492	257	192	265
23	343	357	655	2530	1440	916	577	431	604	250	179	257
24	326	450	694	1580	1120	769	610	396	509	247	170	286
25	307	5140	683	1250	964	772	544	392	431	241	165	318
26	376	10100	679	1110	1040	1130	524	929	405	238	163	286
27	282	3640	727	941	12400	1090	519	1250	354	240	162	251
28	862	2480	655	1130	5410	962	519	956	398	221	157	233
29	880	1930	634	1160	---	907	507	774	526	196	155	220
30	629	1920	611	896	---	842	554	2420	525	231	156	212
31	513	---	589	887	---	788	---	14600	---	204	158	---
MEAN	369	1482	924	681	1476	1405	1029	1018	853	322	183	207
MAX	880	10100	2060	2530	12400	3520	5260	14600	4540	619	231	318
MIN	218	305	580	336	457	769	507	356	354	196	154	152
IN.	.88	3.42	2.20	1.62	3.18	3.35	2.37	2.43	1.97	.77	.44	.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1997, BY WATER YEAR (WY)

MEAN	267	665	694	612	729	983	1176	891	527	277	209	234
MAX	1151	3619	3913	2509	2091	2903	3467	2928	4263	1800	1289	1061
(WY)	1942	1986	1983	1950	1985	1945	1957	1957	1945	1951	1982	1993
MIN	84.8	111	119	108	147	161	372	232	140	88.5	76.7	72.4
(WY)	1957	1965	1956	1956	1963	1941	1956	1988	1972	1954	1965	1955

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1939 - 1997	
ANNUAL MEAN	773		823		603	
HIGHEST ANNUAL MEAN					1420	1985
LOWEST ANNUAL MEAN					244	1954
HIGHEST DAILY MEAN	16000	Apr 23	14600	May 31	47900	Nov 14 1993
LOWEST DAILY MEAN	150	Sep 11	152	Sep 7	66	Sep 15 1954
ANNUAL SEVEN-DAY MINIMUM	154	Sep 9	159	Aug 25	67	Aug 12 1965
INSTANTANEOUS PEAK FLOW	---		23000	May 31	109000	Nov 14 1993
INSTANTANEOUS PEAK STAGE	---		14.69	May 31	27.38	Nov 14 1993
INSTANTANEOUS LOW FLOW	---		150	Sep 7,8	65	Aug 16 1965
ANNUAL RUNOFF (INCHES)	21.75		23.09		16.92	
10 PERCENT EXCEEDS	1470		1420		1160	
50 PERCENT EXCEEDS	391		486		280	
90 PERCENT EXCEEDS	190		192		118	

07061900 LOGAN CREEK AT ELLINGTON, MO

LOCATION.--Lat 37°14'47", long 90°57'55", 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^2.

PERIOD OF RECORD.--July 21, 1994 to current year.

GAGE.--Water-stage recorder. Datum of gage is 639.51 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Several observations of water temperature were made during the year. U.S.G.S. satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	9.8	54	16	16	124	16	17	44	12	5.3	4.2
2	29	8.7	47	16	15	99	15	24	36	11	5.2	4.0
3	25	8.7	40	15	32	77	14	19	31	13	5.6	3.7
4	23	8.5	40	14	27	61	68	17	29	12	4.5	3.5
5	21	8.2	40	13	23	50	947	15	28	10	4.3	3.5
6	20	8.7	35	13	22	42	161	15	26	9.7	4.3	3.3
7	18	70	30	12	22	38	80	16	25	9.1	4.3	4.0
8	16	46	27	12	21	35	64	15	24	8.8	5.6	6.4
9	16	31	25	12	19	50	54	14	23	10	4.9	4.9
10	14	25	24	11	18	37	48	13	23	9.6	4.6	4.1
11	13	21	23	10	18	32	47	12	21	8.3	4.6	3.7
12	12	19	21	9.7	17	31	41	12	21	8.5	7.8	3.8
13	12	17	19	9.4	17	89	38	13	25	7.9	5.4	4.2
14	11	17	25	9.7	16	59	36	12	20	6.9	5.2	3.7
15	10	15	38	10	15	46	34	10	19	6.8	5.2	3.5
16	9.5	17	29	9.1	14	40	33	10	18	6.5	5.5	4.2
17	10	17	26	9.3	14	35	31	12	55	6.8	4.8	5.1
18	10	15	24	9.3	13	40	31	10	30	6.1	4.4	4.1
19	9.0	15	22	9.3	14	34	29	11	25	5.1	5.1	3.6
20	8.3	14	20	9.5	18	31	31	9.7	23	5.8	4.6	4.9
21	10	14	19	23	25	29	29	9.0	21	6.0	4.1	4.3
22	17	13	19	34	19	26	27	8.9	20	6.1	4.0	3.9
23	15	14	32	26	17	24	26	8.4	17	5.8	4.0	7.1
24	11	112	26	23	17	25	25	11	16	5.6	4.0	6.3
25	11	1650	23	20	17	29	24	8.5	15	5.9	3.8	4.9
26	11	290	22	19	1160	24	23	9.1	14	5.7	3.6	4.2
27	12	114	21	19	398	23	22	8.9	15	5.5	3.6	4.5
28	12	73	20	17	97	22	21	9.0	13	15	3.8	4.7
29	12	72	18	17	---	20	19	8.1	13	13	4.3	4.0
30	10	66	17	16	---	18	18	1070	12	7.1	4.1	3.9
31	9.7	---	17	16	---	17	---	113	---	5.9	5.3	---
MEAN	14.6	93.7	27.2	14.8	75.8	42.2	68.4	49.7	23.4	8.24	4.70	4.34
MAX	34	1650	54	34	1160	124	947	1070	55	15	7.8	7.1
MIN	8.3	8.2	17	9.1	13	17	14	8.1	12	5.1	3.6	3.3

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 1997, BY WATER YEAR (WY)

MEAN	8.15	39.5	15.1	12.9	31.8	31.9	66.5	107	21.2	8.21	5.44	10.3
MAX	14.6	93.7	27.2	14.8	75.8	43.4	118	208	24.2	10.3	8.40	27.9
(WY)	1997	1997	1997	1997	1997	1995	1996	1996	1995	1995	1994	1996
MIN	4.41	5.33	7.73	10.3	7.36	10.2	13.2	49.7	15.9	6.09	3.70	4.34
(WY)	1995	1996	1996	1996	1996	1996	1995	1997	1996	1996	1996	1995

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1994 - 1997	
ANNUAL MEAN	45.2		35.1		29.9	
HIGHEST ANNUAL MEAN					35.6	1996
LOWEST ANNUAL MEAN					18.9	1995
HIGHEST DAILY MEAN	1820	May 6	1650	Nov 25	1820	May 6 1996
LOWEST DAILY MEAN	2.6	Sep 1,2	3.3	Sep 6	2.6	Sep 1 1996
ANNUAL SEVEN-DAY MINIMUM	2.7	Aug 29	3.7	Sep 1	2.7	Aug 29 1996
INSTANTANEOUS PEAK FLOW	---		4010[a]	Feb 26	4100[a]	May 6 1996
INSTANTANEOUS PEAK STAGE	---		6.47	Feb 26	6.50	May 6 1996
INSTANTANEOUS LOW FLOW	---		3.1	Sep 7	2.6	Aug 31 1996
10 PERCENT EXCEEDS	63		41		36	
50 PERCENT EXCEEDS	11		16		10	
90 PERCENT EXCEEDS	4.0		4.5		4.1	

[a]From rating extended above 2,500 ft^3/s.

07062000 CLEARWATER LAKE NEAR PIEDMONT, MO

LOCATION.--Lat 37°08'00", long 90°46'31", NW 1/4 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^2.

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

GAGE.--Water-stage recorder. Datum of gage is sea level (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 used for flood control and recreational purposes. U.S. Army Corps of Engineers satellite telemeter at station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 399,400 ac-ft, May 28, 1957, elevation, 565.59 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, 82,100 ac-ft, Dec. 2, elevation, 517.52 ft; minimum, 21,600 ac-ft, Oct. 14, elevation, 493.80 ft.

ELEVATION, IN FEET, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
OBSERVATION AT 24:00

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	505.05	494.00	517.37	494.05	494.20	512.80	496.12	500.04	516.04	503.50	500.16	500.09
2	504.60	493.99	517.52	494.04	494.10	515.34	496.11	500.09	516.90	502.31	500.14	500.11
3	503.93	493.93	517.15	494.04	494.16	516.62	496.14	500.12	517.26	501.06	500.16	500.16
4	503.15	493.92	516.34	494.16	494.82	516.91	496.46	500.11	517.02	500.27	500.17	500.16
5	502.30	493.96	515.44	494.14	494.67	516.53	500.44	500.07	516.64	500.18	500.16	500.13
6	501.44	493.95	514.25	494.02	494.34	515.72	506.56	500.09	516.17	500.10	500.13	500.12
7	500.41	494.94	512.97	493.99	494.54	514.65	508.54	500.05	515.69	500.16	500.12	500.12
8	499.26	500.64	511.61	494.12	494.19	513.36	508.94	500.05	515.13	500.06	500.12	500.19
9	498.06	503.07	510.10	494.25	494.04	513.14	508.28	500.01	514.46	500.09	500.18	500.23
10	496.81	504.04	508.40	494.25	494.07	513.01	506.80	500.01	513.73	500.15	500.21	500.14
11	495.48	504.47	506.56	494.20	494.09	511.77	505.34	500.00	513.02	500.24	500.23	500.11
12	494.38	504.54	504.62	494.15	494.30	510.40	503.82	499.99	512.24	500.22	500.32	500.16
13	493.90	504.33	502.48	494.13	494.23	509.76	502.13	500.04	511.57	500.03	500.34	500.18
14	493.80	503.86	500.17	494.11	494.09	511.70	500.66	500.18	511.96	499.99	500.30	500.20
15	493.87	503.22	498.25	494.16	494.23	512.57	500.35	500.24	512.09	500.09	500.29	500.20
16	494.01	502.52	497.08	494.14	494.19	512.33	500.29	500.20	511.58	500.07	500.25	500.14
17	494.11	501.89	496.17	494.08	494.09	511.56	500.11	500.16	511.53	500.05	500.21	500.19
18	494.13	501.11	494.89	494.08	494.08	510.51	500.11	500.11	512.55	500.12	500.16	500.19
19	494.12	500.31	494.15	494.06	494.08	509.41	500.35	500.09	512.70	500.20	500.15	500.18
20	494.09	499.46	494.11	494.07	494.07	508.24	500.35	500.07	512.34	500.24	500.18	500.19
21	494.09	498.52	494.02	494.20	494.47	506.89	500.28	500.08	511.76	500.25	500.17	500.19
22	494.20	497.53	493.97	494.56	495.36	505.32	500.28	500.08	511.09	500.26	500.13	500.22
23	494.37	496.50	494.08	495.86	495.50	503.60	500.18	500.09	510.37	500.27	500.09	500.33
24	494.34	495.95	494.22	495.14	494.61	501.63	500.08	500.21	509.54	500.23	500.08	500.35
25	494.19	501.74	494.31	494.74	494.29	499.61	500.00	500.22	508.57	500.20	500.07	500.30
26	494.28	511.36	494.31	494.69	495.92	497.98	499.99	500.28	507.54	500.18	500.06	500.24
27	494.36	513.86	494.28	494.19	507.00	496.76	500.04	500.98	506.49	500.18	500.07	500.17
28	494.51	515.04	494.19	493.90	511.09	496.07	500.04	500.99	505.51	500.18	500.10	500.13
29	494.94	515.85	494.09	494.32	---	496.18	500.01	500.43	505.21	500.30	500.09	500.10
30	494.55	516.59	494.06	494.46	---	496.24	500.02	501.60	504.64	500.28	500.08	500.06
31	493.94	---	494.06	494.23	---	496.16	---	513.13	---	500.20	500.09	---
MEAN	496.60	501.84	502.10	494.28	495.46	508.15	501.29	500.64	512.04	500.38	500.16	500.18
MAX	505.05	516.59	517.52	495.86	511.09	516.91	508.94	513.13	517.26	503.50	500.34	500.35
MIN	493.80	493.92	493.97	493.90	494.04	496.07	496.11	499.99	504.64	499.99	500.06	500.06
(-)	21800	78700	22000	22300	60500	25600	32800	66900	43000	33200	32900	32900
(=)	-22600	+56900	-56700	+300	+38200	-34900	+7200	+34100	-23900	-9800	-300	0

CAL YR 1996...- 500
WTR YR 1997...-11500

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

07063000 BLACK RIVER AT POPLAR BLUFF, MO

LOCATION.--Lat 36°45'34", long 90°23'17", in SW 1/4 NW 1/4 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^2.

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, are contained 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 sea level. 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. Several observations of water temperature were made during the year. Considerable regulation by Clearwater Lake (station 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^3/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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1520	1720	2750	1390	1810	2890	1780	1190	1500	1780	715	537
2	1630	1300	2420	1360	1740	5340	1660	1190	1660	2160	657	530
3	1720	1180	2680	1330	1750	4390	1550	1550	2170	2180	627	549
4	1810	1140	3240	1260	2250	3720	1480	1340	1960	2190	583	556
5	1830	1080	3640	1260	1990	3640	4290	1250	2270	1920	581	545
6	1850	996	3900	1270	2630	3790	7480	1200	2310	1270	574	543
7	1840	1650	4030	1260	2640	4070	4280	1170	2330	1110	571	536
8	1850	2720	4050	1160	2160	4140	2850	1180	2320	1000	562	529
9	1890	1640	3970	1100	2220	4250	3290	1190	2290	915	556	541
10	1880	1180	3920	1090	1950	3260	3840	1140	2280	878	559	572
11	1840	1170	3910	1100	1730	2670	4140	1110	2280	878	544	627
12	1810	1360	4080	1070	1590	3880	4220	1080	2230	918	570	617
13	1660	1480	4150	1030	1470	4210	4110	1050	2260	959	655	538
14	1300	1670	3990	995	1560	4390	3970	1010	2290	1010	648	526
15	984	1790	3900	1020	1490	2790	3430	932	1380	906	1090	526
16	800	1870	3930	1130	1280	3070	2340	929	1510	712	787	537
17	670	1880	3740	1070	1320	3540	1910	980	2290	739	721	578
18	696	1870	3500	1030	1310	3850	1790	985	2520	708	706	596
19	700	1860	3320	975	1240	4180	1580	989	1490	638	714	583
20	716	1860	2730	989	1220	4210	1370	971	1810	598	733	604
21	717	1840	2060	1050	1690	4160	1510	924	2090	596	671	622
22	762	1830	1920	1860	1750	4120	1560	876	2160	629	653	592
23	851	1830	1830	2020	1950	4060	1530	856	2160	649	647	597
24	810	1950	1930	2320	2210	4020	1500	870	2200	643	635	664
25	858	4240	1670	3110	2560	3960	1480	905	2290	640	605	696
26	1020	6940	1610	2620	2230	3870	1400	978	2360	655	581	744
27	923	3960	1630	2220	2860	3560	1310	2360	2350	622	564	746
28	904	2230	1630	2290	2710	3190	1270	1590	2360	618	539	737
29	980	2110	1620	2130	---	2630	1250	1770	2580	621	540	695
30	1260	2460	1540	1800	---	1960	1230	1940	1810	635	552	647
31	1500	---	1460	1740	---	1830	---	2110	---	675	551	---
MEAN	1277	2027	2927	1485	1904	3666	2513	1213	2117	982	635	597
MAX	1890	6940	4150	3110	2860	5340	7480	2360	2580	2190	1090	746
MIN	670	996	1460	975	1220	1830	1230	856	1380	596	539	526
IN.	1.18	1.82	2.71	1.38	1.59	3.40	2.25	1.12	1.90	.91	.59	.54

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1997[a], BY WATER YEAR (WY)

MEAN	656	1008	1578	1693	1732	2139	2195	1956	1304	862	674	642
MAX	1913	2962	5501	3890	4938	4485	4873	4125	3196	3153	3232	2071
(WY)	1983	1973	1983	1950	1949	1975	1973	1979	1957	1957	1957	1985
MIN	259	315	335	309	376	564	710	556	460	321	288	268
(WY)	1957	1954	1954	1956	1963	1981	1956	1987	1987	1954	1954	1954

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1949 - 1997[a]	
ANNUAL MEAN	1658		1777		1368	
HIGHEST ANNUAL MEAN					2858	1985
LOWEST ANNUAL MEAN					564	1954
HIGHEST DAILY MEAN	6940	Nov 26	7480	Apr 6	41200	Dec 4 1982
LOWEST DAILY MEAN	431	Sep 8	526	Sep 14,15	186	Sep 25 1966
ANNUAL SEVEN-DAY MINIMUM	462	Sep 4	541	Sep 2	245	Sep 21 1966
INSTANTANEOUS PEAK FLOW	---		7900	Apr 6	65600	Dec 4 1982
INSTANTANEOUS PEAK STAGE	---		16.41	Apr 6	21.68[b]	Dec 4 1982
INSTANTANEOUS LOW FLOW	---		526	Sep 8,13-16	180	Sep 25 1966
ANNUAL RUNOFF (INCHES)	18.13		19.38		14.93	
10 PERCENT EXCEEDS	3800		3870		3290	
50 PERCENT EXCEEDS	1300		1520		835	
90 PERCENT EXCEEDS	550		602		384	

[a]Post-regulation period.
[b]Former datum.

07065495 JACKS FORK AT ALLEY SPRING, MO

LOCATION.--Lat 37°08'53", long 91°26'35", in SW 1/4 SW 1/4 SE 1/4 sec.25, T.29 N., R.5 W., Shannon County, Hydrologic Unit 11010008, on downstream end of pier on foot bridge, just downstream of Highway 106 bridge, 0.5 mi upstream from Alley Spring Branch, and 5.5 mi west of Eminence.

DRAINAGE AREA.--298 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 652.74 ft above sea level.

REMARKS.--Estimated daily discharges: July 2, 11, and 12. Water-discharge records fair. U.S.G.S satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	301	118	898	156	228	1140	282	215	941	177	80	73
2	238	125	775	154	211	1530	265	204	644	160	77	67
3	196	133	607	153	207	1140	252	202	460	151	83	63
4	168	129	459	153	677	888	255	190	361	144	80	60
5	152	125	421	150	798	736	2560	177	304	135	74	59
6	139	122	561	139	579	586	2590	173	267	129	72	59
7	130	1430	507	130	458	480	1150	170	238	124	71	57
8	125	2090	402	125	393	421	832	172	210	120	70	61
9	120	849	334	132	328	398	681	170	190	117	73	65
10	117	566	297	134	291	628	562	162	178	112	73	77
11	112	405	277	126	265	627	509	155	171	108	76	69
12	109	315	254	117	247	515	482	152	167	104	91	64
13	105	259	227	116	234	589	424	151	184	101	101	61
14	103	231	202	113	227	2340	376	153	320	99	97	59
15	102	217	347	113	211	1140	345	148	296	97	95	58
16	102	213	766	117	195	835	320	142	217	94	109	59
17	102	228	633	114	181	705	301	137	243	93	105	64
18	105	263	465	110	173	607	284	135	648	91	94	64
19	103	277	361	109	171	528	282	134	429	88	90	63
20	104	255	296	111	619	463	273	132	295	85	87	61
21	109	232	256	120	2700	426	310	128	232	86	83	60
22	119	205	239	488	1340	390	396	125	194	85	79	59
23	148	183	246	793	857	347	347	123	173	84	77	64
24	179	217	268	550	652	317	303	125	165	82	76	85
25	150	2000	241	424	516	327	278	203	160	81	72	115
26	134	2290	216	323	646	451	253	268	156	78	72	97
27	125	1030	204	288	6240	454	246	215	157	76	70	80
28	119	745	196	281	1580	431	246	209	229	78	69	71
29	114	598	185	255	---	397	235	190	246	83	69	65
30	114	850	171	238	---	348	225	366	199	83	67	62
31	112	---	161	232	---	308	---	2680	---	83	67	---
MEAN	134	557	370	212	758	661	529	255	289	104	80.6	67.4
MAX	301	2290	898	793	6240	2340	2590	2680	941	177	109	115
MIN	102	118	161	109	171	308	225	123	156	76	67	57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1997, BY WATER YEAR (WY)

MEAN	137	615	267	249	388	454	635	528	230	110	96.9	307
MAX	260	1427	370	331	758	661	1121	755	381	137	112	1007
(WY)	1994	1994	1997	1995	1997	1997	1994	1994	1995	1995	1995	1993
MIN	73.9	71.6	126	173	81.6	227	358	233	130	81.9	78.0	67.4
(WY)	1995	1996	1996	1996	1996	1996	1995	1993	1996	1996	1993	1997

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1993 - 1997	
ANNUAL MEAN	287		331		329	
HIGHEST ANNUAL MEAN					469	1994
LOWEST ANNUAL MEAN					222	1996
HIGHEST DAILY MEAN	3320	Apr 29	6240	Feb 27	23300	Nov 14 1993
LOWEST DAILY MEAN	66	Sep 14	57	Sep 7	57	Sep 7 1997
ANNUAL SEVEN-DAY MINIMUM	68	Sep 1	61	Sep 3	61	Sep 3 1997
INSTANTANEOUS PEAK FLOW	---		13200	Feb 27	48700	Nov 14 1993
INSTANTANEOUS PEAK STAGE	---		15.87	Feb 27	21.97	Nov 14 1993
INSTANTANEOUS LOW FLOW	---		57	Sep 6-8	57	Sep 22 1997
10 PERCENT EXCEEDS	632		650		610	
50 PERCENT EXCEEDS	138		185		162	
90 PERCENT EXCEEDS	72		73		73	

07065495 JACKS FORK AT ALLEY SPRING, MO--Continued
(National water-quality assessment station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1993 to August 1997.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH, WATER WHOLE, FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	E. COLI, WATER WHOLE, TOTAL UREASE (COLS./ 100 mL) (31633)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY, WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)	BICAR-BONATE WATER DIS IT FIELD (mg/L as HCO_3) (00453)
NOV												
25...	1400	2130	7.0	202	8.0	11.1	92	2400	K1700	4100	107	130
FEB												
10...	1300	291	5.0	275	8.1	12.6	97	K2	K1	K5	137	167
MAY												
29...	1100	190	17.0	322	8.0	9.8	99	K5	K2	K4	174	212
AUG												
07...	0930	71	20.5	336	8.1	8.2	89	K11	K7	20	168	205

DATE	CAR-BONATE, WATER DIS IT FIELD (mg/L as CO_3) (00452)	NITRO-GEN, NO_2+NO_3 DIS-SOLVED (mg/L as N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L as N) (00613)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L as N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (mg/L as N) (00623)	PHOS-PHORUS, TOTAL (mg/L as P) (00665)	PHOS-PHORUS, DIS-SOLVED (mg/L as P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (mg/L as P) (00671)	HARD-NESS, TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM, DIS-SOLVED (mg/L as Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)
NOV												
25...	0	<0.050	0.03	0.020	0.3	<0.2	0.020	<0.01	<0.010	110	23	13
FEB												
10...	0	0.260	<0.01	<0.015	<0.2	<0.2	<0.010	<0.01	<0.010	140	30	17
MAY												
29...	0	0.180	<0.01	<0.015	<0.2	<0.2	0.014	<0.01	<0.010	170	35	20
AUG												
07...	0	0.099	<0.01	<0.015	<0.2	<0.2	<0.010	<0.01	0.012	170	34	22

DATE	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SILICA, DIS-SOLVED (mg/L as SiO_2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	SEDI-MENT, SUS-PENDED (mg/L) (80154)	CARBON, ORGANIC DIS-SOLVED (mg/L as C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (mg/L as C) (00689)
NOV										
25...	0.8	1.3	3.8	1.5	<0.1	6.5	126	48	3.6	0.4
FEB										
10...	1.2	0.9	4.0	2.1	<0.1	6.0	132	19	1.0	0.1
MAY										
29...	1.2	1.1	2.4	1.6	<0.1	7.5	173	27	1.0	0.2
AUG										
07...	1.4	1.2	1.6	1.6	<0.1	8.6	194	35	0.7	<0.2

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07066000 JACKS FORK AT EMINENCE, MO

LOCATION.--Lat 37°9'18", long 91°21'31", in SW 1/4 NW 1/4 sec.26, T.29 N., R.4 W., Shannon County, Hydrologic Unit 11010008, on left bank 50 ft upstream from bridge on State Highway 19, at Eminence, 1.5 mi downstream from Mahans Creek, and 8.0 mi upstream from mouth.

DRAINAGE AREA.--398 mi^2.

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(M).

GAGE.--Water-stage recorder. Datum of gage is 615.87 ft above sea level. 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.--Estimated daily discharges: Apr. 10-13 and May 31. Records good except for estimated daily discharges, which are fair. Several observations of water temperature were made during the year. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	618	263	1500	368	359	2080	615	459	1800	459	215	218
2	511	267	1300	362	332	2540	585	443	1170	406	220	211
3	446	277	1070	362	377	2010	564	435	891	370	210	204
4	400	270	874	358	934	1620	602	412	728	362	207	202
5	376	269	819	348	1110	1350	3040	394	623	338	195	202
6	336	246	932	325	832	1130	3980	389	551	319	200	202
7	308	1520	880	305	690	991	2000	379	502	306	194	201
8	289	3240	756	292	609	903	1510	394	459	294	196	209
9	276	1430	668	304	525	891	1220	381	429	287	205	214
10	262	978	612	304	470	1060	1040	364	399	278	203	224
11	250	739	584	284	431	1090	900	351	382	275	212	214
12	244	600	544	261	400	966	800	348	377	270	251	207
13	238	512	502	248	380	1180	750	350	411	267	257	205
14	233	466	464	241	366	3240	700	363	539	261	247	205
15	224	440	755	257	343	1950	668	347	557	254	246	205
16	223	430	1250	260	316	1470	634	336	450	250	255	206
17	227	456	1100	241	296	1230	596	329	574	246	259	211
18	228	501	894	232	284	1100	573	327	1150	242	244	213
19	220	521	745	241	278	1010	571	322	814	240	242	211
20	213	491	643	247	481	915	564	315	599	247	238	211
21	227	453	576	276	3720	857	614	306	496	242	230	213
22	265	408	544	712	2240	806	716	303	437	242	225	215
23	297	370	556	1180	1440	737	657	298	397	235	223	223
24	340	466	586	858	1110	703	606	314	370	228	217	244
25	311	2920	538	678	931	757	560	420	354	224	216	263
26	279	3590	494	527	1390	870	520	530	340	222	217	244
27	264	1880	470	459	6920	868	514	480	421	217	216	227
28	251	1330	452	438	2680	842	506	457	494	222	217	220
29	249	1110	429	399	---	792	491	433	657	232	211	215
30	258	1380	401	376	---	714	476	779	543	223	214	212
31	247	---	381	368	---	656	---	3500	---	217	213	---
MEAN	294	927	720	391	1080	1204	919	492	597	273	222	215
MAX	618	3590	1500	1180	6920	3240	3980	3500	1800	459	259	263
MIN	213	246	381	232	278	656	476	298	340	217	194	201
IN.	.85	2.60	2.09	1.13	2.83	3.49	2.58	1.43	1.67	.79	.64	.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

MEAN	226	426	461	478	554	710	854	745	471	259	208	211
MAX	1092	2057	2462	2065	1906	1944	2920	2168	2745	1682	984	1439
(WY)	1985	1994	1983	1949	1985	1945	1927	1950	1928	1951	1927	1993
MIN	76.5	98.1	96.9	89.8	120	139	203	129	109	84.8	82.6	73.1
(WY)	1957	1955	1956	1956	1934	1956	1954	1936	1936	1934	1954	1956

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1922 - 1997	
ANNUAL MEAN	578		607		466	
HIGHEST ANNUAL MEAN					1072	1985
LOWEST ANNUAL MEAN					154	1954
HIGHEST DAILY MEAN	4460	Apr 23	6920	Feb 27	31800	Nov 15 1993
LOWEST DAILY MEAN	160	Aug 17	194	Aug 7	67	Sep 16 1956
ANNUAL SEVEN-DAY MINIMUM	171	Aug 29	200	Aug 4	70	Sep 16 1956
INSTANTANEOUS PEAK FLOW	---		12500	Feb 27	58500	Nov 15 1993
INSTANTANEOUS PEAK STAGE	---		12.11	Feb 27	17.82	Nov 15 1993
INSTANTANEOUS LOW FLOW	---		179	Aug 4,5	64	Aug 28 1936
ANNUAL RUNOFF (INCHES)	19.79		20.70		15.89	
10 PERCENT EXCEEDS	1300		1160		900	
50 PERCENT EXCEEDS	333		394		247	
90 PERCENT EXCEEDS	184		216		124	

07066110 JACKS FORK ABOVE TWO RIVERS

(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 37°10'22", long 91°18'00", in NE 1/4 NW 1/4 sec.20, T.29 N., R.3 W., Shannon County, Hydrologic Unit 11010008, at Shawnee Campground, 4.5 mi downstream from the Eminence sewage disposal pond.

DRAINAGE AREA.--425 mi^2.

PERIOD OF RECORD.--April 1973 to current year.

REMARKS.--Ozark National Scenic Riverways station since April 1973 and ambient water-quality monitoring network station since November 1993. October and May data are located in the partial records section of this report.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
06...	1330	120	15.0	348	8.18	11.2	111	--	24	K12	177
JAN											
21...	1045	300	7.0	342	7.96	11.6	95	<10	K11	24	173
MAR											
26...	0845	370	10.5	264	7.53	12.1	106	--	46	K16	134
APR											
07...	1240	3200	12.5	223	7.40	10.8	100	--	102	80	104
JUN											
10...	1015	410	16.5	270	7.78	9.0	93	<5	235	300	134
AUG											
05...	1045	230	21.5	324	7.24	9.6	106	--	110	128	163

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
06...	216	0	0.34	<0.01	<0.01	0.20	<0.02	<0.01	--	--
JAN										
21...	211	0	0.43	<0.01	0.02	<0.20	<0.02	<0.01	180	36
MAR										
26...	163	0	0.29	<0.01	0.01	<0.20	<0.02	0.02	--	--
APR										
07...	127	0	0.26	<0.01	0.01	<0.20	0.03	0.01	--	--
JUN										
10...	164	0	0.24	<0.01	0.02	0.25	<0.02	<0.01	150	32
AUG										
05...	199	0	0.37	<0.01	0.02	<0.20	<0.02	<0.01	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
21...	21	1.4	1	3.7	3.6	<0.1	174	<1	20	7
JUN										
10...	18	1.2	1	3.1	2.1	<0.1	142	4	110	17

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
21...	<1	<1	<1	8	<1	<1	1.7	<0.1	1	1.7
JUN										
10...	<1	<1	<1	10	<1	<1	4.3	<0.1	<1	<1.0

K--Results are based on colony count outside the acceptable range (non-ideal colony count).

07067000 CURRENT RIVER AT VAN BUREN, MO

LOCATION.--Lat 36°59'29", long 91°00'53", in NE 1/4 NW 1/4 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^2.

WATER-DISCHARGE RECORDS

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 sea level. Prior to Sept. 1, 1926, nonrecording gage at site 100 ft downstream at different datum; 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, set to read same as gage 100 ft downstream.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 19. Water-discharge records poor. 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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2600	1800	4990	2220	2530	7860	2950	2180	8770	1940	1100	964
2	2350	1700	4900	2180	2460	8340	2820	2220	5450	1790	1080	961
3	2250	1650	4430	2140	2470	7420	2730	2250	4450	1700	1070	1130
4	2050	1550	3960	2130	3590	6230	2760	2140	3790	1740	1060	967
5	1950	1500	3650	2110	4410	5450	7400	2060	3300	1640	1040	928
6	1850	1500	3610	2040	3970	4870	12900	2020	2940	1550	1020	918
7	1750	3500	3630	1970	3550	4440	8070	1990	2690	1510	1020	909
8	1650	7500	3410	1920	3310	4120	5950	2020	2480	1470	1010	930
9	1600	7000	3140	1940	3050	3980	5050	1980	2300	1430	1050	989
10	1550	4000	2930	1940	2840	4190	4460	1900	2170	1410	1070	984
11	1500	3000	2820	1880	2700	4260	4110	1860	2060	1380	1050	982
12	1470	2700	2700	1820	2590	4030	3960	1820	2000	1350	1150	945
13	1440	2400	2570	1760	2500	4170	3700	1800	2020	1330	1260	919
14	1400	2300	2450	1730	2430	7780	3430	1930	2260	1320	1190	909
15	1380	2200	2900	1760	2360	7690	3230	1830	2560	1300	1220	904
16	1350	2150	3990	1780	2280	5770	3060	1750	2350	1270	1180	909
17	1320	2100	3850	1720	2200	5040	2920	1740	2210	1250	1140	968
18	1280	2200	3420	1680	2150	4690	2820	1730	2970	1230	1120	1010
19	1250	2310	3060	1680	2120	4550	2760	1690	2980	1220	1100	962
20	1250	2260	2790	1700	2140	4200	2700	1650	2500	1200	1150	921
21	1250	2190	2630	1780	5400	3970	2790	1620	2210	1200	1110	974
22	1380	2110	2540	2420	7290	3770	2790	1570	2070	1220	1050	979
23	1500	2020	2540	3890	5390	3520	2770	1550	1940	1170	1030	988
24	1550	2070	2850	3690	4440	3320	2660	1550	1830	1160	1010	1170
25	1500	4740	2860	3310	3890	3410	2540	1740	1750	1140	997	1190
26	1450	11300	2720	2960	3900	3830	2430	2380	1720	1130	994	1130
27	1420	8730	2610	2770	14100	3840	2380	2290	1730	1140	986	1050
28	1400	5780	2520	2760	15300	3740	2350	2100	2050	1130	971	995
29	1800	4730	2440	2680	---	3590	2290	1990	2100	1170	965	963
30	2000	4490	2350	2600	---	3360	2230	2670	2150	1160	963	934
31	1900	---	2280	2560	---	3140	---	12400	---	1120	958	---
MEAN	1625	3449	3146	2243	4120	4793	3767	2272	2727	1347	1068	983
MAX	2600	11300	4990	3890	15300	8340	12900	12400	8770	1940	1260	1190
MIN	1250	1500	2280	1680	2120	3140	2230	1550	1720	1120	958	904
IN.	1.12	2.31	2.18	1.55	2.57	3.32	2.52	1.57	1.83	.93	.74	.66

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

MEAN	1099	1764	1952	2031	2239	2811	3453	3092	2143	1328	1095	1042
MAX	4087	7171	10740	7357	6764	7148	11730	8256	9761	6465	3581	3860
(WY)	1985	1994	1983	1950	1985	1945	1927	1957	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		FOR PERIOD OF RECORD	
ANNUAL MEAN	2422		2615		2001	
HIGHEST ANNUAL MEAN					4811	1985
LOWEST ANNUAL MEAN					799	1954
HIGHEST DAILY MEAN	18900	Apr 23	15300	Feb 28	72000	Nov 15 1993
LOWEST DAILY MEAN	874	Mar 4	904	Sep 15	476	Oct 8 1956
ANNUAL SEVEN-DAY MINIMUM	901	Feb 28	934	Sep 11	479	Oct 6 1956
INSTANTANEOUS PEAK FLOW	---		22600	Feb 28	125000	Aug 21 1915
INSTANTANEOUS PEAK STAGE	---		12.98	Feb 28	27.39	Nov 15 1993
INSTANTANEOUS LOW FLOW	---		847	Sep 15	473	Oct 7 1956
ANNUAL RUNOFF (INCHES)	19.78		21.30		16.31	
10 PERCENT EXCEEDS	4730		4450		3740	
50 PERCENT EXCEEDS	1700		2130		1260	
90 PERCENT EXCEEDS	993		1030		698	

07067000 CURRENT RIVER AT VAN BUREN, MO--Continued
(National water-quality assessment station)

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE, WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH, WATER WHOLE, FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	E. COLI, WATER WHOLE, TOTAL UREASE (COLS./ 100 mL) (31633)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY, WAT DIS TOT IT FIELD (mg/L as $CaCO_3$) (39086)	BICAR-BONATE WATER DIS IT FIELD (mg/L as HCO_3) (00453)
NOV												
26...	1030	12200	6.5	208	7.8	10.8	85	620	3500	3900	109	133
FEB												
11...	1100	2710	6.5	271	8.3	12.3	98	K7	K1	K4	144	176
MAY												
28...	1230	2100	17.0	315	7.7	9.2	93	23	K3	20	161	196
AUG												
06...	1215	1030	21.0	322	7.9	8.7	94	K10	<2	K5	158	193

DATE	CAR-BONATE, WATER DIS IT FIELD (mg/L as CO_3) (00452)	NITRO-GEN, NO_2+NO_3 DIS-SOLVED (mg/L as N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (mg/L as N) (00613)	NITRO-GEN, AMMONIA DIS-SOLVED (mg/L as N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (mg/L as N) (00623)	PHOS-PHORUS, TOTAL (mg/L as P) (00665)	PHOS-PHORUS, DIS-SOLVED (mg/L as P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (mg/L as P) (00671)	HARD-NESS, TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM, DIS-SOLVED (mg/L as Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)
NOV												
26...	0	0.100	0.03	0.020	0.3	<0.2	0.050	<0.010	0.010	100	22	12
FEB												
11...	0	0.340	<0.01	<0.015	<0.2	<0.2	<0.010	0.020	<0.010	140	28	16
MAY												
28...	0	0.306	<0.01	<0.015	<0.2	<0.2	<0.010	<0.010	<0.010	170	35	20
AUG												
06...	0	0.300	<0.01	<0.015	<0.2	<0.2	0.023	0.011	0.017	160	33	20

DATE	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SILICA, DIS-SOLVED (mg/L as SiO_2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	SEDI-MENT, SUS-PENDED (mg/L) (80154)	CARBON, ORGANIC DIS-SOLVED (mg/L as C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (mg/L as C) (00689)
NOV										
26...	1.1	1.2	4.2	1.5	<0.1	6.8	115	92	3.1	0.3
FEB										
11...	1.6	0.8	4.5	2.2	<0.1	6.3	132	22	0.8	0.2
MAY										
28...	1.5	0.9	3.1	2.0	<0.1	7.4	173	17	0.9	0.2
AUG										
06...	1.9	0.92	2.4	2.5	<0.1	7.9	185	19	2.8	<0.2

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07067500 BIG SPRING NEAR VAN BUREN, MO
(Ambient water-quality monitoring network)

WATER-QUALITY RECORDS

LOCATION.--Lat 36°57'05", long 90°59'36", in SW 1/4 NE 1/4 sec.6, T.26 N., R.1 E., Carter County, Hydrologic Unit 11010008, 0.4 mi upstream from Current River and 3.5 mi southeast of Van Buren.

PERIOD OF RECORD.--April 1973 to current year.

REMARKS.--Ozark Scenic Riverways station from April 1975 to 1996, ambient water-quality monitoring network station since November 1993.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
06...	1100	410	14.5	331	7.66	8.00	85	--	3	210	175
JAN											
21...	1315	395	14.5	328	7.38	8.90	87	<10	K3	K6	167
MAR											
26...	1050	890	13.5	245	6.89	9.60	90	--	K3	K4	131
APR											
07...	1515	930	13.5	242	6.84	10.20	96	--	K9	50	110
JUN											
10...	1345	880	14.0	220	7.82	8.90	86	<5	K4	36	163
AUG											
05...	1315	420	14.5	338	7.02	9.30	88	--	K1	K15	184

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)
NOV											
06...	214	0	0.40	<0.01	<0.01	<0.2	<0.02	<0.01	--	--	--
JAN											
21...	204	0	0.45	<0.01	0.02	<0.2	<0.02	0.01	170	35	19
MAR											
26...	160	0	0.49	<0.01	0.01	<0.2	<0.02	0.02	--	--	--
APR											
07...	134	0	0.37	<0.01	0.02	<0.2	0.03	0.01	--	--	--
JUN											
10...	199	0	0.03	<0.01	<0.01	<0.2	<0.02	<0.01	110	24	13
AUG											
05...	224	0	0.36	<0.01	<0.01	<0.2	<0.02	<0.01	--	--	--

DATE	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)
JAN											
21...	1.6	0.7	2.4	1.9	<0.1	168	4	40	13	<1	<1
JUN											
10...	2.2	1.2	8.2	2.2	<0.1	118	4	20	4.3	<1	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count)

07067500 BIG SPRING NEAR VAN BUREN, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)	PROP-CHLOR, WATER, DISS, REC (µg/L) (04024)	BUTYL-ATE, WATER, DISS, REC (µg/L) (04028)	SI-MAZINE, WATER, DISS, REC (µg/L) (04035)
NOV											
06...	--	--	--	--	--	--	--	--	<0.007	<0.002	<0.005
JAN											
21...	<1	5	<1	<1	<0.2	<0.1	2	<1	--	--	--
JUN											
10...	<1	2	1	<1	2.7	<0.1	<1	<1	--	--	--

DATE	PRO-METON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRA-ZINE, WATER, DISS, REC (µg/L) (04040)	CYANA-ZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	ALPHA BHC DIS-SOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	METO-LACHLOR WATER DISSOLV (µg/L) (39415)	LINDANE DIS-SOLVED (µg/L) (39341)	DI-ELDRIN DIS-SOLVED (µg/L) (39381)	ATRA-ZINE, WATER, DISS, REC (µg/L) (39632)	METRI-BUZIN SENCOR WATER DISSOLV (µg/L) (82630)
NOV											
06...	<0.018	<0.002	<0.004	<0.003	<0.002	<0.006	<0.002	<0.004	<0.001	<0.001	<0.004

DATE	FONOFOS WATER DISS REC (µg/L) (04095)	CHLOR-PYRIFOS DIS-SOLVED (µg/L) (38933)	MALA-THION, DIS-SOLVED (µg/L) (39532)	PARA-THION, DIS-SOLVED (µg/L) (39542)	DI-AZINON, DIS-SOLVED (µg/L) (39572)	ALA-CHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETO-CHLOR, WATER FLTRD REC (µg/L) (49260)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	ETHAL-FLUR-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)	TER-BACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)
NOV											
06...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007

DATE	LIN-URON WATER FLTRD 0.7 µ GF, REC (µg/L) (82666)	METHYL PARA-THION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEB-ULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBU-THIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOL-INATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHO-PROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BEN-FLUR-ALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBO-FURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TER-BUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRON-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
NOV											
06...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

DATE	DISUL-FOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIAL-LATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PRO-PANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CAR-BARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIO-BENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDI-METH-ALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROP-AMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PRO-PARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZIN-PHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PER-METHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
NOV											
06...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

07068000 CURRENT RIVER AT DONIPHAN, MO

LOCATION.--Lat 36°37'19", long 90°50'51", in NW 1/4 NW 1/4 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^2.

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 sea level. July 1936 to Sept. 30, 1971, datum was 1.00 ft higher. Prior to July 3, 1936, nonrecording gages at several sites 0.5 mi downstream at various datums.

REMARKS.--Estimated daily discharges: Dec. 20-25, Jan. 3-5, and Feb. 3. 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 March 1904 reached a stage of 25.9 ft, from floodmarks, present site and datum, discharge, 130,000 ft^3/s, from rating curve extended above 60,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3770	2280	5640	2680	2930	12800	3670	3100	12400	2750	1760	1560
2	3280	2180	5630	2620	2880	10300	3530	3090	6770	2570	1730	1570
3	2940	2090	5170	2600	3100	9950	3430	3240	5360	2450	1720	1660
4	2680	2010	4660	2580	3560	8190	3530	3140	4700	2430	1710	1670
5	2500	1950	4350	2560	4470	6800	10400	3040	4210	2400	1690	1550
6	2360	1910	4200	2540	4610	5920	14000	2980	3810	2290	1660	1530
7	2260	2730	4160	2460	4170	5330	13400	2920	3520	2220	1650	1520
8	2170	6430	3980	2390	3890	4930	8150	2920	3310	2170	1640	1540
9	2110	8650	3720	2380	3640	4720	6670	2910	3130	2140	1660	1570
10	2050	5490	3510	2360	3420	4820	5880	2830	2980	2110	1680	1590
11	1980	4480	3360	2320	3250	4890	5440	2760	2870	2080	1690	1580
12	1910	3900	3300	2260	3130	4790	5190	2720	2790	2050	1920	1560
13	1850	3420	3170	2180	3030	4780	4940	2690	2760	2020	1960	1530
14	1810	3080	3020	2130	2940	6390	4670	2720	2840	2040	1950	1510
15	1770	2880	3040	2140	2870	9280	4420	2750	3100	2050	1980	1500
16	1730	2730	4070	2160	2780	7190	4220	2640	3150	1960	1900	1500
17	1720	2660	4470	2130	2690	6030	4050	2580	2980	1930	1840	1550
18	1720	2640	4130	2080	2620	5500	3910	2620	3070	1910	1810	1600
19	1720	2630	3760	2050	2580	5280	3800	2580	3720	1890	1770	1590
20	1670	2600	3400	2050	2570	5000	3720	2530	3380	1870	1770	1600
21	1650	2540	3200	2100	3360	4720	3750	2470	3040	1860	1790	1560
22	1800	2450	3050	2900	7310	4510	3750	2430	2880	1890	1720	1590
23	1920	2350	3000	3910	6320	4310	3740	2380	2720	1850	1680	1620
24	2030	2520	3200	4280	5060	4110	3630	2400	2590	1820	1640	1750
25	2010	7490	3350	3910	4410	4010	3510	2430	2500	1800	1620	1820
26	1940	11700	3280	3570	4180	4250	3400	2860	2440	1790	1610	1800
27	1860	11400	3150	3310	7880	4370	3330	3190	2440	1770	1600	1720
28	1820	7130	3050	3200	18800	4320	3280	3020	2660	1820	1590	1650
29	2370	5740	2950	3130	---	4220	3230	2850	2640	1840	1580	1600
30	2520	5350	2850	3040	---	4060	3170	2890	2910	1840	1570	1570
31	2340	---	2760	2970	---	3850	---	6110	---	1800	1570	---
MEAN	2137	4180	3696	2677	4373	5794	5060	2896	3589	2045	1725	1599
MAX	3770	11700	5640	4280	18800	12800	14000	6110	12400	2750	1980	1820
MIN	1650	1910	2760	2050	2570	3850	3170	2380	2440	1770	1570	1500
IN.	1.21	2.29	2.09	1.51	2.24	3.28	2.77	1.64	1.97	1.16	.98	.88

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1997, BY WATER YEAR (WY)

MEAN	1650	2443	2742	2903	3098	3837	4656	4178	2999	1984	1683	1594
MAX	4596	8514	16210	9054	7971	9260	16140	10430	12610	7676	5001	4547
(WY)	1985	1994	1983	1949	1985	1935	1927	1957	1928	1951	1927	1993
MIN	872	927	950	917	1123	1218	1476	1183	1075	959	951	903
(WY)	1957	1955	1956	1956	1934	1941	1956	1936	1936	1934	1936	1954

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1921 - 1997	
ANNUAL MEAN	3088		3302		2809	
HIGHEST ANNUAL MEAN					5856	1985
LOWEST ANNUAL MEAN					1326	1954
HIGHEST DAILY MEAN	23100	Apr 24	18800	Feb 28	90000	Mar 12 1935
LOWEST DAILY MEAN	1300	Sep 14	1500	Sep 15,16	852	Oct 8 1956
ANNUAL SEVEN-DAY MINIMUM	1350	Sep 8	1530	Sep 11	852	Oct 8 1956
INSTANTANEOUS PEAK FLOW	---		23500	Feb 28	122000	Dec 3 1982
INSTANTANEOUS PEAK STAGE	---		10.74	Feb 28	25.49	Dec 3 1982
INSTANTANEOUS LOW FLOW	---		1500	Sep 15-17	852	Oct 8-19 1956
ANNUAL RUNOFF (INCHES)	20.63		22.00		18.73	
10 PERCENT EXCEEDS	5720		5350		5000	
50 PERCENT EXCEEDS	2240		2760		1940	
90 PERCENT EXCEEDS	1550		1660		1180	

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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
OCT											
23...	0930	1880	13.0	295	7.83	9.5	90	--	24	36	151
NOV											
05...	1400	1950	13.0	310	7.88	11.4	106	31	K3	K18	147
DEC											
18...	0930	4160	6.5	245	7.69	10.8	86	--	K17	77	132
JAN											
22...	0800	2440	9.5	309	8.00	10.8	94	<10	58	370	154
FEB											
20...	1430	2580	12.0	270	7.81	11.0	100	--	K2	K1	141
MAR											
27...	0645	4350	12.0	251	7.36	10.7	97	--	K11	K6	134
APR											
08...	0715	8420	13.0	215	7.24	9.9	92	--	110	74	99
MAY											
29...	0855	2870	17.0	310	8.22	9.9	100	--	K14	K8	160
JUN											
11...	1600	2850	19.5	280	7.83	10.4	112	<5	K8	K6	138
JUL											
29...	1515	1830	24.0	320	8.19	9.4	108	--	41	29	166
AUG											
06...	1445	1670	24.0	323	7.89	10.8	125	--	K3	K7	166
SEP											
05...	0945	1560	20.0	332	8.06	9.1	97	--	K11	K4	171

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
OCT										
23...	184	0	0.32	<0.01	<0.01	0.21	<0.02	<0.01	--	--
NOV										
05...	179	0	0.22	<0.01	0.01	0.24	<0.02	<0.01	170	34
DEC										
18...	161	0	0.30	<0.01	0.02	<0.20	0.02	<0.01	--	--
JAN										
22...	188	0	0.27	<0.01	0.02	<0.20	<0.02	<0.01	150	32
FEB										
20...	172	0	0.26	<0.01	0.02	<0.20	<0.02	<0.01	--	--
MAR										
27...	163	0	0.27	<0.01	<0.01	<0.20	<0.02	<0.01	--	--
APR										
08...	120	0	0.23	<0.01	0.02	0.22	0.02	<0.01	--	--
MAY										
29...	205	0	0.32	<0.01	<0.01	<0.20	0.04	0.01	--	--
JUN										
11...	168	0	0.25	<0.01	<0.01	<0.20	<0.02	<0.01	150	32
JUL										
29...	203	0	0.25	<0.01	0.02	<0.20	<0.02	0.01	--	--
AUG										
06...	202	0	0.20	<0.01	0.02	<0.20	<0.02	<0.01	170	35
SEP										
05...	209	0	0.18	<0.01	0.02	<0.20	<0.02	<0.01	--	--

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07068000 CURRENT RIVER AT DONIPHAN, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MAGNESIUM, DISSOLVED (µg/L as Mg) (00925)	SODIUM, DISSOLVED (µg/L as Na) (00930)	POTASSIUM, DISSOLVED (µg/L as K) (00935)	SULFATE DISSOLVED (µg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (µg/L as Cl) (00940)	FLUORIDE, DISSOLVED (µg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)
NOV										
05...	20	<0.1	0.9	3.3	8.6	<0.1	180	2	40	5.3
JAN										
22...	18	1.5	0.7	3.9	2.4	<0.1	154	8	90	14
JUN										
11...	18	1.4	0.9	3.5	2.3	<0.1	148	3	80	4.6
AUG										
06...	20	1.7	0.9	2.9	2.6	<0.1	178	4	40	<3.0

DATE	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)	COPPER, DISSOLVED (µg/L as Cu) (01040)	IRON, DISSOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	LEAD, DISSOLVED (µg/L as Pb) (01049)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOVERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)	ZINC, DISSOLVED (µg/L as Zn) (01090)
NOV										
05...	<1	<1	3.1	6	3	<1	2.5	<0.1	6	3.4
JAN										
22...	<1	<1	<1.0	9	<1	<1	4.6	<0.1	2	<1.0
JUN										
11...	<1	<1	<1.0	1	<1	<1	4.8	<0.1	<1	<1.0
AUG										
06...	<1	<1	<1.0	4	<1	<1	3.4	<0.1	<1	<1.0

07071000 GREER SPRING AT GREER, MO

LOCATION.--Lat 36°47'11", long 91°20'53", 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 (gage height and discharge measurements only), October 1921 to current year. October to December 1921 monthly discharge only, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 564.00 ft above sea level. 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.--Estimated daily discharges: Mar. 14 to Apr. 7. Water-discharge records fair. Occasional runoff from drainage area of 2.97 mi^2 included in record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	514	342	553	456	409	608	510	468	439	407	363	327
2	517	346	546	453	409	651	510	473	448	405	361	323
3	502	342	542	448	417	648	510	477	448	405	359	321
4	492	343	534	448	456	645	550	470	448	405	359	321
5	483	339	531	445	458	630	650	463	448	405	359	321
6	470	335	531	436	458	621	625	461	448	402	357	321
7	458	425	523	433	458	609	610	459	443	397	355	321
8	448	516	518	428	456	597	605	458	441	395	355	321
9	436	512	512	428	453	592	601	456	440	395	355	321
10	430	502	507	422	446	597	599	453	436	393	355	321
11	421	491	502	421	436	591	590	453	433	395	354	321
12	416	471	492	423	433	585	581	451	428	391	350	318
13	411	465	488	419	433	577	570	453	428	390	350	313
14	402	458	481	421	433	575	561	453	428	388	350	312
15	397	446	484	409	430	580	559	446	428	386	350	312
16	386	438	503	405	421	570	552	443	428	386	350	312
17	383	436	515	405	410	565	542	446	424	383	348	312
18	379	433	515	405	409	560	537	448	428	381	346	315
19	377	433	515	400	409	555	531	443	428	381	346	305
20	374	433	510	393	406	550	525	443	431	381	346	304
21	370	431	494	391	442	545	518	438	430	381	344	300
22	364	421	488	406	467	540	510	441	428	381	341	300
23	367	416	479	416	473	535	505	443	426	377	341	300
24	365	417	478	421	473	530	500	441	423	377	341	300
25	363	502	475	423	468	530	496	435	423	374	337	302
26	357	567	470	423	484	525	486	433	419	372	337	300
27	352	557	468	419	603	525	483	430	416	372	337	298
28	346	548	468	419	603	520	483	433	409	368	337	296
29	342	542	463	414	---	520	478	433	409	366	333	296
30	346	546	458	409	---	515	475	433	409	363	333	292
31	344	---	458	409	---	515	---	436	---	363	331	---
MEAN	407	448	500	421	452	571	542	449	431	386	348	311
MAX	517	567	553	456	603	651	650	477	448	407	363	327
MIN	342	335	458	391	406	515	475	430	409	363	331	292

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

MEAN	261	289	311	333	349	395	448	448	405	339	298	271
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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1922 - 1997	
ANNUAL MEAN	406		439		346	
HIGHEST ANNUAL MEAN					566	1928
LOWEST ANNUAL MEAN					174	1956
HIGHEST DAILY MEAN	685	May 11	651	Mar 2	1010	Dec 3 1982
LOWEST DAILY MEAN	296	Mar 4	292	Sep 30	104	Nov 16 1956
ANNUAL SEVEN-DAY MINIMUM	299	Feb 28	298	Sep 24	105	Nov 13 1956
INSTANTANEOUS PEAK FLOW	---		726	Apr 5	1770	Dec 3 1982
INSTANTANEOUS PEAK STAGE	---		1.62	Apr 5	2.97	Dec 3 1982
INSTANTANEOUS LOW FLOW	---		292	Sep 30	104	Nov 16 1956
10 PERCENT EXCEEDS	536		551		549	
50 PERCENT EXCEEDS	384		433		327	
90 PERCENT EXCEEDS	305		337		171	

07071000 GREER SPRING AT GREER, MO--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DISCHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPERATURE WATER (DEG C) (00010)	SPECIFIC CONDUCTANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	OXYGEN, DISSOLVED (mg/L) (00300)	OXYGEN, DISSOLVED (PERCENT SATURATION) (00301)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (mg/L) (00340)	COLIFORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKALINITY WAT WH TOT FET FIELD mg/L as $CaCO_3$) (00410)
NOV											
05...	0830	341	14.0	323	7.67	8.2	80	43	K8	21	163
FEB											
06...	1230	458	13.0	309	6.73	10.3	97	<10	K10	K17	155
APR											
08...	1245	605	13.5	282	6.79	8.9	85	--	29	150	127
JUL											
29...	1115	366	13.0	351	7.17	8.9	84	--	29	150	178

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	PHOSPHORUS ORTHO TOTAL (mg/L as P) (70507)	HARDNESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DISSOLVED (mg/L as Ca) (00915)	MAGNESIUM, DISSOLVED (mg/L as Mg) (00925)
NOV											
05...	199	0	0.87	<0.01	<0.01	<0.2	<0.02	0.01	170	36	20
FEB											
06...	189	0	0.06	0.03	0.05	<0.2	<0.02	0.05	160	34	19
APR											
08...	155	0	0.87	<0.01	0.02	<0.2	0.02	0.01	140	29	16
JUL											
29...	217	0	0.80	<0.01	0.02	<0.2	<0.02	0.01	180	38	21

DATE	SODIUM, DISSOLVED (mg/L as Na) (00930)	POTASSIUM, DISSOLVED (mg/L as K) (00935)	SULFATE DISSOLVED (mg/L as SO_4) (00945)	CHLORIDE, DISSOLVED (mg/L as Cl) (00940)	FLUORIDE, DISSOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	ALUMINUM, TOTAL RECOVERABLE (µg/L as Al) (01105)	ALUMINUM, DISSOLVED (µg/L as Al) (01106)	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	CADMIUM DISSOLVED (µg/L as Cd) (01025)
NOV											
05...	--	1.3	2.4	3.3	<0.1	174	<1	40	6.2	<1	<1
FEB											
06...	1.6	1.2	2.4	2.7	--	168	<1	60	3.4	<1	<1
APR											
08...	1.6	1.2	240	2.7	<0.1	142	10	80	24	<1	<1
JUL											
29...	1.5	1.3	2.2	2.6	<0.1	142	<1	30	5.5	<1	<1

DATE	COPPER, DISSOLVED (µg/L as Cu) (01040)	IRON, DISSOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	LEAD, DISSOLVED (µg/L as Pb) (01049)	MANGANESE, DISSOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOVERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)	ZINC, DISSOLVED (µg/L as Zn) (01090)	PROPCHLOR, WATER, DISS, REC (µg/L) (04024)	BUTYLATE, WATER, DISS, REC (µg/L) (04028)	SIMAZINE, WATER, DISS, REC (µg/L) (04035)
NOV											
05...	<1	3	1	<1	0.6	<0.1	2	<1.0	<0.007	<0.002	<0.005
FEB											
06...	<1	1	<1	<1	0.2	<0.1	3	3.0	<0.007	<0.002	<0.005
APR											
08...	<1	10	1	<1	0.5	<0.1	1	2.1	<0.007	<0.002	<0.005
JUL											
29...	<1	6	2	<1	1.4	<0.1	3	6.6	<0.007	<0.002	<0.005

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07071000 GREER SPRING AT GREER, MO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	PROMETON, WATER, DISS, REC (µg/L) (04037)	DEETHYL ATRAZINE, WATER, DISS, REC (µg/L) (04040)	CYANAZINE, WATER, DISS, REC (µg/L) (04041)	FONOFOS WATER DISS REC (µg/L) (04095)	ALPHA BHC DISSOLVED (µg/L) (34253)	P,P' DDE DISSOLV (µg/L) (34653)	METOLACHLOR WATER DISSOLV (µg/L) (39415)	LINDANE DISSOLVED (µg/L) (39341)	DIELDRIN DISSOLVED (µg/L) (39381)	ATRAZINE, WATER, DISS, REC (µg/L) (39632)	METRIBUZIN SENCOR WATER DISSOLV (µg/L) (82630)
NOV											
05...	<0.018	<0.002	<0.004	<0.003	<0.002	<0.006	E0.002	<0.004	<0.001	0.006	<0.004
FEB											
06...	<0.018	<0.002	<0.004	<0.003	<0.002	<0.006	<0.002	<0.004	<0.001	<0.001	<0.004
APR											
08...	<0.018	<0.002	<0.004	<0.003	<0.002	<0.006	<0.002	<0.004	<0.001	0.006	<0.004
JUL											
29...	<0.018	<0.002	<0.004	<0.003	<0.002	<0.006	<0.002	<0.004	<0.001	0.006	<0.004

DATE	FONOFOS WATER DISS REC (µg/L) (04095)	CHLORPYRIFOS DISSOLVED (µg/L) (38933)	MALATHION, DISSOLVED (µg/L) (39532)	PARATHION, DISSOLVED (µg/L) (39542)	DIAZINON, DISSOLVED (µg/L) (39572)	ALACHLOR, WATER, DISS, REC, (µg/L) (46342)	ACETOCHLOR, WATER FLTRD REC (µg/L) (49260)	2,6-DIETHYL ANILINE WAT FLT 0.7 µ GF, REC (µg/L) (82660)	ETHALFLURALIN WAT FLT 0.7 µ GF, REC (µg/L) (82663)	PHORATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82664)	TERBACIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82665)
NOV											
05...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
FEB											
06...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
APR											
08...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007
JUL											
29...	<0.003	<0.004	<0.005	<0.004	<0.002	<0.002	<0.002	<0.003	<0.004	<0.002	<0.007

DATE	LINURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82666)	METHYL PARATHION WAT FLT 0.7 µ GF, REC (µg/L) (82667)	EPTC WATER FLTRD 0.7 µ GF, REC (µg/L) (82668)	PEBULATE WATER FILTRD 0.7 µ GF, REC (µg/L) (82669)	TEBUTHIURON WATER FLTRD 0.7 µ GF, REC (µg/L) (82670)	MOLINATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82671)	ETHOPROP WATER FLTRD 0.7 µ GF, REC (µg/L) (82672)	BENFLURALIN WAT FLD 0.7 µ GF, REC (µg/L) (82673)	CARBOFURAN WATER FLTRD 0.7 µ GF, REC (µg/L) (82674)	TERBUFOS WATER FLTRD 0.7 µ GF, REC (µg/L) (82675)	PRONAMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82676)
NOV											
05...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
FEB											
06...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
APR											
08...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003
JUL											
29...	<0.002	<0.006	<0.002	<0.004	<0.010	<0.004	<0.003	<0.002	<0.003	<0.013	<0.003

DATE	DISULFOTON WATER FLTRD 0.7 µ GF, REC (µg/L) (82677)	TRIALLATE WATER FLTRD 0.7 µ GF, REC (µg/L) (82678)	PROPANIL WATER FLTRD 0.7 µ GF, REC (µg/L) (82679)	CARBARYL WATER FLTRD 0.7 µ GF, REC (µg/L) (82680)	THIOBENCARB WATER FLTRD 0.7 µ GF, REC (µg/L) (82681)	DCPA WATER FLTRD 0.7 µ GF, REC (µg/L) (82682)	PENDIMETHALIN WAT FLT 0.7 µ GF, REC (µg/L) (82683)	NAPROPAMIDE WATER FLTRD 0.7 µ GF, REC (µg/L) (82684)	PROPARGITE WATER FLTRD 0.7 µ GF, REC (µg/L) (82685)	METHYL AZINPHOS WAT FLT 0.7 µ GF, REC (µg/L) (82686)	PERMETHRIN CIS WAT FLT 0.7 µ GF, REC (µg/L) (82687)
NOV											
05...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
FEB											
06...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
APR											
08...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005
JUL											
29...	<0.017	<0.001	<0.004	<0.003	<0.002	<0.002	<0.004	<0.003	<0.013	<0.001	<0.005

E--Laboratory estimated value.

07071500 ELEVEN POINT RIVER NEAR BARDLEY, MO

LOCATION.--Lat 36°38'55", long 91°12'03", in NE 1/4 SE 1/4 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^2.

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 sea level. 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^3/s, from rating curve extended above 25,000 ft^3/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1210	606	1800	963	873	2240	1190	1110	900	685	560	496
2	1110	642	1700	953	857	4100	1170	1110	895	676	556	487
3	1020	630	1590	944	881	3230	1150	1270	878	668	554	489
4	952	612	1460	948	1420	2680	1250	1240	857	664	552	471
5	902	602	1450	947	1350	2310	5810	1180	843	653	546	467
6	861	594	1460	921	1250	2040	5430	1150	830	646	539	465
7	827	1660	1420	892	1200	1870	3140	1120	820	640	537	464
8	801	2370	1330	881	1160	1760	2470	1110	805	635	536	470
9	778	1710	1270	890	1100	1750	2180	1080	791	631	544	469
10	754	1440	1230	870	1070	1950	2000	1040	782	625	540	468
11	722	1270	1200	843	1050	1890	1910	1030	774	620	537	461
12	702	1150	1190	820	1030	1770	1840	1020	771	616	583	454
13	687	1070	1140	798	1010	1830	1720	1010	783	613	559	450
14	669	1020	1100	785	992	2690	1630	1020	776	620	552	448
15	655	979	1160	802	963	2290	1560	994	757	622	567	445
16	642	948	1400	791	938	2040	1500	970	749	615	548	444
17	637	954	1430	765	913	1920	1460	963	747	602	537	469
18	632	985	1350	755	902	1850	1420	958	755	596	532	457
19	611	984	1280	750	897	1780	1410	960	754	592	529	446
20	603	965	1210	747	898	1700	1370	936	744	588	524	451
21	603	939	1170	768	1030	1650	1390	917	739	646	517	443
22	629	894	1150	966	1210	1590	1350	901	735	644	510	435
23	645	862	1140	1100	1190	1510	1320	891	719	610	506	455
24	628	958	1110	1080	1150	1450	1270	891	712	592	503	473
25	611	2360	1080	1040	1110	1440	1230	901	704	583	500	462
26	600	3200	1070	980	1180	1390	1190	937	697	576	496	447
27	587	2190	1070	966	3070	1340	1190	926	712	578	494	440
28	577	1840	1050	927	2750	1340	1170	895	706	601	490	438
29	572	1690	1030	891	---	1320	1150	869	697	594	486	432
30	567	1740	1000	876	---	1270	1130	876	700	579	483	428
31	561	---	981	875	---	1230	---	899	---	568	486	---
MEAN	721	1262	1259	888	1194	1910	1800	1006	771	619	529	457
MAX	1210	3200	1800	1100	3070	4100	5810	1270	900	685	583	496
MIN	561	594	981	747	857	1230	1130	869	697	568	483	428
IN.	1.05	1.78	1.83	1.29	1.57	2.78	2.53	1.46	1.09	.90	.77	.64

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1997, BY WATER YEAR (WY)

MEAN	430	612	732	810	848	1070	1331	1173	900	616	492	440
MAX	1291	2082	4048	3007	2223	3556	5037	2952	3107	1559	1354	1183
(WY)	1985	1994	1983	1985	1949	1945	1927	1973	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1922 - 1997	
ANNUAL MEAN	853		1033		787	
HIGHEST ANNUAL MEAN					1782	1985
LOWEST ANNUAL MEAN					310	1981
HIGHEST DAILY MEAN	5070	Sep 27	5810	Apr 5	26800	Apr 14 1927
LOWEST DAILY MEAN	393	Mar 4	428	Sep 30	155	Jan 26 1956
ANNUAL SEVEN-DAY MINIMUM	401	Feb 29	446	Sep 24	157	Jan 21 1956
INSTANTANEOUS PEAK FLOW	---		7890	Apr 5	49800	Dec 3 1982
INSTANTANEOUS PEAK STAGE	---		9.41	Apr 5	21.64	Dec 3 1982
INSTANTANEOUS LOW FLOW	---		424	Sep 30	152	Jan 27 1956
ANNUAL RUNOFF (INCHES)	14.65		17.69		13.48	
10 PERCENT EXCEEDS	1450		1730		1440	
50 PERCENT EXCEEDS	654		898		565	
90 PERCENT EXCEEDS	436		498		265	

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 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (mg/L) (00340)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
NOV											
05...	1100	601	13.5	335	8.06	9.9	93	--	K6	K18	178
JAN											
22...	1100	951	12.0	335	7.96	10.7	100	<10	K14	55	168
MAR											
27...	1010	1340	12.0	270	7.31	10.7	97	--	K17	K11	138
APR											
08...	0950	2500	13.0	242	7.19	11.1	103	--	180	141	115
JUN											
11...	1815	769	18.0	337	7.98	8.5	90	<5	24	K9	172
AUG											
06...	1655	538	19.5	349	7.56	10.6	112	--	K4	20	180

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
NOV										
05...	217	0	0.60	<0.01	0.01	<0.20	<0.02	<0.01	--	--
JAN										
22...	205	0	0.71	<0.01	0.02	<0.20	<0.02	<0.01	170	36
MAR										
27...	168	0	0.58	<0.01	<0.01	<0.20	<0.02	<0.01	--	--
APR										
08...	140	0	0.45	<0.01	0.02	<0.20	0.02	0.01	--	--
JUN										
11...	209	0	0.56	<0.01	0.02	0.26	<0.02	<0.01	190	39
AUG										
06...	223	0	0.51	<0.01	0.02	<0.20	<0.02	<0.01	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (mg/L) (00530)	ALUM-INUM, TOTAL RECOV-ERABLE (µg/L as Al) (01105)	ALUM-INUM, DIS-SOLVED (µg/L as Al) (01106)
JAN										
22...	20	1.5	1.1	2.8	2.5	<0.1	168	4	40	9.9
JUN										
11...	22	1.4	1.2	2.3	2.6	<0.1	182	3	60	5.1

DATE	CADMIUM TOTAL RECOV-ERABLE (µg/L as Cd) (01027)	CADMIUM DIS-SOLVED (µg/L as Cd) (01025)	COPPER, DIS-SOLVED (µg/L as Cu) (01040)	IRON, DIS-SOLVED (µg/L as Fe) (01046)	LEAD, TOTAL RECOV-ERABLE (µg/L as Pb) (01051)	LEAD, DIS-SOLVED (µg/L as Pb) (01049)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)	MERCURY TOTAL RECOV-ERABLE (µg/L as Hg) (71900)	ZINC, TOTAL RECOV-ERABLE (µg/L as Zn) (01092)	ZINC, DIS-SOLVED (µg/L as Zn) (01090)
JAN										
22...	<1	<1	<1	8	<1	<1	3.5	<0.1	1	<1
JUN										
11...	<1	<1	<1	4	<1	<1	5.7	<0.1	<1	<1

K--Results based on colony count outside the acceptable range (non-ideal colony count).

07186000 SPRING RIVER NEAR WACO, MO

LOCATION.--Lat 37°14'44", long 94°33'58", 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^2.

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 sea level. Prior to Feb. 23, 1935, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Jan. 11-19. Records good. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	555	785	3420	420	393	3060	877	327	960	3200	157	110
2	466	693	2660	414	406	2300	814	339	541	1950	150	108
3	409	616	1930	416	399	1900	757	343	434	509	147	133
4	367	566	1510	405	378	1550	752	349	386	311	145	250
5	336	543	1340	392	362	1350	970	330	350	255	142	148
6	310	2460	1240	376	341	1210	1100	314	312	225	135	125
7	289	15400	1150	362	330	1100	983	308	286	203	133	116
8	272	13200	1050	355	330	1010	780	420	269	199	126	112
9	256	6820	969	368	328	1010	710	504	251	15600	123	108
10	242	2750	924	363	322	1690	666	443	247	4500	122	101
11	232	1550	877	355	316	1690	655	380	243	2570	130	97
12	221	1310	830	345	307	1290	669	340	255	3670	152	94
13	210	1150	778	335	299	1610	643	316	256	1350	169	98
14	201	1090	739	325	293	4180	603	304	245	760	174	113
15	196	1060	710	320	286	3490	563	285	242	553	173	105
16	189	1270	690	315	278	1820	531	270	516	448	165	98
17	183	11000	662	310	273	1380	507	262	889	381	174	97
18	177	9390	632	300	267	1260	485	255	2520	342	174	96
19	171	4990	596	293	261	1500	465	258	1410	311	230	93
20	168	2370	558	297	417	1550	451	246	503	280	344	91
21	181	1620	546	339	12500	1320	438	239	327	275	495	86
22	228	1410	539	600	15800	1110	431	228	263	463	276	83
23	693	1250	536	719	9500	969	419	223	243	359	208	98
24	615	1210	520	650	4260	887	410	220	235	327	182	149
25	457	1550	491	735	1710	3490	397	216	212	253	164	239
26	319	1620	471	688	4480	4250	380	214	1010	219	149	296
27	2090	1380	475	556	9320	2430	375	216	2640	196	138	220
28	6970	1230	466	467	5760	1470	363	213	1770	181	117	178
29	3240	1560	453	413	---	1230	355	211	765	178	115	160
30	1720	3720	440	411	---	1070	342	1380	2850	171	115	145
31	985	---	428	396	---	962	---	1610	---	161	114	---
MEAN	740	3185	924	421	2497	1779	596	373	714	1303	172	132
MAX	6970	15400	3420	735	15800	4250	1100	1610	2850	15600	495	296
MIN	168	543	428	293	261	887	342	211	212	161	114	83
IN.	.73	3.05	.91	.42	2.23	1.76	.57	.37	.68	1.29	.17	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 1997, BY WATER YEAR (WY)

MEAN	643	984	722	705	922	1197	1470	1556	1416	706	447	584
MAX	6997	6726	4704	3222	6372	5809	7542	11640	5521	4323	7812	10260
(WY)	1942	1986	1993	1973	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1924 - 1997	
ANNUAL MEAN	761		1057		939	
HIGHEST ANNUAL MEAN					3093	1993
LOWEST ANNUAL MEAN					61.4	1954
HIGHEST DAILY MEAN	15400	Nov 7	15800	Feb 22	108000	Sep 25 1993
LOWEST DAILY MEAN	34	Sep 14	83	Sep 22	4.5	Aug 28 1954
ANNUAL SEVEN-DAY MINIMUM	38	Sep 8	92	Sep 16	5.0	Sep 2 1954
INSTANTANEOUS PEAK FLOW	---		18600	Jul 9	151000[a]	Sep 26 1993
INSTANTANEOUS PEAK STAGE	---		18.75	Jul 9	34.06	Sep 26 1993
INSTANTANEOUS LOW FLOW	---		83	Sep 22	4.2	Jul 28 1954
ANNUAL RUNOFF (INCHES)	8.90		12.33		10.96	
10 PERCENT EXCEEDS	1650		2170		1840	
50 PERCENT EXCEEDS	177		397		298	
90 PERCENT EXCEEDS	62		148		65	

[a]From rating curve extended above 85,000 ft^3/s.

07187000 SHOAL CREEK ABOVE JOPLIN, MO

LOCATION.--Lat 37°01'23", long 94°30'58", in SE 1/4 NE 1/4 NE 1/4 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^2.

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 sea level. Prior to July 21, 1966, water-stage recorder at site 1.8 mi upstream, at datum 15.5 ft higher; Apr. 21, 1924, to Nov. 6, 1941, records were collected at site about 3 mi downstream, datum unknown.

REMARKS.--No estimated daily discharges. Records good. Several observations of water temperature were made during the year. U.S. Army Corps of Engineers satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	529	557	1080	320	239	1210	596	303	1200	515	154	155
2	445	494	1060	315	234	1100	571	322	950	429	151	148
3	381	440	994	310	228	1010	545	315	813	375	149	145
4	337	414	918	307	224	942	563	300	709	351	145	140
5	302	384	872	301	221	884	600	287	627	312	140	137
6	276	863	829	290	218	820	572	280	560	290	136	135
7	251	2480	777	283	220	767	536	288	503	268	137	134
8	232	2220	723	284	220	725	526	396	453	267	139	131
9	218	1370	682	298	214	768	523	419	417	269	140	130
10	205	1130	652	288	210	918	499	373	396	267	140	126
11	192	979	627	271	208	884	500	348	367	297	152	124
12	185	869	595	258	206	847	497	332	459	284	208	123
13	178	793	564	309	204	878	475	315	485	250	239	139
14	168	751	538	263	202	996	456	310	444	233	219	152
15	163	694	521	251	198	976	443	296	398	222	215	140
16	159	686	495	248	196	932	431	281	417	214	203	129
17	154	2270	482	242	191	889	417	267	411	206	247	126
18	150	1750	459	236	189	856	407	258	393	201	305	125
19	145	1280	440	232	189	812	397	250	359	208	284	123
20	143	1110	423	233	314	763	389	245	334	194	267	120
21	151	991	414	237	3840	728	381	237	313	191	240	122
22	228	890	410	268	2190	691	373	229	297	195	223	120
23	216	820	402	269	1460	652	364	224	282	189	209	165
24	198	830	385	272	1200	623	356	220	264	181	198	271
25	183	854	369	270	1050	745	345	217	253	175	186	339
26	172	833	365	258	1200	817	336	225	257	166	179	275
27	1340	797	360	258	1520	763	334	677	257	163	172	234
28	1360	780	354	248	1330	743	326	640	320	161	166	214
29	910	828	347	243	---	709	314	401	570	164	162	198
30	732	1010	336	241	---	670	308	1800	600	168	157	184
31	612	---	328	240	---	626	---	2320	---	159	159	---
MEAN	352	1006	574	269	647	830	446	431	470	244	188	160
MAX	1360	2480	1080	320	3840	1210	600	2320	1200	515	305	339
MIN	143	384	328	232	189	623	308	217	253	159	136	120
IN.	.95	2.63	1.55	.73	1.58	2.24	1.17	1.17	1.23	.66	.51	.42

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 1997, BY WATER YEAR (WY)

MEAN	294	423	364	326	385	558	667	710	580	348	218	258
MAX	1709	2034	1993	1145	1233	1961	3281	4691	2470	2049	2337	1872
(WY)	1960	1986	1993	1973	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 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1942 - 1997	
ANNUAL MEAN	309		466		427	
HIGHEST ANNUAL MEAN					1221	1993
LOWEST ANNUAL MEAN					77.8	1954
HIGHEST DAILY MEAN	3960	Sep 26	3840	Feb 21	36700	May 18 1943
LOWEST DAILY MEAN	62	Sep 12-14	120	Sep 20,22	15	Sep 7 1954
ANNUAL SEVEN-DAY MINIMUM	64	Sep 8	124	Sep 16	16	Sep 1 1954
INSTANTANEOUS PEAK FLOW	---		4650	Feb 21	62100	May 18 1943
INSTANTANEOUS PEAK STAGE	---		8.17	Feb 21	16.80[a]	May 18 1943
INSTANTANEOUS LOW FLOW	---		117	Sep 12,13, 19,20,22,23	12	Sep 7 1954
ANNUAL RUNOFF (INCHES)	9.87		14.82		13.59	
10 PERCENT EXCEEDS	793		918		884	
50 PERCENT EXCEEDS	147		313		235	
90 PERCENT EXCEEDS	79		154		86	

[a]Former site and datum.

07189000 ELK RIVER NEAR TIFF CITY, MO

LOCATION.--Lat 36°37'53", long 94°35'12", in NE 1/4 NE 1/4 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^2.

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 sea level (levels by the U.S. Army Corps of Engineers). Sept. 6, 1960 to Aug. 25, 1961, at site 100 ft downstream.

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 1996 TO SEPTEMBER 1997
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	863	434	5000	342	279	3040	1060	401	1140	980	130	187
2	640	487	3890	334	277	2550	965	411	874	725	122	176
3	518	508	3070	330	272	2180	880	416	692	574	117	166
4	436	475	2480	323	271	1900	836	410	582	490	113	154
5	376	435	2100	317	284	1640	924	396	508	425	109	147
6	331	505	1840	300	296	1490	923	384	454	379	104	140
7	291	7270	1590	290	301	1330	896	385	408	338	106	135
8	257	8690	1360	282	310	1200	878	530	371	303	104	131
9	227	3840	1190	292	346	1270	909	787	331	278	104	129
10	200	2640	1040	295	377	3080	909	850	309	276	105	123
11	180	1980	971	287	390	2940	868	740	295	511	122	119
12	165	1540	891	271	397	2430	945	655	315	510	231	113
13	149	1250	806	252	390	2260	964	593	435	441	315	134
14	141	1040	742	244	385	2660	945	562	441	388	266	228
15	132	982	688	247	372	2840	907	526	398	344	262	263
16	131	935	646	244	360	2460	841	481	382	308	253	229
17	127	4900	609	236	347	2140	778	452	405	282	416	197
18	120	5310	569	227	338	1880	733	423	501	272	1010	177
19	117	3290	534	226	330	1630	688	391	798	245	969	165
20	118	2500	505	231	529	1450	654	372	638	219	715	150
21	124	1950	486	243	17000	1290	608	348	530	209	559	142
22	148	1610	475	260	8740	1180	578	324	463	200	462	137
23	153	1340	458	279	4400	1040	549	304	407	184	409	176
24	163	1270	439	298	3170	953	518	294	363	173	363	422
25	157	2980	423	304	2510	1170	496	285	323	163	317	1180
26	145	3220	404	308	2380	1890	470	273	304	153	287	1360
27	156	2580	396	305	3790	1950	456	376	303	145	259	1000
28	353	2250	391	297	3620	1790	443	540	298	139	236	738
29	513	2350	378	291	---	1550	425	429	1010	135	216	582
30	513	5230	362	283	---	1350	411	417	1040	139	202	484
31	439	---	350	282	---	1190	---	1390	---	136	195	---
MEAN	270	2460	1132	281	1874	1862	749	489	511	325	296	316
MAX	863	8690	5000	342	17000	3080	1060	1390	1140	980	1010	1360
MIN	117	434	350	226	271	953	411	273	295	135	104	113
IN.	.36	3.15	1.50	.37	2.24	2.46	.96	.65	.65	.43	.39	.40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 1997, BY WATER YEAR (WY)

MEAN	424	761	782	680	871	1328	1644	1530	975	476	267	305
MAX	2938	4094	3651	2509	2971	5020	6119	8964	4245	2565	2418	2164
(WY)	1942	1975	1993	1985	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

SUMMARY STATISTICS	FOR 1996 CALENDAR YEAR		FOR 1997 WATER YEAR		WATER YEARS 1940 - 1997	
ANNUAL MEAN	584		871		836	
HIGHEST ANNUAL MEAN					1881	1993
LOWEST ANNUAL MEAN					135	1954
HIGHEST DAILY MEAN	8690	Nov 8	17000	Feb 21	68600	Apr 19 1941
LOWEST DAILY MEAN	54	Sep 11	104	Aug 6	5.1	Sep 5 1954
ANNUAL SEVEN-DAY MINIMUM	55	Sep 8	106	Aug 4	5.6	Sep 2 1954
INSTANTANEOUS PEAK FLOW	---		22700	Feb 21	137000[a]	Apr 19 1941
INSTANTANEOUS PEAK STAGE	---		17.88	Feb 21	28.40[b]	Apr 19 1941
ANNUAL RUNOFF (INCHES)	9.12		13.56		13.02	
10 PERCENT EXCEEDS	1220		2160		1770	
50 PERCENT EXCEEDS	266		416		341	
90 PERCENT EXCEEDS	69		148		86	

[a]From rating curve extended above 60,000 ft^3/s on basis of slope-area measurement of peak flow.
[b]From floodmark.

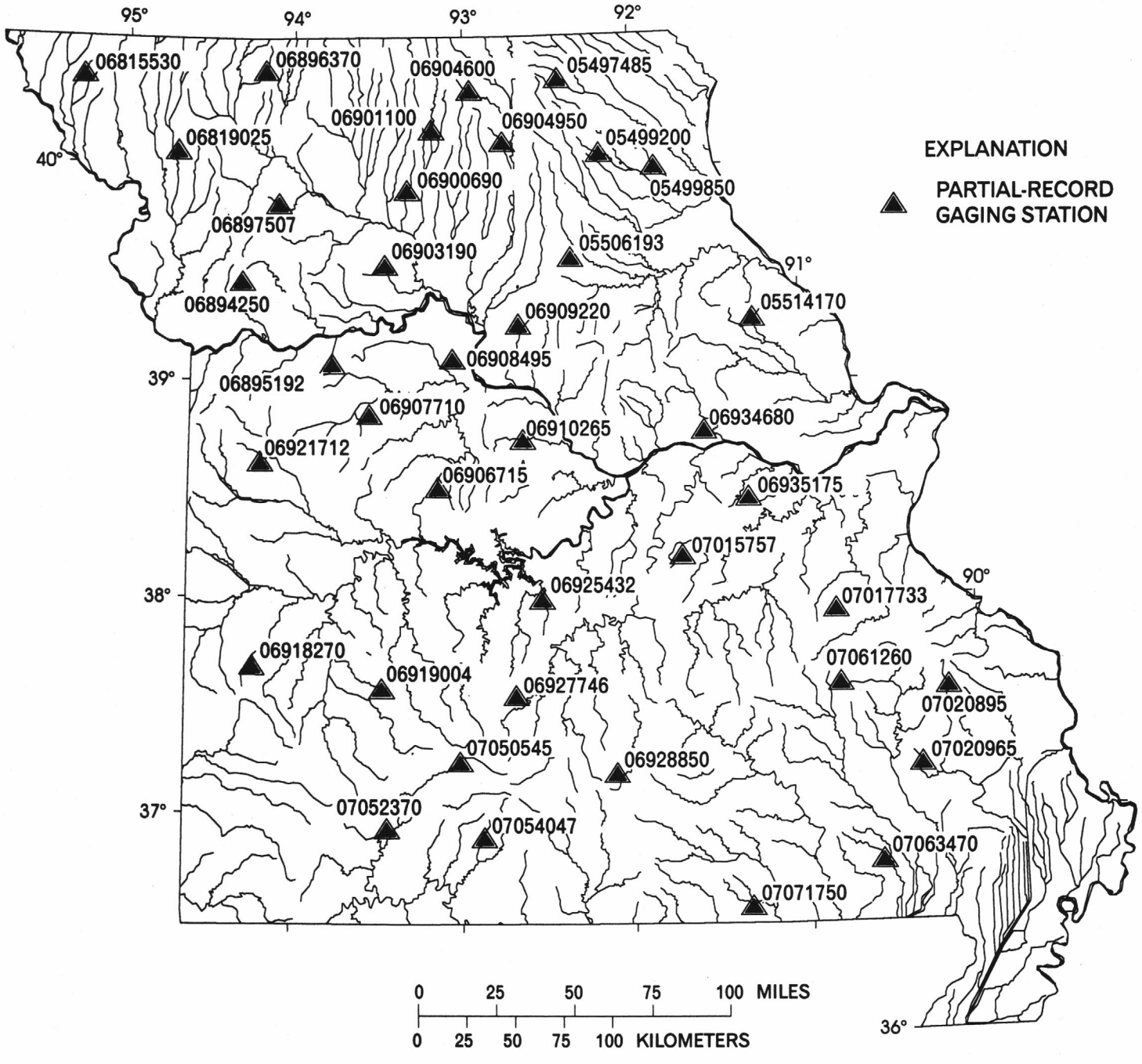

Figure 7. Location of partial-record surface-water stations

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 1997 maximum			Period of record maximum		
			Probable Date	Gage height (feet)	Discharge (ft^3/s)	Probable Date	Gage height (feet)	Discharge (ft^3/s)
	Fabius River Basin							
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^2, slope 23.1 ft/mi.	1997	+	+	+			
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^2, slope 7.02 ft/mi.	1997	+	+	+			
05499850 Troublesome Creek near Lewistown, 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^2, slope 4.57 ft/mi.	1997	+	+	+			
	Salt River Basin							
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^2, slope 11.6 ft/mi.	1997	+	+	+			
	Cuivre River Basin							
05514170 Irvine Branch near Bowling Green, Mo.	Lat 39°17'24", 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^2, slope 26.3 ft/mi.	1997	+	+	+			

Maximum discharge at crest-stage partial-record stations--continued

Station Number and Name	Location and Basin Characteristics	Period of record	Water year 1997 maximum			Period of record maximum		
			Probable Date	Gage height (feet)	Dis-charge (ft^3/s)	Probable Date	Gage height (feet)	Dis-charge (ft^3/s)
	Tarkio River Basin							
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^2, slope 19.0 ft/mi.	1997	+	+	+			
	Platte River Basin							
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^2, slope 24.5 ft/mi.	1997	+	+	+			
	Fishing River Basin							
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^2, slope 28.6 ft/mi.	1997	+	+	+			
	Tabo Creek Basin							
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^2, slope 11.4 ft/mi.	1997	+	+	+			
	Grand River Basin							
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^2, slope 14.2 ft/mi.	1997	+	+	+			
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^2, slope 17.1 ft/mi.	1997	+	+	+			

Maximum discharge at crest-stage partial-record stations--continued

Station Number and Name	Location and Basin Characteristics	Period of record	Water year 1997 maximum			Period of record maximum		
			Probable Date	Gage height (feet)	Discharge (ft^3/s)	Probable Date	Gage height (feet)	Discharge (ft^3/s)
	Grand River Basin-continued							
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^2, slope 13.5 ft/mi.	1997	+	+	+			
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^2.	1987-97	04-17	11.83	3,890	07-07-93	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^2, slope 30.6 ft/mi.	1997	+	+	+			
	Chariton River Basin							
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^2, slope 17.8 ft/mi.	1997	+	+	+			
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^2, slope 14.1 ft/mi.	1997	+	+	+			
	Lamine River Basin							
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^2, slope 35.3 ft/mi.	1997	+	+	+			

Maximum discharge at crest-stage partial-record stations--continued

Station Number and Name	Location and Basin Characteristics	Period of record	Water year 1997 maximum			Period of record maximum		
			Probable Date	Gage height (feet)	Dis-charge (ft^3/s)	Probable Date	Gage height (feet)	Dis-charge (ft^3/s)
	Lamine River Basin-continued							
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^2, slope 23.3 ft/mi.	1997	+	+	+			
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^2, slope 16.9 ft/mi.	1997	+	+	+			
	Bonne Femme Creek Basin							
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^2, slope 57.9 ft/mi.	1997	+	+	+			
	Moniteau Creek Basin							
06910265 Moniteau Creek near Califor-nia, 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^2, slope 16.0 ft/mi.	1997	+	+	+			
	Osage River Basin							
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. Drain-age area 23.2 mi^2, slope 13.5 ft/mi.	1997	02-21	13.91	+	02-21-97	13.91	+
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^2, slope 26.0 ft/mi.	1997	08-19	6.54	+	08-19-97	6.54	+

Maximum discharge at crest-stage partial-record stations--continued

Station Number and Name	Location and Basin Characteristics	Period of record	Water year 1997 maximum			Period of record maximum		
			Probable Date	Gage height (feet)	Discharge (ft^3/s)	Probable Date	Gage height (feet)	Discharge (ft^3/s)
	Osage River Basin-continued							
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^2, slope 14.8 ft/mi.	1997	+	+	+			
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^2, slope 55.5 ft/mi.	1997	+	+	+			
	Gasconade River Basin							
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^2 slope 40.2 ft/mi.	1997	11-07	5.05	870	11-07-96	5.05	870
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^2, slope 42.9 ft/mi.	1997	02-27	5.21	+	02-27-97	5.21	+
	Loutre River Basin							
06934680 Dry Fork near Hermann, 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^2, slope 68.7 ft/mi.	1997	+	+	+			
	Boeuf Creek Basin							
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^2, slope 34.3 ft/mi.	1997	+	+	+			

Maximum discharge at crest-stage partial-record stations--continued

Station Number and Name	Location and Basin Characteristics	Period of record	Water year 1997 maximum			Period of record maximum		
			Probable Date	Gage height (feet)	Discharge (ft^3/s)	Probable Date	Gage height (feet)	Discharge (ft^3/s)
	Meramec River Basin							
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^2, slope 32.0 ft/mi.	1997	+	+	+			
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^2, slope 39.8 ft/mi.	1997	+	+	+			
	Headwater Diversion Channel Basin							
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^2, slope 28.6 ft/mi.	1997	+	+	+			
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^2, slope 33.5 ft/mi.	1997	05-31	8.91	+	05-31-97	8.91	+
	White River Basin							
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^2, slope 57.0 ft/mi.	1997	11-07	4.35	1,000	11-07-96	4.35	1,000
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^2, slope 29.6 ft/mi.	1997	+	+	+			

Maximum discharge at crest-stage partial-record stations--continued

Station Number and Name	Location and Basin Characteristics	Period of record	Water year 1997 maximum			Period of record maximum		
			Probable Date	Gage height (feet)	Dis-charge (ft^3/s)	Probable Date	Gage height (feet)	Dis-charge (ft^3/s)
	White River Basin-continued							
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. Drainaga area 25.5 mi^2, slope 47.4 ft/mi.	1997	+	+	+			
07061260 East Fork Black River near Ironton, 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^2, slope 60.7 ft/mi.	1997	05-30	10.02	+	05-30-97	10.02	+
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^2, slope 17.0 ft/mi.	1997	04-05	11.82	+	04-05-97	11.82	+
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^2, slope 48.1 ft/mi.	1997	04-05	7.20	+	04-05-97	7.20	+

[1]Operated as continuous-record gaging station.
+Not determined.

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 usually less than quarterly.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT IT FIELD (mg/L as $CaCO_3$) (00419)	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)
07064400 MONTAUK SPRINGS AT MONTAUK											
OCT 01...	0935	130	236	7.36	13.5	9.4	90	115	240	120	146
MAY 21...	1230	86	278	7.33	16.5	7.9	81	K1	K3	132	161
07064440 CURRENT RIVER BELOW MONTAUK STATE PARK											
OCT 01...	1030	160	243	7.70	13.5	9.1	87	176	320	123	150
MAY 21...	1030	120	277	7.77	14.0	10.6	104	26	23	137	167
07064530 WELCH SPRING NEAR AKERS											
OCT 01...	1230	240	226	7.17	15.0	10.0	99	620	1520	114	139
MAY 20...	1210	270	305	7.46	14.0	8.9	87	K1	K3	151	185
07064555 PULLTITE SPRING NEAR ROUND SPRING											
OCT 01...	1430	130	257	7.46	14.5	9.30	91	170	370	127	155
MAY 20...	0955	84	269	7.51	13.5	9.10	87	K1	K1	135	164
07065000 ROUND SPRING AT ROUND SPRING											
OCT 01...	1600	65	283	7.36	14.0	10.8	104	K475	K750	146	178
MAY 20...	0835	45	304	7.57	13.5	8.9	85	K4	K5	154	187
07065500 ALLEY SPRING AT ALLEY											
OCT 01...	1715	210	212	7.28	16.5	9.7	99	295	695	104	127
MAY 20...	0610	160	282	7.47	13.5	9.0	86	K3	K1	136	166
07066510 CURRENT RIVER ABOVE POWDER MILL											
OCT 02...	1100	2000	282	7.93	16.5	9.5	96	105	80	141	172
MAY 19...	1635	1500	313	8.07	20.0	9.5	105	K4	K1	163	199
07066550 BLUE SPRING NEAR EMINENCE											
OCT 02...	0900	230	181	7.29	14.5	8.6	83	215	220	81	99
MAY 19...	1815	150	323	7.34	13.0	9.6	92	K1	K1	122	149
07067800 CURRENT RIVER BELOW HAWES CAMPGROUND											
MAY 19...	1300	2400	313	7.65	19.0	9.4	102	K6	K3	166	203

K--Results based on colony count outside the acceptable range (non-ideal colony count).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	CARBONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOSPHORUS TOTAL (mg/L as P) (00665)	CADMIUM TOTAL RECOVERABLE (µg/L as Cd) (01027)	LEAD, TOTAL RECOVERABLE (µg/L as Pb) (01051)	SILVER, TOTAL RECOVERABLE (µg/L as Ag) (01077)	ZINC, TOTAL RECOVERABLE (µg/L as Zn) (01092)
07064400 MONTAUK SPRINGS AT MONTAUK										
OCT 01...	0	<0.01	0.75	<0.01	<0.20	<0.02	<1	<1	<1	<10
MAY 21...	0	<0.01	0.76	0.02	<0.20	<0.02	<1	<1	<1	<10
07064440 CURRENT RIVER BELOW MONTAUK STATE PARK										
OCT 01...	0	<0.01	0.72	0.02	<0.20	<0.02	<1	<1	<1	<10
MAY 21...	0	<0.01	0.70	0.04	<0.20	<0.02	<1	<1	<1	<10
07064530 WELCH SPRING NEAR AKERS										
OCT 01...	0	<0.01	0.81	<0.01	0.24	<0.02	<1	<1	<1	<10
MAY 20...	0	<0.01	0.68	0.02	<0.20	<0.02	<1	<1	<1	<10
07064555 PULLTITE SPRING NEAR ROUND SPRING										
OCT 01...	0	<0.01	0.55	<0.01	<0.20	0.18	<1	<1	<1	<10
MAY 20...	0	<0.01	0.54	0.02	<0.20	<0.02	<1	<1	<1	<10
07065000 ROUND SPRING AT ROUND SPRING										
OCT 01...	0	<0.01	0.53	<0.01	<0.20	0.08	<1	<1	<1	<10
MAY 20...	0	<0.01	0.30	0.02	<0.20	<0.02	<1	<1	<1	<10
07065500 ALLEY SPRING AT ALLEY										
OCT 01...	0	<0.01	0.72	<0.01	<0.20	<0.02	<1	<1	<1	<10
MAY 20...	0	<0.01	0.75	0.02	<0.20	<0.02	<1	<1	<1	<10
07066510 CURRENT RIVER ABOVE POWDER MILL										
OCT 02...	0	<0.01	0.51	<0.01	<0.20	<0.02	<1	3	2	<10
MAY 19...	0	<0.01	0.32	0.03	<0.20	0.04	<1	<1	<1	<10
07066550 BLUE SPRING NEAR EMINENCE										
OCT 02...	0	<0.01	0.58	<0.01	<0.20	0.02	<1	<1	<1	<10
MAY 19...	0	<0.01	0.43	0.02	<0.20	<0.02	<1	<1	<1	<10
07067800 CURRENT RIVER BELOW HAWES CAMPGROUND										
MAY 19...	0	<0.01	0.28	0.04	<0.20	<0.02	<1	4	<1	<10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

06917635 FLECK CREEK AT PRAIRIE STATE PARK

DATE	TIME	DIS-CHARGE, INST. (CUBIC FEET PER SECOND) (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)
AUG										
13...	1005	0.48	22.0	1810	7.12	6.90	78	K390	K2180	24

DATE	BICAR-BONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)	NITRO-GEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	NITRO-GEN, NITRITE TOTAL (mg/L as N) (00615)	NITRO-GEN, AMMONIA TOTAL (mg/L as N) (00610)	NITRO-GEN,AM-MONIA + ORGANIC TOTAL (mg/L as N) (00625)	PHOS-PHORUS TOTAL (mg/L as P) (00665)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	HARD-NESS TOTAL (mg/L as $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L as Ca) (00915)
AUG										
13...	30	0	<0.02	<0.01	0.02	0.3	<0.02	<0.01	950	190

DATE	MAGNE-SIUM, DIS-SOLVED (mg/L as Mg) (00925)	SODIUM, DIS-SOLVED (mg/L as Na) (00930)	POTAS-SIUM, DIS-SOLVED (mg/L as K) (00935)	SULFATE DIS-SOLVED (mg/L as SO_4) (00945)	CHLO-RIDE, DIS-SOLVED (mg/L as Cl) (00940)	FLUO-RIDE, DIS-SOLVED (mg/L as F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (mg/L) (70300)	IRON DIS-SOLVED (µg/L as Fe) (01046)	MANGA-NESE, DIS-SOLVED (µg/L as Mn) (01056)
AUG									
13...	120	43	4.4	1000	2.4	0.6	1540	<9	190

K--Results based on colony count outside the acceptable range (non-ideal colony count).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (µS/cm) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (mg/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, 0.7 µm-MF (COLS./ 100 mL) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 mL) (31673)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 mL) (31633)	ALKA-LINITY WAT WH TOT FET FIELD (mg/L as $CaCO_3$) (00410)	CAR-BONATE WATER WH IT FIELD (mg/L as CO_3) (00447)
06935770 - BONHOMME CREEK AT HIGHWAY CC, NEAR CLARKSON VALLEY												
AUG												
27...	0900	e2.3	621	7.69	24.0	6.4	76	K1750	440	28000	208	0
06935890 - CREVE COEUR CREEK AT HIGHWAY 340, NEAR CREVE COEUR												
AUG												
27...	0740	e1.6	826	7.61	23.0	2.9	34	367	820	830	196	0
06935980 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON												
AUG												
26...	1230	e0.68	1070	8.03	24.0	6.7	79	K462	K226	460	182	0
SEP												
02...	1550	e230	151	7.75	27.0	7.1	88	K5450	K5450	K6400	44	0
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS												
AUG												
26...	0955	1.0	634	7.38	24.0	2.5	30	K70000	3580	59000	105	0
SEP												
02...	1633	e100	180	5.81	25.0	5.6	68	K2000	K2000	1000	50	0
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY												
AUG												
19...	1348	e75	219	7.46	21.0	8.6	97	K150000	K292000	K100000	92	0
26...	1535	e0.03	1040	7.56	27.5	0.4	5	K30000	33000	K100000	194	0
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE												
AUG												
19...	1303	e40	318	7.58	21.0	8.3	93	27000	87000	31000	122	0
26...	1455	e0.3	869	7.54	24.0	3.4	41	K42500	12500	K100000	177	0
07019090 - WILLIAMS CREEK AT MERAMEC STATION ROAD, NEAR PEERLESS PARK												
AUG												
28...	0925	e1.8	489	7.57	15.5	9.3	93	1330	2000	5500	180	0
07019185 - GRAND GLAIZE CREEK AT QUINETTE ROAD, NEAR VALLEY PARK												
AUG												
27...	1000	e2.0	935	7.89	24.0	6.6	78	1170	177	2300	166	0
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON												
AUG												
28...	0830	e0.3	910	7.95	22.5	6.6	76	700	1020	10000	237	0
SEP												
17...	0340	e54	276	7.10	--	--	--	K99000	K44000	K95000	93	0

K--Results based on colony count outside the acceptable range (non-ideal colony count).
e--Estimated discharge value.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	BICARBONATE WATER WH IT FIELD (mg/L as HCO_3) (00450)	NITROGEN, TOTAL (mg/L as N) (00600)	NITROGEN, ORGANIC TOTAL (mg/L as N) (00605)	NITROGEN, AMMONIA TOTAL (mg/L as N) (00610)	NITROGEN, NITRITE TOTAL (mg/L as N) (00615)	NITROGEN, NITRATE TOTAL (mg/L as N) (00620)	NITROGEN,AMMONIA + ORGANIC TOTAL (mg/L as N) (00625)	NITROGEN, AMMONIA TOTAL (mg/L as NH_4) (71845)	NITROGEN, TOTAL (mg/L as NO_3) (71887)	NITROGEN, NO_2+NO_3 TOTAL (mg/L as N) (00630)	PHOSPHATE, TOTAL (mg/L as PO_4) (00650)	PHOSPHORUS TOTAL (mg/L as P) (00665)
06935770 - BONHOMME CREEK AT HIGHWAY CC, NEAR CLARKSON VALLEY												
AUG 27...	257	0.98	0.45	0.07	0.012	0.448	0.52	0.09	4.3	0.46	0.09	0.07
06935890 - CREVE COEUR CREEK AT HIGHWAY 340, NEAR CREVE COEUR												
AUG 27...	240	1.7	0.59	0.37	0.098	0.622	0.96	0.48	7.4	0.72	0.46	0.15
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON												
AUG 26...	220	0.60	0.45	0.06	<0.010	--	0.51	0.08	2.7	0.09	0.25	0.07
SEP 02...	54	4.6	3.8	0.24	0.040	0.510	4.0	0.31	20	0.55	0.40	1.80
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS												
AUG 26...	129	2.1	0.82	0.68	0.074	0.546	1.5	0.88	9.4	0.62	0.31	0.18
SEP 02...	79	9.0	8.1	0.23	0.048	0.622	8.3	0.30	40	0.67	0.49	3.10
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY												
AUG 19...	107	1.9	1.1	0.16	0.032	0.568	1.3	0.21	8.4	0.60	0.58	0.33
26...	237	13	5.0	8.00	<0.010	--	13	10	--	<0.02	3.37	1.80
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE												
AUG 19...	148	1.9	1.1	0.05	0.032	0.668	1.2	0.06	8.4	0.70	0.92	0.42
26...	215	1.4	0.11	0.65	0.130	0.530	0.76	0.84	6.3	0.66	0.52	0.19
07019090 - WILLIAMS CREEK AT MERAMEC STATION ROAD, NEAR PEERLESS PARK												
AUG 28...	222	--	1.1	0.16	0.032	0.568	1.3	0.21	8.4	0.60	0.58	0.33
07019185 - GRAND GLAIZE CREEK AT QUINETTE ROAD, NEAR VALLEY PARK												
AUG 27...	203	0.79	0.60	0.12	0.012	0.058	0.72	0.15	3.5	0.07	0.06	0.05
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON												
AUG 28...	293	0.58	0.28	0.04	<0.010	--	0.32	0.05	2.6	0.26	0.09	0.02
SEP 17...	129	4.3	3.9	0.04	0.026	0.384	3.9	0.05	19	0.41	0.37	1.20

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	PHOS-PHORUS ORTHO TOTAL (mg/L AS P) (70507)	PHOS-PHORUS ORGANIC TOTAL (mg/L AS P) (00670)	HARD-NESS TOTAL (mg/L AS $CaCO_3$) (00900)	CALCIUM DIS-SOLVED (mg/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (mg/L AS Mg) (00925)	ARSENIC DIS-SOLVED (ug/L AS As) (01000)	BERYL-LIUM, DIS-SOLVED (ug/L AS BE) (01010)	CADMIUM DIS-SOLVED (ug/L AS Cd) (01025)	CHRO-MIUM, DIS-SOLVED (ug/L AS Cr) (01030)	COPPER, DIS-SOLVED (ug/L AS Cu) (01040)	IRON, DIS-SOLVED (ug/L AS Fe) (01046)	LEAD, DIS-SOLVED (ug/L AS Pb) (01049)
06935770 - BONHOMME CREEK AT HIGHWAY CC, NEAR CLARKSON VALLEY												
AUG 27...	0.030	0.04	250	75	15	2	<0.5	<1	<1.0	<1.0	10	<1
06935890 - CREVE COEUR CREEK AT HIGHWAY 340, NEAR CREVE COEUR												
AUG 27...	0.150	0.06	270	76	20	5	<0.5	<1	<1.0	1.2	10	<1
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON												
AUG 26...	0.080	0.09	350	78	38	3	<0.5	<1	<1.0	2.5	30	1
SEP 02...	0.130	1.7	42	12	3.0	3	<0.5	<1	1.5	1.2	20	<1
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS												
AUG 26...	0.100	0.08	190	51	16	3	<0.5	<1	<1.0	1.4	20	1
SEP 02...	0.160	2.9	47	14	3.0	2	<0.5	<1	<1.0	<1.0	20	<1
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY												
AUG 19...	0.190	0.14	50	15	3.0	3	<0.5	<1	1.1	4.3	30	<1
26...	1.100	0.70	220	59	18	4	<0.5	<1	<1.0	<1.0	190	<1
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE												
AUG 19...	0.300	0.12	87	25	6.0	3	<0.5	<1	<1.0	5.2	40	<1
26...	0.170	0.02	270	74	20	3	<0.5	<1	<1.0	3.4	40	2
07019090 - WILLIAMS CREEK AT MERAMEC STATION ROAD, NEAR PEERLESS PARK												
AUG 28...	0.120	--	210	66	12	<1	<0.5	<1	<1.0	1.0	5	<1
07019185 - GRAND GLAIZE CREEK AT QUINETTE ROAD, NEAR VALLEY PARK												
AUG 27...	0.020	0.03	280	76	21	2	<0.5	<1	<1.0	1.7	6	<1
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON												
AUG 28...	0.030	0.9	360	100	26	2	<0.5	<1	<1.0	1.2	1	1
SEP 17...	0.120	1.1	120	34	8.0	2	<0.5	<1	<1.0	1.9	60	<1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	MANGANESE, DISSOLVED (ug/L AS Mn) (01056)	NICKEL, DISSOLVED (ug/L AS Ni) (01065)	SILVER, DISSOLVED (ug/L AS Ag) (01075)	ZINC, DISSOLVED (ug/L AS Zn) (01090)	ALUMINUM, DISSOLVED (ug/L AS Al) (01106)	SELENIUM, DISSOLVED (ug/L AS Se) (01145)	MERCURY TOTAL RECOVERABLE (ug/L AS Hg) (71900)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (mg/L) (00530)	OIL AND GREASE, TOTAL RECOV. GRAVIMETRIC (mg/L) (00556)	DICHLOROBROMOMETHANE TOTAL (ug/L) (32101)	CARBON-TETRACHLORIDE TOTAL (ug/L) (32102)	1,2-DICHLOROETHANE TOTAL (ug/L) (32103)
06935770 - BONHOMME CREEK AT HIGHWAY CC, NEAR CLARKSON VALLEY												
AUG 27...	530	1.5	<1	<1.0	11	1	<0.1	34	--	--	--	--
06935890 - CREVE COEUR CREEK AT HIGHWAY 340, NEAR CREVE COEUR												
AUG 27...	250	1.7	<1	1.7	10	2	<0.1	7	--	--	--	--
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON												
AUG 26...	130	1.9	<1	5.0	9.7	2	<0.1	<1	--	--	--	--
SEP 02...	39	2.4	<1	3.4	13	<1	0.2	1600	<1	--	--	--
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS												
AUG 26...	630	2.4	<1	5.6	6.3	2	<0.1	31	--	--	--	--
SEP 02...	370	10	<1	<1.0	8.7	1	0.2	3300	3	--	--	--
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY												
AUG 19...	32	1.0	<1	23	17	2	<0.1	60	2	<0.2	<0.2	<0.2
26...	720	1.3	<1	<1.0	18	2	<0.1	12	--	--	--	--
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE												
AUG 19...	56	3.2	<1	9.3	13	2	<0.1	85	2	<0.4	<0.4	<0.4
26...	600	2.6	<1	13	9.5	2	<0.1	8	--	--	--	--
07019090 - WILLIAMS CREEK AT MERAMEC STATION ROAD, NEAR PEERLESS PARK												
AUG 28...	18	1.0	<1	1.7	4.2	<1	<0.1	3	--	--	--	--
07019185 - GRAND GLAIZE CREEK AT QUINETTE ROAD, NEAR VALLEY PARK												
AUG 27...	310	2.1	<1	<1.0	9.4	2	<0.1	16	--	--	--	--
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON												
AUG 28...	52	1.3	<1	1.5	5.8	1	<0.1	13	--	--	--	--
SEP 17...	17	1.9	<1	3.3	71	<1	<0.1	1200	--	<0.4	<0.4	<0.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	BROMO-FORM TOTAL (ug/L) (32104)	CHLORO-DI-BROMO-METHANE TOTAL (ug/L) (32105)	CHLORO-FORM TOTAL (ug/L) (32106)	TOLUENE TOTAL (ug/L) (34010)	BENZENE TOTAL (ug/L) (34030)	ACE-NAPHTH-YLENE TOTAL (ug/L) (34200)	ACE-NAPHTH-ENE TOTAL (ug/L) (34205)	ANTHRA-CENE TOTAL (ug/L) (34220)	BENZO B FLUOR-AN-THENE TOTAL (ug/L) (34230)	BENZO K FLUOR-AN-THENE TOTAL (ug/L) (34242)	BENZO-A-PYRENE TOTAL (ug/L) (34247)	BIS 2-CHLORO-ETHYL ETHER UNFLTRD RECOVER (ug/L) (34273)
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON												
SEP 02...	<0.4	<0.4	<0.4	<0.4	<0.4	E0.08	E0.3	E1	12	E4	E9	<5
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS												
SEP 02...	<0.4	<0.4	<0.4	<0.4	<0.4	E0.007	E0.04	E0.2	E2	E0.7	E1	<5
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY												
AUG 19...	<0.2	<0.2	0.2	<0.2	<0.2	5	E0.04	E0.1	E1	E0.4	E0.5	<5
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE												
AUG 19...	<0.4	<0.4	<0.4	<0.4	<0.4	<5	<5	E0.1	E0.7	E0.3	E0.3	<5
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON												
SEP 17...	<0.4	<0.4	<0.4	<0.4	<0.4	<5	<5	<5	<10	<10	E0.4	<5

DATE	BIS (2-CHLORO-ETHOXY) METHANE TOTAL (ug/L) (34278)	BIS (2-CHLORO-ISO-PROPYL) ETHER TOTAL (ug/L) (34283)	N-BUTYL BENZYL PHTHAL-ATE TOTAL (ug/L) (34292)	CHLORO-BENZENE TOTAL (ug/L) (34301)	CHRY-SENE TOTAL (ug/L) (34320)	DIETHYL PHTHAL-ATE TOTAL (ug/L) (34336)	DI-METHYL PHTHAL-ATE TOTAL (ug/L) (34341)	ETHYL-BENZENE TOTAL (ug/L) (34371)	FLUOR-ANTHENE TOTAL (ug/L) (34376)	CYCLOPE NTADIEN HEXA-CHLORO-UNFLTRD RECOVER (ug/L) (34386)	ETHANE HEXA-CHLORO-WATER UNFLTRD RECOVER (ug/L) (34396)
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON											
SEP 02...	<5	<5	<5	--	10	<5	<5	--	19	<20	<5
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS											
SEP 02...	<5	<5	<5	--	E1	<5	<5	--	E3	<20	<5
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY											
AUG 19...	<5	<5	<5	<0.2	E0.5	<5	<5	<0.2	E2	<20	<5
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE											
AUG 19...	<5	<5	<5	<0.4	E0.3	8	<5	<0.4	E0.7	<20	<5
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON											
SEP 17...	<5	<5	<5	<0.4	<10	<5	<5	<0.4	E1	<20	<5

E--Laboratory estimated value.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	INDENO (1,2,3-CD) PYRENE TOTAL (ug/L) (34403)	ISO-PHORONE TOTAL (ug/L) (34408)	METHYL-ENE CHLO-RIDE TOTAL (ug/L) (34423)	N-NITRO-SODI-N-PROPYL-AMINE TOTAL (ug/L) (34428)	N-NITRO-SODI-PHENY-LAMINE TOTAL (ug/L) (34433)	N-NITRO-SODI-METHY-LAMINE TOTAL (ug/L) (34438)	BENZENE NITRO-WATER UNFLTRD RECOVER (ug/L) (34447)	PARA-CHLORO-META CRESOL TOTAL (ug/L) (34452)	PHENAN-THRENE TOTAL (ug/L) (34461)	PYRENE TOTAL (ug/L) (34469)	TETRA-CHLORO-ETHYL-ENE TOTAL (ug/L) (34475)	TRI-CHLORO-FLUORO-METHANE TOTAL (ug/L) (34488)
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON												
SEP 02...	E5	<5	--	<5	<5	<5	<5	<30	8	15	--	--
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS												
SEP 02...	E1	<5	--	<5	<5	<5	<5	<30	E1	E2	--	--
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY												
AUG 19...	E0.6	E0.2	0.9	<5	<5	<5	<5	<30	E0.4	E1	0.2	<0.2
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE												
AUG 19...	E0.5	E0.8	<0.4	<5	<5	<5	<5	<30	E0.2	E0.5	<0.4	<0.4
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON												
SEP 17...	E0.5	<5	<0.4	<5	<5	<5	<5	<30	<5	E0.8	<0.4	<0.4

DATE	1,1-DI-CHLORO-ETHANE TOTAL (ug/L) (34496)	1,1-DI-CHLORO-ETHYL-ENE TOTAL (ug/L) (34501)	1,1,1-TRI-CHLORO-ETHANE TOTAL (ug/L) (34506)	BENZOGH I PERYL ENE1,12 -BENZOP ERYLENE TOTAL (ug/L) (34521)	BENZO A ANTHRAC ENE1,2-BENZANT HRACENE TOTAL (ug/L) (34526)	BENZENE O-DI-CHLORO-WATER UNFLTRD REC (ug/L) (34536)	1,2-DI-CHLORO-PROPANE TOTAL (ug/L) (34541)	BENZENE 1,2,4-TRI-CHLORO-WAT UNF REC (ug/L) (34551)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (ug/L) (34556)	BENZENE 1,3-DI-CHLORO-WATER UNFLTRD REC (ug/L) (34566)	2-CHLORO-NAPH-THALENE TOTAL (ug/L) (34581)	2-CHLORO-PHENOL TOTAL (ug/L) (34586)
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON												
SEP 02...	--	--	--	E6	E6	--	--	<5	<10	--	<5	<5
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS												
SEP 02...	--	--	--	E1	E0.8	--	--	<5	<10	--	<5	<5
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY												
AUG 19...	<0.2	<0.2	<0.2	E0.8	E0.3	<0.2	<0.2	<5	<10	<0.2	<5	<5
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE												
AUG 19...	<0.4	<0.4	<0.4	E0.6	E0.2	<0.4	<0.4	<5	<10	<0.4	<5	<5
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON												
SEP 17...	<0.4	<0.4	<0.4	E0.6	E0.2	<0.4	<0.4	<5	<10	<0.4	<5	<5

E--Laboratory estimated value.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	2-NITRO-PHENOL TOTAL (ug/L) (34591)	DI-N-OCTYL PHTHAL-ATE TOTAL (ug/L) (34596)	2,4-DI-CHLORO-PHENOL TOTAL (ug/L) (34601)	2,4-DI-METHYL-PHENOL TOTAL (ug/L) (34606)	2,4-DI-NITRO-TOLUENE TOTAL (ug/L) (34611)	2,4,-DI-NITRO-PHENOL TOTAL (ug/L) (34616)	2,4,6-TRI-CHLORO-PHENOL TOTAL (ug/L) (34621)	2,6-DI-NITRO-TOLUENE TOTAL (ug/L) (34626)	3,3'-DI-CHLORO-BENZI-DINE TOTAL (ug/L) (34631)	4-BROMO-PHENYL PHENYL ETHER TOTAL (ug/L) (34636)	4-CHLORO-PHENYL PHENYL ETHER TOTAL (ug/L) (34641)	4-NITRO-PHENOL TOTAL (ug/L) (34646)
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON												
SEP 02...	<5	<10	E0.2	<5	<5	<20	<20	<5	<20	<5	<5	<30
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS												
SEP 02...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	<30
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY												
AUG 19...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	<30
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE												
AUG 19...	<5	<10	<5	<5	<5	<20	<20	<5	<20	<5	<5	<30
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON												
SEP 17...	<5	<10	E0.3	<5	<5	<20	<20	<5	<20	<5	<5	<30

DATE	4,6-DINITRO-ORTHO-CRESOL TOTAL (ug/L) (34657)	DI-CHLORO-DI-FLUORO-METHANE TOTAL (ug/L) (34668)	PHENOL (C6H-5OH) TOTAL (ug/L) (34694)	NAPHTH-ALENE TOTAL (ug/L) (34696)	CHLOR-PYRIFOS TOTAL RECOVER (ug/L) (38932)	PHORATE TOTAL (ug/L) (39023)	PENTA-CHLORO-PHENOL TOTAL (ug/L) (39032)	PER-THANE TOTAL (ug/L) (39034)	DEF TOTAL (ug/L) (39040)	BIS(2-ETHYL HEXYL) PHTHAL-ATE TOTAL (ug/L) (39100)	DI-N-BUTYL PHTHAL-ATE TOTAL (ug/L) (39110)	BENZI-DINE TOTAL (ug/L) (39120)
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON												
SEP 02...	<30	<0.2	<5	E0.2	0.03	<0.01	<30	<0.1	<0.02	E3	<5	<40
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS												
SEP 02...	<30	<0.2	<5	<5	0.02	<0.01	<30	<0.1	<0.02	<5	<5	<40
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY												
AUG 19...	<30	<0.2	<5	E0.09	--	--	<30	E3	--	<5	<5	<40
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE												
AUG 19...	<30	<0.4	<5	E0.05	E3	--	--	--	--	E3	<5	<40
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON												
SEP 17...	<30	<0.4	<5	<5	0.02	<0.01	<30	<0.1	<0.01	<5	<5	<40

E--Laboratory estimated value.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	VINYL CHLORIDE TOTAL (ug/L) (39175)	TRICHLOROETHYLENE TOTAL (ug/L) (39180)	PCNS UNFILT RECOVER (ug/L) (39250)	ALDRIN, TOTAL (ug/L) (39330)	LINDANE TOTAL (ug/L) (39340)	CHLORDANE, TECHNICAL TOTAL (ug/L) (39350)	P,P'-DDD UNFILT RECOVER (ug/L) (39360)	P,P'-DDE, TOTAL (ug/L) (39365)	P,P'-DDT UNFILT RECOVER (ug/L) (39370)	DIELDRIN TOTAL (ug/L) (39380)	ENDOSULFAN, I TOTAL (ug/L) (39388)
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON											
SEP 02...	--	--	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS											
SEP 02...	--	--	<0.1	<0.01	<0.01	0.1	<0.01	<0.01	<0.01	<0.01	<0.01
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY											
AUG 19...	<0.2	<0.2	<0.1	<0.01	<0.01	0.1	<0.01	<0.01	<0.01	<0.01	<0.01
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE											
AUG 19...	<0.2	<0.2	<0.1	<0.01	<0.01	0.1	<0.01	<0.01	<0.01	<0.01	<0.01
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON											
SEP 17...	<0.4	<0.4	<0.1	<0.01	<0.01	<0.1	<0.01	<0.01	<0.01	<0.01	<0.01

DATE	ETHION, TOTAL (µg/L) (39398)	TOXAPHENE, TOTAL (µg/L) (39400)	HEPTACHLOR, TOTAL (µg/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (µg/L) (39420)	METHOXYCHLOR, TOTAL (µg/L) (39480)	PCB, TOTAL (µg/L) (39516)	MALATHION, TOTAL (µg/L) (39530)	PARATHION, TOTAL (µg/L) (39540)	DIAZINON, TOTAL (µg/L) (39570)	METHYL PARATHION, TOTAL (µg/L) (39600)	HEXACHLOROBENZENE TOTAL (µg/L) (39700)
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON											
SEP 02...	<0.01	<1	<0.01	<0.01	<0.01	<0.1	<0.05	<0.01	0.04	<0.01	<5
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS											
SEP 02...	<0.01	<1	<0.01	<0.01	<0.01	<0.1	<0.05	<0.01	0.04	<0.01	<5
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY											
AUG 19...	<0.01	<1	<0.01	<0.01	<0.01	<0.1	<0.05	<0.01	0.05	<0.01	<5
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE											
AUG 19...	<0.01	<1	<0.01	<0.01	<0.01	<0.1	<0.05	<0.01	0.05	<0.01	<5
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON											
SEP 17...	<0.01	<1	<0.01	<0.01	--	0.1	<0.01	<0.01	0.32	<0.01	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1996 TO SEPTEMBER 1997

DATE	HEXA-CHLORO-BUT-ADIENE TOTAL (µg/L) (39702)	MIREX, TOTAL (µg/L) (39755)	TOTAL TRI-THION (µg/L) (39786)	PHOS-PHORUS ORTHO TOTAL (mg/L as P) (70507)	CIS-1,2 -DI-CHLORO-ETHENE WATER TOTAL (µg/L) (77093)	STYRENE TOTAL (µg/L) (77128)	FREON-113 WATER UNFLTRD REC (µg/L) (77652)	METHYL TERT-BUTYL ETHER WAT UNF REC (µg/L) (78032)	XYLENE WATER UNFLTRD REC (µg/L) (81551)	FONOFOS (DY-FONATE) WATER WHOLE TOT.REC (µg/L) (82614)	1,2-DI-PHENYL-HYDRA-ZINE WATER TOT.REC (µg/L) (82626)
06935890 - COWMIRE CREEK AT KIRCHNER BRICK COMPANY, AT BRIDGETON											
SEP 02...	<5	<0.01	<0.01	0.13	--	--	--	--	--	<0.01	<5
07001985 - WATKINS CREEK AT FRY LANE, NEAR BELFONTAINE NEIGHBORS											
SEP 02...	<5	<0.01	<0.01	0.16	<0.4	<0.4	<0.4	<0.4	--	<0.01	<5
07010022 - RIVER DES PERES AT PURDUE AVENUE, NEAR UNIVERSITY CITY											
AUG 19...	<5	0.19	<0.2	<0.2	<0.4	<0.4	<0.4	<0.2	<0.2	<0.2	<5
07010034 - ENGELHOLM CREEK AT 70TH STREET, NEAR PAGE DALE											
AUG 19...	<5	0.30	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<5
07019220 - FENTON CREEK AT HIGHWAY 141, NEAR FENTON											
SEP 17...	<5	<0.01	<0.01	0.12	<0.4	<0.4	<0.4	<0.4	<0.4	<0.01	<5

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic-foot-per-second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre-foot (acre-ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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